

## **ANALYSIS: Infrastructure Plan**

The Preliminary Plan Approval for the site included a condition of approval requiring an Infrastructure Plan. This plan is to provide an overall framework for physical elements for this large multi-phase, multi-issue site plan. The condition reads:

- (1) *At least sixty (60) days prior to the submission of a complete Site Plan application the applicant shall submit an "Infrastructure Plan" for Planning Board review. The plan shall include the following:*
  - a. *location and types of stormwater management facilities for quality and quantity controls that comply with the conditions of MCDPS' preliminary water quality plan;*
  - b. *delineate bike and pedestrian access pathways including all at grade and below grade crossings along all road rights of way and at stream crossings;*
  - c. *All roadway networks including both private and public connections, streetscape, lighting, sidewalks and paving materials;*
  - d. *Delineation of "Greenway" and other open space areas including all environmental buffers;*
  - e. *School sites and Park areas (adequate to provide for current programming needs)*
  - f. *Recreation guideline concept plan;*
  - g. *Proposed schedule for clearing and grading of site.*

In addition to addressing the conditions above, the Infrastructure Plan has expanded to include an update from Community Based Planning is attached that details the status of the Clarksburg Development District. The Infrastructure Plan also includes an MPDU Phasing Plan.

The attached exhibits portray the various features of the Infrastructure Plan. Features of the plan are as follows:

### **1. Stormwater Management Facilities**

The draft Final Water Quality Plan for the Special Protection Area is submitted to the Planning Board for approval with the concurrent site plan review #8-03002. Montgomery County Department of Environmental Protection and Permitting Services- Stormwater have approved the FWQ Plan on July 17, 2003. The site plan has refined the locations and types of the stormwater management structures for Phase I.

### **2. Bike and Pedestrian Facilities inclusive of below and above grade crossings.**

The attached exhibits show the features and interconnected patterns of the pedestrian system inclusive of sidewalks and bike paths and natural surface trails. There are interblock connections and connections from internal areas to the adjacent streets. The

system provides for continuous linkages from neighborhood to neighborhood and to the open spaces, school and future retail area. Of note is the number of connections from the neighborhood to the proposed Greenway Trail and other open space tributary areas – five in Phase I and 2 in Phase II.

### **3. Road Networks of Private and Public Connections – Streetscape, lighting, sidewalks and paving materials**

The plan shows the public and private roads and private alleys that provide access to all the units on the proposed plan. The street trees for the project provide the structure for the pedestrian system and a buffer between the houses and the adjacent streets. Lighting fixtures will be provided per the DPWT standards allowed in Clarksburg MD. The plan needs to include the potential for special paving within the retail area of Phase II.

### **4. Delineation of Greenway and Buffers**

The infrastructure plan shows the delineation of all environmentally sensitive areas within the project site including: stream valley buffers, 100 year flood plain, wetlands and wetland buffers.

The Infrastructure Study plan also reflects the trail location recommended in the Facility Plan and incorporates the recommendations of the Water Quality Plan. Specific recommendations relating to the trail are included as conditions of approval under M-NCPPC Parks.

A Facility Plan for the segment of the Clarksburg Greenway hard surface trail between Stringtown Road and future relocated Newcut Road has been prepared by MCPD. The area covered by the Facility Plan is labeled “Clarksburg Hard Surface Trail Facility Plan” and is attached. The length of greenway trail is 1.8 miles and the proposed alignment is shown as a dashed line.

The map also shows the land ownership pattern in the trail corridor. M-NCPPC does not own any parkland in the corridor but will acquire the parkland as development occurs. The portion of the greenway trail corridor that is part of the Clarksburg Village subdivision plan is identified as 2 on the map.

The Facility Plan: identifies the location of the trail in relation to the stream; shows where boardwalk may be needed to mitigate negative effects on hydric soils and wetlands; identifies trail bridge locations and recommends how trail/road intersections should be addressed. The Facility Plan includes a Water Quality Plan and a Sediment Control Plan.

The developer of Clarksburg Village will build section 2 of the trail. The Infrastructure Study plan reflects the trail location recommended in the Facility Plan and incorporates the recommendations of the Water Quality Plan.

One of the elements of the Facility Plan was to estimate the cost of constructing the hard surface greenway trail. The overall estimated cost for the entire 1.8 miles (see numbers 1, 2 and 3 on map) was \$1,795,140.00 as of July 2002. The section that will be built by Elm Street Development as part of Clarksburg Village (see 2 on map) has an estimated cost of \$1,225,280.00. Thus, the developers of Clarksburg Village are absorbing a significant cost of the hard surface greenway trail in this area.

A brief powerpoint overview will be presented at the hearing showing the relationship between the Clarksburg Infrastructure Study, the Clarksburg Facility Plan and the Clarksburg Greenway Implementation Study.

