



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

Item #
MCPB 05-10-07

MEMORANDUM

DATE: April 27, 2007
TO: Montgomery County Planning Board
VIA: Rose Krasnow, Chief *RK*
Robert Kronenberg, Acting Supervisor *RAK*
Development Review Division
FROM: Elza Hisel-McCoy, Senior Planner *an*
Development Review Division
(301) 495-2115



REVIEW TYPE: **Site Plan Review**
Final Water Quality Plan
CASE #: **820060110**
PROJECT NAME: **Bowie Mill Estates**

APPLYING FOR: Approval of 158 one-family detached and 28 one-family attached residential units, including a minimum of 15% (28) moderately priced dwelling units (MPDUs), on 438.2 acres
REVIEW BASIS: Div. 59-D-3 of Montgomery County Zoning Ordinance

ZONE: RNC
LOCATION: On the east side of the intersection of Muncaster Mill Road and Bowie Mill Road
MASTER PLAN: Upper Rock Creek Area

APPLICANT: Oxbridge Development at Bowie Mill, LLC
FILING DATE: September 7, 2005
HEARING DATE: May 10, 2007

STAFF RECOMMENDATION: Approval of the Final Water Quality Plan and Approval of 158 one-family detached and 28 one-family attached residential units, including a minimum of 15% MPDUs, on 438.2 acres. All site development elements as shown on the site and landscape plans stamped by the M-NCPPC on April 13, 2007, shall be required except as modified by the following conditions:

1) Preliminary Plan Conformance

The proposed development shall comply with the conditions of approval for Preliminary Plan 120060320, approved by the Planning Board on January 11, 2007.

2) Site Plan

- a) The orientation of the front of each building shall match that shown on the approved site plan.

3) Landscaping

- a) Provide additional screening from Muncaster Mill Road for units backing on to that Road. The screening shall consist of a mix of evergreen and deciduous trees and perennial shrubs to complement the rural character of the existing landscape buffers in the area.

4) Recreation Facilities

- (a) Ensure that all play equipment is certified by the National Playground Safety Institute and in conformance with M-NCPPC Recreation Guidelines.
- (b) Recreation facilities shall consist of a paved and unpaved walking trails, open play areas, playgrounds, and seating and picnic areas, as shown on the Site Plan.

5) Rural Open Space

- a) The applicant shall dedicate Parcels A, D, and F on Block N and Parcels A and B on Block O to M-NCPPC as rural open space. As directed by 59-C-9.57(h)(4), these Parcels will be preserved in perpetuity as rural open space by application of a covenant, the final recordable form of which must be approved by the Planning Board prior to Record Plat. The covenant will:
 - (i) restrict uses in the rural open space area to those allowed under 59-C-9.572,
 - (ii) limit management of any natural or agricultural features in accordance with the approved site plan, in keeping with the Upper Rock Creek Master Plan, and those activities listed in 59-C-9.57(h)(3), and
 - (iii) prohibit any development or subdivision within the rural open space area not expressly authorized.
- b) The applicant will dedicate Parcel A on Block A, Parcel A on Block E, Parcel B on Block F, and Parcels A and C on Block M to the Home Owners' Association (HOA) as rural open space. As directed by 59-C-9.57(h)(4), these Parcels will be preserved in perpetuity as rural open space by application of a covenant, the final recordable form of which must be approved by the Planning Board prior to Record Plat. The covenant will:
 - (i) restrict uses in the rural open space area to those allowed under 59-C-9.572,
 - (ii) limit management of any natural or agricultural features in accordance with the approved site plan, in keeping with the Upper Rock Creek Master Plan, and those activities listing in 59-C-9.57(h)(3), and
 - (iii) prohibit any development or subdivision within the rural open space area not expressly authorized.
- c) The applicant shall provide landscaping on Parcel A, Block M, to screen the residential units backing onto Bowie Mill Road.

6) Common Open Space

- a) The applicant will provide common open space, exclusive of all area counted as Rural Open Space, for common use by the residents of the neighborhood.

- b) The common open space shall include open play areas, “pocket parks” with play and seating areas, and linear open space adjacent to the Magruder High School athletic fields, as laid out on the Site Plan.

7) M-NCPPC Park Facility

The applicant shall comply with the following conditions of approval from M-NCPPC-Park Planning and Research Analysis in the memorandum dated April 5, 2007:

- a) Proposed Parcels A, D, and F, Block N, and Parcels A and B, Block O, to be dedicated to M-NCPPC as set forth on the Site Plan for use as parkland in accordance with the Upper Rock Creek Master Plan. Dedicated parcels to include all streams, wetlands and buffers, and sufficient area outside the buffers to allow environmentally appropriate construction of the required trails. Dedicated areas not to include stormwater management ponds or facilities. Parcel A to include all land west of proposed Lot 1 and east of Bowie Mill Local Park, and to include road frontage on proposed Street C and the 8’ wide hard surface connector trail to be constructed from Street C through the dedicated parkland. Land to be conveyed by time of record plat for the project areas that include the dedicated parkland and adjacent roads and lots. Dedicated property shall be conveyed free of any trash and unnatural debris and park boundaries to be adequately staked and signed to delineate between parkland and private property.
- b) Applicant to engineer and construct the master planned 8’ wide, hard surface trail from the northeast corner of the property in Parcel D, Block N, to the northeast corner of Parcel F, Block N. Trail to include all necessary bridges and boardwalk as determined to be necessary by M-NCPPC staff. The alignment shall be approximately as set forth on the Site Plan. Final details regarding grading, alignment and construction specifications for the trail, and timing for construction of the trail, to be determined by time of Certified Site Plan and to be acceptable to M-NCPPC staff.
- c) Applicant to engineer and construct sufficient hard surface connector trails, and loop natural surface trails, approximately as set forth on the Site Plan, for access by the community to the master planned hard surface trail. Final details regarding grading, alignment and construction specifications for the trails, and timing for construction of the trails, to be determined by Certified Site Plan, and to be acceptable to M-NCPPC staff.
- d) Trails to be constructed to park standards and specifications after obtaining appropriate park permits. Adequate trail signage to be provided by Applicant. Design and location of signage to be coordinated between Applicant and M-NCPPC staff.

8) Maintenance Responsibility

The applicant or HOA shall be responsible for maintaining site recreation areas, internal pathways, and all other site plan features not conveyed to M-NCPPC.

9) Noise

- a) Prior to approval of the certified site plan, the applicant must revise the submitted noise analysis to take into consideration the final grades for the ICC that were not previously known when the noise analysis was completed.
- b) Applicant to replace the proposed board-on-board noise fence with a landscaped earthen noise berm, the final dimensions of which shall be approved by Development Review and

Environmental Planning staff, to be located within the HOA Parcel B and extend along the eastern edge of the stormwater Parcel A immediately behind lots 3-5 on Block B. As necessary, this berm may include an additional wooden fence not taller than 6 feet above the top of the berm.

- c) Prior to release of the first building permit for the subdivision, the following items must be met:
 - i) There shall be certification from an acoustical engineer that the building shell for residential dwelling units are designed to attenuate projected exterior noise levels to an interior level of no more than 45 dBA, Ldn. Any subsequent changes in building shell materials or coverage that may affect acoustical performance shall be approved by an acoustical engineer prior to implementation.
 - ii) The builder shall commit in writing to construct the residential units in accordance with the acoustical specifications identified by the acoustical engineer.

10) Historic Preservation

Comply with the historic preservation requirements contained in the approved Preliminary Plan.

11) Impervious Surface Cap

The applicant shall meet the following conditions of approval from M-NCPPC-Environmental Planning in the memorandum dated March 29, 2007:

- a) Imperviousness for the 438.2-acre tract not to exceed 8 percent of the gross tract area, or 1,530,873 square feet.
- b) Applicant to enter into an agreement with M-NCPPC for the purpose of withholding building permits for nineteen (19) one-family detached residential lots to ensure compliance with the impervious limitations. The 19 lots shall be graphically denoted on the certified site plan. A note shall be placed on the record plat restricting issuance of building permits for the 19 lots pending approval from M-NCPPC Environmental Planning. Building permits for the 19 lots to be released one at a time, though not necessarily in the order listed. The 19 lots are: Block B, lots 16, 17, and 18; Block H, lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16.
- c) The certified site plan shall denote the order of the last 5 lots to be released. The last five lots to be released are, in descending order: Block B, lot 16; Block B, lot 17; Block B, lot 18; Block H, lot 2; and Block H, lot 3.
- d) Applicant to place impervious coverage limitations and information pertaining to the above agreement on the record plat(s).
- e) All driveways must be designed as double car width at the public right-of-way. M-NCPPC Environmental Planning Staff, on a case-by-case basis, may approve alternative driveway designs provided any additional impervious surface is accounted for as part of the overall impervious limit.
- f) The developer/builder must submit an impervious surface report to M-NCPPC Environmental Planning staff prior to issuance of the 100th, 140th, 160th and 171st building permits. The applicant must submit an impervious report for each of the remaining building permits after the 171st building permit. The impervious reports must include: surveyed 'as-built' drawings which include dimensions for buildings, driveways, sidewalks, leadwalks, porches, patios, chimneys, welled exits, rear exits and any building feature that is two feet or less from the ground. M-NCPPC staff must review the information prior to the release of the subsequent building permit.

- g) If at any time the impervious area limit is reached before building permits for all approved lots have been issued, the lots for which building permits have not been issued must be re-recorded as non-impervious, Homeowners Association open space parcels. All pending use and occupancy permits shall be held until such as that the open space plats are recorded.
- h) Upon recordation of the plat, applicant shall record in the land records a disclosure of the imperviousness limits and monitoring requirements to subsequent homebuyers. This disclosure shall be reviewed and approved by Commission legal staff before recordation.

12) Moderately Priced Dwelling Units (MPDUs)

- a) The proposed development shall provide 28 MPDUs on-site (15 percent of the total number of units) in accordance with Chapter 25A. The applicant is receiving a density bonus of 0.2 FAR (as recommended by the Upper Rock Creek Area Master Plan, p. 15).
- b) Evenly distribute the total number of required number of MPDUs between the phases of construction. The applicant shall build MPDUs concurrently with the other units in the phase, ensuring compliance with the MPDU requirements within each phase and for the project as a whole.
- c) The Applicant shall enter into an Agreement to Build the MPDUs with DHCA before certified site plan.

13) Lighting

- a) Provide a lighting distribution and photometric plan with summary report and tabulations to conform to IESNA standards for residential development.
- b) All private light fixtures shall be full cut-off fixtures.
- c) Deflectors shall be installed on all fixtures causing potential glare or excess illumination, specifically on the perimeter fixtures abutting the adjacent residential properties.
- d) Illumination levels shall not exceed 0.5 footcandles (fc) at any property line abutting county roads.
- e) The height of the light poles shall not exceed 12 feet including the mounting base.

14) Forest Conservation

- a) As stated in the memorandum from M-NCPPC-Environmental Planning dated March 29, 2007, the applicant shall comply with the conditions of approval of the final forest conservation plan. The applicant shall satisfy all conditions of approval before recording of the record plat(s) or MCDPS issuance of erosion and sediment control permits. Conditions include but are not limited to:
 - i) Applicant to construct a 2- or 3-rail split rail fence along all lots that back or side a reforestation area.
 - ii) Applicant shall develop and implement a non-native and invasive management plan for the newly planted areas to be dedicated to the Parks Department. The management plan must include supplemental planting and run concurrently with the forest planting maintenance and management agreement.
 - iii) Applicant to plant the afforestation area with a combination of ¾ to 1 inch caliper and 1 ½ to 2 inch caliper stock.
 - iv) Applicant to plant all unforested stream buffers and place a category I conservation easements on all retained and planted forested areas.
 - v) Applicant to begin reforestation of unforested stream buffers in the first planting season after issuance of the first sediment control permit.

15) Stormwater Management

The proposed development is subject to Stormwater Management Concept approval conditions dated November 21, 2006, unless amended by the Montgomery County Department of Permitting Services.

16) Common Open Space Covenant

Record plat of subdivision shall reference the Common Open Space Covenant recorded at Liber 28045 Folio 578 ("Covenant"). Applicant shall provide verification to M-NCPPC staff prior to issuance of the 130th building permit that Applicant's recorded Homeowners Association Documents incorporate by reference the Covenant.

17) Development Program

- a) Applicant shall construct the proposed development in accordance with Development Program. A Development Program shall be reviewed and approved by M-NCPPC staff prior to approval of the certified site plan. Development Program shall include a phasing schedule as follows:
 - i) Street tree planting shall progress as street construction is completed, but no later than six months after completion of the units adjacent to those streets.
 - ii) Community-wide pedestrian pathways and recreation facilities associated with each phase shall be completed as construction of each phase is completed.
 - iii) Recreation facilities for each phase shall be completed concurrently with the buildings and infrastructure of that phase.
 - iv) Clearing and grading shall correspond to the construction phasing, to minimize soil erosion.
 - v) Provide each section of the development with necessary roads.
 - vi) Phasing of construction, dedications, stormwater management, sediment/erosion control, recreation facilities, forestation, community paths, trip mitigation or other features.

18) Clearing and Grading

No clearing or grading prior to M-NCPPC approval of certified site plans.

19) Certified Site Plan

Prior to certified site plan approval, the following revisions shall be included and/or information provided, subject to staff review and approval:

- a) Development program, inspection schedule, revised data table, and Site Plan Resolution;
- b) Limits of disturbance;
- c) Methods and locations of tree protection;
- d) Include standards for accessory buildings in development standards table;
- e) A revised noise study for the ICC section bisecting the site.
- f) Replace the noise wall shown on the proposed plan with a landscaped berm, as described in condition 7 above. Provide details of berm and fence.
- g) Provide a street lighting and neighborhood photometric plan.
- h) Revise the street lighting detail to provide full cut-off fixtures.
- i) Graphically denote on the site plan the lots reserved for verification of compliance with the 8% impervious surface limit.
- j) Label all MPDUs on the Site Plan

- k) Provide a phasing diagram demonstrating phase and project compliance with the MPDU requirements. Phasing to be consistent with DHCA's Agreement to Build.
- l) Revise the table entitled "Parcels to be Dedicated to HOA" on sheet 1 of 42 of the Site Plan to label the following parcels as "Rural Open Space": Block A, Parcel A; Block E, Parcel A; Block F, Parcel B; and Block M, Parcel A and Parcel C.
- i) Provide details and specifications of all recreation facility play equipment, seating, etc.

SITE PLAN REVIEW ISSUES

I. Rural Open Space Delineation

Section 59-C-9.574(h)(2) requires developments in the RNC zone to provide a minimum of 65% of the net tract area as contiguous rural open space. (The Master Plan does not recommend a certain percentage.) "Rural open space" is land that is managed, as described in Section 59-C-9.574(g)(3), or is unmanaged, which means that it is returning to its natural state without human intervention (Section 59-C-9.572). During the course of the site plan review, environmental planning, community-based planning, and development review staff worked with the applicant to designate areas of the site which best fit the letter and intent of the rural open space requirement.

Staff identified two areas proposed as rural open space that did not meet the definition of rural open space. First, HOA Parcel B, directly abutting the ICC, is to be the location of the landscaped berm providing a noise barrier for the adjacent homes. The proximity of the parcel to the ICC and the potential inclusion of noise fencing as part of the landscaped berm are inconsistent with the Master Plan view of the "undeveloped" nature of the rural open space. Second, Block F, Parcel F, located between the community and the sport fields at Magruder High School, is a neighborhood-focused civic connection between the two and merits a treatment more formal than that afforded by the spirit of rural open space. These areas are typically designated as common open space or HOA open space parcels.

As a result of the coordination between the applicant and staff, the proposed plan now features an arrangement of rural open space acceptable to each (see Attachment C).

II. Rural Open Space Dedication

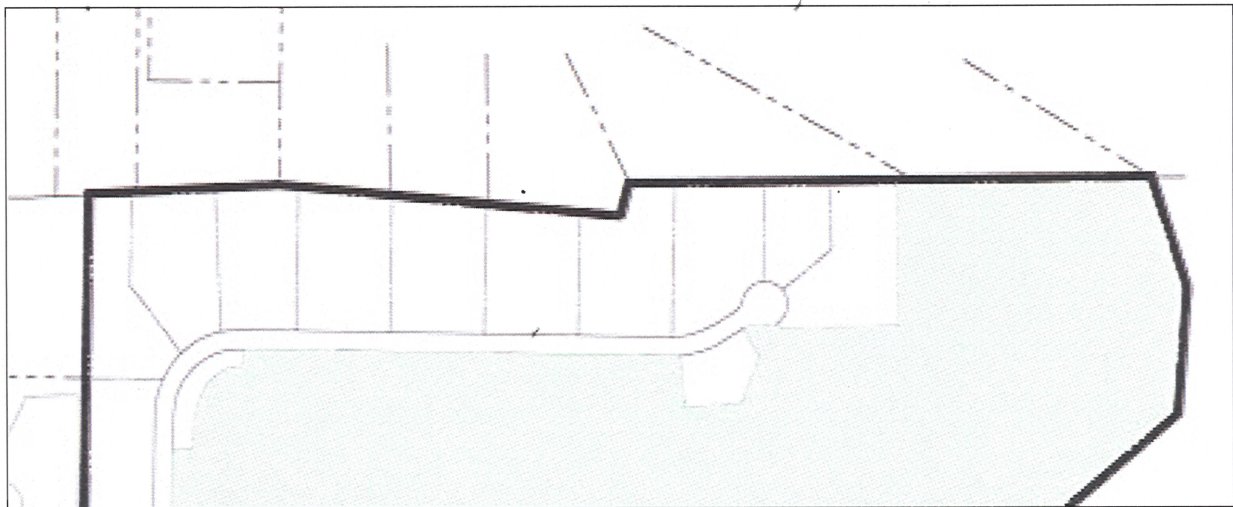
The RNC zone requires that 65-85% percent of the site be preserved as rural open space. During the hearing for Preliminary Plan 120060320, the Planning Board devoted substantial discussion to which method of conveyance would be most appropriate for the 268 acres of rural open space proposed for dedication to M-NCPPC. The RNC zone requires, at section 59-C-9.57(4), that:

all publicly held or privately held land in the rural open space area must be preserved in perpetuity as rural open space by application of an easement or covenant in a recordable form approved by the Planning Board. The easement or covenant must restrict uses in the rural open space area to those uses allowed under 59-C-9.572, provide for the management of any natural or agricultural features in accordance with the approved site plan, and prohibit any development or subdivision within the rural open space area not expressly authorized.

From the discussion at the hearing, staff reviewed two basic alternatives. The first would dedicate ownership to the Homeowners' Association (HOA), which would in turn grant an easement in perpetuity to M-NCPPC for the management of the rural open space land. The second would dedicate the land to M-NCPPC with a covenant in the deed restricting management and use per the zoning and the Upper Rock Creek Master Plan. This alternative would require management of the Rural Open Space to be accepted by M-NCPPC. M-NCPPC staff unanimously recommended dedication of the rural open space to M-NCPPC with a covenant upon the land for compliance with the zoning and Upper Rock Creek Master Plan. Staff believes M-NCPPC is in the best position with the best interest to maintain the rural open space in keeping with the zoning and master plan.

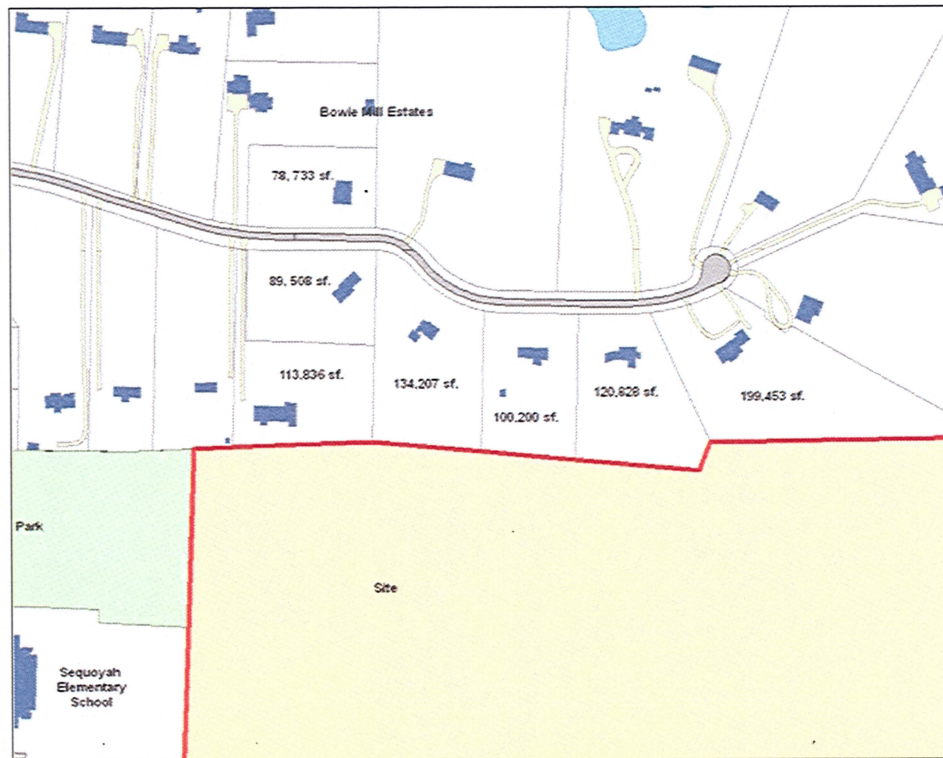
III. Compatibility/Density

Another issue staff addressed with the applicant is the compatibility of the proposed lot sizes along the northern boundary of the site, directly adjacent to the existing lots on Foggy Lane. The Bowie Mill Civic Association, representing the existing Bowie Mill Estates, has expressed concern that the lots at the northern edge of the proposed site plan are not large enough to be compatible with the existing lots. In response to this concern, staff requested that the applicant reduce the number of lots proposed on that boundary.



Proposed Lot Configuration Along the Northern Site Boundary

Consistent with staff recommendation, the applicant has reduced the number of proposed lots along the northern boundary from nine to eight. These eight lots range in size from 78,769 sf. to 91,071 sf., with an average lot size is 85,441 sf., approximately two acres. The existing lots immediately adjacent range in size from 113,836 sf. to 199,455 sf. with an average lot size of 133,705 sf., or approximately three acres. But within the existing Bowie Mill Estates development, there are two lots on Foggy Lane that are considerably smaller, relatively speaking, at 78,733 sf. and 89,508 sf. – about two acres. The average proposed lot size, 85,441 sf., is comparable in size with the smaller lots within the existing lots on Foggy Lane, indeed larger than the smallest.



