

germantownForward

Public Hearing Draft May 2008



Technical Appendices

GERMANTOWN FORWARD APPENDICES

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APPENDIX 1: PLANNING FRAMEWORK

From the Germantown Master Plan, 1989

The Germantown Planning Area is located in Montgomery County, Maryland, some 25 miles northwest of Washington, D.C., along Interstate Highway I-270. It contains approximately 11,000 acres within a three-by-five mile area. This planning area is bisected by I-270 and is bounded by Great and Little Seneca Creeks and their tributaries.

The *General Plan* for Montgomery County, known generally as “*On Wedges and Corridors*,” was adopted by the Maryland-National Capital Park and Planning Commission in 1964 and approved by the Montgomery County Council in 1969. Its purpose is to help establish overall policies for development of the Maryland-Washington Regional District and to relate these policies to the metropolitan framework.

The *General Plan* envisioned development radiating outward from Washington, D.C., in a series of corridor cities along the major transportation corridors, with wedges of lower density between them. The basic concept of the *General Plan* is to focus growth along the I-270 and I-95 corridors and to prevent urbanization of the wedges between these radial corridors. The intent is to preserve those areas for agriculture and open space uses and to provide low-density residential transitions from the more densely

developed corridors. Gaithersburg, Germantown, and Clarksburg are the three corridor cities designated by the General Plan along I-270. Diagrammatically, a “corridor city” as originally envisioned in the General Plan was to have a single center of employment and shopping activities surrounded by residential development. The residential area decreased from high-density, adjacent to the core, to low-density, at the edge of the corridor city.

Several events have occurred since the late 1960’s to alter this idealized concept for a corridor city. The rapid rail transit system envisioned in the *General Plan* has not been extended through the Corridor Cities and the roadway network proposed in the *General Plan* has been modified. These changes, plus the land use policies of the City of Gaithersburg, have resulted in a multi-nodal Corridor City development pattern. Despite these events, the principal purposes and objectives of the “wedges and corridors” concept are still valid and remain the basic policy guide for the County.

The intent of the *1974 Master Plan* was to fulfill the objectives of the *General Plan*. More specifically, the *1974 Master Plan* recommended that Germantown develop into a “new community” similar to new communities such as Reston and Columbia. Unlike these new communities,

however, Germantown could not be developed by a single developer, because the land ownership was fragmented among many different parcel holders. To offset this problem, a new community was proposed where the County government would seek to coordinate the efforts of many individual landowners to create as cohesive a “new town” as could be achieved within the existing powers available. This approach was a “first” in the United States. Local government was going to attempt to guide and stage development through its planning, zoning, subdivision and capital programming processes.

The major objectives of the *1974 Master Plan* were to:

- support the development of Germantown as a distinct community having its own identity;
- surround Germantown with a greenbelt of parks;
- establish a Village Center and Town Center Concept;
- concentrate employment areas along I-270 and the B&O railroad;

- balance traffic generated by the land uses with the capacity of the transportation system;
- provide a broad range of housing types and prices; and
- provide policies for staged development, based on the provision of additional sewer service and transportation capacity.

This Plan confirms the spirit and intent of the *1974 Master Plan* while recommending modifications that respond to a series of changes that have evolved during the past thirteen years.

- The population characters of those now living in Germantown are significantly different from those projected during the development of the *1974 Master Plan*.
- The lifestyle and composition of Germantown households are different from those anticipated in the *1974 Master Plan*.
- Townhouses and other single-family attached units have become the predominant housing type for reasons primarily related to the private sector market that produces the housing stock; as a consequence, single-family detached units currently represent a very small portion of the existing and approved housing stock.

- Some development has occurred in Germantown that is not consistent with the intent of the *1974 Master Plan*; therefore, more detailed development guidelines are needed to assure that the objectives of the *1974 Master Plan* are achieved.
- Experience now indicates that a new community, encompassing land in many ownerships and evolving over several years, requires stronger implementation measures than those of the *1974 Master Plan* in order to assure that the objectives of this kind of community can be realized.
- Two supermarket-anchored convenience retail centers have been built in the Town Center. These shopping centers have absorbed the market for retail uses in the Churchill Village Center and have delayed the development of the Gunners Lake Village Center.

One significant objective of this Master Plan is to improve the appearance of Germantown, which includes the predominance of attached homes, as well as the lack of landscaping and other visual amenities. It is important to understand the background of Germantown's recent development in order to put this objective into perspective.

Current development in Germantown, to a large extent, is a response to the economic forces that were present during its early years of growth, the

late 1970's and early 1980's. During the late 1970's and early 1980's, the energy crises affected the entire housing market, and sewage treatment capacity limitations restricted the local market for development approvals. Housing prices throughout the County escalated rapidly. Interest rates rose so high that the market rate exceeded the legal limit in Maryland. In order to bring down interest rates, builders further increased housing prices.

The high interest rates and rising prices, coupled with Germantown's location on the suburban fringe, resulted in a strong market for townhouses. Housing at the developing edge of a metropolitan area is generally less expensive as the purchaser is trading price for a longer trip to and from work. Townhouses met the needs of first home buyers for a relatively affordable house. Thus, there was a strong market for townhouses during the period of Germantown's early growth. The duration of these economic conditions contributed to the existing predominance of townhouses in Germantown.

The economic uncertainties during Germantown's early growth created significant financial problems in the building industry generally, and in Germantown in particular – builders were concerned about their survival. Builders' attention focused on producing a readily marketable product. Builders' concern about quality and diversity of product were not considered as

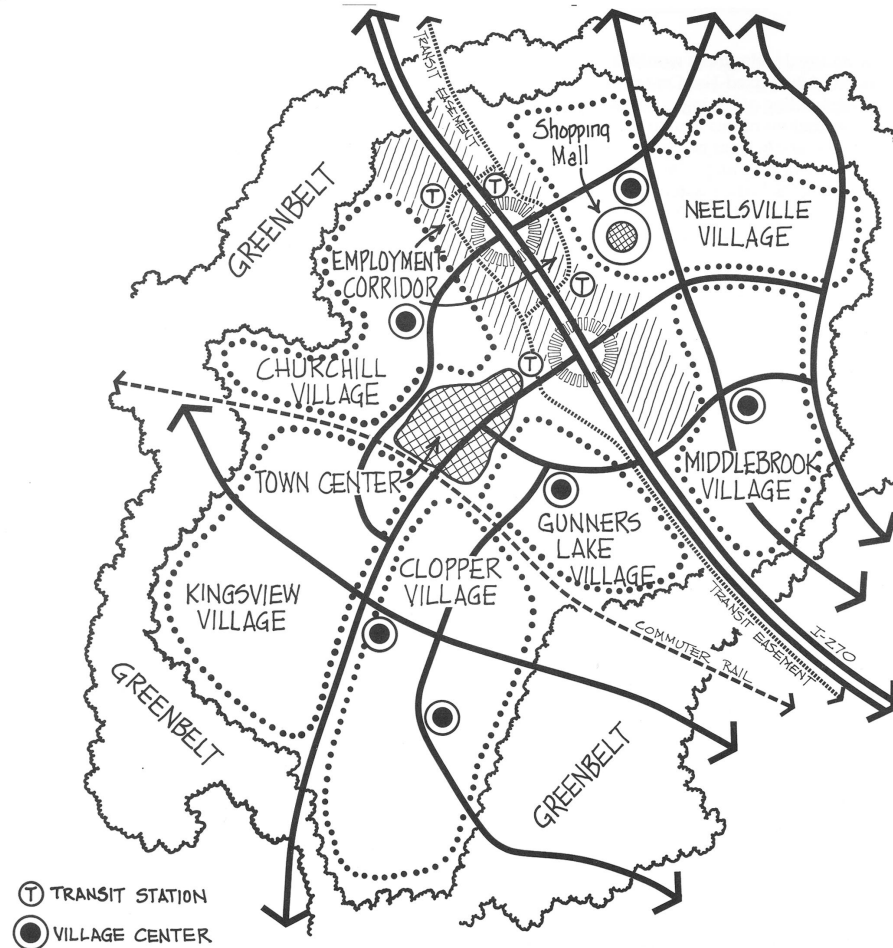
important when they were defaulting on their loans and declaring bankruptcy.

As a result, several subdivisions in Germantown were built by a succession of builders. Each successive turnover decreased commitment to and awareness of amenity features shown on site plans. In response to this condition, the Planning Board and County Council ultimately established requirements for site plan enforcement agreements signed by the developer and created staff positions for urban designers responsible for compliance with site plans.

Another factor affecting Germantown's present appearance is a result of its agricultural heritage. The extensive farming activities in Germantown have created bare fields with mature trees only in the stream valleys. As a result, the only vegetation in most subdivisions is that planted by the builders and the residents. It will take a few more years yet before these trees make a significant contribution to Germantown's appearance, but ultimately they will make a difference.

Many objectives expressed in the 1974 *Master Plan* have been achieved, particularly in terms of public facilities. These successes are the result of the combined efforts of the community organizations, the Planning Board, the County Council, the County Executive, and the actions of the responsible agencies. The Germantown Campus of Montgomery College has been

Figure 3



Community Concept Plan

established; police and fire stations have been built; and the public ownership of the greenbelt of parks has increased. The Planning Board's staging of development has deferred development on land where public facilities were not programmed, or where premature development would preclude the development of the Mixed-Use Center. Because of this previous withholding of zoning in a staged manner, the recommendations of this Plan to reduce residential densities in certain areas can still be implemented with a minimum of rezoning. Also, the designation of highway alignments in the master plan has enabled rights-of-way to be preserved by the Planning Board through the subdivision process.

On balance, it does not seem wrong to conclude that Germantown today is a qualified success, in terms of the Master Plan's objectives, but that it can and should be improved as it moves further towards completion. It is the intent of this Plan, through its various recommendations and development guidelines, to improve the visual and functional quality of Germantown.

This Plan modifies the *1974 Master Plan* in the following four areas:

Housing Mix: The intent of this Plan is to promote a mix of housing types that can accommodate families of varying ages and income levels and allow opportunities for them to continue living in Germantown as their needs and tastes change. At

present, Germantown lacks an adequate supply of detached homes. The land use and zoning recommendations proposed in this Plan respond to this concern.

Specifically this Plan recommends reduced residential densities in several environmentally sensitive areas to densities that result primarily in single-family detached units. Further, a range of lower densities are recommended so that a variety of lot sizes can be achieved. The Plan also recommends that the percentage of attached homes in most subdivisions be lower than currently permitted.

Community Identity: The intent of this Plan is to develop a greater sense of community identity. (See Figure 3.) A positive sense of "place" at the Village and Town levels is very important. To date, community identity is focused on individual and fragmented subdivisions. The development guidelines and the recommendations of the Townscape Design chapter of this Plan respond to this concern. The importance of the visual appearance of Germantown is also reflected in the guidelines in that chapter.

In addition, each of the Village Centers, with the exception of Neelsville Village, is recommended to be developed under the Planned Development Zone. The requirement for both development plan and site plan review will provide detailed review of Village Center development. The Neelsville Village

Center is recommended for a new RMX (Residential Mixed-Use) Zone, which will also provide for a detailed review of development plans through project plan and site plan reviews. The zones recommended for use in the Town Center are zones which require site plan review prior to development. The zones recommended for the Mixed-Use Center, the Retail and Service Park and the potential Regional Shopping Mall require site plan review.

Community Facilities: The intent of this Plan is to provide appropriate locations for community facilities. Since the adoption of the *1974 Master Plan*, there have been significant demographic changes, as well as changes in the nature and scale of community facilities desired by residents. For these reasons, the number, location, and nature of community facilities have been re-examined to assure that the recommendations of this Plan meet the existing and anticipated needs of Germantown residents.

This Plan proposes the construction of six new elementary schools, two new middle schools, and a new high school. The total number of elementary schools recommended in Germantown has been reduced from 28 to 12. This reduction is a result of the reduced average number of school-age children per household, and the increase in the enrollment capacity at the new schools. The number of senior high and junior/intermediate schools also has been reduced from three to two

of each. Because of the increased size of new elementary schools, the minimum size of the school sites is recommended to be increased from 10 acres to 12 acres, including 10 acres usable for school buildings, parking and recreation facilities.

The reduction in the number of school sites could adversely affect the adequacy of community recreation facilities because the estimates of the *1974 Master Plan* of local park needs took into account the recreational opportunities of school fields and courts. This Plan addresses this increase in local park requirements.

Balance Between Housing and Employment

Opportunities: The intent of this Plan is to provide greater opportunity for people to both live and work in Germantown. A reasonable objective is that expressed in the *1974 Master Plan*: 25 percent of the resident work force of Germantown should also work there. The 1987 Census Update Survey¹, however, indicates that only 10 percent of the resident work force works in Germantown. (See Figure 16.) This is due primarily to the fact that residential development has occurred at a faster pace than employment development. The transportation analysis done for this Plan has estimated that about 30 percent of the resident

¹Research Division, Montgomery County Planning Board

work force will be working in Germantown by the time development is built out.

Although there is no direct means by which government in a free society can ensure the achievement of this objective, the recommendations expressed in this Plan will at least provide the opportunity for its realization. Furthermore, the recommended increase in the percentage of single-family detached housing and the provision of a broad mix of housing types and prices will increase the opportunity for more Germantown employees to live in the community.

In addition, the internal roadway system is designed to facilitate intra-Germantown travel which, in turn, will reduce work trip miles for those living and working in Germantown.

The comprehensive development of a new community is a complex undertaking at any time or place. It is particularly difficult in Germantown because of the fragmented land ownership pattern. With multiple developers, and limited police powers, it is not easy for government to ensure that a single, coherent development program for the entire 11,000-acre area can be achieved. It is certainly more difficult than if Germantown had been developed by a single owner as in other new communities. In those instances adjustments to the development program can occur on almost a daily basis.

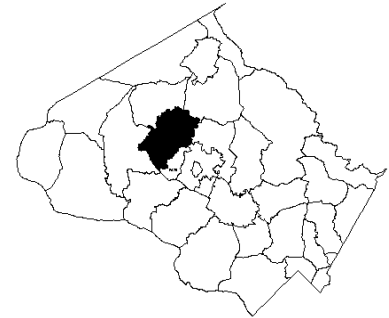
Furthermore, the sense of long-term commitment and accountability are inherently stronger in a new community built by a single developer instead of by a series of smaller developers. Smaller developers are generally more focused on the marketing needs of their individual subdivisions than on elements that would improve the quality of Germantown as a whole. The Germantown situation creates the need for an extra special public commitment to orchestrate the coordination of private development within well-defined public policy guidelines.

There are several factors beyond the control of the County government that could influence the outcome of this Master Plan. The likelihood and effects of these influential external factors are difficult to predict because they would result from actions or factors not subject to County government control, such as the actions of the Federal government, changes in energy supplies, and changes in lifestyle. In addition, technological research and invention are capable of changing patterns of everyday life but are also beyond the control of County government.

These larger political, environmental, economic, and technological factors are global or national in nature. While beyond the scope of this Master Plan, they would nonetheless significantly impact the County.

The *Comprehensive Growth Policy Study* considers several broad County-wide trends that are beyond the control and time frame of this Master Plan. The results of this Study may be useful in suggesting future modifications to the recommendations expressed in this Master Plan.

APPENDIX 2: GERMANTOWN PLANNING AREA DEMOGRAPHIC PROFILE, 2005 CENSUS
 Research & Technology Center (RTC)



GERMANTOWN PLANNING AREA
 Montgomery County, MD
 2005 Census Update Survey

Planning Area # 19		SINGLE-				
Population Density: 4,658 people/sq. mi.		FAMILY	TOWN-	GARDEN	HIGH-	ALL
Est. Land Area: 17.1 sq. miles		DETACHED	HOUSE	APT.	RISE	TYPES
	Household Population	26,365	36,940	16,275		79,580
P	% Female	50.1%	52.5%	54.7%		52.2%
O	Age Distribution:					
P	% 0-4 Years Old	8.3%	9.0%	7.8%		8.5%
U	% 5-17 Years Old	25.1%	19.9%	14.0%		20.4%
L	% 18-29 Years Old	8.8%	14.7%	22.1%		14.3%
A	% 30-44 Years Old	27.3%	31.3%	27.2%		29.1%
T	% 45-64 Years Old	26.7%	21.0%	23.8%		23.4%
I	% 65-74 Years Old	2.6%	2.5%	3.2%		2.7%
O	% Over 74 Years Old	1.2%	1.5%	1.9%		1.5%
N	Average Age (years)	31.9	31.5	33.5		32.0
	Race:					
	% White	59.5%	51.7%	56.8%		55.3%
	% Black	9.4%	27.0%	25.3%		20.7%
	% Asian or Pacific Islander	28.0%	15.3%	8.1%		18.2%
	% Other	3.1%	6.0%	9.8%		5.8%
	Hispanic or Latino and Race ¹					
	% Hispanic or Latino ¹	9.1%	15.9%	24.4%		15.4%
	% Not Hispanic White	52.0%	41.4%	43.1%		45.3%

Planning Area # 19 (continued)		SINGLE-FAMILY DETACHED	TOWN-HOUSE	GARDEN APT.	HIGH-RISE	ALL TYPES
Language Spoken at Home						
P	Persons 5 Years and Older	24,175	72,800	33,610		15,015
O	% Speak Language Other than English	36.3%	41.2%	44.7%		40.3%
P	% Speak English less than "Very Well"	10.3%	10.8%	19.6%		12.4%
U	Educational Attainment:					
L	Persons 25 Years and Older	15,570	23,620	11,600		50,790
A	% Less than High School Diploma	3.8%	6.6%	8.0%		6.1%
T	% High School Graduate	20.2%	34.0%	33.1%		29.6%
I	% Associate or Trade School	6.0%	9.8%	9.6%		8.6%
O	% Bachelor's Degree	34.5%	27.0%	29.9%		29.9%
N	% Grad, Professional or Doctoral	35.4%	22.6%	19.4%		25.8%
	Number of Employed Residents ²	14,790	22,500	10,450		47,740
	% Females Who Are Employed ²	72.0%	78.9%	72.3%		75.3%
	Women with Children Under Age 6	2,270	3,270	1,460		7,000
L	% Employed ²	57.5%	64.5%	*		61.5%
A	Work Location:					
B	% Montgomery County	72.6%	70.7%	78.0%		72.9%
O	% Prince George's County	3.0%	3.2%	3.2%		3.2%
R	% Elsewhere in Maryland	5.0%	3.6%	5.6%		4.4%
	% Washington, D.C.	12.2%	13.0%	8.6%		11.8%
	% Virginia	6.8%	8.5%	4.3%		7.1%
F	% Outside MD-VA-DC	0.4%	0.9%	0.4%		0.7%
O	Work Trip:					
R	% Driving	84.6%	83.7%	82.4%		83.7%
C	% Alone	76.8%	73.4%	77.1%		75.3%
E	% Carpool	7.8%	10.3%	5.3%		8.4%

Planning Area # 19 (continued)	SINGLE- FAMILY DETACHED	TOWN- HOUSE	GARDEN APT.	HIGH- RISE	ALL TYPES
% Public Transit or Rail	10.1%	13.0%	13.5%		12.3%
% Walk/Bicycle/Other	1.2%	1.0%	2.2%		1.3%
% Work at Home	4.1%	2.3%	1.9%		2.8%
Average Commuting Time to Work (minutes)					
Overall	32.8	33.7	31.1		32.9
By Car	30.0	30.2	27.1		29.5
By Public Transit	57.5	58.6	59.0		58.4

* Insufficient data for reliable estimates.

1 Those of Hispanic origin may be of any race.

2 Ages 16 and older and employed full- or part-time.

Source: 2005 Census Update Survey; Research & Technology Center, Montgomery County Planning Dept., M-NCPPC June 2006.

Planning Area # 19 (continued)		SINGLE- FAMILY DETACHED	TOWN- HOUSE	GARDEN APT.	HIGH- RISE	ALL TYPES
Households by Structure Type		7,590	13,100	8,355		29,045
% Total Households by Structure Type		26.1%	45.1%	28.8%		100.0%
Average Household Size		3.48	2.82	1.95		2.74
Tenure:						
	% Rental	1.2%	8.0%	57.1%		20.4%
Average Monthly Costs:						
H	Homeowner	\$2,023	\$1,349	\$1,027		\$1,507
O	Renter	*	*	\$1,010		\$1,034
U	Residence in April 2000:					
S	% in Same Home	58.9%	50.1%	28.0%		46.2%
I	% Elsewhere in County	29.2%	30.0%	37.2%		31.9%
N	% Elsewhere in Maryland	2.4%	5.7%	7.3%		5.3%
G	% D.C or Northern Virginia	2.8%	3.0%	2.6%		2.9%
	% Outside Metro Area	6.6%	11.2%	24.8%		13.8%
Median Years in Same Home		6	5	2		4
Average Age of Household Head		46.9	43.4	43.3		44.3
% Households with Foreign Born Head or Spouse		43.7%	36.8%	33.8%		37.7%
% Households Speaking Spanish		9.3%	14.8%	19.5%		14.7%
Households by Type:						
	% Family Households	93.8%	77.2%	57.2%		75.8%
	% Married-Couple	87.3%	62.6%	33.9%		60.8%
	% Single-Parent	5.3%	12.4%	18.0%		12.2%
	% Nonfamily Households	6.2%	22.8%	42.8%		24.2%
	% Householder Living Alone	6.1%	21.1%	39.0%		22.3%

Planning Area # 19 (continued)		SINGLE- FAMILY DETACHED	TOWN- HOUSE	GARDEN APT.	HIGH- RISE	ALL TYPES
Persons in Households:						
H	% 1 Person	6.1%	21.1%	39.0%		22.3%
O	% 2 Persons	18.8%	28.0%	38.2%		28.5%
U	% 3 Persons	24.7%	16.5%	14.1%		18.0%
S	% 4 Persons	29.2%	20.3%	6.4%		18.6%
I	% 5+ Persons	21.1%	14.2%	2.3%		12.6%
N	Average Number of Cars	2.4	1.9	1.4		1.9
G	% of Households with Computers	98.1%	93.8%	86.8%		92.9%
	% of these visiting M-NCPPC website	36.9%	28.6%	24.7%		29.8%
2004 Household Income Distribution:						
	% Under \$15,000	1.0%	3.8%	6.5%		3.8%
	% \$15,000 to \$29,999	0.5%	4.5%	13.8%		6.2%
I	% \$30,000 to \$49,999	4.8%	12.2%	32.0%		16.0%
N	% \$50,000 to \$69,999	5.6%	25.4%	20.3%		18.9%
C	% \$70,000 to \$99,999	24.2%	27.3%	18.0%		23.8%
O	% \$100,000 to 149,999	38.4%	21.7%	8.2%		22.1%
M	% \$150,000 to 199,999	18.2%	4.3%	1.2%		7.0%
E	% \$200,000+	7.3%	0.7%	0.0%		2.2%
		\$116,560	\$75,495	\$48,765		\$76,655
2004 Median Household Income						
% of Households Spending More Than						
30% of Income on Housing Costs:						
		14.6%	21.8%	18.0%		19.0%
	% Homeowners	*	*	35.3%		38.9%
	% Renters					

* Insufficient data for reliable estimates.

Source: 2005 Census Update Survey; Research & Technology Center, Montgomery County Planning Dept., M-NCPPC June 2006.

APPENDIX 3: TOP 100 GERMANTOWN BUSINESSES

Research & Technology Center (RTC), 2008

Company	Address	Location Type	Jobs	Primary Naics Description
Hughes Network Systems LLC	11717 Exploration Ln	Headquarters	900	Telecommunications Resellers
Acterna LLC	1 Milestone Center Ct	Headquarters	700	Communications manuf
Energy Enterprise Solutions	20440 Century Blvd # 150	Single Location	400	Computer Programming
Library Systems & Services LLC	12850 Middlebrook Rd	Single Location	400	General management Consulting
WABTEC Railway Electronics	21200 Dorsey Mill Rd	Headquarters	300	Instrument Testing and Manuf
NCR Government Systems LLC	20370 Seneca Meadows Pkwy	Single Location	250	Consulting
Ameridebt Inc	PO Box 65863	Headquarters	230	Personnel Services
A W S Convergence Technologies	12410 Milestone Center Dr	Single Location	205	Computers
Qiagen Sciences Inc	19300 Germantown Rd	Single Location	170	All Other Miscellaneous Chemical Product & Preparation Manufacturing
Current Group LLC	20420 Century Blvd	Single Location	167	Telecommunications
Roberts Home Medical Inc	PO Box 5736	Headquarters	105	Medical Equipment
Current Technologies LLC	20420 Century Blvd	Single Location	100	Electronic parts
Megisto Systems Inc	20251 Century Blvd Ste 120	Single Location	92	Computer Programming
American Marketing Services	129000 Cloverleaf A	Single Location	90	Newspaper Publishers
Axiom Systems Inc	20300 Century Blvd Ste 120	Single Location	87	Computer Programming
Telogy Networks Inc	20450 Century Blvd	Single Location	85	Computer Prpgramming
Wilcoxon Research Inc	20511 Seneca Meadows Pkwy	Single Location	75	Other Measuring & Controlling Device Manufacturing
Accuvia Consulting Inc	20250 Century Blvd	Single Location	75	Computer Systems Design Services
Rodgers Consulting Inc	19847 Century Blvd # 200	Single Location	70	Engineering Services
Counter Technology Inc	20410 Observation Dr	Single Location	67	Consulting Services
Systematic Management Services	20201 Century Blvd # 105	Headquarters	65	Remediation Services
Red Robin America's Gourmet	20001 Century Blvd	Single Location	65	Full-Service Restaurants
Egan Enterprises Inc	17001 Germantown Rd	Single Location	65	Caterers
Montrose Motors Inc	19560 Frederick Rd	Single Location	62	New Car Dealers
Pc-Tel Inc	20410 Observation Dr	Single Location	60	Communications Equipment
Samuel Asare	20400 Observation Dr	Single Location	60	Business Services
National Institute of Vehicle	17802 Black Stallion Way	Single Location	60	Fine Arts Schools
Micro Express LLC	Frederick Ave	Single Location	59	Tax Preparation Services
Avalon Pharmaceuticals Inc	20358 Seneca Meadows Pkwy	Single Location	56	Reseach & Development
Optelecom-Nkf Inc	12920 Clover Leaf Center Dr	Headquarters	53	Manufacturing
Amarex LLC	20201 Century Blvd	Single Location	53	Pharmaceutical Manufacturing
Trident Tek Inc	12900 Cloverleaf Center Dr B	Single Location	52	Computer Storage Manufacturing
Gcat LLC	19560 Amaranth Dr	Single Location	50	Electronic Parts & Equipment
EKA Systems Inc	20201 Century Blvd # 250	Single Location	50	Telecommunications
Germantown Electrical Contr	PO Box 2310	Single Location	50	Electrical Contractors
Imatek Inc	19568 Amaranth Dr	Single Location	50	Software Publishers
Michael S Schindler MD	20528 Boland Farm Rd	Single Location	50	Physicians Offices
Mantaro Networks Inc	20410 Century Blvd # 120	Single Location	50	Engineering Services
RE Max Professional Inc	20270 Goldenrod Ln # 200	Single Location	50	Real Estate Agents

Company	Address	Location Type	Jobs	Primary Naics Description
FedbidCom Inc	20201 Century Blvd # 450	Single Location	46	Data Processing
Project Enhancement Corp	20300 Century Blvd # 175	Single Location	45	Management Consulting
Planet Technologies Inc	20400 Observation Dr	Single Location	45	Computer Systems
Montessori Country School of	15951 Germantown Rd	Single Location	45	Elementary & Secondary Schools
Woodside Deli	12958 Middlebrook Rd	Single Location	45	Restaurants
Susan Walter	19660 Gunners Branch Rd	Single Location	45	Restaurants
Atteloir Inc	12850 Middlebrook Rd	Single Location	42	Computer Training
Advanced Technologies & Labs	PO Box 701	Single Location	40	Management Consulting
Circle School Seneca Academy	15601 Germantown Rd	Single Location	40	Elementary & Secondary Schools
Joe Flaherty's Dolphins Inc	12847 Kitchen House Way	Single Location	40	\Amusement & Recreation \
Bretton Woods Recreation Ctr	15700 River Rd	Single Location	40	Fitness & Recreation
United States Dept of Energy	19901 Germantown Rd	Single Location	40	General Economic Programs
Genesis Security Systems LLC	20459 Seneca Meadows Pkwy	Single Location	39	Security Systems
Carlos Painting & Decorating	14413 Cervantes Ave	Single Location	38	Contractors
Easy Street	11609 Kings Arrow Ct	Single Location	37	Management Consulting
Aztek Enterprise Inc	19104 Jamieson Dr	Single Location	36	Janitorial Services
O B A Bank	PO Box 340	Headquarters	35	Savings Institutions
Datalab USA LLC	20261 Goldenrod Ln	Single Location	35	Telecommunications
Paramed Medical Transportation	23230 Ridge Rd	Single Location	35	Transit & Transportation
Agrodolce LLC	21030 Frederick Rd Ste J	Single Location	35	Restaurants
Advantage Point Management	11717 Exploration Ln	Single Location	35	Caterers
Fitness First Health Club	19757 Frederick Rd	Single Location	35	Fitness & Recreation
Peppertree-Germantown	12900 Middlebrook Rd	Single Location	35	Child Day Care
Acterna Corp	1 Milestone Manor Ct	Headquarters	35	Instrument Manufacturing
Geomet Technologies LLC	20251 Century Blvd Ste 300	Headquarters	33	Scientific & Technical Consulting
K S Plus Inc	20618 Summer Sweet Ter	Single Location	33	Management Consulting
All America 2000 High Tech	19306 Churubusco Ln	Single Location	32	Computer & Software Stores
Chicken Out Rotisserie	20940 Frederick Rd Ste F	Single Location	32	Restaurants
Bennet Communications Inc	20111 Century Blvd Ste B	Single Location	30	Telecommunications
Dermatology & Clinical Skin	19735 Germantown Rd # 210	Single Location	30	Physician Offices
Executive Drywall Inc	23208 Ridge Rd	Single Location	30	Contractors
S G S Light Science Services	12850 Middlebrook Rd 406	Single Location	30	Social Sciences Research
A & P Contractors Inc	PO Box 250	Single Location	30	Contractors
Global Credit Network LLC	20010 Century Blvd # 420	Single Location	30	Collection Agencies
Love My Car Carwash LLC	19600 Walter Johnson Rd	Single Location	30	Car Washes
Crash Bar & Grill LLC	14933 Kelley Farm Dr	Single Location	30	Restaurants
Pelican Pete's	12941 Wisteria Dr	Single Location	30	Restaurants
ARC Interior System Inc	13124 Diamond Hill Dr	Single Location	30	Contractors
Images Hair Design Inc	18024 Mateny Rd	Single Location	30	Beauty Salons
Fenguard Security Inc	12003 Provost Way	Single Location	30	Security Guards
Management Group Associates	20440 Century Blvd # 100	Single Location	29	Real Estate Agents & Brokers
GHG Holding Inc	20251 Century Blvd # 140	Single Location	29	Software Publishers
Visual Aids Electronics Corp	12910 Clover Leaf Center Dr	Headquarters	28	Consumer Goods Rental
Medispec Ltd	20410 Observation Dr	Single Location	28	Medical Equipment
Executive Management Assocs	14800 Seneca Rd	Single Location	28	Management Consulting

Company	Address	Location Type	Jobs	Primary Naics Description
Germantown Veterinary Clinic	19911 Father Hurley Blvd	Single Location	28	Veterinary Services
Multispectral Solutions Inc	20300 Century Blvd	Single Location	27	Engineering Services
Ctg Oil Inc	19600 Walter Johnson Rd	Single Location	27	Gasoline Stations
Telkonet Inc	20374 Seneca Meadows Pkwy	Headquarters	25	Contractors
Microlog Corp of Maryland	20270 Goldenrod Ln # 100	Single Location	25	Computer Programming
O'Connor Plumbing & Heating	19301 Mateny Hill Rd	Single Location	25	Contractors
Proxy Aviation Systems Inc	12850 Middlebrook Rd	Single Location	25	Aircraft Manufacturing
Neonatology Associates PC	14220 Cervantes Ave	Single Location	25	Physician Offices
Vintage Cleaning Corp Inc	19566 Amaranth Dr	Single Location	25	Contractors
Lincoln Park Historical Fdtn	PO Box 1884	Single Location	25	Physical and Life Sciences Reseach
Hill Construction Inc	18037 Wheatridge Dr	Single Location	25	Residential Remodelers
Burke Curl Swim Club	PO Box 359	Single Location	25	Sports & Recreation
T B G Pizza Inc	13050 Middlebrook Rd	Single Location	25	Restaurants
Positive Technologycom Inc	20010 Century Blvd # 426	Single Location	24	Computer & Software Stores
Histoserv Inc	19526 Amaranth Dr	Single Location	24	Medical Laboratories

Source: Dunn & Bradstreet Selectory Online database. Download May 15, 2008

Note: This list of 240 represents the top 100 of 240 companies headquartered in Germantown or with a single location and that employ 10 or more employees in Germantown.

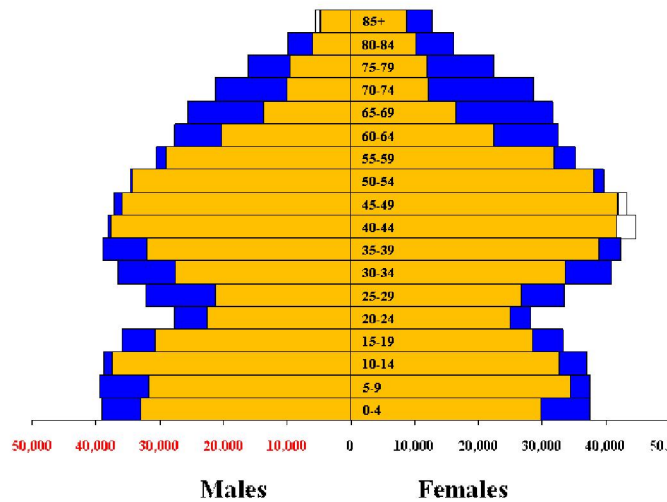
APPENDIX 4: GERMANTOWN POPULATION PYRAMIDS, 2005-2030

Round 7.1 Cooperative Forecast

Research & Technology Center, 2007

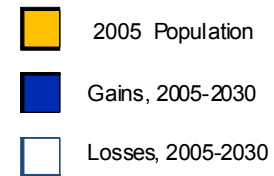
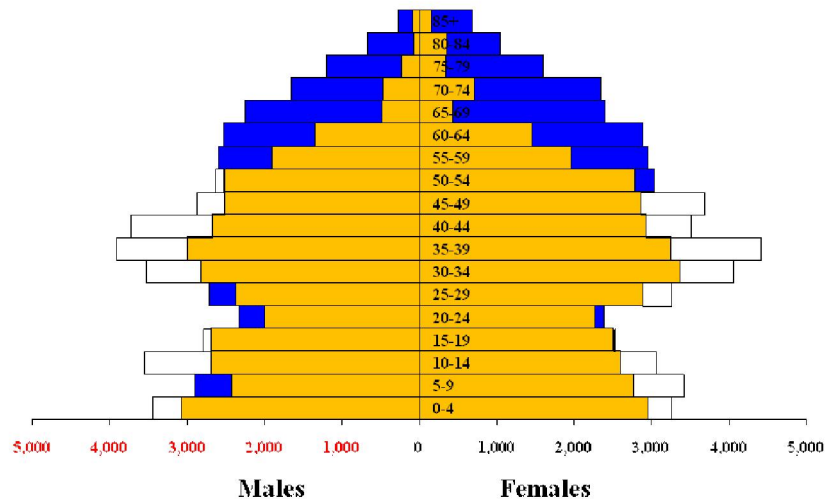
Population 2005-2030

County



Round 7.1 Cooperative Forecast, Population in Households

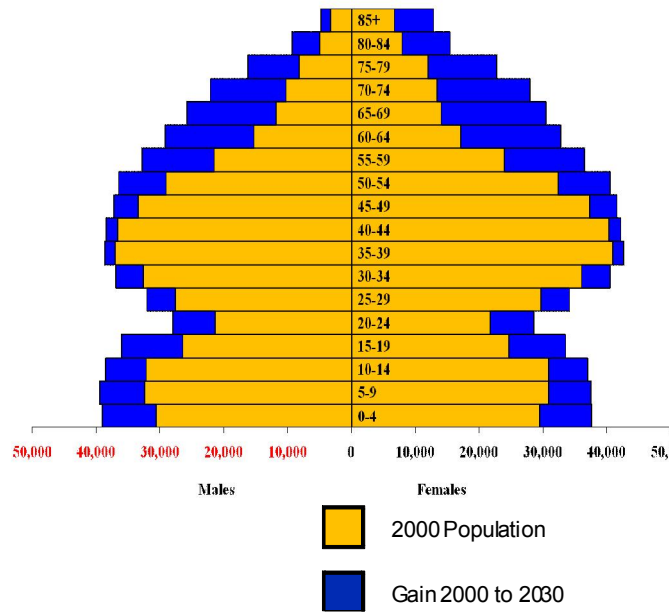
Germantown



Round 7.1 Cooperative Forecast, Population in Households

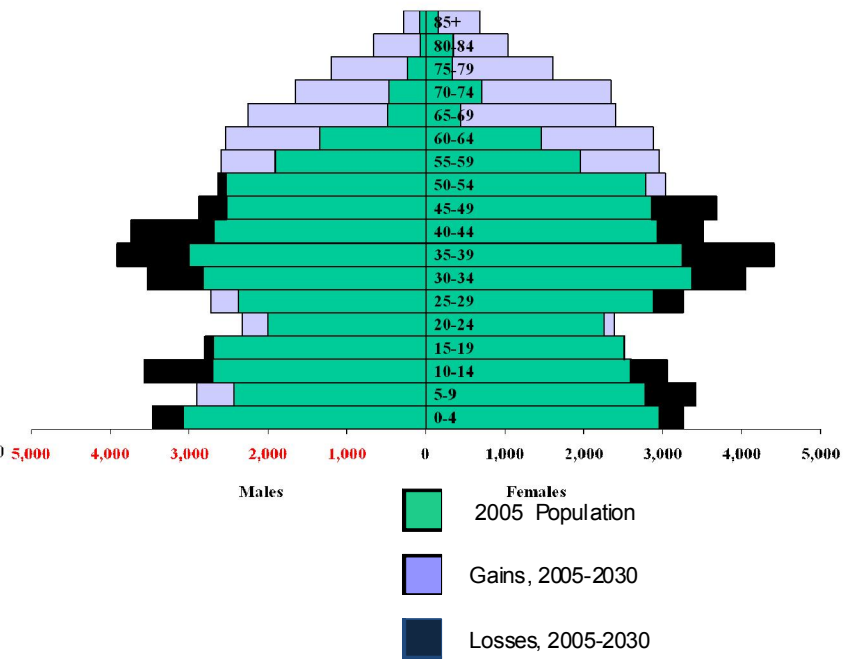
Population 2005-2030

County



Round 7.0 Cooperative Forecast, Population in Households

Germantown



Round 7.1 Cooperative Forecast, Population in Households

APPENDIX 5: SCHOOL CAPACITY ANALYSIS

Germantown Master Plan: School Impact
Montgomery County Public Schools, December 3, 2007

The Germantown Master Plan area overlaps portions of three MCPS school clusters: Clarksburg, Northwest, and Seneca Valley. Following is a listing MCPS cluster areas and the Germantown analysis areas that fall within these clusters. In cases where an analysis area overlaps two clusters it has been placed in the cluster where future residential development is planned within the analysis area. See the accompanying chart for estimates of the number of students generated in each cluster, under each land use alternative.

