

# Implementation Strategies

## *Overview*

To implement the recommendations of this Plan, many actions need to be taken by a variety of governmental bodies. This Plan gives direction to implementation strategies relating to zoning, the provision of public sewer and water services, and the application of the County's Annual Growth Policy.

This Plan also proposes guidelines for subdivision and site plan review and recommends changes to the County Road Code and Zoning Ordinance which would be supportive of this Plan's recommendations for Clarksburg.

## *Recommended Zoning Actions*

This Plan recommends that a comprehensive rezoning action (a "Sectional Map Amendment" or SMA) immediately follow the adoption of this Plan.

The comprehensive rezoning would affect three general categories of property:

1. *Properties where the current zoning would simply be confirmed.*

These properties would continue in their current zoning category.

2. *Properties which are being rezoned to implement the rural and agricultural recommendations of the Plan.*

For the most part, these properties are presently zoned R-200 (two dwelling units per acre) but the Zoning Plan recommends less dense zones (Rural Density Transfer and Rural Residential Zones).

3. *Properties which are being rezoned to higher density.*

These properties are quite extensive and include the Town Center District, a portion of the Transit Corridor District, the Cabin Branch Neighborhood, and the Newcut Road Neighborhood. Figure 39 shows the zoning pattern recommended to be implemented by the SMA. The map also identifies properties which will require separate action by County Council (approval of a "floating zone" application) before end-state development can be achieved.

## *Staging Recommendations*

### **The Need for Staging**

The development of Clarksburg will make a significant contribution to the County's long term housing needs, especially in terms of single-family homes. This fact argues for the early development of Clarksburg. At the same time, a significant amount of infrastructure will be needed to implement this Plan, including a new interchange along I-270, new highways, schools, a library, and parks.

A fiscal impact analysis by the Montgomery County Office of Planning Implementation (OPI) examined the capital costs and funding sources associated with these facilities. The key question addressed by the Fiscal Impact Analysis Report was whether the County alone could afford to pay for the capital improvements it would traditionally program using only the taxes from new development.

The report concluded that County revenues would need to be supplemented by developer funding. Developers currently contribute to capital projects in the County in several ways. Some of these include land dedication, in-kind contributions, impact taxes, a systems development charge, and funding in the Capital Improvements Program. Additional funding sources that should be considered include the Construction Excise Tax and development districts. Examples of types of other revenue sources that are not currently under consideration but could emerge over the long term implementation of the Plan include user fees, other property taxes, or gas taxes. Some or all of these revenue sources will be needed in Clarksburg.

This Plan supports staging strategies that are responsive to fiscal concerns and recommends development that is keyed to revenue mechanisms being in place or imminent. This Plan also recognizes that the staging of development is critical if Clarksburg is to coordinate the timing of development with the provi-

sion of public facilities, develop a strong community identity, and protect environmentally fragile watersheds.

Finally, it should be noted that the staging recommendations of this Plan are designed to affect the timing of private development and public facilities, not the total amount, type, or mix of development. These issues are dealt with in other sections of this Plan.

## Staging Principles

This Plan presents seven guiding staging principles related to critical concerns and opportunities in Clarksburg. These staging principles, which are integral components of this Master Plan, provide a general framework and guidance for the future staging or timing of private development and the provision of public facilities in Clarksburg:

### Principle #1: Wastewater Treatment and Conveyance Limitations

*Sewage treatment and conveyance capacity in the Seneca Creek basin is severely constrained and will limit any new development in Clarksburg in the foreseeable future.*

The sewerage system in the Seneca Creek drainage basins provides sewer service to areas such as Germantown and some portions of Gaithersburg, and will be extended in the future to provide sewer service to Clarksburg. The sewerage system within the Seneca Creek basin consists of gravity sewers, pumping stations, and force mains. Ultimately, this system converges at the Seneca Wastewater Treatment Plant (WWTP) and the Wastewater Pumping Stations (WWPS) complex on Great Seneca Creek.

The Seneca Creek sewerage system is experiencing capacity problems in two key areas:

**Wastewater Conveyance:** There are currently several constraints in the sewerage system within the Seneca Creek basin that inhibit getting wastewater flows from their source to the Seneca WWTP/WWPS complex. Several projects to relieve these problems are currently under study or are adopted in the FY 94 Washington Suburban Sanitary Commission Capital Improvement Program (WSSC CIP) or proposed in the FY 95 WSSC CIP.

**Wastewater Treatment:** The Seneca WWTP/WWPS complex is currently operating near its capacity.

To meet the County's future wastewater needs in the Seneca Creek basin, additional major wastewater treatment projects are required. Currently, no specific solution to the Seneca Creek wastewater treatment problem has been adopted since it is the subject of the present Seneca/Potomac Study. The most optimistic outlook suggests that if a decision regarding a waste-

water treatment solution is reached within the next few months, the projects could be programmed into the 1996 CIP.

Any long term solution would have a design and construction period of at least five years, meaning that new capacity will not be available until sometime after the year 2000.

Limited wastewater treatment and conveyance capacity is clearly a constraint to further Clarksburg development until appropriate solutions are programmed into the CIP and constructed. Due to the severe sewage conveyance and treatment constraints in the Seneca Creek basin, this Plan recommends that private development be staged so that no new development should proceed until necessary wastewater conveyance and treatment solutions are fully programmed in the first four years of the CIP, except (1) those which have already received sewer permit authorizations (COMSAT, Gateway 270, and the Damascus Middle School), 2) the Pancar property, and (3) the Town Center area not in the Ten Mile Creek Watershed.

#### Principle #2: Fiscal Concerns

*The timing and sequence of development in Clarksburg should be responsive to the likelihood that funding for the capital improvements required by new growth in the area will come from a variety of sources, including the County and private development.*

The County is expected to program the schools, local roads, and other community facilities in the Master Plan using both public and private funding sources. An analysis by the Office of Planning Implementation concluded that if the County had to fund the master planned improvements using only a portion of the taxes from new development, a funding shortfall of \$75 million to \$100 million could result over a 20-year period. **In light of this finding, it is clear that staged development should be conditioned on the ability of private developers to fund a significant portion of the infrastructure improvements called for in the Plan or the availability of other new sources of revenues.**

Under current County fiscal policy, approximately 10 percent of the taxes generated by new development are available for capital projects. Other sources of public funds could include the State and additional contributions from the County. Private sources of funds could include land dedication, developer contributions (in-kind or in-cash), construction excise taxes, development district payments, or other development fees.

This Plan recognizes, that while the specific details and implementation mechanisms related to alternative funding mechanisms are not well known at this time, in all likelihood, more than one source of private funds will be needed and used in the Clarksburg area. In particular, it is possible that more than one development district could be used. The County should carefully evaluate the use of all alternative financing mechanisms to ensure that they do indeed make significant contributions towards the facilities called for in the Plan.

### Principle #3: Coordination of Land Development and Public Infrastructure

*Land development should be coordinated with the provision of major capital improvements, such as the sewerage system and the transportation network.*

Staging policies should be developed to coordinate the timing of land development in Clarksburg with the provision of such public improvements as roads, sewerage facilities, schools, parks, libraries, and police and fire stations. Such capital facilities can best be financed without undue burden to the County and its taxpayers if the facilities are built in a logical, rational fashion, servicing only a few compact development areas at any one time, and proceeding in later stages to build out from already developed areas in a logical incremental sequence. By this means, the County can avoid the high tax burden of scattered, piecemeal development which forces wasteful public expenditures for expensive, but underutilized, public facilities.

This coordination of land development with the provision of public infrastructure is particularly important, given the estimated \$75 million revenue shortfall for Clarksburg. The economies of scale offered by geographic staging will enable the County to make the best possible use of the limited funding available for Clarksburg.

### Principle #4: Development of a Strong Community Identity

*The timing and sequence of development should reinforce the Master Plan's community design and identity goals for Clarksburg.*

The timing and sequence of development is critical to helping Clarksburg achieve its vision as a transit- and pedestrian-oriented town surrounded by open space. To help promote a strong sense of community identity and design, staging of public facilities and private development should accomplish the following:

- **The Town Center:** Encourage the early development of the Town Center to create a strong sense of community identity and to provide a model for later development in other areas.