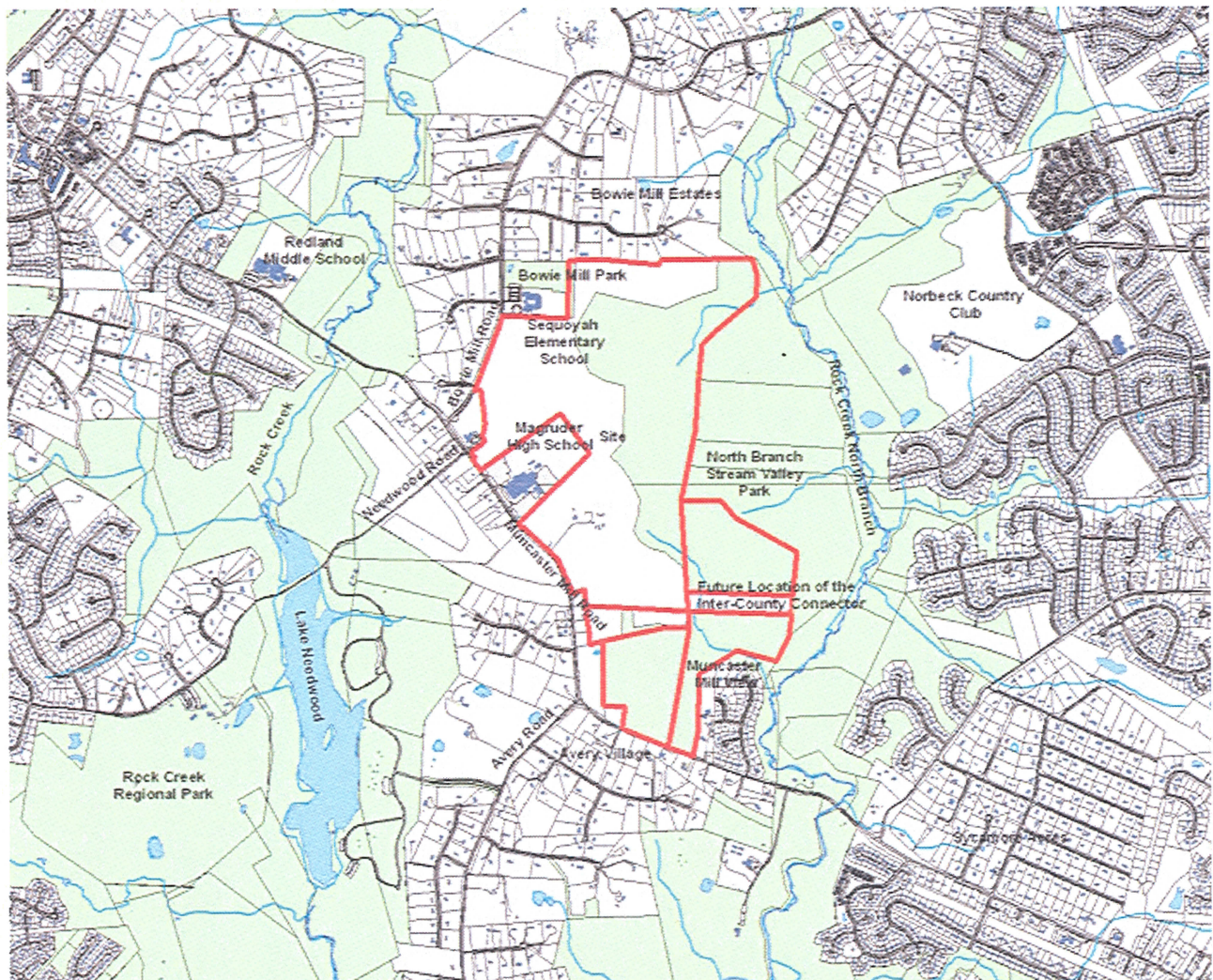
Sizes of Adjacent Existing Lots on Bowie Mill Estates

Staff supports the reduction in number and associated increase in size of the lots. Staff believes the increased size and proposed depths of the lots along the northern boundary of the site are compatible with the adjacent lots and in keeping with the Rural Neighborhood Cluster zone and the Upper Rock Creek Master Plan.

PROJECT DESCRIPTION: Site Vicinity

The subject property is located east of the intersection of Muncaster Mill Road and Bowie Mill Road, running south to beyond the intersection of Avery Road and Muncaster Mill. The site proposes two access points, one at the northwestern edge of the site from Bowie Mill Road and another at the southwestern edge of the site from Muncaster Mill Road. The forthcoming Inter-County Connector (ICC) is proposed to run west to east across the site, north of the Avery Road intersection. The site is directly adjacent to two Montgomery County Public Schools, Magruder High School, near the intersection of Muncaster Mill Road and Needwood Road, and Sequoyah Elementary School, off Bowie Mill Road.

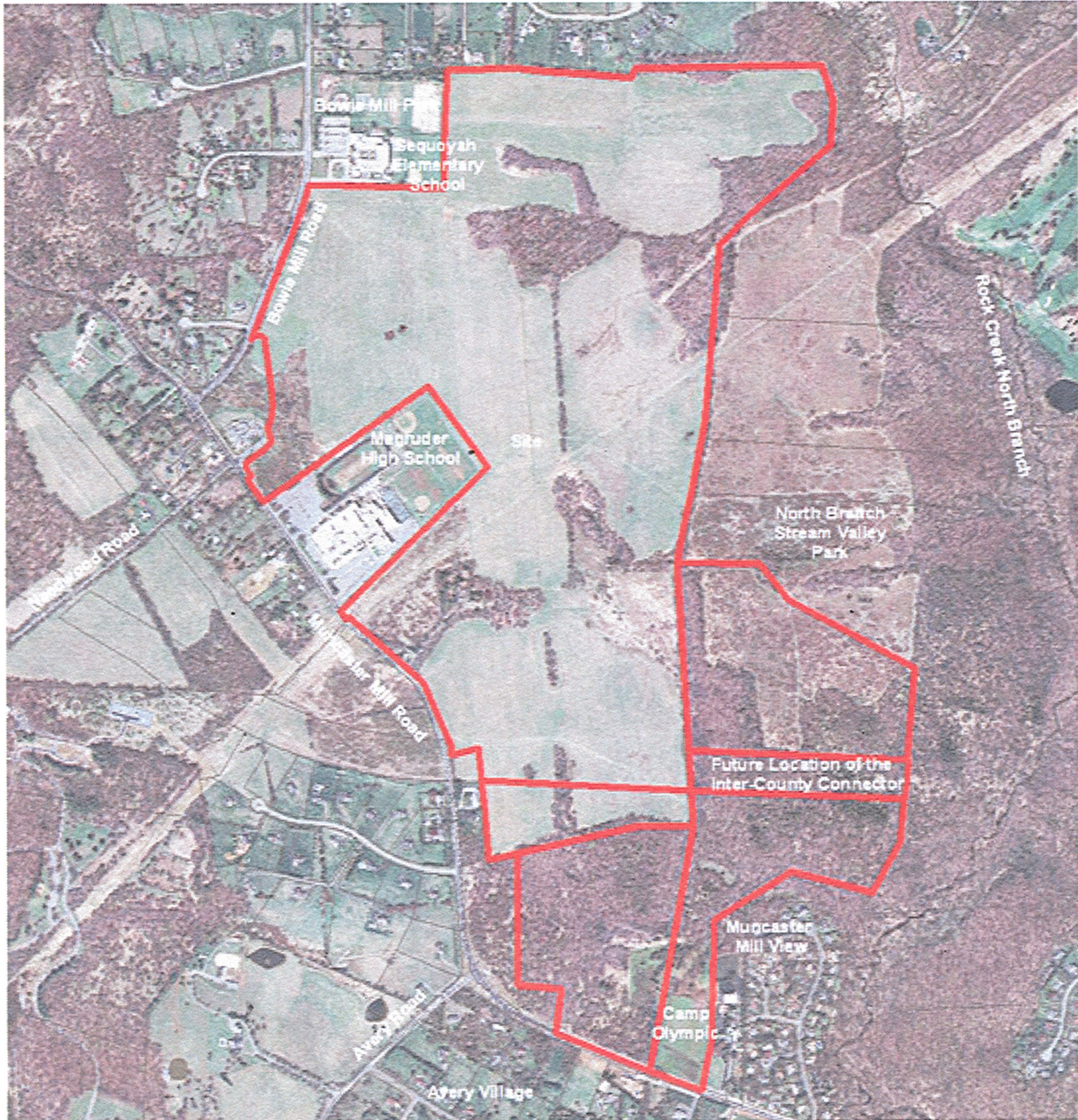
Bounding the subject property to the north, south, and west are large-lot one-family residences in the RE-1, RE-2, and R-200 zones and to the east is the North Branch Stream Valley Park.



Site Vicinity Map

PROJECT DESCRIPTION: Site Description

The 438.2-acre site is primarily open farmland, but includes a dilapidated historic house, barn, and outbuildings. The topography consists of gently rolling hills. The site is zoned RNC and is located in the Upper Rock Creek Special Protection Area.



Aerial View of Project Site and Surrounding Areas

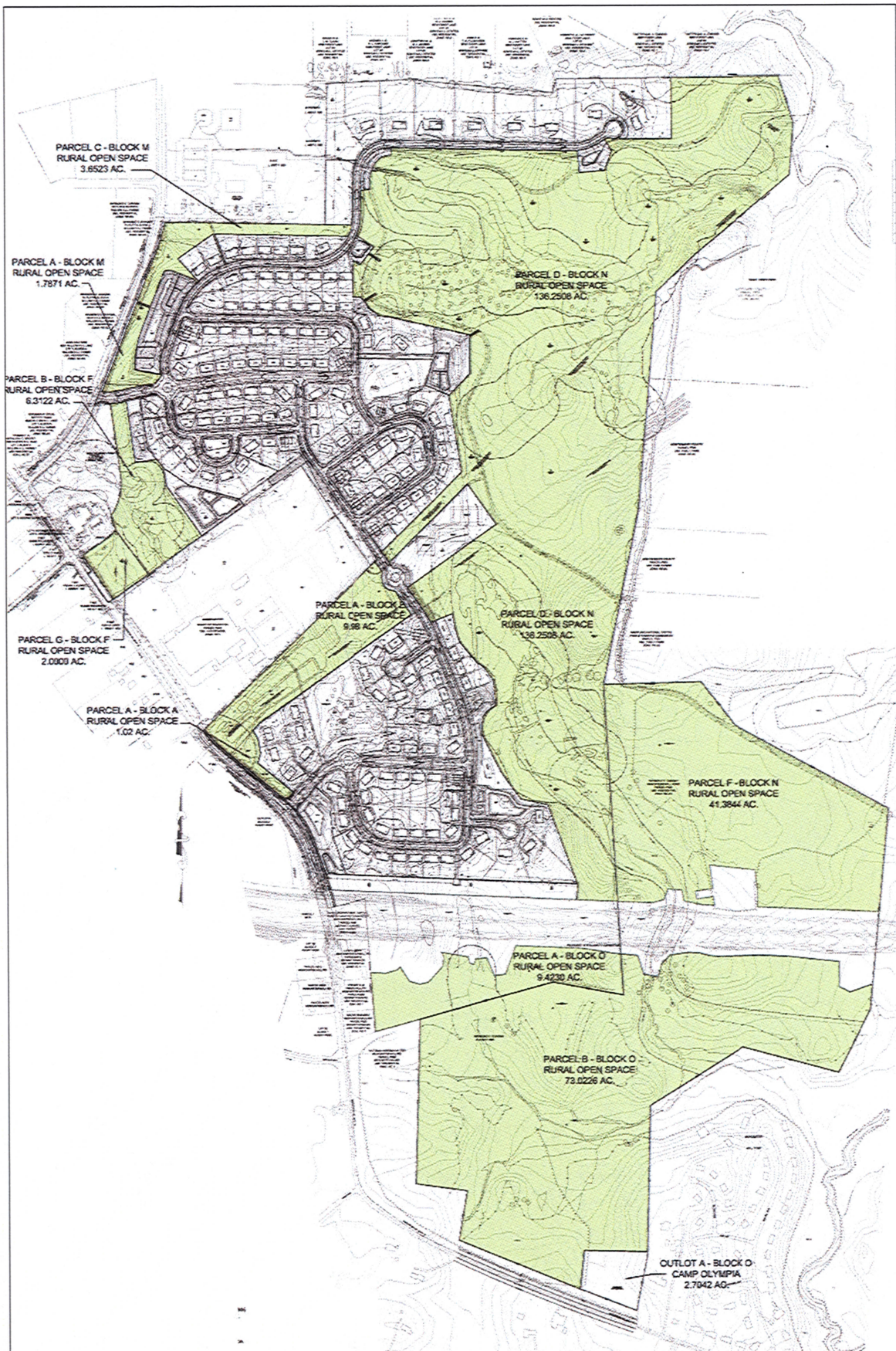


Aerial Perspective of the Site from the South

PROJECT DESCRIPTION: Proposal

The applicant is proposing a residential neighborhood containing 186 units, including 158 market-rate one-family detached residences and 28 MPDU townhomes in triplex and fourplex configurations. Access to the site is provided at two points, from Bowie Mill Road and from Muncaster Mill Road. Streets within the development will be public, except for one private street accessing a cluster of units. An extensive sidewalk and walkway system would provide pedestrian access within the community and to the adjoining schools.

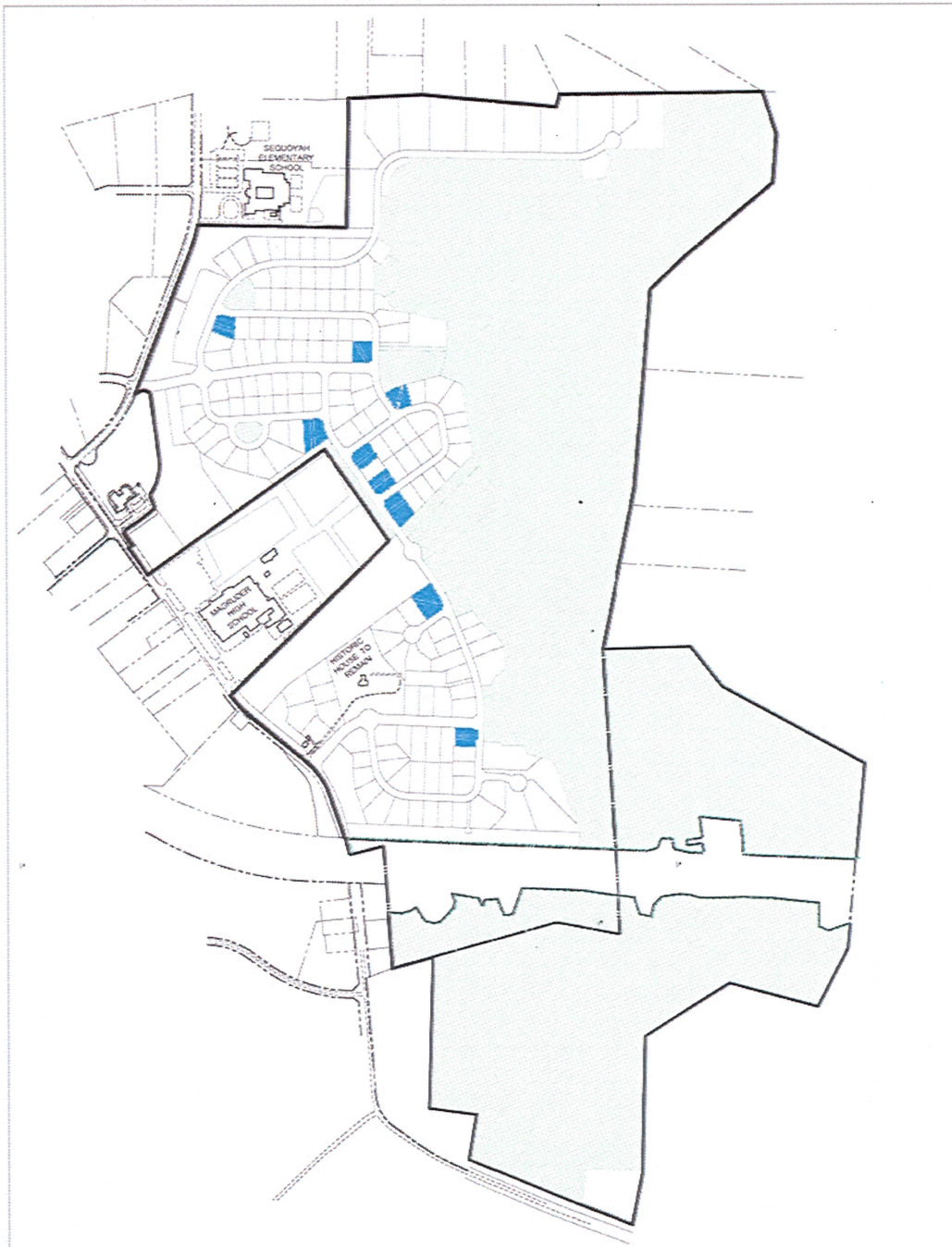
The neighborhood is well laid-out, with a legible and reasonable pattern of streets, blocks, and paths, connecting residents to parks, schools, and each other.



Site Plan

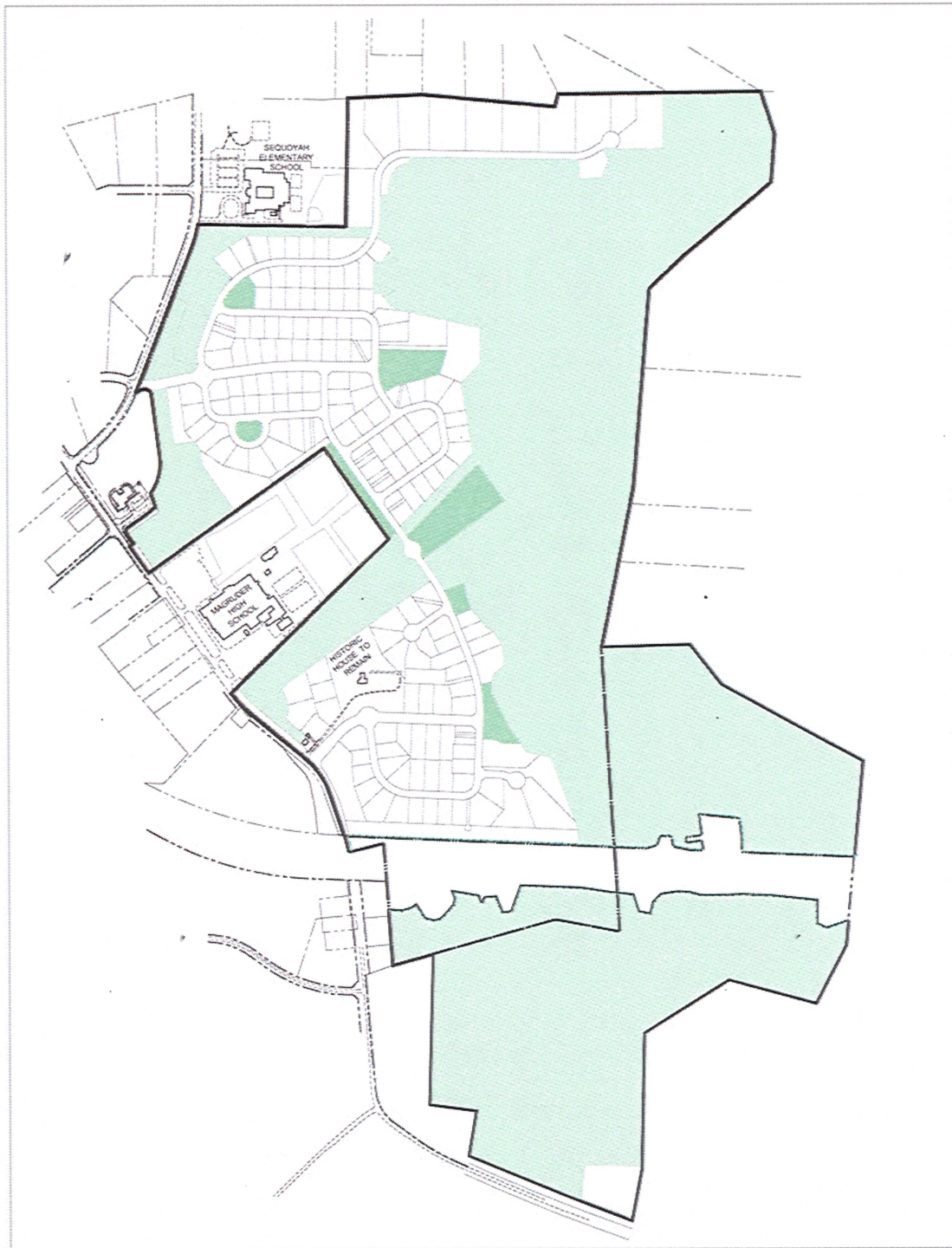
The community will feature a variety of lot sizes for both attached and detached one-family housing. The 28 attached units will be the MPDUs and are clustered in strings of threes, with one string of four units. Generally these units are designed to resemble larger detached housing, with the end units having side entrances and the interior unit appearing as the front door for the entire building. The lot sizes for the attached units range from 2,241 sf. for the smallest interior lot to 15,275 sf. for the largest end unit lot. The one-family detached lots range from 12,500 sf. to 91,071 sf., and will include one 5-acre lot with a renovated historic house and barn.

The MPDUs are well distributed throughout the community, located in close proximity to, if not directly opposite, recreational fields or rural open space.



MPDU Distribution

The development includes a variety of recreational opportunities, chief among which is a hard-surface trail running across the adjacent parkland, with regular connector trails linking back to the community. The community will also include several play areas for tots through teens, for both structured and unstructured play.



Green Space

PROJECT DESCRIPTION: Prior Approvals

Preliminary Plan

Preliminary Plan 120060320 was approved by the board on January 11, 2007, for 186 lots, including a minimum of 15% MPDUs, on 438.2 acres..

