



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

Item #
MCPB 05-24-07
06-28-07

MEMORANDUM

DATE: April 27, 2007
Revised June 18, 2007

TO: Montgomery County Planning Board

VIA: Rose Krasnow, Chief *rk*
Robert Kronenberg, Acting Supervisor *RK*
Development Review Division

FROM: Elza Hisel-McCoy, Senior Planner
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 24, 2007
June 28, 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, and June 15, 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 will dedicate Parcels D, F, and G, Block N, and Parcels A and B, Block O, to M-NCPPC as rural open space. If provided for in accordance with the provisions of the Zoning Ordinance at the time of record plat, M-NCPPC will preserve these Parcels in perpetuity as rural open space by application of a covenant in a recordable form approved by the Planning Board within 30 days of dedication to M-NCPPC by the Applicant.
- b) The applicant will dedicate Parcel A, Block A, Parcel A, Block E, Parcels B and G, Block F, and Parcels A and C, Block M to the Home Owners' Association (HOA) as rural open space. If provided for in accordance with the provisions of the Zoning Ordinance at the time of record plat, the HOA will preserve these Parcels in perpetuity as rural open space by application of a covenant in a recordable form approved by the Planning Board within 30 days of dedication to the HOA by the Applicant.
- 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 D, F, and G, 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.
- m) 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.

Another issue that arose regarding the delineation of Rural Open Space was the amount of area to be dedicated to Camp Olympia. Camp Olympia is a youth camp located immediately adjacent to the southern tip of the site. By agreement with Winchester Homes, the owner of the Dungan Property, Camp Olympia is granted access to a portion of that property, known as Outlot A, Block O, for camp use for a limited time. At Preliminary Plan, the amount of land to be included in Outlot A was to be the unspecified balance of Parcel B, Block O, that was not declared Rural Open Space. Since Preliminary Plan, the parties to the agreement settled on an amount of land for Outlot A, 5.9 acres. The Rural Open Space presented to the Planning Board on May 24, 2007, included a portion of the area intended for Outlot A, reducing the size of Outlot A to approximately 2.7 acres. Given the commercial nature of the camp uses, the Board indicated that the land could not be counted simultaneously as both Rural Open Space and as part of Outlot A. The Applicant has since revised their proposal by converting Parcel G, Block N, from a recreational area to Rural Open Space. This Parcel is approximately 3.86 acres, and will more than offset the area necessary to satisfy both the Rural Open Space requirement and the Applicant's agreement with Camp Olympia. Staff supports this conversion, as the project will continue to provide generous recreational opportunities in excess of those recommended by the Recreational Guidelines.

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.

II. Rural Open Space Dedication

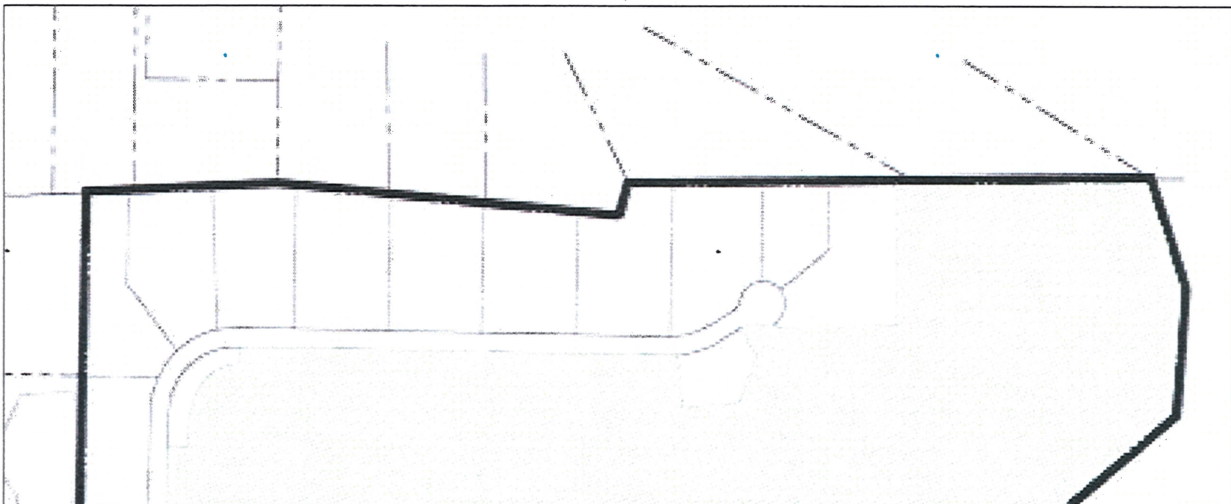
The RNC zone requires that 65-85% percent of the site be preserved as rural open space. During the hearing for Preliminary Plan 120060320, the Planning Board devoted substantial discussion to which method of conveyance would be most appropriate for the 268 acres of rural open space proposed for dedication 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

