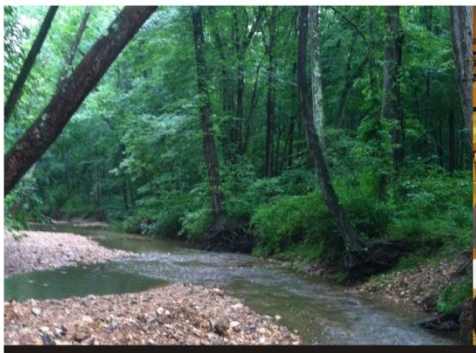

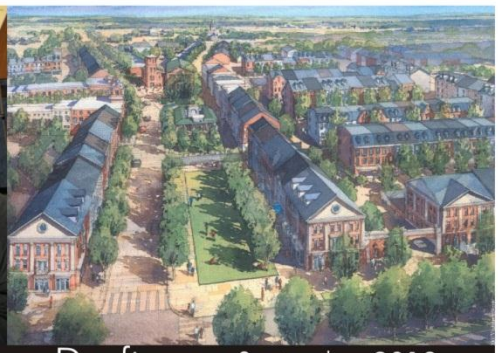

Public Hearing Draft September 2013

10 Mile Creek Area Limited Amendment

Clarksburg Master Plan and Hyattstown Special Study Area

Montgomery County Planning Department
M-NCPPC
MongomeryPlanning.org

Abstract
This document is a limited Amendment to the 1994 *Clarksburg Master Plan and Hyattstown Special Study Area* for the Ten Mile Creek Watershed. It retains the 1994 Master Plan vision but refines 1994 Plan recommendations to better achieve two important objectives: the creation of a well-defined corridor town that provides jobs, homes, and commercial activities; and the preservation of natural resources critical to the County's well-being. The Amendment contains land use, zoning, transportation, parks, and historic resources recommendations for the portions of the Planning Area in the Ten Mile Creek watershed.

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Clarksburg Master Plan and Hyattstown Special Study Area

MontgomeryPlanning.org

Prepared by
The Montgomery County Planning Department

September 2013

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Introduction

In October 2012, the Montgomery County Council directed the Planning Board to undertake a limited amendment of the 1994 Clarksburg Master Plan because environmental analyses showed continued uncertainty about the ability to protect sensitive resources in Ten Mile Creek if full development occurred under the original plan recommendations. This amendment includes the watershed of Ten Mile Creek, which is a high quality stream within the Plan area boundaries. Ten Mile Creek drains portions of Clarksburg west of I-270, as well as part of the Town Center, approximately between I-270 and MD 355, which is now the main route through Clarksburg (see Map 1).

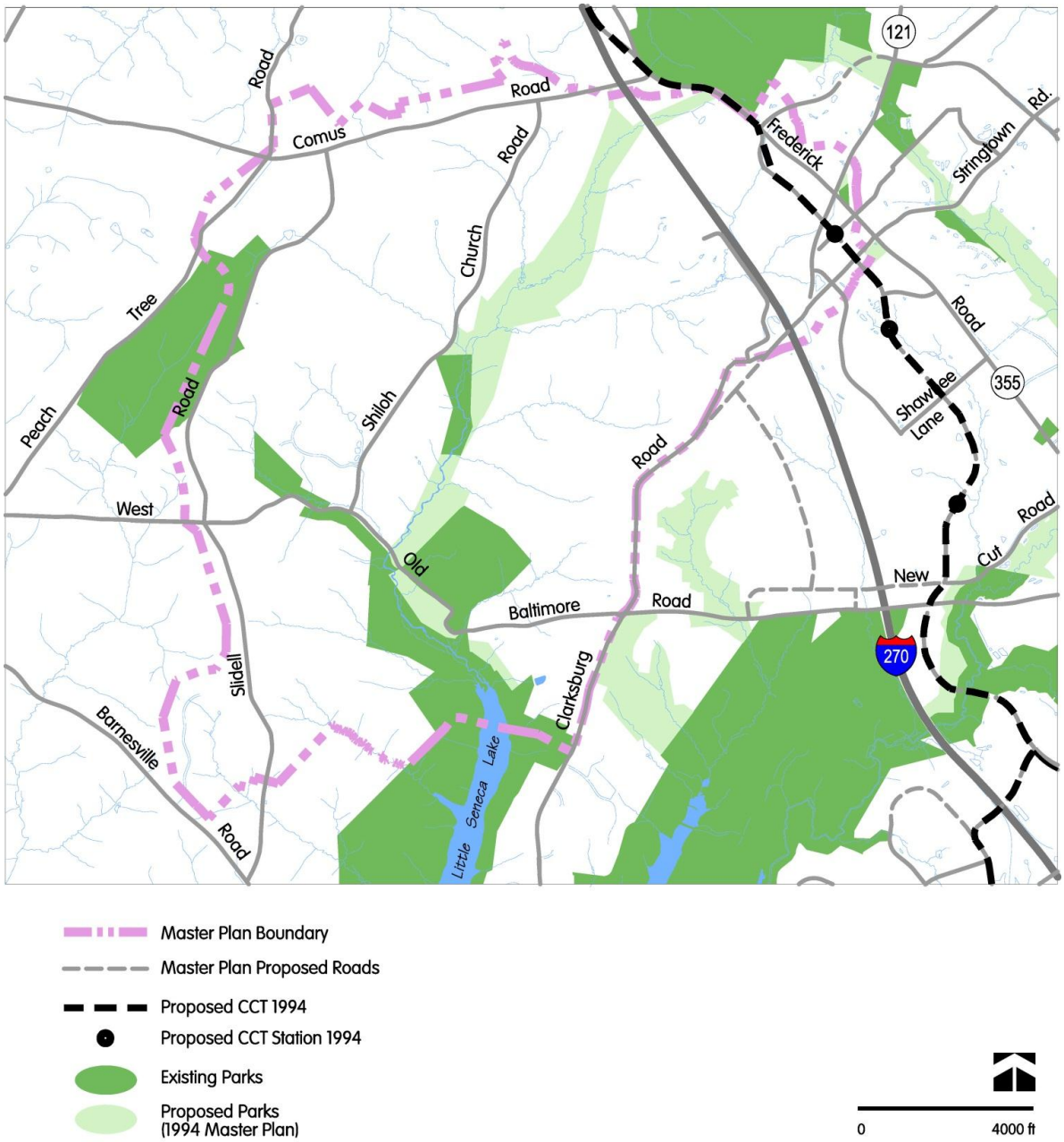
This amendment includes recommendations for achieving the desired community elements envisioned for Clarksburg in the 1994 plan, while protecting the quality of Ten Mile Creek. These objectives required studying the extent to which land use could help protect natural resources and environmental site design could combine to maintain high water quality in the watershed. Various transportation and land use alternatives were also examined for their effect on traffic and transit services and the balance of jobs and housing.

While this amendment retains the 1994 Plan's vision, it refines recommendations to better achieve two important objectives: the creation of a well-defined corridor town that provides jobs, homes, and commercial activities; and the preservation of natural resources critical to the County's well-being.

The amendment further draws on the expertise of independent environmental consultants who studied the effects of several development scenarios on Ten Mile Creek's water quality and transportation consultants who evaluated land use changes on Clarksburg's existing and planned road network and plans for transit service. These consultant reports and additional staff analysis are available in the Appendix.

The recommendations in this Amendment are designed to further the completion of Clarksburg, following the tenets of the 1994 Plan, while taking advantage of increased knowledge about environmental protection, innovations in environmental mitigation techniques and new zones created since approval of the 1994 Plan.

Map 1 Plan Area Boundary



Planning Context

1994 Plan Vision

The Clarksburg Master Plan manages Clarksburg's evolution from a rural crossroads to a vibrant corridor town surrounded by open space (see Appendix 1 for relevant excerpts from the 1994 Plan). A number of policies guide that process.

Policy 1, *Town Scale of Development*, proposes that Clarksburg develop at "a larger scale than proposed in the 1968 Clarksburg Master Plan but smaller than a corridor city such as Germantown" (page 16). The Plan implements this policy by:

- including the Clarksburg Historic District as an important component of the Town Center
- making land use recommendations that balance the need to protect sensitive environmental resources with the desirability of somewhat higher densities that can support transit service
- keeping intact the concept of a technology corridor centered on I-270, while reducing its scale
- organizing future development into defined neighborhoods that include broad mixes of housing.

From these four components, the Plan derives other important guiding policies. The *Town Center* (Policy 6) describes a mixed-use, transit-oriented central area that concentrates Clarksburg's civic resources to define it clearly as the focus of public life in Clarksburg and creates a "Main Street" on MD 355 through the historic district.

Plan recommendations also recognize the importance of environmental protection (Policy 2, *Natural Environment*) by:

- recognizing the Countywide significance of the Ten Mile Creek watershed
- recommending public acquisition of stream valleys that in turn can support a *Greenway Network* (Policy 3)
- offering development guidelines for stream systems likely to experience substantial impacts, including refinements to the water quality review process required for Clarksburg's existing Special Protection Area (SPA) prior to development in Ten Mile Creek.

At the same time, Plan recommendations are premised on a comprehensive *Transit System* (Policy 4) that reduces auto dependence and targets higher densities to areas near the proposed transit line. In the Town Center, these recommendations include high technology *Employment* centers (Policy 8) at the interstate interchange and higher residential densities near transit stations.

The Plan proposes creating seven neighborhoods in Clarksburg that would be oriented toward *pedestrians* and would maintain *connections to the transit network* (Policy 7). These neighborhoods would contain a mix of uses and a diversity of housing types. They would also incorporate a *Hierarchy of Roads and Streets* (Policy 5) that would allow through traffic to bypass the developed areas in the Town Center's historic district, connect streets within neighborhoods for improved local movements, and include pedestrian-friendly designs for streets that link neighborhoods to through routes.

The thrust of these policies is to create a clearly defined community that would include land uses ranging from agriculture, which would contribute to *Farmland Preservation* (Policy 9) in the western parts of Clarksburg, to employment along the proposed Corridor Cities Transitway. Civic activities in the Town Center would draw residents from the neighborhoods, whose retail nodes would include grocery

shopping and other routine retail needs. Community building would be managed by a *Staging* plan (Policy 10) that would balance the provision of needed civic infrastructure with the pace of development, with a particular focus on early development of the Town Center and the need to undertake significant environmental monitoring before allowing development in the Ten Mile Creek watershed.

1994 Plan Recommendations for Ten Mile Creek

The 1994 Master Plan's recommendations for Ten Mile Creek are based on the Plan's policy for protecting the natural environment. The Plan takes a balanced approach, relying on agricultural activities and low-density residential development—with environmental best management practices—to limit impacts to water quality in the western part of the watershed. Elsewhere, the Plan recommends a series of mitigation strategies, including expanded green buffers, impervious caps on key properties, and park dedication to reduce environmental impacts. These protections allowed the Plan to recommend a broad array of land uses, including relatively high-density uses in the headwaters and medium-density residential uses between the creek and MD 121 (see Map 2).