ANALYSIS:

Conformance to Development Standards for R-NC zone

PROJECT DATA TABLE (RNC Zone)

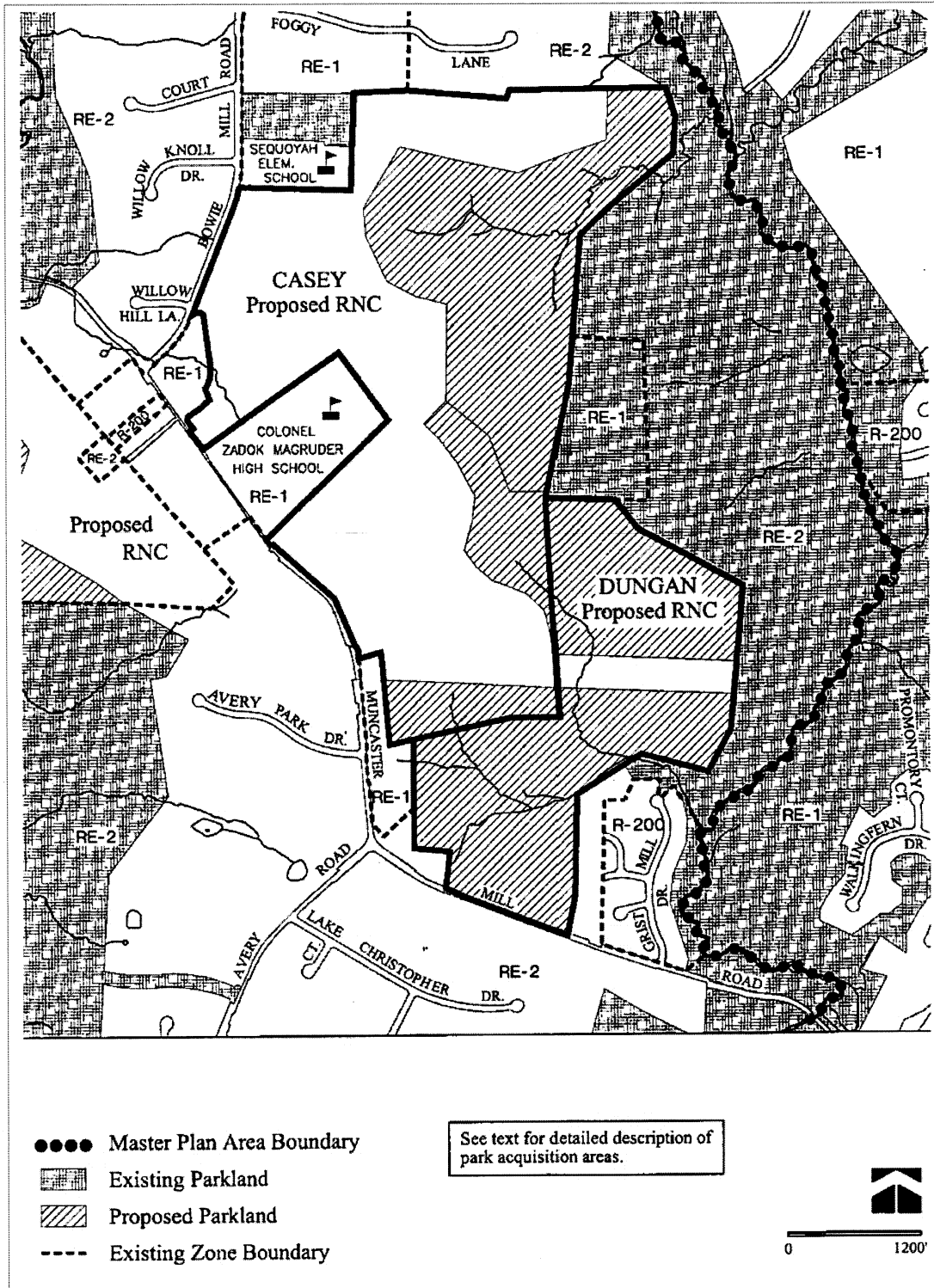
Development Standard (Optional Method) Per Section 59-C-9.574	Permitted/ Required	Proposed for Approval
Max. Density of Development (du/a)		
Per zoning	1.22	
Per Upper Rock Creek Area Master Plan (p. 15)	0.4 (w/ 15% MPDUs)	0.4 (w/ 15% MPDUs)
Min. Net Lot Area (sf.) – Townhouses:	none	2,241-15,275
– One-family Detached	4,000	12,500 – 91,071
Min. Building Setbacks, Townhouse & One-Family Detached (ft.)		
from street ROW	15	30 min.
rear yard	none	20 min.
rear yard (adj. property not being developed under RNC optional method)	adj. zone; 30 min.	30 min.
side yard	0 or 8 if >0	8 min.
side yard (adj. property not being developed under RNC optional method)	adj. zone.	8 min.
Min. Lot Width – at street line (ft.)	25	25 min.
Max. Building Height (ft.):*	35	35 max.
*as measured per 59-A-2.1		
Max. Lot Coverage – one-family detached (%)	35	35 max.
Rural Open Space (% of Net Tract Area) (ac.)	65 284.8328	65 284.8328
Parking, Off-Street –		
Dwelling, one-family (@ 2/unit)	316	316 min.
Townhouse (@ 2/unit)	56	
w/ 50% reduction for MPDU	28	28 min.
Total	344	344 min.

Conformance to Master Plan

The Upper Rock Creek Area Master Plan, approved and adopted in April 2004, contains recommendations for each of the two properties which make up the site, the Dungan Property and the Casey Property (p. 14-20). The Master Plan strongly recommends that the properties be developed jointly, with all of the residential development occurring on the 336-acre Casey Property and the entirety of the 132-acre Dungan Property dedicated to undeveloped open space. The proposed site plan conforms to this recommendation, placing all of the housing and related

infrastructure on the Casey Property, and dedicating the vast majority of the Dungan Property as public parkland.

PROPOSED LAND USE/ZONING – CASEY AND DUNGAN PROPERTIES



Additionally, for the development on the Casey Property, the Master Plan suggests adherence to the following guidelines:

- Cluster development in two areas--between the schools and away from the valley of the northern unnamed tributary, and, in the southern part of the property, between Magruder High School and the ICC right-of-way
- Reduce environmental impacts and imperviousness during development by employing innovative design and engineering techniques (see Environmental Resources Plan for details) by locating stormwater management facilities outside of parkland, by creating forest buffers prior to parkland dedication and by removing artificial drainage systems to allow natural regeneration;
- Enhance compatibility by maintaining areas adjacent to existing communities as rural open space or developing those areas with lots of similar size to those in the adjoining neighborhood;
- Provide substantial variations in lot sizes, as required by the RNC Zone development standards; cluster neighborhoods should offer the broadest possible range of lot sizes;
- Size and locate lots to ensure compatibility with existing development and preservation of rural view;
- Encourage diversity in house size and style;
- Protect rural viewsheds;
- Preserve existing views from Bowie Mill and Muncaster Mill roads by locating large lots, conservation lots or open space with a significant and varied landscape along the roads;
- Concentrate rural open space in the eastern part of the property that drains to the North Branch, dedicate appropriate portions of this area to parkland and include in this contiguous open space a “loop” trail that connects to the proposed North Branch trail corridor in this area;
- Incorporate open space into the clustered community to enhance the undeveloped nature of contiguous open space while providing residents with nearby recreation;
- Require dedication to parkland of areas needed for access to trails in the North Branch Stream Valley Park and for expansion of Bowie Mill Local Park.

The proposed site plan is in substantial conformance with the majority of these recommendations. The buildings and infrastructure are clustered on the western portion of the site, between the elementary and high schools and between the high school and the ICC. The eastern portion of the site is devoted to rural open space and recreation areas, including 268 acres to be dedicated for parkland. The distribution of streets, lots, and recreation areas helps preserve the rural viewshed for a great number of residents and the public. The applicant is also proposing a variety of lot sizes for both the attached and detached one-family house lots, as described above.

Rural Neighborhood Cluster Zone

Section 59-C-9.51 states that the purpose of cluster development is “to provide greater flexibility in achieving a compatible mixture of agricultural and residential uses and to protect scenic and environmentally sensitive areas”. The Rural Neighborhood Cluster zone further adds that development in the zone should “preserve large areas of contiguous rural open space, consistent with the recommendations and guidelines of the applicable master or sector plan.” As stated

above, this development clusters the units along the western edge of the site, largely between Magruder High School and Sequoyah Elementary School, preserving the eastern portion of the site for dedicated rural open space. The design takes advantage of generous recreational facilities to provide residents views of and access to the rural open space from the public streets and sidewalks, if not from each of the lots, as each of the entry streets terminates in a rural vista provided by well-placed recreational fields. In addition the proposal includes reinforced visual screening along the bordering main thoroughfares, Muncaster Mill Road and Bowie Mill Road, preserving the rural character of those roads.

Recreation Facilities

Tabulation, per 1992 Recreation Guidelines

Demand

	D1	D2	D3	D4	D5
Unit Type	Tots	Children	Teens	Adults	Seniors
SFD I (72)	7.2	14.4	15.84	61.2	5.76
SFD II (86)	11.18	20.64	21.5	91.16	9.46
TH (28)	4.76	6.16	5.04	36.12	1.96
Total Demand	23.14	41.2	42.38	188.48	17.18

Supply

	D1	D2	D3	D4	D5
Amenity	Tots	Children	Teens	Adults	Seniors
Pedestrian System (1)	2.31	8.24	8.48	84.82	7.73
Nature Trail (1)	1.16	4.12	6.36	28.27	2.58
Natural Area (1)	0	2.06	4.24	18.85	0.86
Tot Lot (1)	9	2	0	4	1
Play Lot (1)	0	9	3	4	1
Multi-Age Playlot (1)	9	11	3	7	1
Picnic Areas (6)	6	6	9	30	12
Open Play Area I (3)	18	27	36	90	6
Open Play Area II (3)	9	12	12	30	3
Total Supply	54.47	81.42	82.07	296.94	35.17

Transportation

Local Area Transportation Review

Transportation Staff conducted an LATR during Preliminary Plan review and recommended traffic mitigation alternatives. The alternatives depended upon whether or not the Maryland State Highway Administration (SHA) Consolidated Transportation Program (CTP) approved full funding for construction of the Inter-County Connector "Contract A", for the portion between Georgia Avenue (MD97) and I-370. If the SHA CTP does not approve full funding before release of the 50th building permit, the Applicant will construct a separate right-turn lane on the

Needwood Road approach to Muncaster Mill Road. If the CTP does approve full funding before release of the 50th building permit, the Applicant will provide other transportation improvements of equal funds expenditure. Refer to the Preliminary Plan resolution for further details.

Environmental

The Applicant submitted Natural Resource Inventory/Forest Stand Delineations (NRI/FSDs) for the subject property. The NRI/FSDs delineate and identify the existing conditions on the site including on site environmental buffers, forests, topographical contours and soils. The site includes streams, floodplains, and wetlands converted into lowland pastures, upland agricultural fields and forest. The subject site includes 134.5 acres of existing forest. The forest is adjacent to the existing North Branch Stream Valley Park or along streams and wetlands that cut into the Casey and Dungan Properties. The site includes approximately 80 acres of environmental buffers.

Water Quality

Water quality plans are required as part of the Special Protection Area regulations. Under the SPA law, Montgomery County Department of Permitting Services (MCDPS) and the Planning Board have different responsibilities in the review of the water quality plan. MCDPS has reviewed and conditionally approved the elements of the final water quality plan under their purview. As part of the final water quality plan, MCDPS established several site performance goals including:

1. Maintain the natural on-site stream channels.
2. Minimize storm flow run off increases.
3. Minimize increases to ambient water temperatures.
4. Protection of streams and aquatic life habitat.
5. Minimize sediment loading.
6. Maintain stream base flows.
7. Protect springs, seeps, and wetlands.
8. Minimize nutrient loading and control insecticides, pesticides and toxic substances.

To help meet the performance goals, the stormwater management plan requires water quality control and quantity control to be provided through an extensive system of linked best management practices (BMPs). Channel protection measures for this site will be provided via extended detention 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 combination of structural and non-structural measures that include dry wells, surface sand filters, bio-filters, dry swales and grassed channels. All open section streets will have a two-foot wide flat bottom to provide water quality pretreatment.

Sediment control will be addressed through a combination of traps and basins, earth dikes, and super silt fencing. The storage volume in sediment control traps and basins will require a minimum of 125% of the normally required volume. Flocculants or other similar materials are required to increase the sediment removal efficiency in the basins and traps.

The Planning Board responsibility is to determine if the environmental guidelines for special protection areas, forest conservation requirements, and site imperviousness requirements are satisfied. This discussion follows.

Environmental Guidelines

The environmental guidelines for SPAs require examination of many tools to maximize achievement of site performance goals. For instance, the goal of protecting seeps, springs, and wetlands is better achieved with naturalized buffers surrounding these areas. The natural resource inventory for the Casey-Dungan properties identified the environmental buffers. Environmental buffers include wetlands and wetland buffers, floodplains, and streams and stream valley buffers. The application proposes a few encroachments into the environmental buffers. The encroachments include hard surface paths, stormwater management outfalls, and two stormwater management facilities.

The applicant will construct hard surface trails on land to be dedicated to the Parks Department. Environmental Planning staff in conjunction with the Parks Department walked the proposed trail alignment. The amount of encroachment into the buffers is minimized and the trail is pulled as far from the stream and wetlands as possible. The proposed path locations are proposed in non-forested environmental buffers that will be forested as part of the special protection area requirements. Environmental Planning supports this permanent encroachment because of the efforts undertaken to minimize the encroachments into the environmental buffers and the encroachment will not result in any forest removal.

A few stormwater management outfalls must enter into the environmental buffers in order to provide safe conveyance of stormwater discharges at non-erosive velocities. In order to limit erosion from stormwater management facilities the outfall location must occur in a flat location. The proposed discharge locations are in non-forested environmental buffers that will eventually be forested as part of the special protection area requirements. Environmental Planning supports this encroachment and has supported similar encroachments on other plans.

The last types of encroachment in the environmental buffers are stormwater management facilities primarily associated with the hard surface trail. These facilities must be located in the environmental buffers when the hard surface trail is located in the buffer. There is one location where runoff from a roadway, in addition to runoff from the hard surface trail, will be treated in the buffer. This area is designated as SWM BF 1 and 2 and located along proposed Street "C" and is adjacent to Sequoyah Elementary School. The most appropriate location for stormwater management is in the environmental buffer at this site. The areas will be in separate stormwater management parcels and the type of facility proposed is not a pond but bio-filters. The parcels will be planted as part of the Department of Permitting Services stormwater management facility landscape requirements. The total amount of encroachment for SWM BF 1 and 2 is approximately 4,300 square feet, which is less than ½ of the size of the combined area for the two facilities. Environmental Planning supports the location of this facility because it treats stormwater runoff from the proposed hard surface trail and the roadway. In addition, moving the stormwater management facility further from the environmental buffer to keep the facility entirely outside of the buffer would result in less land dedicated to the Parks Department for active recreational uses on the opposite side of Street "C".

As part of the *Environmental Guidelines* all unforested stream buffers must be reforested. The plan submitted does not show reforestation of all environmental buffers. The final forest conservation plan must be revised showing reforestation of all unforested stream buffers. There is one section of unforested buffers that the applicant is proposing for wetland mitigation.

Environmental Planning supports the creation of new wetlands within the buffer but that area will need to be denoted on the forest conservation plan. The applicant will either dedicate the buffers to the Parks Department, as shown on the preliminary plan of subdivision, or place forest conservation easements on all environmental buffers and all forest retention areas that remain in private ownership.

Forest Conservation

Since this application is utilizing an RNC MPDU optional method of development the plan must comply with Section 22A-12(f) of the Montgomery County code. This section requires developments utilizing an optional method to meet the appropriate forest conservation threshold on site. The applicant will meet the requirements of Section 22A-12(f) by preserving forest on site. The applicant is also required to plant more than 25 acres of unforested stream buffers.

Environmental Planning requests a condition of approval for the construction of a split rail fence at the rear of lots backing to planting areas. This is both to protect the forest plantings from homeowner encroachment and to clearly delineate the category I forest conservation easement/park dedication areas.

The Environmental Guidelines require accelerated reforestation of stream valley buffers and staff is requesting a condition requiring planting to occur during the first planting season after issuance of the first sediment control permit. A five-year maintenance period is required for all forest plantings in Special Protection Areas per the Environmental Guidelines.

Throughout the NRI/FSD review process and subsequent site visits by Environmental Planning and Natural Resource staff numerous invasive and exotic species were found in the stream buffers, existing forests and especially on the Dungan property. Environmental Planning is requesting an additional conditional of approval requiring the applicant to develop and implement an invasive and exotic management control program to run concurrently with the required maintenance and management agreement. The management control program must include supplemental planting. By developing and implementing an invasive management plan, newly planted trees will have a better chance of survival and should begin to shade out the competing vegetation. An invasive management program is necessary to prevent the entire area designated for reforestation and Park dedication from becoming overwhelmed with invasive material. The non-native and invasive management plan has been approved by both Environmental Planning and the Parks Department.

Imperviousness

The Upper Rock Creek Special Protection Area has an 8 percent impervious limitation. The applicant, Oxbridge Development Corporation, is proposing a development that creates approximately 35 acres, or 8 percent of the gross tract area, of new impervious surfaces. This imperviousness is associated with internal streets, sidewalks, driveways, building footprints, parking areas, and the hard surface trail. The 35 acres of imperviousness does not include "improvements" homeowners may make to their lots after taking possession of the units. These improvements can include patios, sheds, swimming pools, pool decks etc.

Consistent with other plans with impervious limitations, Environmental Planning requests the developer to enter into an impervious agreement that identifies the total amount of impervious surfaces available, the number and location of lots in reservation and the last lots to be released. Environmental Planning requests a conditional approval that identifies 10 percent of the lots, or

19 single family detached single family homes, as impervious reservation lots. These lots would only become available to build upon once the applicant can demonstrate that there are sufficient impervious surfaces remaining to allow building permits to be released on these lots. The impervious lots shall be denoted on the certified site plan. The applicant shall identify the last five building permits to be released in order to ensure a logical release of building permits.

Noise

The applicant submitted a noise study analyzing the impacts of existing and current traffic projects for Muncaster Mill Road and the future ICC on the proposed development. The ICC bisects the property and proposed house locations will be negatively impacted by noise. The State Highway Administration's noise study prepared in support of the ICC did not study potential noise impacts on the subject property and no noise mitigation is proposed along this section of the property that bisects the subject property. Therefore, it becomes the responsibility of this applicant to provide adequate noise mitigation for the noise-impacted units.

The plans submitted show a 100-foot set back from the ICC right-of-way to the beginning of the residential lots. Even with this 100-foot set back the residential units will be negatively impacted by vehicle noise. The noise analysis recommends board-on-board noise fence that ranges from 6 feet in height to 12 feet in height. Both Environmental Planning and Development Review believe that the noise fence should be replaced with a berm and fence combination with the majority of the noise mitigation occurring with a landscape berm. There is sufficient space in the 100-foot wide to provide a landscape berm.

The June 2005 noise analysis indicates that it is "impossible to estimate the precision of the analysis" because the final grades for the roadway were not determined and recommends once the final grades are determined that the analysis be revised. Since June 2005 the final grades for the roadway have been determined. Therefore, the applicant must revise the noise analysis to ensure the berm and fencing combination is of sufficient height to mitigation exterior and interior noise levels. This must be done prior to certification of the site plan.

The noise analysis also indicates that modifications to standard construction practices will be necessary to achieve an interior noise level of 45 dBA Ldn. Once the architectural drawings are available the interior noise levels must be evaluated to determine if special and additional acoustical treatments are necessary to achieve at 45 dBA Ldn. The applicant will need to submit a second noise study to identify the specific acoustical treatments that will be necessary for the impacted residential units.

FINDINGS: For Site Plan Review

1. *The site plan conforms to all non-illustrative elements of a development plan or diagrammatic plan, and all binding elements of a schematic development plan, certified by the Hearing Examiner under Section 59-D-1.64, or is consistent with an approved project plan for the optional method of development, if required, unless the Planning Board expressly modifies any element of the project plan;.*

An approved development plan or a project plan is not required for the subject development.

2. *The Site Plan meets all of the requirements of the zone in which it is located.*

The Site Plan meets all of the requirements of the RNC zone as demonstrated in the project Data Table on page 16.

3. *The locations of buildings and structures, open spaces, landscaping, recreation facilities, and pedestrian and vehicular circulation systems are adequate, safe, and efficient.*

- a. **Locations of buildings and structures**

The plan proposes 186 one-family residences, both attached and detached, including one historic house. The historic house, relocated barn, and historical environment setting are located on the original site of the home on the southern portion of the development. It has prominent street frontage along the main entrance road to the community. The 186 units include 28 MPDUs in 3- and 4-unit townhouse strings. The MPDUs are well-distributed throughout the community and around amenities. Finally, the site plan indicates the orientation of each proposed residential building on its lot. This arrangement reinforces the street grid, contributing to the safety and neighborhood feel of the community. Additionally, several units near the southern entrance, though setback from the road, front onto Muncaster Mill Road, improving the conformance with the intent of the zone and other housing along Muncaster Mill Road. The locations of buildings and structures are arranged in an adequate, safe, and efficient manner on the site.

- b. **Open Spaces**

The plan proposes over 293 acres of rural open space, 65% of the tract area, in addition to a variety of recreation facilities, facilitating structured and unstructured recreational activities. The rural open space is located primarily on the eastern and southern portions of the site, with extension along the edges of the community to Muncaster Mill and Bowie Mill Roads to enhance the rural character of the development as a whole. The open space provided on site is adequate, safe, and efficient.

c. Landscaping and Lighting

The proposed landscaping on site includes street trees for all public streets and a mix of shade and evergreen trees and flowering shrubs for the recreational areas. It also provides screening between Bowie Mill and Muncaster Mill Roads and the backs of houses in the development, promoting compatibility between the new and existing housing. Similarly, the landscape plan for the parcel between the Magruder High School athletic fields and the residential units will reinforce the connection and relationship between the school and the neighborhood.

The lighting plan will feature full cut-off luminaires mounted on 12-foot poles along the streets and in public use (though not Rural Open Space) areas. These lights will greatly minimize light trespass into the adjacent residential community.

The landscaping and lighting provide for adequate, safe, and efficient use by residents.

d. Recreation Facilities

In addition to the 293 acres of rural open space, the site plan provides a variety of recreation facilities, including playgrounds for each age group, several picnic and seating areas, and multiple open play areas, facilitating structured and unstructured recreational activities. The amount of recreational facilities the site provides exceeds the recommendation of the 1992 Recreation Guidelines. No off-site facilities are being credited towards meeting this guideline. The recreation facilities provided on site are adequate, safe, and efficient.

e. Pedestrian and Vehicular Circulation Systems

Vehicular Circulation

The proposed site plan provides access to the community via Muncaster Mill Road and Bowie Mill Road. Within the development a network of public roads provide circulation for residents and visitors to the public parkland. Near the entrance from Muncaster Mill Road, one private drive provides access to a small cluster of homes. Each lot provides its own off-street parking.

Pedestrian Circulation

Within the community, sidewalks provide circulation to each of the homes and recreation areas. Hard- and soft-surface walkways connect the sidewalks to the neighboring schools and to the park trail system on the eastern portion of the site.

Vehicular and pedestrian circulation is safe, adequate, and efficient.

4. *Each structure and use is compatible with other uses and other site plans and with existing and proposed adjacent development.*

The proposed buildings and lots are compatible with surrounding land uses, primarily one-family residential buildings of one to two stories. The MPDUs, in townhouse configurations, are designed generally to resemble their market-rate one-family dwelling counterparts. The three-unit configuration has end units with entrances on the side, such that in concert with the architectural design of the façade, the only front door typically seen from the street is that of the middle unit. For the larger lots on the northern boundary of the site, the reduced number of lots enhances compatibility with the adjacent lots in keeping with the Rural Neighborhood Cluster zone and the Upper Rock Creek Master Plan. The building heights, sizes, and locations and the site landscaping and lighting are commodious and compatible with adjacent residential uses.