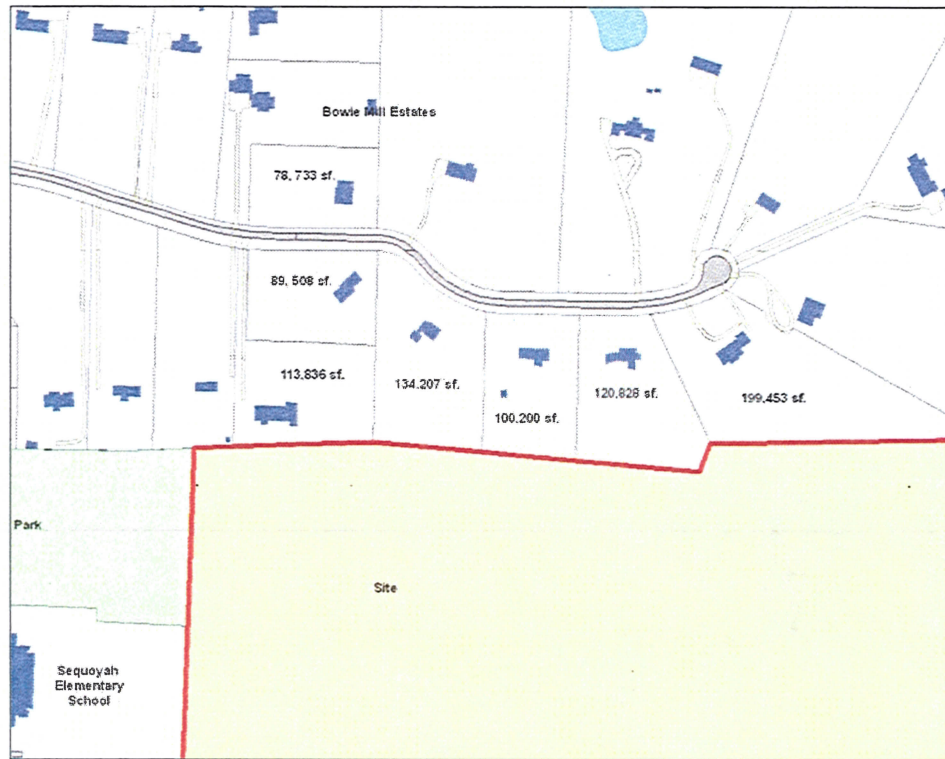
Another issue staff addressed with the applicant is the compatibility of the proposed lot sizes along the northern boundary of the site, directly adjacent to the existing lots on Foggy Lane. The Bowie Mill Civic Association, representing the existing Bowie Mill Estates, has expressed concern that the 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.