An early focus on the development of a vital, mixed use Town Center for Clarksburg can be achieved through the careful staging of both public facilities and private development. For example, this Plan favors initial development east of I-270 where great care has been taken to recommend a land use pattern that fosters a mix of housing, retail uses, employment, community facilities and transit usage. Similarly, this Plan allows the construction of a developer-funded pump station, which would pump over wastewater from the Town Center to an existing sewer trunkline. Such a temporary pump-over facility would allow the Town Center to proceed with early development rather than wait for the completion of a stream valley gravity line that will ultimately serve the area. Finally, this Master

Plan encourages residential development patterns that best support a strong Town Center identity early on. For instance, residential development in the Newcut Road Neighborhood should be phased to encourage development closest to the Town Center to proceed first.

- **The Transitway:** Assure that areas planned for higher density development near transit are not preempted by less intensive uses.
- **School-Based Neighborhoods:** Recognize that schools are an essential component of community life and an integral part of community design and development, and should form the basis for neighborhood units in Clarksburg.

To promote school-based neighborhoods, each stage of development should strive to provide, in conjunction with existing development where possible, an adequate number of dwelling units to support at least one elementary school. Montgomery County Public Schools currently estimates that between 1,800 and 2,200 housing units are needed to support an elementary school. Similarly, the County should have opportunities to obtain school site dedication in each stage of development

- **Balanced Socio-Economic Mix:** Provide a suitable mix of dwelling units to ensure a balanced socio-economic mix for schools in the areas. Ideally, each stage should strive to achieve a mix similar to the overall Master Plan mix of units.

Such a variety of housing products in every stage promotes an active, healthy real estate market and provides consumers with a range of housing choices, prices, and living styles.

- **Coordinated Residential and Commercial Development:** Provide for sufficient residential units to support Town Center retail and commercial activities.

This Plan recognizes that retail uses are critical to the vitality of a community and can play a significant role in reinforcing the Town Center as a central focus for the entire Clarksburg area. Once a sufficient critical mass of housing units are in place to support a retail center (retailers indicate that approximately 3,500 to 4,000 dwelling units are needed to support a retail development that includes a grocery store), this Plan recommends that early retail development priority be given to the Town Center. Retail development in the Newcut Road and Cabin Branch neighborhoods should follow the development of approximately 90,000 square feet of retail uses in the Town Center.

### **Principle #5: Market Responsiveness**

*Staging should respond to near-term market demand for single-family housing and long-term demand for employment.*

Staging in Clarksburg should respond, as much as possible, to the growing pressures for more single-family housing in the County. Development should be staged so that a reasonable share of the County's future annual residential growth can be accommodated in Clarksburg over time. Staging should also respond to long-term employment demand that is expected along the I-270 corridor.

### **Principle #6: Water Quality Protection**

*The timing and sequence of development in Clarksburg should respond to the unique environmental qualities of the area and help mitigate, in particular, development impacts to the environmentally sensitive stream valleys in the Ten Mile Creek watershed.*

Clarksburg offers a rich array of environmental resources, including Little Seneca Lake, streams with very high water quality, a large number of stream headwaters, extensive tree stands, and an impressive array of flora and fauna, particularly in stream valleys. Staging serves as an essential tool for assisting with the mitigation of development-related impacts in Clarksburg's environmentally fragile, high quality stream valleys.

Significant changes in water quality regulation can be expected during the next few years. A new water quality zoning text amendment was approved by the Planning Board in the spring of 1994 for transmittal to the County Council. If this new water quality review process is approved, it will be highly desirable to limit early development in Clarksburg to one or two less environmentally sensitive sub-watersheds (such as those found on the east side of I-270) so that Department of Environmental Protection (DEP) can conduct the necessary baseline stream monitoring for the proposed program and test the effectiveness of best management practices in protecting water quality.

Such baseline monitoring and evaluation will better enable the County and Ten Mile Creek property owners to work together in developing effective best management practices for Clarksburg's most environmentally fragile watershed.

Delaying development in the Ten Mile Creek watershed will provide these property owners with the opportunity to pursue voluntary measures to protect water quality in the environmentally fragile Ten-Mile Creek watershed. Such measures might include stream restoration, afforestation/reforestation, and modified agricultural practices.

### **Principle #7: Responsiveness to the Site Location of FDA**

The Federal Food and Drug Administration (FDA) is currently reviewing a number of sites in Clarksburg and other Montgomery County communities that

can accommodate the development of 2.5 million gross square feet of office, industrial, laboratory, and related uses.

This Plan recognizes the significant impacts that such a decision would have on Clarksburg and acknowledges that the selection of a Clarksburg site for FDA would require modifications to the recommended land use and to the staging elements contained in this chapter.

## The Geography of Staging

The areas affected by this Plan's staging recommendations are shown in Figure 16, page 35.

The following areas are not included in the staging plan:

**Hyattstown:** This community has public health problems due to failing septic systems, which must be corrected immediately. Development in Hyattstown may proceed immediately, subject to the availability of adequate sewerage facilities.

**Rural Density Development:** Rural density development, zoned for one unit per five-acre density or less, may proceed based on the availability of wells and septic facilities.

**Public Uses on Site 30:** Public uses on Site 30, such as the planned detention center site, are not included in this staging plan.

**Previously Approved Development in the Pipeline:** Previously approved development will not be addressed by the staging plan. However, any requests for water and sewer plan changes in these areas will be subject to the availability of wastewater treatment and conveyance capacity in the Seneca Creek basin and consistency with the water and sewer service areas delineated in Figure 51, page 202.

## The Staging Sequence for Private Development

To provide for the orderly and fiscally responsible development of public facilities, promote the development of a strong community identity, and allow for the implementation and evaluation of the County's water quality review process to examine whether best management practices can mitigate the impacts of development on the environmentally fragile Ten-Mile Creek watershed, this Plan recommends that four Master Plan stages guide the sequencing of public facilities and private development in Clarksburg.

Each stage will be initiated or "triggered" once all of the triggers described in Tables 18 through 21 have been met for that stage. Thus, no stage is dependent on the complete buildout of prior stages. A number of stages do, however, share the same triggers. With the exception of stage 1, all stages require State and County enabling legislation for development districts or that alternative



financing mechanisms are in place. Stages 2, 3, and 4 also require the adoption of new Executive water quality review regulations before development may proceed. Stages 3 and 4 are also predicated upon the resolution of wastewater treatment and conveyance problems in the Seneca Creek basin.

After a stage has been triggered, individual developments within that stage can proceed once public agencies and the developer have complied with all of that stage's implementing mechanisms and the traditional regulatory requirements of that property's zoning. Unlike some plans, where staging has been implemented primarily through incremental rezonings of major areas of a plan, this Plan relies on such mechanisms as the County's Comprehensive Water Supply and Sewerage Systems Plan, the Annual Growth Policy (AGP) and Adequate Public Facilities Ordinance (APFO), floating zone approvals, and the formation of development districts (or other financing mechanisms) to implement the Plan's staging policies. These implementing mechanisms are described in greater detail in later portions of this Plan.

The triggers and implementation mechanisms for Clarksburg's four stages of development are detailed in Tables 18 through 21. Briefly, they can be described as follows:

#### **Stage 1:**

This stage applies to those major developments in Clarksburg that have existing sewer authorizations. Specifically, it includes such private office development as COMSAT and Gateway 270, and the new Damascus Middle School. This stage also includes the Pancar property. The properties in this stage may proceed immediately with development subject to existing regulatory review procedures.

#### **Stage 2:**

This stage includes those portions of the Town Center District that do not drain into the Ten Mile Creek watershed and that could logically be served by an interim pump station. It includes approximately 1,650 residential units and 300,000 square feet of retail uses.

In addition to the triggers described above, it should be noted that this stage may not begin until WSSC and the County Executive indicate that sufficient wastewater treatment and conveyance system capacity exists to accommodate Town Center development and that providing sewer to the Clarksburg Town Center will not stop the Germantown Town Center from developing based on not having available sewer flow when it needs it.