Clarksburg Cluster: Milestone North, Milestone Center, Shakespeare, Montgomery College, Employment Center East, Fox Chapel East, and Fox Chapel West.

Northwest Cluster: MARC Station and Seneca Valley

Seneca Valley Cluster: Town Center, West Town Center, Employment Center West, Far North, Gateway, The Colony, and Waring Station.

Most of the new residential development foreseen in master plan alternatives falls within the Seneca

Valley cluster of schools. Of the three MCPS clusters serving the Germantown Master Plan area, the Seneca Valley cluster is best able to absorb future residential development. At the elementary school level two of the four elementary schools are projected to exceed their capacity for the six-year period of 2008-09 to 2013-14. On the other hand, the other two elementary schools in this cluster are projected to have space available for the six-year forecast period. At the middle school and high school level space is available for the six-year forecast period.

In the case of the Clarksburg cluster, enrollment will continue to exceed school capacities as schools in this cluster continue to absorb development of the Clarksburg community. Elementary, middle, and high school enrollments are all projected to exceed the capacity of cluster schools throughout the six-year forecast period.

In the case of the Northwest cluster, recent development of numerous subdivisions has left most schools in this cluster over capacity. This is in spite of the opening of Spark Matsunaga Elementary School in 2001, Great Seneca Creek Elementary School in 2006, Lakelands Park

Middle School in 2005, and a 30 room addition to Northwest High School in 2006. All elementary schools in the cluster, except Diamond and Germantown elementary schools, are projected to exceed capacity for the six-year forecast period. At the middle school level space is currently available at the three middle schools that serve the area (Roberto Clemente, Kingsview, and Lakelands Park middle schools.) However, by the end of the six-year forecast period Kingsview Middle School is projected to exceed capacity. At the high school level Northwest High School is within capacity for the next three years, but exceeds capacity beginning in 2011.

Germantown Master Plan Housing Alternatives and Student Generation
November 2007 and March 2008

Alternative 1							
	New Units by Type				Student Generation by Level		
Cluster	Single Detached	Town-house	Mid-Rise	Total Units	K-5	6-8	9-12
Clarksburg	0	105	425	530	40	29	24
Northwest	3	27	0	30	7	4	3
Seneca Valley	0	0	1,709	1,709	72	67	56
TOTALS	3	132	2,134	2,269	119	99	85

Alternative 2							
	New Units by Type				Student Generation by Level		
Cluster	Single Detached	Town-house	Mid-Rise	Total Units	K-5	6-8	9-12
Clarksburg	0	130	0	130	28	15	13
Northwest	3	27	0	30	7	4	3
Seneca Valley	0	0	4,851	4,851	204	189	160
TOTALS	3	157	4,851	5,011	238	208	176

Germantown Master Plan Housing Alternatives and Student Generation (continued)
 November 2007 and March 2008

Alternative 2A							
	New Units by Type				Student Generation by Level		
Cluster	Single Detached	Town-house	Mid-Rise	Total Units	K-5	6-8	9-12
Clarksburg	0	0	1,587	1,587	67	62	52
Northwest	0	0	244	244	10	10	8
Seneca Valley	0	0	3,445	3,445	145	134	114
TOTALS	0	0	5,276	5,276	222	206	174

Alternative 3							
	New Units by Type				Student Generation by Level		
Cluster	Single Detached	Town-house	Mid-Rise	Total Units	K-5	6-8	9-12
Clarksburg	0	130	1,030	1,160	71	55	47
Northwest	3	39	55	97	12	7	6
Seneca Valley	0	0	5,331	5,331	224	208	176
TOTALS	3	169	6,416	6,588	307	270	229

APPENDIX 6: CONNECTIONS: TRANSPORTATION ANALYSIS

Transportation Planning, Countywide Planning Division, 2008

Germantown has various options of transportation for citizens in the community. There are major highways, buses, MARC, bicycle facilities, and sidewalks to facilitate travel to and from locations across the study area. These forms of transportation provide mobility and access in a safe manner and shape the community's character in conjunction with land use pattern and urban design.

I-270 Improvements

This Plan supports the widening of I-270 to a twelve-lane facility with some managed lane component to provide preferential treatment to transit vehicles and high-occupancy vehicles. The Maryland State Highway Administration (SHA) is studying options that include express toll lanes; this master plan does not set policy regarding whether or not tolling should be provided on I-270 but notes that value pricing is a useful demand management tool. The SHA is also examining limited interchange reconstruction in Germantown including the provision of some direct access ramps to and from express toll lanes.

MD 355 Corridor Considerations

Along the MD 355 corridor, forecast traffic congestion is severe at locations where MD 355 intersects east-west major highways such as Ridge Road (MD 27). The 1989 Master Plan

recommends a grade-separated interchange at this location. This Plan also recommends grade separated interchanges at the MD 355 intersections with Middlebrook Road and MD 118.

The DPWT study of Midcounty Highway Extended (M-83) is expected to be completed in early 2010, after the Germantown Plan adoption. The master plan alignment for M-83 is outside of the Germantown Plan study area. The master-planned alignment is in both the master plan and the regional Constrained Long Range Plan and has been assumed as part of the network of regional transportation improvements for the purposes of master plan analysis.

DPWT has studied an alternative to building M-83 by improving MD 355. Their preliminary findings are that a MD 355 alternative that generally respected the current 150' wide right-of-way and existing development in the corridor would not meet the study purpose and need. Staff concurs with that finding, but has worked with DPWT to expand their study to include an alternative that does meet the purpose and need, in order to more fully evaluate alternatives to M-83. Staff recommends a 250' wide right-of-way for MD 355 in the draft plan with a staging element that would link the ultimate right-of-way width to a County Council decision regarding the M-83 study in

2010. The wider right-of-way would also provide the ability to study bus rapid transit concepts further during the same staging period.

Staff has also explored the development of what Peter Calthorpe terms an "urban network"; the provision of at-grade, one-way couplets where major highways meet. This concept could be applied at each of the MD 355 intersections with MD 27, MD 118, and Middlebrook Road. Preliminary analyses indicate that this approach (the replacement of a single wide intersection with four intersections of one-way streets around a town square type of feature) could provide mobility levels commensurate with that achieved by the proposed grade-separated interchanges. The urban network would also have a lower capital cost, but requires a substantial and coordinated redevelopment to implement. The Plan recommends that the urban network concept be studied further, either as a supplemental study to the Plan (should budgetary constraints permit) or as an alternative within any project planning study of interchange construction.

Arterial Roadway Network

There are several gaps in the road network for the future land use conditions. To promote connectivity, several new roads will be needed as well as extensions and widening of existing roads.

Development of a more robust street grid in certain neighborhoods, primarily to enhance pedestrian and automobile access to the Corridor Cities Transitway (CCT) stations and the Germantown MARC station is needed. This Plan amendment adds three new vital connections to the 1989 Germantown Plan arterial network:

1. A partial interchange to and from the north on I-270 at Dorsey Mill Road designed to facilitate access to properties along Century Boulevard, reduce congestion at the junction of Father Hurley Boulevard with Crystal Rock Drive, and reduce commercial traffic use of Kinster Drive.
2. A new road crossing I-270 connecting Century Boulevard to Seneca Meadows Drive between Father Hurley Boulevard and MD 118 interchanges to improve access between the east and west sides of I-270.
3. Observation Drive extended to the south to Middlebrook Road through the Montgomery College campus, including a separate connection from Observation Road to MD 355. These connections will facilitate access within and across the campus.

Local Street Network Recommendations

The following are additional changes to the 1989 Plan for local streets.

- Walter Johnson Road (B-3) is added to the master plan along with Bowman Mill Road (B-

16) to facilitate MARC station access and reflect future improvements by Maryland Transit Administration (MTA) to the MARC station.

- Blunt Road’s proposed cul-de-sac will be removed and the road will connect to MD 355.
- Century Boulevard will be extended to the west across Wisteria Drive to connect to Fairfield and Waters Roads.
- Waterford Hills Boulevard (Fairfield Road) (B-22) will be extended to the south to connect to Waters Road (B-5).
- A new road (B-17) will connect Crystal Rock Drive and Century Boulevard.
- Two roads are reclassified as minor arterial roadways to reflect their arterial function in a predominantly residential setting: Kinster Road (MA-299) and the southwestern portion of Crystal Rock Road (MA-1).
- The following industrial roads in the 1989 Plan are reclassified to business roads in this plan to reflect the types of commercial development now anticipated.
 - Aircraft Drive
 - Century Boulevard
 - Cloverleaf Center Drive
 - Crystal Rock Road
 - Dorsey Mill Road
 - Goldenrod Lane
 - Seneca Meadows Road (formerly Goldenrod Lane)

The Plan also contemplates a one-way circulation scheme for Aircraft Drive and Crystal Rock Drive: This operational proposal would:

- convert Crystal Rock Drive into a one-way street northbound between MD 118 and Aircraft Drive, and
- convert Aircraft Drive into a one-way street southbound between Crystal Rock Drive and MD 118.

This one-way proposal appears to have the following advantages over the current two-way operation:

- Potential for more efficient intersection operations at the congested intersections with MD 118, facilitating better access to and from the Town Center without increasing intersection approach widths.
- Pavement space along Crystal Rock and Aircraft Drives can be converted to bus priority treatment, including bus bay locations, on both sides of the CCT Transit Center block.
- The prohibition of southbound traffic along Crystal Rock Drive will no longer “direct” traffic leaving the Town Center toward the residential portion of Crystal Rock Drive as a cut-through.
- Greater weaving distance between I-270 off-ramp and access into Town Center.

Table 1 and **Figure 1** show the roads recommended in the Plan along with “New Roads” that are recommended additions to the 1989 Plan to better distribute traffic. The existing system number of lanes is based on field verification in

2007. The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel. For example, two lanes going eastbound and two lanes going westbound are recorded as four lanes in the table. The road is built to the planned cross-section when the existing system lanes and the proposed system lanes match.

The table designates roads to be added to the master plan of highways for the County according to the Road Code:

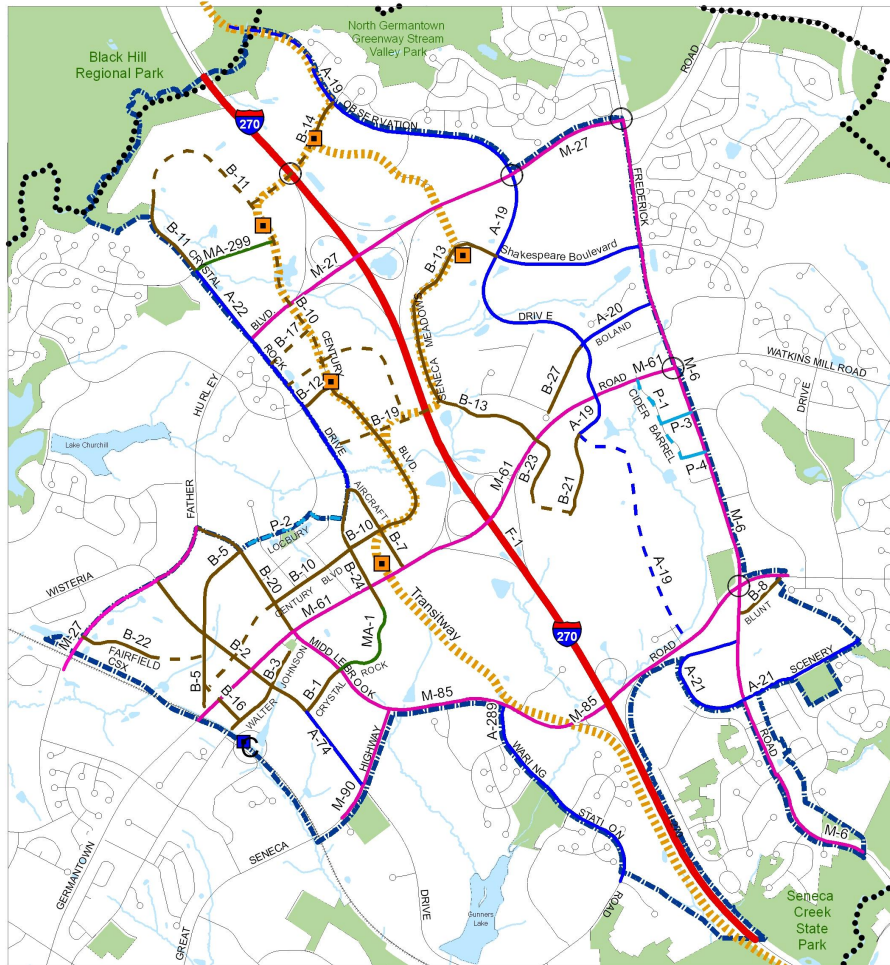
- “M” designates a Major Highway, which means that this road provides less speed and mobility than freeways, but gives more access to the facility via at-grade intersections. The vehicles on this road typically make trips past immediately adjacent land uses. Driveway access is acceptable in urban and denser suburban settings.
- “A” designates an Arterial Road, which means that this road connects major highways and provides more access points than a major highway while moving traffic at lower speeds. Typically, more than half of the traffic on an arterial is through traffic.
- “MA” designates is a new category called Minor Arterial which means that this road functions as an arterial, but has adjacent land

uses that make traffic calming an appropriate treatment.

- “B” designates Business District roads and any road classified as an industrial road in the former Germantown Master Plan was converted to a business road to reflect the type of development now anticipated.

These roads have similar cross-sections of the arterial roads with a specific function of moving people to and from businesses. Refer to the Road Code for more information on functional classifications of roads. The table also designates if a road segment corresponds to a bicycle recommendation.

Proposed Roads



- | | |
|-------------------------|-------------------------------|
| Freeway | Residential Primary |
| Major Highway | Residential Primary (Planned) |
| Major Highway (Planned) | Transitway (Planned) |
| Arterial | New Transit Stations |
| Arterial (Planned) | MARC |
| Minor Arterial | METRO |
| Business | Study Area |
| Business (Planned) | Future Interchange |

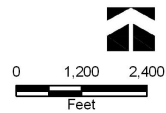


Figure 1. Proposed Roads with Transit Stations.

Table 1 Facility & Segment		Master Plan	Existing ROW	Existing Lanes	Proposed ROW	Proposed Lanes	Bike Routes
From	To	Road #	(ft)		(ft)		Figure 5
Aircraft Drive							
Germantown Road	Century Boulevard	B-7	80	4-D	80	4	
Century Boulevard	Crystal Rock Drive	B-7	100	4-D	80	4	
Blunt Road							
Frederick Road	cul-de-sac 300 ft. south	B-8	80	2	80	2	
cul-de-sac 300 ft. south	Middlebrook Road	B-8	N/A	N/A	80	2	
Bowman Mill Road							
Walter Johnson Drive	Germantown Road	B-16	60	2	60	2	PB-9
Germantown Road	Waters Road (B-5)	B-16	N/A	N/A	60	2	PB-9
Boland Farm Road							
Frederick Road	Observation Drive	A-20	80	3	80	4	
Observation Drive	Sunnyview Drive	B-27	80	2	80	2	
Century Boulevard							
Proposed Dorsey Mill Rd Extension (B-14)	Kinster Drive	B-10	N/A	N/A	100	4-D	SP-66
Kinster Drive	Cloverleaf Center Drive	B-10	N/A	N/A	130	4-D	SP-66
Cloverleaf Center Drive	Aircraft Drive	B-10	80	4-D	130	4-D	SP-66
Aircraft Drive	Crystal Rock Drive	B-10	80	4-D	130	4-D	
Crystal Rock Drive	Middlebrook Road	B-10	70	2	70	4-D	
Middlebrook Road	Wisteria Drive	B-10	N/A	N/A	70	2	
Wisteria Road	Waters Road (B-5)	B-10	N/A	N/A	70	2	
Cider Barrel Road							
Germantown Road	Cider Press Road	P-1	70	2	70	2	
*The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel.							

Table 1 (continued)		Master	Existing		Proposed		Bike
Facility & Segment		Plan	ROW	Lanes	ROW	Lanes	Routes
From	To	Road #	(ft)		(ft)		Figure 5
Cloverleaf Center Drive							
Century Boulevard	Crystal Rock Road	B-12	100	4-D	100	4-D	PB-4
Crystal Rock Drive							
Proposed Dorsey Mill Rd. Extension (B-14)	Little Seneca Creek	B-11	N/A	N/A	100	4	
Little Seneca Creek	Kinster Drive	B-11	100	2	100	4	PB-37; SP-75
Kinster Drive	Aircraft Drive	A-22	120	4-D	120	4-D	PB-37
Aircraft Drive	200 feet south of Germantown Road	B-24	120	4-D	120	4-D	PB-22
200 feet south of Germantown Road	Middlebrook Road	MA-1	80	2	80	4-D	PB-8
Middlebrook Road	Wisteria Drive	B-1	80	2	80	4-D	PB-8
Dorsey Mill Road (proposed extension)							
Proposed Crystal Rock Dr Extension (B-11)	Proposed Observation Dr extension (A-19)	B-14	N/A	N/A	100	4	SP-66
Waterford Hills Boulevard (Fairfield Road)							
Father Hurley Boulevard	cul-de-sac	B-22	100	4	100	4	PB-8
cul-de-sac	Century Blvd. Ext. (B-10)	B-22	N/A	N/A	100	4	PB-8
Father Hurley Boulevard							
Hopkins Road	CSX tracks	M-27	120	2	120	4	SP-68
Wisteria Drive	Crystal Rock Drive	M-27	120	4-D	120	6-D	SP-68
Crystal Rock Drive	I-270	M-27	150	6-D	120	6-D	SP-68
*The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel.							

Table 1 (continued)		Master	Existing	Proposed	Bike		
Facility & Segment		Plan	ROW	Lanes	ROW	Lanes	Routes
From	To	Road #	(ft)		(ft)		Figure 5
Frederick Road (MD 355)							
Bridge over Great Seneca Creek	Germantown Road	M-6	150	6-D	250**	6-D	SP-72
Germantown Road	Little Seneca Creek	M-6	150	6-D	250**	6-D	SP-72
Germantown Road (MD 118)							
CSX Railroad Tracks	I-270 ramps	M-61	150	6-D	150	6-D	DB-25
I-270 ramps	Goldenrod La	M-61	150	4-D	150	6-D	DB-25
Goldenrod La	Millennium Drive	M-61	150	6-D	150	6-D	DB-25
Millennium Drive	Frederick Road	M-61	150	4-D	150	6-D	DB-25
Goldenrod Lane							
Germantown Road	end of road, about 1,000 ft. south of Germantown Rd.	B-23		2	80	4	PB-1
end of road, about 1,000 ft. south of Germantown Rd.	Cider Press Road	B-4	N/A	N/A	80	4	PB-2
Great Seneca Highway (MD 119)							
CSX Railroad Bridge	Middlebrook Road	M-90	120	4-D	120	6-D	SP-63
Cider Press Road							
Cider Barrel Road (P-1)	Frederick Road (MD 355)	P-4	N/A	N/A	70	2	
*The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel.							
** This plan recommends a 250' right-of-way for Frederick Rd (MD 355) pending completion of the Midcounty Highway Extend facility planning study by the County Council.							

Table 1 (continued)		Master	Existing	Proposed	Bike		
Facility & Segment		Plan	ROW	Lanes	ROW	Lanes	Routes
From	To	Road #	(ft)		(ft)		Figure 5
I-270							
Bridge over Grt. Sen.Creek	Interstate mile marker 13	F-1	300	7-D	300	12-D	
Interstate mile marker 13	Germantown Road	F-1	300	6-D	300	12-D	
Germantown Road	Bridge over Little Seneca Creek	F-1	300	6-D	300	12-D	
Kinster Drive							
Century Boulevard (B-10)	Crystal Rock Drive	MA-299	100	2-D	100	4-D	SP-75
Locbury Drive							
Rexmore Drive	Middlebrook Road	P-2	70	2	70	2	
Middlebrook Road	Wisteria	B-5	80	2	80	2	
Middlebrook Road							
Father Hurley Boulevard	Germantown Road	B-20	120	4-D	120	4-D	SP-71
Germantown Road	Frederick Road (MD 355)	M-85	150	6-D	150	6-D	SP-71
Observation Drive							
Little Seneca Creek	Dorsey Mill Road	A-19	N/A	N/A	150	4-D	SP-69
Dorsey Mill Road	Germantown Road	A-19	150	4-D	100	4-D	SP-69
Germantown Road	1000' So. Germantown Rd	A-19	N/A	2	80	4	SP-69
1000' So. Germantown Rd	Middlebrook Road	A-19	N/A	N/A	80	4	SP-69
*The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel.							

Table 1 (continued)		Master	Existing	Proposed		Bike	
Facility & Segment		Plan	ROW	Lanes	ROW	Lanes	Routes
From	To	Road #	(ft)		(ft)		Figure 5
Oxbridge Drive							
Cider Barrel Road	Frederick Road (MD 355)	P-3	N/A	N/A	70	2	
Ridge Road (MD 27)							
I-270	Frederick Road (MD 355)	M-27	150	6-D	120	6-D	SP-68
Seneca Meadows Road							
Germantown Road	Observation Drive	B-13		2	100	4-D	PB-3
Scenery Drive							
Germantown Road	Middlebrook Road	A-21	80	2	80	4	
Middlebrook Road	Frederick Road	A-21	100	2	100	4	
Shakespeare Boulevard							
Observation Drive	Frederick Road	A-291	100	4-D	100	4-D	PB-15
Walter Johnson Drive							
Bowman Mill Road	Wisteria Drive	B-3	80	2	80	4	PB-9
Wisteria Drive	750' NE of Wisteria Drive	B-3	80	2	80	4	PB-9
Waring Station Road							
Clopper Road	Wisteria Drive	A-289	80	2	80	4	
Waters Road							
Germantown Road	Wisteria Drive	B-5	N/A	N/A	80	2	
Waters Landing Drive							
Crystal Rock Drive	Century Boulevard	A-299	N/A	N/A	100	4	PB-5
*The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel.							

Table 1 (continued) Facility & Segment		Master Plan	Existing ROW	Existing Lanes	Proposed ROW	Proposed Lanes	Bike Routes
From	To	Road #	(ft)		(ft)		Figure 5
Wisteria Drive							
Father Hurley Boulevard	Germantown Road	B-2	80	4-D	80	4-D	
Germantown Road	Crystal Rock Drive	B-2	80	4-D	80	4-D	PB-26
Crystal Rock Drive	Great Seneca Highway	A-74	80	2	80	4-D	PB-26
New Road							
Century Boulevard	Crystal Rock Drive	B-17	N/A	N/A	80	2	
New Road							
Crystal Rock Drive	Century Boulevard	B-18	N/A	N/A	80	2	
Century Boulevard	New Road (B-19)	B-18	N/A	N/A	80	2	
New Road							
Seneca Meadows Road	Century Boulevard	B-19	N/A	N/A	100	4-D	PB-3
Century Boulevard	Crystal Rock Drive	B-19	N/A	N/A	100	4	PB-3
*The number of lanes column under the proposed system is the total number of planned through lanes for each segment in both directions, not including lanes for turning, parking, accelerations, or other purposes auxiliary to through travel.							

Public Transportation

Germantown has several forms of public transportation for the community. MARC and Ride On buses give residents options for traveling throughout the county.

The Brunswick line of the MARC commuter rail service has a train station located in Germantown between Middlebrook Road and Dawson Farm Road as seen in **Figure 2**. There are nine MARC trains that stop at Germantown. Currently, there is a free paved parking lot to either side of the railroad tracks allowing riders to park their cars all day. From April 2005 to April 2006 there were 729 people on an average daily basis riding MARC from the Germantown station. This is one of several stops along the Brunswick line providing weekday commuters the ability to travel from Germantown to Silver Spring or to Washington D.C. to work. Some commuters use the MARC train to transfer to the Rockville Metro Station or the Silver Spring Metro Station and continue their commute by Metro. By 2015, MARC plans to add 3,800 new seats to the Brunswick Line and build a parking garage near the MARC station to accommodate these commuters.

The Corridor Cities Transitway (CCT) as seen in **Figure 3** is a master-planned public transportation system that will either be light rail transit or bus rapid transit between the Shady Grove Metro Station and Frederick County by way of

Washingtonian, Quince Orchard, Metropolitan Grove, Germantown, and Clarksburg. The western alignment of the CCT within Germantown is under current study by the Maryland Transit Administration (MTA), as shown in **Figure 2**. At the time of this Plan draft, the MTA draft Environmental Assessment was not yet released nor had a decision been made regarding the mode of the CCT. As part of this master plan, the Middlebrook Road CCT transit station is being removed. This proposed station serves a limited commercial area, which is not suitable for transit-oriented development due in part to its size, shape, and topographic constraints. Removing a low-priority and low-volume station from the CCT Master Plan Alignment would improve overall transit line speeds, and therefore boost ridership.

Multi-modal accessibility is paramount in ensuring that the CCT is a viable facility with ridership levels competitive for federal funding. This Plan makes the following recommendations regarding CCT station facilities:

- Development at the Germantown Town Center station should accommodate 9 bus bays to facilitate the pulse-type of transfer currently associated with Ride-On Route 100 service.
- The Cloverleaf and Observation Drive/Seneca Meadow stations should be planned to have adjacent on-street bus stops.

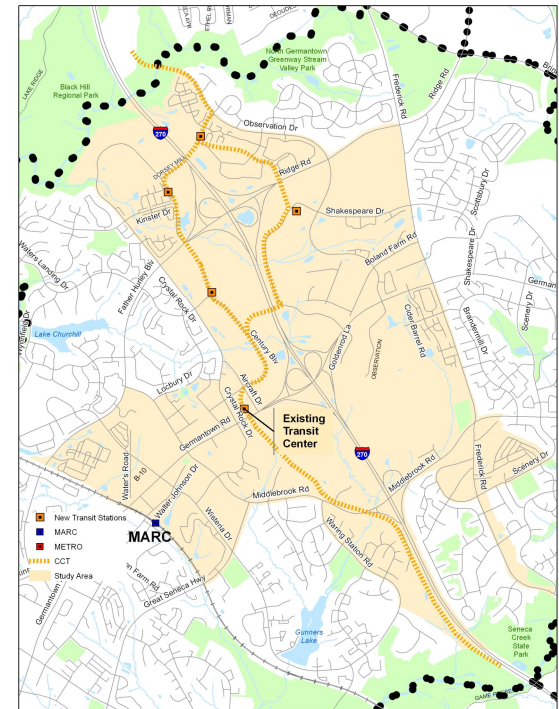


Figure 2. MARC and Transit stations.

- Development at the Dorsey Mill and Manekin stations, adjacent to the proposed new I-270 access ramps should each be planned to accommodate 500 parking spaces, 10 kiss-and-ride spaces, and 4 bus bays.

Germantown Town Center has a transit station located along Crystal Rock Road with a free paved parking lot behind the transit center. The County's Ride On bus services allow commuters to travel from Germantown to Bethesda, Shady Grove,

Gaithersburg, and Rockville. Currently, there are eleven Ride On bus routes that travel throughout the area with six routes having a final stop at the Transit Center. Additional parking is currently needed near the transit center and will be needed in the future with the future CCT. **Table 3** contains more details about ridership on each route that travels in the study area.

Figure 3:
Corridor Cities Transitway (CCT)

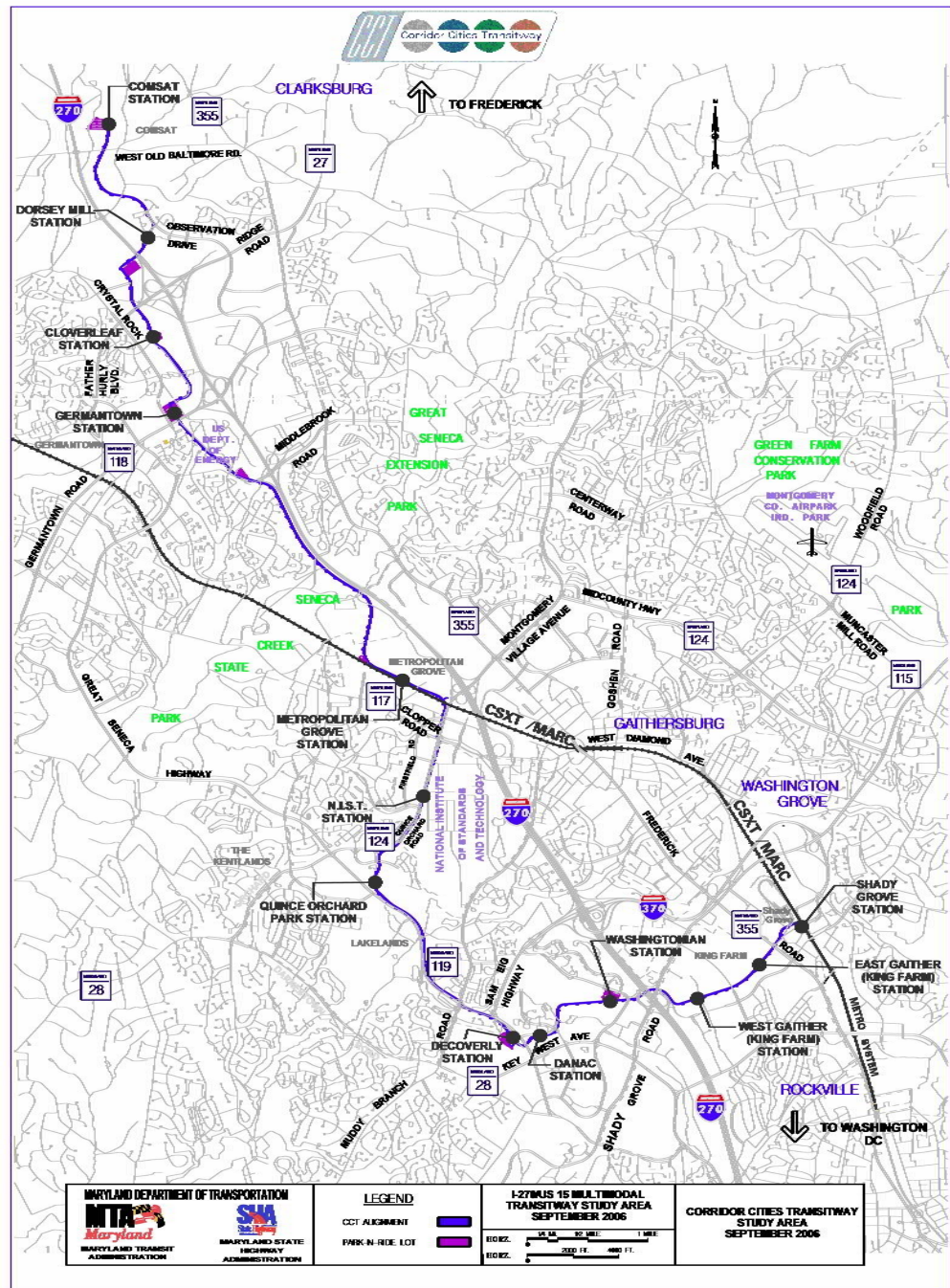


TABLE 3

Facility & Segment		Type	Trains /day	Avg	Headway	Bike Routes	Road Inventory
From	To			Daily Riders			
MARC Brunswick Line							
Martinsburg, WV	Washington D.C.	Commuter Rail	9	7,122			
Germantown stop		Commuter Rail	9	729			
Ride On Route 55							
Rockville	Germantown Transit Center	Bus	N/A	6,890			Table 2
Ride On Route 61							
Shady Grove	Germantown Transit Center	Bus	N/A	2,639		Table 5	Table 2
Ride On Route 70 Express							
Milestone Park and Ride	Bethesda	Bus	N/A	593		Table 5	Table 2
Ride On Route 74							
Shady Grove	Germantown Transit Center	Bus	N/A	751		Table 5	Table 2
Ride On Route 75							
Clarksburg Correctional Facility	Germantown Transit Center	Bus	N/A	233		Table 5	Table 2
Ride On Route 79							
Shady Grove	Germantown	Bus	N/A	133		Table 5	Table 2
Ride On Route 82							
Clarksburg Town Center	Germantown Transit Center	Bus	N/A	77		Table 5	Table 2

TABLE 3

Facility & Segment		Type	Trains /day	Avg	Headway	Bike Routes	Road
From	To			Daily Riders			Inventory
Ride On Route 83							
Germantown Transit Center	Milestone Park and Ride	Bus	N/A	696			Table 2
Ride On Route 90							
Shady Grove	Damascus	Bus	N/A	843		Table 5	Table 2
Damascus	Milestone Park and Ride	Bus	N/A	843		Table 5	Table 2
Ride On Route 97							
Germantown Transit Center	Gunners Lake	Bus	N/A	703		Table 5	Table 2
Ride On Route 98							
Germantown Transit Center	Seabreeze Court	Bus	N/A	360		Table 5	Table 2
Ride On Route 100 Express							
Shady Grove	Germantown Transit Center	Bus	N/A	1,632		Table 5	Table 2
Corridor Cities Transitway							
		Proposed	N/A				

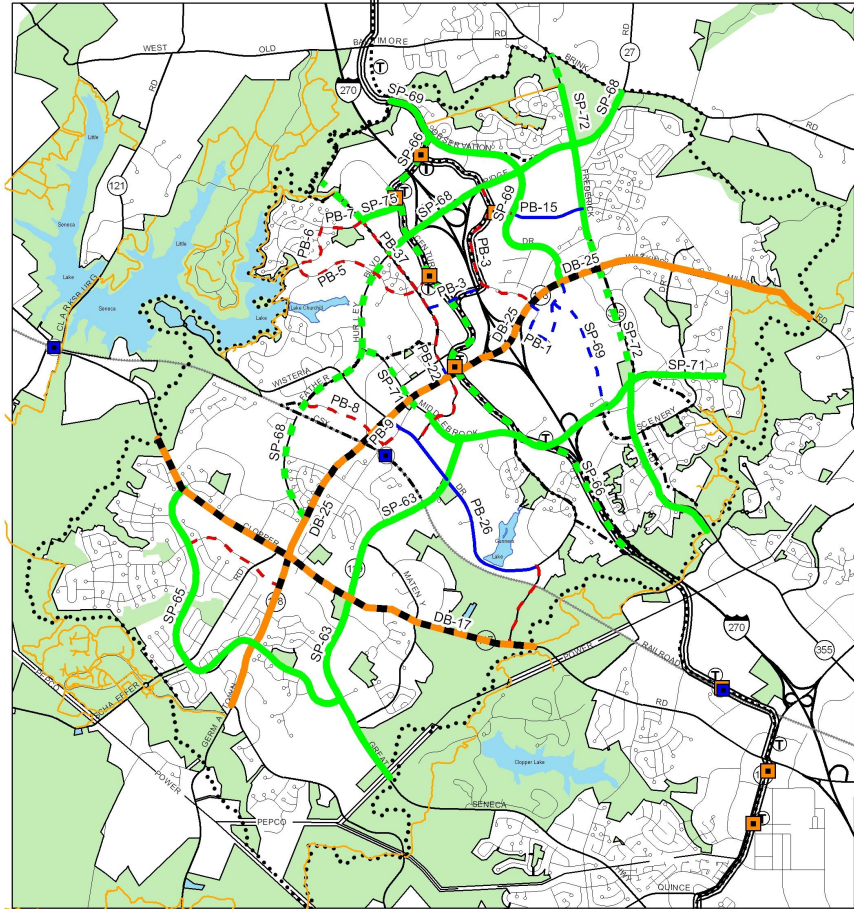
Bicycle System

Germantown study area includes a network of existing and planned bicycle facilities, including shared use paths, shared use roads, and park trails. A hard surface trail system along Great Seneca Creek is proposed to allow recreational cyclists and walkers to travel from Seneca Greenway to Damascus using the Magruder Trail via the North Germantown Greenbelt and through Clarksburg per *Countywide Park Trails Plan*, July 1998. This plan also proposes that the existing Seneca Greenway Trail have the natural surface trail extended. A hard surface trail should be provided connecting from the trailhead parking lot on MD 355 to the proposed Upcounty Corridor. The access roadway from Century Boulevard to Black Hill Regional Park should be removed due to environmental concerns, although an unpaved trail connection should be retained. **Table 4** contains information from *Montgomery County Countywide Bikeway Plan*, March 2005 for the study area. **Figure 4** shows the existing bicycle facilities for the study area.