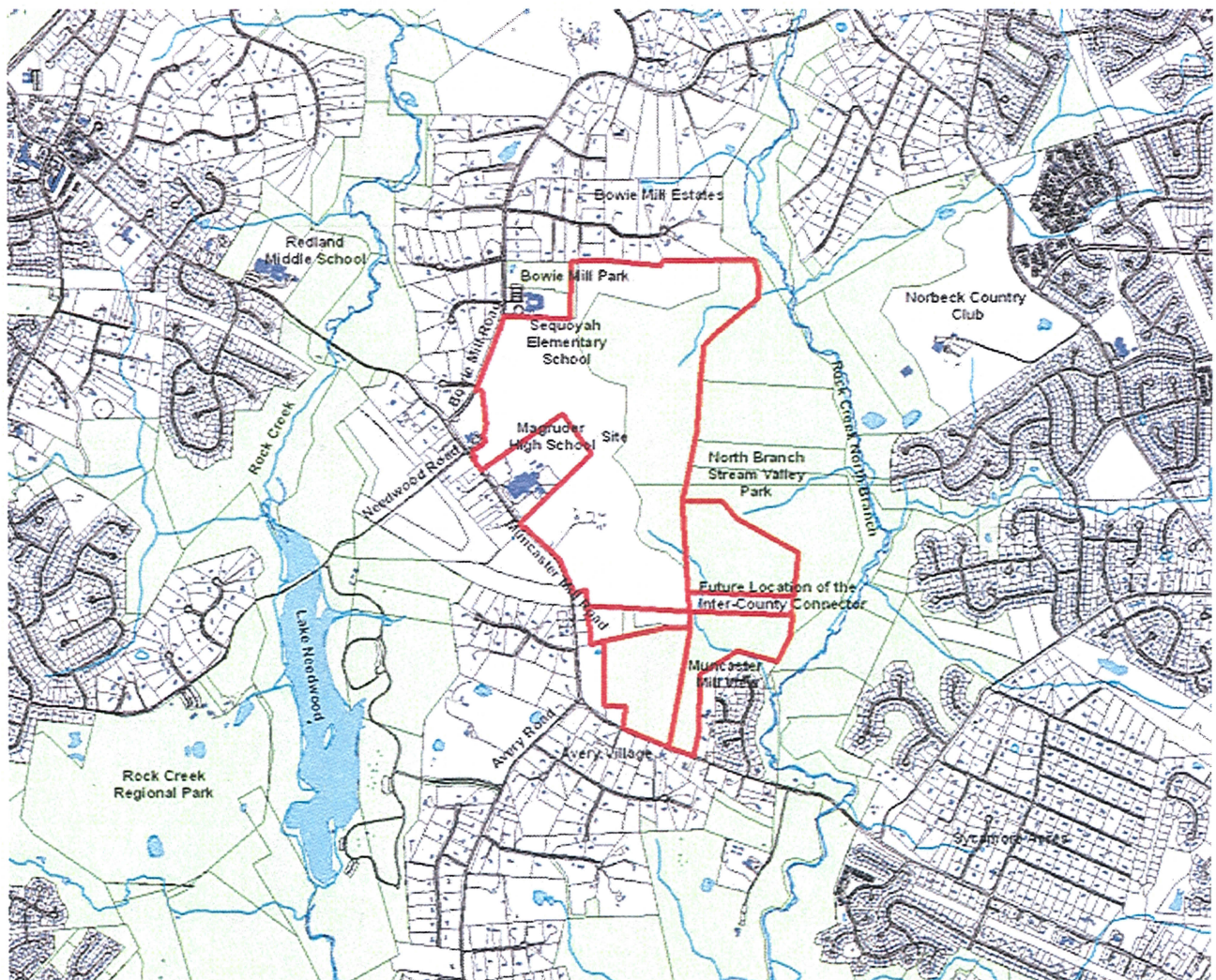
Sizes of Adjacent Existing Lots on Bowie Mill Estates