#### **Stage 3:**

This stage applies to all portions of Clarksburg located east of I-270 (but not in the Ten Mile Creek watershed) and the Cabin Branch Neighborhood. It includes approximately 8,370 housing units and more than two million square feet of commercial, industrial, and office development. In addition to the conditions described above, this stage will not be allowed to proceed until waste-

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**Stage 1 (Under way)**

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*Table 18***Description**

Stage 1 includes those properties in Clarksburg that have existing sewer authorizations (COMSAT, Gateway 270, and the Damascus Middle School, and the Pancar property, a grandfathered property with a completed subdivision application prior to initiation of this Plan).

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**Staging Triggers**

None. Can proceed with development once necessary building permits and sewer hook-ups have been granted.

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**Implementing Mechanism**

Properties in this stage subject to existing regulatory review processes, including AGP and APFO approval. No additional Master Plan implementation actions needed.



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**Stage 2**
*Table 19*


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**Description**

Stage 2 includes those portions of the Town Center District that do not drain into the Ten Mile Creek watershed (see Figure 54, page 215).

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**Staging Triggers<sup>1</sup>**

- 1) Either (a) State and County enabling legislation for development districts, or (b) alternative infrastructure financing mechanisms are in place.
  - 2) County Council adopts a new Water Quality Review Process (WQRP) and DEP issues Executive Regulations related to this process.
  - 3) WSSC and the County Executive indicate that sufficient sewer treatment and conveyance capacity exists or is programmed to accommodate development in this stage and that sewer authorizations for the Germantown Town Center are not put at risk.
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**Implementing Mechanisms<sup>2</sup>**

- 1) At the time of Sectional Map Amendment (SMA), the Stage 2 area in the Water and Sewer Plan is amended to S-4, W-4 by the County Council in accordance with the policy recommendations of this Master Plan. The Stage 2 area of the Water and Sewer Plan will automatically advance to S-3, W-3 upon Planning Board approval of a preliminary plan of subdivision for which WSSC and the County Executive indicate that Staging triggers 1, 2, and 3 have been met.
- 2) Properties in this stage are subject to AGP and APFO approval by the Planning Board.
- 3) One or more development districts (or alternative financing mechanisms) that can provide public facilities in accordance with the APFO and additional local determinations by the County Council are implemented.

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<sup>1</sup> All staging triggers must be met to initiate this stage of development.

<sup>2</sup> Individual developments within this stage can proceed once public agencies and the developer have complied with all of the implementing mechanisms.

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**Stage 3**
*Table 20*


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**Description**

Stage 3 includes all portions of Clarksburg that do not drain into the Ten Mile Creek watershed, i.e., most development east of I-270 and the Cabin Branch Neighborhood (see Figure 54, page 215). Retail/commercial development in the Newcut Road and Cabin Branch Neighborhoods will be deferred, however, until 90,000 square feet of retail uses have been established in Clarksburg's Town Center.

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**Staging Triggers<sup>1</sup>**

- 1) Either (a) State and County enabling legislation for development districts, or (b) alternative infrastructure financing mechanisms are in place.
  - 2) County Council adopts a new Water Quality Review Process (WQRP) and DEP issues Executive Regulations related to this process.
  - 3) Wastewater treatment and conveyance facilities, sufficient to serve all approved development in Germantown and the Stage 3 area of Clarksburg, are 100 percent funded in the first four years of the CIP.
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**Implementing Mechanisms<sup>2</sup>**

- 1) Once all three of the above conditions have been met, the Stage 3 area in the Water and Sewer Plan is amended to S-3, W-3 by the County Council in accordance with the policy recommendations of this Master Plan.
- 2) Floating zone and project plan approvals are guided by Master Plan language that recommends that retail/commercial development in the Newcut Road and Cabin Branch Neighborhoods be deferred until 90,000 square feet of retail uses have been established in Clarksburg's Town Center.
- 3) Floating zone approvals are guided by Master Plan language that encourages residential development patterns that best support a strong Town Center identity early in Stage 3. For example, residential development in the Newcut Road Neighborhood should be phased to encourage development closest to the Town Center to proceed first.
- 4) Properties in this stage are subject to AGP and APFO approval by the Planning Board.
- 5) One or more development districts (or alternative financing mechanisms) that can provide infrastructure facilities in accordance with the APFO and additional local determinations by the County Council are implemented.

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<sup>1</sup> All staging triggers must be met to initiate this stage of development.

<sup>2</sup> Individual developments within this stage can proceed once public agencies and the developer have complied with all of the implementing mechanisms.

water conveyance and treatment problems in the Seneca Creek basin have been resolved and fully programmed into the first four years of the Capital Improvements Plan. In order to promote a strong community identity focused on the Clarksburg Town Center, floating zone approvals in this stage will also be guided by specific community building criteria related to the location of housing and timing of retail development (see Table 20, page 196 and the staging policies above).

#### Stage 4:

This stage applies to development in the Ten Mile Creek watershed, which is primarily located to the west of I-270 (the headwaters of this watershed are located in the western portion of the Town Center District). This stage includes approximately 1,700 dwelling units and 1,270,000 square feet of commercial, office, and industrial development. Due to the environmentally fragile nature of the streams in this area and the Plan's strong emphasis on community building, this stage contains the following additional triggers that must be met before development can proceed in this area. These triggers can be described as follows:

**Baseline Monitoring:** Baseline biological assessment of the aquatic ecosystems of the Little Seneca Creek and Ten Mile Creek watersheds, scheduled to be initiated by the Department of Environmental Protection (DEP) in July of 1994, has taken place for a minimum of three years. This baseline biological assessment will be used to measure and report changes in the biological integrity of the two watersheds.

**Community Building:** At least 2,000 building permits have been issued for housing units in the Newcut Road and Town Center sub-areas of Clarksburg.

As noted in the staging principles, fostering a strong community identity in the early years of development in Clarksburg is extremely important. For this reason, the Plan favors initial development east of I-270 where great care has been taken to recommend a land use pattern that fosters a mix of housing, retail uses, employment, community facilities and transit usage. To help assure that these concepts are initiated early and to help establish near term priorities for public infrastructure expenditures, this Plan recommends that Stage 4 begin only after development east of I-270 is under way.

Allowing 2,000 units to get under way east of I-270 reinforces Clarksburg's town concept by providing sufficient critical mass to support the many public and private facilities that contribute to a community's quality of life and identity. For example, Montgomery County Public Schools (MCPS) estimates that 1,800 to 2,200 housing units are needed to support an elementary school, which is not only one of the more costly public facilities needed, but also an essential component of community life and an integral part of community design and development.

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## Stage 4

Table 21

(This stage's triggers and implementing mechanisms are described in detail in the Plan's text. This table summarizes these detailed recommendations.)

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### Description

This stage allows the remaining areas of Clarksburg (i.e., those properties that drain into the Ten Mile Creek watershed) to proceed with development. (See Figure 54.)

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### Staging Triggers<sup>1</sup>

- 1-2) Same triggers as for Stage 3.
  - 3) Wastewater treatment and conveyance facilities, sufficient to serve all approved development in Germantown and the Stage 4 area of Clarksburg, are 100 percent funded in the first four years of the CIP.
  - 4) **Baseline Monitoring:** Baseline biological assessment of the aquatic ecosystems of the Little Seneca Creek and Ten Mile Creek watersheds has taken place for a minimum of three years.
  - 5) **Community Building:** At least 2,000 building permits have been issued for housing units in the Newcut Road and Town Center sub-areas of Clarksburg.
  - 6) **Eastside BMP's Monitored and Evaluated:** The first Annual Report on the Water Quality Review Process following the release of 2,000 building permits in the Newcut Road and Town Center sub-areas is completed. This report will have evaluated the water quality best management practices (BMP's) and other mitigation techniques associated with Town Center/Newcut Road development and other similar developments in similar watersheds where BMP's have been monitored.
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### Implementing Mechanisms<sup>2</sup>

- 1) Once all of the above conditions have been met, the County Council will consider Water and Sewer Plan amendments that would permit the extension of public facilities to the Ten Mile Creek area. (See text for further discussion of these mechanisms.)
  - 2) Ongoing water quality and BMP monitoring by DEP in accordance with the WQRP.
  - 3) Properties in this stage are subject to AGP and APFO approval by the Planning Board.
  - 4) One or several development districts (or alternative financing mechanisms) that can provide infrastructure facilities in accordance with the APFO and additional local determinations by the County Council are implemented.
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<sup>1</sup> All staging triggers must be met to initiate this stage of development.