Although, this Master Plan does not explicitly recommend sidewalks and pedestrian facilities, it is an important part of connectivity in the area to transit stations, residential, and commercial areas. One connection that is of particular interest is a missing connection from Pinnacle Drive to Celebration Way. As part of the Road Construction Code, design elements should foster pedestrian-

oriented design, particularly in the urban areas of the plan. In certain neighborhoods, specific pedestrian pathways are recommended to facilitate access to the town center and transit station areas.

Proposed Bikeways



- Countywide Shared Use Path / Off-Road (Class 1) Existing
- - - Countywide Shared Use Path / Off-Road (Class 1) Proposed
- - - Countywide Signed Shared Roadway / On-Road (Class 3) Proposed
- Countywide Dual Bikeway: Shared Use Path Existing / Signed Shared Roadway Proposed
- - - Countywide Dual Bikeway: Shared Use Path Proposed / Signed Shared Roadway Proposed
- Local Shared Use Path / Off-Road (Class 1) Existing
- - - Local Shared Use Path / Off-Road (Class 1) Proposed
- - - Local Signed Shared Roadway / On-Road (Class 3) Proposed
- Existing Trail
- - - Proposed Trails
- Transitway
- 1989 Planning Area Boundary
- Study Area

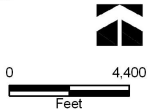


Figure 4: Proposed Bikeways

Table 4: Bicycle Inventory		Master		
Facility & Segment		Plan	Existing	Proposed
From	To	Bike #	Type	Type
Black Hill Regional Bikeway West				
Newcut Rd	South Germantown Recreational Park	PB-11	N/A	Shared use path
Black Hill Regional Bikeway East				
Black Hill Regional Bikeway West	Crystal Rock Dr	PB-14	N/A	Shared use path
Bowman Mill Rd				
Walter Johnson Dr	Water's Rd (B-5)	PB-9	N/A	Local Signed Shared Roadway / On-Road (Class 3) Proposed
Water's Rd (B-5)	Father Hurley Blvd	PB-9	N/A	
Century Blvd				
Proposed Dorsey Mill Rd (B-14)	Aircraft Dr	SP-66	N/A	Shared use path
Cloverleaf Center Dr				
Century Blvd	Crystal Rock Dr	PB-4	N/A	Shared use path
Corridor Cities Transitway				
Shady Grove Metro Station	Clarksburg Town Center	SP-66	N/A	Shared use path
Crystal Rock Dr (CO 5430)				
Wisteria Dr	Germantown Rd	PB-8	N/A	Local Signed Shared Roadway / On-Road (Class 3) Proposed
Germantown Rd	Century Blvd	PB-22	N/A	Shared use path
Century Blvd	Kinster Dr	PB-37	N/A	Shared use roadway
Kinster Dr	Black Hill Regional Bikeway Trail	SP-75	N/A	Shared use path
SP = Shared Use Path; DB = Dual Bikeway, which is a shared use path signed shared roadway; PB = Proposed bikeway; SR = Shared roadway;				

Table 4: Bicycle Inventory		Master		
Facility & Segment		Plan	Existing	Proposed
From	To	Bike #	Type	Type
Father Hurley Blvd (CO 9013)				
Wisteria Dr	I-270	SP-68	Shared use path	Shared use path
Frederick Rd (MD 355)				
Little Seneca Creek	Boland Farm Rd	SP-72	Shared use path	Shared use path
Boland Farm Rd	Middlebrook Rd	SP-72	N/A	Shared use path
Middlebrook Rd	Seneca Creek Park	SP-72	Shared use path	Shared use path
Germantown Rd (MD 118)				
CSX tracks	Frederick Rd (MD 355)	DB-25	N/A	Countywide Dual Bikeway: Shared Use Path Proposed / Signed Shared Roadway Proposed
Goldenrod La				
Germantown Rd	End of road	PB-1	N/A	Local Signed Shared Roadway / On-Road (Class 3) Proposed
End of road	Cider Press Road	PB-2	N/A	
Great Seneca Hwy (MD 117)				
Middlebrook Rd	CSX tracks	SP-63	Shared use path	Shared use path
Kinster Dr				
Century Blvd	Crystal Rock Dr	SP-75	Shared use path	Shared use path
SP = Shared Use Path; DB = Dual Bikeway, which is a shared use path signed shared roadway; PB = Proposed bikeway; SR = Shared roadway;				

Table 4: Bicycle Inventory		Master		
Facility & Segment		Plan	Existing	Proposed
From	To	Bike #	Type	Type
Middlebrook Rd				
Father Hurley Blvd	Crystal Rock Dr	SP-71	N/A	Shared use path
Crystal Rock Dr	Frederick Road (MD 355)	SP-71	Shared use path	Shared use path
Observation Dr				
Little Seneca Creek	Dorsey Mill Rd	SP-69	N/A	Shared use path
Dorsey Mill Rd	Germantown Rd	SP-69	Shared use path	Shared use path
Germantown Rd	New Road (A-19)	SP-69	N/A	Shared use path
New Road (A-19)	End of Observation	PB-2	N/A	Local Shared Use Path / Off-Road (Class 1) Proposed
Ridge Rd (MD 27)				
I-270	Frederick Rd (MD 355)	SP-68	Shared use path	Shared use path
Seneca Meadows Rd				
Observation Dr	Germantown Rd	PB-3	N/A	Local Signed Shared Roadway / On-Road (Class 3) Proposed
Shakespeare Blvd				
Observation Dr	Frederick Rd (MD 355)	PB-15	Shared use path	Shared use path
Waring Station Rd				
Wisteria Dr	1250' north of Clopper Rd	PB-36	N/A	Shared use roadway
SP = Shared Use Path; DB = Dual Bikeway, which is a shared use path signed shared roadway; PB = Proposed bikeway; SR = Shared roadway;				

Table 4: Bicycle Inventory		Master		
Facility & Segment		Plan	Existing	Proposed
From	To	Bike #	Type	Type
Walter Johnson Dr				
CSX tracks	Wisteria Dr	PB-9	N/A	Local Signed Shared Roadway / On-Road (Class 3) Proposed
Wisteria Dr				
Germantown Rd	Waring Station Rd	PB-26	Shared use path	Shared use path
New Road				
Observation Dr	Middlebrook Rd	SP-69	N/A	Local Shared Use Path / Off-Road (Class 1) Proposed
New Road				
Seneca Meadows Rd	Ridge Rd	PB-10	N/A	Local Signed Shared Roadway / On-Road (Class 3) Proposed
SP = Shared Use Path; DB = Dual Bikeway, which is a shared use path signed shared roadway; PB = Proposed bikeway; SR = Shared roadway;				

APPENDIX 7: ENVIRONMENTAL RESOURCES ANALYSIS

Environmental Planning, Countywide Planning Division, 2008

Vision

The Germantown study area consists of well designed and strategically located open spaces connected by tree-shaded walks, streets and greenways. Green design is integrated into the built environment, making Germantown a desirable community in which to live, work, and shop. Stormwater impacts are mitigated through vegetated riparian buffers, green roofs, bioretention areas, and urban tree canopy. Developed areas are supported by an environmental infrastructure comprising an interconnected system of public and private lands that contain significant areas of forest, wetlands, water supply reservoirs, wildlife habitat, prime agricultural lands, and other sensitive areas with minimal intrusions from land development, light and noise pollution.

Background

The Germantown study area is located in upper central Montgomery County, Maryland, and falls within two watersheds: the Great Seneca Creek watershed and the Little Seneca Creek watershed (see Figure 1 – Watersheds). This chapter includes a description and evaluation of the environmental features included in these two watersheds and includes recommendations for their protection and

restoration. For more detailed information on the existing conditions and environmental policy affecting the environmental features discussed, readers are encouraged to review the *Seneca Creek Environmental Resources Inventory* (April 2007), available online.

Forest Resources and Urban Tree Canopy

As with any urbanized community, the environmental and economic value of natural resources such as forests is often overlooked. Forests improve air and water quality, provide wildlife habitat, moderate summer temperatures and buffer winter winds, afford recreational opportunities, and improve community aesthetics. From an economic point of view, urban tree canopy can decrease heating and cooling costs, decrease costs related to clearing, grading and maintaining lawns of large developments, reduce costs associated with stormwater management, and increase property values.²

In the Germantown study area, forests cover about 340 acres, or approximately 14 percent of the total study area.

² Cappiella, K., Schueler, T., and T. Wright. 2005. *Urban Watershed Forestry Manual Part 1: Methods for Increasing Forest Cover in a Watershed*. USDA Forest Service, Newtown Square, PA. Also available online at: www.cwp.org/forestry/index.htm.

Urban Tree Canopy

Individual trees or landscaped areas consisting of large trees can also play a vital role in urban areas by reducing urban heat island effect, mitigating stormwater runoff, and improving air quality. And while a forested buffer 100 feet in width along a stream is of greater value than individual trees interspersed along the same stream, the importance that individual trees play should also not be ignored.

Approximately 172 acres of urban tree canopy exists within the study area that does not meet the definition of forests. If the forest and tree areas are combined, the total amount of forest and urban tree canopy within the planning area is 512 acres, or about 20 percent of the study area is covered by trees.

In a 2003 study of Montgomery County, Goetz and others determined that watershed tree cover greater than 45 percent was correlated with good and excellent stream health, as measured by biological indicators. American Forests, a national nonprofit that specializes in urban forestry, suggests that a goal of 40 percent canopy cover in urban areas is achievable.

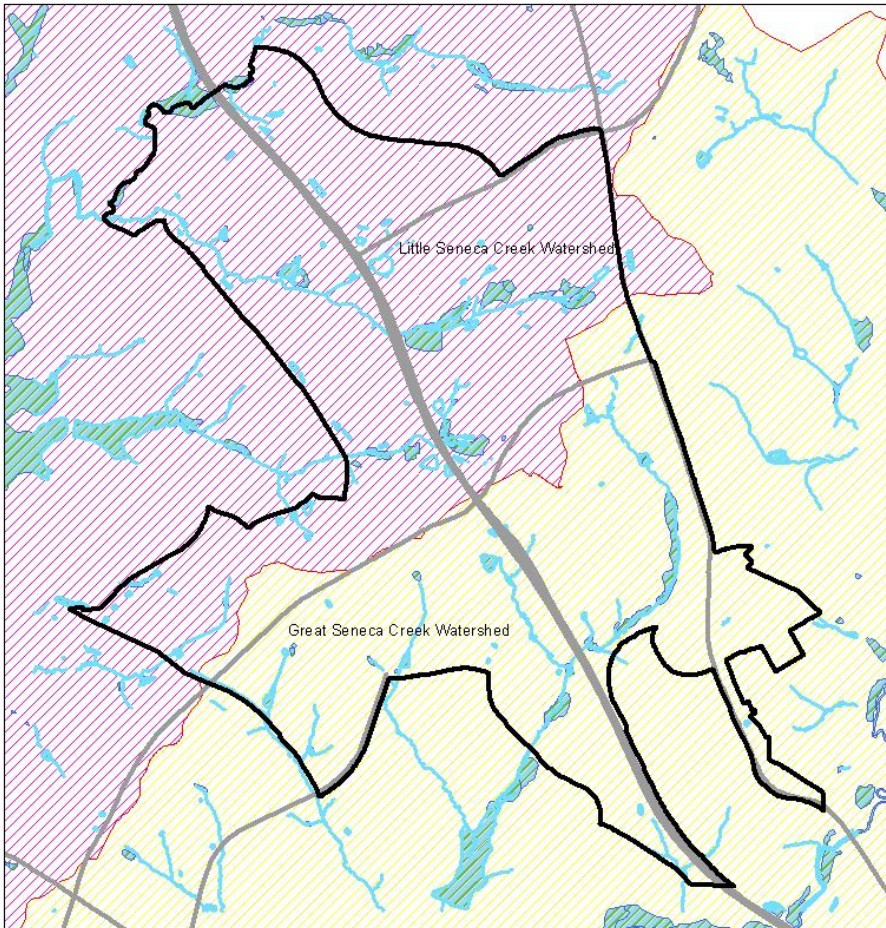


Figure 1: Watersheds

Recommendations:

- Protect existing forest resources on developable properties to prevent fragmentation of upland forests particularly on the Montgomery County Community College campus and in the northern part of the study area.
- Increase overall forest and urban tree canopy goal of 40 percent over the next 30 years for the Germantown study area.
 - Identify opportunities for forest restoration along streams and wetlands and target mitigation efforts to these areas during the development review process, with an emphasis on connectivity to other forested buffers.
 - Enhance the natural environment in Germantown by creating green open spaces as part of landscaping and forest requirements and encourage tree plantings in such areas. Require tree protection plans, including soil enhancement and other techniques, to maximize planting success.
- Restore forested stream and wetland buffers on public properties and target public land acquisition programs to preserve, enhance or restore riparian buffers and special habitat areas.

Wetland Resources

Wetlands occur where the ground is regularly saturated by surface water or groundwater, resulting in vegetation that is adapted for life in saturated soil conditions. Some common types of wetlands include springs, seeps, marshes, swamps, bogs, and wet meadows. Often, they are located in close proximity to streams. The location of wetlands, coupled with their unique physical, chemical, and biological processes, allows them to provide important water quality and flood control functions, as well as valuable wildlife habitat.

As part of the *Seneca Creek Environmental Resources Inventory* conducted in 2007, Commission staff performed a wetland inventory and functional assessment within the boundaries of the Germantown study area. Most of the wetlands in the study area are concentrated in the headwaters (i.e., the uppermost part of a stream or the area just above the beginning of a stream) and floodplains of Middle Great Seneca and in many of the feeder tributaries along the eastern portion of the Little Seneca watershed. In total, it was found that wetlands account for approximately 88 acres, or just below 4 percent of the total acreage of the study area. Surveyed wetlands include the Germantown Bog, which is a Wetland of Special State Concern.

Commission staff conducted a functional assessment of each wetland's ability to perform

five different wetland functions: attenuation of flood flows; reduction in sediment and nutrient loads; groundwater discharge; provision of aquatic habitat; and provision of terrestrial habitat. Each wetland was then rated as "high, medium, or low" in terms of their ability to perform the five wetland functions. The highest quality wetlands within the study area are within or adjacent to large tracts of protected mature forested parkland. Although impacts from growth and other factors are contributing to biological and chemical changes, the overall functional ranking was determined to be high within these protected park corridors.

Also located throughout the study area are many stormwater management ponds that were constructed for the purposes of controlling stormwater runoff, as well as 'converted areas' that were natural or historic wetlands that are now tilled, grazed, or planted. The latter are areas that are potentially good candidates for wetland restoration or mitigation projects and have been documented in the *Seneca Creek Environmental Resources Inventory*.

Recommendations:

- Protect wetlands and their associated buffers – including springs and seeps – through the application of conservation easements during the development review process.

- Restore and/or enhance such wetlands by fencing, creating natural buffers, or other techniques whenever possible.
- Direct wetland mitigation within the Germantown study area using the criteria identified in the *Seneca Creek Environmental Resources Inventory*.

Water Quality and Stormwater Management

The Germantown study area falls within the Great Seneca Creek and the Little Seneca Creek watersheds. Water quality conditions have been monitored as part of the Montgomery County Countywide Stream Protections Strategy (CSPS). Baseline monitoring done in the 1990s indicated largely good to fair water quality in subwatersheds within the Germantown study area. Subsequent CSPS monitoring conducted in 2006 indicates declining water quality, with good subwatersheds now ranking as fair, and many fair subwatersheds slipping to poor water quality.

A 2003 CSPS report produced by Montgomery County’s Department of Environmental Protection identified increasing impervious surfaces, inadequate stormwater management facilities, and piped headwater streams as the greatest impairments to stream conditions in urbanized areas such as the Germantown study area. Roads, parking areas, buildings, and surrounding lawns are all examples of impervious surfaces because they inhibit rainwater’s ability to soak into

the ground. As a result, additional impervious surface increases stormwater runoff and decreases groundwater replenishment.

Increased stormwater runoff not only makes streams more susceptible to flooding during storm events, but it also increases the flow of pollutants such as as nitrogen, phosphorous, sediments, heavy metals, and toxins into our stream systems. Higher and faster water volumes during storm events also increase stream bank erosion and can destabilize streams. Development and redevelopment efforts within the study area present opportunities to incorporate stormwater management with today’s more stringent standards; it also provides opportunities for stream restoration work in the Great Seneca Creek and Little Seneca Creek watersheds. In addition, development and redevelopment efforts provide the opportunity for the incorporation of environmentally sensitive design techniques that reduce impervious surface and provide for on-site treatment of stormwater runoff.

Recommendations:

- Use environmentally sensitive design stormwater techniques such as green roofs, rain gardens, innovative stormwater outfalls, underground stormwater management, green streets, cisterns, rain barrels, grass swales, and stream

restoration to the fullest extent possible during the development review process.

- Minimize the number of parking spaces and provide for alternative parking methods that reduce the area of impervious surfaces.
- Reduce the area of impervious surfaces during redevelopment projects.
 - Where development proposals contain extensive areas of impervious surfaces (e.g., parking lots, pavement, buildings), use innovative methods or technologies, such as porous pavement and concrete, to allow some water from these areas to infiltrate.
- Wherever possible, conserve existing forest and urban tree canopy to lessen the deterioration of watershed health from the impacts of urbanization.
- Target street tree plantings where the addition of tree canopy may help slow down peak runoff flows, and mitigate temperature effects of runoff traversing hot impervious surfaces before entering natural stream environments.
- Implement stormwater retrofit and stream restoration projects to help manage or remediate impacts of uncontrolled impervious areas.
- Encourage the application of innovative stormwater control measures in reducing new development and redevelopment

impacts on streams. Seek ways to further reduce losses of natural vegetation and topsoil and reduce impervious or compacted land surfaces that result from current land development standards for subdivisions, roads and sidewalks, utilities, parking lots, and individual buildings.

- Upon completion, implement recommendations from the county's Great Seneca Creek watershed restoration study to identify and prioritize restoration, retrofit, and low-impact development opportunities within the planning area.
- Upon completion, implement recommendations of the Water Quality Functional Master Plan for Montgomery County. Due to the fact that the Water Quality plan implements measures required by state legislation, recommendations of the Water Quality plan may supercede recommendations of this and other Master Plans.

Greening the Built Environment

In 2006, the Montgomery County Council approved legislation requiring county-built or funded nonresidential buildings to achieve a LEED (Leadership in Energy and Environmental Design) silver rating, and private nonresidential or multifamily buildings to achieve a LEED certified rating. In order to achieve a LEED rating, buildings

must incorporate certain criteria that positively impact the energy and environmental characteristics of a building, including sustainability of a site, water efficiency, energy efficiency, materials and resources. This law applies to any newly constructed or extensively modified nonresidential or multifamily residential building with at least 10,000 square feet of gross floor area.

In addition to green building design, building a greener urban community requires better understanding and integration of the natural and built environments by ensuring that parks, trails, forests, green spaces, and other important environmental features are included in growth management strategies for the Germantown study area.

Recommendations:

Redevelop Germantown using green community principles.

- Encourage the addition of new and expansion of existing green spaces, including trees to shade paved surfaces and stormwater management practices such as green roofs, rain gardens, bioswales and cisterns that encourage groundwater recharge.
- Encourage green building practices, including the use of recyclable materials, solar power and other forms of energy efficiency.

- Minimize the development of open space by taking advantage of existing brownfields, developing previously disturbed lands, and retrofitting existing buildings.
- Minimize habitat disturbances and improve the habitat for indigenous species through restoring stream systems and riparian stream buffers, and controlling erosion through improved landscape practices.
- Reduce the transportation energy intensity of buildings through transit-oriented development that also improves walkability and bicycle accessibility, traffic calming, and connectivity.
- When completed, implement recommendations of the Green Infrastructure Functional Master Plan.
- When completed, implement recommendations of the Energy and Environment Functional Master Plan.

Air Quality

The Washington Metropolitan region, including the Germantown study area, has been identified as a non-attainment area for ground-level ozone and fine particulate matter (PM_{2.5}). Ground-level ozone has been a persistent problem in the region for many decades. It is an invisible gas formed on hot summer days when volatile organic compounds (VOC) and nitrogen oxides (NOx) react chemically in the presence of sunlight and heat. Exposure to excessive levels of ground-level ozone and fine

particulate matter can pose health risks to vulnerable populations such as children, the elderly, people with chronic upper respiratory ailments such as asthma and bronchitis, and those with existing heart and lung conditions. The primary sources of these pollutants are (coal-fired) power plants and other industries, motor vehicles, small gasoline-powered engines, and small businesses using solvents, cleaning solutions, paints, and insecticides. Motor vehicles alone account for 30 percent to 40 percent of the pollutants that cause ground-level ozone in the metropolitan region.

Recommendations:

- Design development and redevelopment projects to minimize the need for motor vehicle trips and to prevent conditions that may create local air pollution nuisances.
- Provide an improved, continuous network of sidewalks and bikeways throughout the Germantown study planning area, and in particular between the MARC Station and Town Center. This should be designed to avoid disturbance of natural resources.
- Provide transit incentives to minimize single-occupant vehicle travel.
- Enhance bus services by including new routes, increasing bus frequency, improving pedestrian access to transit stops, and more bus shelters.

- Provide park-and-ride lots along major roads for carpools, vanpools, and transit users.

Noise

Noise is generally defined as any form of unwanted sound. Excessive noise is an environmental health problem that can interfere with sleep, disrupt speech, cause psychological stress, and degrade the quality of life. The amount of noise transmitted can vary considerably due to elevation, the existence of barriers, and project design. Mobile sources of noise in the study area include traffic-generated noise along major roadways such as I-270, MD 118, MD 117, Frederick Road, and the CSX railway. The proposed Corridor Cities Transitway will also contribute noise to surrounding areas.

Local government agencies are responsible for controlling noise in Montgomery County. The Montgomery County Department of Environmental Protection (DEP) enforces the Noise Ordinance, which regulates stationary sources such as heating and air conditioning units, construction activities, noise producing land uses, and neighborhood annoyances, while the Planning Board uses master plans and regulatory review to implement noise reduction strategies and protect residential properties from mobile sources. Strategies to reduce adverse noise impacts from new development and redevelopment include

compatible land uses, buffers, and external and internal mitigation techniques.

Recommendations:

- Support noise-compatible site design for projects located adjacent to existing and proposed noise generators and roadways of arterial classification or greater.
- Place new residential uses farther away from areas of excessive noise.
- Incorporate compliance with the Adopted County Noise Control Ordinance (Chapter 31B of the County Code).
- Require compliance with the Planning Board's *Staff Guidelines for the Consideration of Transportation Noise Impacts in Land Use Planning and Development*.
- Evaluate development and redevelopment proposals using Phase I noise studies and noise models.
- Provide for the use of approved attenuation measures when noise issues are identified.

APPENDIX 8: RECREATION NEEDS

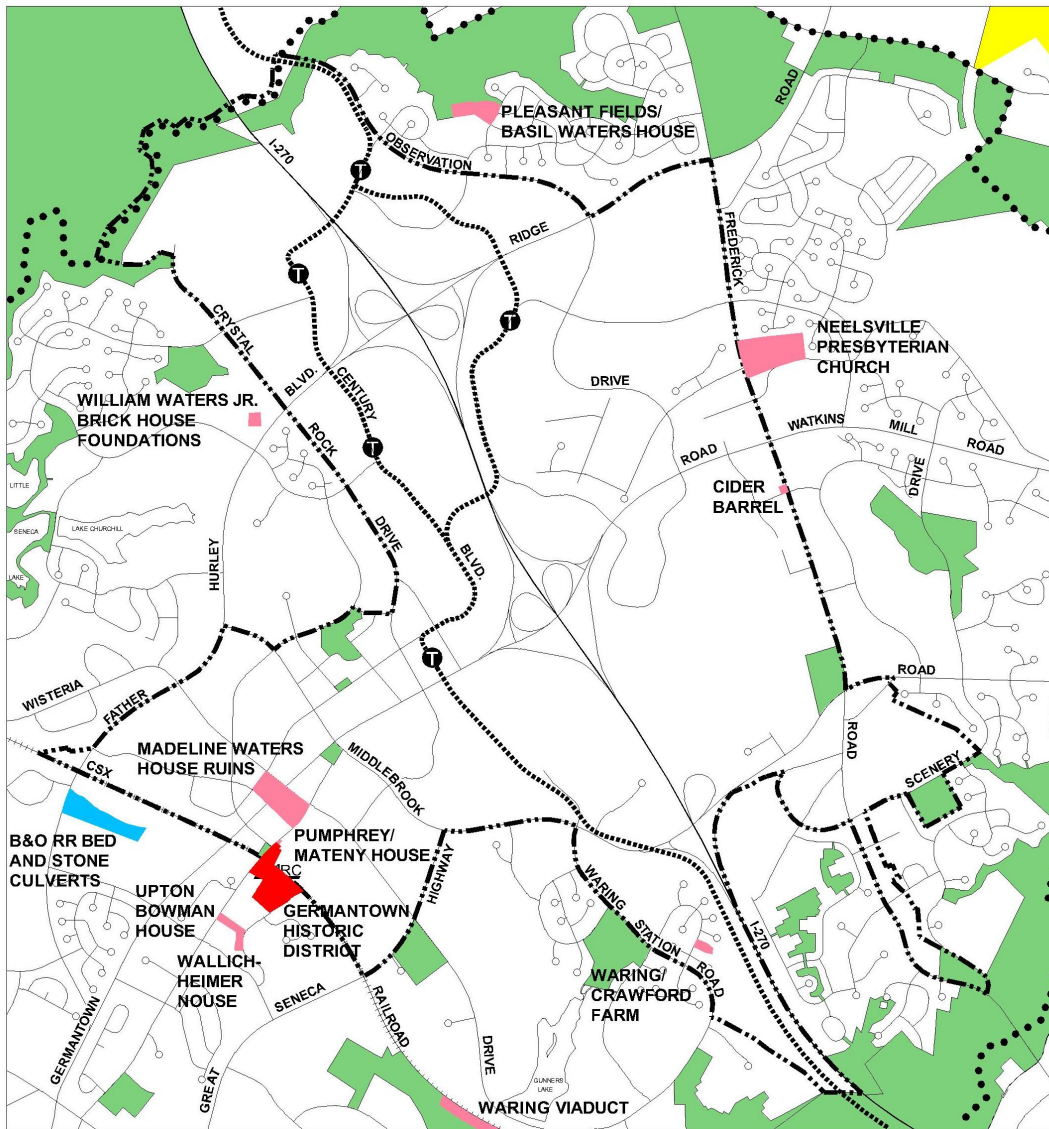
Department of Recreation, Montgomery County, December 2007

Currently, the Germantown area is served by several public recreation facilities. The Germantown Community Recreation Center and Germantown Outdoor Pool were built on a single site in combination with the Kings View Middle School. The site includes outdoor recreation facilities and is located southwest and outside of the study area. The Germantown Indoor Pool, located at South Germantown Regional Park is a large full service aquatic facility drawing from a regional audience. The last facility is the Plum Gar Neighborhood Recreation Center situated at the farthest southeast corner of the study area. An additional small facility is also operated near the intersection of MD 355 & Middlebrooke Rd. by the Boys and Girls Club.

Based on the population of Germantown as well as the increased development of the mixed use “town center” areas, there is a significant need to locate additional community serving recreation facilities in this vicinity. Geographically, sites in the central and northeastern sections of Germantown would be most complimentary to the existing facilities and serve both the “in-town” urban center residents in the vicinity of the Transit Corridor and those in growth areas north and east of the core study area.

Facilities would generally take the form of a multipurpose building blending community service with active and passive recreation/leisure activities. Service populations include all ages – Preschool thru Senior from a surrounding 30,000 minimum resident area. By taking advantage of the future development it may be possible to integrate facilities into the initial conceptual design of some mixed use parcels. It may even be possible to conceive of a full service facility including outdoor features at the eastern edge of the Germantown community and a “downtown annex” in the Milestone/I-270 area that would provide residents of the higher density central sections with smaller facility focused on basic key recreational elements.

RECOMMENDATION : M-NCPPC should work closely with the Department of Recreation to incorporate community recreational facilities into a detailed land use plan for the further development of Germantown.



X:\A3\GTD\N\HistoricResources.dwg (historic.ctb)

- Locational Atlas Potential Historic Resources
- Master Plan Designated Historic Sites
- Master Plan Designated Historic Districts
- Master Plan Proposed Historic Sites

- Germantown Planning Area
- Germantown Study Area
- Proposed Corridor Cities
- Transitway and Stations
- MARC Commuter Train



Map 1: Historic Resources

APPENDIX 9: HISTORIC PRESERVATION ELEMENTS

Historic Preservation, Countywide Planning Division, 2008

Objective

The intent of the County's preservation program is to provide a rational system for evaluating, protecting, and enhancing the County's historic and architectural heritage for the benefit of present and future generations. It serves to highlight the values that are important in maintaining the individual character of the County and its communities.

Summary

Historic resources within the boundaries of this Germantown plan were designated in 1989 in the Approved and Adopted Germantown Master Plan. Other historic resources in the Germantown Planning Area were designated in the following documents: the 1989 Germantown Master Plan, the *Amendment to the Historic Preservation Master Plan: Individual Historic Resources* (currently a Planning Board Draft of May 2008) and the 1979 *Master Plan for Historic Preservation*.

As a result of these Master Plan Processes, a total of 48 historic sites have been designated on the *Master Plan for Historic Preservation* and two sites are recommended for the same Master Plan designation.

Table 1 provides a summary of Germantown's historic resources and Map 1 gives the general location of these properties. This section contains a description and a photograph or map of each master plan site, organized chronologically. The section also includes an explanation of the historic preservation designation and the effects of historic site designation.

Montgomery County Historic Preservation Program

The *Master Plan for Historic Preservation* and the *Historic Preservation Ordinance*, Chapter 24A of the Montgomery County Code, are designed to protect and preserve Montgomery County's historic and architectural heritage. Placement on the *Master Plan for Historic Preservation* officially designates the property as a historic site or historic district and subjects it to further procedural requirements of the ordinance.

Designation of historic sites and districts serves to highlight the values that are important in maintaining the individual character of the County and its communities. It is the intent of the County's preservation program to provide a rational system for evaluating, protecting, and enhancing the County's historic and architectural heritage for the benefit of present and future generations. The accompanying challenge is to weave protection of this heritage into the County's

planning program to maximize community support for preservation and minimize infringement on private property rights.

The following criteria, as stated in Section 24A-3 of the *Historic Preservation Ordinance*, shall apply when historic resources are evaluated for designation in the *Master Plan for Historic Preservation*.

(1) Historical and cultural significance:

The historic resource:

- Has character, interest, or value as part of the development, heritage or cultural characteristics of the County, State, or Nation;
- Is the site of a significant historic event;
- Is identified with a person or a group of persons who influenced society; or
- Exemplifies the cultural, economic, social, political or historic heritage of the County and its communities; or

(2) Architectural and design significance:

The historic resource:

- Embodies the distinctive characteristics of a type, period, or method of construction;
- Represents the work of a master;
- Possesses high artistic values;

- Represents a significant and distinguishable entity whose components may lack individual distinction; or
- Represents an established and familiar visual feature of the neighborhood, Community, or County due to its singular physical characteristic or landscape.

Implementing the Master Plan for Historic Preservation

Once designated on the *Master Plan for Historic Preservation*, historic resources are subject to the protection of the County’s Historic Preservation Ordinance, Chapter 24A. Any substantial changes to the exterior of a resource or its environmental setting must be reviewed by the Historic Preservation Commission (HPC) and a historic area work permit issued under the provisions of the Ordinance, Section 24A-6. In accordance with the *Master Plan for Historic Preservation* and unless otherwise specified in the amendment, the environmental setting for each site, as defined in Section 24A-2 of the Ordinance, is the entire parcel on which the resource is located as of the date it is designated on the master plan.

Designating the entire parcel provides the County adequate review authority to preserve historic sites in the event of development. It also ensures that, from the beginning of the development process, important features of these sites are recognized and incorporated in the future

development of designated properties. In the case of large acreage parcels, the amendment will provide general guidance for the refinement of the setting by indicating when the setting is subject to reduction in the event of development; by describing an appropriate area to preserve the integrity of the resource; and by identifying buildings and features associated with the site that should be protected as part of the setting. It is anticipated that for a majority of the sites designated, the appropriate point at which to refine the environmental setting will be when the property is subdivided.

Public improvements can profoundly affect the integrity of a historic area. Section 24A-6 of the Ordinance states that a Historic Area Work Permit for public or private property must be issued prior to altering a historic resource or its environmental setting. The design of public facilities in the vicinity of historic resources should be sensitive to and maintain the character of the area. Specific design considerations should be reflected as part of the Mandatory Referral review processes.

In the majority of cases, decisions regarding preservation alternatives are made at the time of public facility implementation within the process established in Section 24A of the Ordinance. This method provides for adequate review by the public and governing agencies. To provide guidance in the event of future public facility implementation, the amendment addresses potential conflicts

existing at each site and suggests alternatives and recommendations to assist in balancing preservation with community needs.

In addition to protecting designated resources from unsympathetic alteration and insensitive redevelopment, the County's Preservation Ordinance also empowers the County's Department of Environmental Protection and the HPC to prevent the demolition of historic buildings through neglect.

The Montgomery County Council passed legislation in September 1984 to provide for a tax credit against County real property taxes in order to encourage the restoration and preservation of privately owned structures located in the County. The credit applies to all properties designated on the *Master Plan for Historic Preservation* (Chapter 52, Art. VI). Furthermore, the HPC maintains up-to-date information on the status of preservation incentives including tax credits, tax benefits possible through the granting of easements on historic properties, outright grants, and low interest loan programs.