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

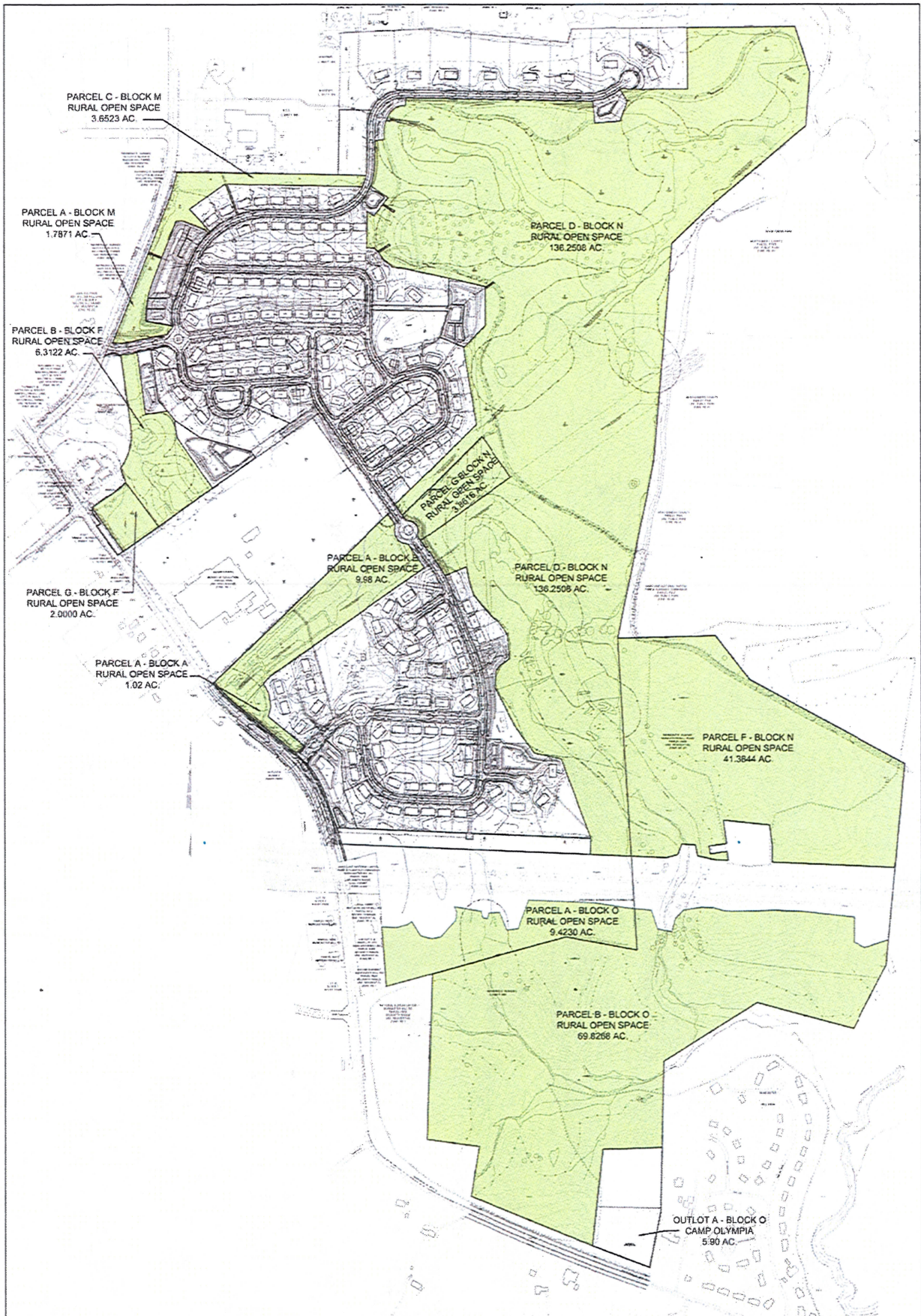


Aerial Perspective of the Site from the South

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.