<sup>2</sup> Individual developments within this stage can proceed once public agencies and the developer have complied with all of the implementing mechanisms.

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**Eastside BMPs Monitored and Evaluated:** The first Annual Report on the Water Quality Review Process (WQRP) following the release of 2,000 building permits in the Newcut Road and Town Center sub-areas is completed by the Department of Environmental Protection. This report will have evaluated the water quality best management practices (BMPs) and other mitigation techniques associated with the Town Center/Newcut Road development and other similar developments in substantially similar watersheds where BMP's have been monitored.

Once the above events occur, County Council will consider water and sewer category changes that would permit the extension of public facilities to the Ten Mile Creek area. As part of their deliberations, the Council will:

- Review the demands on the Capital Improvements Program for necessary infrastructure improvements.
- Evaluate the water quality results associated with Newcut Road and Town Center development and other similar developments in substantially similar watersheds where BMP's have been monitored and evaluated. In undertaking this evaluation, the Council shall draw upon the standards established by federal, state, and County laws and regulations and determine if the methods, facilities, and practices then being utilized by applicants as part of the water quality review process then in place are sufficient to protect Ten Mile Creek.
- Assess voluntary measures taken by property owners in the Stage 4 area to protect water quality in the environmentally fragile Ten Mile Creek watershed. Such measures might include stream restoration, afforestation/reforestation, and modified agricultural practices.

After conducting these assessments, the County Council may:

1. Grant water and sewer category changes, without placing limiting conditions upon property owners.
2. Grant water and sewer category changes, subject to property owner commitments to take additional water quality measures, such as staging of development, to protect the environmentally fragile Ten Mile Creek watershed.
3. Defer action on a Water and Sewer Plan category change, pending further study or consideration as deemed necessary and appropriate by the Council.
4. Consider such other land use actions as are deemed necessary.

## *Staging Implementation Mechanisms*

### Comprehensive Water Supply and Sewerage Systems Plan

#### OVERVIEW

The Montgomery County Comprehensive Water Supply and Sewerage Systems Plan (Ten-Year Plan) governs the extension of water and sewer service in the County. The overall goal of this plan is to ensure that the existing and future water supply and sewerage systems needs of the County are:

- Consistent with master plans and the provision of other public services.
- Satisfied in a cost effective manner.
- Satisfied in a manner that protects or improves County water resources, from both public health and environmental standpoints.

To provide for the orderly extension of water and sewerage service, State law and regulations have established six category designations for water and sewerage service areas. The formal mechanism for staging water and sewerage service consists of the application of the water and sewerage service categories to various areas of the County. The County Council has the authority to adopt and amend service area designations after consideration of the County Executive's recommendations, as well as comments by WSSC and M-NCPPC. Based on this action, service area maps and adopted resolutions are available for use by the general public.

The policies that govern the provision of water and sewerage service under each category are enumerated in detail in the Ten-Year Plan. In addition to policies that are specific to each category, the extension of service must be consistent with the County's comprehensive planning policies. In other words, service should be extended systematically in concert with other public facilities as defined in the General Plan and adopted master or sector plans.

Sewer construction can create both short- and long-term impacts to stream systems. Sewer alignments should be carefully selected and constructed to minimize disturbance and stream crossings and to avoid wetlands or other natural resources where possible.

#### THE WATER AND SEWER PLAN'S ROLE AS A STAGING MECHANISM

This Master Plan recommends that the Comprehensive Water Supply and Sewerage Systems Plan serve as one of the key implementing mechanisms for the staging of private development and the provision of public facilities in Clarksburg. Specifically, the Plan recommends that the following policies govern the programming of water and sewer service in the Clarksburg area:

1. DEP will initiate a comprehensive Water and Sewer Plan amendment that modifies Clarksburg's sewer and water categories in accordance with the



recommendations of this Master Plan. It will be undertaken concurrently with the Sectional Map Amendment described above. Such a comprehensive amendment should modify the water and sewer categories for the Master Plan staging areas as follows:

- a. Properties in Stage 1 should be moved into categories S-1 and W-1.
  - b. Properties in Stage 2 should be moved into categories S-4 and W-4.
  - c. Properties in Stage 3 should be moved into categories S-5 and W-5.
  - d. All other properties in the Planning area, including properties in Stage 4, should be moved into categories S-6 and W-6.
2. Subsequent Water and Sewer Plan amendments be of a comprehensive or area-wide nature only, and consistent with this Master Plan's staging principles and recommendations. These subsequent Water and Sewer Plan amendments should not take place until all of the prerequisite triggers for each stage of development have been met (see Tables 18 through 21) and the County Council determines that the category changes are consistent with the policies of the Comprehensive Water Supply Sewerage Systems Plan.

To implement the staging recommendations of this Plan, Figure 51, "Recommended Sewer and Water Staging for Clarksburg," should be used as guidance for future amendments to the existing Water and Sewer Plan. The water and sewer service sequencing outlined in Figure 51 can be described as follows:

#### **Areas Not Planned for Service**

Those areas that will not be served include areas recommended for RDT and Rural zoning. In the transition areas near Ten Mile Creek, the sewer service line will be coterminous with the TDR zoning line. These areas will be put in categories W-6 and S-6, with a note that community service is not anticipated.

#### **The Existing and Programmed Service Area**

This group includes those areas that can be served now with existing lines plus areas that will be served in the near term when currently programmed projects are completed. This area includes Comsat, Gateway 270, the Damascus Middle School, Hyattstown, and the Pancar property. This area is generally consistent with areas given priority for development in Stage 1 of the Staging Plan.

The inclusion of Hyattstown in this category assumes that the Council will program a project for Hyattstown in the FY 95 Capital Improvements Program.



### **Future Service Area A and A-1**

These areas generally include properties on the east side of I-270 in the Little Seneca Creek watershed and a portion of Site 30. These areas match the areas identified in Stages 2 and 3 of the Staging Plan.

From a facility planning perspective and from a funding point of view, the Little Seneca Trunk sewer is the preferred option for serving both the Town Center (Area A1) and the Newcut Road Neighborhood (Area A). The County should make every attempt to program such a gravity line in the FY 96 Capital Improvements Program.

There is a concern, however, that a gravity sewer may not be in place by the time the other Stage 2 triggers for the Town Center are met. To encourage the establishment of Town Center at the earliest feasible date, this Master Plan allows for the construction of a temporary pump station and force main to serve the A-1 area. The service area should be limited to those properties that can logically be sewerred by a pump station that would tie into the existing sewer line.

### **Future Service Area B**

This area includes properties in the Cabin Branch watershed. It is comparable to the portion of Stage 3 in the Staging Plan located west of I-270. The major developable properties are the Clarksburg Triangle and the Reid Farm. The employment area along I-270 could be served separately by a gravity sewer line.

### **Future Service Area C**

This area includes those properties in the Ten Mile Creek watershed, including properties on the east side of I-270 on the western edge of the Town Center and the eastern portion of Site 30. This service area is generally consistent with the Stage 4 boundaries shown in the Staging Plan.

## **Floating Zone Approvals**

Floating zone designations are recommended by this Master Plan for a number of parcels in the Clarksburg area. In order for such rezoning to take place, the County Council must find that the proposed rezoning for these parcels be compatible with surrounding uses and in accord with the expressed purposes and requirements of the zone. In addition to these traditional requirements, this Master Plan recommends that:

1. Floating zone designations for properties in Stages 2, 3, and 4 not be included as part of the initial, comprehensive rezoning (SMA) described earlier in this chapter. Floating zones should not be approved for these stages until all of the triggers for the stage within which the floating zone is located have been met.