5. *The Site Plan meets all applicable requirements of Chapter 22A regarding forest conservation, Chapter 19 regarding water resource protection, and any other applicable law.*

Forest Conservation

The applicant will meet the requirements of Section 22A-12(f) by preserving forest on site. The applicant is also required to plant more than 25 acres of unforested stream buffers.

Water Quality

MCDPS has reviewed and conditionally approved the elements of the final water quality plan under their purview. The stormwater management plan requires water quality control and quantity control to be provided through an extensive system of linked best management practices (BMPs). Channel protection measures for this site will be provided via extended detention dry ponds. Quality control will be provided via a combination of structural and non-structural measures that include dry wells, surface sand filters, bio-filters, dry swales and grassed channels. All open section streets will have a two-foot wide flat bottom to provide water quality pretreatment. Sediment control will be addressed through a combination of traps and basins, earth dikes, and super silt fencing.

ATTACHMENTS

- A. Preliminary Plan Staff Report
- B. Reviewing Agency Approvals

ATTACHMENT A: Preliminary Plan Staff Report



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB
Item # 5
1/11/07



MEMORANDUM

DATE: December 29, 2006
revised January 2, 2007

TO: Montgomery County Planning Board

VIA: Rose Krasnow, Chief
Development Review Division

FROM: Catherine Conlon (301-495-4542) *CAE*
Erin Grayson (301-495-4598)
Development Review Division

REVIEW TYPE: Preliminary Plan of Subdivision

APPLYING FOR: Approval for 158 one-family detached and 28 one-family attached dwelling units, including a minimum of 15% moderately priced dwelling units (MPDUs)

PROJECT NAME: Bowie Mill Estates
CASE #: 120060320
REVIEW BASIS: Chapter 50, Montgomery County Subdivision Regulations

ZONE: RNC
LOCATION: On the northeast side of Muncaster Mill Road opposite the intersection with Needwood Road
MASTER PLAN: Upper Rock Creek

APPLICANT: Oxbridge Development at Bowie Mill
ENGINEER: Dewberry & Davis
ATTORNEY: Linowes & Blocher

FILING DATE: September 7, 2005
HEARING DATE: January 11, 2007

RECOMMENDATION: Approval, subject to the following conditions:

- 1) Approval under this preliminary plan is limited to 186 lots for 186 residential dwelling units, including a minimum of 15% moderately priced dwelling units (MPDUs).
- 2) No clearing, grading, or recording of plats prior to site plan approval.
- 3) Final approval of the number and location of buildings, dwelling units, MPDUs, on-site parking, sidewalks, and bikepaths will be determined at site plan.
- 4) Proposed Parcels A, B, D and H to be dedicated to M-NCPPC for use as parkland in accordance with the Upper Rock Creek Master Plan. Dedicated parcels to include all streams, wetlands and buffers, and sufficient area outside the buffers to allow environmentally appropriate construction of the master planned hard surface trail. Dedicated areas not to include stormwater management ponds or facilities. Parcel A to include all land west of proposed Lot 1 and east of Bowie Mill Local Park, and to include road frontage on proposed Street C and the 8' wide hard surface connector trail to be constructed from Street C through the dedicated parkland. Dedicated land to be conveyed at time of the first record plat and to be transferred free of any trash or unnatural debris. Park boundaries to be adequately staked and signed to delineate between parkland and private property.
- 5) Applicant to construct the master planned 8' wide, hard surface trail from the northeast corner of the property in Parcel D to the northeast corner of Parcel H. Trail to include all necessary bridges and boardwalk as determined to be necessary by M-NCPPC staff. Alignment to be as agreed and approximately as set forth on the Preliminary Plan as revised on 10/13/06. Final details regarding grading and alignment and design of the trail, and timing for construction of the trail, to be determined by time of site plan and to be acceptable to M-NCPPC staff.
- 6) Applicant to construct sufficient hard surface connector trails, and loop natural surface trails, for access by the community to the master planned hard surface trail. Trail locations and details to be determined by time of site plan and be acceptable to M-NCPPC staff.
- 7) Trails to be constructed to park standards and specifications after obtaining appropriate park permit, and adequate trail signage to be provided by Applicant. Design and location of signage to be coordinated between Applicant and M-NCPPC staff.
- 8) Compliance with the conditions of approval for the preliminary forest conservation plan. The applicant must satisfy all conditions prior to recording of plat(s) or MCDPS issuance of sediment and erosion control permits, as applicable. Conditions include:
 - a. Applicant to construct a split rail fence along all lots that back or side a reforestation area.
 - b. Applicant shall develop and implement a non-native and invasive management plan for the newly planted areas to be dedicated to the Parks Department. The management plan must include supplemental planting and run concurrently with the forest planting maintenance and management agreement.
 - c. Applicant to plant the afforestation area with a combination of ¾ to 1 inch caliper and 1 ½ to 2 inch caliper stock.
 - d. Applicant to plant all unforested stream buffers and place a category I conservation easements on all retained and planted forested areas.

- e. Applicant to begin reforestation of unforested stream buffers in the first planting season after issuance of the first sediment control permit.
- 9) Imperviousness for the 439-acre tract not to exceed 8 percent of the gross tract area.
 - 10) Applicant to enter into an agreement with M-NCPPC for the purpose of withholding building permits for nineteen (19) single-family detached residential lots to ensure compliance with the impervious limitations. The 19 lots shall be graphically denoted on the certified site plan. A note shall be placed on the record plat restricting issuance of building permits for the 19 lots pending approval from M-NCPPC Environmental Planning. Building permits for the 19 lots to be released one at a time.
 - 11) The certified site plan shall denote the order of the last 5 lots to be released.
 - 12) Applicant to place impervious coverage limitations and information pertaining to the above-agreement noted in Condition #10 above, on the record plat.
 - 13) All driveways must be designed as double car width at the public right-of-way. M-NCPPC Environmental Planning Staff on a case-by-case basis may approve alternative driveway design provided any additional impervious surface is accounted for as part of the overall impervious limit.
 - 14) The developer/builder must submit an impervious surface report to M-NCPPC Environmental Planning staff prior to issuance of the 100th, 140th, 160th and 171st building permits. The applicant must submit an impervious report for each of the remaining building permits after the 171st building permit. The impervious reports must include: surveyed 'as-builts' drawings which include dimensions for buildings, driveways, sidewalks, leadwalks, porches, patios, chimneys, welled exits, rear exits and any building feature that is two feet or less from the ground. M-NCPPC staff must review the information prior to the release of the next building permit.
 - 15) If at any time the impervious area limit is reached before building permits for all approved lots have been issued, the lots for which building permits have not been issued must be re-recorded as non-impervious, Homeowners Association open space parcels. All pending use and occupancy permits shall be held until such time that the open space plats are recorded.
 - 16) Upon recordation of the plat, applicant shall record in the land records a disclosure of the imperviousness limits and monitoring requirements to subsequent homebuyers. This disclosure shall be reviewed and approved by Commission legal staff before recordation.
 - 17) Prior to approval of the certified site plan, the applicant must revise the submitted noise analysis to take into consideration the final grades for the ICC that were not previously known when the noise analysis was completed.
 - 18) Applicant to replace the proposed board-on-board noise fence with an earthen landscape noise berm wherever possible. Locations to be determined as part of the site plan review.
 - 19) Prior to release of the first building permit for the subdivision, the following items must be met:
 - a. There shall be certification from an acoustical engineer that the building shell for residential dwelling units are designed to attenuate projected exterior noise levels to an interior level of no more than 45 dBA, Ldn. Any subsequent changes in building shell materials or coverage that may affect acoustical performance shall be approved by an acoustical engineer prior to implementation.

- b. The builder shall, in writing, commit to construct the residential units in accordance with the acoustical specifications identified by the acoustical engineer.
- 20) Conformance to the conditions as stated in the MCDPS letter dated November 21, 2006 approving the elements of the SPA water quality plan under its purview.
- 21) Compliance with the conditions of the MCDPS stormwater management approval dated November 21, 2006.
- 22) The Applicant shall revise the preliminary plan drawing to remove any realignment of existing Bowie Mill Road.
- 23) The applicant shall satisfy Local Area Transportation Review as follows:
 - (A) If full funding for constructing the Intercounty County Connector (ICC) between Georgia Avenue (MD 97) and I-370 (known as Contract A) is not approved in the Maryland State Highway Administration (SHA) Consolidated Transportation Program (CTP) prior the release of 50th building permit, the Applicant shall construct a separate right-turn lane on the Needwood Road approach to the intersection of Muncaster Mill Road (MD 115) opposite the Casey House-Montgomery Hospice driveway.

To construct this right-turn lane, a good faith effort shall be made to acquire the necessary additional right-of-way and easements in the northeastern corner of the Needwood Road/Muncaster Mill intersection from the landowner of Parcel 927. The applicant shall deal directly and openly with the landowner to ensure full disclosure of the possible impacts to the remainder of the Parcel 927. The County will assist as necessary to obtain the additional right-of-way and easements if the applicant takes the required steps below:

- i. Furnish an appraisal for the necessary right-of-way provided by a County approved appraiser.
 - ii. Make a minimum of three written offers to the landowner at or above the appraised value that are documented by certified mail.
 - iii. If the applicant fails to come to an agreement with the landowner, the applicant can request County assistance in acquiring the necessary right-of-way and easements using the methods not available to private developers.
 - iv. Sign an agreement of understanding with the County specifying that the Applicant shall pay all of the County's costs to acquire the right-of-way.
- (B) If the ICC Contract A is fully funded for construction in SHA CTP prior to release of the 50th building permit, the applicant shall provide other transportation improvements that would account for an equal expenditure of funds (i.e., the Applicant will spend an estimated \$188,000, which is the equivalent amount of funding in 2006 dollars required to acquire the right-of-way and construct the right-turn lane on Needwood Road). The funds will be used by the Applicant to provide one or more of the following transportation improvements, in the priority order given below, until the funds are fully spent:
- i. Construct a second northwest-bound approach lane on Muncaster Mill Road at the intersection with Needwood Road to provide a separate left-

turn lane as part of the Montgomery County Public School's access improvement project for Colonel Zadok Magruder High School.

- ii. Construct a 6-foot-wide sidewalk along Muncaster Mill Road between Colonel Zadok Mugruder High School and Needwood Road to improve the safety of high school students and other pedestrians walking in this area.
- iii. Construct a shared use path (or portion thereof) along Needwood Road. This shared use path shall run along the south side of Needwood Road from Beach Drive to a point across from Oak Meadow Drive for a length of approximately 4,500 feet within a publicly controlled right-of-way.
- iv. Contribute to an identified and approved DPWT bikeway project that is fully funded for construction in DPWT Consolidated Improvements Program (CIP) Program No. 507596, Annual Bikeway Program or another CIP Bikeway Project.

This condition shall be satisfied prior to release of the 70th building permit.

- 24) The applicant shall dedicate the master-planned minimum right-of-way of 300 feet for the Intercounty Connector alignment through the property as the easement/dedication lines are modified by the following plans:
 - a. SHA's July 13, 2006, plans for ICC Contract A Request for Proposals.
 - b. SHA's letter dated May 12, 2006, with an attached plan sealed and signed on September 6, 2005 showing the limits of right-of-way dedication for the ICC.
- 25) The Applicant shall revise the preliminary plan drawing to reflect the ICC dedication as specified in Condition #23, above.
- 26) Applicant shall provide four-foot wide concrete sidewalks on one side of or both sides of the modified public tertiary residential streets and the private streets as shown on the preliminary plan.
- 27) Access and improvements as required to be approved by MCDPWT prior to recordation of plat(s) and MDSHA prior to issuance of access permits.
- 28) The environmental setting of the J.H. Cashell historic site is reduced to include proposed Lot 1, which is 5.01 acres in size. Lot 1 includes the historic house, the stone tenant house, the proposed location for the barn that is to be relocated, and a number of significant trees to the front and sides of the historic house. This new environmental setting will be clearly identified on the final plan and the record plat.
- 29) A viewshed to the historic site, as identified on the Preliminary Plan, will be preserved and will be identified on the record plat as a protected area. No building will be allowed on the land located within the identified viewshed. Any new plantings, tree removal, or fences within the viewshed will require approval by M-NCPPC Historic Preservation Section staff.
- 30) The ~~owner~~ Applicant will relocate one historic barn (identified on the Preliminary Plan) onto Lot 1. The owner will obtain a Historic Area Work Permit from the Historic Preservation Commission for relocation of the structure.
- 31) The ~~owner~~ Applicant will relocate the existing stone pillars (identified on the Preliminary Plan) and position them at the driveway entrance to the historic house on Lot 1.

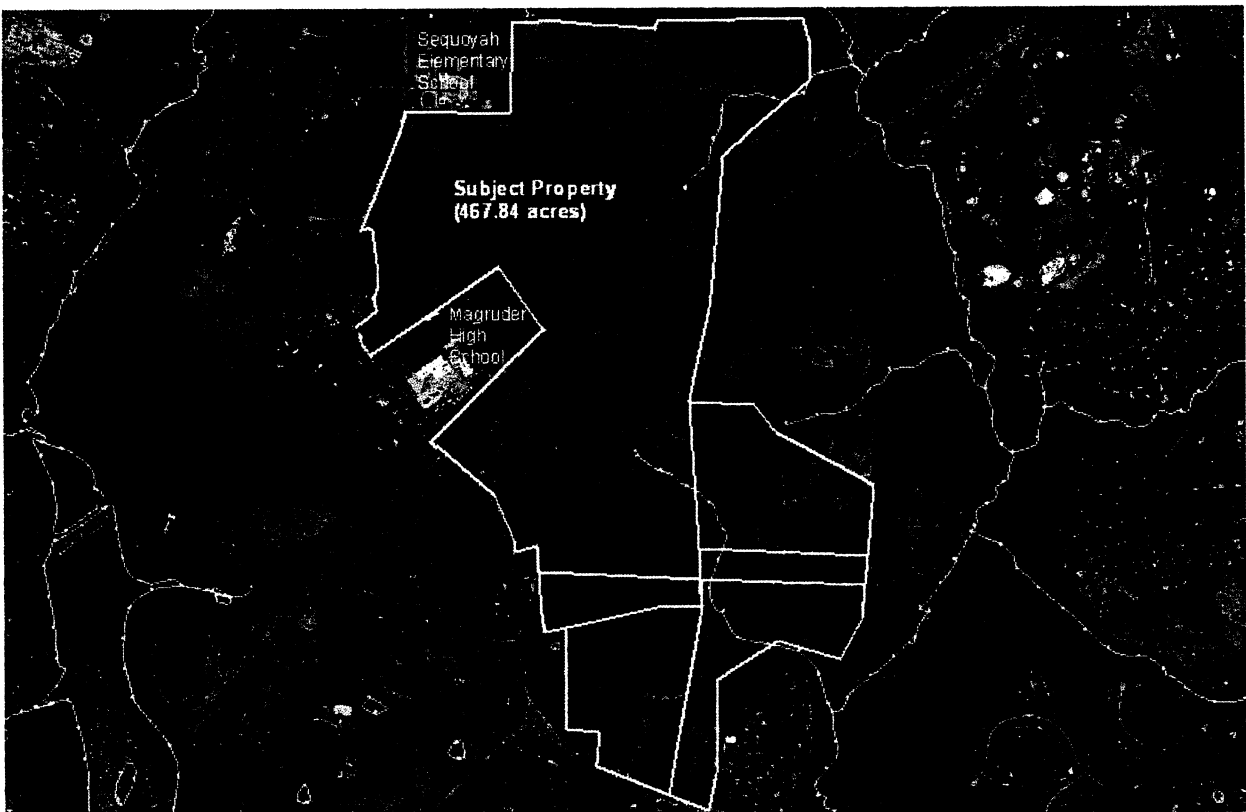
- 32) The ~~owner~~ Applicant will come back to the Historic Preservation Commission within six months from the date of Preliminary Plan approval with a study of the structural issues associated with the historic house and with a plan for stabilization of all historic structures to be preserved.
- 33) The ~~owner~~ Applicant will have substantially completed the rehabilitation of the historic house on the site by the time that the 60th occupancy permit is issued for the overall project.
- 34) Any tree that is located within the environmental setting and that is 6" DBH or greater will require review and approval through the Historic Preservation Commission's Historic Area Work Permit process.
- 35) Any proposed construction, alterations of existing structures, or grading within the environmental setting will require review and approval through the Historic Preservation Commission's Historic Area Work Permit process.
- 36) Record plat to reflect delineation of Rural Open Space areas and make note of the Liber and Folio of an easement agreement or covenant recorded in the land records which restricts the uses in the rural open space to those set forth in the RNC zone and establishes procedures for the management of natural or agricultural features as set forth in the approved site plan.
- 37) The record plat shall have the following note: "The land contained hereon is within an approved cluster development and subdivision or resubdivision is not permitted."
- 38) Record plat to reflect delineation of a Category I Conservation Easement over all areas of stream buffer and forest conservation.
- 39) Record Plat to reflect all areas under Homeowners Association ownership and specifically designate stormwater management parcels.
- 40) Record plat to reflect common ingress/egress and utility easements over all shared driveways.
- 41) The Adequate Public Facility (APF) review for the preliminary plan will remain valid for sixty-one (61) months from the date of mailing of the Planning Board Opinion.
- 42) Other necessary easements shall be shown on the record plat.
- 43) The Applicant shall comply with the conditions of approval of the MCDPWT letter dated March 22, 2006, as modified by letter of December 26, 2006, unless amended by MCDPWT.
- 44) The applicant shall dedicate all road rights-of-way shown on the approved preliminary plan to the full width mandated by the Master Plan unless otherwise designated on the preliminary plan.
- 45) The applicant shall construct all road rights-of-way shown on the approved preliminary plan to the full width mandated by the Master Plan and to the design standards imposed by all applicable road codes. Only those roads (or portions thereof) expressly designated on the preliminary plan, "To Be Constructed By _____" are excluded from this condition.

SITE DESCRIPTION

The subject property, pictured below and in Attachment A (Vicinity Map), consists of 467.84 acres formerly known as the Casey and Dungan Properties. The site is located on the

northeast side of Muncaster Mill Road, east of Bowie Mill Road and across from the intersection of Needwood Road and Muncaster Mill Road. The subject property is zoned RNC and bounds Colonel Zadok Magruder High School on three sides, and Sequoyah Elementary School on two sides. The high school entrance is located on Muncaster Mill Road and the elementary school entrance is located on Bowie Mill Road. Both school sites are zoned RE-1.

The subject property lies within the Rock Creek Middle North Branch (Class III) watershed on the eastern portion of the site, and within the Rock Creek (Class IV) watershed on the western portion of the site. Existing conditions on the site include stream valleys, 100-year flood plains, wetlands and forest. The tract includes 133.24 acres of forest. The historic J.H. Cashell Farm is located on the site, which contains a historic house, barn and pillars.



PROJECT DESCRIPTION

The applicant proposes a residential community consisting of 186 dwelling units. The units will include 158 one-family detached homes and 28 one-family attached townhouses. The detached one-family homes will be on lots ranging from 12,500 SF to 124,401 SF in size. The 28 attached townhouses, which will be entirely MPDU's, will be on lots ranging from 2,941 SF to 15,246 SF. The townhouses are distributed as 8 groups of three, and one group of 4. This layout allows for the townhouses to be designed to resemble the adjacent one-family detached units and blend into the overall neighborhood.

As part of the RNC requirements, 65-85% of the subject property must be dedicated to open space. The applicant proposes to preserve 66.7%, or approximately 293 acres of the subject property, as rural open space. The Maryland State Highway Association has identified a portion of the site as necessary for construction of the proposed Inter-County Connector (ICC). Alignment of the ICC will require approximately 28 acres of right-of-way dedication on the southern portion of the property. The open space dedication does not include the ICC dedication area. The plan also includes dedication of 1.68 acres of land to Montgomery County Public Schools (MCPS) for the existing Sequoyah Elementary School. Although MCPS also recommended dedication of land adjacent to Magruder High School, that dedication could not be accommodated in the plan due to the open space and imperviousness requirements of the subdivision.

Access to the subject property will be via mostly public streets that will have sidewalk on at least one side. One group of six detached homes will have access via a private street. Access to public open space is provided by an 8-foot wide hard surface trail. The development will be served by public water and sewer.

(Attachment B – proposed plan)

ANALYSIS AND FINDINGS

Master Plan Compliance

The Upper Rock Creek Master Plan made specific recommendations for this property, noted in the Plan as the Dungan and Casey properties for its owners at the time. The recommendations are accompanied by guidelines that were designed to be applied to the development of this property. The Plan's primary recommendation was that development on the Casey property be combined with that on the adjacent Dungan property, that all houses be built on the Casey property and that the Dungan property be retained in its entirety as open space. The proposed preliminary plan adheres to this recommendation.

The Plan recommended a density of 0.33 units to the acre for the properties. As drafts of the Plan moved through the review process, separate policy discussions on the appropriateness of expanding the Moderately Priced Dwelling Unit program to the Rural Neighborhood Cluster and other "large-lot" zones also were underway. The Plan acknowledged these discussions—and the possibility of an ultimate decision to expand the MPDU program—by setting out an allowable density of 0.4 units to the acre if MPDUs were required as part of the property's development. The Council decided in 2005 to expand the MPDU program to the large lot zones and MPDUs therefore are required as part of this preliminary plan. The 186 units proposed as part of this preliminary plan represent a density of 0.4 units to the acre, as recommended in the Plan. Fifteen percent of those units—28 in total—are MPDUs.

In addition to its recommendation for a development density, the Plan listed a series of guidelines for development. The next paragraphs highlight individual guidelines and indicate how well the proposed plan meets a stated guideline.

“Cluster development in two areas—between the schools and away from the valley of the northern unnamed tributary, and, in the southern part of the property, between Magruder High School and the ICC right-of-way;”

The proposed plan shows that almost 293 acres, or 67 percent of the approximately 440 acres of usable land, are designated for public or private rural open space. A look at contemporary aerial photographs of the site shows that the areas proposed for the majority of the residential development are currently fields; the Dungan property is largely in forest, and, as noted above, will be preserved as public open space. Regulations set out in the zoning ordinance limit activities in rural open space, which will allow for preservation in an undeveloped state. Open space on the Casey property also will be preserved as open space, which will allow areas that are now pastureland to return over time to forest.

The plan proposes that residential development occur south of Magruder High School and north of the ICC right-of-way and north of the high school in an area between Magruder, Sequoyah Elementary School and Bowie Mill Road. This is the area envisioned in the master plan for development.