## **5. School Sites**

The plan proposes two school sites. The western site within Phase I is adequate for the needs of the project. The developer will provide Stormwater Management quantity control for both sites. The developer will provide the required Forest Conservation attributable to the school site. The eastern site is still under review for adequate parking and traffic circulation. The possible techniques to dedicate the sites to M-NCPPC and then MCPS are listed in the conditions of approval. At the hearing, staff expects to present a memo to the Planning Board from Park Planning and Resources indicating both sites are inadequately sized to be a Park/School combination site and that they should be either one or other.

## **6. Park Sites**

The overall subdivision plan provides adequate public use open space and recreational amenities. The recreational centerpiece of the plan is the Clarksburg Greenway, a natural corridor through the property that contains forest, streams and wetlands. Within the corridor an 8' wide, hard surface hiker/biker trail (part of the master planned Clarksburg Greenway Trail) will be constructed by the Applicant along with trails leading from various points in the community to the Greenway Trail. In addition, there are numerous sidewalks and trails throughout the development for public use.

The Applicant is further providing M-NCPPC with a new local park located within the development that will contain ball fields, multi-use court, playground and other active recreational amenities. The park will be conveniently accessible to pedestrians and cyclists and will contain adequate parking within and surrounding the park area.

## 7. Recreation Plan utilizing Planning Board guidelines

The Recreation Plan that follows the Planning Board's Approved Recreation Guidelines meet and exceed the needs of the site as follows:

### Clarksburg Village - Recreation Worksheet for Entire Site

#### DEMAND POINTS PER POPULATION CATEGORY

TYPE	#DU	TOT (D1)	CHILD (D2)	TEEN (D3)	ADULT (D4)	ELDERLY (D5)
SFD II ( 7,000-9,000 sq. ft.)	489	63.6	117.4	122.3	518.3	53.8
SFD III (<7,000 sq. ft.)	691	96.7	131.3	158.9	877.6	89.8
TOWNHOUSES	889	151.1	195.6	160.0	1146.8	880.1
GARDEN	521	57.3	72.9	62.5	614.8	83.4
<b>TOTAL REQUIRED</b>	<b>2590</b>	<b>368.8</b>	<b>517.2</b>	<b>503.7</b>	<b>3157.5</b>	<b>1107.1</b>

#### SUPPLY POINTS OF ON-SITE RECREATION FACILITIES

FACILITY	QUAN.	TOT (D1)	CHILD (D2)	TEEN (D3)	ADULT (D4)	ELDERLY (D5)
<b>PHASE I</b>						
Bike System	N/A	18.4	51.7	75.6	473.6	110.7
Pedestrian System	N/A	36.9	103.4	100.7	1420.9	498.2
Nature Trail	N/A	18.4	51.7	75.6	473.6	166.1
Natural Area	N/A	0.0	25.9	50.4	315.8	55.4
Pool (3)	N/A	60.8	318.1	309.8	2368.1	498.2
Wading Pool (2)	N/A	110.6	51.7	0.0	315.8	110.7
<b>SUBTOTAL</b>		<b>245.2</b>	<b>602.5</b>	<b>612.0</b>	<b>5367.8</b>	<b>1439.2</b>
Tot Lots (Age 0-6)	5	45.0	10.0	0.0	20.0	5.0
Multi-Age Playground	5	45.0	55.0	15.0	35.0	5.0
Picnic/Sitting Areas	2	2.0	2.0	3.0	10.0	4.0
Soccer Field (Reg.)	1	2.0	15.0	20.0	40.0	2.0
Softball Field (Jr.)	1	2.0	15.0	15.0	30.0	2.0
Basketball Field	1	3.0	10.0	15.0	10.0	2.5
Open Play Area I	2	12.0	18.0	24.0	60.0	4.0
Open Play Area II	3	9.0	12.0	12.0	30.0	3.0
<b>SUBTOTAL</b>		<b>120.0</b>	<b>137.0</b>	<b>104.0</b>	<b>235.0</b>	<b>27.5</b>
<b>TOTAL PROVIDED ON-SITE</b>		<b>365.2</b>	<b>739.5</b>	<b>716.0</b>	<b>5602.8</b>	<b>1466.7</b>

SUPPLY POINTS OF OFF-SITE RECREATION FACILITIES  
(OVID HAZEN WELLS RECREATIONAL PARK)

FACILITY	QUAN.	TOT (D1)	CHILD (D2)	TEEN (D3)	ADULT (D4)	ELDERLY (D5)
Max. credit allowed (35%)		129.1	181.0	176.3	1105.1	387.5
Multi-Age Playground	1	9.0	11.0	3.0	7.0	1.0
Picnic Areas	3	3.0	3.0	4.5	15.0	6.0
Soccer Field	1	2.0	15.0	20.0	40.0	2.0
Junior Baseball Field	1	2.0	15.0	15.0	40.0	2.0
<b>SUBTOTAL</b>		16.0	44.0	42.5	102.0	11.0
<b>TOTAL PROVIDED OFF-SITE (MAX. 35%)</b>		<b>5.6</b>	<b>15.4</b>	<b>14.9</b>	<b>35.7</b>	<b>3.9</b>