2. Floating zone approvals are guided by Master Plan language that recommends that retail/commercial development in the Newcut Road and Cabin Branch Neighborhoods be deferred until a portion of the retail in Clarksburg's Town Center has been developed.
3. Floating zone approvals are guided by Master Plan language that encourages residential development patterns that best support a strong Town Center identity early in Stage 2. For example, residential development in the Newcut Road Neighborhood should be phased to encourage development closest to the Town Center to proceed first.

### **The Adequate Public Facilities Ordinance (APFO) and the Annual Growth Policy (AGP)**

The Adequate Public Facilities Ordinance (APFO) promotes orderly growth by synchronizing development with the availability of public facilities needed to support that development. The Montgomery County Planning Board administers the APFO at the time of subdivision review.

In April of 1986, the County Council enacted legislation which established an Annual Growth Policy (AGP) for the County. Since that time, the Council has used the AGP to match the timing of private development with the availability of public facilities by setting staging ceilings for individual policy areas. The timing aspect of the AGP cannot be over-emphasized. The AGP is designed to affect the staging of development, not the location, total amount, type, or mix of development. Currently, the Clarksburg study area is not covered by AGP staging ceilings because it is not part of a separate policy area.

### **Development Districts or Similar Alternative Financing Mechanisms**

Development District enabling legislation was passed by the State legislature in 1994. Separate enabling legislation at the local level is currently under review by the County Council.

A development district can briefly be described as a special taxing district that has the authority to finance public infrastructure improvements needed to support land development by issuing tax-exempt bonds and/or collecting special assessment, special taxes, or tax increments within the district. Property owners would initiate development district formation and make a commitment to finance costs in excess of County expenditures for the infrastructure needed to meet all adequate public facility requirements in the proposed district. The determination of adequate facilities for a development district would be made by the Planning Board and County Council.

According to the enabling legislation currently under review by the County Council, development districts would largely consist of undeveloped or underdeveloped land. Development districts could potentially fund such infrastructure improvements as schools, police and fire stations, sewer and water systems, roads, transit facilities, parks, and recreation facilities. They are not intended, however, as a financing mechanism for infrastructure improvements that are considered the responsibility of a single developer under the Planning Board's site plan and adequate facilities requirements.

Development districts are viewed as a valuable tool for providing joint public/private financing of public infrastructure required by new development in largely undeveloped areas.

### Water Quality Review Process

A new Water Quality Review Process (WQRP) zoning text amendment was approved by the Planning Board in the spring of 1994 and forwarded to the County Council for adoption. The text amendment relies initially on the use of interim water quality goals, accompanied by a program of iterative and progressive upgrading of design standards for mitigation measures and enhanced provisions for maintenance. It is anticipated that eventually this process will lead to the development of enforceable performance criteria.

To accomplish these goals, the new water quality review process calls for:

- **Baseline Monitoring:** The Department of Environmental Protection will conduct baseline monitoring of specified high quality watersheds. This monitoring would consist of a biological assessment of the basin's aquatic ecosystems and would allow for the comparison of water quality conditions before and after development.
- **Goal Setting:** The Department of Environmental Protection will develop interim design goals related to best management practice (BMP) performance and water quality protection, leading ultimately to enforceable performance criteria.
- **Ongoing Monitoring:** The Department of Environmental Protection will oversee developer-funded monitoring of stormwater management facilities and other BMP's and monitor in-stream water quality associated with development projects.
- **Performance Evaluation:** County agencies will provide an ongoing assessment of the ability of different BMP's to protect water quality. These findings will be included in an Annual Report on the Water Quality Review Process to be submitted to the County Council.
- **Improved Design Standards:** The Department of Environmental Protection will modify BMP design criteria based on non-achievement of interim goals as verified through BMP and in-stream monitoring.

Based on the results of required monitoring, both the overall and the limits of mitigation in protecting water quality will be clearly defined over time.

## *Recommended Guidelines for the Review of Subdivisions and Site Plans in Clarksburg*

### Environmental Guidelines for Regulatory Review

#### Water Quality Protection

The Master Plan recommendations attempt to balance the need for Clarksburg's growth against the negative development effects on the natural environment. As stated in the Environmental Plan chapter, M-NCPPC's January 1993 Environmental Guidelines: Guidelines for Environmental Management of Development in Montgomery County already provides guidance on protection of environmentally sensitive areas such as stream valleys, wetlands, floodplains, endangered species' habitats, and steep slopes. In Clarksburg, stream buffers a minimum of 125 feet on each side of the stream will be required throughout the Study Area to protect the physical features in and around perennial and intermittent streams. There are County regulations prohibiting development in 100-year floodplains and requiring stormwater management to be addressed.

This Plan recommends the Environmental Guidelines be amended to afford environmentally sensitive areas like Clarksburg more protection during the development process. The areas shown in Figure 52 as "Special Protection Areas" (SPA) are based on the environmental analysis done for the Master Plan and guidance from Maryland Department of the Environment and Maryland Department of Natural Resources.

"Special Protection Areas" are geographic areas where identified sensitive environmental resources require measures beyond current standards to assure those resources are protected to the greatest extent possible from development activities. The Greenhorne & O'Mara report, Clarksburg Environmental and Water Resources Study, June 30, 1992, identified stream segments where heated runoff from intensive development was predicted to cause moderate to severe thermal impacts to the receiving streams. This study also identified isolated areas outside the stream buffers that have the highest risk of groundwater contamination; those areas occur in the Cabin Branch and Little Seneca Creek watersheds. The intensive developments proposed for the portions of Ten Mile Creek and M-83 in Wildcat Branch in the Great Seneca Creek watershed are appropriate for use of the SPA development guidelines because of their location in fragile stream systems. As shown in Figure 46, this covers the following sub-watersheds:

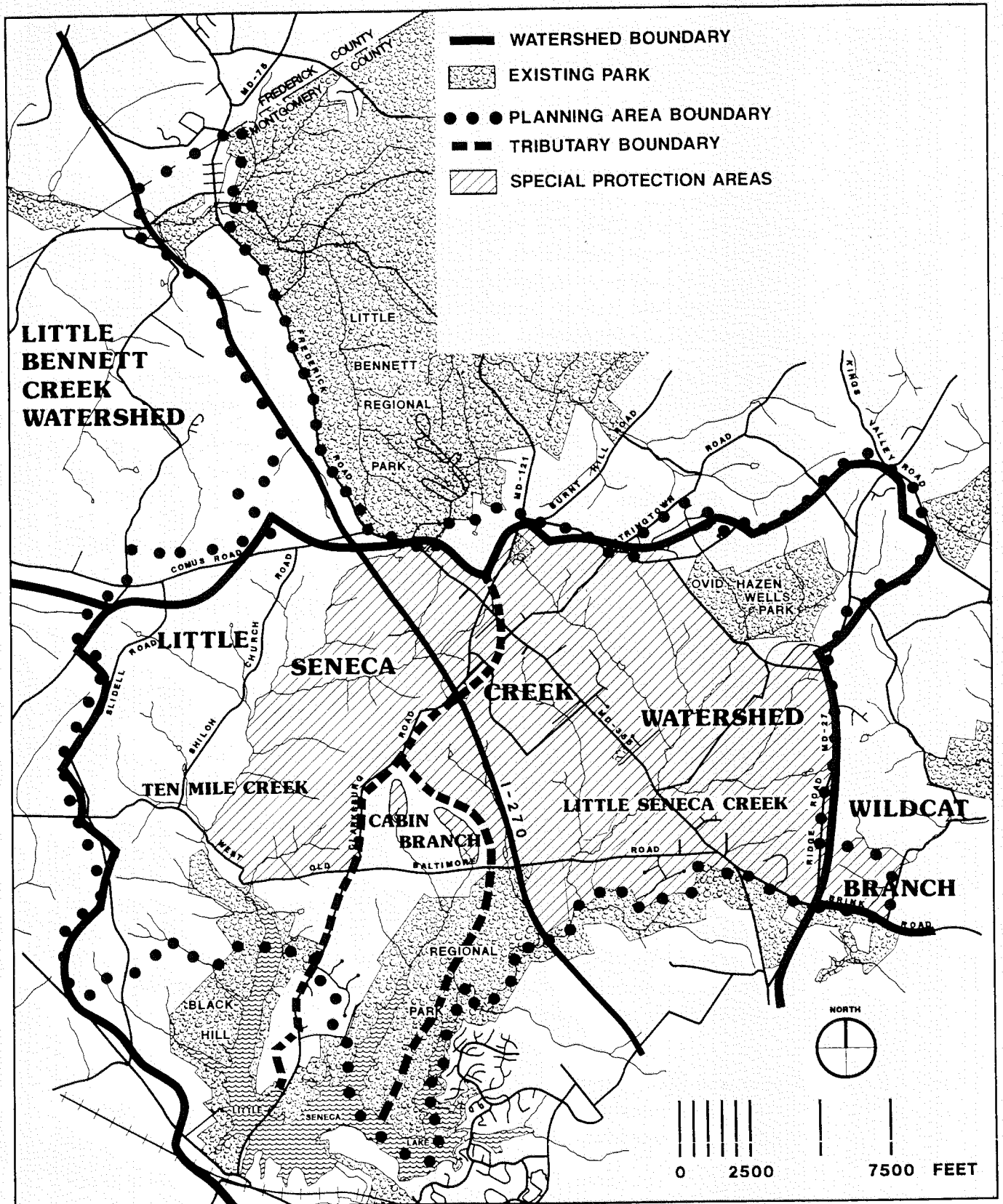
**Little Seneca Creek** — From Skylark Road downstream to Study Area boundary. All tributaries draining to Little Seneca Creek are included in this.