West of I-270 the 1994 Plan recommends:

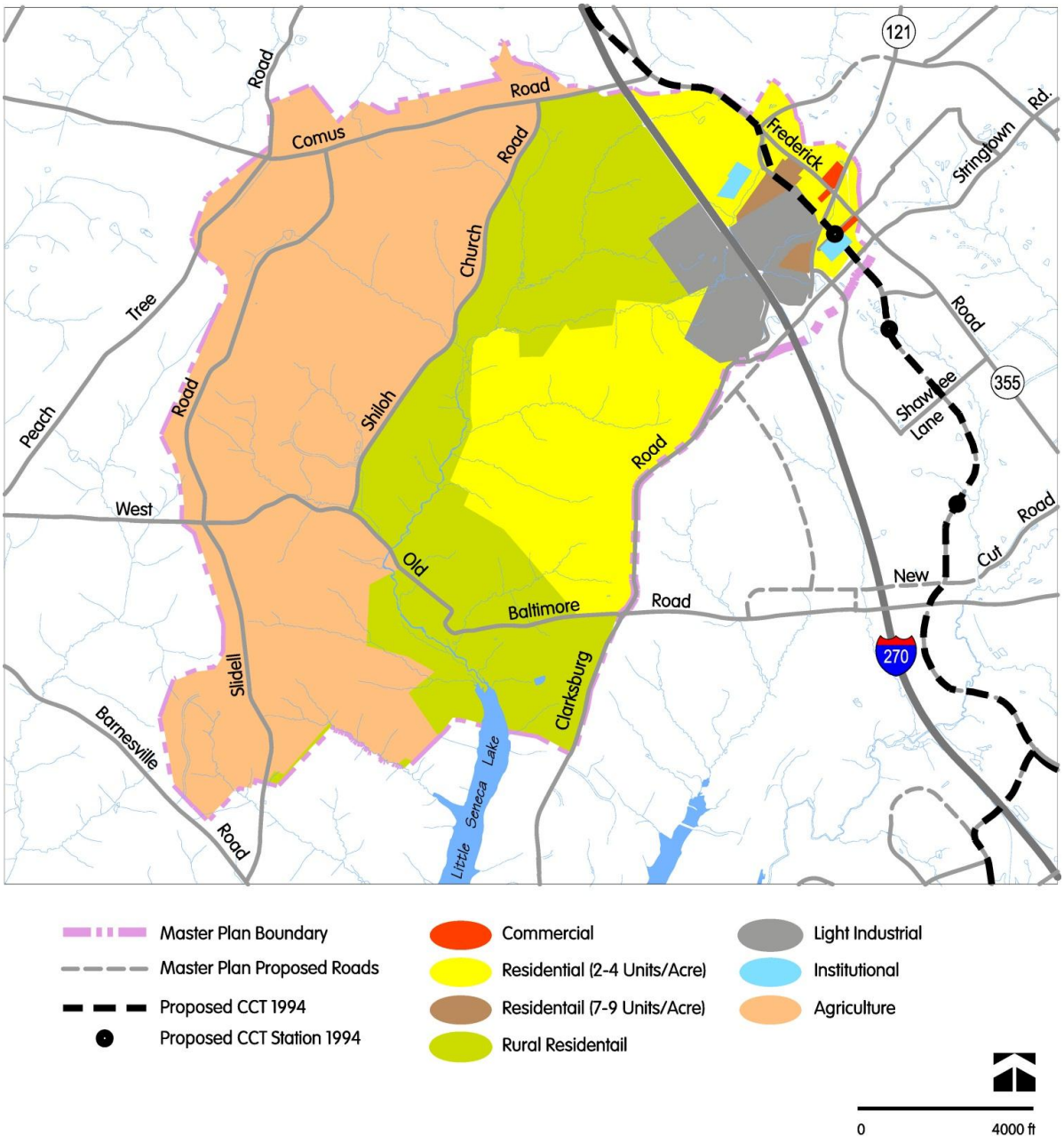
- adding 1,800 acres west of the main stem of Ten Mile Creek to the Agricultural Reserve, creating a transition from more intense uses in the corridor town of Clarksburg to the productive agricultural lands in the western county
- residential development east of the creek, between Shiloh Church and Clarksburg Roads, fulfilling a longer-term countywide need for single-family housing and incorporating significant amounts of parkland and open space to preserve resources:
  - rural development (one unit per five acres) on about 800 acres between the creek's mainstem and Shiloh Church Road
  - two units per acre on about 600 acres between the creek's mainstem and MD 121, including lands currently owned or controlled by the Pulte Corporation, with up to 900 of those units possible with the purchase of transferable development rights possible when environmental and housing mix guidelines are met
- employment, including institutional uses, along I-270, with maximum allowable imperviousness of 15 percent and no more than 400,000 square feet of floor area on each of the two County sites to preserve natural resources. (One site has since been used for the Montgomery County Detention Center.)

East of I-270 the Plan recommends:

- floating zones—the Planned Development and Mixed-Use Planned Development Zones—to encourage joint development of residential and employment uses and allow detailed analysis of proposals for conformance with Plan policies:
  - residential development at two to four units per acre in the Planned Development Zone on the Egan property near Comus Road
  - approximately 470,000 square feet of employment activities on the Miles-Coppola properties at I-270.

The property owners have not applied for the recommended floating zones.

Map 2 1994 Land Use Plan



1994 Plan Staging and Implementation

The Clarksburg Plan staged development to match specific targets for the provision of infrastructure needed to support it. The Plan also provided for the evaluation of environmental protection techniques to ensure they were sufficient. The Montgomery County Department of Environmental Protection has been monitoring conditions in the Clarksburg Special Protection Area (SPA) since 1994, which includes the Stage 4 portion of Ten Mile Creek.

Staging was the Plan's primary implementation strategy and the Ten Mile Creek watershed was included in the last stage—Stage 4. Approval to move ahead with Stage 4 was based on two benchmarks: substantial residential development in the Town Center and Newcut Road Districts to support retail and transit, and an evaluation of water quality impacts associated with development, which could help anticipate potential effects on Ten Mile Creek.

The required biological evaluation of stream conditions to determine if measures in use were sufficient to ensure protection of Ten Mile Creek was triggered to occur after the 2,000th building permit in the Town Center and Newcut Road Districts. The Plan indicated that once the evaluation was complete, the County Council could allow Stage 4 development to move ahead or determine whether additional land use actions were necessary.

The 2009 publication of the County's annual report on Special Protection Area monitoring for the year 2007 constituted the required environmental evaluation. This report documented deteriorating stream conditions in the Clarksburg SPA and offered recommendations for remedial efforts. The report further concluded that new development in the Town Center district, west of MD 121 and east of MD 355, as well as ongoing construction activity at the correctional facility, had resulted in a decline in Ten Mile Creek's stream conditions from good to fair between 1998 and 2007. Conditions in the Little Seneca watershed portion of the SPA also declined during the period, from good/excellent to fair.

Several factors contributed to declining water quality. External events, such as the unexpected housing crisis, resulted in construction delays during which only sediment and erosion control structures were in place to protect water quality. This, in conjunction with large areas of disturbed land and with a delay in implementing full stormwater management, resulted in altered stream hydrology and impacts to stream biology.

The 2007 report recommended stormwater management improvements in the SPA and proposed that environmental site design (ESD) be integrated into overall project design for new development. It also recommended improvements to sediment and erosion controls and limits to the amount of land being graded at any given time during construction. The report recognized, however, that stormwater management structures and facilities could not completely offset inevitable increases in impervious surfaces that accompany development.

Subsequent annual monitoring reports showed continued improvement in Little Seneca Creek subwatersheds as development in Clarksburg stabilized and full stormwater controls were implemented. However, the portions of the Ten Mile Creek subwatershed that have been affected by development remain in fair condition and none of the monitored streams in the Town Center or Newcut Road Districts have returned to pre-development conditions. Consequently, in 2012, the County Council determined that a limited plan amendment was necessary to refine 1994 Plan recommendations to achieve the

original stated goals given stream monitoring findings, changes to environmental regulations, and the need for further safeguards to protect Ten Mile Creek that are balanced with community building goals.

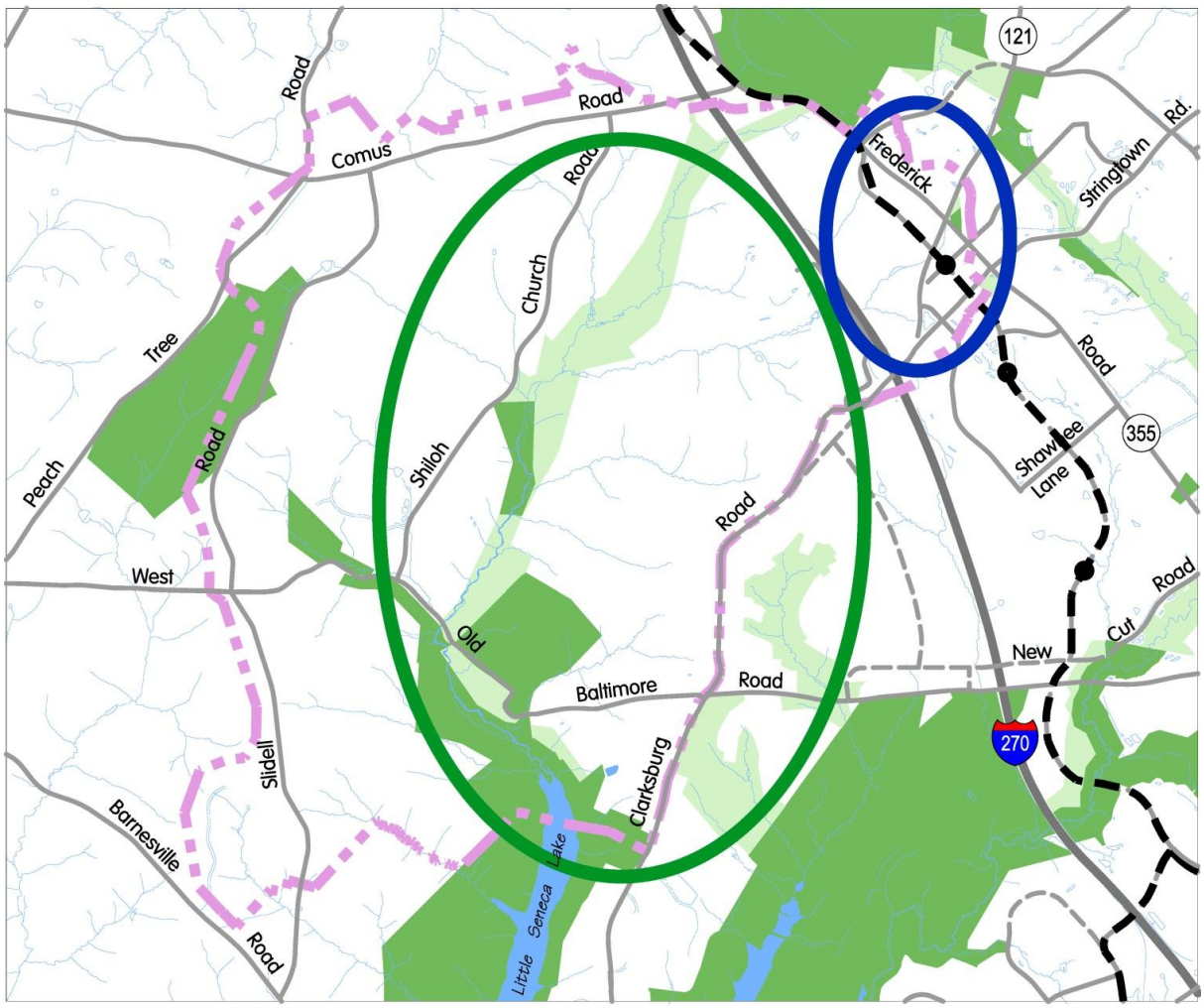
Limited Amendment Plan Concept

This limited amendment retains the overall vision of the 1994 Plan, but recognizes that additional environmental protection is needed to allow development to move ahead. It emphasizes environmental protection west of I-270 and provides more flexibility in achieving the community building goals east of I-270 (see Map 3).