**TOTAL PROVIDED**    **370.8    754.9   730.9   5638.5    1470.6**

**8. Proposed Schedule for clearing and grading**

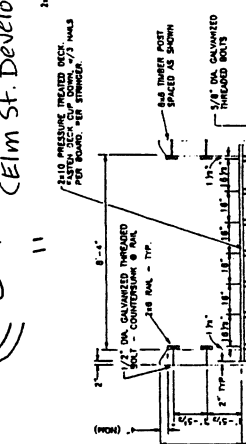
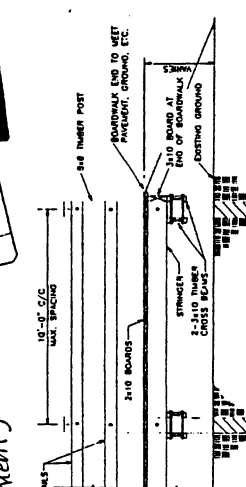
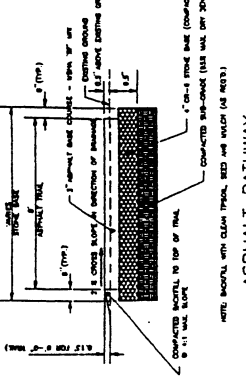
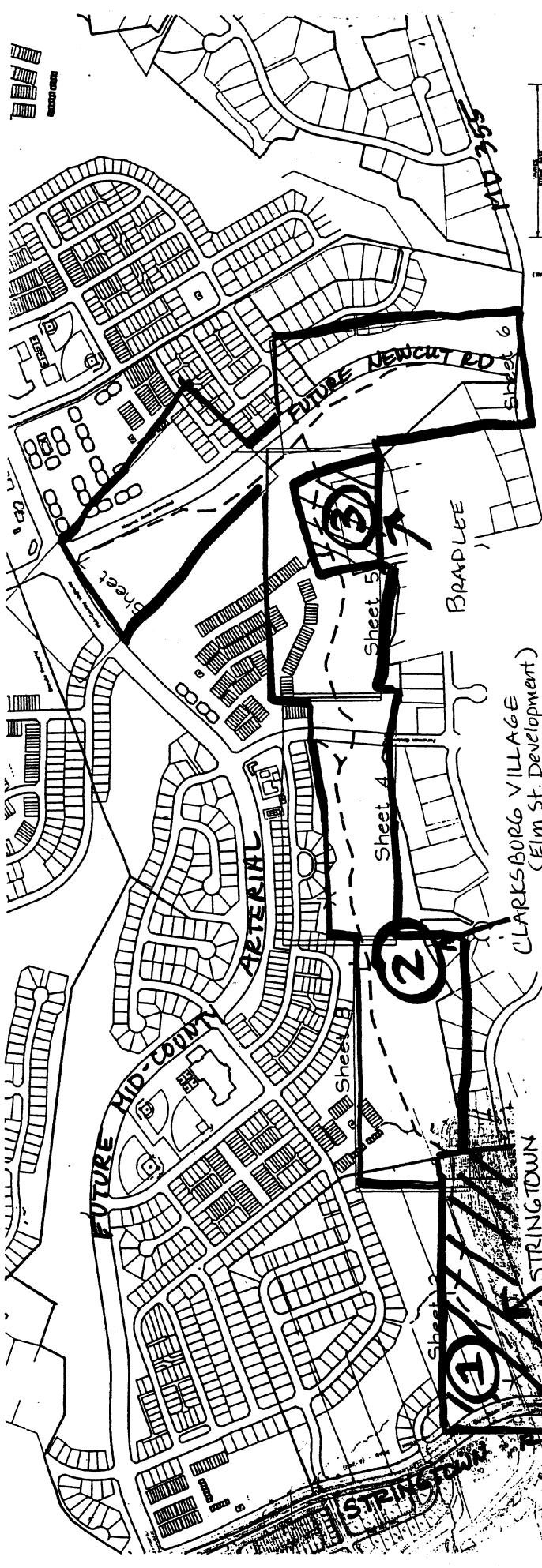
The applicant has provided a sketch for the grading plan for areas to be graded prior to final release of the signature set and is subject to DPS approval. The plans only affect areas within Phase I site plan – future phases may amend this exhibit. Staff recommends the Planning Board approve this advance grading pending coordination with final FCP approval.

**9. MPDU Phasing Plan**

Although not explicitly required in the Preliminary Plan, This plan has been included to assure the Planning Board of the intended pattern of MPDU's in the future phases. This is important because not all the MPDU's that were generated by the development in the first site plan were included in that phase.

**FINDINGS: For Infrastructure Review**

Staff finds the Infrastructure Plan to conform to the requirements of the condition of Preliminary Plan #1-01030 with the conditions as listed above.