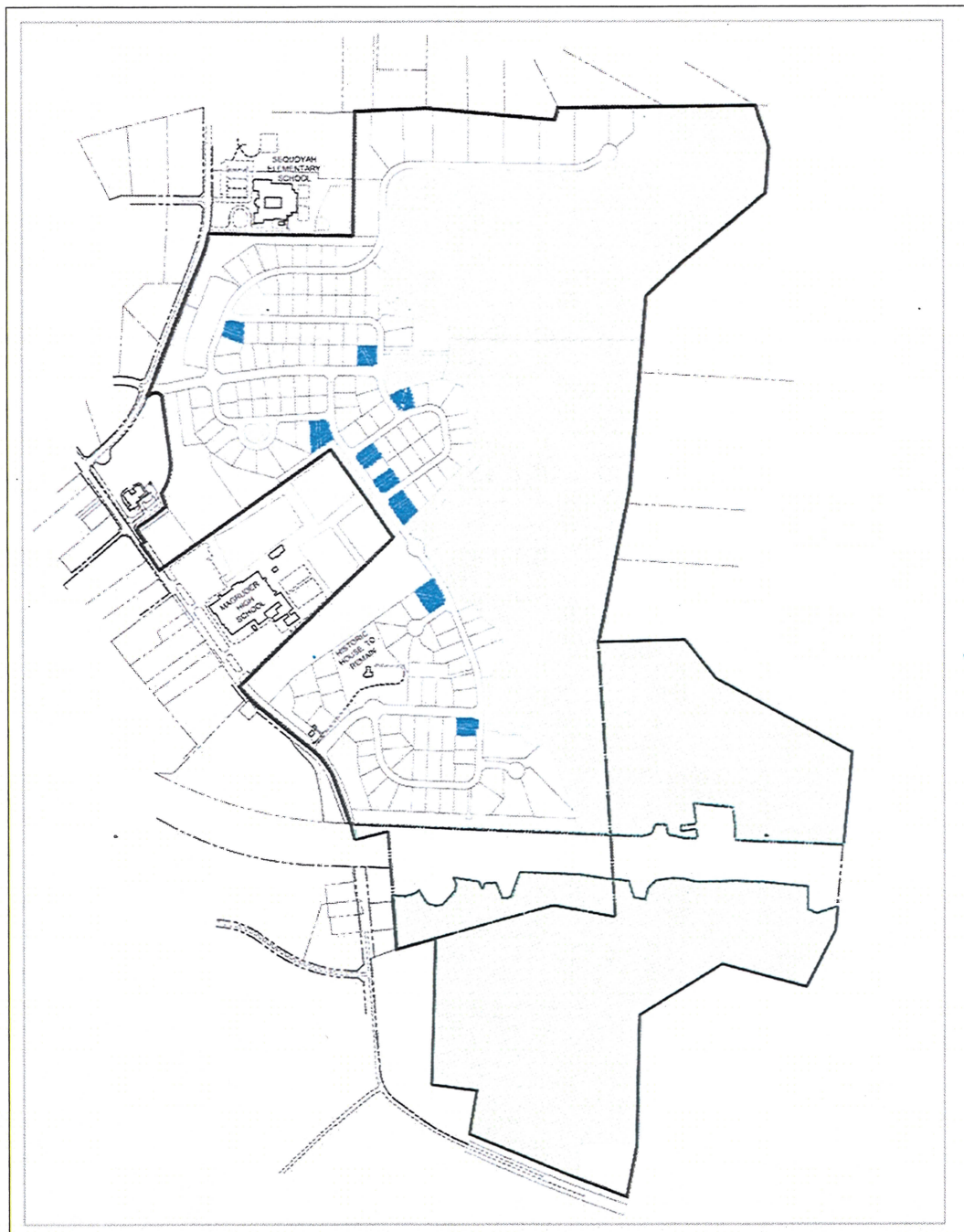
The neighborhood is well laid-out, with a legible and reasonable pattern of streets, blocks, and paths, connecting residents to parks, schools, and each other.