On the east, proximity to the interstate and the Town Center commercial area, as well as the impact of previous development in the headwaters, offer opportunities to accommodate development that is complementary to the Town Center district, while enabling it to support enhanced transit and roadway improvements.

In the western portion of the Plan area the presence of significant, sensitive tributaries requires substantially larger conservation areas, with more residential clustering and a greater range of housing types. A large new conservation park will create a focus for a new green neighborhood, connecting Clarksburg residents to this important natural resource and providing opportunities to incorporate substantial community gardens.

Map 3 Limited Amendment Concept



Environment

Ten Mile Creek originates just north of MD 335 (Frederick Road) and flows into Little Seneca Lake, which then flows into the Potomac River. Little Seneca Lake serves as a reservoir that provides additional water flow to the Potomac River, a public water supply, during drought periods. The portion of the watershed east of the Ten Mile Creek mainstem and north of West Old Baltimore Road is located within the Clarksburg Master Plan SPA. The Ten Mile Creek watershed within the Plan area includes approximately 3,000 acres, 11 subwatersheds, and 22 miles of streams (see Map 4). It is important that Ten Mile Creek be viewed as a complete and functioning watershed, including all contributing subwatersheds and their drainage areas, and not just the potential effects to the mainstem.

Ten Mile Creek and its tributaries are designated as a Use I-P stream—protection of water contact recreation, aquatic life, and drinking water supply. Except for the headwater area subwatersheds (LSTM206 and LSTM202 on Map 4), which have already been affected by development, Ten Mile Creek is in good to excellent condition based on stream biology (see Appendix 3 for a full report on existing conditions and environmental analyses). This is primarily due to existing conditions, which include a combination of agricultural and low-density residential development balanced by a very high proportion of dense forests and a wealth of springs and wetlands.

Ten Mile Creek is a reference stream in Montgomery County, serving as high quality benchmark against which other streams are compared. Long-term monitoring indicates overall biological conditions to be healthy and diverse. Sensitive indicator organisms that occur in few other areas within the County are found here. Ten Mile Creek is part of a small group of high quality watersheds still remaining within the County (e.g., many Patuxent River tributaries, Bennett Creek, and Little Bennett Creek).

The majority of the streams within the Ten Mile Creek watershed are small and spring fed with cool, clean groundwater. The mainstem is characterized by high concentrations of interior forest and wetlands. There is no evidence of widespread and long-term channel instability. In addition, the stream bed material is ideal to support a benthic macroinvertebrate community.

The dominant land use/land cover is forest (48 percent), followed by agriculture (38 percent), with the remainder in institutional, residential, and commercial uses. Existing imperviousness is approximately 4.1 percent. Slopes are steep and soils are generally rocky, with shallow to moderate depth to bedrock.

Methods to help protect water quality have changed significantly since 1994 and Environmental Site Design (ESD) represents the state of the practice for site planning and post-construction stormwater runoff management. It is also now required in Montgomery County. However, rigorous and comprehensive implementation of ESD across or within watersheds has not occurred, nor has the practice been monitored either in the County or elsewhere at a scale large enough to establish likely expectations of post-development stream conditions. Impervious cover continues to be widely accepted as an indicator of the complex impacts that are difficult to model sufficiently, including pollutants such as oil, gasoline, and salt associated with roads and parking areas, groundwater quality and quantity, as well as heat island effects and the effects of more severe storms.

While gaining watershed-based knowledge on the efficacy of ESD will be valuable, given the current lack of corroborating studies at a comparable scale, it remains prudent to include safeguards to help ensure

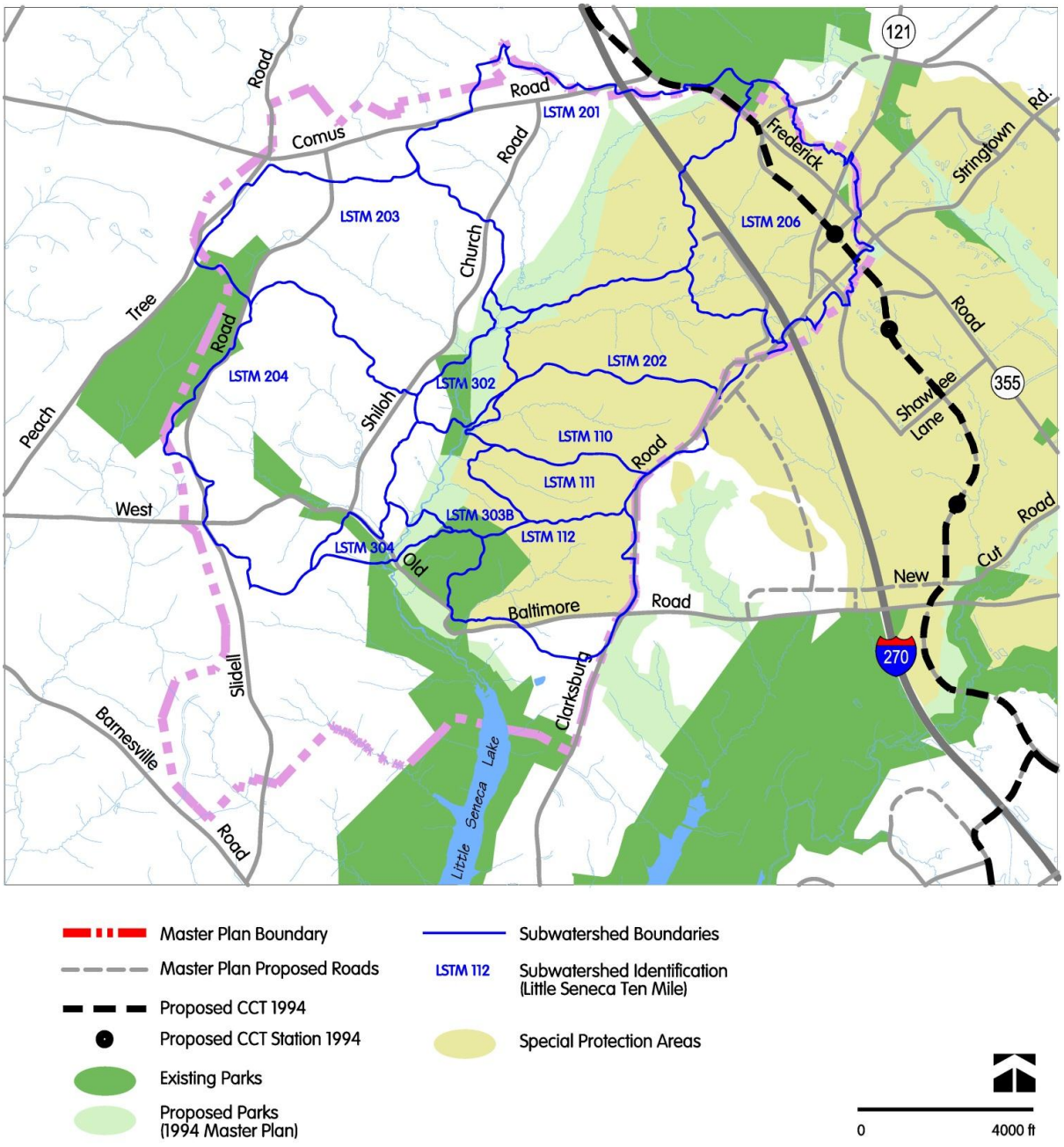
that this high quality watershed will continue to be able to sustain sensitive species and achieve good stream conditions over most of the watershed.

Environmental analyses of various development scenarios studied for this Plan included pollutant loadings, hydrology (stream flow volumes), effects on specific natural resources, and effects on the imperviousness on each subwatershed. An analysis of building out the 1994 Plan showed the potential for significant increases in the total volumes of stream flow, substantial impacts to specific natural resources and extremely large increases in imperviousness in the most sensitive subwatersheds (LSTM202, LSTM110 and LSTM111). However, pollutant loading analysis indicated that the differences between the existing agricultural uses and proposed land uses (regardless of the scenario) would be minimal.

The degree of modeled impacts on stream flow volumes, imperviousness, and natural resources in the most sensitive watersheds indicate the importance of recommending limits as part of this plan amendment to ensure that imperviousness does not increase above that which is typical for comparable land uses. Consequently, this Plan amendment recommends a significant increase in required conservation areas and limits on impervious cover to ensure, in combination with Environmental Site Design, so that environmental impacts are minimized in Ten Mile Creek (see Appendixes 3 and 4 for details of the environmental analysis).

Sustaining Ten Mile Creek's ecological heath and water quality requires a combination of efforts: protecting the largest possible area of undisturbed natural vegetation, improving conditions in areas already developed or planned to remain in agricultural use, and instituting the highest standards of protection for future development areas.

Map 4 Ten Mile Creek Subwatersheds



Imperviousness is an important factor in watershed health and affects both the water quality and many other factors. This plan is designed to achieve an overall imperviousness goal of around seven percent for the Ten Mile Creek watershed. Limiting imperviousness within the development footprint is important to achieve this overall goal while still allowing flexibility in the numbers, types and sizes of structures and accompanying roads and parking areas. Two imperviousness levels are set for major properties on each side of I-270 that accommodate the proposed land use recommendations.

Recommendations

- Retain the Special Protection Area for the Stage 4 area of Ten Mile Creek and establish an environmental overlay zone to limit imperviousness associated with new development. Limit impervious levels on new development on properties in excess of five acres in subwatersheds LSTM206 and LSTM201 to 25 percent. In LSTM202, LSTM110, LSTM111, and LSTM112 limit imperviousness on new development on properties in excess of five acres to eight percent imperviousness.

- Reduce the development footprint and impervious cover west of I-270, emphasizing reduced impacts to upland forested areas and steep slopes. In particular, protect existing stream conditions in the high quality headwater subwatersheds LSTM 110 (King Spring) and LSTM 111. In LSTM 202, reduce the extent of development on County-owned property so that existing forest is not disturbed. The recommended conservation area is shown on the land use plan (see Map 7).

- Require development of the Pulte properties to include a conservation management plan for areas outside the limits of disturbance (but that are not dedicated to the Department of Parks). This plan should be coordinated with the Planning Department and Department of Parks to determine the optimal mix of meadow and forest habitat and to guarantee perpetual management of rural open space not dedicated to parks. It would be approved as part of a preliminary plan.

- Require at least 175-foot wide buffers on both sides of streams. They should be expanded as required by the Planning Board's most recently amended *Environmental Guidelines for Development* to protect floodplains, wetlands, and steep slopes that extend beyond the 175 feet and to maintain natural topography and vegetation within 50 feet of zero order streams (ephemeral streams not currently regulated).

- Minimize disturbance of natural resources throughout the Ten Mile Creek watershed, especially forests in the headwater areas.

- Establish a forest banking program that would give additional credit for rural or RDT zoned properties in Ten Mile Creek to voluntarily establish banks for forest planting in unforested stream buffers.

- All off-site forest planting for Stage 4 development should be achieved within the Ten Mile Creek watershed as a first priority.

- Work with the Maryland State Highway Administration to provide stormwater retrofits for any expansion or modification of I-270.

Although additional development in Ten Mile Creek will adversely affect stream biology, the desire is to retain as much stream biodiversity and overall health as possible. Because of the unusual quality and sensitivity of Ten Mile Creek, a higher level of protection than that already provided under SPA regulations is recommended to help achieve this goal.