**ASPHALT PATHWAY SIDE VIEW AT END**

NOTE: ASPHALT APPROVAL DOES NOT VALIDATE THE NEED FOR A WETLAND PERMIT.

APPROVED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

**WATER QUALITY PLAN SIDE VIEW AT END**

MONTEGOMERY COUNTY DEPT OF PERMITTING SERVICES APPROVED FOR:

APPROVED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED FOR: \_\_\_\_\_ DATE: \_\_\_\_\_

**END VIEW**

NOTE: 1. ALL PILES TO BE PRESSURE-TREATED PER A.S.P. SPECIFICATIONS. YELLOW PINE, No. 1, 2000 P.F., No. 3 GRADE OR BETTER.

2. SLURRY BENCHMARK OF PDS PLAN.

**Legend**

- Proposed trail alignment
- Proposed trail surface
- Proposed trail surface drainage
- Proposed trail surface drainage
- Proposed trail surface drainage

**review and approval**

DESIGNER: \_\_\_\_\_ DATE: \_\_\_\_\_

CHECKED: \_\_\_\_\_ DATE: \_\_\_\_\_

DESIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

DESIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

**review and approval**

DESIGNER: \_\_\_\_\_ DATE: \_\_\_\_\_

CHECKED: \_\_\_\_\_ DATE: \_\_\_\_\_

DESIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

DESIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_

**Project:** Clarksburg Greenway Hard Surface Pathway Plan

**Scale:** 1" = 300'

**Sheet:** 1 of 7

**CLARKSBURG HARD SURFACE TRAIL FACILITY PLAN**

--- Generalized Trail Alignment

① Stringtown Road Segment ② Clarksburg Village Segment ③ Bradley Property

**The Maryland-National Capital Park and Planning Commission**

9500 Bruner Avenue  
Silver Spring, Maryland 20901  
Montgomery County Department of Parks  
(301) 495-2335

**RA**  
Randy A. Roberts, Inc.  
Planning & Design Consultants

**revisions:**

REV. NO.	DATE	DESCRIPTION
1.	8/01	Revised per P&P
2.	9/01	Finalized per P&P



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

## MEMORANDUM

TO: Wynn Wittans, Site Plan Reviewer  
Development Review Division

FROM: Sue Edwards, I-270 Corridor Team Leader *Sue*  
Community-Based Planning Division

SUBJECT: Clarksburg Village Infrastructure (Site Plan #8-02038)

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To supplement the Community-Based Planning team input to this site plan, I have summarized the background and status of the Clarksburg Village Development District. It is expected that the County Council will have the first worksession on the Development District in Fall 2003. The list of projects contained in the County Executive's Fiscal Report for Clarksburg Village is not finalized.

## BACKGROUND

*The Clarksburg Master Plan & Hyattstown Special Study Area*, adopted and approved in 1994, specifically addresses the costs of infrastructure to support build-out in Clarksburg.

"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." (page 186)

The fiscal impact analysis conducted by the Montgomery County Office of Planning Implementation 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 change, 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 (page 186)".

The purpose of a development district is to help enable a specific area of the County to meet its infrastructure needs through public financing of bonds payable by special taxing. It is recommended for areas where a significant amount of development is occurring with the expectation that infrastructure projects will be delivered sooner than had the infrastructure been funded through the County's Capital Improvement Program. Future residents are informed of the intention to levy a special tax when signing a contract for the sale of real estate.

In late 2001, the applicant proposed creating a development district to cover the 735 acres contained in Preliminary Plan #1-01030. The role of the Planning Board is to make findings of conformance to the zoning and subdivision regulations and APF requirements. The Planning Board may also advise the Council on the best manner in which to establish the districts and recommend additional infrastructure improvements that should be considered in order to comply with the legislation.

The Planning Board unanimously approved the following list of projects on February 14, 2002:

1. Elementary School Site: Grade site, stabilize, provide utilities up to the property line, and satisfy reforestation and stormwater management requirements.
2. Elementary School/Park Site: Grade site, stabilize, provide utilities up to the property line, provide reforestation, provide stormwater management for quantity, and build park ball fields.
3. M-NCPPC Local Park: Grade site, stabilize, provide utilities up to the property line, satisfy reforestation and stormwater management requirements, and construct one softball field, one soccer field, a 50 space parking lot, one multi-age playground, and one basketball court, to park standards.
4. Greenway Trail: Build greenway paved trail on property owned by applicant.
5. MD 27: Widen MD 27 to six lanes from Observation Drive in Germantown through the Brink Road intersection, and to four lanes through the A-305 intersection and continue two northbound lanes through the Skylark intersection.
6. Relocated Newcut Road (A-302): Construct relocated Newcut Road as a two lane divided arterial between MD 27 and A-305 (Mid-County) intersection, and as a four lane divided roadway between A-305 and MD 355, utilizing bottomless arch culverts over streams.
7. Mid County Arterial (A-305): Construct A-305 as a four lane divided arterial between MD 27 (Ridge Road) and Stringtown Road, including two roundabouts, one at the intersection of A-302 and the second at the intersection of Streets "W" and "BB." Construct the segment between the two roundabouts as a business district street in accordance with the Department of Public Works and Transportation (DPWT) standards.
8. MD 355 (Frederick Road): Construct a second left turn lane from northbound MD 355 to westbound MD 27.