Table 1: Germantown Historic Resources Historic Sites Designated on the *Master Plan for Historic Preservation*

Resource #	Resource Name	Address	Date
18/44	Little Seneca Viaduct*	Wisteria Drive Vicinity, Germantown	c1865; 1873; 1896
19/1	Pleasant Fields/Basil Waters House	21200 Waters Road/Milestone Manor Lane	c1790;1890
19/3	William Waters Jr. House Site	Between 20511 & 20553 Shadyside Way	c1785
19/5	Neelsville Presbyterian Church	20701 Frederick Road	1877
19/10	Waring Viaduct	B&O tracks at Great Seneca Creek	1906
19/11	Waring-Crawford Farm	19212 Forest Brook Road	c1850; c1885
19/13	Germantown Historic District	Liberty Mill Road & B&O Railroad Vicinity	c1878+
19/13-1	Madeline V. Waters House	12900 Wisteria Drive	1899-1902
19/13-5	Pumphrey-Mateney House	19401 Walter Johnson Road	c1883
19/13-6	Upton Bowman House	19219 Liberty Mill Road	c1901
19/13-7	Wallich-Heimer House	19120 Mateny Road	1913
19/19	Grusendorf Log House	Seneca State Park nr Visitor Center	c1841
19/21	Clopper Mill Ruins	Seneca State Park nr Clopper Road-Waring Station Road	c1795;1834
19/27	John H. Gassaway	17200 Riffle Ford Road	c1815; c1840; 1904
19/33	Cider Barrel	20410 Frederick Road	1926
19/40	Stone Culverts & Railroad Bed*	Harvest Glen Way Vicinity	c1873

*Recommended for designation on the Master Plan for Historic Preservation in the *Planning Board Draft Amendment to the Master Plan for Historic Preservation: Individual Historic Resources*, May 2008

APPENDIX 10: GERMANTOWN HISTORY

Park Planning & Stewardship Division, Department of Parks, and Historic Preservation, Countywide Planning Division, 2008

Boldface in text highlights extant resources which include the following:

1. *Historic sites designated on the Master Plan for Historic Preservation (identifiable by resource number with /, e.g. 19/13)*
2. *Cultural resources found in county parkland, not designated on the MPHP.*
3. *Archeological resource (identified with MO number, e.g. 18MO461)*

Some resources are in more than one of the above categories. More information about these sites is found within Appendix 11 and 12.

THEME 1: A NATIVE AMERICAN HUNTING GROUND (10,000 B.C. to 1607 A.D.)

For thousands of years the Germantown region hosted a variety of prehistoric peoples. Although no Paleo-Indian sites (10,000 B.C. to 9000 B.C.) are particular to the area, a few locations along the Potomac River and one in the Sandy Spring region have been associated with these Ice Age hunters who are identified by their fluted Clovis-like points and mega-fauna hunting practices. The Master Plan area would surely have been traversed and known to these nomads.

▼ After 9000 B.C., a warming and drying trend brought on the beginning of more modern environmental changes associated with the

Holocene era. A different prehistoric hunting and gathering tradition, called the Archaic Period, arose in the temperate climate and more modern flora and fauna which now covered the region. These Indians, too, were nomadic and, by the end of the Late Archaic Period, can be definitely placed in Germantown.

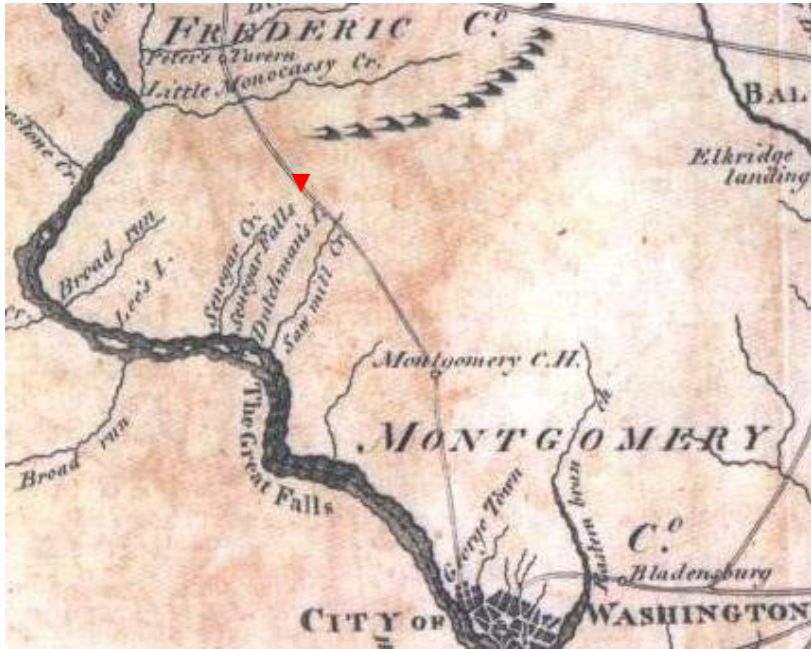
These were the Late Archaic broad-blade users who made the Savannah River and Susquehanna Broadspire points found in the **Kavanaugh III** (18MO182) and **Site 6** (18MO472) sites. The new side-notched shapes have been attributed to the introduction of the new *atlatl*, or spear thrower, which allowed for more force and distance. The Late Archaic Period was the height of the seasonal hunting and foraging pattern that would have focused more particularly on the resources of local creeks and streams. Broad-blade implements are thought to be specialized harpoons for fishing such as would have occurred in Seneca Creek. However, their users would also have gathered the starchy seeds and tubers of the wetlands and hunted the deer and other fauna that came there to feed.

Small mobile bands of between 50 and 100 people would most likely have visited the Master Plan area in the summer and fall when hunting

and gathering would have been at its best. Such Indians would have located their sites to exploit nut harvests, turkeys, and various vegetable foods, in addition to deer. Archaeologists have never discovered what type of structures these Archaic peoples made, but they were probably similar to the small round huts of later periods, usually covered with skins or woven reeds.

Late Archaic semi-permanent macro-band camps (100+ people) would have been located in areas of higher resource potential, mostly along the Fall Line, the geological break between the Coastal Plain (Prince George's County) and Montgomery County's Piedmont uplands. Their seasonal round would have taken them from such winter camps to springtime harvests in southern Maryland and back up into the western foothills again for the summer and fall.

The only evidence of Woodland or Agricultural Indians (1000 B.C. to 1607 A.D.) in the Germantown Master Plan area comes from known Indian paths. Modern Route 355 was part of the old "Sinequa" Indian trail that eventually wound its way to Point-of-Rocks. Seneca Creek was also named for the northern Seneca Indians who used that stream valley as a way south.



This 1795 map shows the Frederick-Georgetown Road, now Rt. 355, which followed part of an Indian trail. Senega Creek, shown here as Senegar Cr, was named for the Indians who used that stream to travel south. Germantown vicinity marked by ▼

Woodland villages have been discovered only in the Potomac Valley region of Montgomery County and its associated islands. However, earlier Indians would have also made use of the Germantown area solely to hunt and gather seasonal flora. Because such villages were abandoned about 100 years before European contact, archaeologists have no knowledge of any of their tribal affiliations, linguistic stocks, or even migration destinations.

When John Smith sailed up the Potomac in 1609, the Germantown area, along with the rest of Montgomery County, had become a sort of prehistoric no-man’s-land, buffering the Algonquians of southern Maryland against the

northern Iroquois (Seneca) and Susquahannocks and western Siouan and Shawnee tribes. The Susquahannocks and the Seneca were especially territorial about their rights to hunt in the region. It was the Susquahannocks who created the path that shows up on a 1716 map as the “Tehoggee Trail”, a rugged thoroughfare we now know as River Road. By this time, the Indians of Germantown and Montgomery County had long disappeared into prehistory.

THEME 2: THE WATERS FAMILY AND EARLY AGRARIAN FOUNDERS (18TH-20TH CENTURIES)

Although Montgomery County was formed out of Frederick County in 1776, the establishment of a

stable agrarian culture began much earlier. Europeans first took out land patents in the late 17th century. The earliest patents for the Germantown area were mostly in the mid-18th century. What had been the "old Sinequa" (Seneca) Indian path now led settlers west along what they called the "Great Road" (Route 355). They used the old Indian trail to roll their hogsheads (large barrels) of tobacco from their farms to the port of Georgetown.

The British settlers established the farming practices used in southern Maryland; a soil-depleting, slave-oriented tobacco culture. Most Montgomery County tobacco farms averaged only about three or four enslaved people, but some were larger. In the 1790s, upon their marriages, the three Waters brothers, Zachariah, William, Jr., and Basil, all were given land in what is now Germantown by their father, William, Sr. A stone boundary marker with the initials W & M (for the William and Mary Waters tract) is located in the Black Hill Regional Park west of Germantown. The combined Waters property covered all of present northeast Germantown, comprising about 1,500 acres, and included a tobacco plantation worked by 22 slaves. The fourth Waters brother, Ignatius, inherited their father’s estate in Brookeville. The **William Waters Jr. House** (19/3), a substantial brick residence built in the late 1700s, was designated a historic site yet unfortunately is no longer standing.



Basil Waters built the brick section of Pleasant Fields (far left). Charles Waters expanded the house with the Italianate style section (far right). The farm stead today includes a bank barn and corn crib.

Basil Waters established a large tobacco plantation known as **Pleasant Fields** (19/1, 18MO408). The Basil Waters House, originally built in the 1790s, is still standing, located on Milestone Manor Lane. In the mid-1800s, Basil's nephew Dr. William A. Waters, lived in the house and had his doctor's office there. The house gained its present Italianate appearance when it was expanded by Charles Waters, son of William. Charles Waters bred racehorses on the property, one of whom set the East Coast trotting record (1898). The property, which remained in the Waters family until 1932, includes a bank barn and double corncrib. A small Waters family burial plot is nearby on Hawk's Nest Lane. The restored house and barn owned by M-NCPPC, is open for

community events and operated in part by the Montgomery County Historical Society.

THEME 3: WATER AND STEAM POWERED MILLS (MID-18TH CENTURY THROUGH 1920S)

From 1820 to 1900, a booming economy emerged in the Germantown area. This new prosperity was made possible by the development of agricultural diversification and new fertilizers, as well as the advent of the railroad in the area by the 1870s. Around 1810, Zachariah Waters established a mill along Little Seneca Creek with three milling operations producing flour, lumber, and flaxseed oil. The mill ceased operation in c. 1895. Today the **Waters Mill** (18MO461) ruins are still visible,

and they are interpreted by an historic marker in Black Hill Regional Park.

The establishment of milling operations along Seneca Creek in the Germantown area reflects the growth of water-powered manufacturing technology in the Piedmont region, where streams run swiftly. The change from a folk-oriented tobacco culture to a more nationally-focused industrial economy brought Montgomery County into the larger American pattern of development.

Along the waterways of Great Seneca Creek and Little Seneca Creek, grist and saw mills had appeared by the mid-18th century. Early maps of the area identify mills as "G&S mills" for the water-powered grist and sawing activities located along these streams. These local businesses not only served the community's commercial needs with grain and lumber processing, but also provided important social and political functions as community gathering and voting places. The mills' names pay tribute to the early residents who lived near Germantown: Benson, Crowe, Clopper, Davis, Watkins, Waters, Magruder, and Hoyle.

Early water mills were located along a steady stream of water and were constructed using local stone and timber. Mill structures ranged in size from two- to three-story masonry or clapboard structures, and some even utilized two water wheels. Early water-powered mills were located along steady, fast-moving streams and were

constructed using local stone and timber. It is difficult to determine exact construction dates of many of the early mills. Some burned or deteriorated, and their foundation stones were reused to build new mills on the same site. Early documents record ownership transfers that often meant a change in the name of the mill and the road where it was located.

Mills from the 18th and early 19th century were usually powered by undershot wheels, where the force of the water against the lower blades turned the wheel. As the population and agricultural production increased, the need for reliable water power for milling and milling operations grew. Experiments using different types of wheel designs were used, with the overshot wheel being the most popular. In this design, the water struck the upper blades on top of the wheel and moved it down by the force of gravity.

At least an eight foot drop in elevation was necessary for locating a mill along a waterway. In addition, an ample supply of water was created by building a small dam or “mill pond” upstream from the mill. Water was diverted from the pond through a ditch called a “mill race” or “head race.” The mill race contained a grate to filter debris before reaching the water wheel. Upon turning the large wheel, the water then flowed through the “tail race” and was diverted back to the main stream. The Waters Mill ruin in Black Hill Regional Park contains remnants of these races.

The large water wheel turned a shaft that powered a series of cogged wheels inside the mill structure, transferring power by moving from large to small gears and ultimately turning the mill stone for grinding. Two stones were used for grinding. The top stone, called the runner, rotated over the stationary bottom runner, or bed stone. Both stones were cut with furrows to grind and channel the grain to the stone’s edge. Grain was poured into the center of the top stone and moved out through the furrows where the ground flour or meal was collected at the edges.

Mill ruins known as the **Clopper Mill** (19/21) are located in Seneca Creek State Park. A mill was built on this site in the 1770s by Nicholas Sibert. About 1795, Zacchariah MacCubbin rebuilt the mill in stone. Francis C. Clopper, a prosperous owner of woolen factory and mills, expanded the mill with brick. The mansion house for Clopper’s estate, called Woodlands, was located near the park’s visitor center.

Early grist mills used locally-quarried stones for grinding rye, buckwheat, and cornmeal producing a coarsely ground flour or “country custom” flour. Stones were also imported from France and Germany and produced more finely ground flour. “Cullin” stones were a blue-black lava stone and “French burrs” were freshwater quartz stones quarried in Northern France.

A list of some of the water-powered mills located on public parkland near the Germantown Master Plan Study Area is located in Appendix 12. Of the mill ruins cited, one of the most intact ruins, and an example of a mill constructed using the local black rock, is **Black Rock Mill** (24/6), now part of Seneca Creek State Park. The black rock quarry is located nearby.

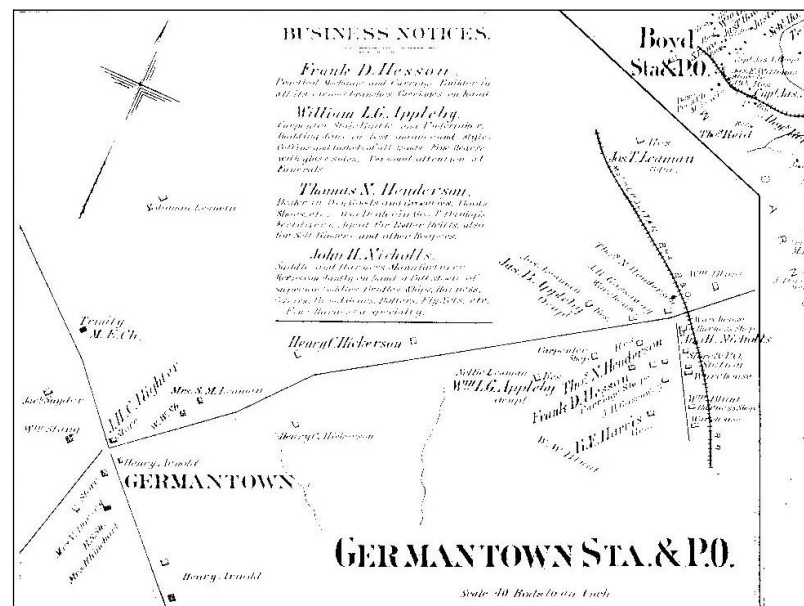
Water power fueled the mills until the advent of steam power in the 1850s. Later milling operations ventured away from the streams and towards steam power, locating near the railroad line for transportation purposes. In 1888, the Bowman Brothers' Liberty Mill was built next to the present-day Germantown depot, along the Metropolitan Branch Railway line of the Baltimore & Ohio (B&O) Railroad. The wooden flour mill burned in 1914 but was rebuilt and modernized in 1916 with six huge silos. In 1918 Augustus Selby and his four partners bought the mill and operated it until 1963. A grain elevator and grain dryer were part of the operation in the 1920s and 30s, but burned in 1972 after the mill had closed. Still standing, and located in the **Germantown Historic District** (19/13), is a grain scale housed in a small metal shed on Mateny Hill Road, southwest of Blunt Avenue. The Liberty Mill was at one time the second largest mill in the state.

THEME 4: THE GERMANS BEHIND GERMANTOWN (1830s – 1870s)

It was the German settlers from old Frederick County who began to grow grains and cereals and establish milling enterprises in the Germantown area. In the 1830s and 1840s, Pennsylvania Germans, as well as immigrants from Germany and Slavic countries, settled at the crossroads of Germantown (now called Liberty Mill Road) and Clopper (Route 117) Roads. Some of the first settlers were the families of Domenicus Stang, a blacksmith; Franz Grusendorf, a stonemason; and Asher Rosenmeier and Charles Adler, who ran the community's store. Other early families included the Metzses and the Richters. Many immigrants were millers and armers who tilled small plots of corn and tobacco. It was during this period when farmers from the surrounding area came into town and heard more German than English that the area became known as "Germantown." The name Germantown first occurred in print in the mid-19th century, on a land deed. The settlement was also sometimes called "log town" because the Germans brought log construction to the area. Today only one of the known German-built dwellings associated with the original cluster of homes and shops from this particular time of settlement survives. It is the **Grusendorf Log House** (19/19), which originally stood on the east side of Clopper Road, near Route 118. The house has been relocated to Seneca Creek State Park, southeast of Germantown.

THEME 5: A SETTLEMENT THAT FOLLOWED TRANSPORTATION (PRE-1600S – PRESENT)

This 1879 map shows the original Germantown settlement at Clopper Rd and Germantown Rd (far left) and the Germantown Station community that formed around the train station (right).



Railroad, next to better surface transportation with the paving of Frederick Road and then, with the construction of Interstate 270. Present-day Liberty Mill and Walter Johnson Roads were the original Germantown Road.

With the opening of the railroad in 1873, the Germantown settlement moved east. In 1878, the first Germantown railroad depot was constructed. In 1891, it was replaced with a larger frame building. This depot burned in 1978 and was reconstructed following the same Victorian-era architectural details. The Germantown Station, the Germantown Bank, and houses that were built nearby, are resources in the **Germantown Historic District** (19/13).

The settlements at Germantown have undergone five significant changes, from 1) Native American temporary settlements along the waterways in the pre-1600 period, to 2) a small Germanic crossroads settlement at Germantown and Clopper Roads in the 1830s, to 3) a vital railroad stop in the 1880s and 90s, to 4) a "Corridor City" aligned with Frederick Road (Route 355) by the 20th century, to 5) part of the technology corridor in the 1970s, defined primarily by I-270.

The initial movement of people and industry was away from the waters and towards the roads. After the Germans settled along east-west-running Clopper Road, the settlement kept shifting northwards: first with the coming of the B & O

Farmers benefitted greatly from the railroad as they were able to ship produce, grain, and milk to Washington, and also receive fertilizers to enrich the soil for larger yields. The railroad continued to provide a strong economic link for Germantown, especially to the expanding metropolitan regions of Baltimore and Washington. The railroad stop known as Waring Station served the **Waring-Crawford Farm** (19/11), a 214-acre wheat and dairy farm. John H. Gassaway was railroad agent at Germantown Station. His father built the **Gassaway House** (19/27) in the early 1800s, which John expanded about 1904.

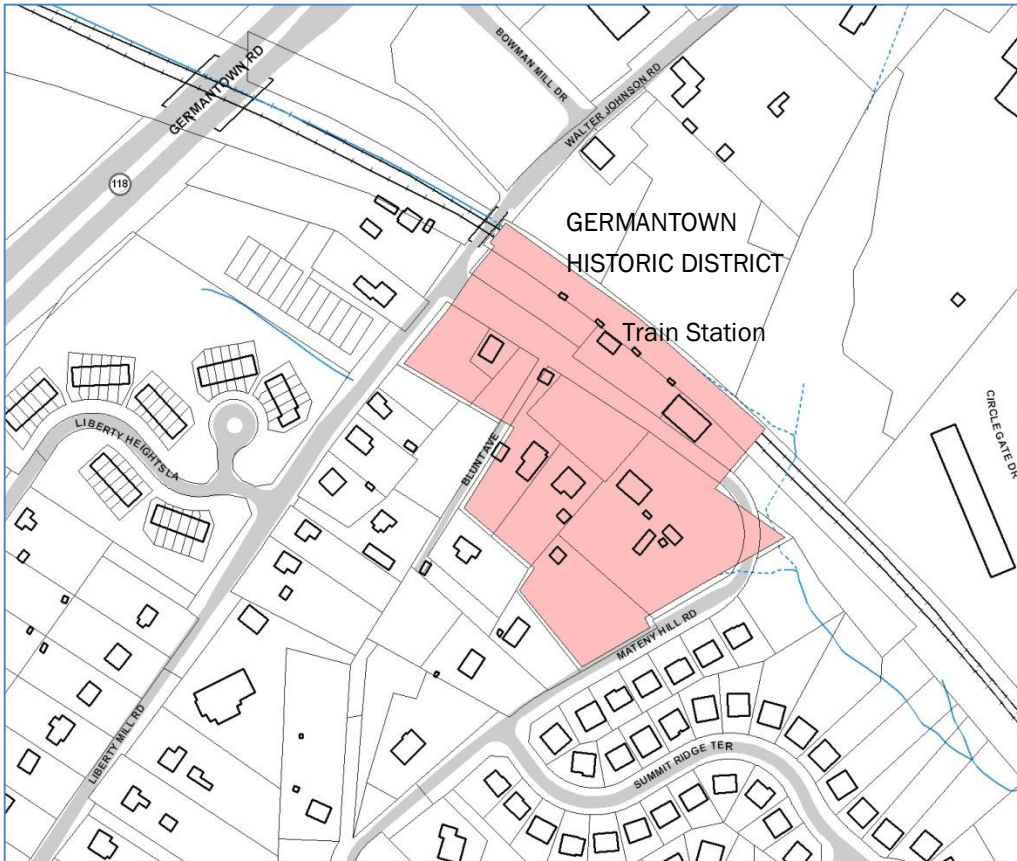
Local Black Rock, a schist of metamorphosed Seneca red sandstone, was used in local construction of various railroad culverts, foundations, and buildings. This resource was mined from one of the biggest quarries located where Black Rock Road crosses Seneca Creek. The **Stone Culverts and Railroad Bed** (19/40) reflects the history and technology of the B&O Railroad. The abandoned railroad bed was the original alignment of the railroad and was in use from 1873 until 1927, when it was double tracked and straightened. Two stone culverts of granite and Black Rock stone carried water tributaries under the tracks. The railroad was a major engineering feat of its day. Another railroad transportation component is the massive stonework of the 1906 **Waring Viaduct** (19/10). The **Little Seneca Viaduct** was a metal single-track viaduct with a 480-foot span that stood 105 feet

above water at its mid-point. A granite abutment and piers still remain.

As the automobile became the preferred method of transportation in the area, accommodations arose for motorists along Frederick Road. The **Cider Barrel** (19/33) is a roadside stand constructed in 1926 by Andrew Baker to sell cider and apples from his orchard. This local landmark has been preserved and stands as a reminder of the early days when farmers provided goods for automobile commerce.

The mid-20th century saw the growth of the area continue with the location of the main headquarters for the Atomic Energy Commission (now U.S. Department of Energy) in Germantown. The completion of the I-270 “Technology Corridor” during the 1970s provided for further commercial, business, and educational development. During this time period, a satellite campus for Montgomery Community College started in Germantown. Today, the area continues to develop along this transportation corridor with three major intersections providing access to the surrounding community.





19/13 Germantown Historic District

APPENDIX 11: GERMANTOWN HISTORIC SITES

Historic Preservation, Countywide Planning Division, 2008

19/13 Germantown Historic District (c1878+)
Vicinity of Liberty Mill Road, B&O Railroad, and Mateny Hill Road

German farmers settled the Germantown area in the early 1800s. The initial Germantown settlement clustered around the intersection of Clopper and Liberty Mill Roads. After the introduction of the Metropolitan Branch of the B&O Railroad, the community known as Germantown Station grew about one mile north of the original crossroads community. Present-day Liberty Mill and Walter Johnson Roads were the original Germantown Road. The railroad enabled farmers to ship their produce, grain, and milk to Washington, as well as receive fertilizers to enrich the soil for larger yields.

Germantown Station, built in 1891, replaced an earlier small railroad station located there in 1878. The frame structure was rebuilt, following a 1978 fire, and serves modern-day commuters traveling to jobs downcounty and in Washington, D.C. (photo, far right). The original single track at Germantown once

required two telegraph operators to control the switches to double tracks south of town.

The Germantown community became the center of commercial activity when the Bowman Brothers built a new steam-driven flour and corn mill next to the new railroad depot, making obsolete the earlier water-driven mills in the area. *Bowman Brothers' Liberty Mill* was built in 1888 at the south side of Liberty Mill Road along the railroad tracks. The wooden flour mill burned in 1914, but was rebuilt and modernized in 1916 with six huge silos. In 1918 Augustus Selby and his 4 partners bought the mill, and operated it until 1963. A grain elevator and grain dryer were part of the operation in the 1920s and 30s, but burned

in 1972 after the mill had closed. Still standing is a grain scale housed in a small metal shed on Mateny Hill Road, southwest of Blunt Avenue.

Germantown's commercial district grew along Mateny Hill Road between the train station and Liberty Mill Road. In the late 1800s and early 1900s, Germantown had two general stores, a post office, three churches, a bank, doctor's office, barber shop, and school. The *Germantown Bank* (1922)(below, right), 19330 Mateny Hill Road, was funded through sale of shares to residents who wanted to cash their mill paychecks without being charged 15 cents that the General Store demanded for the service. This one-and-a half



story brick building has a simple classical facade, and iron bars on its triple windows. At the southern corner of Blunt Avenue and Mateny Hill Road, a small, board and batten shop with a gable roof, was used at various times as a harness shop, barber shop and post office before it was converted into a house. Numerous other service businesses in this vicinity included a feed store, several warehouses, and a stockyard.

The houses built within this period have strong uniformity and similar architectural details in the simple rural tradition of 19th century Maryland. The homes were built for mill and railroad employees as well as shopkeepers and ministers. Many houses in the historic district still have dependencies such as stables, wash houses, and smokehouses; some with louvered cupolas, contrasting trim, or other architectural details. The generous front and side yards allowed for family gatherings, gardens, and perhaps a few animals,



while shade trees and porches helped residents escape the heat of summer. One of the oldest houses in the district is the c1870 *Harris-Allnutt House*, 19390 Mateny Mill Road was originally the home of R. E. and Alice Harris who ran a store here. The *Anderson-Johnson House* (1898), 19310 Mateny Mill Road was first the home of a railroad agent and later Germantown's postmaster. *Rev. Rayfield House* (c1890s), 9215 Blunt Avenue, was the residence of the Baptist Church minister. This center cross gable, frame house has an entry with transom and side lights, and ornamental porch balustrade. The homes of influential community leaders (e.g. mill owners, banker, store owners) lined Old Germantown Road on large parcels of land. Bank President A. H. Baker lived in a large estate on Liberty Mill Road where Liberty Heights is now located.

Bowman Brother's or Liberty Mill was at one time the second largest mill in the state. In the 1950s, dairy products replaced grain as the state's primary agricultural output, leading to a decline in the milling business. Popularity of the automobile enabled residents to shop in more distant shopping centers, people became less dependent on the railroad, and growth of the county's population turned cornfields into cul-de-sacs. Commercial businesses are now concentrated closer to I-270. The Germantown Historic District, designated in 1989, preserves the heritage of Germantown as a flourishing farming and

mill community, while continuing to focus on the B&O Station as a center for today's MARC train commuters.

INDIVIDUAL SITES (listed chronologically)

19/1 Pleasant Fields/Basil Waters House

(c1790s-early 1800s;1890s) 21200 Waters Road/Milestone Manor Lane
(photo below, left)

The Waters family inhabited Pleasant Fields for more than a century. About 1790, Basil Waters established a large tobacco plantation, supported by as many as 22 slaves. The brick sections (center and left) are the earliest, dating from the late 1700s or early 1800s. In the late 1800s, Basil’s nephew Dr. William A. Waters, a general practitioner, had a doctor’s office in the house. The house gained its present Italianate appearance under ownership of Charles Waters, son of William. Charles built or expanded the

frame section (right) and compatibly redesigned the existing house. The new large central hall was outfitted with an elegant curved staircase. Charles Waters was a successful breeder of racehorses, one of whom set the east coast trotting record (1898). The property, which remained in the Waters family until 1932, includes a bank barn and double corncrib. A small Waters family burial plot is on Hawk’s Nest Lane. The restored house and barn, owned by M-NCPPC, are scheduled to be open for community events, run in part by the Montgomery County Historical Society.

19/3 William Waters Jr. House Site (Late 1700s- Early 1800s)

Demolished Resource—Site Between 20511 & 20553 Shadyside Way
(drawing below, right)

A designated historic site since 1979, the William Waters House no longer stands. The five-bay dwelling was one of the earliest substantial brick residences in the Germantown area. The one-room deep, center-passage house featured recessed 9/6 sash windows with jack arches, a round-arched doorframe with keystone and cornerblocks, and fanlight transom. According to tradition, William Waters, Jr. (1751-1817) built the house after acquiring the property from his father in 1785. William was the brother of Basil Waters who built Pleasant Fields. In the late 1800s, the house was updated with a Gothic-inspired center cross gable, a pointed-arch window and shingle siding. The property, also known as the Horace Waters House, remained in the family until 1962. Foundations of the house are evident in a park on this site.



19/21 Clopper Mill Ruins (c1795; 1834)

Clopper Road at Waring Station Rd.

(photo, left)

Located within Seneca Creek State Park, the Clopper Mill Ruins are remnants of the extensive property of Francis C. Clopper, influential businessman in Montgomery County in the mid-1800s. A prosperous owner of a woolen factory and mills, Clopper was a principle backer of the Metropolitan Branch in the 1850s, and was instrumental in persuading the B&O to take over construction of the railroad branch after the original company failed. Clopper donated land both for a nearby railroad station, named in his honor, and for St. Rose of Lima Catholic Church. Clopper's mansion, known as Woodlands, was located near the Visitors Center at Seneca Creek State Park.

These ruins are significant as one of the few remaining distinguishable mills in the county, representing an industry once essential to

economic development. Nicholas Sibert built the original mill on this site in the 1770s. About 1795, Zachariah MacCubbin rebuilt the mill, constructing a two-level stone structure. Clopper renovated and expanded the mill in 1834, adding a third story of bricks made at a manufactory on his estate. A stone in the mill's gable read "F C C 1834." An undershot water wheel used water from the Great Seneca Creek to turn the millstone. Business at the mill declined after the steam-powered Bowman Brothers Mill opened in 1888, in Germantown. Clopper's Mill was heavily damaged by fire in 1947. The ruins consist of stone and brick walls with no roof. Local fieldstone on the basement and first floor levels has corner quoins

and heavy stone lintels.

19/11 Waring-Crawford Farm (Log section: Mid

1800s; Enlarged Late 1800s-Early 1900s)

19212 Forest Brook Road

(photo, right)

This distinctive log and frame residence represents an evolution of construction materials. The original log house is a two-story side gable structure (seen at left), which had two rooms on each level. The Waring family (or Warring) probably built the log dwelling. From the heirs of John P. Waring, George Leslie Crawford, in 1881, bought the 214-acre farm with a two-story house



and log outbuildings. A wheat and dairy farmer, Crawford expanded the house with a hipped-roof polygonal front ell, with a fanciful turret over the front entry. After George's death in 1925, his descendants continued to run the farm. Besides the house, only a smokehouse remains of the farmstead that once included a bank barn, double corncrib, slave quarters, and a detached kitchen. The main house was built to face the original Waring Station Road, which ran from Clopper Road to Frederick Road but was redirected with construction of I-270.

19/27 John H. Gassaway Farm (Early 1800s; c1904)
17200 Riffle Ford Road
(photo right)

This novel frame residence, home of a prosperous farmer and merchant, shows the late acceptance of Romantic Revival architecture found 20-30 years earlier in less remote parts of the Eastern Seaboard. John Hanson Gassaway (1829-1911) was president of the Montgomery County Agricultural Society in the late 1870s and early 1880s, and was railroad agent at Germantown Station where he operated a fertilizer and grain store in Germantown Station. This H-shaped house was built in three main sections. The original part is the south section (left), oriented toward Seneca Creek. John Gassaway's father is believed to have built in the early 1800s the steeply pitched roof house. Wallpaper bears the

date of 1815. The center section was built about 1840. About 1904, John Gassaway reoriented the house when he built the north section, with front porch facing north toward Riffle Ford Road.

The elaborately detailed north section of the house incorporates both Gothic Revival and Italianate elements. The north center cross gable and looped bargeboard in all main gables are Gothic Revival in nature, while bracketed door hood, scrolled porch bracket pairs, and window treatments are Italianate. First and second level windows have prominent cornices and footed sills, and attic windows are round-arched lunettes. Rare in the county are cast-iron panels connecting wooden post pairs. Typical of higher style Montgomery County houses of this era (late 1800s-early 1900s), the first level windows allow access to the front porch, in this case with jib-door panels. The older section was made compatible with the 1904 section, updated with looped bargeboard and 2/2 sash windows. Front parlor mantels of dark green marble were stolen by vandals.

Electricity was first installed in 1948, replacing gas lighting. The farmstead includes a log smokehouse with vertical plank siding, corncrib, and a wind pump. The Maryland Historical Trust holds interior and exterior easements on the property.



19/19 Grusendorf Log House (Mid-1800s)

Seneca State Park

(below, left)

The Grusendorf Log House was originally located on Clopper Road near Great Seneca Highway. The house represents a wave of German immigrants who settled in Montgomery County in the mid 1800s. Frantz and Hanna Grusendorf, natives of Germany, were among the first to settle in Germantown, buying the property in 1841. Frantz Grusendorf was a stonemason who helped build many Germantown area houses, and Hanna was a midwife. The house, which remained in the Grusendorf family for nearly a century, was moved two miles to Seneca Creek State Park in 1989 to protect it from development.

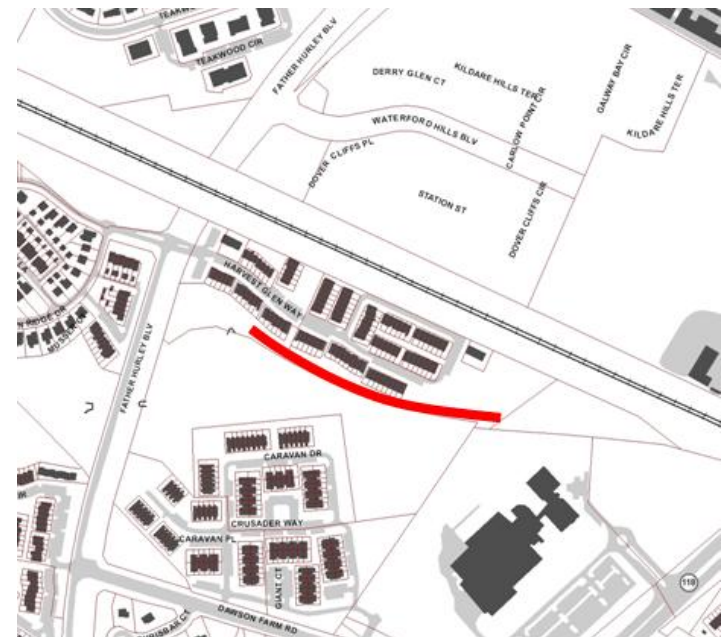


19/40, Stone Culverts and Railroad Bed, Harvest Glen Way Vicinity,

Locational Atlas resource, Recommended by the Planning Board for designation on the Master Plan for Historic Preservation

(photo, above right; environmental setting, below right)

This resource reflects the history and technology of the B&O Railroad. The abandoned railroad bed was the original alignment of the railroad and was in use from 1873 until 1927, when it was double tracked and straightened. The resource includes two stone culverts of granite and Black Rock stone that carried water tributaries under the tracks. The northwest culvert was relocated and reconstructed for the construction of a stormwater management pond. Salvaged stones not used in the reconstruction are in storage will be used at the new Darnestown Heritage Park, and more are available for the Germantown Town Center.