Water Quality Plans for development in the Ten Mile Creek watershed should comply with the most current water quality regulations that include ESD outfall and overflow management strategies such as:

- avoiding overflow discharges onto steep slopes
- ensuring that any overflow occurs as sheet flow
- managing discharges from stormwater outfalls using step-pool storm drainage conveyance systems or comparable designs, as appropriate
- minimizing environmental buffer impacts associated with ESD overflow outfalls
- minimizing the need to convey stormwater across steep slopes and forested areas.

In addition to SPA requirements, Water Quality Plans for development in the Ten Mile Creek watershed should demonstrate the application of the following principles and strategies:

- Minimize disturbance of natural resources throughout the Ten Mile Creek watershed, especially forest cover in the headwater areas.

- Minimize direct impacts associated with new infrastructure, such as the MD 355 Bypass and the sanitary sewer extension on natural resources.

- Minimize grading the thin and rocky soils in Ten Mile Creek, which help sustain groundwater flows to the many springs and seeps and indicate the importance of limiting grading and soil compaction as much as possible through creative site design and development staging.

- New development should employ planning and zoning options and design techniques, which minimize impervious cover, including:
  - cluster development with smaller building footprints on smaller lots with shorter driveways
  - place houses near the front of a building envelope to reduce driveway length, and provide shared driveways, where feasible
  - design narrower streets with limited sidewalks
  - use vegetated swales to guide runoff toward ESD facilities or pervious areas instead of curbs and gutters on secondary streets
  - limit impervious cover for cul-de-sacs by reducing curve radii and having a green space in the turn-around area
  - preserve land with a high infiltration capacity to be used for storm water infiltration or natural recharge area.

- Maintain natural drainage patterns, especially around zero order streams by:
  - preserving and designing around ephemeral streams within the limits of disturbance, as much as possible
  - maintaining existing natural topography and vegetation within 50 feet of ephemeral streams.
  - decompacting and amending soils within the limits of disturbance (LODs) with organic matter to a greater depth than currently required (this would be determined by the Department of Permitting Services as part of development plan approvals).

- Environmental Site Design (ESD).
  - As a first step, apply appropriate ESD site planning techniques within proposed development areas to maximize environmental benefits.
  - Site planning and design should be guided by and integrated with the selection and appropriate location of ESD facilities to achieve the greatest watershed benefits based on an evaluation of specific site and subwatershed considerations.
  - To the extent feasible, ESD practices should minimize the need for clearing conveyances across steep slopes and through forested areas or stream buffers.

- Require restoration of streams and wetlands adversely affected by existing uses.

Transportation

Transportation is an ongoing issue in Clarksburg primarily because the transit network proposed in the 1994 Plan to reduce auto dependence has not yet been implemented. Recommendations included a transitway along the MD 355 Bypass (Observation Drive) and a number of bikeways. Interconnected neighborhood bus loops and park-and-ride lots were further proposed as part of this system.

The 1994 Plan also contained recommendations for roadway classifications and rights-of-way. Changes to these are not recommended in this Plan. However, the completion of many key arterials will depend on completing various development projects. Furthermore, some key links will require expensive bridges, which are waiting for funding through the County's Capital Improvement Program.

Area-wide analysis using the Transportation Policy Area Review (TPAR) method indicates most of the Clarksburg Policy Area's major roads currently operate at an A or B level of service. MD 27 (Ridge Road) operates at a "D" level, bringing down the average for the Policy Area to a "C" level of service. However, most roads are currently underused and provide a high level of service (see Appendix 6 for additional transportation modeling information).

All of the intersections in the Plan area also function at adequate levels of service under existing conditions. Although the intersection of Clarksburg Road (MD 121) and Frederick Road (MD 355) has the lowest level of service, LOS "C" in both the morning and evening peak hours, traffic volumes are similar to those at Stringtown Road and Frederick Road (MD 355). Stringtown Road has more lanes, which results in greater intersection capacity (LOS "A" and "B").

The following describe current transportation conditions:

- Transit service is limited to two routes and the Clarksburg Policy Area does not yet have adequate transit service in terms of coverage and peak headways. Current transit is just adequate in terms of the span of service (the total number of hours/day that transit service is provided).
- Most travel in the area is north-south, with the east-west movements generally providing access to north-south travel routes.
- I-270 is heavily used and the directional split (the percent of traffic going either northbound or southbound) during peak hours reflects this. Typically 60 percent of the traffic goes in the peak direction, while 40 percent goes in the non-peak direction.
- MD 355 has a much higher peak to daily traffic ratio, an indication that morning trips are commuters and evening peak hour trips are a combination of commuter and local trips.

Table 1 Clarksburg Critical Lane Volumes

Intersection	Existing			
	AM		PM	
MD 121 and I-270 western intersection	A	365	A	250
I-270 and MD 121 eastern intersection	A	609	A	480
MD 355 and MD 121	C	1,225	C	1,150
MD 355 and Shawnee Lane	A	750	A	875
MD 355 and Stringtown Road	A	914	B	1,068
Gateway Center Drive and Stringtown Road	A	667	A	846

The 1994 Plan recommended a bypass to avoid significantly widening MD 355 through the Clarksburg Historic District and to provide an alternate route when emergencies cause full or partial closures on I-270 or MD 355. It would also accommodate future access to the Miles-Coppola properties and the Corridor Cities Transitway, as it transitions from Observation Drive and then continues onto the bypass. The Plan further proposed a transit station at the intersection of the bypass and Redgrave Place.

While pedestrian and bicycle connectivity are essential to promote community cohesion and provide access to both transit and community amenities, the difficult topography, numerous stream crossings, and major roadways hinder the integration of land uses. Providing appropriate transit service for Clarksburg's residents and businesses will require a different approach than that used in other areas of the County, which are closer to employment, have higher development densities, and are better connected. Consequently, the relatively small number of potential transit users and the distances to key destinations will require an approach that relies on express and limited stop bus service to achieve reasonable travel times.

Testing future development scenarios under the Transportation Policy Area Analysis for both the 1994 master-planned land uses and land use options with the highest intensity of retail development continues to show levels of service that do not exceed the suburban area standard. Analyses of potential intersection congestion associated with plan options that have the highest combination of retail uses (with the highest traffic generation rates) indicate that four intersections could exceed the standard for congestion in the study area:

- MD 355 and MD121
- MD 355 and Stringtown Road
- Gateway Center Drive and Stringtown Road
- Observation Drive and Stringtown Road.

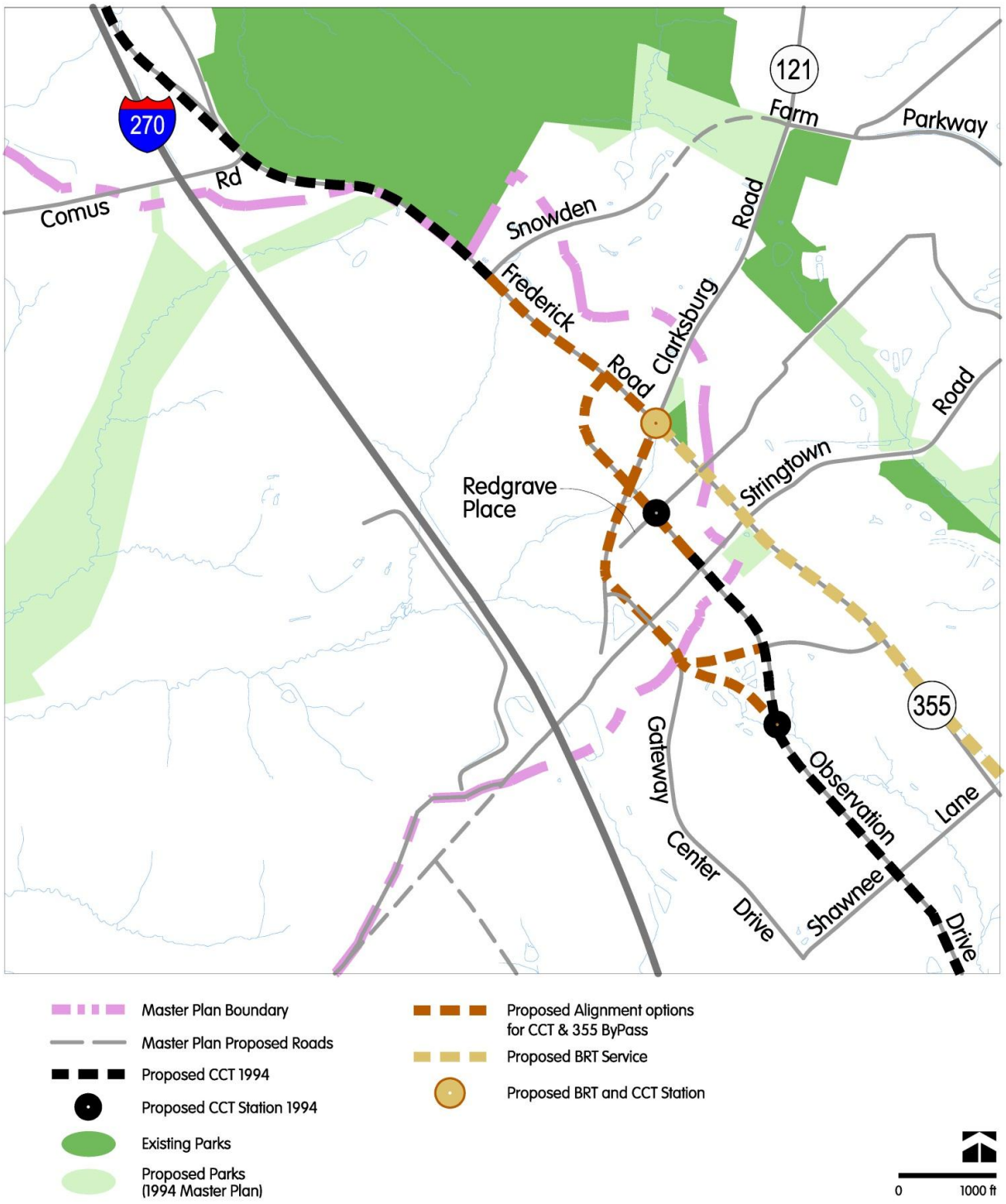
The intersection of a reconfigured bypass alignment and existing MD 355, north of Clarksburg Road (MD121), could also exceed the standard, but it could be designed as a roundabout, should proposed development result in congestion at this proposed intersection. Improvements could address congestion at the other listed intersections if determined necessary at the time of development.