“Enhance compatibility by maintaining areas adjacent to existing communities as rural open space or developing those areas with lots of similar size to those in the adjoining neighborhood;”

The northern portion of the Casey property adjoins an existing residential neighborhood along Foggy Lane. Seven properties directly abut the Casey property, and they range in size from two to nine acres. The proposed plan locates nine properties along the original property line. The smallest of the nine is approximately 1.5 acres and the largest is 2.85 acres.

“Provide substantial variation in lots sizes, as required by the RNC Zone development standards; cluster neighborhoods should offer the broadest possible range of lot sizes.”

The applicant has calculated that 61 percent of the proposed lots are less than half an acre in size. More specifically, 40 percent of the proposed lots are between 15,000 and 20,000 square feet in size. The applicant is proposing some significantly smaller MPDU lots at one end of the lot size spectrum and some lots—about 12 percent of the total—that would be range from three quarters of an acre to about five acres in size. Discussions of this issue during review of both the master plan and the revisions to the RNC Zone seemed to focus on avoiding “cookie-cutter” subdivisions, in which the vast majority of lots were within a narrow size range. These discussions suggested that a “bell curve,” with some relatively small and relative large lots at either end of the spectrum was a desirable outcome for RNC communities. The lot range for the proposed project creates a bell curve, with most of the lots lying in a range from 15,000 square feet and 30,000 square feet

“Size and locate lots to ensure compatibility with existing development and preservation of rural views;”

This guideline replicates the second guideline discussed above and a guideline discussed below.

“Encourage diversity of house size and style;”

As part of its review of the master plan, the County Council approved this guideline. The language used recognizes that provision of housing styles and sizes is largely a component of market forces difficult to control through regulation. Discussions with the applicant in this case indicate that individual buyers desire the relatively large houses being offered.

“Protect rural viewsheds;”

This guideline replicates one discussed below.

“Preserve existing views from Bowie Mill and Muncaster Mill roads by locating large lots, conservation lots or open space with a significant and varied landscape along the roads;”

The proposed plan locates lots away from Bowie Mill Road, uses the area for stormwater management and provides a 75-foot open space buffer between the road and the stormwater management facility. The facility itself will be obscured from the road. The applicant has indicated that more detailed design of stormwater management systems necessitates location of a facility near Bowie Mill Road. This arrangement is not optimal, but reflects compromises often required to meet the different objectives of the preliminary plan.

The proposed plan is less successful in protecting views from Muncaster Mill Road. The proposed plan provides some open space along Muncaster Mill Road, but places stormwater management facilities in those areas. Lot sizes are generally in the vicinity of three quarters of an acre, which puts them among the larger lots designed for the community.

“Concentrate rural open space in the eastern part of the property that drains to the North Branch, dedicate appropriate portions of this area to parkland and include in this contiguous open space a “loop” trail that connects to the proposed North Branch trail corridor in this area;”

The proposed plan shows that eastern portion of the property will become parkland, which includes two unnamed tributaries of North Branch and their stream valleys. The North Branch trail corridor is located considerably outside the stream valley in this area and traverses land that will become parkland as part of this preliminary plan. As a result, extending connecting trails are unnecessary to connect clustered neighborhoods on this property. The proposed plan shows shorter connecting trails from each cluster community as well as from Sequoyah Elementary School to create the loop recommended in the master plan.

“Incorporate open space into the clustered community to enhance the undeveloped nature of contiguous open space while providing residents with nearby recreation;”

Two open areas are incorporated into the northern cluster community, and a local street has been designed to provide a view of one open area from the community entrance at Bowie Mill Road. The proposed plan also locates an active play area between the two clustered communities and along the main local street serving the development. The environmental setting of the historic house on the property, while privately owned, also will provide passive open space for residents of the southern cluster community.

“Require dedication to parkland of areas needed for access to trails in the North Branch Stream Valley Park and for expansion of Bowie Mill Local Park.”

The proposed plan shows approximately three acres of additional dedication adjacent to Sequoyah Elementary School and Bowie Mill Local Park. As noted above, the design of the North Branch trail corridor locates the trail relatively near residential clusters. Connecting trails have been located on land designated for dedication.

Transportation

Proposed vehicle and pedestrian access for the subdivision will be safe and adequate with the proposed public improvements. The proposed vehicular access points are from Muncaster Mill Road and Bowie Mill Road. Ride-On route 53 operates along the entire length of Bowie Mill Road and along Muncaster Mill Road as far south as Colonel Zadok Magruder High School. Pedestrian connections are proposed within this residential development and to the adjoining Colonel Zadok Magruder High School and Sequoyah Elementary School.

Master-Planned Roadways and Bikeways

The following are the master-planned roadways and bikeways:

1. Roadways in accordance with the *Upper Rock Creek Master Plan*:
 - a. Muncaster Mill Road segment fronting the subject property is designated as an arterial, A-93, with a recommended 80-foot minimum right-of-way and an on-road bikeway.
 - b. Bowie Mill Road is designated as an arterial, A-42, with a recommended 80-foot minimum right-of-way and an on-road bikeway.

The existing alignment of Bowie Mill Road between Willow Mill Lane and Muncaster Mill Road is approximately 600 feet north of Needwood Road. The *Upper Rock Creek Master Plan* discusses Bowie Mill Road Relocated, but does not recommend the relocation [to terminate opposite Needwood Road] as the adverse environmental impacts would likely outweigh any transportation benefits.

Based on this language, it is staff's opinion that the right-of-way reservation shown on the preliminary plan is not needed.

- c. Needwood Road is designated as a primary residential street, P-8, with a recommended 70-foot minimum right-of-way and a shared use path.
 - d. Intercounty Connector is designated as a freeway, F-9, with a recommended 300-foot minimum right-of-way and a shared use path.
 - e. An on-road bikeway, B-3, is recommended through this site.
2. Bikeways in accordance with the *Countywide Bikeways Functional Master Plan*:
- a. Bike lanes, BL-35, is recommended on the segment of Muncaster Mill Road between Norbeck Road (MD 28) and Woodfield Road (MD 124).
 - b. Bike lanes, BL-20, is recommended along Bowie Mill Road.
 - c. Shared use path, SP-28, is recommended along the Intercounty Connector.

Relevant Transportation Project

The Intercounty Connector segment between Georgia Avenue (MD 97) and I-370 (i.e., known as "ICC Contract A") is anticipated to be funded for construction by SHA in their FY 2007-2012 Consolidated Transportation Program in early 2007. SHA has requested pre-qualified contractors to submit design-build proposals by November 15, 2006, and notice to proceed (NTP) is currently projected to occur in March 2007.

The Intercounty Connector bisects the Dungan Property. Both portions of the Dungan Property are recommended as future parkland. The portion of the Dungan Property to the north of the Intercounty Connector is identified in the Intercounty Connector Record of Decision as a replacement parkland property. The portion of the Dungan Property to the south of the Intercounty Connector is identified as future parkland in the *Upper Rock Creek Area Master Plan*, but its parkland status is not procedurally related to the Intercounty Connector study/project.

On September 28, 2006, the Planning Board voted to support an SHA proposal developed in conjunction with M-NCPPC and other agency staff to revise the Limits of Disturbance affecting Section 4(f) parkland in two locations including one location affecting the Dungan Property. SHA developed this proposal in response to the Planning Board's July 28, 2006 comments on Mandatory Referral No. 06809-SHA-1.

With no construction funding at this time, the ICC Contract A segment was not assumed to be in the roadway network in the traffic study submitted to satisfy the Local Area Transportation Review.

Adequate Public Facilities Review

The proposed residential development would generate the following peak-hour trips within the weekday morning peak period (6:30 to 9:30 a.m.) and evening peak period (4:00 to 7:00 p.m.):

Type of Housing Units	Number of Units	Weekday Peak Hour	
		Morning	Evening
Single-Family Detached Unit	158 units	123	151
Townhouses	28 units	13	23
Total Peak-Hour Trips	186	136	174

A traffic study was required to satisfy Local Area Transportation Review (LATR) because the proposed residential development generates 30 or more total peak-hour trips during the weekday morning and evening peak hours. From this traffic study, the table below gives the critical lane volume (CLV) values at the analyzed intersections:

Intersection	Weekday Peak Hour	Traffic Condition			
		Existing	Background	Total	Total Improved
Muncaster Mill Road and Bowie Mill Road	Morning	1,314	1,324	1,355	N/A
	Evening	1,263	1,279	1,319	N/A
Muncaster Mill Road and Needwood Road	Morning	1,397	1,421*	1,452*	1,205
	Evening	1,510*	1,529*	1,576*	1,361
Muncaster Mill Road and Avery Road	Morning	1,258	1,271	1,305	N/A
	Evening	1,246	1,259	1,294	N/A
Muncaster Mill Road and Site Access	Morning	N/A	N/A	1,213	N/A
	Evening	N/A	N/A	1,079	N/A

As indicated with an asterisk, only the CLV values at the intersection of Muncaster Mill Road and Needwood Road exceed the congestion standard of 1,400 for intersections located in the rural policy areas. The intersection capacity would be increased by constructing the separate right-turn lane on the Needwood Road approach that results in reducing the CLV below the 1,400 standard.

If the ICC is fully funded for construction between Georgia Avenue and I-370, the through peak-hour trips along Muncaster Mill Road would have an alternative travel route. The ICC Travel Analysis, Technical Report, dated November 2004, quantitatively analyzed the projected traffic changes on the existing roadway network if the ICC was constructed. The average daily traffic (ADT) along Muncaster Mill Road was projected to decrease by at least 10% with the ICC being an alternative travel route. In addition, the traffic study projected approximately 1,000 peak-hour trips approaching from each direction along Muncaster Mill Road at the intersection with Needwood Road. Thus with ICC construction funding,

approximately 100 (i.e., 10% of 1,000) through peak-hour trips could be diverted from this intersection. A reduction of approximately 100 peak-hour trips would be sufficient to satisfy Local Area Transportation Review.

Under the current *Annual Growth Policy*, Policy Area Transportation Review is no longer required as part of APF test.

Over Length Cul-de-Sac

The roadway design for the property includes the creation of a 2,400 foot long cul-de-sac along the northern property boundary. Per Section 50-26(d) of the Montgomery County Code, a cul-de-sac road should be no longer than 500 feet unless a greater length is justified by reason of property shape, size, topography, large lot size, or improved street alignment. It is staff's opinion that the proposed cul-de-sac is justified because of the presence of a stream valley buffer and associated topography which eliminates the possibility of looping the road around without environmental damage. The surrounding properties are recorded lots or stream valley park, and also do not provide an opportunity to connect the roadway. Therefore, in staff's opinion the design of the road as an over length cul-de-sac is acceptable.

Environment

The 439-acre property is located at the intersection of Muncaster Mill and Bowie Mill Roads. The property surrounds Magruder High School and is bounded by M-NCPPC's Bowie Mill Park, Sequoyah Elementary School, and Bowie Mill Road to the west, Bowie Mill Estates subdivision to the north, M-NCPPC's North Branch Stream Valley Park to the east, and Muncaster Mill Road to the south. The property is zoned RNC and is located in the Upper Rock Creek Special Protection Area. The applicant proposes to develop the site with single-family detached units, MPDU townhomes, and associated infrastructure. Only 131.5-acres are within the proposed development envelope for this subdivision.

Two Natural Resource Inventory/Forest Stand Delineations (NRI/FSDs) were submitted for the subject property. The NRI/FSDs delineate and identify the existing conditions on the site including on site environmental buffers, forests, topographical contours and soils. The site includes streams, floodplains, and wetlands converted into lowland pastures, upland agricultural fields and forest. The subject site includes 134.5 acres of existing forest. The forest is adjacent to the existing North Branch Stream Valley Park or along streams and wetlands that cut into the Casey and Dungan Properties. The site includes approximately 80 acres of environmental buffers.

Preliminary/Final Water Quality Plan

Water quality plans are required as part of the Special Protection Area regulations. Under the SPA law, Montgomery County Department of Permitting Services (MCDPS) and the Planning Board have different responsibilities in the review of the water quality plan. MCDPS has reviewed and conditionally approved the elements of the final water quality plan under their

purview. As part of the final water quality plan, MCDPS established several site performance goals including:

1. Maintain the natural on-site stream channels.
2. Minimize storm flow run off increases.
3. Minimize increases to ambient water temperatures.
4. Protection of streams and aquatic life habitat.
5. Minimize sediment loading.
6. Maintain stream base flows.
7. Protect springs, seeps, and wetlands.
8. Minimize nutrient loading and control insecticides, pesticides and toxic substances.

To help meet the performance goals, the stormwater management plan requires water quality control and quantity control to be provided through an extensive system of linked best management practices (BMPs). Channel protection measures for this site will be provided via extended detention 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 combination of structural and non-structural measures that include dry wells, surface sand filters, bio-filters, dry swales and grassed channels. All open section streets will have a two-foot wide flat bottom to provide water quality pretreatment.

Sediment control will be addressed through a combination of traps and basins, earth dikes, and super silt fencing. The storage volume in sediment control traps and basins will require a minimum of 125% of the normally required volume. Flocculants or other similar materials are required to increase the sediment removal efficiency in the basins and traps.

The Planning Board responsibility is to determine if the environmental guidelines for special protection areas, forest conservation requirements, and site imperviousness requirements are satisfied. This discussion follows.

Environmental Guidelines

The environmental guidelines for SPAs require examination of many tools to maximize achievement of site performance goals. For instance, the goal of protecting seeps, springs, and wetlands is better achieved with naturalized buffers surrounding these areas. The natural resource inventory for the Casey-Dungan properties identified the environmental buffers. Environmental buffers include wetlands and wetland buffers, floodplains, and streams and stream valley buffers. The application proposes a few encroachments into the environmental buffers. The encroachments include hard surface paths, stormwater management outfalls, and two stormwater management facilities.

The applicant will construct hard surface trails on land to be dedicated to the Parks Department. Environmental Planning staff in conjunction with the Parks Department walked the proposed trail alignment. The amount of encroachment into the buffers is minimized and the trail is pulled as far from the stream and wetlands as possible. The proposed path locations are proposed in non-forested environmental buffers that will be forested as part of the special

protection area requirements. Environmental Planning supports this permanent encroachment because of the efforts undertaken to minimize the encroachments into the environmental buffers and the encroachment will not result in any forest removal.

A few stormwater management outfalls must enter into the environmental buffers in order to provide safe conveyance stormwater discharges at non-erosive velocities. In order to limit erosion from stormwater management facilities the outfall location must occur in a flat location. The proposed discharge locations are in non-forested environmental buffers that will eventually be forested as part of the special protection area requirements. Environmental Planning supports this encroachment and has supported similar encroachments on other plans.

The last types of encroachment in the environmental buffers are stormwater management facilities primarily associated with the hard surface trail. These facilities must be located in the environmental buffers when the hard surface trail is located in the buffer. There is one location where runoff from a roadway, in addition to runoff from the hard surface trail, will be treated in the buffer. This area is designated as SWM BF 1 and 2 and located along proposed Street "C" and is adjacent to Sequoyah Elementary School. The most appropriate location for stormwater management is in the environmental buffer at this site. The areas will be in separate stormwater management parcels and the type of facility proposed is not a pond but bio-filters. The parcels will be planted as part of the Department of Permitting Services stormwater management facility landscape requirements. The total amount of encroachment for SWM BF 1 and 2 is approximately 4,300 square feet, which is less than ½ of the size of the combined area for the two facilities. Environmental Planning supports the location of this facility because it treats stormwater runoff from the proposed hard surface trail and the roadway. In addition, moving the stormwater management facility further from the environmental buffer to keep the facility entirely outside of the buffer would result in less land dedicated to the Parks Department for active recreational uses on the opposite side of Street "C".

As part of the *Environmental Guidelines* all unforested stream buffers must be reforested. The plan submitted does not show reforestation of all environmental buffers. The final forest conservation plan must be revised showing reforestation of all unforested stream buffers. There is one section of unforested buffers that the applicant is proposing for wetland mitigation. Environmental Planning supports the creation of new wetlands within the buffer but that area will need to be denoted on the forest conservation plan. The applicant will either dedicate the buffers to the Parks Department, as shown on the preliminary plan of subdivision, or place forest conservation easements on all environmental buffers and all forest retention areas that retain in private ownership.

Forest Conservation

Since this application is utilizing an RNC MPDU optional method of development the plan must comply with Section 22A-12(f) of the Montgomery County code. This section requires developments utilizing an optional method to meet the appropriate forest conservation threshold on site. The applicant will meet the requirements of Section 22A-12(f) by preserving forest on site. The applicant is also required to plant more than 25 acres of unforested stream buffers.

Environmental Planning requests a condition of approval for the construction of a split rail fence at the rear of lots backing to planting areas. This is to both protect the forest plantings from homeowner encroachment but also to clearly delineate the category I forest conservation easement/park dedication areas.

The Environmental Guidelines require accelerated reforestation of stream valley buffers and staff is requesting a condition requiring planting to occur during the first planting season after issuance of the first sediment control permit. A five-year maintenance period is required for all forest plantings in Special Protection Areas per the Environmental Guidelines.

Throughout the NRI/FSD review process and subsequent site visits by Environmental Planning and Natural Resource staff numerous invasive and exotic species were found in the stream buffers, existing forests and especially on the Dungan property. Environmental Planning is requesting an additional conditional of approval requiring the applicant to develop and implement an invasive and exotic management control program to run concurrently with the required maintenance and management agreement. The management control program must include supplemental planting. By developing and implementing an invasive management plan, newly planted trees will have a better chance of survival and should begin to shade out the competing vegetation. An invasive management program is necessary to prevent the entire area designated for reforestation and Park dedication from becoming overwhelmed with invasive material. The non-native and invasive management plan approved by both Environmental Planning and the Parks Department.

Site Imperviousness

The Upper Rock Creek Special Protection Area has an 8 percent impervious limitation. The applicant, Oxbridge Development Corporation, is proposing a development that creates approximately 35 acres, or 8 percent of the gross tract area, of new impervious surfaces. This imperviousness is associated with internal streets, sidewalks, driveways, building footprints, parking areas, and the hard surface trail. The 35 acres of imperviousness does not include "improvements" homeowners may make to their lots after taking possession of the units. These improvements can include things like patios, sheds, swimming pools, pool decks etc.

Consistent with other plans with impervious limitations, Environmental Planning requests the developer to enter into an impervious agreement that identifies the total amount of impervious surfaces available, the number and location of lots in impervious reservation and the last lots to be released. Environmental Planning requests a conditional approval that identifies 10 percent of the lots, or 19 single family detached single family homes, in reservation as an impervious reservation lots. These lots would only become available to build upon once the applicant can demonstrate that there are sufficient impervious surfaces remaining to allow building permits to be released on these lots. The impervious lots shall be denoted on the certified site plan. The applicant shall identify the last five building permits to be released in order to ensure a logical release of building permits.

Noise

The applicant submitted a noise study analyzing the impacts of existing and current traffic projects for Muncaster Mill Road and the future ICC on the proposed development. The ICC bisects the property and proposed house locations will be negatively impacted by noise. The State Highway Administration's noise study prepared in support of the ICC did not study potential noise impacts on the subject property and no noise mitigation is proposed along this section of the property that bisects the subject property. Therefore, it becomes the responsibility of this applicant to provide adequate noise mitigation for the noise-impacted units.

The plans submitted show a 100-foot set back from the ICC right-of-way to the beginning of the residential lots. Even with this 100-foot set back the residential units will be negatively impacted by vehicle noise. The noise analysis recommends board-on-board noise fence that ranges from 6 feet in height to 12 feet in height. Both Environmental Planning and Development Review believe that the noise fence should be replaced with a berm and fence combination with the majority of the noise mitigation occurring with a landscape berm. There is sufficient space in the 100-foot wide to provide a landscape berm.

The June 2005 noise analysis indicates that it is "impossible to estimate the precision of the analysis" because the final grades for the roadway were not determined and recommends once the final grades are determined that the analysis be revised. Since June 2005 the final grades for the roadway have been determined. Therefore, the applicant must revise the noise analysis to ensure the berm and fencing combination is of sufficient height to mitigation exterior and interior noise levels. This must be done prior to certification of the site plan.

The noise analysis also indicates that modifications will be necessary to standard construction practices to achieve an interior noise level of 45 dBA Ldn. Once the architectural drawings are available the interior noise levels must be evaluated to determine if special and additional acoustical treatments are necessary to achieve at 45 dBA Ldn. The applicant will need to submit a second noise study identify the specific acoustical treatments that will be necessary for the impacted residential units.

Relocated Bowie Mill Road

Environmental Planning does not support the relocation of Bowie Mill Road. The Upper Rock Creek Master Plan does not support the relocation of Bowie Mill Road. The transportation study submitted in support of the preliminary plan of subdivisions indicates that the Bowie Mill Road does not need to be relocated. Any reference of designation of putting a relocated Bowie Mill land area in reservation should be removed from all approved plans.

Historic Preservation

On December 6, 2006, the Montgomery County Historic Preservation Commission (HPC) reviewed a proposed Preliminary Plan of subdivision (#1-06032) that involves a historic site, the J.H. Cashell Farm (*Master Plan* Site #22/25). This preliminary plan proposes to preserve the historic house and an identified contributing barn on proposed Lot 1, which will be 5.01 acres in size. The barn will require relocation to the lot. The proposal includes a reduction

in the environmental setting of this historic resource to include the boundaries of proposed Lot 1. The HPC recommended approval of the proposed subdivision with the conditions noted above.

Compliance with the Subdivision Regulations and Zoning Ordinance

This application has been reviewed for compliance with the Montgomery County Code, Chapter 50, the Subdivision Regulations. The application meets all applicable sections. Access and public facilities will be adequate to support the proposed lots and uses. The proposed lot sizes, widths, shapes and orientation are appropriate for the location of the subdivision.

The lots meet the requirements for the RNC zone as specified in the Zoning Ordinance. The lots as proposed will meet all the dimensional requirements for area, frontage, width, and setbacks in that zone. A summary of this review is included in attached Table 1. The application has been reviewed by other applicable county agencies, all of whom have recommended approval of the plan (see Attachment C for referenced agency correspondence).

Citizen Correspondence and Issues

This application pre-dated the recent requirement for pre-submission meetings with interested parties, however, the application and the date of the public hearing were noticed. One letter was received prior to this staff report concerning the application. The letter, dated October 6, 2005, was from Espy S. Driscoll on behalf of the Bowie Mill Civic Association. In her letter, Ms. Driscoll stated the association wanted: open space dedicated to MNCPPC in its natural state in perpetuity; the impervious surfaces reduced from 8.5% to 8.0% of the subject property; the development to be hidden from view along Muncaster Mill and Bowie Mill Roads; public access to MNCPPC dedicated parkland; alignment of Bowie Mill Road with Muncaster Mill Road; the 14 MPDU townhouses to become MPDU duplexes; and that the name of the subdivision be changed since the surrounding community is already known by such name.