**Ten Mile Creek** — Land draining to any tributary or the mainstream east of Ten Mile Creek and north of West Old Baltimore Road. This includes all tributaries of Ten Mile Creek that drain the Town Center.

**Wildcat Branch (Great Seneca Creek Watershed)** — Tributaries within the Study Area that receive runoff from the Brink Road Transition Area and

# Special Protection Areas

Figure 52



Midcounty Highway. This designation should also include tributaries adjacent to Midcounty Highway that are outside the study area boundary, since they will be directly affected by what occurs in the Clarksburg Master Plan Study Area.

**Cabin Branch** — Two isolated areas outside the stream buffer where groundwater contamination is a possibility.

Development proposals in these areas should address specific objectives designed to counter development effects and meet SPA goals in these sensitive watersheds. The Master Plan recommends that the *Environmental Guidelines* be revised to incorporate these objectives that can be applied throughout the County to development in Special Protection Areas. There may also be additional County and state regulations that should be reviewed and amended as needed to facilitate implementation of the SPA objectives.

The *Guidelines for Environmental Management* should be amended to include these development objectives for the Clarksburg Special Protection Area:

- Use performance monitoring to examine development effects on stream quality and to evaluate effectiveness of BMP's and stormwater management techniques.
- Provide opportunities to maintain baseflow in streams and wetlands through site design or structural methods.
- Provide opportunities for groundwater and wetlands recharge.
- Minimize potential for groundwater contamination.
- Use a series of water quality BMP's for maximum pollutant removal efficiency.
- Reduce high runoff temperatures from impervious surfaces and mitigate thermal effects from Stormwater Management (SWM) treatment.

All environmental guidelines should be applied equally to both private development and to public sector development, such as Site 30, school sites and other institutional uses. County facilities and facilities to be built for private use on public land must pass the same level of scrutiny even though they can proceed through the mandatory referral process that only solicits recommendations from the Planning Board. These facilities should expect to include on-site stormwater management, stream buffers, and forestation areas as County or M-NCPPC requirements call for them

### *Stormwater Management*

This Plan strongly encourages the use of on-site SWM facilities, with proper maintenance, but allows for flexibility in site-by-site review.

Part of the consultant's Water Resources Study dealt with identifying possible locations for regional stormwater management facilities. Although this method is not as desirable as on-site SWM due to the stream degradation from erosion and pollutants that occur between the runoff source and the pond, it



might be considered where land is divided into many smaller parcels that individually would be likely candidates for SWM waivers, especially in terms of water quantity control. Pretreatment for water quality control should be provided on site, if regional SWM facilities are employed. Although further study is needed on a case-by-case basis for determining when and where to use a regional facility, the Plan recognizes that this preliminary siting work may be useful to developers and County regulatory agencies in the future.

#### Noise

- Construct aesthetic landscaped berms to reduce noise to acceptable levels in the noise compatibility buffer areas recommended above. In the extraordinary circumstances where berms are not feasible, man-made barriers such as walls or acoustical fencing may be considered.
- Due to the high noise levels and the potential for significant aesthetic impacts from noise attenuation measures needed to meet the 60 dBA standard along I-270, the standard for exterior noise levels may increase to a maximum acceptable level of 65 dBA Ldn for noise sensitive uses affected by I-270 noise.

#### Transportation-Related Guidelines for Regulatory Review

A key Plan objective for implementing the neighborhood concept and transit-serviceable site design is providing continuous, interconnected local streets that form the major organizing element. Local streets are important for traffic capacity and circulation, but the total right-of-way is used for purposes in addition to the movement of vehicles. In this respect, local streets are equally important in terms of pedestrian activity and building orientation.

This Plan proposes the following guidelines be applied at time of subdivision and site plan to help assure the road network develops in accord with Plan recommendations.

- **Variable Right-of-Way:** The right-of-way shown in the Design Standards for Montgomery County is the minimum required. Additional right-of-way to provide adequate sidewalk space or create a unique character of streetscape is encouraged. This includes additional right-of-way for trails, bikeways, and parking as well as medians and linear parks. A variable right-of-way for Midcounty Highway adjacent to environmentally sensitive areas should be considered.
- **On-Street Parking:** Parallel, on-street parking will be encouraged along neighborhood streets to reduce the size of off-street parking facilities.
- **Reduce the Use of Culs-de-Sac:** One design objective is to create a system of interconnected streets; the use of culs-de-sac and other dead-end streets should be discouraged except in areas where severe environmental constraints limit the feasibility for interconnection.
- **Closed Section:** Neighborhood streets should have a closed section with curbs, gutters, and enclosed storm drainage systems to allow for sidewalks

on both sides of the streets within the public right-of-way. Open section streets with sidewalks and landscaping should be considered in low density areas.

- Sidewalks: Sidewalks within the public right-of-way along both sides of neighborhood streets will be provided when necessary to accommodate pedestrians. The use of internal pedestrian pathways does not substitute for sidewalks along each street.
- Streetscape: A streetscape plan for all neighborhoods that emphasizes and delineates street lighting, trees, sidewalk paving, and sign locations will be required during the review of development plans and site plans.

A hierarchy of residential streets exists in the County Road Code. This Plan applies that hierarchy in the following manner to:

- Primary and Secondary Divided Residential Streets - The use of primary and secondary divided residential streets, which include wide medians, will be encouraged to create variety and establish neighborhood scale.
- Primary Residential Streets - The primary street should be used in areas with over 200 dwelling units on one street. Frontage of houses and businesses onto the street is preferred. Along streets that may experience heavy traffic volumes, buildings still should front the street while vehicular access may be achieved from the side or rear of the lot.
- Secondary Residential Streets - The secondary residential street is the preferred street within residential neighborhoods. This street provides adequate space for public sidewalks and street trees along both sides of the street without conflicts with the storm drainage system.
- Tertiary Residential Streets - The use of tertiary streets with a right-of-way of 50 feet should be limited to minor streets with sidewalks and street trees on both sides. Tertiary streets with a right-of-way of less than 50 feet are discouraged because of the lack of space within the public right-of-way for sidewalks except on low volume streets such as short culs-de-sac and environmentally sensitive areas.
- Alley - The use of alleys will be encouraged in residential neighborhoods to allow buildings to front on the streets.