Recommendations

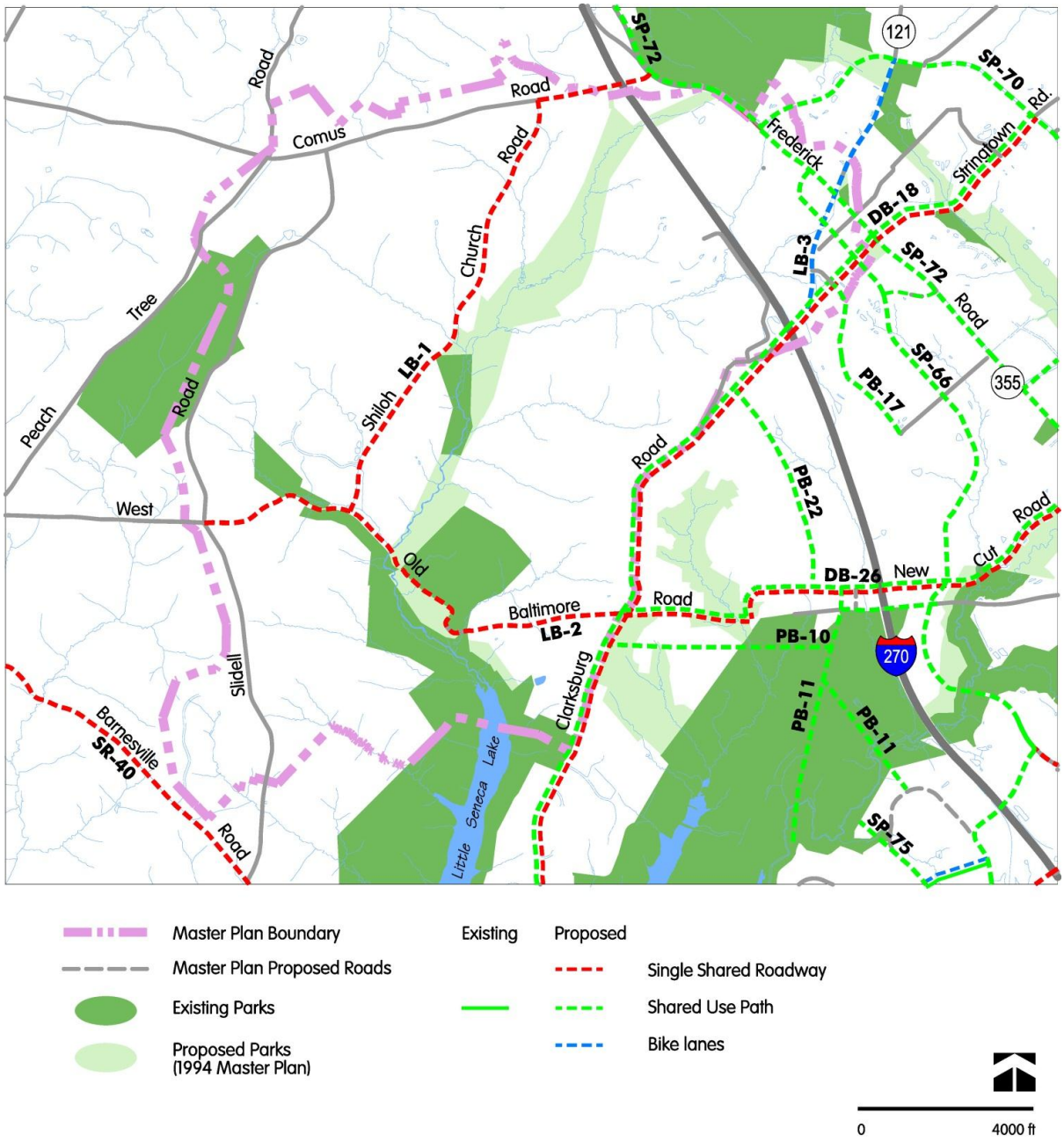
All transportation recommendations in the 1994 Master Plan are continued, except as indicated by the following refinements to improve the transportation system (see Maps 5 and 6):

- Retain the bypass, but realign it as a T-intersection with MD 355 near the proposed fire station. This will avoid significant wetland impacts, while still providing access to the fire station and the Miles-Coppola properties. Two alternative alignments should also be studied as part of a facility plan when the Miles-Coppola properties develop (see Map 5).
- Provide additional turn lanes or transit service to achieve acceptable conditions at key intersections.
- Consider relocating the proposed transit station to encourage the redevelopment of an already disturbed site in the vicinity of MD 355 and Clarksburg Road. Such a location will further help support a revitalized Clarksburg historic district.
- Accommodate bus rapid transit in mixed traffic along MD 355, south from the Town Center Transit station within the Clarksburg Policy Area, and retain the CCT designation for the MD 355 Bypass.
- Provide facilities for peak period, frequent (20 minutes or less) express non-stop bus service from the Clarksburg Town Center to:
  - Shady Grove Red Line Metrorail Station via I-270 (estimated 30-35 minute travel time).
  - Germantown Town Center/Germantown MARC via I-270 (estimated 15-20 minute one-way travel time).
- Provide facilities for peak period, limited stop, Ride On service from the Clarksburg Town Center to:
  - Milestone (and future CCT stop) via MD 355 (estimated 15-20 minute travel time).
  - Lakeforest/Gaithersburg MARC via MD 355 (estimated 30-35 minute travel time).
- Provide an internal Clarksburg bus circulator, which connects activity centers east and west of I-270 with the Town Center and the CCT COMSAT station until such time that the CCT is extended to the Town Center area.
- Add bike accommodation on Comus Road between Shiloh Church Road and on Clarksburg Road between Snowden Farm Parkway and Stringtown Road.

Map 5 Proposed Roads and Transit



Map 6 Bikeways



Land Use and Zoning

The most appropriate way to protect environmental resources in the Ten Mile Creek watershed is to combine the advanced stormwater management techniques of Environmental Site Design with efforts to significantly reduce the amount of land disturbed by development.

East of I-270, the relationship between development in the headwaters areas and overall stream quality magnifies the tension among three important elements of the 1994 Plan's vision for Clarksburg: timely development at an appropriate scale in the Town Center, provision of employment land uses, and resource protection. The elements are not exclusive—some development can occur while reasonably protecting natural resources, but shifting development toward uses that reduce imperviousness and have less disturbance in the part of the Town Center district that drains to Ten Mile Creek would provide additional safeguards.

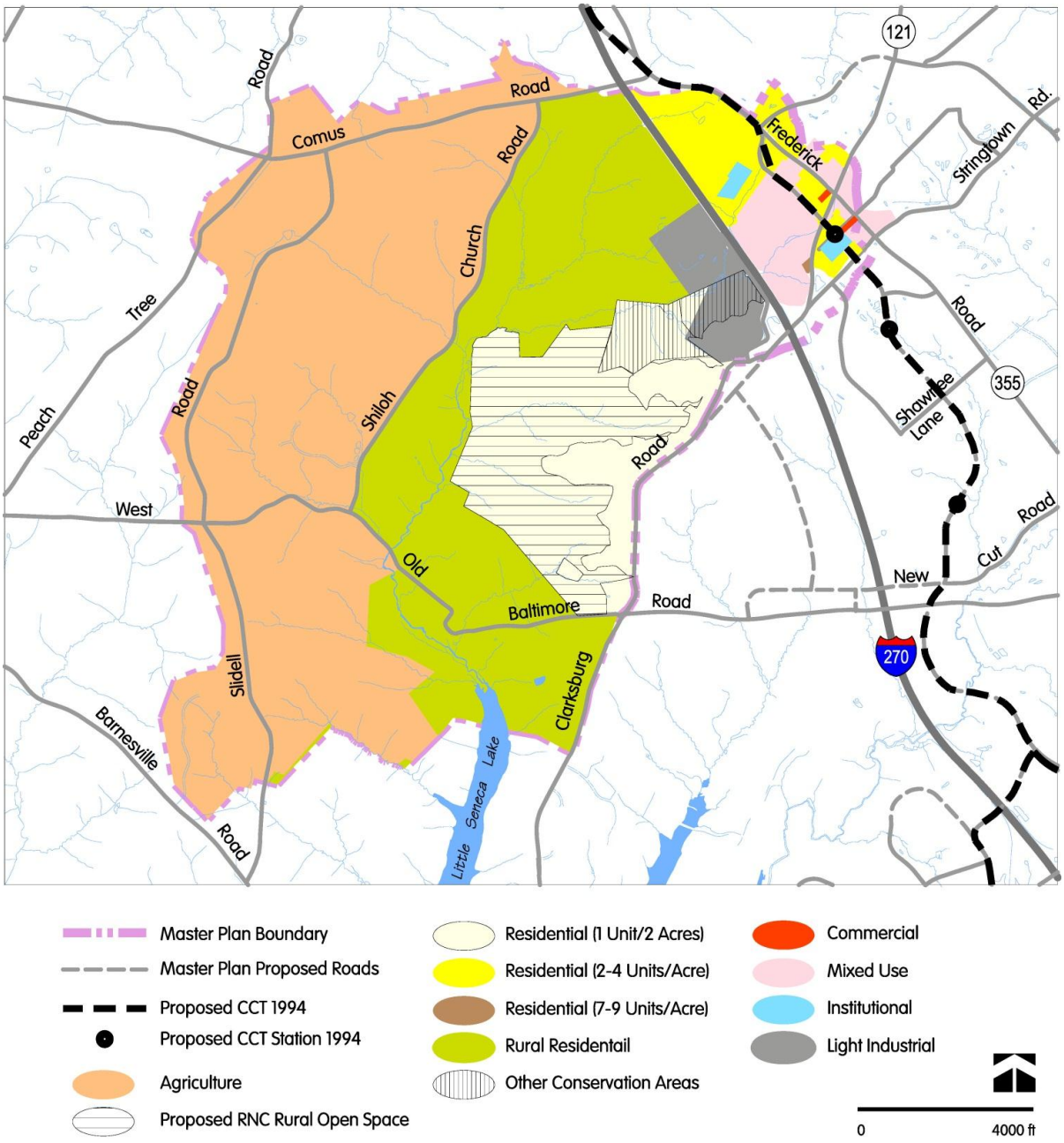
West of I-270, keeping more undeveloped and forested land means reducing the development footprint—the amount of land that is disturbed by development. This means a series of potential choices that include:

- reducing the development footprint while maintaining development densities recommended by the 1994 Plan. This would require changes to the dwelling unit mix and higher net densities to accommodate a similar number of units, but on less land.
- retaining the generally single-family housing emphasis, while reducing the development footprint, which will reduce overall development density and the number of units.