**Little Seneca Viaduct, Wisteria Drive Vicinity,
Germantown, #18/44**

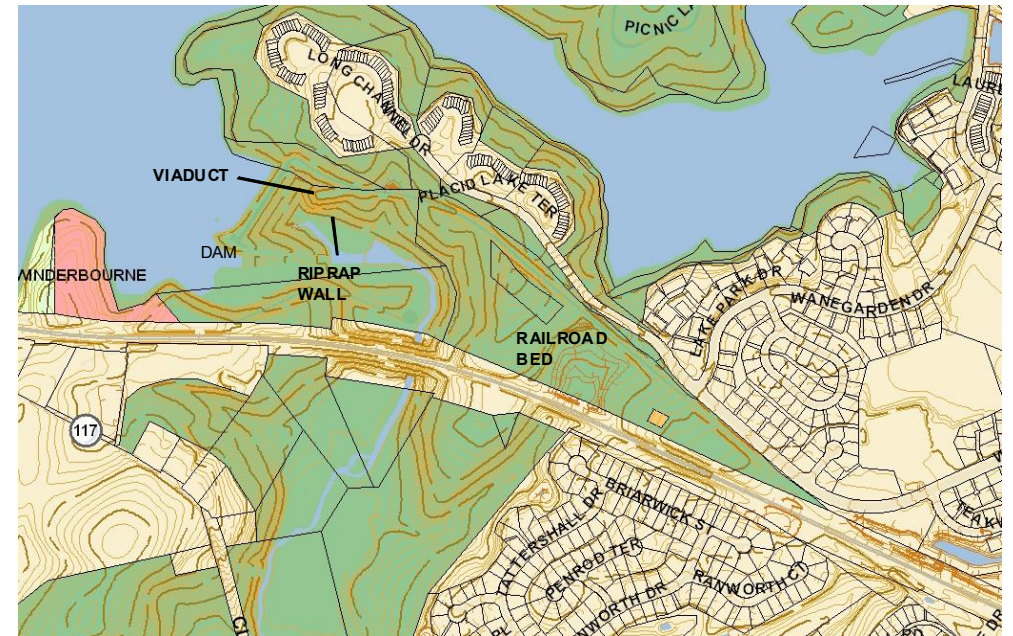
Locational Atlas resource

(photo, right; environmental setting, two maps below)

This resource consists of three elements: a c1865 abandoned railroad bed, c1872 stone rip-rap wall from the foot of the original wood trestle bridge that traversed Little Seneca Creek, and the remains of the 1896 viaduct that replaced the wooden one. The Little Seneca Viaduct was a single-tracked iron bridge that served from 1896 until 1928. During this period of service, the viaduct supported a railroad that gave a powerful surge to Montgomery County's economy. The

bridge was abandoned with the advent of double-tracking, and the railroad was rerouted further south when the rail line was straightened. The design of the viaduct, with deck-type girder spans supported by nine bents, arranged in four towers and one stand-alone bent is highly representative of its time. Unusual was the sharp four-degree curve of the structure. The 480-foot span stood 105 feet above water at its mid-point. The remaining stone abutment is incised with the dates 6-17-96 and 10-13-96. The bridge was designed by John E. Greiner (1859-1942), an accomplished engineer for the B&O Railroad—his later projects included the Havre de Grace bridge over the Susquehanna River.

A wooden trestle bridge predated the metal viaduct. A stone riprap wall located on the east bank of Little Seneca Creek was constructed for this first bridge. The resource includes a section of



the original single-track width railroad bed, cut into the hillside. Now used as an access road to service the dam, the road is closed to the public.

The resource meets criteria 1a, 1d, and 2a. The recommended environmental setting is shown on the map (opposite). WSSC parcel (Tax ID 02-02369598) contains the viaduct abutment and piers; and riprap wall. M-NCPPC parcel (02-02044950) contains the railroad bed.

19/5 Neelsville Presbyterian Church (1877)
20701 Frederick Road
(photo, right)

The congregation of the Neelsville Church played an important role in the development of Presbyterianism in Montgomery County. Conservative Presbyterians organized in 1845, and soon built a log church, south of the present church. The present Gothic Revival church dates from 1877. Typical of the style are pointed-arch windows, which have stained glass panes, a king post truss embellishing the front gable, and wooden buttresses, on each facade. The frame church, which faces west, has a patterned slate shingle roof and brick foundation. In the 1930s were added an entry vestibule and a neon cross in the gable peak. A north wing, completed in 1933 to provide a meeting room, is compatible in massing and also has wooden buttresses. A large cemetery lies behind the church, to the east. The congregation, which now holds services in a 1975

brick church to the north, has restored the historic church, which is used for Sunday School classes and community meetings.



19/13-5 Pumphrey-Matenev House (c1883)

19401 Walter Johnson Road

(photo, above right)

After purchasing this property in 1883, Robert H. Pumphrey lived here where he ran a store until a separate building was built next door (no longer standing) in the early 1900s. Judging by the asymmetrical five-bay side elevation and by the older nature of the stone foundation, Pumphrey may have substantially rebuilt and/or added onto an earlier structure to create the building seen today. Typical details of the 1880s era include decorative Gothic Revival-influenced trusswork in the gables, window cornices and footed sills, and round-arched third-level windows. Robert's daughter and husband, Henry "Mac" Matenev (ma TEE nee), resided here in the early and mid 1900s.

19/13-1 Madeline V. Waters House (1899-1902)

Demolished Resource—Site at 12900 Wisteria Drive

(drawing, below right)

A linear park along Wisteria Drive, at Rt. 118, commemorates the Madeline Waters House that was destroyed by arson in 1986. Built in 1899-1902, this roomy frame Colonial Revival house belonged to the owner of Germantown's general store, Horace D. Waters. His stepson Lloyd Dorsey built the house, which was the long-time dwelling of Madeline Waters, daughter of Horace. The residence was the most elaborate

house in Germantown, featuring a three-story projecting pavilion with palladian windows, a broad hipped roof with dormers, cornice with dentil molding, and pedimented wrap-around porch with classical columns.





19/13-6 Upton Bowman House (c1901)
19219 Liberty Mill Road
(photo, upper left)

Located near the Germantown Historic District, this frame residence was the home of Upton Bowman, who helped establish the Bowman Brothers' Mill, later known as Liberty Mill. In 1888, Upton and his brothers Charles and Eldridge opened the steam-powered gristmill, which flourished with its location adjacent to the railroad station. The success of the milling operation led to an

economic boom in the Germantown community and the obsolescence of local water-powered mills. The Upton Bowman House was probably built about 1901 when the family purchased the property. The frame house, now covered with stucco, has decorative bargeboards with cross bracing, a two-story polygonal bay on the east side, and a wraparound porch.



19/10 Waring Viaduct (1906)
B&O tracks at Great Seneca Creek
(photo, lower left)

Located about 1,000 feet east of Waring Station Road, this stone viaduct was built to carry the Metropolitan Branch of the B&O Railroad over the Great Seneca Creek. It was the product of a massive modernization campaign of Pennsylvania Railroad's Leonor Loree when he took charge of the B&O in 1901. For its first 30 years of operation, the railroad crossed the waterway on a wooden trestle bridge that was dangerous and expensive to maintain. The stone viaduct was erected in 1906 when the railroad line between Gaithersburg and Germantown was straightened and a second track installed. The massive stonework of the Waring Viaduct, and its larger twin over the Little Monocacy, are uncommon on B&O lines yet more typically found on the Pennsylvania Railroad, evidence of Loree's influence. The 350 foot-long, three-arch viaduct of roughly dressed granite supports the tracks that are about 70 feet above the Great Seneca Creek. Early trains stopped at Waring Station to pick up passengers and freight, and to take on water pumped up from Seneca Creek via a hydraulic ram.

19/13-7 Wallich-Heimer House (1913)

19120 Mateny Road

(photo, upper right)

John Wallich, a local carpenter, built this frame house for his own residence, in 1913. A well-preserved Colonial Revival house typical of the late 1800s and early 1900s, the dwelling has a second story corner turret with polygonal hipped roof. The full-width porch has a pedimented entrance and Doric columns. The house has clapboard siding on the first level and shingle siding on the second and attic levels. The residence is named in part for Glenn and Midge Heimer who lived here from 1959-1981.

19/33 Cider Barrel (1926)

20410 Frederick Road

(photo, lower right)

The Cider Barrel is a well-loved local landmark and a distinctive example of roadside architecture. Andrew Baker built the structure in 1926 as a retail outlet for his cider and fresh apples. The Cider Barrel first became a favorite place for refreshment in the early days of automobile tourism. Baker was a prominent Germantown entrepreneur who spearheaded the move to build the Germantown Bank (1922) and served as one of its first trustees. Baker owned a large house and farm on Liberty Mill Road (near Liberty Heights Court) with an apple orchard next to the Germantown Elementary School (north side).

Residents recalled autumns when dozens of farmers with 4-horse team wagons loaded with apples who were waiting in line at the cider press located behind Baker's house. The Cider Barrel provided the retail outlet for both the cider and for Baker's own fresh apples.

The barrel is actually a partial cylinder applied to the front of a one-story front-gable building. A bracketed hood shelters an inset counter opening in the barrel facade. Horizontal stripes capping the head and base of the barrel lend a Streamline Moderne effect accentuated by an adjacent curved c1931 apple stand hidden behind a sliding door.

The Atomic Energy Commission Building

The Maryland Historical Trust has determined this resource is eligible for listing on the National Register of Historic Places.



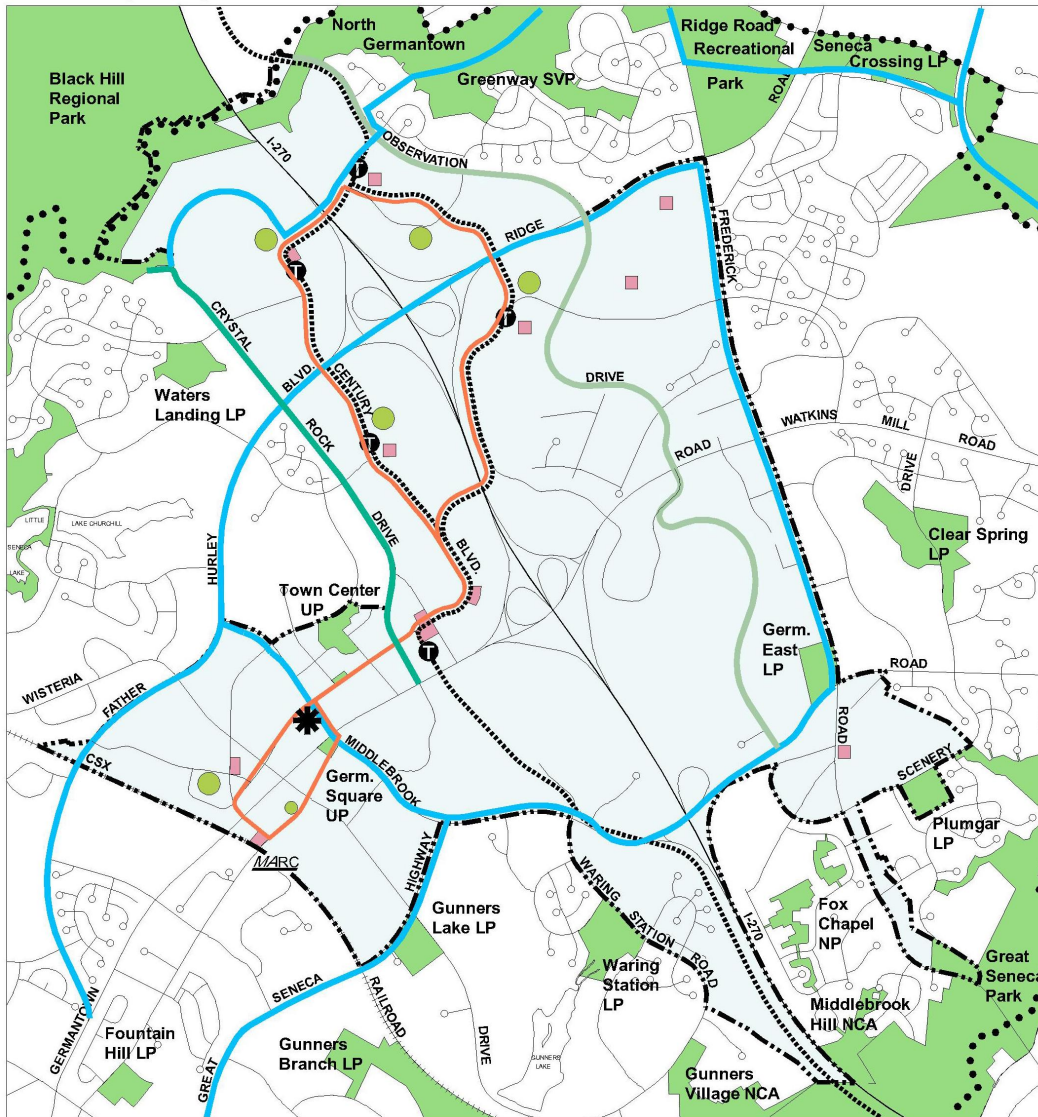


Figure 1
Urban Open Spaces, Parks and Trails

APPENDIX 12: PARKS, OPEN SPACES, TRAIL CONNECTIONS AND CULTURAL RESOURCES

Park Planning and Stewardship, Department of Parks, 2008

Public parkland, open space and pathways play an important role in the well-being of a community. In urban areas, parkland enhances citizens' quality of life by providing visual relief from the built environment, a sense of place and identity, an opportunity to connect with nature, and space to gather, play and celebrate community life. In addition, open space contributes to the natural environment by providing wildlife habitat, improving air quality, and preserving water quality.

Master plans in future urbanizing areas, like the Germantown Sector Plan Update, refine and customize parks and private open spaces to reflect the particular needs of a community. They also help implement land use planning goals and objectives established in the Countywide Park, Recreation and Open Space Plan (PROS) for Montgomery County which gives guidance on the countywide pattern of parkland and recreation needs. The park and trail related recommendations in this document will update the 2005 PROS Plan.

Key Park Planning Issues

The existing pattern of parks in Germantown and the surrounding area reflects the 1989 plan's suburban land use proposals for Germantown. New visions for the study area include a more compact and walkable environment within each of

several distinct mixed-use neighborhoods that are clustered around the transit stations of the Corridor Cities Transitway. The existing patterns and proposals for parks need to be reevaluated to support this new vision.

The key park planning issues that are addressed in this plan are highlighted below:

1. **Providing Adequate Urban Parks and Open Space in the areas of highest density and near transit stations.** Recreation proposals in this plan should reflect increased density in the proposed mixed-use "urban villages" around transit stations, and the changing land use patterns and population forecasts.
2. **Creating a cohesive, usable, pattern of open space, by utilizing public amenity space as well as parkland.** The new plan considers a series of public open spaces near transit and mixed use centers. Not all open space can or should be publicly owned and managed parkland. Public amenity spaces in new developments will provide a great deal of recreation and open space in Germantown.
3. **Assuring active and nature oriented recreation opportunities are available to existing and future residents of the Germantown area.** The

ability of parks, both within the study area and also in the greater Germantown area, to meet the needs in the area will be re-assessed in light of potential increasing density.

4. **Assuring Connectivity between urban centers, parks, community facilities, and local and regional bikeways.** The pedestrian and bike system will be re-assessed to support the plan's vision of a pedestrian-oriented environment, with linkages into open spaces, regional trail systems, and other destinations.
5. **Reflecting new park planning emphasis on historical and cultural interpretation and outreach.** Historic interpretation is an important element of this plan and will be emphasized in the parkland and through the public amenity process. The interpretation of cultural and historic resources will support the vision of a sense of place that reflects Germantown's unique character.

Plan Recommendations to address Key Planning Issues

The following planning recommendations will address Key issues and implement the Urban Open Spaces and Trails Concept, shown in Figure 1.

1. Provide Urban Parks and Open Spaces in high density areas and near transit Stations.

The Germantown Master Plan Update supports smart growth by proposing high density, mixed uses near transit areas. Public urban amenity open spaces serve high-activity areas. Suitable locations include transit station areas, large employment centers, commercial areas, and high density residential areas. They can provide landscaped sitting areas, walkways, and flexible active recreational opportunities. Urban amenity open spaces adjacent to large employment centers provide a place for workers to eat lunch, read, socialize, and relax. In addition, they provide the perfect opportunity for cultural resource interpretation of a more progressive nature, such as public art.

The Urban Open Spaces and Trails concept in this Plan provides adequate Open Spaces/ Urban Parks in the areas of highest density in that it:

- Reflects the need for more parks and open space in the core area

- Recognizes that urban open spaces are a critical feature in higher density neighborhoods
- Promotes the vitality of the centers by providing spaces for the meeting of residents and employees

In order to assure that new mixed use areas are livable areas with open spaces and recreation, the Plan recommends specifically:

For the Town Center:

A series of public open spaces, linked by a linear pedestrian system along Century Boulevard, Town Center's "Main Street". The locations of these spaces would help to enliven and complement the retail and entertainment district of the Town Center, and include:

- The Town Commons: A civic space at the heart of Germantown with flexible seating in front of Black Rock Center for the Arts. This space is currently owned by the County and maintained by DPWT.
- Town Center Urban Park: A strolling and reflective park, located behind the library. This park has already been approved as a facility plan.
- A Family-Oriented Active Play Park: An active park with places to run, climb, play, and watch, near the Upcountry Government Center on M and T Bank site.

- An Entertainment District Meeting Place: A plaza with landscaping and seating across the street from Cinemas, next to Police station

For Each Mixed Use, Transit-Served Neighborhood:

- A Meeting Place: a space to wait for transit or meet people, near each Transit stop
- A Family Oriented Active Play Park: a flexible open space with places to run, climb, play, and watch

Urban open spaces tend to be more expensive to build, manage, and maintain than suburban parks. To develop, manage, and maintain these urban open space areas in an attractive, usable manner without impact on other public facilities, it will be important to explore funding mechanisms such as a Maintenance District.

2. Provide a cohesive, usable, pattern of open space, by utilizing public amenity space as well as parkland.

Recreation and open space needs in Germantown will be met by a combination of public parks and private open spaces. The role of public parks in this recommendation will be explored as part of the implementation process. Depending on their scale and function, "neighborhood green" areas may best be provided and managed by the private sector. Park trails will be integrated into the

overall pedestrian circulation concept to enhance connectivity.

Policy Guidance for Urban Open Space

Open Space in Urban Environments: Parks for Tomorrow (1998) indicates that urban residential areas such as Germantown need several types of recreation including hiker/biker paths and community connectors, neighborhood recreation for new residential areas, and urban recreation and open space for existing and proposed businesses and mixed use development.

Planning and Design

This plan's recommendations recognize that urban areas present distinct challenges and opportunities to provide park and recreation resources and strive to incorporate and create those resources with redevelopment. The location, size, and type of open spaces appropriate to an urban setting are unique. As shown on the park and open space concept, this plan recommends a series of open spaces at a smaller scale than is typical of less densely populated areas, provided through a combination of public and private efforts.

Both residential and employment redevelopment projects should provide a mixture of recreational facilities, open spaces, and trail connections that shape the public realm and serve employees and residents.

Consideration should be given to the following guidelines in location and development of urban park and amenity open spaces:

1. They should be within five to ten minutes of walking time for users.
2. They should include sitting areas, walkways, and landscaping.
3. Playground equipment and other small-scale active recreation facilities, such as multi-purpose courts, should be considered in areas serving a significant number of children.
4. Special consideration should be given to the needs of the elderly and the handicapped.
5. Urban amenity open spaces located on the periphery of high-intensity non-residential areas should include facilities to serve nearby residents.
6. Design should provide crime prevention through environmental design by maximizing visibility and natural surveillance.
7. Amenity open spaces should be of a sufficient size to support appropriate use by residents or workers, and the public.
8. Consideration should be given to the appropriate amount of money necessary to support both the initial cost of the development and the long-term maintenance of the amenity space. In commercial and mixed use developments: As businesses are renovated or new light industry emerges, open spaces should be added to supplement public parks. Landscaping, seating areas, and public

art can improve the area's appearance and improve the working environment.

9. Environmental function should be designed into park facilities, such as fountains with storm water functions, or that mask noise.
10. In residential developments: A key to providing adequate, close-to-home recreation is ensuring that opportunities are incorporated into plans for new development, which should provide private recreation areas for all age groups, as appropriate. Private redevelopment should include:
 - level grass areas for leisure and informal play to serve people of all ages
 - adult recreation areas
 - walking and bicycling paths.
 - playgrounds for young children
 - multi-use courts for children, teens, and young adults

In high-rise housing and transit station areas indoor recreation areas will be essential. Project development should explore innovative approaches to providing these facilities, including rooftops and indoor facilities: playgrounds, gym, etc.

TABLE 1: EXISTING PARKLAND IN THE GERMANTOWN AREA

Inventory of all Facilities & Parkland Owned, Leased and/or Maintained by M-NCPPC

URBAN PARKS														
Park Code	Park Status	Park Name	Acreage	Play-ground	Soft Ball Field	Baseball Field	Basketball/ Multi-Use	Lighted Basketball Ct	Tennis Court	F_S_OVERLAY	F_S_FIELD	Picnic Shelters	Open Shelter	Rest-room
A25	D	GERMANTOWN SQUARE URBAN PARK	0.7684											
A28	U	GERMANTOWN TOWN COMMONS URBAN PARK	0.4602											
Subtotal			1.2286											
NEIGHBORHOOD PARKS														
B17	D	FOX CHAPEL NEIGHBORHOOD PARK	15.696	1	1				2	1			1	6
C33	U	GUNNER'S VILLAGE NEIGHBORHOOD CONSERVATION AREA	46.8461											
C15	U	MIDDLEBROOK HILL NEIGHBORHOOD CONSERVATION AREA	11.5435											
Subtotal			74.0856	1	1				2	1			1	6
LOCAL PARKS														
E64	D	CEDAR CREEK LOCAL PARK	10.1	1	1						1			1
D27	D	CLEARSPRING LOCAL PARK	28.9823	1	1		2				1		1	
E71	D	FOUNTAIN HILLS LOCAL PARK	7.3774	1	1		1		2		1			
D45	U	GERMANTOWN EAST LOCAL PARK	8.0954											
D52	D	GUNNER'S BRANCH LOCAL PARK	65.4044	1	1		1		2	1			1	1
D53	D	GUNNER'S LAKE LOCAL PARK	8.9398	1							2	1		1
E68	P	HOYLES MILL LOCAL PARK	16.09											
E69	P	KINGS CROSSING LOCAL PARK	10.0072											
D83	U	KINGSVIEW LOCAL PARK	8.0001											
D46	D	LEAMAN LOCAL PARK	8	1					2		2			1
D91	D	PLUMGAR LOCAL PARK	8.48	1	1			3		1			1	
E02	D	SOUTH GUNNER'S BRANCH LOCAL PARK	14.9927	1			1		2		2			1
D73	D	WARING STATION LOCAL PARK	16.457	1			1				1			1
E61	D	WATERS LANDING LOCAL PARK	11.6874	1	1		1		2		1	1		1
Subtotal			222.6137	10	6		7	3	10	2	11	2	3	7
STREAM VALLEYS														
P78	U	GREAT SENECA STREAM VALLEY UNIT #1	436.6804											
P79	U	GREAT SENECA STREAM VALLEY UNIT #2	392.2122											
Subtotal			828.893											

TABLE 1 (continued): EXISTING PARKLAND IN THE GERMANTOWN AREA
Inventory of all Facilities & Parkland Owned, Leased and/or Maintained by M-NCPPC

RECREATIONAL PARKS														
Park Code	Park Status	Park Name	Acreage	Play-ground	Soft Ball Field	Baseball Field	Basketball/ Multi-Use	Lighted Basketball Ct	Tennis Court	F_S_OVERLAY	F_S_FIELD	Picnic Shelters	Open Shelter	Rest-room
H07	U	RIDGE ROAD RECREATIONAL PARK	74.7189	1	2	1			1		1	3		2
G11	D	SOUTH GERMANTOWN RECREATIONAL PARK	700.4416	2	2	2	1		2	2	2	4		1
Subtotal			775.1605	3	4	3	1		3	2	3	7		3
SPECIAL PARKS														
N30	D	WATERS HOUSE SPECIAL PARK	3.9											
H08		SOCCERPLEX OF SOUTH GERMANTOWN									24			24
Subtotal			3.9								24			24
Total			1920.6571	14	11	3	8	3	15	5	38	9	4	40

5. Assure recreation needs, both active and nature oriented, are met for future residents of the Germantown area.

It is critical for master plans to address the active and passive recreational needs of the area and determine whether there are any available and appropriate sites for parkland acquisition to meet long range future needs. Although new urban parks and open spaces are recommended near transit stations, most opportunities for larger scale active and nature-oriented recreation will be met in the greater Germantown area, beyond the study area.

Existing Parks

The Germantown Planning Area has nearly 2,000 acres of parkland, which includes approximately

300 acres of local parkland and around 1700 in Conservation, Stream Valley, Regional and Recreational Parks. (See Table 1) This parkland forms a greenbelt around Germantown, providing residents with easy access to parkland. Black Hill Regional Park provides water oriented recreation and picnic/playground facilities, Ridge Road Recreational Park has athletic fields, in-line hockey and picnicking, and South Germantown Recreational Park has many active recreation facilities including a soccer complex, an adventure playground, splash park, heart smart trail, and picnicking. These parks will continue to serve a large population area because of their unique facilities.

In the last 10 years the Parks Department has developed six new local parks that have provided 9 new fields, 7 tennis courts, 7 new playgrounds,

and 5 basketball courts. The Recreation Department has opened a Germantown Recreation Center adjacent to Kingsview Middle School and a world class aquatic facility at South Germantown Recreational Park.

Parks and Recreation Needs

One purpose of a master plan update is to assess is whether the existing recreational facilities are adequate and whether new resources should be provided for existing and future users. The PROS Plan projects recreational needs by planning and community based team area, and specific needs for sub-areas such as the study area are not available. According to the 2005 PROS Plan (The Land Preservation, Parks, and Recreation Plan) the Planning Area will need an additional 6 playgrounds, but needs for tennis and basketball

courts can be met by existing facilities at Parks and Schools. In terms of new fields, the entire I-270 Corridor will need 33 additional fields many of which will be provided by parks and schools in the rapidly growing Clarksburg Area.

Parks and Recreation Opportunities

- Undeveloped Parkland: There are several undeveloped local parks in the Germantown Area that should be used to meet the needs of future residents of both the Transit Study area and the Germantown Planning Area. These include: Kingsview and Seneca Crossing. Additionally the Hondros property which is part of South Germantown Recreational Park may be used in the future to provide future recreation facilities. Specific recommendations for these parks are found in Table 2.
- Additional Facilities in Existing Parks: Opportunities to provide recreation facilities include a proposal for a large public/private indoor tennis- racquet ball facility in South Germantown Regional Park.
- Private Recreation Facilities: As residential or mixed use neighborhoods are built, their required private recreation facilities will be developed to help meet recreation needs in new residential communities.

Community Recreation Center and Aquatic Facility Needs.

Currently, the Germantown area is served by several public community center and aquatic facilities. The Germantown Community Recreation Center and Germantown Outdoor Pool were built on a single site in combination with the Kingsview Middle School. The site includes outdoor recreation facilities and is located southwest and outside of the study area. The Germantown Indoor Pool, located at South Germantown Regional Park is a large full service aquatic facility drawing from a regional audience. The last facility is the Plum Gar Neighborhood Recreation Center situated at the farthest southeast corner of the study area. An additional small facility is also operated near the intersection of Rt. 355 & Middlebrook Road by the Boys and Girls Club.

Based on the population of Germantown as well as the increased development of the mixed use “town center” areas, there is a significant need to locate additional community serving recreation facilities in this vicinity. Geographically, sites in the central and northeastern sections of Germantown would be most complementary to the existing facilities and serve both the “in-town” urban center residents in the vicinity of the Transit Corridor and those in growth areas north and east of the core study area.

Facilities would generally take the form of a multipurpose building blending community service

with active and passive recreation/leisure activities. Service populations include all ages – Preschool through Senior from a surrounding 30,000 minimum-resident area. By taking advantage of the future development it may be possible to integrate facilities into the initial conceptual design of some mixed use parcels. It may even be possible to conceive of a full service facility including outdoor features at the eastern edge of the Germantown community and a “downtown annex” in the Milestone/Rt270 area that would provide residents of the higher density central sections with a smaller facility focused on basic key recreational elements.

It is recommended that MNCPPC work closely with the Department of Recreation to incorporate community recreational facilities into a detailed land use plan for the further development of Germantown.

Stewardship of Natural Resources and Nature Oriented Recreation Facilities

The M-NCPPC made an early commitment to environmental stewardship and conservation when it was first formed in 1927 and began acquiring land surrounding the stream valley parks. This commitment has become an important principle that guides a wide range of planning and regulatory programs and projects.

As indicated on the Existing Parks Table, the Germantown area has over 800 acres of nature

oriented stream valley parkland. The Great Seneca Stream Valley Park offers opportunities for natural oriented recreation such as enjoying nature, hiking, nature photography, bird watching, etc. The Black Hill Regional Park provides opportunities for water oriented recreation, picnicking, and hiking.

Natural Resource Recommendations:

- Develop all parks and open spaces in an environmentally sensitive manner.
 - Examine feasibility of park acquisition of any properties that include outstanding natural resources if they become available, particularly those adjacent to Black Hill Regional Park or Great Seneca Stream Valley Park.
- 4. Assure connectivity by creating a park trail system that in combination with the bike paths provides an integrated, interconnected pedestrian network throughout the community, and links neighborhoods to the larger community by trails, sidewalks, and bike paths.**

Policy Guidance

The 1998 *Countywide Park Trails Plan* proposed a 250-mile interconnected system of hard surface and natural surface trails in eight greenway corridors throughout Montgomery County. The

Germantown Planning Area is located in two of the eight corridors:

Corridor 2: Seneca Greenway Corridor, a natural surface trail corridor that stretches from the Potomac to the Patuxent and utilizes a portion of the Germantown Greenbelt.

Corridor 8: Upcounty Corridor, a hard surface trail corridor that features a proposed hiker-biker trail to link the communities of Germantown, Clarksburg and Damascus.

As recommended by the Countywide Park Trails Plan we have developed an extensive natural surface trail system that will surround the Planning Area and will have a hard surface bicycle beltway with connections to the north and South. The *Countywide Park Trails Plan* identifies the need for a more comprehensive look at how park trails and bike paths can be integrated in the upcounty area and stresses the need for a “well-thought out trail concept to guide both private and public development”. Both the Germantown Master Plan and the larger MD 355 corridor study will help assure enhanced connectivity along the entire length of the I-270 Corridor.

Trail Connection Needs

Connectivity to park trails, existing and proposed parks, and community facilities is essential. Closing the gap in the North Greenbelt proposed trail is important between Seneca Crossing Local

Park and Great Seneca Stream Valley Park. The M-83 segment of the Germantown Bicycle Beltway will provide this function, however if M-83 is not built, an alternate alignment must be provided. Trail head parking is needed at the Waters house. New trails planned for Black Hill Regional Park will add to recreational opportunities.

Trail Recommendations

The Trail Concept both links the study area to nature, parks, and community destinations and to regional trail systems. Specifically the Plan proposes to:

Link the Town Center to the greenbelt parks to:

- Create a “greenway” that integrates the Town Center entertainment district, public parks, and private open space and features easy access from transit This is a linear green space that connects Black Hill to the Town Center (via Crystal Rock Drive road narrowing). If possible and through work with private developers, this plan proposes a cultural walk that could build upon one or more of the historical themes identified in this Plan.
- Provide a Bicycle Beltway that connects the Study Area to N, S, and E parks and trails. If M-83 and its related bikeway are not proposed, and alternate bikeway alignment must be identified.

Table 2: SUMMARY OF PARK AND TRAIL RECOMMENDATIONS CORRIDOR AREA

Proposed Parks and Open Space Germantown Study Area

Park	Status	Issues	Opportunities or Recommendations
Town Center Commons- in Black Rock Cultural Arts Center front lawn	Owned by DPWT	Poorly maintained	Encourage DPWT to develop plan for better public use with seating, landscaping, etc.
Family-oriented Play Park near Upcounty Government Center	Owned by M&T	Exchange for Germantown Square Urban Park, need to “anchor” south end of Main Street open space system.	Family oriented seating and playground.
Transit Neighborhood Parks : Cloverleaf Park Far North Park Seneca Meadow Park Milestone Green	Developer owned, could be public or private	Urban Open Spaces needed near future transit stops.	Flexible, level grassy area for variety of active pickup sports, seating, play structures, skateboarding spot. Possible location of cultural public art/artistic interpretive elements. Seneca Meadows Park could be combined with urban Recreation Center on east side of I-270.
Town Center Urban Park	In the CIP. Will provide nature oriented recreation to pathways and informal OS	Lack of play facilities for children	Explore installing climbable art either in the park or next to the library. Possible location for installation of “black rock.”
Germantown Square Local Park	Existing	Underused, inaccessible.	Swap for M&T site near Town Center Main Street (Century Boulevard at Middlebrook Road).
Germantown Boys and Girls Club site* (Germantown East Local Park)	Existing Building provides recreation programming space.	Poor views into site from the street	Design, install, maintain streetscape, possibly partnering with Boys and Girls Club. Work with DPWT to install safe pedestrian crossings.
<i>Parks beyond Study Area**</i>			
Kingsview Local Park	Facility Planning Priority Project	Needs program	Facilities for youth and teens, such as skate park or plaza, open play area, playground
Seneca Crossing Local Park*	20-acre Facility Planning Priority Project in the FY07-12 CIP	Needs program	Provide needed fields, possibly cricket and other active recreation facilities
Expansion of Black Hill	Under study	Valuable forest needs protection	Protect through easements or...

** Parks beyond the study area to be used by residents of the study area

Table 2 (continued): SUMMARY OF PARK AND TRAIL RECOMMENDATIONS CORRIDOR AREA

Proposed Trails

M-83 Segment of Germantown Bicycle Beltway	Countywide Park Trails Plan	Road might not be built due to environmental issues	Identify alternate alignment(s)
Crystal Rock Greenway	In existing ROW		Create linear recreation corridor between Town Center and Black Hill Park, with hiker/biker path, seating, landscaping.

5. Reflect new park planning emphasis on historical and cultural interpretation and outreach.

Policy Guidance

Although not formally adopted by the Planning Board, the blueprint for stewarding cultural resources and making them more visible to the public is: *From Artifact to Attraction: A Strategic Plan for Cultural Resources in Parks*. This document was written by staff in the Historic Preservation Section, and was presented to the Historic Preservation Commission, the Planning Board, and the Planning, Housing, and Economic Development (PHED) Committee of the County Council. The Cultural Resources Stewardship Section of the Park Planning and Stewardship Division uses the Plan as the foundation for its evolving work stewarding upwards of 150 park-based cultural resources.

Plan Objectives

This Master Plan includes two types of information pertaining to cultural resources in parks: 1) a series of themes relating to Germantown; and 2)

archaeological and historical resources on local, public parkland. The objective of this Master Plan is to highlight opportunities to develop historic interpretation on local parkland, whether that is through future capital improvements by the Department of Parks or by developer amenity. Cultural resources on parkland are all those resources that help tell the story of the county's history, whether they are designated or not. Note that all sites that are designated on the *Master Plan for Historic Preservation* or on the *Locational Atlas and Inventory of Historic Sites* in the vicinity of this Master Plan area, regardless of whether they are in public or private ownership, are identified in the section titled "Historic Resources." Therefore, certain sites may be included in both this chapter on Parks as well as in the Historic Resources material within this Plan.

Cultural Resources Interpretive Themes and Opportunities

Five themes are identified for interpretation as follows:

1. **A Native American Hunting and Gathering Ground** (10,000 B.C. – 1607 A.D.) The

area around Germantown served as a hunting and gathering grounds for various prehistoric peoples through the centuries.

2. **The Waters Family and Early Agrarian Founders** (18th Century – Early 20th Century). Germantown contains several historic buildings and sites associated with this prominent family who helped shape the agricultural tradition of Germantown. The sites are part of the farming legacy of the county. (Photo of the Waters House-Pleasant Fields below)



3. **Water and Steam Powered Mills** (mid-18th Century - 1920s). Milling operations

utilizing natural water resources eventually were converted to steam.

4. **The Germans Behind Germantown** (1830s - 1870s). Early German settlers built log structures and ran many mercantile operations. Their community became known as “Log Town.”
5. **A Settlement that Followed Transportation** (Pre-1600 – Present). Transportation changes from water routes to foot trails, trails to dirt roads, roads to rail lines, and rail lines to paved roads and highways resulted in the movement of Germantown’s core area from one place to the next over the centuries. (Historical photo of Seneca Viaduct below.)

Germantown’s history can be conveyed through cultural resources in parks in the following ways:

- Public Art Interpretation in one or more of the urban parks proposed near transit stops.



Historic and cultural interpretation can be implemented within urban open space nodules via collaboration with local artists in the creation of sculptures, the use of “ghosting” of historic images on current building facades, the fixed telescoping of historic views that can be compared with current views, etc. The opportunity exists for the Department of Parks, private developers, and the Arts and Humanities Council of Montgomery County to create exciting and meaningful works of art that interpret Germantown’s history. Within this context, opportunities also should be explored to creatively make use of the “black rock” that is eponymous with the central cultural heart of the study area, since the material still exists in storage at Black Hill Regional Park.

- A Historical marker trail along the Seneca Greenway Corridor that parallels Seneca Creek.

Each of the themes in this Plan could be interpreted with signage complete with text and



illustrations.

- An Improved trailhead at the Waters House Special Park where it accesses the Upcounty Corridor, or North Greenbelt.

The history of the Waters Family and other early agrarian founders should be told when a new trailhead can be constructed at the rear of the Waters House property. (Photo of the trailhead location at the Waters House Barn, above.)