### **Greenway Road Concept**

One method to enhance the “greenway concept” proposed in this Plan is to locate roads adjacent to stream valley buffer areas to maximize public access to the greenway and to maintain scenic views. This Plan locates portions of Newcut Road and the Midcounty Highway adjacent to stream valley buffers. In addition, portions of Frederick Road, Skylark Road, and MD 121 are located adjacent to the boundaries of large public parks, including Little Bennett Regional Park, Ovid Hazen Wells Park, and Kings Pond Park. All of these designated roads provide necessary public access to adjacent parks and green spaces which represent key public resources for both Clarksburg and Montgomery County.

Future developments should consider locating some local streets adjacent to stream valley buffer areas to provide necessary public access and maintain scenic views to the designated greenway and open space system. The Plan recognizes that this concept will need to be balanced with environmental concerns relating to roads in proximity to stream valleys as part of the regulatory review process. As stated earlier, grading limits for roads and associated facilities should lie outside stream and wetland buffers.

## *Recommended Policies Needing Additional Legislative Action*

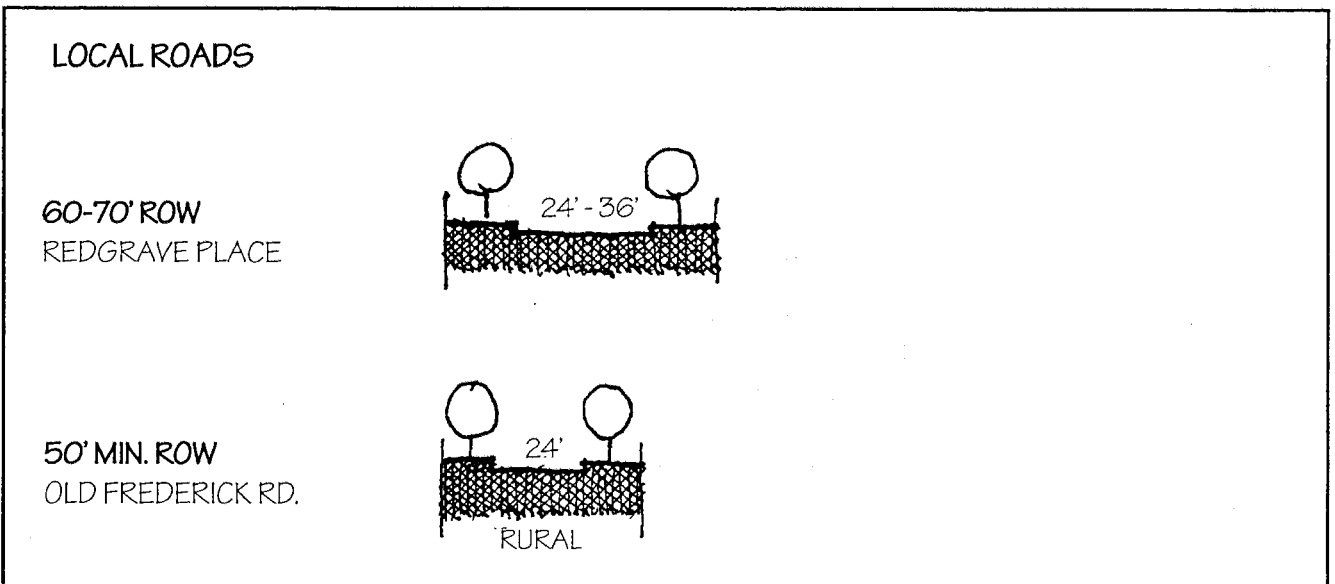
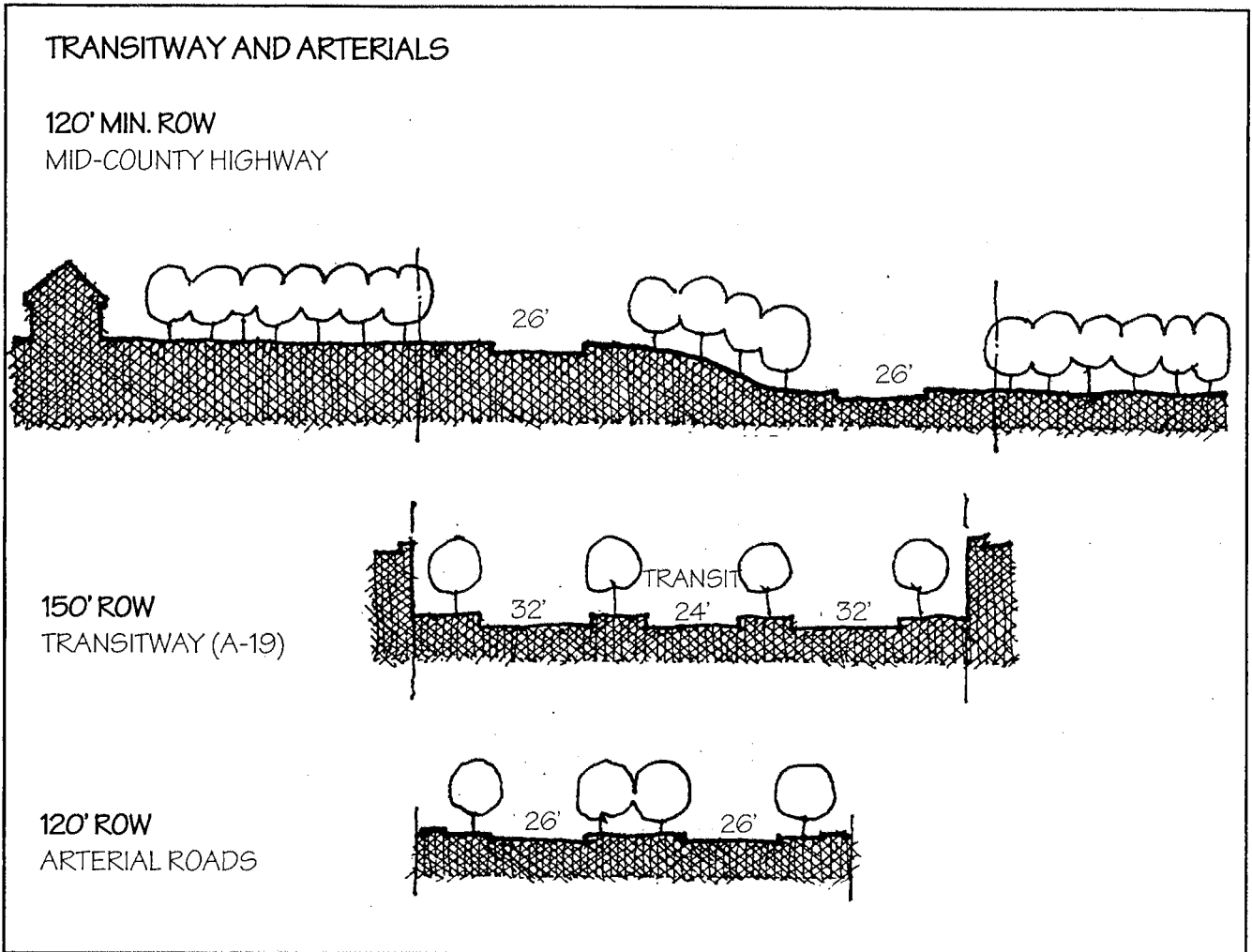
### **Recommended Amendments to the Montgomery County Road Code**

This Plan recommends road and street designs that are not currently in the Road Code or the County Design Standards. Modification to the Road Code to include these new sections should be developed and adopted. Proposed road sections are shown in Figure 53.