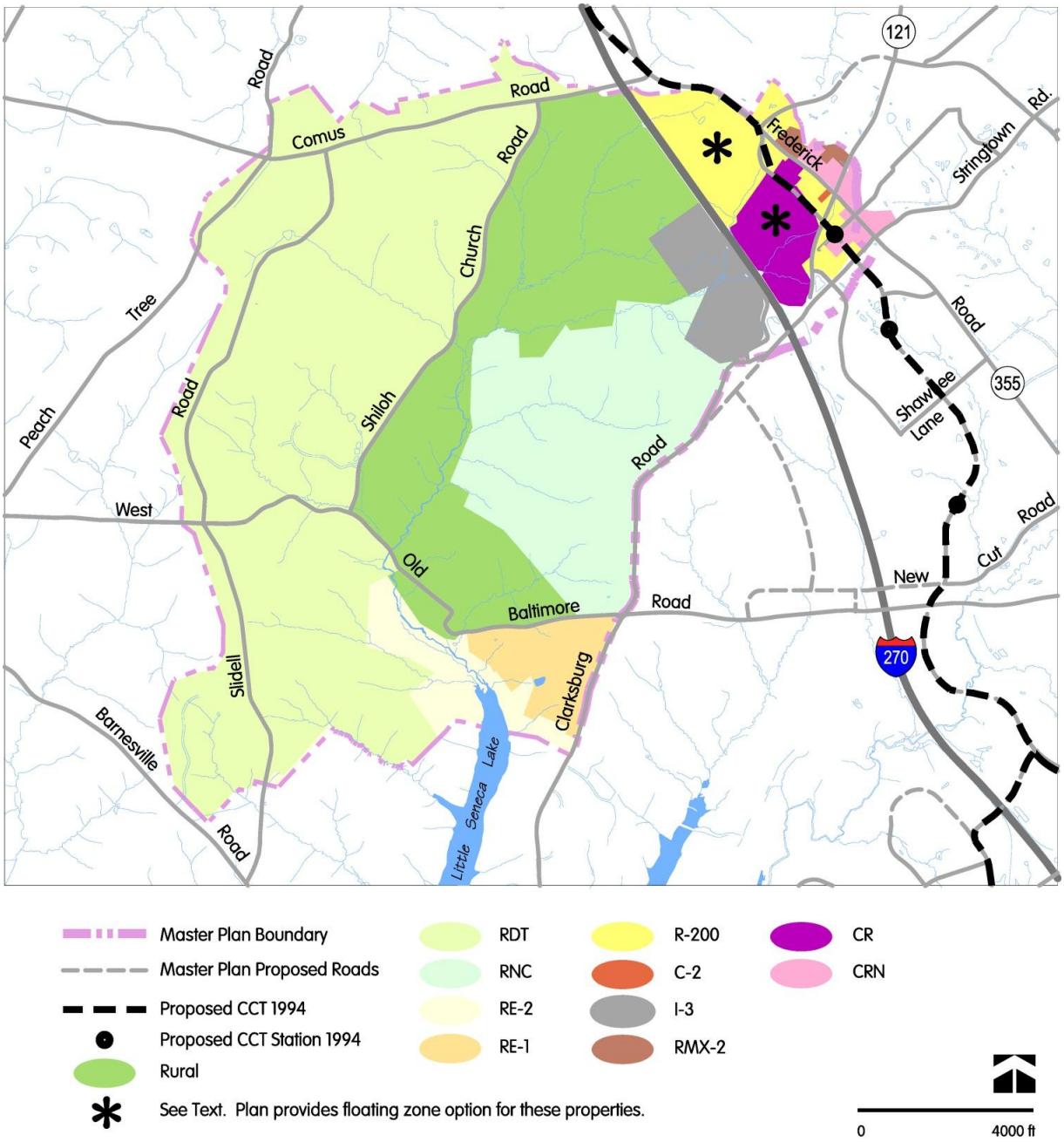
Recommendations for the three large, privately owned undeveloped properties in the watershed have two objectives:

- for the properties that fall within the portion of the Town Center in the Ten Mile Creek headwaters, determining their roles in fulfilling master plan objectives
- determining the size and location of protection and open space areas that would remain undeveloped and managed for conservation purposes and to reduce impervious areas devoted to development in the watershed, thereby reducing impacts to overall stream quality.

Map 7 Proposed Land Use



Map 8 Proposed Zoning



East of I-270

The Egan/Mattlyn Enterprises and Miles-Coppola properties lie in the headwaters of Ten Mile Creek, between I-270 and MD 355 (see Map 9). The properties total nearly 200 acres and both are zoned R-200. The 1994 Master Plan recommended planned development floating zones for the properties—Planned development (PD) for the Egan/Mattlyn Enterprises property and Mixed-use planned development (MXPD) for the Miles-Coppola properties.

The Plan did not discuss the Egan/Mattlyn property in detail, but the Land Use Plan does show the property with a density of two to four units per acre. The Plan made no explicit density recommendation for the Miles-Coppola properties, stating instead that the property be designated an employment site suitable for as much as 470,000 square feet of space. This reflects its location along I-270 and proximity to a future stop along the Corridor Cities Transitway. The Land Use Plan showed approximately equal parts of the property as residential (at seven to nine units to the acre) and research and development (R&D) uses.

Egan/Mattlyn Enterprises LLC Property

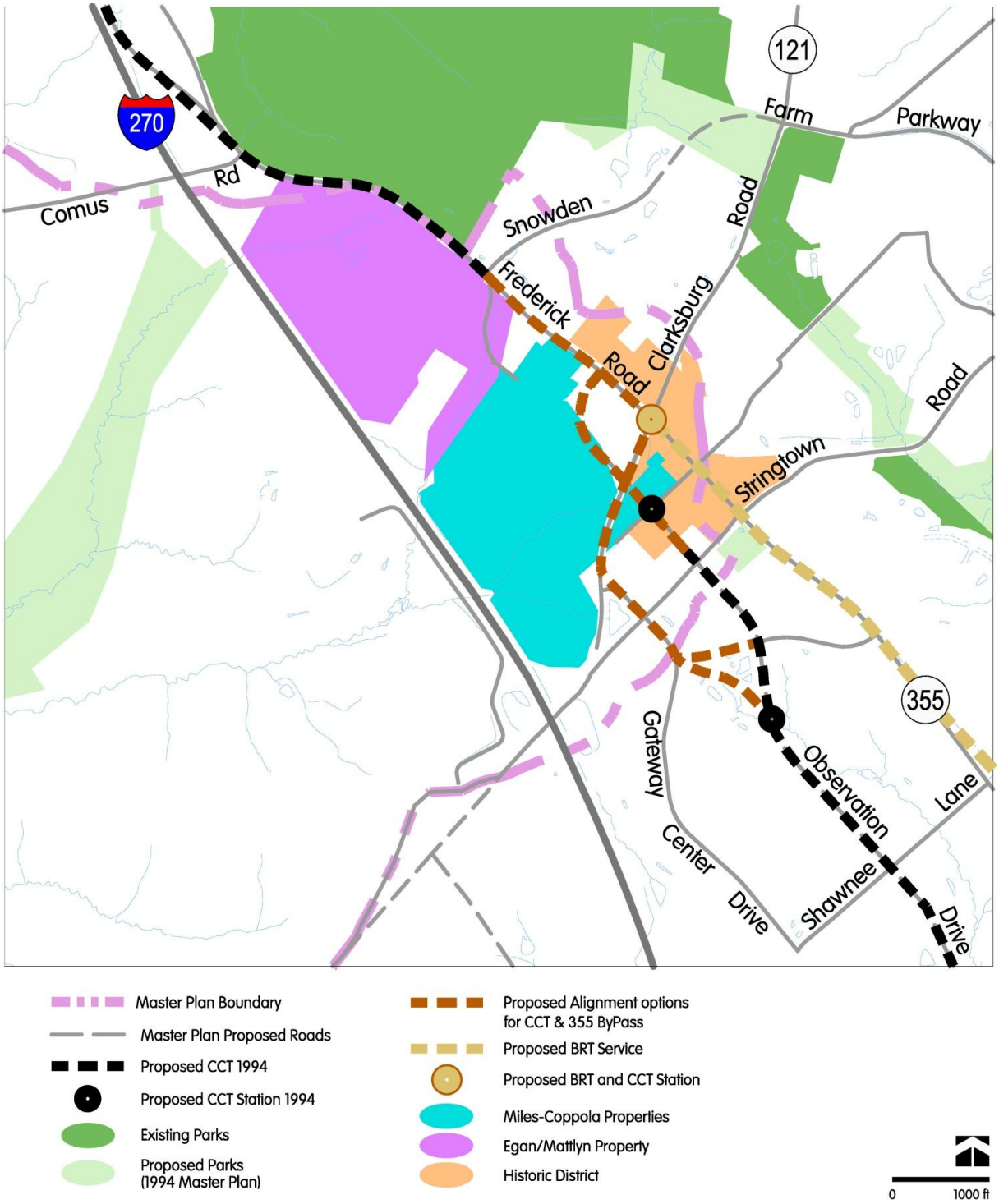
The northernmost headwaters tributary of Ten Mile Creek runs through the approximately 100-acre Egan/Mattlyn property. A second tributary traverses the eastern portion of the property. The two tributaries are in different subwatersheds of Ten Mile Creek. The property is largely open, with sparsely wooded areas in the stream valleys and most of the property is in turf or meadow. Its owners currently operate a catering and entertainment venue for outings and other special events. Main and support buildings are located along the ridge that separates the two subwatersheds. Topography slopes to the northwest and southeast, toward I-270. Removing the floating zone option could reduce the imperviousness that would have resulted from implementing the 1994 Plan recommendations.

The 1994 Plan recommends residential development for the property largely because of its distance from the Town Center and the transit station. Retaining that recommendation while limiting development to two units per acres could reduce water quality impacts by reducing imperviousness and providing substantial open space, either through master plan guidelines for a floating zone development plan or as a recommendation for cluster development in the R-200 Zone. Such development could also permit a broader array of housing types, while including Environmental Site Design. Design techniques that reduce lot sizes or cluster development could reduce imperviousness as well.

Recommendations

- Retain current recommendations for residential uses by applying residential cluster development used in the R-200 Zone or by applying a floating zone.
- Establish an environmental overlay zone to limit imperviousness of new development greater than five acres to 25 percent.
- Require the developer to prepare a conservation management plan (including a perpetual maintenance program) to restore natural vegetation outside of the disturbed area.

Map 9 Properties East of I-270



Miles-Coppola Properties

Two branches of a headwaters tributary run through the Miles-Coppola properties and the western part drains to a second tributary. The heavily wooded stream valleys are steep and there is a significant drop in elevation across the properties from MD 355 to I-270. Topography, forest, and steep slopes create three separate developable areas that constitute about 50 percent—50 acres—of the properties, which total about 98 acres. This assumes that the MD 355 Bypass would consume a portion of the property along the northeastern edge.

These environmental and man-made constraints make it difficult to achieve the 1994 Plan's goal of promoting "a better relationship between this property and portions of the Town Center east of MD 355." The most direct route from the largest development area to the transit station location proposed in the 1994 Plan requires both a stream crossing and one of MD 121. The distance from the center of that development area to the core of the Town Center is more than three quarters of a mile. While the central development area may be close to Redgrave Place, topography on both sides of MD 121 will make the walk challenging for pedestrians.

Physical constraints, combined with the future roadway and transit network, suggest that the area should function independently, but in a way that supports the Town Center. While an employment focus is desirable to achieve the goal of increasing opportunities to live and work in Clarksburg, there are significant amounts of available and yet to be developed space to the south in Germantown and the Life Sciences Center. This, combined with a weakened regional office market and more attractive and available locations elsewhere, suggests that retaining the employment recommendation for the Miles-Coppola properties would mean significantly delaying development of these properties. Moreover, the recommended level of development and market conditions may not be able to support tall buildings with smaller footprints and parking structures that would reduce imperviousness and enhance the effect of Environmental Site Design.

Recommendations

- Option 1—Balanced mixed-use development
  Earlier development of these properties could help support neighborhood commercial activity in the Town Center, provided it is complementary. A mix of commercial and residential uses could further provide the types of services that today require travel outside Clarksburg. They could also provide more variety in shopping, restaurant, and other business opportunities desired by Clarksburg residents. This option considers a flexible, but integrated mix of retail, office, and housing uses on the Miles-Coppola properties. This amendment recommends:
  - commercial uses that complement not compete with or encroach on the neighborhood orientation of the core Town Center. Specialty retail, requiring a broader market than just Clarksburg, and other types of commercial activities, like restaurants and entertainment venues, could help create a separate attraction on these properties for Clarksburg residents to enjoy
  - orienting development toward the MD 355 Bypass to take advantage of proximity to future transit and to enable residents to reach neighborhood services in the Town Center using an integrated network of roads, trails, and sidewalks
  - concentrating and integrating development to allow more of the existing forest and natural terrain to remain undisturbed, reducing imperviousness and contributing to improved water quality
  - establishing an imperviousness cap of 25 percent of the total tract area on properties in excess of five acres.