The open space on the subject property will be dedicated to MNCPPC or owned by the Homeowners Association. Of the approximately 293 acres of open space, approximately 268 will be dedicated to MNCPPC. Revisions to the initial preliminary plan reflect a reduced impervious surfaces percentage, to 8.0% of the site. The development will be buffered from Muncaster Mill and Bowie Mill Roads through reservation parcels, open space parcels, extensive landscaping by the applicant, storm water management parcels and environmental buffers. Public access will be provided to MNCPPC dedicated park land via a paved trail which varies in width from 6 to 8 feet. This trail network will also connect to Magruder High School and Sequoyah Elementary School.

The layout of the MPDU townhomes has been modified since the original submission. Rather than duplexes, the townhouses are proposed in sets of three. This allows for the two side entrances and one street-facing entrance, which will help the townhomes to resemble the adjacent detached units. The scale of these triplex units will also be more similar to the proposed one-family detached dwelling units than a duplex would be. A decision regarding the ultimate name of this new community as may be reflected on any exterior sign, will be made by the

developer. The subdivision name reflected on the record plat will be determined by staff according to standard practices.

It is staff's opinion that the citizen concerns have been adequately addressed by the proposed plan, or with the recommended changes.

CONCLUSION

Staff's review of Preliminary Plan #1-06032, Bowie Mill Estates, indicates that the plan conforms to the recommendations of the Upper Rock Creek Master Plan. The proposed preliminary plan is consistent with the master plan goal to cluster residential development in order to preserve undeveloped open space. The proposed preliminary plan complies with Chapter 50 of the Montgomery County Code, Subdivision Regulations, in that public facilities will be adequate to support and service the area of the proposed subdivision. Staff further believes that the size, width, shape, and orientation of the proposed lots are appropriate for the location of the subdivision. The application has been reviewed by other applicable county agencies, all of whom have recommended approval of the plan. Therefore, approval of the application with the conditions specified above is recommended.

Attachments

Attachment A – Vicinity Development Map

Attachment B – Proposed Development Plan (overall)

Attachment C – Proposed Development Plan (larger scale view)

Attachment D – Citizen Correspondence

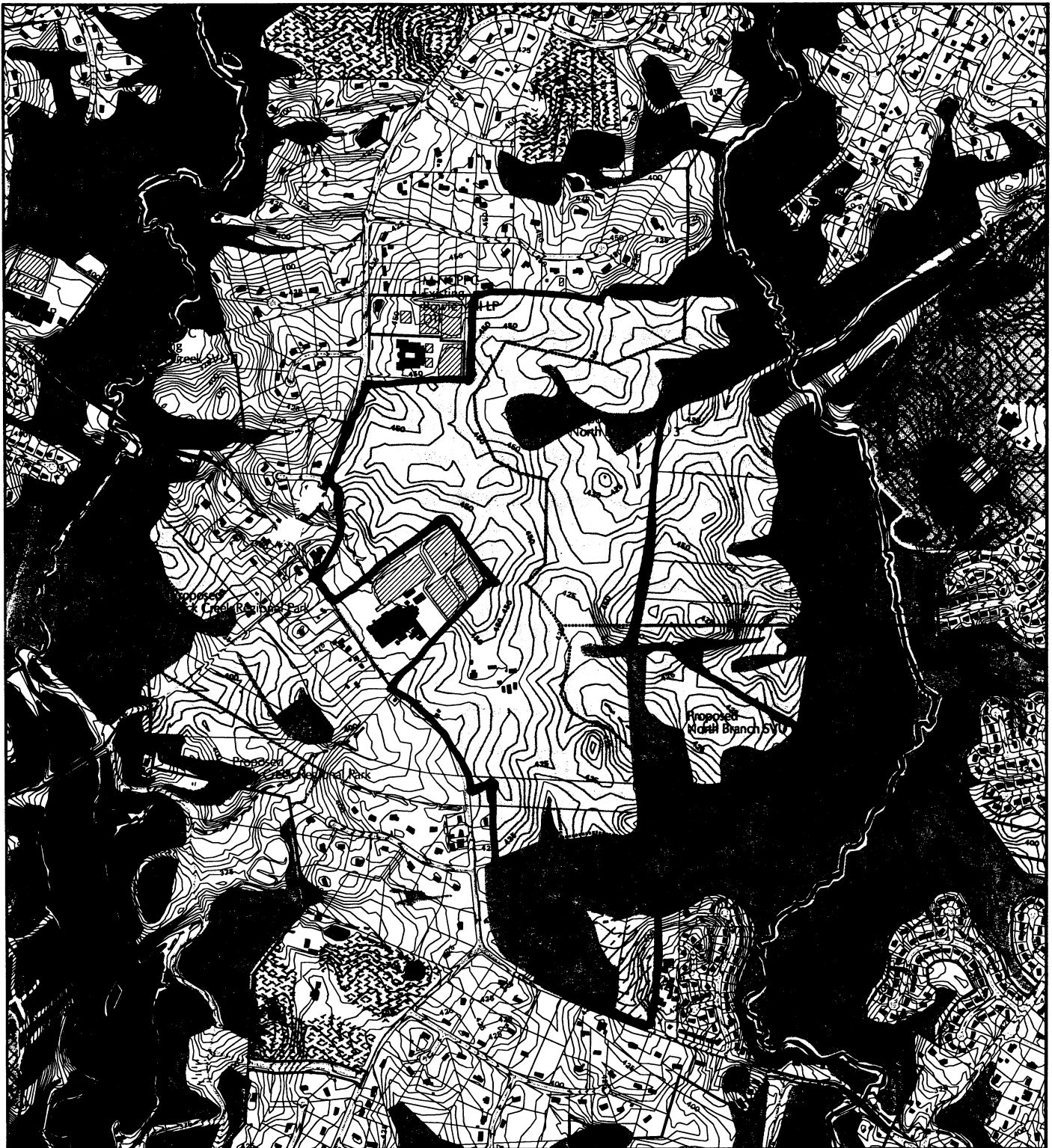
Attachment E – Agency Letters

TABLE 1: Plan Checklist and Data Table

Plan Name: Bowie Mill Estates				
Plan Number: 12006032				
Zoning: RNC				
# of Lots: 186				
# of Outlots:				
Dev. Type: Residential, Optional Method				
PLAN DATA	Zoning Ordinance Development Standard	Proposed for Approval on the Preliminary Plan	Verified	Date
Minimum Lot Area 1-family detached	4,000 sq. ft. Min.	12,500 sq. ft. is min. proposed		12/29/06
Townhouse	Not specified ¹	2,941 sq. ft. is min. proposed		
Lot Width	Not specified ¹			
Lot Frontage	25 ft.	Must meet minimum		12/29/06
Setbacks				
Front	15 ft. Min.	Must meet minimum		12/29/06
Side	0, or 8 ft. Min. where provided 8 ft. Min./ 16 ft. total	Must meet minimum		12/29/06
Rear	Not specified ¹ 30 ft. Min. if adjacent to a lot not developed under optional method	Must meet minimum		12/29/06
Height	35 ft. Max.	May not exceed maximum		12/29/06
Max Resid'l d.u. or Comm'l s.f. per Zoning	1.22 dwelling units/acre Max.	0.40 dwelling units/acre		12/29/06
MPDUs	15%	15%		12/29/06
Rural Open Space	65-85%	67%		12/29/06
Site Plan Req'd?	Yes			12/29/06
FINDINGS				
SUBDIVISION				
Lot frontage on Public Street	Yes			12/29/06
Road dedication and frontage improvements	Yes	SHA, DPWT Agency letters		5/12/06 12/26/06
Environmental Guidelines	Yes	Staff memo		12/21/06
Forest Conservation	Yes	Staff memo		12/21/06
Master Plan Compliance	Yes	Staff memo		11/30/06
Historic Preservation	Yes	Staff memo		12/29/06
ADEQUATE PUBLIC FACILITIES				
Stormwater Management	Yes	Agency letter		11/21/06
Water and Sewer (WSSC)	Yes	Agency Comments		10/11/05
Well and Septic	N/A			
Local Area Traffic Review	Yes	Staff memo		12/21/06
Fire and Rescue	Yes	Agency letter		11/20/06

¹ Development Standards will be established by Site Plan approved pursuant to 59-D-3 of the County Code.

BOWIE MILL ESTATES (1-06032) (8-06011)



Map compiled on October 03, 2005 at 11:13 AM | Site located on base sheet no - 223NW06

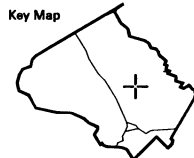
NOTICE

The planimetric, property, and topographic information shown on this map is based on copyrighted Map Products from the Montgomery County Department of Park and Planning of the Maryland - National Capital Park and Planning Commission, and may not be copied or reproduced without written permission from M-NCPPC.

Property lines are compiled by adjusting the property lines to topography created from aerial photography and should not be interpreted as actual field surveys. Planimetric features were compiled from 1:14400 scale aerial photography using stereo photogrammetric methods.

This map is created from a variety of data sources, and may not reflect the most current conditions in any one location and may not be completely accurate or up to date. All map features are approximately within five feet of their true location. This map may not be the same as a map of the same area plotted at an earlier time as the data is continuously updated. Use of this map, other than for general planning purposes is not recommended. - Copyright 1998

Key Map



N



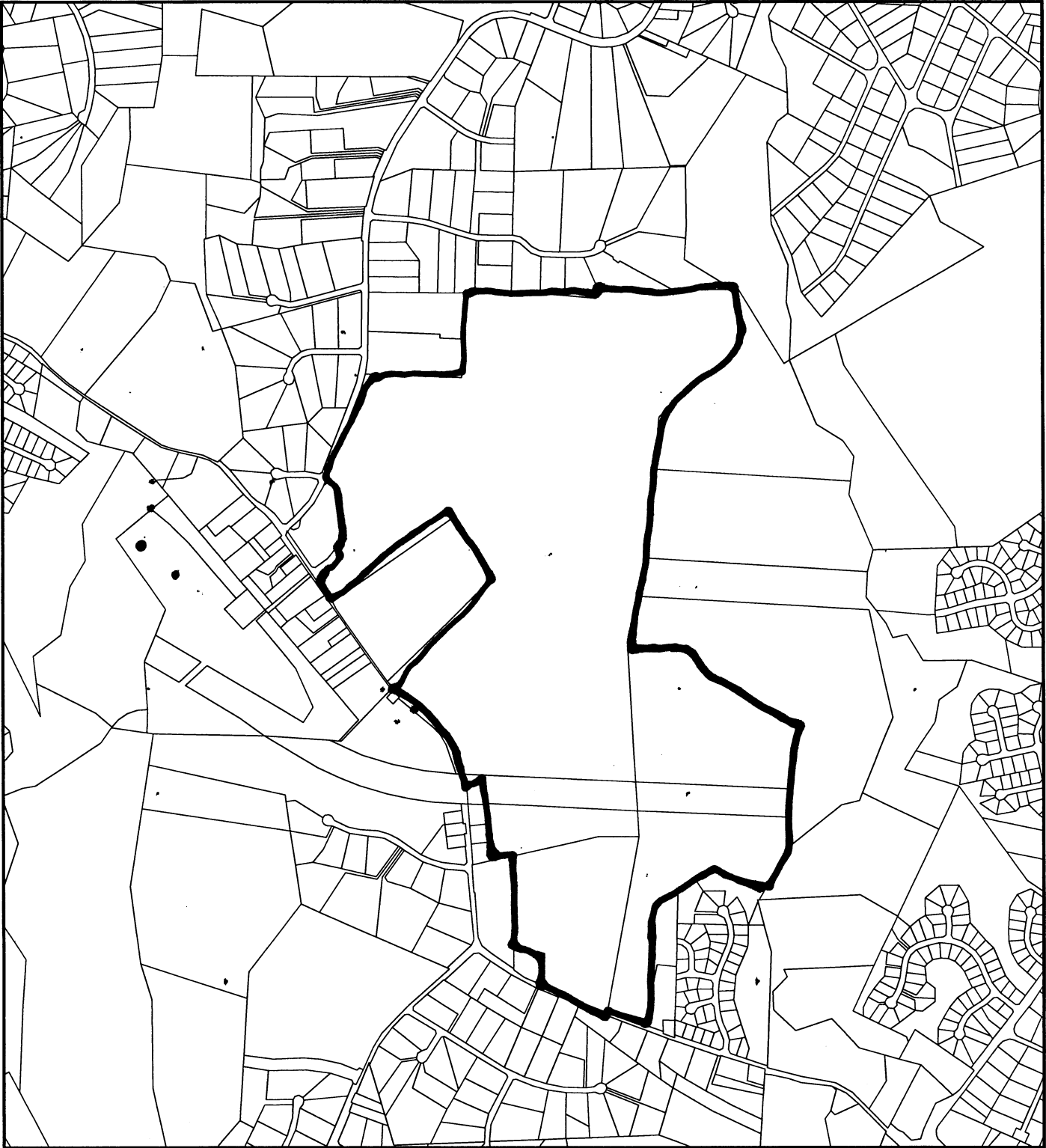
Research & Technology Center



1 inch = 1500 feet
1 : 18000

MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
8787 Georgia Avenue - Silver Spring, Maryland 20910-3760

BOWIE MILL ESTATES (1-06032) (8-06011)



Map compiled on October 03, 2005 at 11:11 AM | Site located on base sheet no - 223NW06

NOTICE

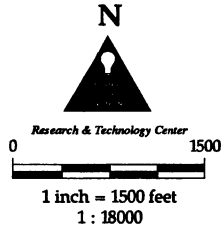
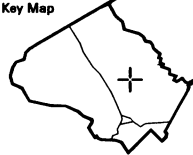
The planimetric, property, and topographic information shown on this map is based on copyrighted Map Products from the Montgomery County Department of Park and Planning of the Maryland -National Capital Park and Planning Commission, and may not be copied or reproduced without written permission from M-NCPPC.

Property lines are compiled by adjusting the property lines to topography created from aerial photography and should not be interpreted as actual field surveys. Planimetric features were compiled from 1:14400 scale aerial photography using stereo photogrammetric methods.

This map is created from a variety of data sources, and may not reflect the most current conditions in any one location and may not be completely accurate or up to date. All map features are approximately within five feet of their true location. This map may not be the same as a map of the same area plotted at an earlier time as the data is continuously updated. Use of this map, other than for general planning purposes is not recommended. - Copyright 1998

MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
8787 Georgia Avenue - Silver Spring, Maryland 20910-3760

Key Map



Espy S. Driscoll
Bowie Mill Civic Association
5712 Foggy Lane
Derwood, MD 20855
 (301) 869-9287 e-mail: *espy-driscoll@verizon.net*

October 6, 2005

Ms. Catherine Conlon
 Maryland National Capital Park and Planning Commission
 Development Review Division
 8787 Georgia Avenue
 Silver Spring, MD 20910

Re: Development Review Committee review of the Casey Property – October 11, 2005
 Bowie Mill Estates Preliminary Plan # 1-06032
 Bowie Mill Estates Site Plan # 8-06011

Dear Ms Conlon,

The Bowie Mill Civic Association has reviewed the above referenced plans and has a number of concerns and requests to make regarding these plans. This is a very large development in the Upper Rock Creek Master Plan area and as you probably know this area has had major changes made to the previous RE-1 and RE-2 zoning and septic regulations. In addition, the approval for sewer for the Casey and Dungan properties was predicated on the entire Dungan property being dedicated to MNCPPC and its yield also being built on the Casey property. We are a semi rural area and this development with the zoning change to RNC with cluster housing and sewer will radically change the character of our community forever. It will exacerbate our existing over crowded schools and heavy traffic with failing intersections conditions on Bowie Mill and Muncaster Mill roads. The existing infrastructure cannot handle any more.

1. Open Space

A major concern to us is the resolution and language of the RNC zoning code that states the disposition and protection of the open space that is dedicated to MNCPPC. **It must state that all open space dedicated to MNCPPC must be held in its natural state in perpetuity.** This must be resolved before the plan comes up for a Public Hearing. The language for the conservation lots should also be resolved before the Public Hearing.

2. Impervious Percent

This is a development in a Special Protection Area with an overlay zone of 8% imperviousness. This plan shows an impervious percent of 8.5%. It must be reduced to 8%. The impervious calculation includes the ICC acreage in the total gross tract area which helps to reduce the impervious percent. Other wise it would be 8.9%. On the other hand the calculation for the amount of space to be dedicated to MNCPPC does not include the ICC acreage and therefore reduces the amount of space to be dedicated. Shouldn't it be deducted from both calculations?

Espy S. Driscoll
Bowie Mill Civic Association
5712 Foggy Lane
Derwood, MD 20855

(301) 869-9287 e-mail: espy-driscoll@verizon.net

3. View from Bowie Mill and Muncaster Mill Roads

The development houses should not be seen from the roads. There must be at least 300 feet of appropriately landscaped buffers/open space between the roads and the new houses. Storm Water Management ponds are shown around the perimeter on Bowie Mill and Muncaster Mill Roads. Are these considered to be the buffer? If so, SWMs are apt to be unsightly and not in keeping with the semi rural character of the area. They need to be landscaped and camouflaged or preferably be placed somewhere else and just have a wide buffer of landscaping?

There is an existing SWM adjacent to Bowie Mill at Sequoyah/MNCPPC which has a black chain link fence around it with weeds all around. This mars the landscape and begs the question of who maintains the SWMs and ensures that they are functioning properly.

4. Access to MNCPPC dedicated Parkland

There must be public access to the dedicated open space and parkland for the existing community as well as the new development. Logical access would be via Sequoyah and Magruder schools. The preliminary plan states acreage for "Trails" and "Dungan Trail". Where are they?

5. Bowie Mill Road Relocated

How will this be done in terms of number of turn lanes? It should become a full fledged intersection at Muncaster Mill and Needwood roads, but apparently this cannot be done for environmental reasons and lack of space for the required turn lanes. Therefore, one proposal had been to keep the existing Bowie Mill road. There are now two traffic lights less than 600 feet apart, one at Bowie Mill and Muncaster Mill roads and the other at Needwood and Muncaster Mill roads. During rush hours this creates a large-traffic jam. Creating a right turn lane from Needwood on to Muncaster Mill road would help.

6. MPDU's

Replace the 14 MPDU townhouses behind Magruder with MPDU duplexes. We have seen a picture of the Pulte model duplex and suggest that that be used for all of the MPDU's.

7. Name of the Development

The existing community that adjoins and surrounds the proposed development was built over 30 years ago and was named "Bowie Mill Estates". Please give this one another name.

Thank you for reviewing and considering our concerns and questions. We would like to work with you in resolving the issues.

Sincerely,

Espy S. Driscoll
Bowie Mill Civic Association



DEPARTMENT OF PERMITTING SERVICES

Douglas M. Duncan
County Executive

November 21, 2006

Robert C. Hubbard
Director

Ms. Cheryl Hannan
Dewberry & Davis LLC
203 Perry Parkway, Suite 1
Gaithersburg, Maryland 20877

Re: **Preliminary/Final Water Quality Plan**
for Casey-Dungan Tract
SM File #: 215574
Tract Size/Zone: 468.53 Ac./RNC
Tax Plate: HT121, HS123, GT561, GS563
Parcels: P600, P707, P400, N439, N466
Montg. Co. Grid: 20G103, H10 and H11
Watershed: Upper Rock Creek

SPECIAL PROTECTION AREA

Dear Ms. Hannan:

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

Site Description: The site is located at the intersection of Muncaster Mill Road and Bowie Mill Road, and surrounds Magruder High School. This proposal is for single-family dwellings and MPDU's to be built inside a 131.5 acre envelope of development within a 468 acre site. The rest of the site will remain as open space. This site is located within the portion of the Upper Rock Creek watershed that has been designated as a Special Protection Area.

Stormwater Management: Channel protection measures for this site will be provided via extended detention dry ponds where necessary. 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 combination of structural and non-structural measures that include dry wells, grassed channels, surface sand filters and biofilters. All of the streets will be open section and have a two foot wide flat bottom to provide water quality redundancy and pretreatment.

Sediment Control: Redundant sediment control structures are to be used throughout the site. Sediment traps/basins with forebays will be acceptable. The total storage volume is to be a minimum of 125% of the normally required volume. All sediment trapping structures are to



be equipped with dewatering devices (forebays are to dewater to the traps/basins). Also, due to the sensitive nature of the watershed coupled with the large amount of proposed development, the use of flocculants, compost material or other measures to increase the effectiveness of sediment removal may 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. 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.
3. The site grading shall be phased whenever possible to limit disturbance and immediate stabilization is to be emphasized.

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

1. Maintain the natural on-site stream channels.
2. Minimize storm flow run off increases.
3. Maintain stream baseflow.
4. Minimize increases to ambient water temperatures.
5. Protection of streams and aquatic life habitat.
6. Minimize sediment loading.
7. Maintain stream base flows.
8. Protect springs, seeps, and wetlands.
9. Minimize nutrient loading and control insecticides, pesticides 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). The monitoring requirements are described in the attachment from DEP (Description of BMP Monitoring Requirements) dated October 18, 2006.

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. **One year of pre-construction monitoring must be completed prior to the issuance of a sediment control permit.**

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 subsequent plan reviews:

1. Provide clear and unimpeded access to each cell of all stormwater management structures from a public right-of-way.
2. All of the stormwater management (SWM) structures must be on a SWM parcel.
3. Recharge volume is not to be subtracted from water quality volume.
4. 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.
5. Provide recharge manholes and inlets (open or perforated bottoms on stone) where feasible in back of lot storm drain systems.
6. All of the proposed recharge structures, including dry wells, are to be located at least 20' from house foundations. Also, spread the dry wells so that they aren't clustered in one location.
7. One foot of stone (dead storage) is to be provided below the outlet pipe of all of the proposed surface sand filters to provide additional groundwater recharge.
8. Add dry wells for the backs of the lots 1, 8, 9 and 10 block G, 1 through 14 block C and where not provided for backs of lots in blocks G and I.
9. The proposed use of porous pavement for the trail and the bikepath along Muncaster Mill Road is acceptable. However, you will need to get approval from MNCPPC Parks department and the Department of Public Works and Transportation that this will be acceptable to them if they will be ultimately responsible for maintenance.
10. 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 must be submitted as part of the initial submittal of the detailed stormwater management/sediment control plan. The final document is to be submitted prior to plan approval.
11. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
12. Additional storm drain inlets are needed in the backs of lots in areas B, H, K and L to provide safe conveyance of runoff.
13. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
14. 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.