1. This Plan proposes a new arterial road with a transit facility and Class I Bikeways in a landscaped median. The road would consist of two travel lanes and a parking lane on each side. Frequent intersection spacing is recommended; this recommendation is not consistent with current standards for an arterial road. The road design is intended to accommodate vehicles traveling at low speeds. Pedestrian crossings will be frequent.
2. This Plan proposes that the divided arterial which usually has required 100-foot right-of-way be expanded to 100- to 120-foot right-of-way in order to accommodate a Class I Bikeway on one or both sides of the roadway (Stringtown Road, A-301, is one example of this road). In addition, this Plan proposes the Midcounty Highway have a variable median to fit topography of the land.
3. The Plan proposes that the sections of existing Frederick Road (MD 355) within the Clarksburg and Hyattstown Historic Districts remain in their current configuration except that trees and sidewalks, where not currently in place, may be added to augment those already existing. (These sections are identified as B-1 in the Plan.)
4. A new business street for the Clarksburg Town Center that would have 36 feet of paving with two travel lanes and two parking lanes within a 70-foot right-of-way is proposed. This street would carry a low volume of traffic at low speeds. This type of street would have a high level of pedestrian movement. Street trees are important. (Redgrave Place, B-2, is recommended as this type of street.) Parking might be eliminated within the historic district to minimize paving.

# Proposed Road Sections

Figure 53



## Zoning Ordinance Amendments

### Changes to RMX Zones

The RMX-2 Zone provides for a mix of uses in accord with the Master Plan recommendations. The zone requires amenities and public facilities. The Planning Board will review a project plan for conformance with Master Plan guidelines. To help assure the Plan objectives for the Town Center can be achieved, this Plan recommends that the zone be modified as follows:

- Eliminate building setback of 25 feet for commercial buildings and 30 feet for residential buildings from public streets to allow buildings to be oriented to streets and to reduce the walking distance to transit in accordance with the guidelines in the Master Plan.
- Increase the total gross floor area of professional and business office space to a maximum of 100,000 square feet, where recommended by the Master Plan. This increase matches the guidelines for mixed-use development in the Master Plan. Presently, the RMX-2 Zone permits a maximum of 600,000 square feet of retail floor area, but limits professional and business office space to a fraction of total floor area.

This Plan recommends all the above changes include the phrase “if in accord with the subject Master Plan.”

- Amend the RMX Zones to define and allow carriage houses as an accessory to a dwelling unit on a lot. The text amendment should consider a square-foot limit for the size of the carriage house and a percentage limit for the total number of carriage houses as accessory units compared to the total number of dwelling units shown on a project plan.
- Amend the RMX Zones to allow civic uses and related parking.

### Changes to the Agricultural Zones (Rural, Rural Cluster, and Rural Density Transfer Zones)

- Amend the Rural Density Transfer Zone to grandfather the recorded lots and parcels that will be downzoned to the RDT Zone as a result of the SMA.
- Create a new “Rural Service Zone” to allow service oriented uses as permitted use rather than as special exceptions. The zone would be a floating zone containing a purpose clause requiring conformance with the master plan and retention of rural character. The development standards would allow limited building coverage and impervious areas. Site Plan review would be required by the Planning Board.

### Change to the I-3 Zone

- Amend the I-3 (Industrial Park) Zone to provide a grandfather clause related to setbacks for an approved preliminary subdivision plan based

upon existing industrial zone standards, where it now adjoins master planned industrial zone land that will be changed to a residential recommendation per this Master Plan and where additional road right-of-way is required for Interstate 270.

### Changes Needed to Implement Plan Recommendations for the Historic Districts

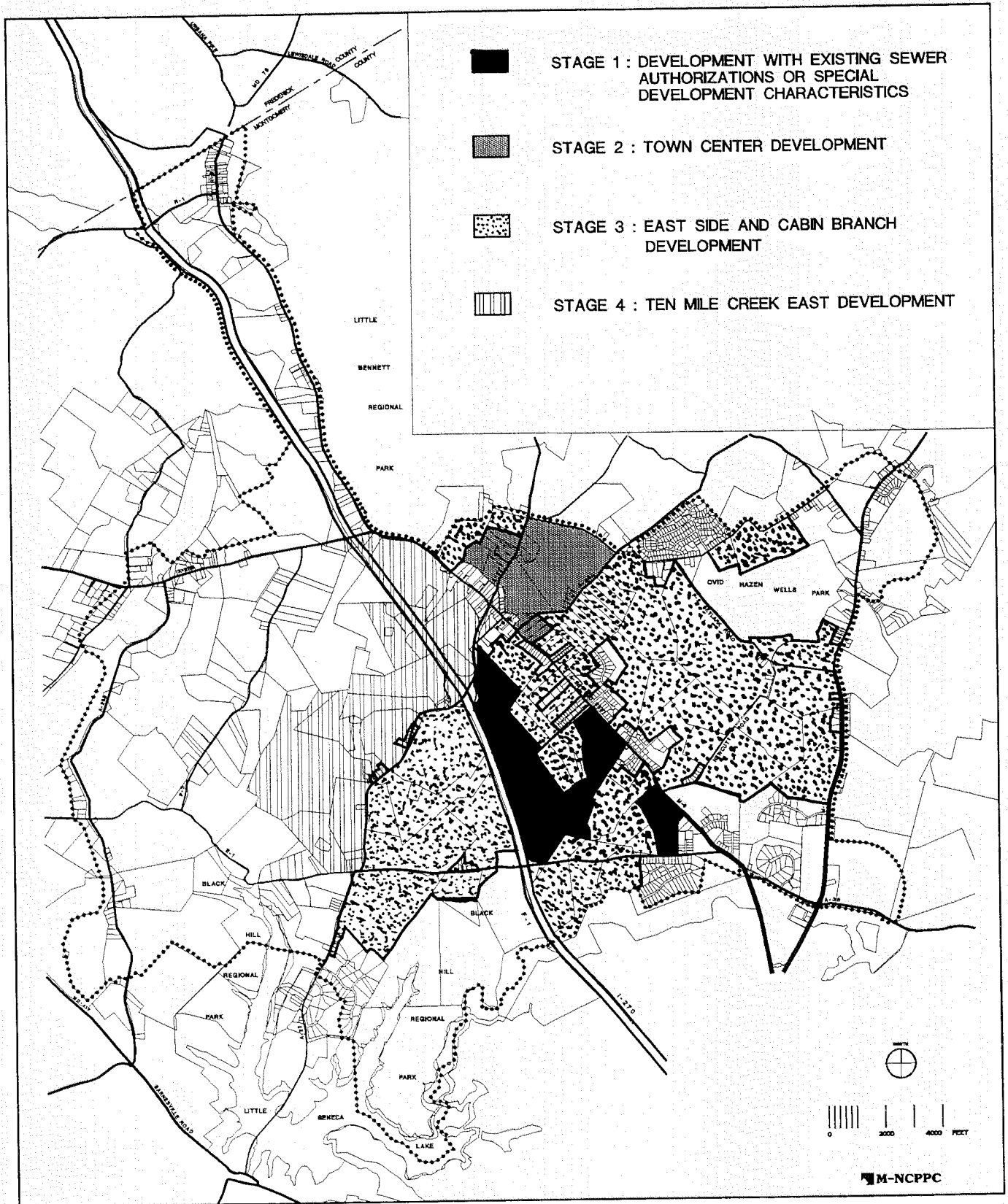
This Plan recognizes the need to provide incentives that will encourage the preservation and enhancement of structures within designated historic districts. One incentive that this Plan endorses is providing a mix of uses in the historic districts. The purpose of this mix of uses would be to encourage the appropriate adaptive reuse of existing historic buildings within the designated districts.

The zoning recommendations for the historic districts in the Clarksburg Study Area are based on the current Zoning Ordinance, which does not include zoning strategies which allow a mix of uses in historic districts. There may be a number of ways to address this issue. This Plan endorses studying a variety of implementation strategies which could make it possible to create a mix of uses in historic districts. Strategies that may be studied include, but are not limited to:

- Amendment of Section 59-A-6.2 of the Zoning Ordinance to allow commercial and service uses in existing historic resources when the property is designated as part of a historic district on the *Master Plan for Historic Preservation*, recommended in the applicable area master plan, reviewed by the Historic Preservation Commission, and approved on a site plan by the Montgomery County Planning Board.
- Creation of an overlay zone for historic districts which would address the need for a mix of uses, as well as physical design issues such as lot coverage, setbacks, etc.

# Clarksburg: Staging of Development

Figure 54



M-NCPPC