The Montgomery County Historical Society and the Heritage Tourism Alliance of Montgomery County have partnered with the Conference and Visitors’ Bureau of Montgomery County and the Arts and Humanities Council of Montgomery County to study a proposed conversion of the bank barn at the Waters House Special Park into a Heritage and Visitor’s Center. This barn, like all the buildings at Waters House Special Park, is owned by the Commission. If successful, the proposed project will create an additional destination point within Waters House Special Park that will offer information on local heritage, the Agricultural Reserve, park and recreational activities, hotels and dining, heritage tours and functions, wineries, local historical societies, etc.

- Possible installation of a signed or brochure-guided cultural walk along the proposed Crystal Rock Greenway, culminating at the Black Hill Regional Park Visitors’ Center.

Content of the Interpretive Themes

Theme 1: A Native American Hunting Grounds (10,000 B.C. to 1607 A.D.)

For thousands of years the Germantown region hosted a variety of prehistoric peoples. Although no Paleo-Indian sites (10,000 B.C. to 9000 B.C.) are particular to the area, a few locations along the Potomac River and one in the Sandy Spring region have been associated with these Ice Age hunters who are identified by their fluted Clovis-like points and mega-fauna hunting practices. The Master Plan area would surely have been traversed and known to these nomads.

After 9000 B.C., a warming and drying trend brought on the beginning of more modern environmental changes associated with the Holocene era. A different prehistoric hunting and gathering tradition, called the Archaic Period, arose in the temperate climate and more modern flora and fauna which now covered the region. These Indians, too, were nomadic and, by the end of the Late Archaic Period, can be definitely placed in Germantown.

These were the Late Archaic broad-blade users who made the Savannah River and Susquehanna Broadspire points found in the Kavanaugh III and Site 6 sites. The new side-notched shapes have been attributed to the introduction of the new atlatl, or spear thrower, which allowed for more force and distance. The Late Archaic Period was

the height of the seasonal hunting and foraging pattern that would have focused more particularly on the resources of local creeks and streams. Broad-blade implements are thought to be specialized harpoons for fishing such as would have occurred in Seneca Creek. However, their users would also have gathered the starchy seeds and tubers of the wetlands and hunted the deer and other fauna that came there to feed.

Small mobile bands of between 50 and 100 people would most likely have visited the Master Plan area in the summer and fall when hunting and gathering would have been at its best. Such Indians would have located their sites to exploit nut harvests, turkeys, and various vegetable foods, in addition to deer. Archaeologists have never discovered what type of structures these Archaic peoples made, but they were probably similar to the small round huts of later periods, usually covered with skins or woven reeds.

Late Archaic semi-permanent macro-band camps (100+ people) would have been located in areas of higher resource potential, mostly along the Fall Line, the geological break between the Coastal Plain (Prince George's County) and Montgomery County's Piedmont uplands. Their seasonal round would have taken them from such winter camps to springtime harvests in southern Maryland and back up into the western foothills again for the summer and fall.

The only evidence of Woodland or Agricultural Indians (1000 B.C. to 1607 A.D.) in the Germantown Master Plan area comes from known Indian paths. Modern Route 355, was part of the old "Sinequa" Indian trail that eventually wound its way to Point-of-Rocks. Seneca Creek was also named for the northern Seneca Indians who used that stream valley as a way south.

Woodland villages have been discovered only in the Potomac Valley region of Montgomery County and its associated islands. However, earlier Indians would have also made use of the Germantown area solely to hunt and gather seasonal flora. Because such villages were abandoned about 100 years before European contact, archaeologists have no knowledge of any of their tribal affiliations, linguistic stocks, or even migration destinations.

When John Smith sailed up the Potomac in 1609, the Germantown area, along with the rest of Montgomery County, had become a sort of prehistoric no-man's-land, buffering the Algonquians of southern Maryland against the northern Iroquois (Seneca) and Susquehannocks and western Siouan and Shawnee tribes. The Susquehannocks and the Seneca were especially territorial about their rights to hunt in the region. It was the Susquehannocks who created the path that shows up on a 1716 map as the "Tehoggee Trail", a rugged thoroughfare we now know as River Road. By this time, the Indians of

Germantown and Montgomery County had long disappeared into prehistory.

Theme 2: The Waters Family and Early Agrarian Founders (18th-20th Centuries)

Although Montgomery County was formed out of Frederick County in 1776, the establishment of a stable agrarian culture began much earlier. Europeans first took out land patents in the late 17th century. The earliest patents for the Germantown area were mostly in the mid-18th century. What had been the "old Sinequa" (Seneca) Indian path now led settlers west along what they called the "Great Road" (Route 355). They used the old Indian trail to roll their hogsheads (large barrels) of tobacco from their farms to the port of Georgetown.

The British settlers established the farming practices used in southern Maryland; a soil-depleting, slave-oriented tobacco culture. Most Montgomery County tobacco farms averaged only about three or four enslaved people, but some



were larger. In the 1790s, upon their marriages, the three Waters brothers, Zachariah, William, Jr., and Basil, all were given land in what is now Germantown by their father, William, Sr. A stone boundary marker with the initials W & M (for the William and Mary Waters tract, photo above) is located in the Black Hill Regional Park west of Germantown. The combined Waters property covered all of present northeast Germantown, comprising about 1500 acres, and included a tobacco plantation worked by 22 slaves. The fourth Waters brother, Ignatius, inherited their father's estate in Brookeville.

Around 1810, Zachariah Waters also established a mill along Little Seneca Creek with three milling operations producing flour, lumber, and flaxseed oil. The mill ceased operation in c. 1895. Today the Waters Mill ruins are still visible, and they interpreted by an historic marker in Black Hill Regional Park.

While the Zachariah and William, Jr. Waters homes no longer stand, the Basil Waters House, dating from the late 18th century, does. Basil Waters developed his property into a large tobacco plantation known as "Pleasant Fields." In the mid-1800s, Basil's nephew Dr. William A. Waters, lived in the house and had his doctor's office there. The house gained its present Italianate appearance under ownership of Charles Waters, son of William. Charles built or expanded the frame section (right) and compatibly redesigned the existing house. The new large central hall was outfitted with an

elegant curved staircase. Charles Waters bred racehorses on the property, one of whom set the East Coast trotting record (1898). The property, which remained in the Waters family until 1932, includes a bank barn and double corncrib. A small Waters family burial plot is nearby on Hawk's Nest Lane. The restored house and barn owned by M-NCPPC, is open for community events and operated in part by the Montgomery County Historical Society.

Theme 3: Water and Steam Powered Mills (mid-18th century through 1920s)

From 1820 to 1900, a booming economy emerged in the Germantown area. This new prosperity was made possible by the development of agricultural diversification and new fertilizers, as well as the advent of the railroad in the area by the 1870s. The establishment of Waters Mill (18M0461) in Black Hill Park, and other milling operations along Seneca Creek in the Germantown area, reflect the growth of water-powered manufacturing technology in the Piedmont region, where streams run swiftly. The change from a folk-oriented tobacco culture to a more nationally-focused industrial economy brought Montgomery County into the larger American pattern of development.

Along the waterways of Great Seneca Creek and Little Seneca Creek, grist and saw mills had appeared by the mid-18th century. Early maps of the area identify mills as "G&S mills" for the water-powered grist and sawing activities located along

these streams. These local businesses not only served the community's commercial needs with grain and lumber processing, but also provided important social and political functions as community gathering and voting places. The mills' names pay tribute to the early residents who lived near Germantown: Benson, Crowe, Clopper, Davis, Watkins, Waters, Magruder, and Hoyle.

During the early 1800s, Francis C. Clopper, who called his estate "Woodlands," owned and operated the Woodland Wool Carding mill during the early 1800s. Clopper also ran a grist and a saw milling operation. The extant ruins of this mill are located in Seneca Creek State Park.

It is difficult to determine exact construction dates of many of the early mills. Some burned or deteriorated, and their foundation stones were reused to build new mills on the same site. Early documents record ownership transfers that often meant a change in the name of the mill and the road where it was located.

Early water mills were located along a steady stream of water and were constructed using local stone and timber. Mill structures ranged in size from two- to three-story masonry or clapboard structures, and some even utilized two water wheels. Early water-powered mills were located along steady, fast-moving streams and were constructed using local stone and timber. Mills from the 18th and early 19th century were usually powered by undershot wheels, where the

force of the water against the lower blades turned the wheel. As the population and agricultural production increased, the need for reliable water power for milling and milling operations grew. Experiments using different types of wheel designs were used, with the overshot wheel being the most popular. In this design, the water struck the upper blades on top of the wheel and moved it down by the force of gravity.

At least an eight foot drop in elevation was necessary for locating a mill along a waterway. In addition, an ample supply of water was created by building a small dam or "mill pond" upstream from the mill. Water was diverted from the pond through a ditch called a "mill race" or "head race." The mill race contained a grate to filter debris before reaching the water wheel. Upon turning the large wheel, the water then flowed through the "tail race" and was diverted back to the main stream. The Waters Mill ruin in Black Hill Regional Park contains remnants of these races.

The large water wheel turned a shaft that powered a series of cogged wheels inside the mill structure, transferring power by moving from large to small gears and ultimately turning the mill stone for grinding. Two stones were used for grinding. The top stone, called the runner, rotated over the stationary bottom runner, or bed stone. Both stones were cut with furrows to grind and channel the grain to the stone's edge. Grain was poured into the center of the top stone and moved out

through the furrows where the ground flour or meal was collected at the edges.

Early grist mills used locally-quarried stones for grinding rye, buckwheat, and cornmeal producing a coarsely ground flour or "country custom" flour. Stones were also imported from France and Germany and produced more finely ground flour. "Cullin" stones were a blue-black lava stone and "French burrs" were freshwater quartz stones quarried in Northern France.

A list of some of the water-powered mills located on public parkland near the Germantown Master Plan Study Area is located at the end of this document. Of the mill ruins cited, one of the most intact ruins, and an example of a mill constructed using the local black rock, is Black Rock Mill, now part of Seneca Creek State Park (photo below).

Water power fueled the mills until the advent of steam power in the 1850s. Later milling operations ventured away from the streams and



towards steam power, locating near the railroad line for transportation purposes. In 1888, the Bowman Brothers' Liberty Mill was built next to the present-day Germantown depot, along the Metropolitan Branch Railway line of the Baltimore & Ohio (B&O) Railroad. The wooden flour mill burned in 1914 but was rebuilt and modernized in 1916 with six huge silos. In 1918 Augustus Selby and his four partners bought the mill and operated it until 1963. A grain elevator and grain dryer were part of the operation in the 1920s and 30s, but burned in 1972 after the mill had closed. Still standing is a grain scale housed in a small metal shed on Mateny Hill Road, southwest of Blunt Avenue. The Liberty Mill was at one time the second largest mill in the state.

Theme 4: The Germans Behind Germantown (1830s – 1870s)

The first German settlers in the area came from old Frederick County, and they established small farms growing grains and cereals. In the 1830s



and 1840s, Pennsylvania Germans, as well as immigrants from Germany and Slavic countries, settled at the crossroads of Germantown (now called Liberty Mill Road) and Clopper (Route 117) Roads. Some of the first settlers were the families of Domenicus Stang, a blacksmith; Franz Grusendorf, a stonemason; and Asher Rosenmeier and Charles Adler, who ran the community's store. Other early families included the Metztes and the Richters. Many immigrants were millers and farmers who tilled small plots of corn and tobacco. During this period, when farmers from the surrounding area came into town and heard more German than English, the area became known as "Germantown." The name Germantown first occurred in print in the mid-19th century, on a land deed. The settlement was also sometimes called "log town" because the Germans brought log construction to the area. Today only one of the known German-built dwellings associated with the original cluster of homes and shops from this particular time of settlement survives. The sole remaining structure is the Grusendorf Log House (photo above), which originally stood on the east side of Clopper Road, near Route 118. The house has been relocated to Seneca Creek State Park, southeast of Germantown.

Theme 5: A Settlement that Followed Transportation (pre-1600s – Present)

The settlements at Germantown have undergone five significant changes, from 1) Native American temporary settlements along the waterways in the

pre-1600 period to 2) a small Germanic crossroads settlement at Germantown and Clopper Roads in the 1830s, to 3) a vital railroad stop in the 1880s and 90s, to 4) a "Corridor City" aligned with Frederick Road (Route 355) by the 20th century, to 5) part of the technology corridor in the 1970s, defined primarily by Interstate-270.

The initial movement of people and industry was away from the waters and towards the roads. After the Germans settled along east-west-running Clopper Road, the settlement kept shifting northwards: first with the coming of the B & O Railroad, next to better surface transportation with the paving of Frederick Road and then, with the construction of Interstate 270. Present-day Liberty Mill and Walter Johnson Roads were the original Germantown Road.

During the late 19th century, with the establishment of the railroad, farmers were able to ship their produce, grain, and milk to Washington, and also receive fertilizers to enrich the soil for larger yields. The railroad continued to provide a strong economic link for Germantown, especially to the expanding metropolitan regions of Baltimore and Washington.

In 1878, the first Germantown railroad depot was constructed. In 1891, it was replaced with a larger frame building. This depot burned in 1978 and was reconstructed following the same Victorian-era architectural details. Another railroad transportation component is the massive

stonework of the Waring Viaduct and its larger twin over the Little Monocacy River (near Dickerson, MD). The 350 foot-long, three-arch viaduct of roughly dressed granite supports the tracks that are about 70 feet above the Great Seneca Creek. A granite abutment and piers also remain from the Little Seneca Creek single-track railroad bridge.

Local “black rock,” a schist of metamorphosed Seneca red sandstone, was used in construction of various railroad culverts, foundations, and buildings. This resource was mined from one of the biggest quarries located where Black Rock Road crosses Seneca Creek. Rock from this quarry was also used to build Black Rock Mill located southwest of Germantown.

As the automobile became the preferred method of transportation in the area, accommodations arose for motorists along Frederick Road. The Cider Barrel was constructed in 1926 by Andrew Baker to sell cider and apples from his orchard. Located east of Germantown, this popular road-side stand still remains in operation today and continues to serve tourists and the local community.

The mid-20th century saw the growth of the area continue with the location of the main headquarters for the Atomic Energy Commission (now U.S. Department of Energy) in Germantown. The completion of the I-270 “Technology Corridor” during the 1970s provided for further commercial, business, and educational development. During

this time period, a satellite campus for Montgomery Community College started in Germantown. Today, the area continues to develop along this transportation corridor with three major intersections providing access to the surrounding community.

List of Park-Based Cultural Resources

Known Prehistoric Archaeological Sites:

There are seven prehistoric archaeological sites

within and adjacent to the Germantown Master Plan area. All of them consist of lithic scatter; i.e., they contain flakes and chips that were knocked off to manufacture tools and projectile points. Except for the Kavanaugh III (18M0182) and Site 6 (18M0472) sites, no diagnostic artifacts were discovered which would relate the other Indian sites to definite time periods.

Both the Kavanaugh III and Site 6 sites uncovered projectile points which dated to the Late Archaic Period, circa 3000 to 1000 B.C. The Kavanaugh III

TABLE 3: Known Prehistoric Archeological Sites

Site Number	Site Name	Site type	Period
18M0182	Kavanaugh III	Archaic Lithic Scatter	Prehistoric
18M0183	Kavanaugh IV	Lithic Scatter	Prehistoric
18M0184	Kavanaugh V	Lithic Scatter	Prehistoric
18M0185	Kavanaugh VI	Lithic Scatter	Prehistoric
18M0186	Kavanaugh VII	Lithic Scatter	Prehistoric
18M0472	Site 6	Archaic Lithic Scatter	Prehistoric
18M0594	Wisteria	Lithic Scatter	Prehistoric

Table 4: Known Historical Archaeological Sites

Site Number	Site Name	Site type	Period
18M0175	Rabbit	Farm	19th century
18M0181	Kavanaugh II	Frame Structure	Historic
18M0187	Kavanaugh VIII	Masonry Structure	19th century
18M0205	Parcel EC-1 Stone House	Farmstead	19th/20th century
18M0361	355-1	Farm	-----
18M0362	Middlebrook	Farm	18th-20th century
18M0363	Calico Crab House	Farm	19th century
18M0408	Pleasant Field	Farmstead	18th century
18M0461	Waters Mill & House	Mill	18th-20th century

site contained the base fragment of a Susquehanna Broadspear-like point. Named for the Susquehanna site where it was first identified, it is triangular shaped, broad-based and side-notched, dating from 1750 B. C. to 700 B. C. The Site 6 point was a quartz Savannah River-like projectile. Again, named after its original Savannah River location, this point was triangular-based and side-notched with a broad triangular stem. Such spear points date from 3000 B.C. to 1000 B.C.

Known Historical Archaeological Sites:

There are eleven historical archaeological sites near the Germantown Master Plan Area. Nine of these are farmsteads; one is a masonry structure, and the other is a mill complex. They span a time from the late 18th to the early/middle 20th century.

Additional Cultural Resources in Parks

19/1 Pleasant Fields/Basil Waters House (c

1790s-early 1800s; 1890s)

21200 Waters Road, Waters House Special Park
Master Plan for Historic Preservation

The Waters family inhabited Pleasant Fields for more than a century. Basil Waters established the large tobacco plantation about 1790. The brick sections of the house (center and left) are the earliest, dating from the late 1700s or early 1800s. During the mid-19th century, Basil's

nephew, Dr. William Waters, owned the property and located his doctor's office in a back room on the first floor. Dr. Waters served as the general practitioner for the community and also continued wheat and corn on the farm. In 1907, Dr. Waters' son, Charles, inherited the house and farm. Charles redesigned and expanded the house to its current Italianate-style appearance. The property was used for breeding racehorses and remained in the family until 1932.

Today, the restored house is open to the public and contains offices for non-profit groups and provides public meeting space. Now called the Waters House Special Park, the property includes a large bank barn, a corncrib, and carriage house and is adjacent to the North Germantown Greenway Stream Valley Park. The family burial ground of all three brothers' families is preserved near the Pleasant Fields property on Hawks Nest Lane.

Waters Mill Ruins, Chimney Ruins, and Boundary Marker

Black Hill Regional Park

Not Designated

In c. 1810, Zachariah Waters also established a mill along Little Seneca Creek with three milling operations—flour grinding, flax-seed oil pressing, and lumber cutting. The mills ceased operation c. 1895. An 1865 Martenet and Bond map, labels the mill site as "Mrs. Waters Mill," for Eleanor (Ellen) Waters, who was Zachariah's daughter-in-



law. Ellen operated the mills after her husband, Tilghman Waters, died in 1864. The Waters' grist and saw-mill ruins are visible from the Black Hill trail and interpreted by a historic marker in Black Hill Regional Park. Foundations from the late 18th-century miller's house are in the vicinity. The site provides a good example of the head race and tail race used to direct water to and from the milling operation. Also located along the trail is a remaining "W&M" stone boundary marker indicating the William and Mary Waters land tract. Near the park's picnic area and playground are two stone chimneys and a foundation from a former tenant house owned by the Waters family (photo above).

14/54 Davis Mill Ruins

Great Seneca Stream Valley Park

Not Designated

The Davis Mill, located along Davis Mill Road near Great Seneca Creek, was purchased by John Samuel Davis in the 1880s. A mill was at this site as early as 1783. During the time Davis operated

the grist mill, it was a three-story, clapboard, frame building with a stone foundation. Davis' homestead was nearby and overlooked the mill. The mill burned in the 1940s. An interpretive historical marker is located at the mill site.

19/7 Watkins Mill Ruins

Great Seneca Stream Valley Park
Not Designated

The Watkins Mill site is located along the Great Seneca Creek at Watkins Mill Road. Originally built by Aden Grey, a grist mill has been at this site since 1783. From 1791 to 1846, the Dorsey family owned the property and ran a grist and saw milling operation. From 1859 to 1877, it was owned and operated by Susan Ann and Remus Snyder. At that time, the mill road was also called "Snyder's Mill Road." Levi Watkins purchased the mill at auction and operated the grist mill. By the 1880s, the mill produced 600 barrels of wheat flour, 10,000 pounds of buckwheat flour, and 185,000 pounds of cornmeal a year. The mill burned in 1908. Part of the mill foundation remains along the creek bank, and portions of the mill race are visible. A radio tower is located near the former mill pond. The miller's house burned in 1920. An interpretive historical marker is located at the mill site.

King Farm Dairy Mooseum

South Germantown Regional Park
Not Designated



The c. 1930s James and Macie King Dairy barn is part of the 650 acre South Germantown Regional Park. The large concrete block barn features a gambrel roof. Two original concrete silos are connected to the barn. In 2001-2002, the Department of Parks restored the exterior of the barn and added missing roofs to the silos. The barn is open to the public as the King Farm Dairy Mooseum (photo above).

Hoyles Mill Ruins

Hoyles Mill Conservation Park
Master Plan for Historic Preservation

The Hoyles Mill site is located along Hoyles Mill Road in the Hoyles Mill Conservation Park. This 19th century mill was operated by the Hoyle family on part of their farm land along Little Seneca Creek. The 1850 Census of Manufacturers lists it as a grist and a saw mill. It operated until 1914 when the Hoyles moved their milling operation to Boyds to be closer to the railroad. The mill ruins still contain remains of the water-powered turbine

that replaced the mill wheel in the second half of the 19th century.

18/44 Little Seneca Creek Viaduct, B&O Metropolitan Branch Railroad Bed 0

Black Hill Regional Park and WSSC Property
Master Plan for Historic Preservation Designation
Pending

This resource consists of the remains of the 1896 viaduct that traversed Little Seneca Creek and an abandoned c. 1865 railroad bed located approximately midway between Boyds and Germantown. These structures were once part of the c. 1860s Metropolitan Branch of the B&O Railroad, a 43-mile link between Washington, D.C. and the Main Line of the B&O at Point of Rocks, MD. Upon its completion in 1873, an economic boom began for the communities located near its route; consequently, the former crossroads community of Germantown moved its commercial development to the northeast, creating "New Germantown" along this railroad.

The remaining masonry structures once supported a single-tracked metal railroad bridge in operation until 1928 (see historic photo, above section). The bridge was abandoned when the railroad was double-tracked, straightened, and rerouted farther south. The bridge was built on a four-degree curve with a total span of about 480 feet and approximately 105 feet above water at its midpoint. The bridge was designed by John E. Greiner (1859-1942), an engineer with the B&O

Railroad, using a relatively standard bridge design with the track supported by deck-type girder spans which were, in turn, supported by nine bents, arranged into four towers and one stand-alone bent.

In 1980, a dam was constructed to create the Little Seneca Lake reservoir. Construction occurred in the center of the viaduct site; the western section of the viaduct and its stone piers were either removed or buried.

The rest of the viaduct remains are located along the former eastern slope of Little Seneca Creek. It consists of one large granite-end abutment and four stone piers. The abutment is approximately 31 feet wide and 12 feet long. The structure stands some 12 feet above grade at its exposed end. Two dates are chiseled in the structure, "6.17.96" and "10.13.96" (photo below), and probably represent the periods of construction. At the base of the stone abutment stand four stone piers. The 1896 viaduct replaced an early 1870s wooden trestle. Visible remains from this earlier bridge are the stone retaining walls that the B&O Railroad used as rip-rap for the base of the fill on



the east bank of the creek. The viaduct structures are located on WSSC property.

The remaining B&O Metropolitan Branch Railroad Bed is a significant landscape feature that is cut into the hillside and leads from Wisteria Drive to the Little Seneca dam. It is now part of Black Hill Regional Park and is currently being used as an access road to service the dam. The road is closed to the public.

18/8 Boyd-Maughlin House

15215 Darnestown Road (Black Hill Regional Park)

Master Plan for Historic Preservation

One of the earliest structures in the Boyds Historic District, is the David Maughlin House also known as the Boyd-Maughlin house that dates from 1866. The two-story, frame, clapboard house is a good example of the rural Gothic Revival influenced vernacular architecture. Features include a cross-gabled roof, bracketed porch posts, and a central front gable with a small arched window. The property is now part of the Black Hill Regional Park and rented as a residence.

Black Hill Gold Mine

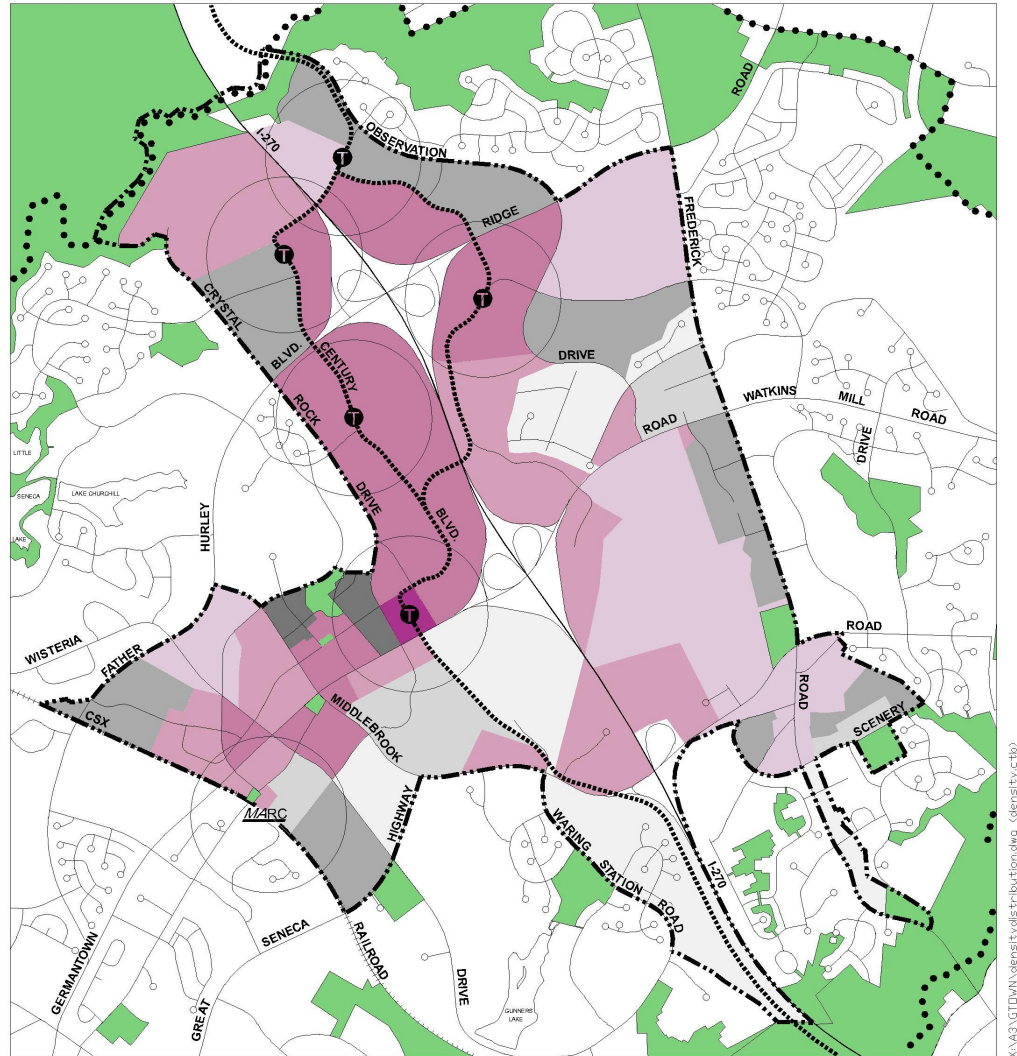
Black Hill Regional Park

Not Designated

Remnants of mining pits from the Black Hill Gold Mine are located in the Black Hill Regional Park. Starting around 1850, miners used picks and shovels in open-pit extraction in attempts to find gold. However, results were disappointing since ore containing gold was rarely found. In 1947, George A. Chadwick purchased the property and later converted the mine to a bomb shelter. An interpretive historical marker is located at this site.

APPENDIX 13: DENSITY DISTRIBUTION, 2008

Proposed Density Distribution



APPENDIX 14: GERMANTOWN HOUSING REPORT

Research & Technology Center (RTC), 2008

INTRODUCTION

This report describes Germantown as a working community. As such, Germantown embodies the concept of housing affordable to the workforce. However, by 2030 the population profile of Germantown will shift, rather dramatically, to one in which a larger portion is over 65 than ever before. The dilemma Germantown will face is one in which workers who live there now will likely want to age in place, staying in their homes for as long as they can. Without turnover, where will new workers live?

In trying to find an answer, the housing report for the Germantown Master Plan Update revisits the planning history for Germantown and looks for ways to bring about the vibrancy envisioned in those documents. It is apparent that the development of the Town Center has lagged. Caught up in the old Euclidean paradigm of separation of uses, the urban experience of the Town Center is just now emerging. Additionally, a proposed new transit corridor will offer opportunities to locate employment and worker housing close to transit,

but not within walking distance of the Town Center. Whether the new transit nodes will complement or

compete with the vitality of the Town Center will be the subject of public debate.

Following the recommendations, on the next page, this report discusses the planning history of Germantown related to the separation of housing from other uses, the existing situation (residential sales and rentals), and workforce demographics. Additionally, special sections are included to address senior housing, moderately priced dwelling units (MPDUs), and workforce housing.

HOUSING RECOMMENDATIONS FOR GERMANTOWN MASTER PLAN UPDATE

- Fill the hole in the donut. Add residential uses on top or among office and commercial uses in the Town Center.
- Build transit-oriented workforce housing—reduce the costs associated with getting to work. While the Town Center is key to the future vitality of Germantown, other good sites for workforce housing could include nodes along the new transit corridor or near the existing MARC station.
- Understand there will be a large increase in the number of residents and workers 55 years of age

and older. We know from recent studies that the current workforce wants to age in place.

- Encourage the decentralization of supportive services so that residents may stay independent for as long as they desire.
- Realize that if residents are able to age in place, they will leave their homes only when they are no longer able to live independently. New construction for retirees, therefore, should not focus on “active adult communities” but, instead, should focus on affordable assisted living facilities.
- New construction should primarily focus on younger workers – efficiencies, one and two bedroom units.
- Realize that the same type and size units can be suitable for both young and old workers—as long as the units are built to be accessible. If the units are served by elevators, at grade ingress, and other features—then the unit will fit the needs of a wide variety of workers – young and old, alike.
- Preservation of existing subsidized rentals and MPDUs (sale and rental) is important
 - Consider “no net loss” policies.
 - In the case of MPDUs, consider the relative permanence of rental units.

- Monitor rent increases. Within a few years, a little increase in the rate makes a big difference in the amount of rent being charged each month.
- Encourage employers in Germantown to participate in Maryland’s House Keys for Employees program, where every employer dollar is matched by a state dollar, up to a combined \$10,000 in down-payment and closing cost assistance.

THE CHANGING VISION OF HOUSING IN GERMANTOWN

1964 – NEW, DENSE, AND SEPARATE

In the Adopted 1964 On Wedges and Corridors: a General Plan, the Maryland-National Capital Park and Planning Commission (M-NCPPC) described the future of Germantown as completely different from what it was at that time. Dairy farms would be replaced by a corridor city, complete with a town center, dense housing, and a rapid rail metro system. Planners envisioned that by year 2000 Germantown would become a vital new town, with a population of nearly 60,000 and about 11,000 jobs (M-NCPPC 29). This was in stark contrast to Germantown’s 1960 population of 1,000 and 2,100 jobs.

The Germantown of the future was foreseen as a new town and would “afford the greatest opportunity to create in a concentrated, efficient and economical manner a range of choice of living environments. Cut from the whole cloth, [it would] be completely divorced from townhouses that ‘grew up’ around a crossroad, an industry, a rail stop or the local grain and fuel center.”(M-NCPPC 19) Tall buildings would be the “symbol of a core area, identifiable from several miles away...[allowing] the great number of people, who must come together to make a downtown work efficiently, to be housed within a small area without overcrowding the land.” (M-NCPPC 30) The goal was to place “very high density apartment(s)” in the core areas of the new corridor cities, and in 1964 “high density” meant that the “number of apartments allowed might be as high as 60 per acre, compared to the (then) maximum of 48.” (M-NCPPC 82)

Separation of uses was part of the 1964 plan. “Commercial and industrial zones should exclude residences both because good residential neighborhoods cannot be maintained in such areas, and because business and industry can function more effectively where space allotted them is uninterrupted by housing.”¹

¹On page 85, the 1964 plan also states that “even within commercial and industrial zones, specialization of uses is desirable.”

1974 –BROAD RANGE OF HOUSING TYPES AND PRICES, BUT STILL NO RESIDENTIAL MIXED-USE FOR THE TOWN CENTER

The 1974 Germantown Master Plan recommended that Germantown develop into a new town like Reston or Columbia. The plan noted that it would not be easy to do so because Germantown was not like Reston and Columbia in several notable ways. Reston and Columbia were owned by a single developer, while land ownership in Germantown “was fragmented among many different parcel holders.” (M-NCPPC 1989 7) Additionally, Germantown’s 1974 Master Plan did not champion mixed-use residential development, nor was there much height in the town center.

As explained in the 1989 Master Plan, during the late 1970s and early 1980s, Montgomery County’s problems with sewer service and transportation capacity happened at the same time as an energy crisis. Interest rates rose so rapidly that the market rate exceeded the legal limit in Maryland. Builders saw townhouses as a readily marketable product at a time when many builders were failing, and first home buyers found that townhouses provided a relatively affordable place to live. Together, these are the main reasons townhouses predominate in Germantown. (M-NCPPC 1989 8) This building boom also coincided with the adoption of the County’s Moderately Priced Dwelling Unit (MPDU) program, and Germantown’s new construction through the period of the 1970s and 1980s

contributed over a fourth of the County's stock of MPDUs.

1989 – ANOTHER MISSED OPPORTUNITY FOR THE TOWN CENTER

Construction of the town center complete with employment centers that were envisioned in the 1989 Germantown Master Plan lagged the construction of the surrounding residential development by a considerable period. Among the reasons: while any prospective residents felt the value of the new homes in Germantown were worth the additional commute, prospective employers continued to prefer down county locations or locations on the east side of I-270.

The 1989 plan for the town center is unlike the typical “town center” plans of today in several respects. First, it limits heights and densities below what is now considered desirable for a town center; and second, it insists that residential uses be separated from other uses. Today, it is considered desirable – even essential – for residential units to coexist within or among the same buildings as office, retail, or other commercial uses. The 1989 plan for the Town Center enforced a suburban paradigm that allowed residential uses to approach but not mingle with other uses. When the 1989 Plan said that “the Mixed-Use Center should convey an image of urban center and become the location for a cultural arts center, a high-density residential neighborhood, and a mix of land uses, including

office, retail, and other commercial uses” (15), it did not envision today's high-density, mixed use urban center, which typically involves higher densities and a finer-grain mix of uses.

2008 – VIBRANT, SUSTAINABLE, RESIDENTIAL MIXED-USE CORRIDOR CITY

The Germantown Master Plan update process provides the opportunity to fill the hole in the donut, to integrate residential mixed-use in the Town Center. Today's vision for the Town Center must do more than simply add housing. It must include residential units on top of or next to retail, office, and commercial uses, where households of all types can find opportunities to live and thrive. In the Town Center, high-rises and garden apartments or condominiums, two-over-twos, and multiplexes—whether as upper stories or as infill—can provide the missing link between the promise of a vital urban lifestyle and the actualization of it for young and old alike. (Figure 1)

DESCRIPTION OF STUDY AREA

Figure 2

The study area for this update to the 1989 Germantown Master Plan comprises 2,450 acres of the 11,000 acre Germantown planning area. The study area, shown in light red on Figure 2, contains the Town Center, two employment areas, which are located east and west of Interstate 270,

and the areas (or parts thereof) known as Milestone, Neelsville, Montgomery College, and Middlebrook.

There is very little residential development within the study area. This reflects the Euclidean zoning in vogue for most of the development period of Germantown.

Recent trends toward residential mixed-use zoning have made tentative progress toward the full integration of housing amidst other uses. Adding commercial uses could greatly increase the vitality of the “hole in the donut” of this corridor city, while offering convenient living opportunities for a variety of household types.



FIGURE 1. RESIDENTIAL MIX-USE URBAN CENTERS: (Top to Bottom) Clarendon Market Commons; Portland Oregon Community Center; Lake Anne in Reston, VA; Metro Apartments Reston Town Center, VA.

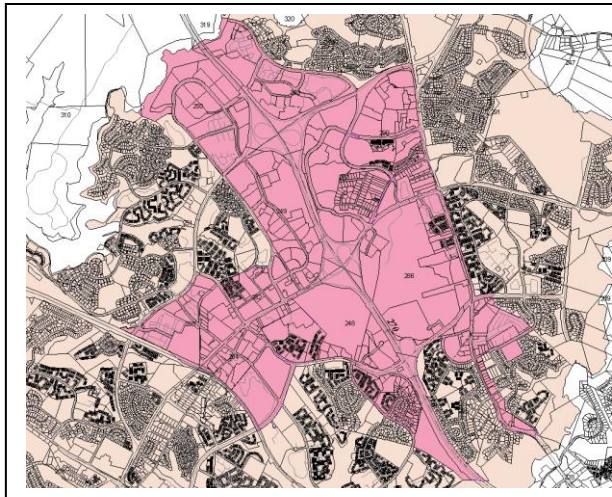


FIGURE 3. MAP OF GERMANTOWN STUDY AREA SHOWING PROPERTY LINES. (Source: M-NCPPC, 2007)

Figure 3

Figure 3 reveals the vast amounts of parking and large block commercial within the study area, as well as the relegation of most residential uses to areas outside the commercial and office areas. There is room to grow within the study area.