Cheryl Hannan
November 20, 2006
Page 4

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:dpm:CN215574

cc: C. Conlon (MNCPPC-DR)
M. Pfefferle (MNCPPC-ED)
D. Marshall (MCDEP)
L. Galanko
SM File # 215574

Qn: on-site 131.5 ac.
Qt: on-site 131.5 ac.
Recharge provided on-site



DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION

Isiah Leggett
County Executive

Arthur Holmes, Jr.
Director

December 29, 2006

Ms. Catherine Conlon, Subdivision Supervisor
Development Review Division
The Maryland-National Capital
Park & Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910-3760

RE: Preliminary Plan #1-06032
Bowie Mill Estates (2nd Amendment)

Dear Ms. Conlon:

We wish to modify the following conditions of our prior amended approval letter dated 12/26/06 for the above preliminary plan as follows (all conditions of that letter and also original approval letter dated 03/22/06 that are not mentioned herewith remain in effect as stated):

Condition 12 to be modified as:

"In accordance with Section 49-35(e) of the Montgomery County Code, sidewalks are required to serve the proposed subdivision. Sidewalks are to be provided on both sides of the proposed public streets unless the applicant is able to obtain a waiver from the appropriate government agency."

Condition 20B to be modified as:

"Street grading, paving, shoulders, sidewalk, side drainage ditches and appurtenances, and street trees along Bowie Mill Road site frontage per arterial roadway standards (MC 213.04)."

Condition 21 to be modified as:

"In accordance with Section 50-35(n) of the Montgomery County Code, we recommend the Montgomery County Planning Board require the applicant to construct an off-site sidewalk along the Bowie Mill Road (hospice frontage) and Muncaster Mill Road to connect with existing sidewalk on the Magruder High School frontage."

Thank you for the opportunity to review this preliminary plan. If you have any questions or comments regarding this letter, please contact me at sam.farhadi@montgomerycountymd.gov or (240) 777-6000.

Sincerely,

Sam Farhadi, P.E., Senior Planning Specialist
Traffic Engineering and Operations Section

Division of Operations

101 Orchard Ridge Drive, 2nd Floor • Gaithersburg, Maryland 20878
240-777-6000 • 240-777-6013 TTY • 240-777-6030 FAX
www.montgomerycountymd.gov

Ms. Catherine Conlon
Preliminary Plan No. 1-06032
December 29, 2006
Page 2

m:/subdivision/farhas01/prcliminary plans/ 1-06032, Bowie Mill Estates_gml revised_2.doc

cc: Ron Mijan, Dewberry and Davis
Stephen Kaufman, Linowes and Blocher, LLP
Elliot Totah, Oxbridge Development
Shahriar Etemadi; M-NCPPC TPD
Raymond S. Trout; MCPS
Joseph Y. Cheung; DPS RWPPR
Sarah Navid; DPS RWPPR
Henry Emery; DPS RWPPR
Raymond Burns, MSHA
C. Robert Simpson; DPWT DO
David C. Adams; DPWT TEOS
Gregory M. Leck, DPWT TEOS



DEPARTMENT OF PUBLIC WORKS
AND TRANSPORTATION

Douglas M. Duncan
County Executive

Arthur Holmes, Jr.
Director

March 22, 2006

Ms. Catherine Conlon, Subdivision Supervisor
Development Review Division
The Maryland-National Capital
Park & Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910-3760

RE: Preliminary Plan #1-06032
Bowie Mill Estates

Dear Ms. Conlon:

We have completed our review of the preliminary plan dated 9/6/05. This plan was reviewed by the Development Review Committee at its meeting on 10/11/05. We recommend approval of the plan subject to the following comments:

All Planning Board Opinions relating to this plan or any subsequent revision, project plans or site plans should be submitted to DPS in the package for record plats, storm drain, grading or paving plans, or application for access permit. Include this letter and all other correspondence from this department.

1. Show all existing planimetric and topographic details specifically paving, storm drainage, driveways adjacent and opposite the site, sidewalks and/or bikeways, utilities as well as existing rights of way and easements on the preliminary plan.
2. Necessary dedication Bowie Mill Road, Muncaster Mill Road, Inter County Connector and Needwood Road in accordance with the master plan.
3. Full width dedication and construction of all interior public streets.
4. Grant necessary slope and drainage easements. Slope easements are to be determined by study or set at the building restriction line.
5. Grade establishments for all new public streets and/or pedestrian paths must be approved prior to submission of the record plat.



Division of Operations

101 Orchard Ridge Drive, 2nd Floor • Gaithersburg, Maryland 20878
240/777-6000, TTY 240/777-6013, FAX 240/777-6030

6. A Public Improvements Easement may be necessary along streets 'C' thru 'J', in order to accommodate the required sidewalk construction. Prior to submission of the record plat, the applicant's consultant will need to determine if there is sufficient right of way to permit the sidewalk construction. If not, the applicant will need to either dedicate additional right of way or execute a Declaration of Public Improvements Easement document. That document is to be recorded in the Land Records of Montgomery County, with the liber and folio referenced on the record plat. Unless otherwise noted, the Public Improvements Easement is to be a minimum width of ten (10) feet with the overlapping Public Utilities Easement being no less than twenty (20) feet wide.
7. We did not receive complete analyses of the capacity of the downstream public storm system(s) and the impact of the post-development runoff on the system(s). As a result, we are unable to offer comments on the need for possible improvements to the system(s) by this applicant. Prior to approval of the record plat by the Department of Permitting Services (DPS), the applicant's consultant will need to submit this study, with computations, for review and approval by DPS. Analyze the capacity of the existing downstream public storm drain system and the impact of the post-development One Hundred (100) year storm runoff on same.
8. Provide horizontal curve radii for proposed public streets.
9. The following modifications are to be made at the entrance of the subdivision:
Continue Needwood Road as a primary residential roadway and make the connection to Bowie Mill Road at Willow Hill Lane at a right angle. Also reconstruct the Bowie Mill road to arterial standards from Willow Hill Lane to Muncaster Mill Road.
10. The sight distances study has not been accepted. Prior to approval of the record plat by DPS, the applicant's engineer will need to submit a revised sight distances certification. The revised form will need to reflect the changes detailed in the above item#9.
11. This site is located in the Rock Creek (Class III) watershed. In accordance with Section 49-35(k) of the Montgomery County Code, curb and gutter may not be installed in an environmentally sensitive watershed unless certain waiver criteria have been satisfied.
12. In accordance with Section 49-35(e) of the Montgomery County Code, sidewalks are required to serve the proposed subdivision. Sidewalks are to be provided on both sides of the proposed public streets unless the applicant is able to obtain a waiver from the appropriate government agency.
13. Access and improvements along Muncaster Mill Road (MD 115) as required by the Maryland State Highway Administration.
14. This site is located in the vicinity of one of the alignments under consideration for the Inter County Connector project. The applicant is advised to contact the ICC Project Office in Baltimore (1-800-548-5026) to assess the potential impact of that roadway on this site.

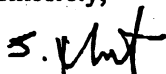
15. Geometrics for the intersection of Muncaster Mill Road and Bowie Mill Road as well as Needwood Road will be reviewed by the Department of Permitting Services as part of their review of the building permit application. Included in that review will be the design of any necessary left turn storage lanes and/or acceleration/deceleration lanes. We advise the applicant to submit their traffic volume data to the DPS Right-of-Way Permitting and Plan Review Section (in advance of their building permit applications) to verify their intersection improvement requirements and the acceptability of their design.
16. Relocation of utilities along existing roads to accommodate the required roadway improvements shall be the responsibility of the applicant.
17. If the proposed development will alter any existing street lights, signing, and/or pavement markings, please contact Mr. Fred Lees of our Traffic Control and Lighting Engineering Team at (240) 777-6000 for proper executing procedures. All costs associated with such relocations shall be the responsibility of the applicant.
18. If the proposed development will alter or impact any existing County maintained transportation system management component (i.e., traffic signals, signal poles, handboxes, surveillance cameras, etc.) or communication component (i.e., traffic signal interconnect, fiber optic lines, etc.), please contact Mr. Bruce Mangum of our Traffic Management Team at (240) 777-6000 for proper executing procedures. All costs associated with such relocations shall be the responsibility of the applicant.
19. Trees in the County rights of way - species and spacing to be in accordance with the applicable DPWT standards. A tree planting permit is required from the Maryland Department of Natural Resources, State Forester's Office [(301) 854-6060], to plant trees within the public right of way.
20. Public Improvements Agreement (PIA) will be an acceptable method of ensuring construction of the required public improvements within the County right of way. The PIA details will be determined at the record plat stage. The PIA will include, but not necessarily be limited to, the following improvements:
 - A. Street grading, paving, shoulders, sidewalks and handicap ramps, side drainage ditches and appurtenances, and street trees along interior public streets.
 - B. Street grading, paving, shoulders, side drainage ditches and appurtenances, and street trees along Bowie Mill Road and Needwood Road extension to Willow Hill Lane.
 - C. Improvements to the existing public storm drainage system, if necessitated by the previously mentioned outstanding storm drain study. If the improvements are to be maintained by Montgomery County, they will need to be designed and constructed in accordance with the DPWT Storm Drain Design Criteria.
 - D. Permanent monuments and property line markers, as required by Section 50-24(e) of the Subdivision Regulations.

Ms. Catherine Conlon
Preliminary Plan No. 1-06032
Date March 22, 2006
Page 4

- E. Erosion and sediment control measures as required by Section 50-35(j) and on-site stormwater management where applicable shall be provided by the Developer (at no cost to the County) at such locations deemed necessary by the Department of Permitting Services (DPS) and will comply with their specifications. Erosion and sediment control measures are to be built prior to construction of streets, houses and/or site grading and are to remain in operation (including maintenance) as long as deemed necessary by the DPS.
- F. Developer shall ensure final and proper completion and installation of all utility lines underground, for all new road construction.
- G. Developer shall provide street lights in accordance with the specifications, requirements, and standards prescribed by the Traffic Engineering and Operations Section.

Thank you for the opportunity to review this preliminary plan. If you have any questions or comments regarding this letter, please contact me at sam.farhadi@montgomerycountymd.gov or (240) 777-6000.

Sincerely,



Sam Farhadi, P.E., Senior Planning Specialist
Traffic Engineering and Operations Section

m:\subdivision\farhas01\preliminary plans\ 1-06032, Rowie Mill Estates.doc

Enclosures ()

cc: James Crawford, Dewberry and Davis
Stephen Kaufman, Linowes and Blocher, LLP
Elliot Totah, Oxbridge Development
Joseph Y. Cheung; DPS RWPPR
Christina Contreras; DPS RWPPR
Sarah Navid; DPS RWPPR
Shahriar Etemadi; M-NCPPC TP
Gregory M. Leck, DPW TEOS
Raymond Burns, MSHA

Robert L. Ehrlich, Jr., *Governor*
Michael S. Steele, *Lt. Governor*



Robert L. Flanagan, *Secretary*
Neil J. Pedersen, *Administrator*

Maryland Department of Transportation

October 6, 2005

Ms. Cathy Conlon
Supervisor, Development Review
Subdivision Division
Maryland National Capital
Park & Planning Commission
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Re: Montgomery County
MD 115
Bowie Mill Estates
(also known as Casey-Dungan Property)
File Nos. 1-06032 & 8-06011

Dear Ms. Conlon:

The State Highway Administration (SHA) would like to thank you for the opportunity to review the preliminary and site plan applications for the Bowie Mill Estates development. We have completed our review and offer the following comments:

- Truncations (right of way flares) and right-of-way dedications need to be in accordance with the Master Plan of Highways. SHA will require that right-of-way dedications and changes to access controls be platted to SHA standards. These plats must be submitted in hard copy format for review, checking and final issuance. Please contact Mr. Daniel Andrews of the Plats and Surveys Division @ 410-545-8860 for additional information. For questions regarding the plat review process, please E-mail Mr. Andrews at dandrews@sha.state.md.us.
- A copy of the site plan should be sent over to the SHA Project Planning Division for review for potential impacts from the InterCounty Connector (ICC) project. Once they have reviewed the plan, they will provide comments directly to your office.
- Please submit four (4) copies of the traffic study to this office so that the appropriate divisions within SHA can make the necessary review. Once received, we will provide comments within 30 days.
- A petition was made at the Development Review Committee (DRC) meeting regarding SHA's support for maintaining the existing MD 115/Bowie Mill Road intersection in lieu of the relocated Bowie Mill Road intersection opposite Needwood Road. SHA will wait until the traffic study has been reviewed to make a determination of which access improvement best meets the safety and operational needs of MD 115 traffic as well as the proposed development. It was previously requested that progression analysis would be provided to show the operational effects of these intersections. We trust that this information will be included in the traffic study.
- The developer shall provide full acceleration and deceleration lanes, and left-turn lanes at the intersection of the Primary Street "B" and MD 115, located to the east of the Magruder High School. The developer shall provide the necessary horizontal and vertical alignment adjustments along MD 115 in both directions approaching the Primary Street "B" intersection. Limits of construction shall be determined by SHA.

My telephone number/toll-free number is _____
Maryland Relay Service for Impaired Hearing or Speech: 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone: 410.545.0300 • www.marylandroads.com

Ms. Cathy Conlon
Page 2

- The developer shall provide continuous pedestrian connections between the Magruder High School and the MD 115/relocated Bowie Mill Road intersection along MD 115. If it is determined that the MD 115/existing Bowie Mill Road intersection is maintained, pedestrian improvements shall be extended to this intersection.
- Please resubmit the sight distance evaluation on the State forms provided. Sight distance evaluation is required for the following intersections: MD 115/relocated Bowie Mill Road, MD 115/Primary Street "B", and the MD 115/existing Bowie Mill Road. The latter intersection is required to determine if improvements to existing conditions are required.

If additional information is required from SHA regarding this project, please do not hesitate to contact Mr. Raymond Burns at 410-545-5592, Mr. John Borkowski at 410-545-5595, or by using our toll free number in Maryland only, 1-800-876-4742 (x-5592 for Ray, x-5595 for John). You may also E-mail Ray at rburns1@sha.state.md.us or John at jborkowski@sha.state.md.us. Thank you for your cooperation.

Very truly yours,



Steven D. Foster, Chief
Engineering Access Permits Division

SDF/jb

Encl. SHA Sight Distance Evaluation Form

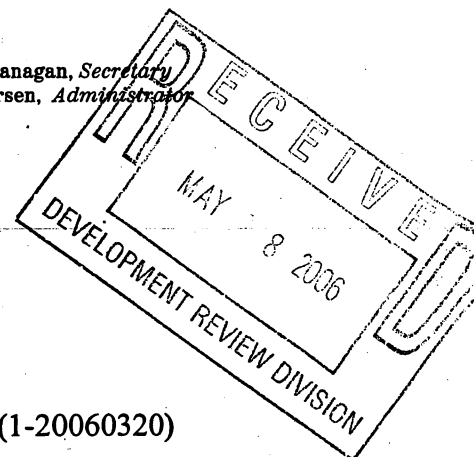
cc: Mr. Darrell Mobley (Via E-mail)
Mr. Augustine Rebish (Via E-mail)
Mr. Lee Starkloff (Via E-mail)
Mr. Daniel Andrews (Via E-mail)
Mr. Shawn Burnett (Via E-mail w/copy of plan)
Mr. John Webster (Via E-mail w/copy of plan)
Mr. Richard Weaver, M-NCPPC (Via E-mail)
Mr. Shahriar Etemadi, M-NCPPC (Via E-mail)
Mr. James Crawford (Dewberry & Davis LLC)

Robert L. Ehrlich, Jr., Governor
Michael S. Steele, Lt. Governor



Maryland Department of Transportation

Robert L. Flanagan, Secretary
Neil J. Pedersen, Administrator



May 12, 2006

Re: Montgomery County
Intercounty Connector
Bowie Mill Estates Property (1-20060320)

Ms. Cathy Conlon
Development Review Subdivision Division
Maryland National Capital Park & Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910-3760

Dear Ms. Conlon:

This office has reviewed the Preliminary Subdivision Plan for the Bowie Mill Estates Property dated September 2005. The 468.53 acres Bowie Mill Estates Property is located north of MD 115 and east of Bowie Mill Road.

The Intercounty Connector (ICC) Corridors One and Two, as shown to date, would require 26.3 acres of right-of-way from the property, as shown on the attached map. These impacts would result in the "taking" of 7.0 acres open space to be dedicated to the Maryland-National Capital Park and Planning Commission.

To protect property that will support the alignments under study for the ICC, which are being studied as part of the current National Environmental Policy Act process for the project, we request that your agency require reservation of this property.

Thank you for the opportunity to comment on this project. We appreciate your agency's consideration of the above action.

Sincerely,


Wesley Mitchell
Project Manager
Project Planning Division

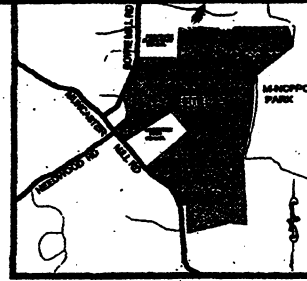
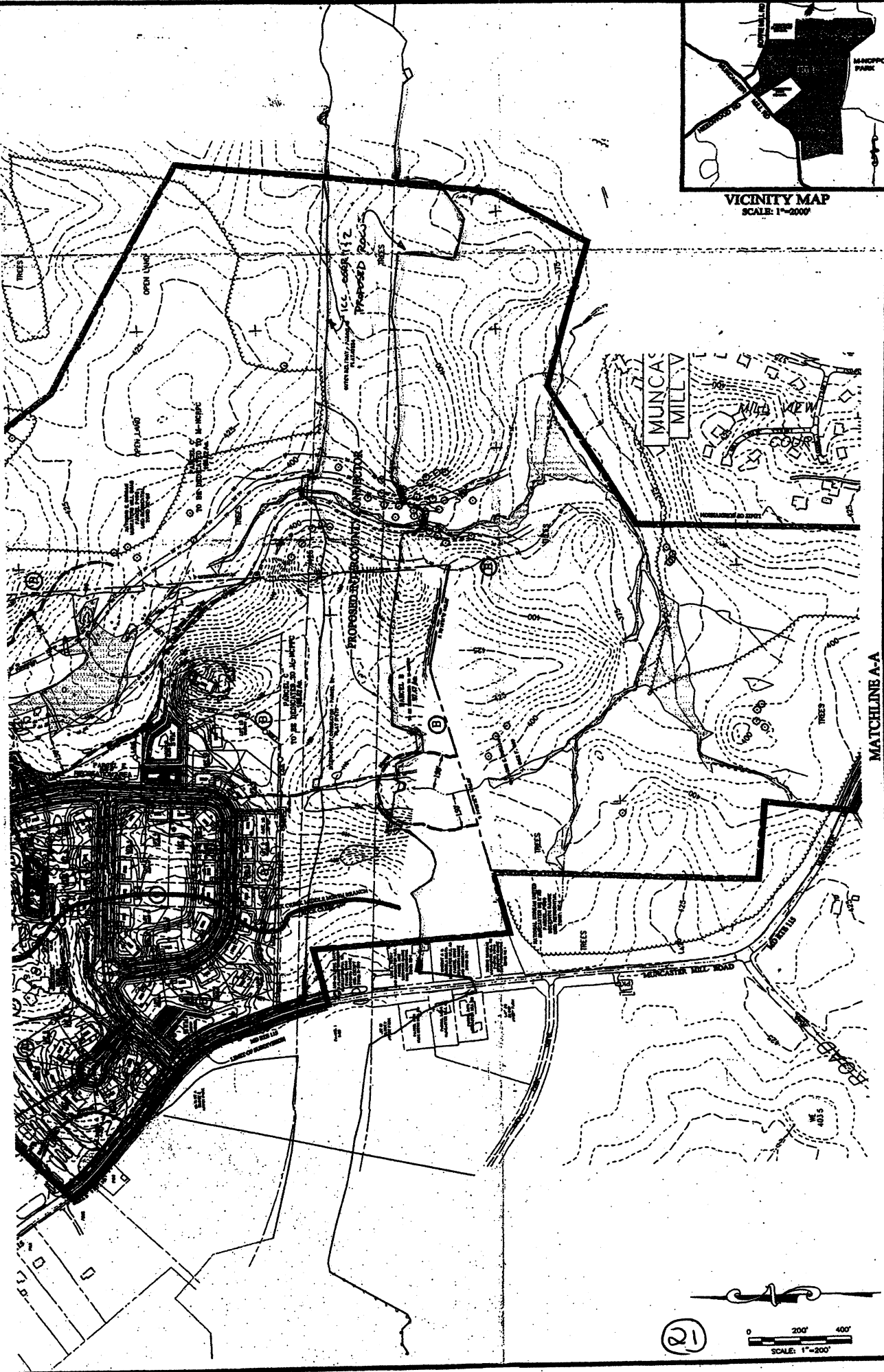
My telephone number/toll-free number is 1-866-462-0020
Maryland Relay Service for Impaired Hearing or Speech 1.800.735.2258 Statewide Toll Free

Street Address: 707 North Calvert Street • Baltimore, Maryland 21202 • Phone 410.545.0300 • www.marylandroads.com

Ms. Cathy Conlon
Page Two

Enclosures

cc: Mr. Greg Cooke, Engineering Access Permits Division, SHA (w/ enclosures)
Mr. Tom Hinchliffe, Office of Real Estate, SHA
Mr. Chris Larson, Director, Office of Real Estate, SHA
Mr. Doug Mills, Chief, District Three Right-of-Way Office, SHA
Mr. Wesley Mitchell, Project Planning Division, SHA
Oxbridge Development at Bowie Mill, L.C.
Mr. Raja Veeramachaneni, Director of Planning and Preliminary Engineering, SHA



Dewberry
 203 Pine Parkway, Suite 1
 Chantilly, VA 20151-2100
 703.544.8300 Fax: 703.544.7697
 www.dewberry.com

Project No. PDE-
 Prepared by PDL
 Checked by JRC
 Date 4-01-2005

Project No. HT121, HS123,
 07361 & 08363
 RNC



ENCLOSURE
 COMMERCIAL DEVELOPMENT
 600 HERRING ROAD, SUITE 200
 ROCKVILLE, MD 20852
 TEL: (301) 284-4150
 FAX: (301) 284-4151

MONTGOMERY COUNTY, MARYLAND
 8TH ELECTION DISTRICT

PRELIMINARY SUBDIVISION PLAN
 200-SCALE COMPOSITE PLAN
BOWIE MILL ESTATES

SEPT 2005
 1"=200' 2 of 10

ATTACHMENT B: Reviewing Agency Approvals



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

April 10, 2007

To: Elza Hisel-McCoy
Development Review Division

From: Frederick Vernon Boyd
Community-Based Planning Division

Subject: Bowie Mill Estates

This memorandum will provide the Community-Based Planning Division's comments on Preliminary Plan 120060320, and Site Plan 820060110, Bowie Mill Estates. We recommend approval of the proposed plan, which substantially complies with the recommendations and guidelines of the 2004 Upper Rock Creek Area Master Plan and with the intent of the Rural Neighborhood Cluster Zone.