9. Turn lanes on MD 27 (Ridge Road) and Brink Road: Construct additional turn/approach lanes on MD 27 and Brink Road at the intersection, and construct a separate left turn lane from southbound MD 355 to eastbound Brink Road and a separate left turn lane from westbound Brink Road to southbound MD 355.
10. Foreman Boulevard: Extend Foreman Boulevard as a two lane arterial from its current terminus at Timber Creek Lane to A-305.
11. Stringtown Road: Participate in the widening of Stringtown Road as a four lane arterial where the District's Property fronts Stringtown Road.

With the exception of constructing the park facilities in the Local Park, the above list of infrastructure improvements are the same infrastructure improvements as required by the Planning Board for Preliminary Plan No. 1-01030.

The Planning Board's action also included consideration of the following additional infrastructure improvements in the Development District in order to provide improvements that are not solely the adequate public improvements required of a single development as required by Chapter 14-3 (g) (2).

12. Construct two lanes of Stringtown Road that are not currently assigned to any adjacent development (south side of Stringtown Road between the Highland's of Clarksburg and the subject District).
13. Upgrade the crossing of Mid County Highway over Little Seneca Creek from a culvert to a bridge in order to minimize environmental impacts and improve pedestrian safety and enjoyment along the Greenway Trail.

The Planning Board also endorsed the potential consolidation of a single development district from the Clarksburg Village Development District and the Clarksburg Skylark Development District (now called Greenway Village).

## **COUNTY EXECUTIVE'S FISCAL REPORT**

To date, only the Clarksburg Town Center Development District has been created. In preparing the County Executive's Fiscal Report for the Town Center Development District, the Montgomery County Department of Finance and the Office of Management and Budget have developed policy guidelines for development districts. This policy direction is expressed in the Clarksburg Town Center Fiscal Report:

"The Executive believes that a development district program [for the Town Center] could be structured that meets fundamental requirements regarding acceptable risk for the bondholders, an acceptable tax burden for the homeowners, and also provides more funding toward infrastructure that will benefit the broader Clarksburg community".<sup>1</sup>

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<sup>1</sup> Office of the County Executive, Transmittal of Fiscal Report, October 2002.

- Policy #1 The acceptable value-to-lien ratio used in the Town Center Development District was 3.7 to 1 for the year in which bonds are issued. The typical financing structure for land secured bonds includes one or two years of capitalized interest and scheduled tax payments by developers and builders before the property is improved and sold to final owners. When these scheduled tax payments are significant in both amount and period, and when the final debt incurred is very high in relation to the value of the property, an unacceptable risk to bondholders is present.<sup>2</sup>
- Policy #2 The projected initial ad valorem tax in any development district should be limited to an amount that is not more than 30 percent of the current residential property taxes in the affected area. In Clarksburg, the Executive recommends an initial special tax rate not to exceed 34 cents per \$100 assessed value resulting in an annual additional tax burden of \$1,200 on a home of \$350,000 market value.<sup>3</sup>
- Policy #3 The Development District Act provides a clear benefit to petitioners of development districts in the form of a credit against the Development Impact Tax. Consistent with this concept is an objective of ensuring that developers do not unduly benefit from development district financing and that the overall costs to future homeowners do not increase as a result. Additional projects which supply general benefit improvements to residents outside the District may be added to the list of infrastructure projects to be funded by the District. The Clarksburg Town Center Development District, as example, financed 47 percent of the bond amount for general benefit improvements.<sup>4</sup>

## NEXT STEPS

The Executive departments continue work on the Clarksburg Village Development District in anticipation of soon finalizing a list of recommendations to the Montgomery County Council. Staff continues to provide technical assistance (e.g. reviewing and refining cost estimates, master plan interpretation, coordination of parks and transportation projects, and coordination with formation of the adjoining Skylark/Greenway Village Development District).

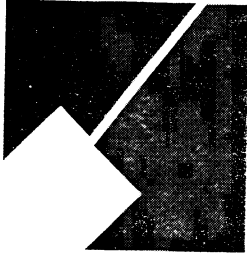
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<sup>2</sup> Ibid, p. 4.

<sup>3</sup> Ibid, p. 3.

<sup>4</sup> Ibid, p. 2.