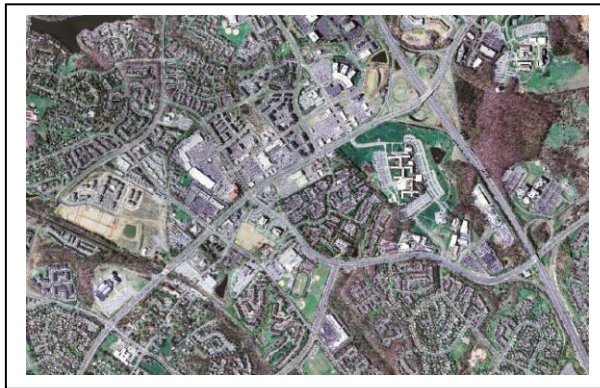


FIGURE 2. BUILDINGS AND PARKING LOTS WITHIN THE STUDY AREA. (Source: M-NCPPC, 2007)

Figure 4

Based on the 2005 Census Update Survey for the entire planning area, Germantown’s population is younger than that of the overall County, with an average age of 32 years in Germantown compared to 36.9 years for the County. Over 72 percent of Germantown’s residents are younger than 45 years of age, compared to just over 61 percent of the countywide population. Less than five percent of Germantown residents are older than 65 years of age, compared to more than 10 percent of the residents, countywide.

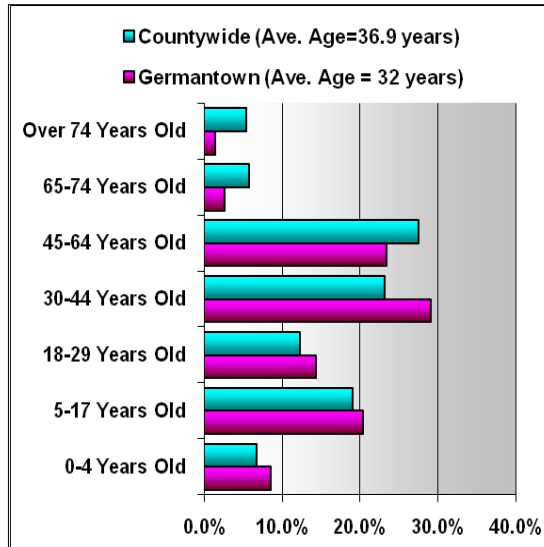


FIGURE 4. AGE DISTRIBUTION (Source: Montgomery County Census Update Survey for the Germantown Planning Area (M-NCPPC, 2005))

Figure 5

The population forecast for 2030 indicates that the population in Germantown will age, but it indicates that the aging process will affect the workforce in a different way than for past generations. The elongation of the workforce curve indicates that many more Germantown residents will be staying in the workforce during their 50s, 60s and 70s. As discussed later in the “Workforce Housing” section of this report, the expectation of a prolonged work life is consistent with the findings in the 55+ Housing Preference Survey, which indicated that many workers do not plan to retire early, if at all.²

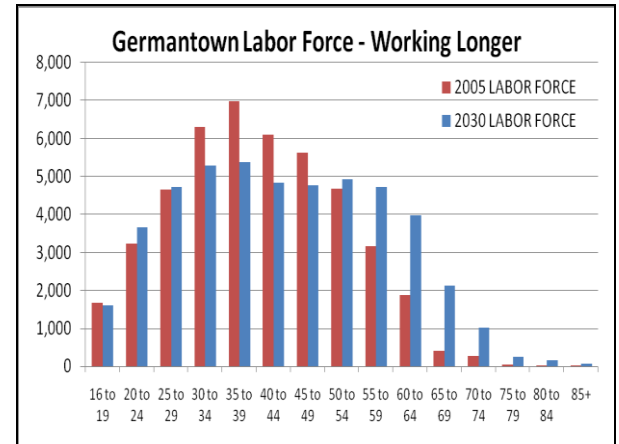


FIGURE 5. GERMANTOWN LABOR FORCE PROFILE (M-NCPPC, Round 7.1 Forecast)

²RTC, M-NCPPC. 55+ HOUSING PREFERENCE SURVEY (2006). http://www.mc-mncppc.org/housing/studies/housing%20_55.pdf

Figure 6

Most of the households in Germantown live in townhouses, followed by garden apartments and single-family detached homes. About 80 percent are homeowners, compared to 77 percent for the County. By structure type, nearly 99 percent of households who live in single-family detached homes own the homes, as do 92 percent of households in townhouses and about 43 percent of households in garden apartments (condominiums). Over half of the households (57.1 percent) living in garden apartments are renters.

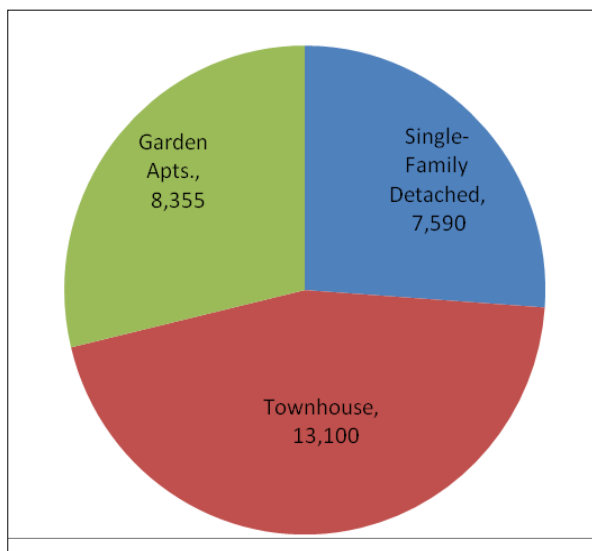


FIGURE 6. NUMBER OF HOUSEHOLDS BY STRUCTURE TYPE (Source: Montgomery County Census Update Survey for the Germantown Planning Area (M-NCPPC, 2005))

According to the 2005 Census Update Survey for the Germantown Master Planning Area (Attachment A), there are some distinct differences between households living in different structure types.

- Households who live in single-family detached homes have larger numbers of people, 3.48 persons per household, compared to 2.82 for households in townhouses, and 1.95 for households in garden apartments/condominiums.
- One-person households make up nearly 40 percent of those living in garden apartments/condos, but are only 21 percent of those living in townhouses, and only 6 percent of those living in single-family detached homes. Over 87 percent of those households living in single-family-detached homes are married couples, compared to about 63 percent of those living in townhouses, and 34 percent of those living in garden apartments/condos.
- Two-person households make up over 38 percent of households living in garden apartments/condos, but they make up only 28 percent of households in townhouses and 19 percent in single-family detached homes.

- All age groups can be found in each of the housing structure types:
 - The median age is nearly 47 years of age (46.9) for heads of households living in single-family homes. That is about four years older than the median ages for householders in either townhouses (43.4) or gardens (43.3).
 - Overall, however, the median age for persons in Germantown is 31.9 years of age for those living in single-family detached homes and 31.5 for those living in townhouses. The median age for those living in garden apartments/condos is only slightly higher at 33.5 years of age.
 - The portion of those persons 18-29 years of age is highest in garden apartments/condos and lowest in single-family detached homes.
- The median income of households is starkly different, as well, with the 2004 median household income for those in single-family detached homes earning \$116,560, those in townhouses earning \$75,495, and those in garden apartments/condos earning \$48,765. This difference in income is partially explained by the difference in the number of workers in each household.

DESCRIPTION OF EXISTING HOUSING STOCK

Figure 7

The 1974 planned build-out for Germantown was slightly over 32,000 units. In 1974, the vision was for over half (nearly 54 percent) of the housing mix to comprise single-family attached units (townhouses and duplexes). By 1987, nearly 60 percent of the 1974 build-out was either built or approved. The mix of these units reflected the mix of units set forth in the 1974 plan.

The 1989 plan called for an eventual build-out of 36,783—approximately 15 percent more units than in the 1974 plan, and it proposed an ultimate mix of unit types that differed significantly from the 1974 mix:

- More multifamily housing (over 40 percent, compared to 28.3 percent in 1974).
- More single-family detached units (29.2 percent, compared to 18 percent in 1974), and
- Fewer single-family attached units (fewer than 31 percent, compared to 52.7 percent in 1974).

- 32 percent multifamily
- Nearly 43 percent single-family attached
- Over 25 percent single-family detached.

Figure 8

Until 1970, there were just a few hundred homes in the Germantown area. By the end of the 1980s about 15,000 homes had been built—nearly half of the housing stock in Germantown, and by the end of the first half of 2007, the number of housing units in Germantown increased to nearly 31,000 housing units (30,949).

On average, about 836 units have been built each year since 1970. Some of the consequences of having large numbers of units coming on line at the same time can include:

- A tendency to identify more with one's subdivision than with "Germantown;"
- Difficulty in establishing an overall Germantown community identity.
- All the houses, infrastructure, and public amenities in the same neighborhood aging and possibly deteriorating at the same time.

Figure 9

Mix of Housing Types in Germantown	SDF	SFA	MF	Total
1974 Master Plan + Existing + Approved Dwelling Units	5,775	17,183	9,053	32,011
Percent of Total Units	18.0%	53.7%	28.3%	
Existing + Approved Dwelling Units (January 1, 1987)	3,545	9,843	5,811	19,199
Percent of Total Units	18.5%	51.3%	30.3%	
1989 Master Plan + Existing + Approved Dwelling Units	10,735	11,258	14,790	36,783
Percent of Total Units	29.2%	30.6%	40.2%	
Existing + Approved Dwelling Units (April 2006)	8,026	13,618	10,214	31,858
Percent of Total Units	25.2%	42.7%	32.1%	
Change from 1987 Existing + Approved Dwelling Units	4,481	3,775	4,403	12,659

FIGURE 7. PLANNED, APPROVED, AND ACTUAL MIX OF HOUSING TYPES IN GERMANTOWN (M-NCPPC, 2007)

By 2006, Germantown's existing and approved housing stock included nearly 32,000 units—nearly 12,660 units more than in 1987. In 2006, the mix of unit types existing or approved indicated that the mix was settling somewhere between the vision of the 1974 plan and the 1989 plan, with Germantown's existing and approved housing stock comprising:

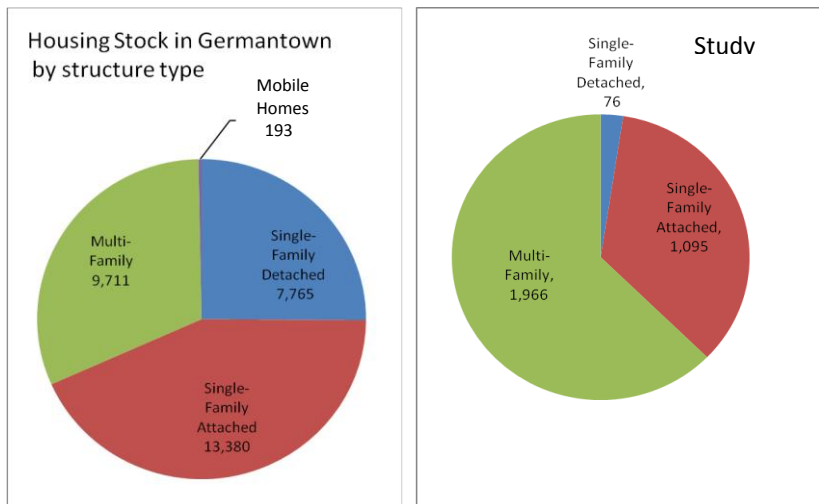


FIGURE 8. PLANNED HOUSING STOCK IN THE GERMANTOWN MASTER PLANNING AREA & IN THE STUDY AREA BY STRUCTURE TYPE (M-NCPPC, 2007)

3,140 units) of the housing stock in the entire Germantown Master Planning Area. Most of the units in the study area are multifamily units, followed by townhouses, and then detached units.

The only housing type not represented in Germantown is high-rise multifamily. This product type would be very appropriate in the Town Center

and would round-out the unit mix in the study area. Furthermore, because high-rise multi-family structures are elevated, these units will provide accessible living quarters for a broad mix of ages, capacities, and incomes—especially when partnered with public transportation and a walkable mix of retail, employment, educational, and recreational opportunities.

Figure 10

Units that have been approved but are not yet built are said to be “in the pipeline.” Of the housing units in the pipeline for the Germantown study area, 237 units were completed in 2007 and 716 units remain in the pipeline for future completion. The

Germantown Town Center has no units either recently approved or remaining in the construction pipeline. Of the remaining units, about 25 percent of the units will be multifamily units and about 75 percent will be single-family units:

- Over 30 percent are single-family detached homes for construction in the Germantown West.
- Nearly 44 percent of the units remaining in the pipeline are single-family attached homes (townhouses or plexes), and these will be fairly evenly split between Germantown East and Germantown West policy areas.

Currently, more than two-thirds of the housing stock in Germantown is single-family detached and attached housing and one-third is multi-family housing. As of April 2006, the percentage of single family detached units increased to over 25 percent, just short of the 1989 Master Plan goal of 29 percent. Though townhouses remain the predominant type of housing unit, the proportion of townhouses has been reduced from nearly 54 percent to less than 43 percent of the housing stock. This mix of housing provides choices to a range of household types. The study area combines the Town Center and East and West Employment Corridors. This area contains approximately 10 percent (about

Policy Area	Village Name	TAZ	Single-Family Detached	Single-Family Attached	Multi-Family (Garden Apts/Condos)	Mobile Home	Totals by TAZ
Town Center	Town Center	282	1	193	362	0	556
		283	2	22	484	0	508
		284	0	0	0	0	0
Germantown West	Employment Corridor (West)	248	0	0	0	0	0
		249	0	0	0	0	0
		250	0	410	28	0	438
	Kingsview Village	252	596	1,630	6	0	2,232
		253	1,703	478	106	0	2,287
	Churchill Village	251	826	2,177	2,389	0	5,392
	Clopper Village	255	374	2,193	222	0	2,789
	Gunnery Lake Village	256	846	1,016	1,749	0	3,611
		254	358	2,296	2,269	0	4,923
Germantown East	Employment Corridor (East)	286	2	84	524	0	610
		287	71	0	0	0	71
		288	0	386	568	0	954
	Middlebrook Village	285	342	464	204	0	1,010
		292	725	1,851	403	193	3,172
	Neelsville Village	289	639	0	0	0	639
		290	65	121	397	0	583
		291	1,215	59	0	0	1,274
Totals by structure type:			7,765	13,380	9,711	193	31,049

FIGURE 10. PARCEL FILE ESTIMATE OF GERMANTOWN'S HOUSING UNITS BY STRUCTURE TYPE (M-NCPPC, 2007)

	Approved Units				Remaining Units in Pipeline by Type			
	Detached Single Family	Attached Single Family	Multi-family (Garden Apts. & Condos)	Total	Detached Single Family	Attached Single Family	Multi-family (Garden Apts. & Condos)	Total
Germantown East	5	192	0	197	1	147	0	
Germantown West	1162	217	491	1870	221	168	179	568
Germantown Town Center	0	0	0	0	0	0	0	0
Germantown Area Total	1167	409	91	2067	222	315	179	716

FIGURE 10. RESIDENTIAL UNITS IN THE PIPELINE FOR THE GERMANTOWN STUDY AREA (M-NCPPC & DPS, 2007)

HOUSING SALES

Figure 11

Sales information for the period between 2005 to July of 2007 indicates more than 1,000 units of all types (single-family and multi-family, new and resale units) were sold in the Germantown Master Planning Area (MPA) during the first half of 2007.

The median prices within Germantown MPA have not been as volatile as were prices for Montgomery County (MC). The median sales price

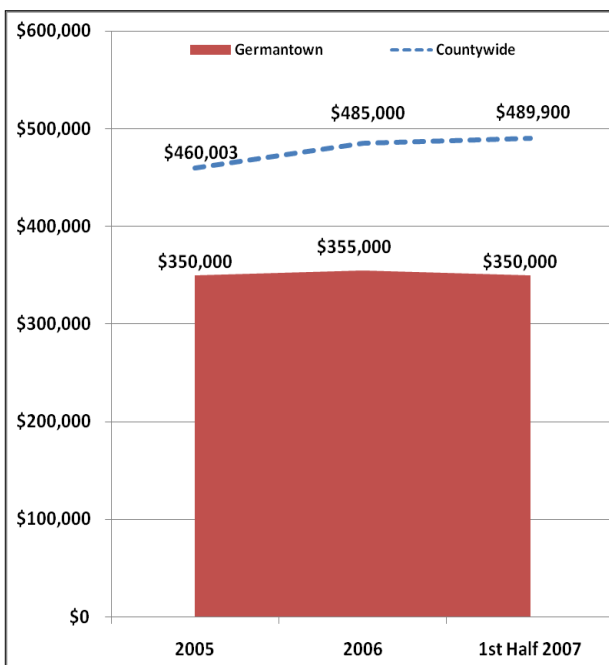


FIGURE 11. MEDIAN SALES PRICES OF NEW, USED, SFD, AND SF, COMBINED IN GERMANTOWN AND COUNTYWIDE FOR PERIOD OF 2005-7 (M-NCPPC STAR, 2007)

in Germantown MPA in 2005 was the same as the median sales price during the first half of 2007. There was only a \$5,000 fluctuation from 2006, when the median sales price rose to \$355,000 before settling back to \$350,000 during the first half of 2007. In comparison, the median price for homes, countywide, increased nearly \$30,000 during the same period, from \$460,003 in 2005 to \$489,900 during the first half of 2007.

Figure 12

The median prices for homes in Germantown MPA are typically lower than for comparable homes

elsewhere in the County, largely due to the age and size of the housing stock. Germantown has experienced slight decreases in median sales prices among all structure types during the period between 2005 and the first half of 2007, except for the median sales price of existing single-family attached (SFA) homes (townhouses and plexes), which increased from \$323,000 in 2005 to \$333,000 in the first half of 2007. The cost of a single-family detached home in Germantown had a median sales price of \$769,125 in 2005 and \$664,575 in the first half of 2007. (The median sales prices for new SFAs in Germantown in 2005 was very low, because it included sales of moderately-priced dwelling units.)

Median Sales Prices	2005		2006		1st Half of 2007	
	MPA	MC	MPA	MC	MPA	MC
New SFD	\$769,125	\$775,218	\$806,850	\$881,600	\$664,575	\$1,159,695
Existing SFD	\$580,000	\$530,000	\$610,000	\$552,500	\$545,000	\$557,875
New SFA	\$138,696	\$499,375	\$450,000	\$526,680		\$491,353
Existing SFA	\$323,000	\$340,000	\$337,000	\$356,750	\$333,000	\$365,000
New Condos		\$353,645	\$254,900	\$391,900	\$254,900	\$429,500
Existing Condos	\$265,000	\$279,900	\$267,550	\$296,595	\$263,902	\$295,000

FIGURE 12. HOME SALES BY STRUCTURE TYPE FOR 2005, 2006 AND 1ST HALF OF 2007. (M-NCPPC and STAR 2007, preliminary) (M-NCPPC 2005-7). 2005 and 2006 data is for those entire years; 2007 data is for the first six months.

Figure 13

Germantown is a bastion of “naturally occurring” workforce housing. That is to say, households earning workforce incomes³ can afford the median priced single-family home or condominium in Germantown.

- In the Germantown MPA during the first half of 2007, affording the median price (\$664,575) for a new single-family detached (SFD) home required an annual household income of more than \$167,000 and affording the median priced (\$545,000) existing SFD home required an annual household income of more than \$137,300.
- An annual household income of less than \$84,000 could afford the median-priced existing single-family attached home (townhouses and plexes).
- A median-priced (about \$255,000) new condominium during the same period would have been affordable to a household earning about \$64,200. At slightly more than \$263,900, the median sales price of existing condominiums requires a household income of about \$66,500.
- In the Germantown MPA, the median sales price of existing condominiums has been slightly higher

		2005 Median Sales Price	#Units	2006 Median Sales Price	# Units	First Half of 2007 Median Sales Price	# Units	Approx. HH income req'd. in 2007
New & Used Single Family Detached & Attached Homes	Germantown	\$350,000	2,094	\$355,000	1,507	\$350,000	626	\$88,200
	Countywide	\$460,003	16,731	\$485,000	12,490	\$489,900	5,228	\$123,455
New & Used Condos - Combined	Germantown	\$265,000	816	\$265,000	840	\$263,900	387	\$66,503
	Countywide	\$280,900	6,029	\$302,950	4,750	\$307,500	2,404	\$77,490
New Single Family Detached Homes	Germantown	\$769,125	75	\$806,850	30	\$664,575	2	\$167,473
	North Bethesda	\$1,175,000	5	\$1,272,100	10	\$1,295,500	4	\$326,466
	Wheaton	\$737,424	16	\$1,020,000	17	\$885,000	7	\$223,020
	Silver Spring	\$939,463	2					
	Takoma Park	\$538,500	2	\$1,055,000	2	\$650,000	1	\$163,800
	Countywide	\$775,218	751	\$881,600	520	\$1,159,695	157	\$292,243
Existing Single Family Detached Homes	Germantown	\$580,000	512	\$610,000	363	\$545,000	155	\$137,340
	North Bethesda	\$620,000	332	\$591,250	266	\$619,500	126	\$156,114
	Wheaton	\$419,000	1,411	\$450,000	1,072	\$448,000	421	\$112,896
	Silver Spring	\$535,000	275	\$540,000	245	\$575,000	99	\$144,900
	Takoma Park	\$415,500	340	\$450,000	276	\$465,000	103	\$117,180
	Countywide	\$530,000	9,757	\$552,500	7,497	\$557,875	3,234	\$140,585
New Single Family Attached Homes	Germantown	\$138,696	19	\$450,000	4			
	North Bethesda	\$648,041	9					
	Wheaton	\$539,920	35	\$609,465	3			
	Silver Spring					\$854,805	10	\$215,411
	Takoma Park							
Existing Single Family Attached Homes	Countywide	\$499,375	507	\$526,680	92	\$491,353	107	\$123,821
	Germantown	\$323,000	1,488	\$337,000	1,110	\$333,000	469	\$83,916
	North Bethesda	\$645,750	100	\$630,000	59	\$622,500	50	\$156,870
	Wheaton	\$339,950	216	\$385,200	172	\$427,000	79	\$107,604
	Silver Spring	\$520,750	18	\$550,000	21	\$579,700	12	\$146,084
	Takoma Park	\$290,500	26	\$320,000	34	\$340,000	9	\$85,680
New Condos	Countywide	\$340,000	5,716	\$356,750	4,134	\$365,000	1,730	\$91,980
	Germantown			\$254,900	94	\$254,900	17	\$64,235
	North Bethesda					\$440,000	153	\$110,880
	Wheaton							
	Silver Spring	\$284,886	33	\$350,450	136	\$334,033	63	\$84,176
	Takoma Park	\$269,000	4	\$241,750	2			
Existing Condos	Countywide	\$353,645	340	\$377,378	500	\$429,500	348	\$108,234
	Germantown	\$265,000	816	\$267,550	746	\$263,902	370	\$66,503
	North Bethesda	\$329,900	1,060	\$334,950	558	\$332,950	274	\$83,903
	Wheaton	\$260,000	180	\$270,000	143	\$287,500	50	\$72,450
	Silver Spring	\$272,500	116	\$320,985	287	\$329,950	186	\$83,147
	Takoma Park	\$205,500	52	\$239,500	24	\$241,400	30	\$60,833
Countywide	\$279,900	5,689	\$296,595	4,250	\$295,000	2,056	\$74,340	

³ Montgomery County defines workforce incomes as those between 80 percent and 120 percent of Washington DC Metro’s Area Median Income (AMI). The Washington Metro AMI was \$94,500 for a 4-person household in Fiscal Year (FY) 2007 (HUD, 2007).

FIGURE 13. INCOMES REQUIRED FOR MEDIAN-PRICED HOMES. (M-NCPPC and STAR, 2007, Preliminary)

- than the median price of new condos since 2006. This indicates that the existing condominiums are a desired housing option for workforce families.

RENTALS

Figure 14

The Montgomery County Department of Housing & Community Affairs (DHCA) licenses rental apartments and conducts annual surveys to determine rental vacancy rates and turnover rents. The rental statistics are rolled into market areas for the annual DHCA Rental Apartment Vacancy Report. The study area is within the larger Germantown-Gaithersburg Market area.

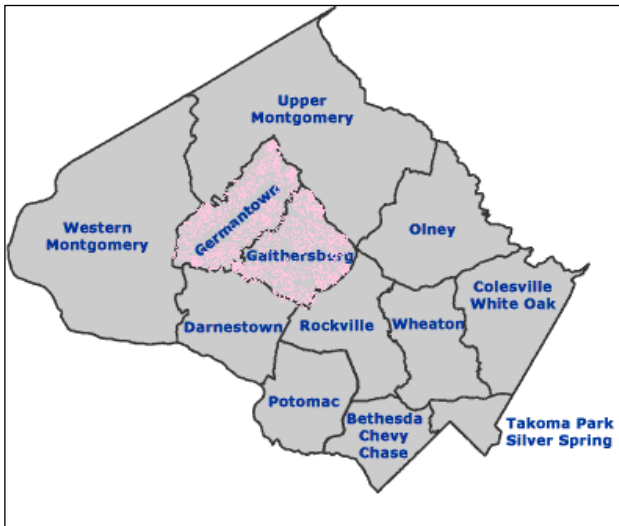


FIGURE 14. RENTAL MARKET AREAS used by the Montgomery County Department of Housing and Community Affairs (DHCA). (<http://gis.co.mo.md.us/dhca/aptgeog.asp>)

Rental Supply

Figures 15 and 16

Nine rental complexes are within the study area, proper, for a total of 2,832 units: more than 1,000 1-bedroom units, nearly 1,700 2-bedroom units, and just over 100 3-bedroom units. In the table on the following page, the various rent ranges are given for the apartments in the study area. Only Middlebrook Square’s exact rents are unknown, because all 75 are subsidized and are referred to only as below-market-rent (BMR) units.⁴

On average, the rents in Germantown are considered more affordable than Countywide. The age of the units is one of the main reasons the rents are moderate. Approximately 45 percent of the properties were built before 1981. Age is also an indication that these same units may be ripe for substantial rehabilitation or redevelopment. While the BMR units in Middlebrook can be targeted for protection, the units in the Hamptons are more vulnerable to pressure for higher rents, condo conversion, or other redevelopment schemes.⁵

While the Housing Opportunities Commission (HOC) has the right of first refusal for any multifamily property built before 1981, there is no guarantee that the HOC will be able to purchase units at the time they become available. For this reason, a policy of no net loss of affordable units is needed to ensure that the Germantown MPA maintains a stock of affordable rental units for the years to come.

⁴For the purpose of this report, the units in Middlebrook Square are assumed to have two bedrooms.

⁵ The “year built” data in Figure 15 should be considered to be approximate, because the date information sometimes reflects the date of substantial rehabilitation or modification, instead of the date of the original building construction.

NAME	TYPE	YEAR BUILT	1-Bedroom Units			2-Bedroom Units			3-Bedroom Units		
			Number	Low Rent	High Rent	Number	Low Rent	High Rent	Number	Low Rent	High Rent
HAMPTONS, THE	GARDEN	1980	496	\$915	\$915	272	\$1,140	\$1,220	0	NA	NA
MIDDLEBROOK SQUARE	TOWNS	1973	0	NA	NA	75	BMR	BMR	0	NA	NA
OAK MILL II	GARDEN	2001	48	\$860	\$1,140	75	\$1,140	\$1,395	0	NA	NA
PINNACLE AT TOWN CENTER	GARDEN	2001	76	\$1,170	\$1,400	176	\$1,380	\$1,810	31	\$1,700	\$1,755
FOX RUN	GARDEN	1991	56	\$1,129	\$1,149	118	\$1,299	\$1,319	0	\$0	\$0
ELMS AT GERMANTOWN	GARDEN	2005	42	\$1,225	\$1,445	207	\$1,340	\$1,780	11	\$1,660	\$1,940
MILESTONE	GARDEN	1998	252	\$1,115	\$1,200	264	\$1,300	\$1,400	60	\$1,575	\$1,595
ROLLING HILLS APARTMENTS	GARDEN	1985	0	NA	NA	440	\$1,100	\$1,200	0	NA	NA
OAK MILL APARTMENTS	GARDEN	2001	68	\$860	\$1,140	140	\$1,140	\$1,395	0	NA	NA

FIGURE 15. RENTAL PROPERTIES WITHIN THE STUDY AREA (DHCA and M-NCPPC, 2007)

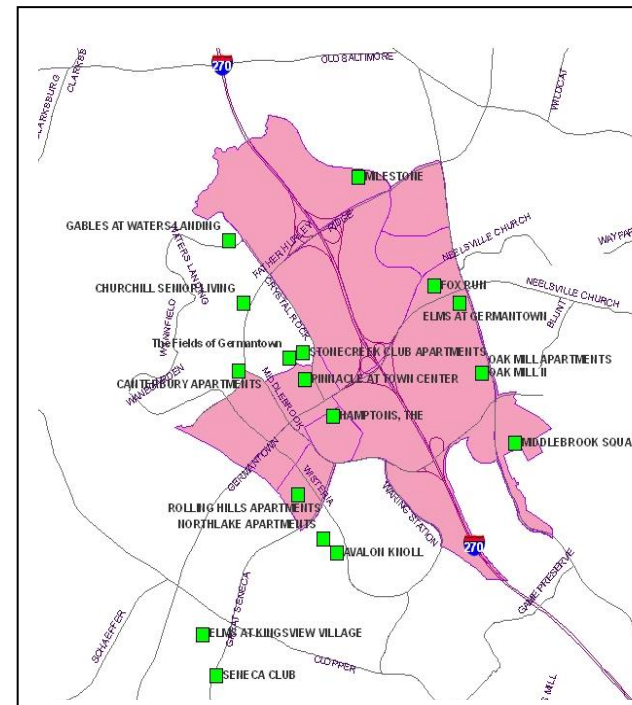


FIGURE 16. LOCATION OF RENTAL PROPERTIES AND GROUP HOMES IN THE STUDY AREA AND GERMANTOWN PLANNING AREA. (DHCA, 2007)

Turnover Rents

Figures 17 and 18

“Turnover rents” are the rents charged to new tenants after an apartment has been vacated and rereanted (turned over). The average turnover rents in the Germantown market area are lower than the countywide turnover rents for apartments with the same number of bedrooms. This has been true in all years since 2000.

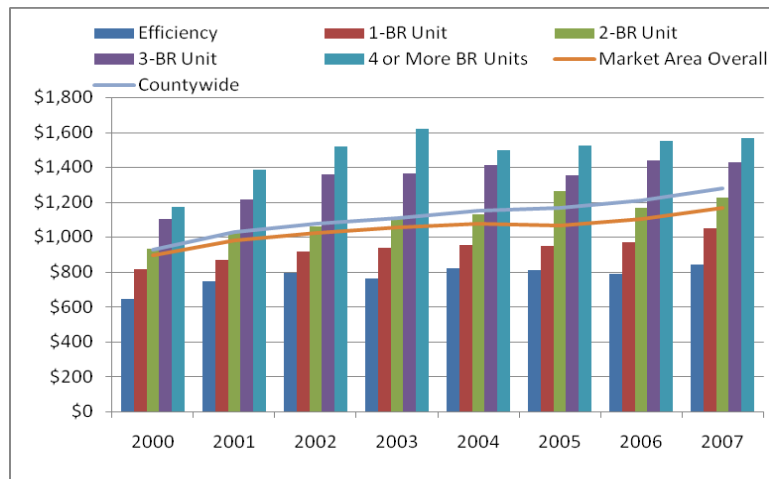


FIGURE 17. GERMANTOWN MARKET AREA TURNOVER MARKET RENTS.
(DHCA 2000-7)

The industry standard is a 3.5 percent rent increase annually. Even small increases over that amount translate into significant rent increases. For example, the average turnover rate for efficiency apartments in Germantown increased at an annual rate of approximately four percent, which increased the monthly rent from \$644 in 2000 to \$844 in 2007. A commitment to no net loss of affordable rental units could help ensure moderate rental increases. Currently, the Department of Housing & Community Affairs (DHCA) sets rent increase “guidance,” only. A policy of no net loss of affordable units is needed to give the guidance more teeth, so that Montgomery County can ensure a minimum number of affordable rental units.

Income Needed

Figure 19

Generally speaking, housing costs—rent plus utilities—should not require more than 30 percent of gross household income. In 2007, the average turnover rents in the Germantown market area remained relatively affordable to moderate income households.⁶ For example, in 2007, a 3-bedroom apartment in this area rented for an average of

⁶ Generally, an apartment is considered affordable if the cost of monthly rent and utilities, annualized, do not exceed 30 percent of the (gross) annual household income. (HUD, <http://www.hud.gov/offices/cpd/affordablehousing/>)

\$1,429, monthly, which is affordable to households earning approximately \$56,200, annually. During

the same period, a 4-bedroom apartment in this area rented for an average of \$1,566, which is affordable to a household earning approximately \$62,640, annually. Many rents include utilities, but if the rents do not include utilities, then housing costs may be too expensive for these income levels. Figure 19 shows the impact on affordability, with and without utilities.

Figure 20

The “incomes needed” from Figure 19, above, are within the income ranges of the MPDU program, shown in Figure 20. Additionally, in 2007, to qualify for MPDU rental units, a household’s income must be at least \$30,000, annually, and the maximum incomes are based on numbers of persons in the household.

	GMA	MC	GMA	MC	GMA	MC	GMA	MC
	2000		2001		2002		2003	
Efficiency	\$644	\$729	\$747	\$815	\$795	\$849	\$763	\$869
1-BR Unit	\$813	\$846	\$869	\$929	\$915	\$970	\$938	\$990
2-BR Unit	\$930	\$965	\$1,028	\$1,076	\$1,060	\$1,120	\$1,106	\$1,162
3-BR Unit	\$1,100	\$1,167	\$1,213	\$1,296	\$1,359	\$1,396	\$1,362	\$1,448
4 or More BR Units	\$1,171	\$1,317	\$1,382	\$1,475	\$1,516	\$1,541	\$1,618	\$1,612
Overall	\$893	\$928	\$976	\$1,030	\$1,021	\$1,076	\$1,054	\$1,111
	2004		2005		2006		2007	
Efficiency	\$820	\$877	\$807	\$931	\$787	\$987	\$844	\$1,076
1-BR Unit	\$954	\$1,027	\$949	\$1,036	\$969	\$1,073	\$1,051	\$1,151
2-BR Unit	\$1,129	\$1,211	\$1,260	\$1,224	\$1,165	\$1,267	\$1,224	\$1,333
3-BR Unit	\$1,411	\$1,526	\$1,351	\$1,531	\$1,438	\$1,608	\$1,429	\$1,646
4 or More BR Units	\$1,499	\$1,708	\$1,522	\$1,812	\$1,550	\$1,869	\$1,566	\$1,906
Overall	\$1,075	\$1,154	\$1,063	\$1,167	\$1,099	\$1,212	\$1,165	\$1,281

FIGURE 19. TURNOVER MARKET RENTS for Germantown Market Area (GMA) and Montgomery County (MC) (DHCA, 2000-7)

Number of Bedrooms (BR) in Unit	Rent	Approximate Income Needed if Rent includes Utilities	Approximate Income Needed if Utilities are Extra
Efficiency	\$844	\$33,760	\$36,461
1-BR	\$1,051	\$42,040	\$45,403
2-BR	\$1,224	\$48,960	\$52,877
3-BR	\$1,429	\$57,160	\$61,733
4 or More BRs	\$1,566	\$62,640	\$67,651

FIGURE 18. MINIMUM INCOME REQUIRED FOR RENTS TO BE AFFORDABLE in the Germantown Market Area. Assumes that utilities increase the housing costs by about 8 percent. (M-NCPPC, 2007)

Household Size	Maximum Income
1	\$43,000
2	\$49,000
3	\$55,500
4	\$61,500
5	\$66,500

FIGURE 20. MPDU INCOME LIMITS FOR RENTERS. (DHCA, 2007)

Vacancy and Turnover Rates

Figures 21 and 22

Vacancy rates are the percentage of time out of a given year that an apartment did not bring in rent. Generally, a 5-percent vacancy rate is considered to indicate that the rental market is relatively tight. Countywide, the vacancy rate remained tight (4.7 percent) in 2007 (DHCA 2007 5). The Germantown-Gaithersburg market area had a higher vacancy rate than the County (6.0 percent and 4.7 percent, respectively). Over a third of Germantown's apartments "turned over" in 2006 to 2007. DHCA reported that the Germantown - Gaithersburg market area had the highest turnover rate in the County, with 35.7 percent of the rental units changing tenants from April 1, 2006, through March 31, 2007. The County turnover rate during the same period was 31.2 percent—lower than the 2006 turnover rate of 33 percent.