The Plan made specific recommendations for this property, known at the time of the Plan's preparation as the Casey property for its owners at the time. The recommendations are accompanied by guidelines for development that were designed to be applied to the development of this property. The Plan's primary recommendation was that development on the Casey property be combined with that on the adjacent Dungan property, that all houses be built on the Casey property and that the Dungan property be retained in its entirety as open space. The proposed preliminary plan adheres to this recommendation.

The Plan recommended a density of 0.33 units to the acre for the properties. As drafts of the Plan moved through the review process, separate policy discussions on the appropriateness of expanding the Moderately Priced Dwelling Unit program to the Rural Neighborhood Cluster and other "large-lot" zones also were underway. The Plan acknowledged these discussions—and the possibility of an ultimate decision to expand the MPDU program—by setting out an allowable density of 0.4 units to the acre if MPDUs were required as part of the property's development. The Council decided in 2005 to expand the MPDU program to the large lot zones and MPDUs therefore are required as part of this preliminary plan. The 186 units proposed as part of this preliminary plan represent a density of 0.4 units to the acre, as recommended in the Plan. Fifteen percent of those units—28 in total—are MPDUs.

In addition to its recommendation for a development density, the Plan listed a series of guidelines for development. The next paragraphs highlight individual guidelines and indicate how well the proposed plan meets a stated guideline.

“Cluster development in two areas—between the schools and away from the valley of the northern unnamed tributary, and, in the southern part of the property, between Magruder High School and the ICC right-of-way;”

The proposed plan shows that almost 296 acres, or 67 percent of the approximately 440 acres of usable land, are designated for public or private rural open space. A look at contemporary aerial photographs of the site shows that the areas proposed for the majority of the residential development are currently fields; the Dungan property is largely in forest, and, as noted above, will be preserved as public open space. Regulations set out in the zoning ordinance limit activities in rural open space, which will allow for preservation in an undeveloped state. Open space on the Casey property also will be preserved as open space, which will allow areas that are now pastureland to return over time to forest.

The plan proposes that residential development occur south of Magruder High School and north of the ICC right-of-way and north of the high school in an area between Magruder, Sequoyah Elementary School and Bowie Mill Road. This is the area envisioned in the master plan for development.

“Enhance compatibility by maintaining areas adjacent to existing communities as rural open space or developing those areas with lots of similar size to those in the adjoining neighborhood;”

The northern portion of the Casey property adjoins an existing residential neighborhood along Foggy Lane. Seven properties directly abut the Casey property, and they range in size from two to nine acres. The proposed plan locates nine properties along the original property line. The smallest of the nine is approximately 1.5 acres and the largest is 2.85 acres.

“Provide substantial variation in lots sizes, as required by the RNC Zone development standards; cluster neighborhoods should offer the broadest possible range of lot sizes.”

The applicant has calculated that 61 percent of the proposed lots are less than half an acre in size. More specifically, 40 percent of the proposed lots are between 15,000 and 20,000 square feet in size. The applicant is proposing some significantly smaller MPDU lots at one end of the lot size spectrum and some lots—about 12 percent of the total—that would be range from three quarters of an acre to about five acres in size. Discussions of this issue during review of both the master plan and the revisions to the RNC Zone seemed to focus on avoiding “cookie-cutter” subdivisions, in which the vast majority of lots were

within a narrow size range. These discussions suggested that a “bell curve,” with some relatively small and relative large lots at either end of the spectrum was a desirable outcome for RNC communities. The lot range for the proposed project creates a bell curve, with most of the lots lying in a range from 15,000 square feet and 30,000 square feet

“Size and locate lots to ensure compatibility with existing development and preservation of rural views;”

This guideline replicates the second guideline discussed above and a guideline discussed below.

“Encourage diversity of house size and style;”

As part of its review of the master plan, the County Council approved this guideline. The language used recognizes that provision of housing styles and sizes is largely a component of market forces difficult to control through regulation. Discussions with the applicant in this case indicate that individual buyers desire the relatively large houses being offered.

“Protect rural viewsheds;”

This guideline replicates one discussed below.

“Preserve existing views from Bowie Mill and Muncaster Mill roads by locating large lots, conservation lots or open space with a significant and varied landscape along the roads;”

The proposed plan locates lots away from Bowie Mill Road, uses the area for stormwater management and provides a 75-foot open space buffer between the road and the stormwater management facility. The facility itself will be obscured from the road. The applicant has indicated that more detailed design of stormwater management systems necessitates location of a facility near Bowie Mill Road. This arrangement is not optimal, but reflects compromises often required to meet the different objectives of the preliminary plan.

The proposed plan is less successful in protecting views from Muncaster Mill Road. The proposed plan provides some open space along Muncaster Mill Road, but places stormwater management facilities in those areas. Lot sizes are generally in the vicinity of three quarters of an acre, which puts them among the larger lots designed for the community.

“Concentrate rural open space in the eastern part of the property that drains to the North Branch, dedicate appropriate portions of this area to parkland and include in this contiguous open space a “loop” trail that connects to the proposed North Branch trail corridor in this area;”

The proposed plan shows that eastern portion of the property will become parkland, which includes two unnamed tributaries of North Branch and their stream valleys. The North Branch trail corridor is located considerably outside the stream valley in this area and traverses land that will become parkland as part of this preliminary plan. As a result, extending connecting trails are unnecessary to connect clustered neighborhoods on this property. The proposed plan shows shorter connecting trails from each cluster community as well as from Sequoyah Elementary School to create the loop recommended in the master plan.

"Incorporate open space into the clustered community to enhance the undeveloped nature of contiguous open space while providing residents with nearby recreation;"

Two open areas are incorporated into the northern cluster community, and a local street has been designed to provide a view of one open area from the community entrance at Bowie Mill Road. The proposed plan also locates an active play area between the two clustered communities and along the main local street serving the development. The environmental setting of the historic house on the property, while privately owned, also will provide passive open space for residents of the southern cluster community.

"Require dedication to parkland of areas needed for access to trails in the North Branch Stream Valley Park and for expansion of Bowie Mill Local Park."

The proposed plan shows approximately three acres of additional dedication adjacent to Sequoyah Elementary School and Bowie Mill Local Park. As noted above, the design of the North Branch trail corridor locates the trail relatively near residential clusters. Connecting trails have been located on land designated for dedication.



MONTGOMERY COUNTY PLANNING DEPARTMENT
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MEMORANDUM

4/5/07

TO: Elza Hisel-McCoy, Site Plan Review, Development Review Division
Robert Kronenberg, Site Plan Supervisor, Development Review
Division
Cathy Conlon, Subdivision Supervisor, Development Review Division

FROM: Doug Powell, Plan Review Coordinator, Park Planning and
Stewardship Division, Department of Parks

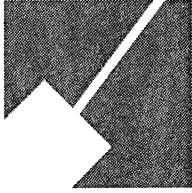
RE: Bowie Mill Estates, Site Plan #8-06011

Park Planning and Resource Analysis Unit has reviewed the above-referenced plan and request the following Conditions of Approval:

- Proposed Parcels A, B, D and F to be dedicated to M-NCPPC as set forth on the Site Plan as revised on April ____, 2007, for use as parkland in accordance with the Upper Rock Creek Master Plan. Dedicated parcels to include all streams, wetlands and buffers, and sufficient area outside the buffers to allow environmentally appropriate construction of the required trails. Dedicated areas not to include stormwater management ponds or facilities. Parcel A to include all land west of proposed Lot 1 and east of Bowie Mill Local Park, and to include road frontage on proposed Street C and the 8' wide hard surface connector trail to be constructed from Street C through the dedicated parkland. Land to be conveyed by time of record plat for the project areas that include the dedicated parkland and adjacent roads and lots. Dedicated property shall be conveyed free of any trash and unnatural debris and park boundaries to be adequately staked and signed to delineate between parkland and private property.
- Applicant to engineer and construct the master planned 8' wide, hard surface trail from the northeast corner of the property in Parcel D to the northeast corner of Parcel F. Trail to include all necessary bridges and boardwalk as determined to be necessary by M-NCPPC staff. Alignment to be as agreed and approximately as set forth on the Site Plan as revised on April ____, 2007. Final details regarding grading, alignment and construction specifications for the trail, and timing for construction of the trail, to be

determined by time of Site Plan Signature Set, and to be acceptable to M-NCPPC staff.

- Applicant to engineer and construct sufficient hard surface connector trails, and loop natural surface trails, approximately as set forth on the Site Plan revised on April _____, 2007, for access by the community to the master planned hard surface trail. Final details regarding grading, alignment and construction specifications for the trail, and timing for construction of the trail, to be determined by time of Site Plan Signature Set, and to be acceptable to M-NCPPC staff.
- Trails to be constructed to park standards and specifications after obtaining appropriate park permit, and adequate trail signage to be provided by Applicant. Design and location of signage to be coordinated between Applicant and M-NCPPC staff.



**THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING
COMMISSION**

Department of Planning, Montgomery County, Maryland
8787 Georgia Avenue, Silver Spring, Maryland 20910

MEMORANDUM

TO: Elza Hisel-McCoy, Senior Planner

FROM: Mark Pfefferle, Planning Coordinator
Countywide Planning-Environmental Planning

DATE: March 29, 2007

SUBJECT: Site Plan 820060110
Final Water Quality Plan
Bowie Mill Estates

RECOMMENDATION

Environmental Planning staff recommends approval of the site plan and final water quality plan for Bowie Mill Estates (Casey Dungan properties) subject to the following conditions:

Forest Conservation

1. The applicant shall comply with the conditions of approval of the final forest conservation plan. The applicant shall satisfy all conditions of approval before recording of the record plat(s) or MCDPS issuance of erosion and sediment control permits. Conditions include but are not limited to:
 - a. Applicant to construct a split rail fence along all lots that back or side a reforestation area.
 - b. Applicant shall develop and implement a non-native and invasive management plan for the newly planted areas to be dedicated to the Parks Department. The management plan must include supplemental planting and run concurrently with the forest planting maintenance and management agreement.
 - c. Applicant to plant the afforestation area with a combination of ¾ to 1 inch caliper and 1 ½ to 2 inch caliper stock.
 - d. Applicant to plant all unforested stream buffers and place a category I conservation easements on all retained and planted forested areas.
 - e. Applicant to begin reforestation of unforested stream buffers in the first planting season after issuance of the first sediment control permit.

Imperviousness

1. Imperviousness for the 439-acre tract not to exceed 8 percent of the gross tract area.

2. Applicant to enter into an agreement with M-NCPPC for the purpose of withholding building permits for nineteen (19) single-family detached residential lots to ensure compliance with the impervious limitations. The 19 lots shall be graphically denoted on the certified site plan. A note shall be placed on the record plat restricting issuance of building permits for the 19 lots pending approval from M-NCPPC Environmental Planning. Building permits for the 19 lots to be released one at a time.
3. The certified site plan shall denote the order of the last 5 lots to be released.
4. Applicant to place impervious coverage limitations and information pertaining to the above agreement on the record plat.
5. All driveways must be designed as double car width at the public right-of-way. M-NCPPC Environmental Planning Staff on a case-by-case basis may approve alternative driveway design provided any additional impervious surface is accounted for as part of the overall impervious limit.
6. The developer/builder must submit an impervious surface report to M-NCPPC Environmental Planning staff prior to issuance of the 100th, 140th, 160th and 171st building permits. The applicant must submit an impervious report for each of the remaining building permits after the 171st building permit. The impervious reports must include: surveyed 'as-built' drawings which include dimensions for buildings, driveways, sidewalks, leadwalks, porches, patios, chimneys, welled exits, rear exits and any building feature that is two feet or less from the ground. M-NCPPC staff must review the information prior to the release of the next building permit.
7. If at any time the impervious area limit is reached before building permits for all approved lots have been issued, the lots for which building permits have not been issued must be re-recorded as non-impervious, Homeowners Association open space parcels. All pending use and occupancy permits shall be held until such time that the open space plats are recorded.
8. Upon recordation of the plat, applicant shall record in the land records a disclosure of the imperviousness limits and monitoring requirements to subsequent homebuyers. This disclosure shall be reviewed and approved by Commission legal staff before recordation.

Noise

1. Prior to approval of the certified site plan, the applicant must revise the submitted noise analysis to take into consideration the final grades for the ICC that were not previously known when the noise analysis was completed.
2. Applicant to replace the proposed board-on-board noise fence with an earthen landscape noise berm wherever possible.
3. Prior to release of the first building permit for the subdivision, the following items must be met:
 - a. There shall be certification from an acoustical engineer that the building shell for residential dwelling units are designed to attenuate projected exterior noise levels to an interior level of no more than 45 dBA, Ldn. Any subsequent changes in building shell materials or coverage that may affect acoustical performance shall be approved by an acoustical engineer prior to implementation.
 - b. The builder shall, in writing, commit to construct the residential units in accordance with the acoustical specifications identified by the acoustical engineer.

Water Quality

1. Conformance to the conditions, as stated in the DPS letter approving the elements of the SPA water quality plan under its purview.

BACKGROUND

The 439-acre property is located at the intersection of Muncaster Mill and Bowie Mill Roads. The property surrounds Magruder High School and is bounded by M-NCPPC's Bowie Mill Park, Sequoyah Elementary School, and Bowie Mill Road to the west, Bowie Mill Estates subdivision to the north, M-NCPPC's North Branch Stream Valley Park to the east, and Muncaster Mill Road to the south. The property is zoned RNC and is located in the Upper Rock Creek Special Protection Area. The applicant proposes to develop the site with single-family detached units, MPDU duplexes, and associated infrastructure. Only 131.5-acres are within the proposed development envelope for this subdivision.

Two Natural Resource Inventory/Forest Stand Delineations (NRI/FSDs) were submitted for the subject property. The NRI/FSDs delineate and identify the existing conditions on the site including on site environmental buffers, forests, topographical contours and soils. The site includes streams, floodplains, and wetlands converted into lowland pastures, upland agricultural fields and forest. The subject site includes 134.5 acres of existing forest. The forest is adjacent to the existing North Branch Stream Valley Park or along streams and wetlands that cut into the Casey and Dungan Properties. The site includes approximately 80 acres of environmental buffers.

PRELIMINARY/FINAL WATER QUALITY PLAN

Water quality plans are required as part of the Special Protection Area regulations. Under the SPA law, Montgomery County Department of Permitting Services (MCDPS) and the Planning Board have different responsibilities in the review of the water quality plan. MCDPS has reviewed and conditionally approved the elements of the final water quality plan under their purview. As part of the final water quality plan, MCDPS established several site performance goals including:

1. Maintain the natural on-site stream channels.
2. Minimize storm flow run off increases.
3. Minimize increases to ambient water temperatures.
4. Protection of streams and aquatic life habitat.
5. Minimize sediment loading.
6. Maintain stream base flows.
7. Protect springs, seeps, and wetlands.
8. Minimize nutrient loading and control insecticides, pesticides and toxic substances.

To help meet the performance goals, the stormwater management plan requires water quality control and quantity control to be provided through an extensive system of linked best management practices (BMPs). Channel protection measures for this site will be provided via extended detention 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 combination of structural and non-structural measures that include dry wells, surface sand filters, bio-filters, dry swales and grassed channels. All open section streets will have a two-foot wide flat bottom to provide water quality pretreatment.

Sediment control will be addressed through a combination of traps and basins, earth dikes, and super silt fencing. The storage volume in sediment control traps and basins will require a minimum of 125% of the normally required volume. Flocculants or other similar materials are required to increase the sediment removal efficiency in the basins and traps.

The Planning Board responsibility is to determine if the environmental guidelines for special protection areas, forest conservation requirements, and site imperviousness requirements are satisfied. This discussion follows.

ENVIRONMENTAL GUIDELINES

The environmental guidelines for SPAs require examination of many tools to maximize achievement of site performance goals. For instance, the goal of protecting seeps, springs, and wetlands is better achieved with naturalized buffers surrounding these areas. The natural resource inventory for the Casey-Dungan properties identified the environmental buffers. Environmental buffers include wetlands and wetland buffers, floodplains, and streams and stream valley buffers. The application proposes a few encroachments into the environmental buffers. The encroachments include hard surface paths, stormwater management outfalls, and two stormwater management facilities.

The applicant will construct hard surface trails on land to be dedicated to the Parks Department. Environmental Planning staff in conjunction with the Parks Department walked the proposed trail alignment. The amount of encroachment into the buffers is minimized and the trail is pulled as far from the stream and wetlands as possible. The proposed path locations are proposed in non-forested environmental buffers that will be forested as part of the special protection area requirements. Environmental Planning supports this permanent encroachment because of the efforts undertaken to minimize the encroachments into the environmental buffers and the encroachment will not result in any forest removal.

A few stormwater management outfalls must enter into the environmental buffers in order to provide safe conveyance stormwater discharges at non-erosive velocities. In order to limit erosion from stormwater management facilities the outfall location must occur in a flat location. The proposed discharge locations are in non-forested environmental buffers that will eventually be forested as part of the special protection area requirements. Environmental Planning supports this encroachment and has supported similar encroachments on other plans.

The last types of encroachment in the environmental buffers are stormwater management facilities primarily associated with the hard surface trail. These facilities must be located in the environmental buffers when the hard surface trail is located in the buffer. There is one location where runoff from a roadway, in addition to runoff from the hard surface trail, will be treated in the buffer. This area is designated as SWM BF 1 and 2 and located along proposed Street "C" and is adjacent to Sequoyah Elementary School. The most appropriate location for stormwater management is in the environmental buffer at this site. The areas will be in separate stormwater

management parcels and the type of facility proposed is not a pond but bio-filters. The parcels will be planted as part of the Department of Permitting Services stormwater management facility landscape requirements. The total amount of encroachment for SWM BF 1 and 2 is approximately 4,300 square feet, which is less than ½ of the size of the combined area for the two facilities. Environmental Planning supports the location of this facility because it treats stormwater runoff from the proposed hard surface trail and the roadway. In addition, moving the stormwater management facility further from the environmental buffer to keep the facility entirely outside of the buffer would result in less land dedicated to the Parks Department for active recreational uses on the opposite side of Street "C".

As part of the *Environmental Guidelines* all unforested stream buffers must be reforested. The plan submitted does not show reforestation of all environmental buffers. The final forest conservation plan must be revised showing reforestation of all unforested stream buffers. There is one section of unforested buffers that the applicant is proposing for wetland mitigation. Environmental Planning supports the creation of new wetlands within the buffer but that area will need to be denoted on the forest conservation plan. The applicant will either dedicate the buffers to the Parks Department, as shown on the preliminary plan of subdivision, or place forest conservation easements on all environmental buffers and all forest retention areas that retain in private ownership.

FOREST CONSERVATION

Since this application is utilizing an RNC MPDU optional method of development the plan must comply with Section 22A-12(f) of the Montgomery County code. This section requires developments utilizing an optional method to meet the appropriate forest conservation threshold on site. The applicant will meet the requirements of Section 22A-12(f) by preserving forest on site. The applicant is also required to plant more than 25 acres of unforested stream buffers.

Environmental Planning requests a condition of approval for the construction of a split rail fence at the rear of lots backing to planting areas. This is to both protect the forest plantings from homeowner encroachment but also to clearly delineate the category I forest conservation easement/park dedication areas.

The Environmental Guidelines require accelerated reforestation of stream valley buffers and staff is requesting a condition requiring planting to occur during the first planting season after issuance of the first sediment control permit. A five-year maintenance period is required for all forest plantings in Special Protection Areas per the Environmental Guidelines.

Throughout the NRI/FSD review process and subsequent site visits by Environmental Planning and Natural Resource staff numerous invasive and exotic species were found in the stream buffers, existing forests and especially on the Dungan property. Environmental Planning is requesting an additional conditional of approval requiring the applicant to develop and implement an invasive and exotic management control program to run concurrently with the required maintenance and management agreement. The management control program must include supplemental planting. By developing and implementing an invasive management plan, newly planted trees will have a better chance of survival and should begin to shade out the competing vegetation. An invasive management program is necessary to prevent the entire area

designated for reforestation and Park dedication from becoming overwhelmed with invasive material. The non-native and invasive management plan approved by both Environmental Planning and the Parks Department.

SITE IMPERVIOUSNESS

The Upper Rock Creek Special Protection Area has an 8 percent impervious limitation. The applicant, Oxbridge Development Corporation, is proposing a development that creates approximately 35 acres, or 8 percent of the gross tract area, of new impervious surfaces. This imperviousness is associated with internal streets, sidewalks, driveways, building footprints, parking areas, and the hard surface trail. The 35 acres of imperviousness does not include “improvements” homeowners may make to their lots after taking possession of the units. These improvements can include things like patios, sheds, swimming pools, pool decks etc.

Consistent with other plans with impervious limitations, Environmental Planning requests the developer to enter into an impervious agreement that identifies the total amount of impervious surfaces available, the number and location of lots in impervious reservation and the last lots to be released. Environmental Planning requests a conditional approval that identifies 10 percent of the lots, or 19 single family detached single family homes, in reservation as an impervious reservation lots. These lots would only become available to build upon once the applicant can demonstrate that there are sufficient impervious surfaces remaining to allow building permits to be released on these lots. The impervious lots shall be denoted on the certified site plan. The applicant shall identify the last five building permits to be released in order to ensure a logical release of building permits.

NOISE

The applicant submitted a noise study analyzing the impacts of existing and current traffic projects for Muncaster Mill Road and the future ICC on the proposed development. The ICC bisects the property and proposed house locations will be negatively impacted by noise. The State Highway Administration’s noise study prepared in support of the ICC did not study potential noise impacts on the subject property and no noise mitigation is proposed along this section of the property that bisects the subject property. Therefore, it becomes the responsibility of this applicant to provide adequate noise mitigation for the noise-impacted units.

The plans submitted show a 100-foot set back from the ICC right-of-way to the beginning of the residential lots. Even with this 100-foot set back the residential units will be negatively impacted by vehicle noise. The noise analysis recommends board-on-board noise fence that ranges from 6 feet in height to 12 feet in height. Both Environmental Planning and Development Review believe that the noise fence should be replaced with a berm and fence combination with the majority of the noise mitigation occurring with a landscape berm. There is sufficient space in the 100-foot wide to provide a landscape berm.

The June 2005 noise analysis indicates that it is “impossible to estimate the precision of the analysis” because the final grades for the roadway were not determined and recommends once the final grades are determined that the analysis be revised. Since June 2005 the final grades for the roadway have been determined. Therefore, the applicant must revise the noise analysis to

ensure the berm and fencing combination is of sufficient height to mitigation exterior and interior noise levels. This must be done prior to certification of the site plan.

The noise analysis also indicates that modifications will be necessary to standard construction practices to achieve an interior noise level of 45 dBA Ldn. Once the architectural drawings are available the interior noise levels must be evaluated to determine if special and additional acoustical treatments are necessary to achieve at 45 dBA Ldn. The applicant will need to submit a second noise study identify the specific acoustical treatments that will be necessary for the impacted residential units.

CONCLUSION

Environmental Planning recommends the Planning Board approve the Site Plan and Final Water Quality.