## MEMORANDUM

July 23, 2003

**TO:** Wynn Witthans, Site Plan Review, Development Review Division  
Michael Ma, Site Plan Supervisor, Development Review Division

**FROM:** Doug Powell, Plan Review Coordinator, Park Planning and Resource  
Analysis Unit, Countywide Planning Division *D. Powell*

**SUBJECT:** Clarksburg Village Infrastructure, Plan #8-02038

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Park Planning and Resource Analysis staff has reviewed the above-referenced Plan and requests the following **CONDITIONS OF APPROVAL**:

1. Applicant to construct an 8-foot wide asphalt/boardwalk hiker/biker trail in the Clarksburg Greenway on the property applicant currently owns. The alignment will follow the route established by the Clarksburg Greenway Facility Plan and be constructed to park standards and specifications. The Applicant will provide necessary bridges and boardwalk per the Facility Plan.
2. Applicant will construct the portions of the hiker/biker trail from Stringtown Road east to Newcut Road and north to the Greenway Village Property that are not on applicant's property, provided that M-NCPPC acquires the ownership or easement rights across the needed property along the trail alignment and funds the proportionate cost to Applicant for construction of these additional sections of trail.
3. Applicant will construct Foreman Boulevard to allow for a grade separated crossing for the hiker/biker Greenway Trail. The trail crossing should be constructed to accommodate the trail under the road without changing the natural location, configuration or composition of the stream channel, and should be located to minimize flooding of the trail and minimize surface water runoff from the paved trail directly into the stream. Trail crossing to meet the "staff guidelines" as set out in the attached Meeting Summary of March 18, 2002 unless otherwise agreed to by M-NCPPC staff and Applicant. Final trail/road crossing

details to be submitted to M-NCPPC staff for approval. The details of the Greenway Trail crossing of Midcounty Highway will be determined at time of Site Plan. A grade separated crossing will be considered at this location provided environmental concerns can be reasonably accommodated.

4. The property within the delineated Clarksburg Greenway along Little Seneca Creek and Little Seneca Tributary will be dedicated to M-NCPPC and the hiker/biker trail constructed or clearly delineated and marked prior to construction of the residences that abut the Greenway. Dedication to be made at time of record plat and boundaries to be clearly staked to delineate between parkland and private property. Dedicated property to be transferred free of trash and unnatural debris.
5. Applicant to construct an 8' wide hiker/biker trail to connect from the bike trail along A-305 to the trail system in parkland on the adjacent Greenway Village subdivision.
6. The school/park site off of Midcounty Highway will be graded, surfaced with topsoil, fine graded to a maximum of +/- 6" over 100', and seeded as appropriate for ball field cover. The entire site, including the ball field area at the north end, will be maintained by the Board of Education for use as an elementary school if such school is constructed. If the school is not constructed by the Board of Education, the entire school/park site will be owned and managed by M-NCPPC for use as parkland.
7. The park area marked as Jeane Onufry Local Park will be graded according to the park layout concept plan, surfaced with topsoil, fine graded to a maximum of +/- 6" over 100', and seeded as appropriate for ball field cover. The park will be dedicated to M-NCPPC at time of record plat. Additional recreational improvements to be constructed by Applicant on the park site with Development District funds, must be constructed to park standards and specifications. Specific types of recreation facilities and their arrangement on the park property must be coordinated with, and approved by, M-NCPPC staff.
8. Because of the limited size of both the Jeane Onufry Local Park and the school/park site, stormwater quantity management must be provided by Applicant off the park and school sites to accommodate the runoff from the park and school sites.

The overall subdivision plan provides adequate public use open space and recreational amenities. The recreational centerpiece of the plan is the Clarksburg Greenway, a natural corridor through the property that contains forest, streams and wetlands. Within the corridor an 8' wide, hard surface hiker/biker trail (part of the master planned Clarksburg Greenway Trail) will be constructed by the Applicant along with trails leading from various points in the community to the Greenway Trail. In

addition, there are numerous sidewalks and trails throughout the development for public use.

The Applicant is further providing M-NCPPC with a new local park located within the development that will contain ball fields, multi-use court, playground and other active recreational amenities. The park will be conveniently accessible to pedestrians and cyclists and will contain adequate parking within and surrounding the park area.

## **Meeting Summary**

*Prepared by Lyn Coleman*

TOPIC: Reaching Staff Consensus on How Clarksburg Greenway Will Cross Roads

DATE: March 18, 2002

ATTENDING: Lyn Coleman, Karen Kumm, Wynn Witthans, Mark Pfefferle, Larry Cole, Marian Elsasser, Art Nelligan

SUMMARY PREPARED BY: Lyn Coleman

The focus of the meeting was to develop planning and design guidelines for two road-trail intersections that are part of the Clarksburg Village subdivision application: Foreman Blvd and Midcounty Arterial.

First, we developed some general guidelines for trail crossings under roads:

1. Minimum clearance of 12' to accommodate rescue and maintenance vehicles.
2. Tread or path width of 10' in constricted area under road; 12" to 24" cleared area on either side of path.
3. Trail must be located above floodplain. Construction practices that help convey water from the trail are encouraged.
4. Construction approaches that minimize length of tunnel are encouraged including use of wing walls, 45 degrees off centerline of trail to maximize light in tunnel.
5. At least a 2-1/2 foot head wall should be provided over the entrance to the tunnel.
6. When trail length under road is less than 50 feet, no artificial light will be required (NOTE: staff is continuing to research whether this is the correct standard)
7. Minimize the extent of riprap needed to stabilize stream banks outside of the tunnel itself.
8. A corrugated tunnel interior helps reduce graffiti. Any surface used in the bridge should allow easy maintenance and cleaning by park staff.