Of the various unit sizes (numbers of bedrooms), the 2007 Germantown market area was tight for efficiency apartments and one-bedroom apartments but was relatively loose for 3 and 4-bedroom apartments. This indicates that one-bedroom units and efficiencies are in demand, and that one-and two-person households are attracted to rentals in Germantown. On the other hand, three and four bedroom units in Germantown had

relatively high vacancy rates at 6.1 percent and 8.9 percent, respectively.

One of the factors affecting the vacancy rates for the large apartments is the large amount of rent being charged for those units. Households that need three and four bedrooms may not want to spend as much or more on rent than they would on a mortgage. Another factor affecting the vacancy rates for large units is the much larger demand for smaller units in the Germantown MPA. In other words, the market for smaller units does not offer any "spillover" demand for larger units. If a household is in the market for a one or two bedroom unit, it is unlikely that they would be willing to pay for a 3- or 4-bedroom unit, just because it was vacant.

	2000	2001	2002	2003	2004	2005	2006	2007
Efficiency	2.5%	1.8%	3.4%	1.7%	6.9%	7.0%	4.2%	4.0%
1-BR Unit	2.7%	2.4%	4.6%	5.2%	6.3%	5.4%	4.7%	4.4%
2-BR Unit	3.3%	1.5%	4.5%	4.7%	7.0%	5.1%	5.7%	6.4%
3-BR Unit	5.9%	2.8%	3.2%	3.7%	4.9%	4.3%	5.0%	6.1%
4 or More BR Units	11.6%	0.0%	1.6%	4.9%	4.8%	3.2%	4.5%	8.9%
Germantown Market Area Overall	3.3%	2.1%	4.5%	4.8%	6.5%	5.2%	5.2%	6.0%
Countywide	2.5%	1.8%	3.5%	3.8%	5.1%	4.6%	3.9%	4.7%

FIGURE 21. GERMANTOWN MARKET AREA VACANCY RATES (MARKET AND SUBSIDIZED, DHCA 2000-7)

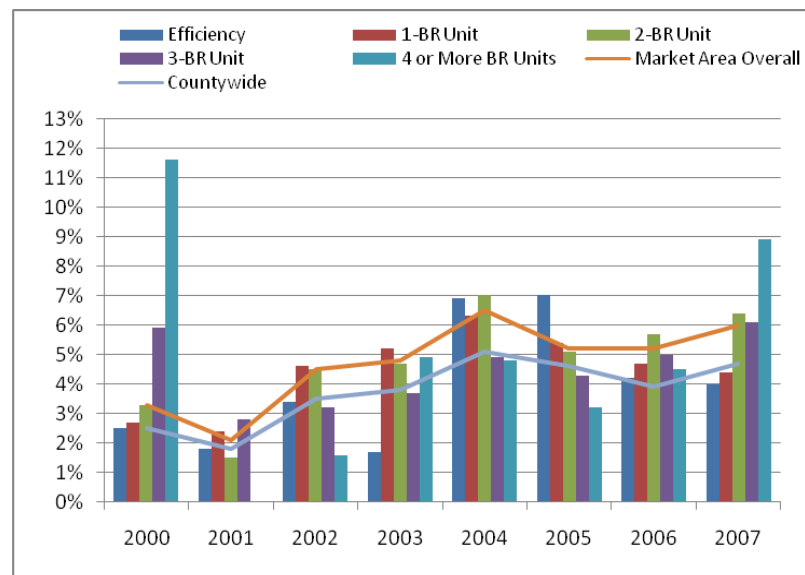


FIGURE 22. GERMANTOWN-GAITHERSBURG MARKET AREA VACANCY RATES 2000 TO 2007 (MARKET AND SUBSIDIZED) (DHCA, 2000-7)

SENIOR HOUSING

Existing Situation

Figure 23

The 1989 Germantown Master Plan addressed the need for senior housing.⁷ It identified several suitable sites, and those have indeed been used to provide senior housing. Of those sites, Churchill Village and Clopper Mill Village provide rental units, while all units at Kings Crossing are for-sale age-restricted MPDU condos. Within the larger Germantown area there are two rental facilities that provide a total of 223 independent living units and four group homes that provide a total of 24 assisted-living beds. Currently, there are no senior living facilities for sale or for rent within the study area proper.

Senior-living ownership opportunities in Germantown include the 110 age-restricted MPDU condominiums in the Kings Crossing facility, where 1-, 2-, and 3-bedroom garden condominiums range in price from \$149,900 to \$169,900. Assuming that homeowners put at least 10 percent down, the

⁷Senior housing is a term that covers housing that is age-restricted and serves those persons either 55 or 62 years of age and older. Age-restricted independent living properties, often called “Active Adult Communities,” serve households with at least one adult over 55 years of age. Many other senior housing facilities serve those over 62 years of age, only. See Appendix A for a glossary of senior housing terms.

annual household income needed to afford a senior condominium at King’s Crossing is between \$40,000 and \$50,000. Properties that offer independent living opportunities are subject to the MPDU ordinance, and all three of the independent living facilities listed in Figure 23 meet or exceed the MPDU requirement.

Planning for Germantown’s Aging Population

Figure 24

The 2005 population of the Germantown MPA included about 10,000 residents 55 years of age or older—only about 11 percent of the population. By 2030, the forecast is for over 25,000 residents 55 years of age and older, and that will be about 27 percent of the population. Not only will there be more residents in Germantown who are 55 years of age and older, generally, there will be between a 4-fold increase in the number of residents 65 years of age and older, specifically. In Germantown, the number of persons 65 years of

Facility Name	Type	Number of nits/ Beds	
		Rental	Ownership
Churchill Senior Living	Independent Living	121	
Willow Manor at Clopper’s Mill	Independent Living	102	
Foreman’s Place	Assisted Living	4	
Warm Heart Family Assisted Living	Assisted Living	5	
Golden Age Retirement Home	Assisted Living	7	
R & W Eldercare Services	Assisted Living	8	
King’s Crossing	Independent Living - MPDU		110
Totals		247	110

FIGURE 24. SENIOR HOUSING IN AND NEAR THE STUDY AREA. (DHCA and M-NCPPC, 2007)

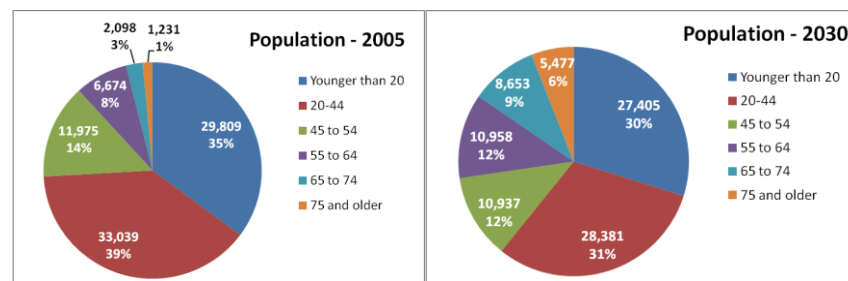


FIGURE 23. BREAKOUT OF GERMANTOWN POPULATION 55 YEARS OF AGE AND OLDER – 2005 AND 2030. (M-NCPPC, ROUND 7.1 FORECAST)

age and older will swell from 3,329 in 2005 to 14,130 in 2030. The number of persons 75 years of age and older will increase to about 4.5 times its 2005 level, from 1,231 in 2005 to 5,477 in 2030. The vast majority want to stay in their own homes, according to recent studies.

Naturally Occurring Retirement Communities (NORCs)

Figure 25

If seniors stay at home and age in place, Germantown may be the source of several naturally occurring retirement communities (NORCs). In order to find out where there NORCs may occur, staff analyzed real property records and looked for areas in which homes have been owned by the same household for over 20 years. The theory being that these areas might become NORCs in the future.⁸ Our analysis revealed that 495 properties have been in the same ownership for 20 years or longer. Furthermore, some of these properties do appear to be clustered. Three relatively large clusters appear outside the study area: Churchill, Gunners Lake Village, and Fox Chapel. One cluster appears within the study area in Meadowbrook Estates.

Research Findings

The Planning Department recently completed two age-related housing studies in preparation for housing policy and master plan updates. First, the

⁸ Property records can tell us how much time has passed since a property was sold, but the property records cannot tell us how old the buyers were when they made the purchase, nor can the property records tell us whether the owners are working or retired.

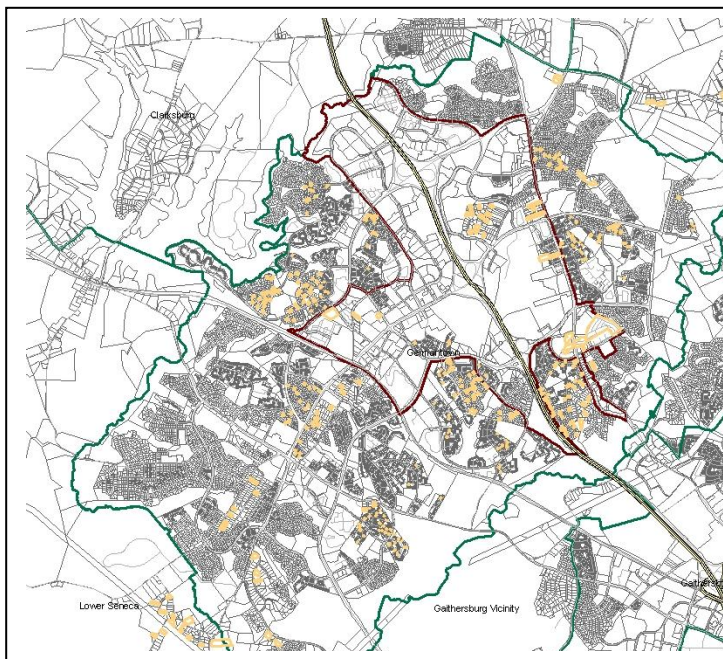


FIGURE 25. POTENTIAL NORCs IN AND AROUND THE STUDY AREA. (M-NCPPC, SDAT, 2008)

55+ Housing Preference Survey (2005)⁹ revealed that a “majority of Montgomery County residents age 55 and over plan to remain in their current residence for the rest of their lives.” Another important finding was that most of the residents 55 years of age or older who are working, do not plan to retire. The second study was the Senior Housing

⁹ http://www.mcparkandplanning.org/housing/studies/housing%20_55.pdf. The survey, conducted by REDA, International, was conducted in 2004, and published in 2005. The telephone survey was designed to determine the housing needs and wants of those 55 and older in Montgomery County. Over 16,000 random telephone calls yielded over 1,200 completed interviews. The over 200 variables in the survey have been compiled into a database by Research & Technology Center staff to be used in planning and policy analysis.

Update (2006).¹⁰ The Senior Housing Update inventoried the existing supply of senior housing and compared the supply by type. The finding in the Senior Housing Update was that since 2000, there has been an aggressive countywide building of independent-living units, while at the same time there has been a net loss of affordable assisted-living units.

When taken together, these studies indicate that seniors do not plan to leave their own homes, so independent senior housing properties will not be of much use to this group. To allow Germantown’s aging residents to stay as independent as they wish for

as long as they wish, they will need assisted-living options, such as the following:

- Ensure that all new construction offers first-floor at grade ingress and egress, together with other accessibility features—build or renovate to age in place.
- Decentralize supportive services. The Adventist Hospital’s community clinic is a classic example of this. Located in the Town Center, the clinic provides services close to homes and jobs of

¹⁰ <http://www.mcparkandplanning.org/research/documents/SeniorHousing-Final.pdf>.

many residents. Visiting nurses, grocery and pharmacy home deliveries, meal deliveries, etc., are other examples of community supportive services that can enable residents to stay in their own homes as they age.

- Provide assisted-living facilities and nursing homes, of course. Currently there are only 24 assisted-living beds in four different facilities in or near the study area (Figure 23, on page 20), and this means more will likely be needed to serve residents when independence is no longer workable.
- In considering new construction for the workforce, build efficiencies and one-and two-bedroom rental units with elevators. Such units would be best sited so that they are part of a walkable mixed-use community, with services to ensure that workers of varying abilities can live independently as long as possible—young workers, older workers, and retirees alike.

Figures 26 and 27

Since the MPDU program began in earnest in 1976, over 12,400 MPDUs have been produced, and over a fourth of them were built in Germantown over the years. MPDUs constructed before 1995 have expired, unless the County, HOC, or another not-for-profit housing provider purchased the units and kept them affordable. 11 MPDUs tend to remain relatively affordable after the control period expires, largely because these units are typically smaller than market-rate units. Since 1983, approximately 1,100 MPDUs have expired in the Germantown MPA. At the end of 2007, there were still 1,181 MPDUs still in control periods: 788 MPDUs still in DHCA control periods and 393 permanently controlled by HOC.

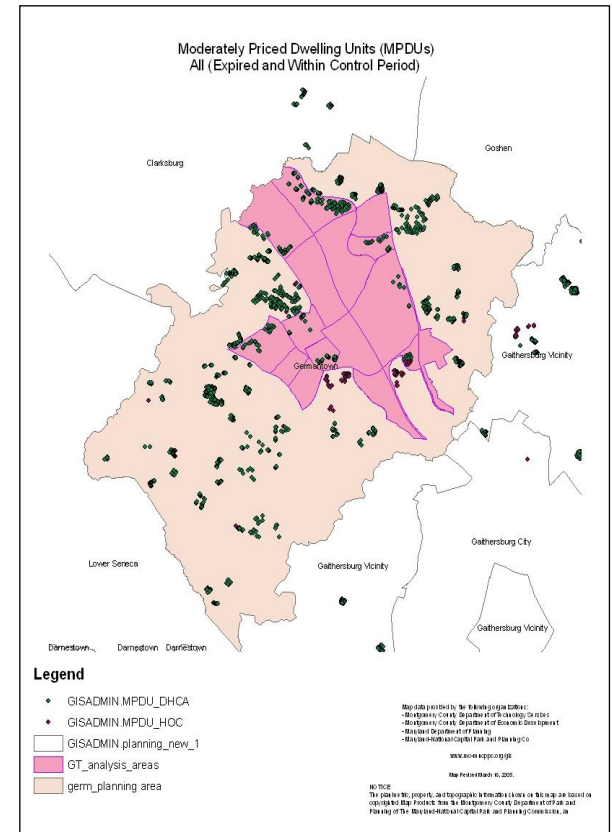


FIGURE 26. MODERATELY PRICED DWELLING UNITS IN GERMANTOWN BUILT SINCE 1985 (DHCA AND HOC,

MODERATELY PRICED DWELLING UNITS (MPDUs)

¹⁴Many of the MPDUs built in Germantown have expired, because the control periods were very short (10 years or less) for the first 25 years of the program. In 2001, the 10 year control period was modified to reset if an MPDU was sold within the control period. It was not until April 1, 2005, that the 30-year and 99-year control periods went into effect for ownership and rental MPDUs, respectively.

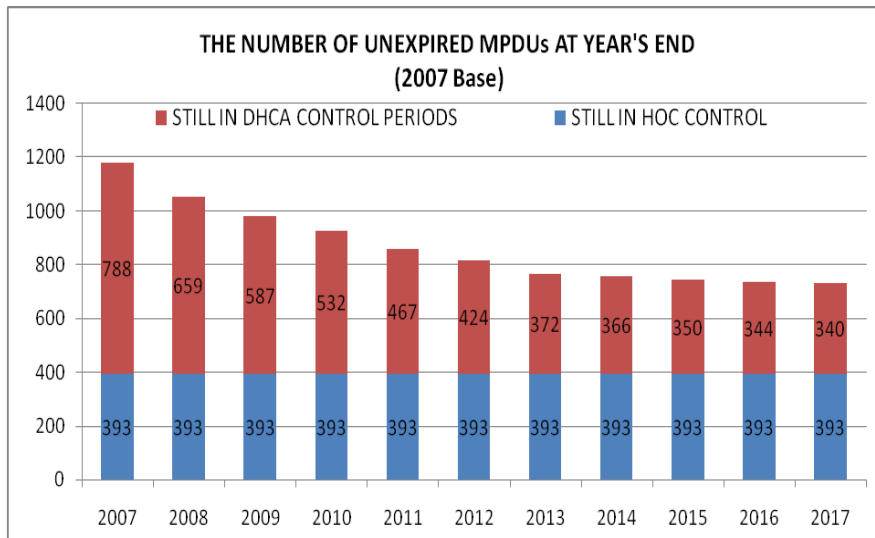


FIGURE 27. EXPIRATION PROFILE OF MPDUs (DHCA, HOC, 2007)

Structure Type	HOC MPDUs in Germantown MPA					Totals
	1	2	3	4	5	
Single-Family Detached			5	37	1	43
Townhouse	6	53	195	24		278
Garden Apartment	3	53	11			67
HR		5				5
Totals	9	111	211	61	1	393
	2.3%	28.2%	53.7%	15.5%	0.3%	

FIGURE 28. HOC MPDUs by Number of Bedrooms (HOC 2007)

Figures 28

About 54 percent of HOC's MPDUs are 3-bedroom units, about 28 percent are 2-bedroom units, about 16 percent are 4-bedroom units or larger, and the remainder are 1-bedroom units. This mix generally reflects the market-rate mix, as well as the MPDUs in DHCA control periods.

Figure 29

The income limits for the MPDU program are now reset annually by the County Executive. MPDU sales prices and rents are not to exceed 30 percent of the annual salary of eligible households.

Household Size	Maximum Income (as of 03/2008)	
	MPDU Rentals	MPDUs For Sale
1	\$45,000	\$48,500
2	\$51,500	\$55,500
3	\$58,000	\$62,500
4	\$64,500	\$69,500
5	\$69,500	\$75,000

FIGURE 29. MPDU INCOME LIMITS (DHCA 2008)

WORKFORCE HOUSING

As mentioned earlier in this report, Germantown may be the premier bastion of workforce affordable housing within Montgomery County, and preserving and increasing workforce affordable housing will be key to Germantown's future. In addition to its affordability, a primary assumption behind the concept of workforce housing in Montgomery County is that it can help households save money by reducing dependence on personal automobiles. This happens in either of two ways: location near transit or near one's employer. Either obviates the need to use one's car. Whether a household does not use a car as much or at all, the household saves money—money that can be spent on housing.

In Germantown, workforce affordable housing should be in the town center for many reasons, including the fruition of a vision for the community that spans four decades. However, any site in the study area that offers easy access to public transit, employment opportunities, and community services should be considered for workforce housing, regardless of whether it is in the Town Center or not.

Because the workforce includes a wide spectrum of ages, abilities, and household types, elevator or otherwise accessible units must be the name of the game. In the past only buildings with more than four stories were required to have elevators, but for housing to meet the needs of workers of all ages

and abilities, elevators become critically important, regardless of the number of floors.

Figure 30

Montgomery County offers households the opportunity to participate in a variety of financial programs to assist with housing affordability. Special attention is given to the "House Keys for Employees" program, in which Maryland's Department of Housing and Community Development offers a dollar for dollar match to an employer's contribution for down-payment or closing cost assistance to eligible employees. While any employer, public or private, in Maryland can participate in the program, the only Montgomery County employee to participate in the program as of March 1, 2008, is Maryland-National Capital Park and Planning Commission (M-NCPPC). Employers in Germantown MPA, especially those within the study area, should be urged to participate in the state program for the benefit of their workforce.

RENTAL PROGRAMS	HOUSEHOLD INCOME LEVELS SERVED	2008 AMI FOR WASHINGTON DC METRO \$99,000
HOME-Funded Rental Housing	At a minimum: 20% HOME units – HHs up to 50% AMI	\$49,500
	70% HOME units – HHs up to 60% AMI	\$59,400
	10% HOME units – HHs up to 80% AMI	\$79,200
Tenant Based Rental Assistance	At a minimum: 90% HOME units – HHs up to 60% AMI	\$89,100
	10% HOME units – HHs up to 80% AMI	\$79,200
Public Housing	HHs up to 50% AMI	\$49,500
Housing Choice Vouchers	At a minimum: 75% vouchers – HHs up to 30% AMI	\$29,700
	25% vouchers – HHs up to 50% AMI	\$49,500
Home Ownership Programs	Household Income Levels Served	
American Dream Down Payment	HHs up to 80% AMI	\$79,200
HOC Closing Cost Assistance	1 and 2 person HHs may earn up to 100% AMI	\$99,000
	3+ person HHs may earn up to 115% AMI	\$113,850
HOC Mortgage Purchase Program	1 and 2 person HHs may earn up to 100% AMI	\$99,000
	3+ person HHs may earn up to 115% AMI	\$113,850
Moderately-Priced Dwelling Units	HH up to approximately 60% of AMI	\$59,400
Low-Income Housing Tax Credits	At a minimum: 20% units – HHs up to 50% AMI, or	\$49,500
	40% units – HHs up to 60% AMI	\$59,400
CDBG-Funded Homeowner Rehab	HHs up to 80% AMI	\$79,200
House Keys for Employees ¹²	\$5,000 from state and \$5,000 from participating employer. ¹³ 1 or 2 person HHs up to \$94,500; 3+ HH up to \$108,675. Other limits apply.	\$94,500 to \$108,675

FIGURE 30. HOUSING PROGRAMS AVAILABLE TO MONTGOMERY COUNTY RESIDENTS AND WORKERS.

(DHCA, HOC, DHCD, 2008)

¹² Maryland's *House Keys for Employees* program is administered by More House for Less and the State Department of Housing and Community Development (DHCD). Through the program, the State DHCD will match contributions dollar-for-dollar, up to \$5,000, toward down payment and closing costs from participating employers. The match is in the form of a zero percent deferred loan, which is repayable upon sale or transfer of the home or at the time of payoff or refinancing.

¹³ Maryland Department of Housing and Community Development (DHCD). www.morehouse4less.com.

Appendix A. 2005 Census Update Survey for Germantown Master Planning Area 19
(Source: M-NCPPC RTC, 2005)

Germantown Planning Area # 19		SINGLE-	TOWN-	GARDEN	HIGH-	ALL	
Population Density: 4,658 people/sq. mi.		FAMILY	HOUSE	APT.	RISE	TYPES	
Est. Land Area: 17.1 sq. miles		DETACHED					
P o p u l a t i o n	Household Population	26,365	36,940	16,275		79,580	
	% Female	50.1%	52.5%	54.7%		52.2%	
	Age Distribution:						
	% 0-4 Years Old	8.3%	9.0%	7.8%		8.5%	
	% 5-17 Years Old	25.1%	19.9%	14.0%		20.4%	
	% 18-29 Years Old	8.8%	14.7%	22.1%		14.3%	
	% 30-44 Years Old	27.3%	31.3%	27.2%		29.1%	
	% 45-64 Years Old	26.7%	21.0%	23.8%		23.4%	
	% 65-74 Years Old	2.6%	2.5%	3.2%		2.7%	
	% Over 74 Years Old	1.2%	1.5%	1.9%		1.5%	
	Average Age (years)	31.9	31.5	33.5		32.0	
	Race:						
	% White	59.5%	51.7%	56.8%		55.3%	
	% Black	9.4%	27.0%	25.3%		20.7%	
	% Asian or Pacific Islander	28.0%	15.3%	8.1%		18.2%	
	% Other	3.1%	6.0%	9.8%		5.8%	
	Hispanic or Latino and Race	1					
	% Hispanic or Latino	1	9.1%	15.9%	24.4%		15.4%
	% Not Hispanic White		52.0%	41.4%	43.1%		45.3%
	Language Spoken at Home						
	Persons 5 Years and Older		24,175	33,610	15,015		72,800
	% Speak Language Other than English		36.3%	41.2%	44.7%		40.3%
	% Speak English less than "Very Well"		10.3%	10.8%	19.6%		12.4%
	Educational Attainment:						
	Persons 25 Years and Older		15,570	23,620	11,600		50,790
	% Less than High School Diploma		3.8%	6.6%	8.0%		6.1%
	% High School Graduate		20.2%	34.0%	33.1%		29.6%
	% Associate or Trade School		6.0%	9.8%	9.6%		8.6%
	% Bachelor's Degree		34.5%	27.0%	29.9%		29.9%
	% Grad, Professional or Doctoral		35.4%	22.6%	19.4%		25.8%
L a b o r F o r c e	Number of Employed Residents	2	14,790	22,500	10,450	47,740	
	% Females Who Are Employed	2	72.0%	78.9%	72.3%	75.3%	
	Women with Children Under Age 6		2,270	3,270	1,460	7,000	
	% Employed	2	57.5%	64.5%	60.6%	61.5%	
	Work Location:						
	% Montgomery County		72.6%	70.7%	78.0%	72.9%	
	% Prince George's County		3.0%	3.2%	3.2%	3.2%	
	% Elsewhere in Maryland		5.0%	3.6%	5.6%	4.4%	
	% Washington, D.C.		12.2%	13.0%	8.6%	11.8%	
	% Virginia		6.8%	8.5%	4.3%	7.1%	
	% Outside MD-VA-DC		0.4%	0.9%	0.4%	0.7%	
	Work Trip:						
	% Driving		84.6%	83.7%	82.4%	83.7%	
	% Alone		76.8%	73.4%	77.1%	75.3%	
	% Carpool		7.8%	10.3%	5.3%	8.4%	
% Public Transit or Rail		10.1%	13.0%	13.5%	12.3%		
% Walk/Bicycle/Other		1.2%	1.0%	2.2%	1.3%		
% Work at Home		4.1%	2.3%	1.9%	2.8%		
Average Commuting Time to Work (minutes)							
Overall		32.8	33.7	31.1	32.9		
By Car		30.0	30.2	27.1	29.5		
By Public Transit		57.5	58.6	59.0	58.4		

* Insufficient data for reliable estimates.

¹ Those of Hispanic origin may be of any race.

² Ages 16 and older and employed full- or part-time.

Germantown Planning Area 19		SINGLE-	TOWN-	GARDEN	HIGH-	ALL
2005 Census Update Survey		FAMILY	HOUSE	APT.	RISE	TYPES
(Continued)		DETACHED				
H o u s i n g	Households by Structure Type	7,590	13,100	8,355	-	29,045
	% Total Households by Structure Type	26.1%	45.1%	28.8%		100.0%
	Average Household Size	3.48	2.82	1.95		2.74
	Tenure:					
	% Rental	1.2%	8.0%	57.1%		20.4%
	Average Monthly Costs:					
	Homeowner	\$2,023	\$1,349	\$1,027		\$1,507
	Renter	\$1,528	\$1,091	\$1,010		\$1,034
	Residence in April 2000:					
	% in Same Home	58.9%	50.1%	28.0%		46.2%
	% Elsewhere in County	29.2%	30.0%	37.2%		31.9%
	% Elsewhere in Maryland	2.4%	5.7%	7.3%		5.3%
	% D.C or Northern Virginia	2.8%	3.0%	2.8%		2.9%
	% Outside Metro Area	6.6%	11.2%	24.8%		13.8%
	Median Years in Same Home	6	5	2		4
	Average Age of Household Head	46.9	43.4	43.3		44.3
	% Households with Foreign Born Head					
	or Spouse	43.7%	36.8%	33.8%		37.7%
	% Households Speaking Spanish	9.3%	14.8%	19.5%		14.7%
	Households by Type:					
	% Family Households	93.8%	77.2%	57.2%		75.8%
	% Married-Couple	87.3%	62.6%	33.9%		60.8%
	% Single-Parent	5.3%	12.4%	18.0%		12.2%
	% Nonfamily Households	6.2%	22.8%	42.8%		24.2%
	% Householder Living Alone	6.1%	21.1%	39.0%		22.3%
	Persons in Households:					
	% 1 Person	6.1%	21.1%	39.0%		22.3%
	% 2 Persons	18.8%	28.0%	38.2%		28.5%
	% 3 Persons	24.7%	16.5%	14.1%		18.0%
	% 4 Persons	29.2%	20.3%	6.4%		18.6%
% 5+ Persons	21.1%	14.2%	2.3%		12.6%	
Average Number of Cars	2.4	1.9	1.4		1.9	
% of Households with Computers	98.1%	93.8%	86.8%		92.9%	
% of these visiting M-NCPPC website	36.9%	28.6%	24.7%		29.8%	
I n c o m e	2004 Household Income Distribution:					
	% Under \$15,000	1.0%	3.8%	6.5%		3.8%
	% \$15,000 to \$29,999	0.5%	4.5%	13.8%		6.2%
	% \$30,000 to \$49,999	4.8%	12.2%	32.0%		16.0%
	% \$50,000 to \$69,999	5.6%	25.4%	20.3%		18.9%
	% \$70,000 to \$99,999	24.2%	27.3%	18.0%		23.8%
	% \$100,000 to 149,999	38.4%	21.7%	8.2%		22.1%
	% \$150,000 to 199,999	18.2%	4.3%	1.2%		7.0%
	% \$200,000+	7.3%	0.7%	0.0%		2.2%
	2004 Median Household Income	\$116,560	\$75,495	\$48,765		\$76,655
	% of Households Spending More Than					
	30% of Income on Housing Costs:					
	% Homeowners	14.6%	21.8%	18.0%		19.0%
	% Renters	71.8%	53.2%	35.3%		38.9%
	* Insufficient data for reliable estimates.					

APPENDIX B: SENIOR HOUSING DEFINITIONS¹⁴

Active Adult Communities - These age-restricted communities comprise a variety of housing types, including a sizable number of single-family units, for healthy and mobile residents over the age of 55. They typically center on recreational facilities, such as swimming pools, tennis courts, a clubhouse or golf courses, though some may feature business centers.

Aging in place - Older residents remain in the same non-age-restricted homes and communities of their younger-adult years and rely on services delivered to the home, if required. Such services may include Meals on Wheels, help with housekeeping and shopping, home health aides, visiting nurses, and similar supportive options.

Assisted living - Designed for adults who need help with the basic activities of daily living (ADLs), such as bathing, dressing, and mobility. Most facilities offer three meals per day, assistance with personal care, and a variety of activities.

Continuing Care Retirement Community (CCRC) - CCRCs offer more than one level of care with the expectation that residents will be able to move freely from one level to another as their needs change. CCRCs facilitate moves between levels of care if space is available at another level. (See "Life Care," below.)

Group home - A residence for up to 15 people designated as disabled or senior. Residents typically have rooms rather than full dwelling units and receive care similar to assisted living.

Household - A household may consist of a single person or two or more persons sharing living quarters.

Independent living facilities - Designed for healthy older adults, independent living communities vary in the amount of service offered with some providing primarily maintenance, lawn care, security, some social or wellness programs and transportation. Most buildings are constructed to accommodate physical disabilities.

Life Care - is a term used interchangeably with CCRC. In life care, residents are guaranteed the ability to move from one level of care to another as necessary, often with little change in financial arrangements. (See "CCRC", above.)

Naturally Occurring Retirement Community (NORC) - In the U.S. Department of Health and Human Service's 2004 report Supportive Services Programs in Naturally Occurring Retirement Communities, NORCs are defined as communities or buildings not designed specifically for older people, but which naturally "evolved in such a way that a large proportion of residents are older."

Nursing home - A facility that offers skilled nursing care. Residents have "beds" rather than apartments. There are fewer private rooms than in other forms of housing. Nursing homes are rarely age-restricted, although a large percentage of residents are 65 and older.

¹⁴ From the *Senior Housing Inventory & Analysis Report* (M-NCPPC 2006 5)

APPENDIX C: EXAMPLES OF INNOVATIVE RESIDENTIAL MIXED-USE COMMUNITIES

Example 1. Seattle, Oregon. Walgreens Builds Mixed-Use

In 2004, Walgreens made a proposal to build their standard store at a busy Seattle intersection: a large, single-story, stand-alone building with surface parking. The neighborhood was appalled. What opened for business last month, to citywide acclaim, was a far cry from Walgreens original proposal. The five-story Broadway Crossings, the first of its kind in the country, is a joint project between Walgreens and Capitol Hill Housing. There is a 12,000-square-foot Walgreens store on the first floor, two levels of underground parking below and 44 subsidized housing units in the four stories above. Nine of the units are designated for households transitioning from homelessness; 22 go to families making up to 30 percent of the county's median income; 11 to those making up to 40 percent; and 11 to those making up to 60 percent. It is also a green building incorporating more than 50 sustainable features including windows and carpets that meet strict environmental standards. Chuck Weinstock, Executive Director of Capitol Hill Housing, said "Walgreens took a risk to create something new that can be a model for other communities and other national corporations when coming to existing urban retail locations...all housing units were filled immediately...."

<http://walkeastwood.org/?p=140>

Example 2. [Capitol Hill Housing](#), San Jose, California.

Everything about the North First Street corridor in San Jose, California says "arrive by car" in spite of light rail tracks going down the middle. Non-profit organization Joint Venture Silicon Valley Network hired Urban Advantage to produce photo-simulations for their web site depicting Smart Growth throughout Silicon Valley including infill development along North First Street. Later the City of San Jose Planning Department produced a walkable urban plan for the corridor. Urban Advantage was asked by the City and the Santa Clara Valley Transportation Agency to conceptually depict the plan. The resulting vision, published on the front page of the San Jose Mercury News, accompanied an article about North First Street evolving as a second downtown for San Jose. Bay Area environmentalists endorsed the vision. Six months later the San Jose Mercury News featured both the original and new photo-simulation on the editorial page asking the question, "What's controversial about this vision?" Three days later the council approved the urban plan.

<http://www.urban-advantage.com/projects.html>

Example 3. Columbia Pike Revitalization Plan, Arlington County, Virginia

In March 2002 the Columbia Pike Revitalization Plan was adopted but not much might have happened along the 3.5 mile auto-oriented corridor without the subsequent adoption by Arlington County of form-based codes—physical standards for the corridor in the form of urban form regulations. The form-based codes would require building fronts to face streets, be accessible from sidewalks, have minimum and maximum window coverage, etc. In September 2002 Urban Advantage was hired by Dover, Kohl & Partners to produce photo-realistic computer simulations during a community design charrette showing the public what Columbia Pike might look like if regulated by those standards. The final images, when shown at the charrette's conclusion to 270 citizens, won enthusiastic applause, and were published in the Washington Post. Although many form-based codes had been applied to greenfield sites, this was one of the first large-scale applications for the revitalization of an existing urban corridor. Urban Advantage's images strengthened public interest and conviction in the codes.

Example 4. Smart Growth Twin Cities in Minneapolis, Minnesota

Working for Calthorpe Associates, the lead consultant for Smart Growth Twin Cities (a regional planning project of the Metropolitan Council in Minnesota), Urban Advantage produced photo-simulations showing the possibilities for creating walkable, mixed-use neighborhoods. Smart Growth Twin Cities' scope was regional encompassing six counties in the St. Paul/Minneapolis area where most new growth is presently auto-oriented and low-density. Traditional village, neighborhood, and townhousescape urban forms are being replaced by strips, pods, tracts, arterials, and power centers. Calthorpe Associates asked Urban Advantage to illustrate six (?) "opportunity sites" in the region illustrating conceptual development for those sites, but also making the principles of Smart Growth and traditional urbanism as palpably real and understandable as possible. Calthorpe Associates supplied Urban Advantage with existing conditions photographs. Urban Advantage then produced photo-simulations of change that built on top of those photographs. In PowerPoint viewers could thus see a slide containing the existing conditions photograph morph into the envisioned change. www.Calthorpe.com (Click on [Photo Simulations](http://www.urban-advantage.com/projects.html)) (<http://www.urban-advantage.com/projects.html>)

Example 5. East 14th Street Corridor, San Leandro, California

In the San Francisco Bay Area growing needs for affordable housing and public concern for development alternatives to land-hungry sprawl at the metropolitan fringes have fueled a growing interest in identifying urban infill opportunities. Urban design firm Community Design + Architecture, working with the City of San Leandro, chose Urban Advantage to illustrate how a typical auto-oriented arterial road in an older inner-ring suburb could transform itself into a mixed-use urban corridor. East 14th Street is one of the two major transit corridors going through the East Bay of the San Francisco Bay Area that is being targeted by AC Transit for major upgrades. The images explore possible bus rapid transit in the corridor as well as land use changes that would support such a transit upgrade. Three locations along the corridor were selected for images that explore different development densities and transit alternatives. The plan and images were successful in convincing the city to advance urban infill as part of its development strategy. The San Leandro City Council approved new design guidelines for the corridor in April, 2004. Several development proposals have subsequently moved forward. (<http://www.urban-advantage.com/projects.html>)

Another link that helps visualize the transformation some communities have made:

<http://www.sierraclub.org/sprawl/community/transformations/index.asp>