The Commercial Residential Zones offer an opportunity to balance a mix of uses for each development area, while providing significant amounts of housing and commercial uses that would help implement the Plan's vision for a complete corridor town. Because the Miles-Coppola property is relatively large and can generate large amounts of space while keeping floor area ratios low, development in the CR Zones is likely to use the standard method. Any development on the properties should nonetheless employ Environmental Site Design techniques and preserve undeveloped open space to reduce imperviousness. Should optional method development occur, construction of the MD 355 Bypass should be considered a major public benefit. The bypass should in any case be constructed as part of any development of this property and include a substantial contribution from the developer.

Under this option, this Plan recommends the CR 0.5, C 0.25, R 0.25 H 75 for these properties.

- Option 2—Mixed-use development with a residential focus
  Modifying the land use mix to provide more housing on the Miles-Coppola properties would bring additional households and potential core Town Center shoppers and business customers. Some specialty retail or office/employment uses complementary to Town Center could also be established nearest I-270. Shifting the land use focus on the Miles-Coppola properties could further reduce the amount of disturbed area and imperviousness, especially if attached housing and apartments make up a substantial fraction of the overall development. This amendment recommends:
  - a floating zone to allow a broad mix of housing types on the properties and enable up to 25 percent of the property to be nonresidential
  - development concentrated near the MD 355 Bypass to take advantage of the transit system, and including defined pedestrian and bike routes to the core of the Town Center area
  - detailed design guidelines to help define and guide development
  - an environmental overlay zone to limit imperviousness of new development on properties in excess of five acres to 25 percent.

Under this option, the Townhouse Floating Zone (as proposed in the Planning Board Draft of the Zoning Rewrite), at a density of 12 units to the acre on the portion of the properties used for residential development, is appropriate. Should the floating zone undergo significant revision, this recommendation could be reevaluated.

Clarksburg Historic District

The majority of Clarksburg's Historic District lies within the Ten Mile Creek watershed (see Map 9). The district straddles MD 355 from its intersection with Stringtown Road to west of its intersection with MD 121. The 1994 Plan identified the historic district as a focal point of the Town Center, encouraging sensitive and appropriate infill development in the district as an important component of the Plan's objective for the Town Center. The Plan includes a series of design guidelines that are designed to retain the identity of the historic district by reinforcing building scale and historic building patterns—structures close to the road, deep back yards, and expanses of nearby green space—that characterized the original settlement. The Plan recommended renovations of existing buildings that would allow both residential and smaller scale commercial activities, like shops and offices. To protect the district, the Plan recommended reduced building heights and residential zones in the immediately adjacent areas, and recommended relocation of MD 355 to accommodate through trips.

The existing zones in the district—convenience and general commercial (C-1 and C-2) and one-family residential (R-200)—are not adequate to accomplish the Plan's historic preservation goals, particularly the idea of accommodating residential and light commercial uses across the entire district. The Commercial Residential Neighborhood (CRN) Zone allows densities and building heights tailored more precisely to the Plan's land use objectives for the district while supporting the Plan's recommendation to protect the scale and character of the historic district. It also allows property owners the flexibility to rehabilitate properties for a variety of potential uses, making renovation more attractive.

Recommendations

- This Plan recommends CRN 0.25, C 0.25, R 0.25 H 35 for the historic district. It should be noted that the proposed revision of the Zoning Ordinance includes language exempting from density calculations those historic resources that are recommended for preservation and reuse in the applicable master plan. Contributing resources in the Clarksburg Historic District shown on the Master Plan for Historic Resources would be eligible for the exemption.
- Design guidelines set out for the Historic District in the 1994 Plan remain in place and should be used to direct infill development.

Transit Station

The 1994 Plan shows a transit station where the MD 355 Bypass intersects Redgrave Place. The Plan recommends residential uses near the station at a scale sympathetic to the adjacent historic district, enabling local residents to walk to the transit stop. Clarksburg Elementary School is currently located in the area proposed for the station and the Plan recognizes that the school would remain for a number of years before its eventual relocation or replacement. In addition, the State is not currently considering a transitway north of the proposed station at Comsat.

Recommendations

- Maintain the transitway to Clarksburg and in the vicinity of the Miles-Coppola properties, where it could serve primarily residential and employment uses, as well as development east of MD 355 and west of MD 121.
- Move the transit station near the intersection of existing MD 355 and Clarksburg Road to serve both future CCT and BRT service on MD 355. Such a move could benefit future redevelopment of nearby properties, support modest infill development in this part of the historic district, and help anchor this important intersection and public park. The transitway could be routed along existing MD 355 and Observation Drive to form a terminal loop that could serve the Miles-Coppola properties and any new development in the historic district. This would accommodate a future extension of transit farther north along MD 355.

West of I-270

Pulte and King Properties

The Pulte Corporation owns or controls almost 540 acres west of I-270 and between Shiloh Church and Clarksburg Roads (see Map 10). Three major Ten Mile Creek tributaries originate on the properties and two are contained almost entirely within them. The properties are a mix of woodlands and farm fields with forest covering much of the stream valleys. The 1994 Plan recommended the properties (and two other parcels to the north of the Pulte holdings) for residential development with a number of

guidelines for environmental protection and housing unit mix. The Plan designated the 600 acres as a receiving area for Transferable Development Rights, with a maximum of up to 900 units. The entire area is in the RE-1/TDR Zone.

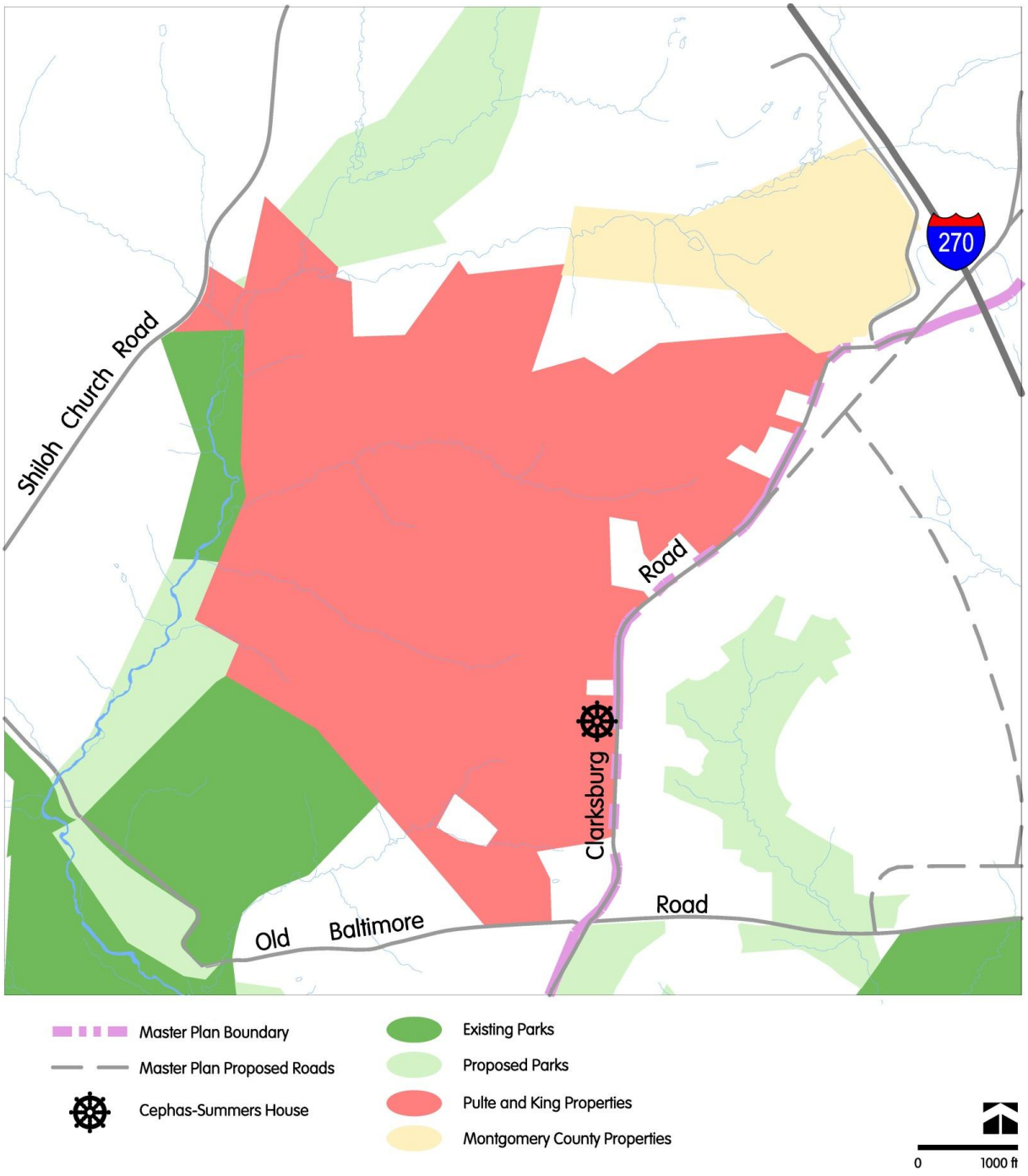
The subwatersheds that would be affected by building out these properties are largely undeveloped, have high overall stream quality, and support many sensitive species. Any development of these properties will have a negative impact on stream quality. It is on these properties that preserving more undeveloped and forested open space can, along with Environmental Site Design, limit the impact of development on water quality.

The stream impacts will be minimized by making preservation and protection of natural resources a clear priority; maintaining natural drainage routes and patterns; minimizing imperviousness; clustering development; and minimizing grading, soil disturbance, and soil compaction.

The combination of reduced densities and cluster development could increase undeveloped open space using privately owned conservation areas in addition to parkland. The Rural Neighborhood Cluster (RNC) Zone would allow a more precise percentage of open space—as much as 85 percent of the gross acreage—to be required on the properties. The RNC Zone requires a significant portion of the open space to be undisturbed and contiguous. It provides an optional method of development on public water and sewer service with a range of allowable development densities up to a maximum of one dwelling unit to the acre, and allows master plans to make density recommendations, enabling a more precise density designation appropriate to the properties. It also provides a standard method of development without sewer service at one dwelling unit for every five acres, should that be determined more appropriate. The RNC Zone can be used with TDRs, retaining an important policy in support of agriculture.

The Cephas-Summers House, a locally-designated historic resource, is located on the property proposed for development along Clarksburg Road. The current environmental setting includes the whole property, but could be reduced to approximately five acres as part of the proposed development. The house should be restored and become part of the development.

Map 10 Properties West of I-270



Recommendations

- Allow optional method development on public sewer in the RNC/TDR Zone for these properties, with a recommended density of 0.4 units to the acre, if recommended amounts of open space are provided. Moderately priced dwelling units beyond the minimum 12.5 percent can be added to the recommended density.
- Designate the area shown on Map 7 as rural open space, a minimum of 80 percent of the net tract area.
- Apply a limit of eight percent imperviousness cap on the entire property.
- Dedicate most of the rural open space as parkland (see recommendations for Legacy Open Space).

These guidelines should direct development of the properties:

- Concentrate cluster development in unforested upland areas; wooded stream valleys should be left intact, undeveloped, and in their natural states as rural open space.
- Reduce environmental impacts and imperviousness during development by applying ESD techniques.
- Direct new sewers away from Ten Mile Creek utilizing proposed and existing roads; pump stations may be required to make connections to sewer lines in Cabin Branch.
- Provide substantial variations in lot sizes, as required by the RNC Zone's development standards.
- Size and locate lots to preserve rural views from Clarksburg Road and ensure an environmental setting of five acres for the historic Cephas-Summers house. Include restoration of the Cephas-Summers house in the development plan.
- Incorporate open space into the clustered community to provide neighborhood residents with recreational opportunities.
- Provide connections to the proposed Ten Mile Creek Conservation Park's natural surface trail system.