### FOREMAN BLVD. GUIDELINES

THE TRAIL MUST GO UNDER THE ROAD. The length of the trail under Foreman Blvd. will be approximately 35 to 40 feet. The basic issue at Foreman Blvd. is whether there should be single bottomless culvert where the trail and the creek are both located or whether a double arch should be provided to separate the trail from the creek. The second arch does not have to be connected to the first. It can be separated from the first and outside the floodplain. Each approach has advantages and disadvantages. The developer may pursue either approach assuming the following standards are achieved:

Single bottomless culvert: The trail must be located above the 100-year floodplain. The trail should not routinely require maintenance to remove mud and debris after storm events. The road may have to be elevated to provide trail clearance.

Double arches: For aesthetic reasons, do not mix arch and box culverts—use one type or the other. Do not place arch supports in the stream. Prefer continuous head wall over both arches or culvers for aesthetic reasons.

## MIDCOUNTY ARTERIAL GUIDELINES

The length of trail tunnel beneath Midcounty Highway would be 120 to 130 feet.

Three options are possible where the trail traverses Midcounty Arterial: 1. Cross at grade, relying on bikepath along Newcut Road Extended. 2. Cross beneath Midcounty Arterial using culvert. 3. If a bridge is built for Midcounty Arterial to traverse the stream, place the trail below the bridge at a location that minimizes impact to the stream.

In terms of option 3, the Planning Board has supported a bridge as part of a Taxing District for Clarksburg. Whether it will happen is not known yet. The bridge would be outside the floodplain.

In terms of option 2, separate bottomless arches are suggested. There should be openings in the median of Midcounty Arterial to provide natural light for the trail users and a guardrail should be provided on the road. Staff will ask parks as to whether more height clearance and width for the trail should be requested than for Foreman because of the length of the tunnel.

Option 1 would require trail users to cross at a roundabout at the intersection of Newcut Road and Midcounty where no traffic light is planned.

Staff will continue to keep informed on the status of Option 3.

Lyn agreed to prepare a map showing all trail proposals for Clarksburg so we can make decisions on these bridge crossings based on what is being proposed on adjoining properties. We all agreed this meeting was very useful and should continue meeting to address other road/trail crossing issues, including Skylark Road at Ovid Hazen Wells Park and trail location on Martens and Clarksburg Triangle.



## DEPARTMENT OF PERMITTING SERVICES

Douglas M. Duncan  
County Executive

Robert C. Hubbard  
Director

July 18, 2003

Mr. Alan Barney  
Charles P. Johnson Associates, Inc.  
1751 Elton Road  
Silver Spring, Maryland 20903

Re: **Final Water Quality Plan for Clarksburg Village-  
Phase I**  
SM File #: 200006  
Preliminary Plan No.: 1-01030  
Tract Size, Zone: 333 Ac., R-200/TDR-4,  
R-200/TDR-3, R-200 and PD-4  
Tax Plate: EW, EV, FV 123 and FV 122  
Watershed: Little Seneca Creek

**SPECIAL PROTECTION AREA**

Dear Mr. Barney:

Based on a review by the Department of Permitting Services Review Staff, the Final Water Quality Plan (FWQP) for the above mentioned site is conditionally approved. This approval is for the elements of the Final Water Quality Plan of which DPS has lead agency responsibility, and does not include limits on imperviousness or stream buffer encroachments.

**Site Description:** Phase I of the site consists of 333 acres located on the east side of Stringtown Road across from the intersection with Clarks Crossing Drive. The proposed zoning of the site is R-200/TDR-3 & 4, R-200 and PD-4. The development will consist of mixed residential (single-family detached, townhouses, and multi-family units) along with the associated infrastructure. This site is located in the Clarksburg Special Protection Area (SPA) of the Little Seneca Creek Watershed.

**Stormwater Management:** Water quantity control for this site will be provided via several dry ponds. These structures will provide channel protection volume for the one-year storm with a maximum detention time of 12 hours per state standards. Quality control will be provided via a treatment train that consists of vegetated conveyance swales, dry swales (vegetated swales underlain with infiltration structures), bioretention structures, surface sand filters, structural sand filters and infiltration/recharge structures. Non-structural measures for the backs of some lots that are draining to the stream valley buffer have also been used. In areas where open section roads are not feasible, additional water quality measures are required to offset the lost benefits that open section roadways provide. These offsetting measures include maximizing the sand surface area in the surface sand filters (sand on the entire footprint), providing structural pretreatment prior to all filtering structures and providing additional recharge volume. Areas that are intended for vehicular use are to be pretreated prior to entering filtration and infiltration structures. The water quality structures must be sized to treat a minimum of one-inch over the proposed impervious area without subtracting the recharge volume.





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**Sediment Control:** Redundant sediment control structures are to be used throughout the site. These are to include upland sediment traps which drain to secondary traps down grade, or when this is not feasible sediment traps with forebays will be acceptable.

All sediment trapping structures are to be equipped with dewatering devices. Also, due to the sensitive nature of the watershed coupled with the large amount of proposed development, the use of flocculants or other measures to increase the effectiveness of sediment control removal will be required in the detailed sediment control plan. The following features are to be incorporated into the detailed sediment control plan:

1. The earth dikes that feed the sediment traps are to be constructed using trapezoidal channels to reduce flow rates.
2. The site grading shall be phased whenever possible to limit disturbance and immediate stabilization is to be emphasized.
3. Silt fence alone will not be allowed as a perimeter control. The use of super silt fence will be acceptable for small areas of disturbance.

**Performance Goals:** The performance goals that were established at the pre-application meeting are to be met as specified in the Preliminary Water Quality Plan and further refined in the Final Water Quality Plan. They are as follows:

1. Protect the streams and aquatic habitat.
2. Maintain the natural on-site stream channels.
3. Minimize storm flow run off increases.
4. Identify and protect stream banks prone to erosion and slumping.
5. Minimize increases to ambient water temperatures.
6. Minimize sediment loading.
7. Maintain stream base flows.
8. Protect springs, seeps, and wetlands.
9. Minimize pollutant loading (nutrient and toxic substances).

**Monitoring:** The monitoring must be in accordance with the BMP monitoring protocols which have been established by the Department of Permitting Services (DPS) and Department of Environmental Protection (DEP). Prior to the start of any monitoring activity, a meeting is to be held on site with DEP, DPS and those responsible for conducting the monitoring to establish the monitoring parameters. **The pre-construction monitoring must be completed prior to the issuance of a sediment control permit.** See the attachment to this approval letter for Phase I titled "Description of Monitoring Requirements" for during construction and post construction detailed monitoring requirements.

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The "during construction" monitoring requirements are to last through the construction phase of the development, and the "post construction" monitoring will last for five years after construction is complete.

**Conditions of Approval:** The following conditions must be addressed in the initial submission of the detailed sediment control/stormwater management plan. This list may not be all inclusive and may change based on available information at the time of the review.

1. The stream channels on-site are to be walked to determine if channel restoration is necessary.
2. The proposed roadway dry swales are to have under drains that tie into the proposed storm drain structures. This will require approval from the Department of Public Works and Transportation.
3. Percolation tests must be performed to determine the feasibility of providing infiltration structures for water quality and ground water recharge.
4. Provide clear access to all stormwater management structures from a public right-of-way.
5. Water quality structures that are to be used for sediment control must have a minimum undisturbed buffer of two feet from the bottom of the sediment trap to the bottom of the stormwater structure.
6. The channel protection volume compensation for surface sand filter "S" must be provided in Pond "C".
7. Move the dry wells on lots 105-114, block T off of the lots and down slope of the PUE. Also, move the dry well for lots 47-50, block R off of lot 47 and down slope of the sanitary sewer line.
8. Structural pretreatment devices are to be sized for their entire contributing drainage area.
9. Additional pretreatment (other than road side swales), such as water quality inlets, will be required for surface sand filters that are treating large drainage areas (greater than 5 acres).
10. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
11. Provide level spreaders and/or plunge pools at all of the quantity pond outfalls and at the storm drain outfall at surface sand filter "S".
12. Channel protection volume is to be provided separately from water quality volume.
13. Provide four inches of pea gravel on top of all of the proposed surface sand filters.
14. All of the proposed stream crossings are to be constructed using environmentally sensitive design criteria. Bottomless arch culverts as proposed in the preliminary Water Quality Plan will be acceptable.

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15. At a minimum one foot of stone (dead storage) is to be provided below the outlet pipe of the surface sand filters to allow for groundwater recharge.
16. Minimize the use of insecticides and fertilizers via a residential Integrated Pest Management Plan as part of the Homeowners Association (HOA) documents. A draft of this plan/document is to be submitted at the detailed sediment control plan stage, and the final document is to be submitted prior to bond release.
17. MCDPS reserves the right to require the developer to provide full time, third-party, on-site, sediment control inspection if the Department decides the goals of the Water Quality Plan are not being met.

Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended Water Quality Plan requirements.

If you have any questions regarding these actions, please feel free to contact Leo Galanko at (240) 777-6242.

Sincerely,



Richard R. Brush, Manager  
Water Resources Section  
Division of Land Development Services

RRB:CN200006

cc: W. Witthans  
S. Federline  
M. Pfefferte  
L. Galanko  
D. Marshall  
SM File # 200006

Qn on-site 333 ac.  
QI on-site 333 ac.