Montgomery County Properties

Montgomery County owns more than 380 acres in the upper reaches of the Ten Mile Creek watershed (see Map 10). The majority of this land, known in the 1994 Plan as Site 30, now houses a County correctional facility. The majority of the property is heavily wooded and the County has no development plans beyond a planned expansion of the correctional facility. The Parks Department has identified almost all of this wooded area as suitable for acquisition through the Legacy Open Space program.

Two parcels totaling about 94 acres are located at the I-270 interchange with MD 121. The headwater branches that originate on the Miles-Coppola properties combine on one of the County properties to form a headwater tributary. Several smaller streams feed the tributary on these properties and the steeply sloped stream valleys are heavily forested.

The 1994 Plan identified these properties as an employment site, recommending them for no more than 400,000 square feet of space and applying a 15 percent imperviousness cap. They are in the Technology and Business Park (I-3) Zone.

The County has considered the site for its North County bus maintenance and storage facility, but has no current plans for the properties. The Parks Department has identified the wooded stream valleys for acquisition under the Legacy Open Space program, which would reduce imperviousness and enhance water quality.

Recommendations

- Minimal development of this property would help contribute to water quality in this portion of the watershed. Forested areas should remain undisturbed and the western portion protected via the Legacy Open Space Program.
- If the County chooses to develop the land, limit imperviousness to eight percent.

The Rural Properties and the Agricultural Reserve

The rurally-zoned properties and the Agricultural Reserve are not proposed for change in this limited master plan. The rural zoning allows up to one unit per five acres on properties between the mainstem of Ten Mile Creek and Shiloh Church Road. The Agricultural Reserve Rural Density Transfer Zone allows only one unit per 25 acres. There are currently portions of stream buffers on properties in both areas that are not maintained in forest that could benefit from a voluntary forest banking program. Protection and restoration of these buffers at the discretion of the property owners would help in the overall health of the Ten Mile Creek watershed. Some portions of the rural properties should be protected through the Legacy Open Space program if development is proposed.

Recommendation

- Establish a forest banking program that would give additional credit for rural or RDT-zoned properties in Ten Mile Creek to voluntarily establish banks for forest planting in unforested stream buffers.

Water and Sewer Service

The 1994 Master Plan recommended water and sewer service to the Stage 4 area of Clarksburg if the County Council found that environmental regulations were sufficient to protect water quality in Ten Mile Creek. While this amendment recommends some changes to density and land use, public water and sewer service is recommended for the area identified as "Future Service Area C" in the 1994 Plan (which includes Stage 4) to allow cluster development and reduce the potential for impact of septic systems on the watershed. The provision of public sewer service for Stage 4 was anticipated in the *Clarksburg Stage 3 and 4 Area Facility Plan* prepared for the Washington Suburban Sanitary Commission.

Sewerage facilities in adjacent Stage 3 areas were planned to accept wastewater flows from Stage 4. The historic district is anticipated to be served via gravity sewers to the Miles-Coppola property. All permanent sewer service is anticipated to be provided by development at time of construction. Planning is underway for an interim solution to serve the historic district via gravity service to a small pumping station, which would be removed from service when the Miles-Coppola property develops. Properties within the Plan area not already receiving public service or recommended for public service are expected to use individual, on-site water supply and sewerage systems (wells and septic systems).

Recommendations

- Approve water and sewer service to the Stage 4 area of Ten Mile Creek and require construction of needed facilities as part of the development process by the property owner.
- Locate sewer main alignments and pumping station sites to minimize, as feasible, disturbance of environmental buffers and forested areas.
- Provide sewer service to the Historic District as part of the Stage 4 development, if only to remove interim wastewater pumping facilities in favor of gravity sewer service.

Parks

Legacy Open Space

Montgomery County preserves its most significant undeveloped open space through its Legacy Open Space program. The 2001 *Legacy Open Space Functional Master Plan* identifies natural resources, open space, farmland, and historic places that can then be conserved through a variety of protection tools including easements, protection through the regulatory process and, when appropriate, acquisition. The Plan includes the Special Protection Area of the Ten Mile Creek watershed as a Natural Resource site that meets Legacy Open Space criteria, but needs further study to select specific properties.

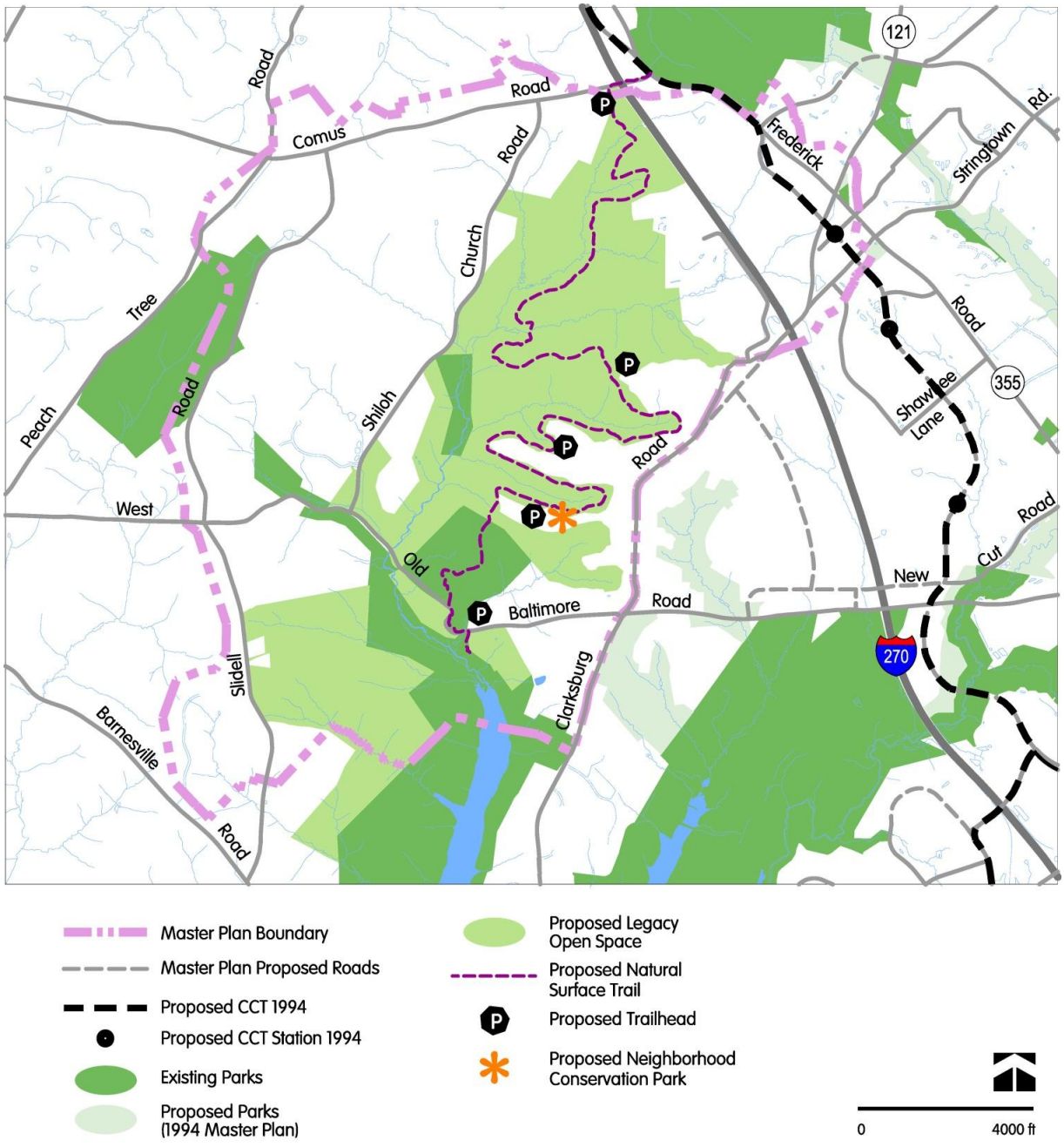
Evaluation of the Ten Mile Creek watershed concluded that the 600 acres of forested headwaters met six of the eight criteria for inclusion in the Legacy Open Space program. The forest:

- "has particular countywide, regional or national significance" for its potential ability to support rare, threatened or endangered species, aquatic communities, and its varied habitats;
- "is critical to the successful implementation of public policy such as protection of the Agricultural Reserve and public water supply;"
- "is part of a 'critical mass' of like resources that perform an important environmental or heritage function;"
- "provides human or ecological connectivity between significant park, natural or historic areas and/or corridors;"
- "helps to buffer and thereby protect other significant resources;"
- "represents an opportunity for broadening interpretation and public understanding of natural and heritage resources."

Recommendations

- Designate the high quality, critical forest and open habitats that protect the quality of the Ten Mile Creek headwaters as a Legacy Open Space Natural Resource site (Class II). Approximately 1,230 acres proposed for designation (see Map 11).
- Protect the designated Natural Resource on an individual property basis using a variety of tools, which may include easements, dedication through the development review process, and fee simple acquisition.

Map 11 Proposed Legacy Open Space and Parks



Parks and Trails

The 1994 Plan created a park and open space system that designated general locations for new local parks serving Clarksburg's developing neighborhoods and were closely integrated with proposed development. Importantly, the Plan also made provisions for connections between these local parks and the greenway network as a prominent component of its overall vision. However, since park planners did not anticipate the significant development west of I-270 that was ultimately approved as part of the 1994 Plan, no local park was included in the Ten Mile Creek watershed.

Since approval of the 1994 Plan, park planners have recognized the emerging importance of natural resource areas as a form of recreation. Bicycling, hiking, and horseback riding, as well as such as wildlife and bird watching or nature photography, all depend on the availability of large amounts of undisturbed forests and other natural areas. The substantial forests, steep stream valleys, and high ridges of the Ten Mile Creek watershed west of I-270 can be used for such purposes and be reached using sensitively located trails through the already proposed conservation park and greenway system (see Map 12).

Recommendations

- Provide a countywide natural surface trail, designed to M-NCPPC Montgomery Parks standards, in the Ten Mile Creek area linking Little Bennett Regional Park and Black Hill Regional Park per the *Countywide Park Trails Plan* (2008) and the 1994 Clarksburg Master Plan.
- Provide five trailheads, designed to M-NCPPC Montgomery Parks standards, to access the Ten Mile Creek natural surface trail and nearby natural areas for park users and operations staff.
- Provide a new natural resource-based Neighborhood Park of at least ten acres for close-to-home recreation for the Ten Mile Creek area, designed to M-NCPPC Montgomery Parks standards.

Appendix 7 includes additional information in support of these recommendations.

Appendix

Appendix 1 1994 Clarksburg Master Plan Excerpts
Appendix 2 Description of Modeling Scenarios and Assumptions
Appendix 3 Ten Mile Creek Watershed Environmental Analysis
Appendix 4 Countywide Stream Protection Strategy Score Change Estimate (CSCE) Model: Description and Results
Appendix 5 Additional Environmental Reference List
Appendix 6 Transportation Modeling
Appendix 7 Department of Parks Analysis and Recommendations

Public Hearing Draft September 2013

10 Mile Creek Area Limited Amendment

Clarksburg Master Plan and Hyattstown Special Study Area

Montgomery County Planning Department
M-NCPPC
MongomeryPlanning.org