Site Plan

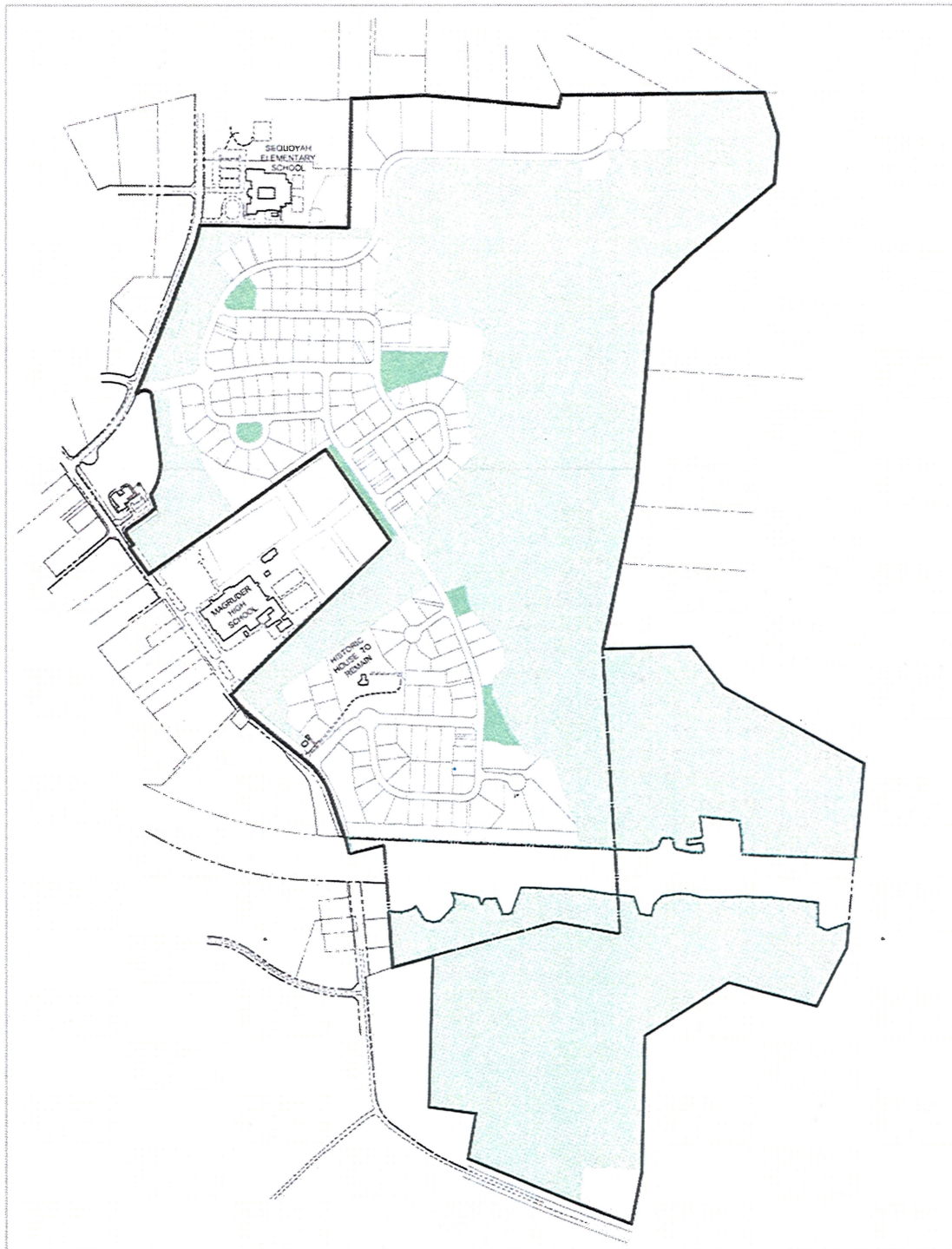
The community will feature a variety of lot sizes for both attached and detached one-family housing. The 28 attached units will be the MPDUs and are clustered in strings of threes, with one string of four units. Generally these units are designed to resemble larger detached housing, with the end units 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 ApprovalsPreliminary 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)**

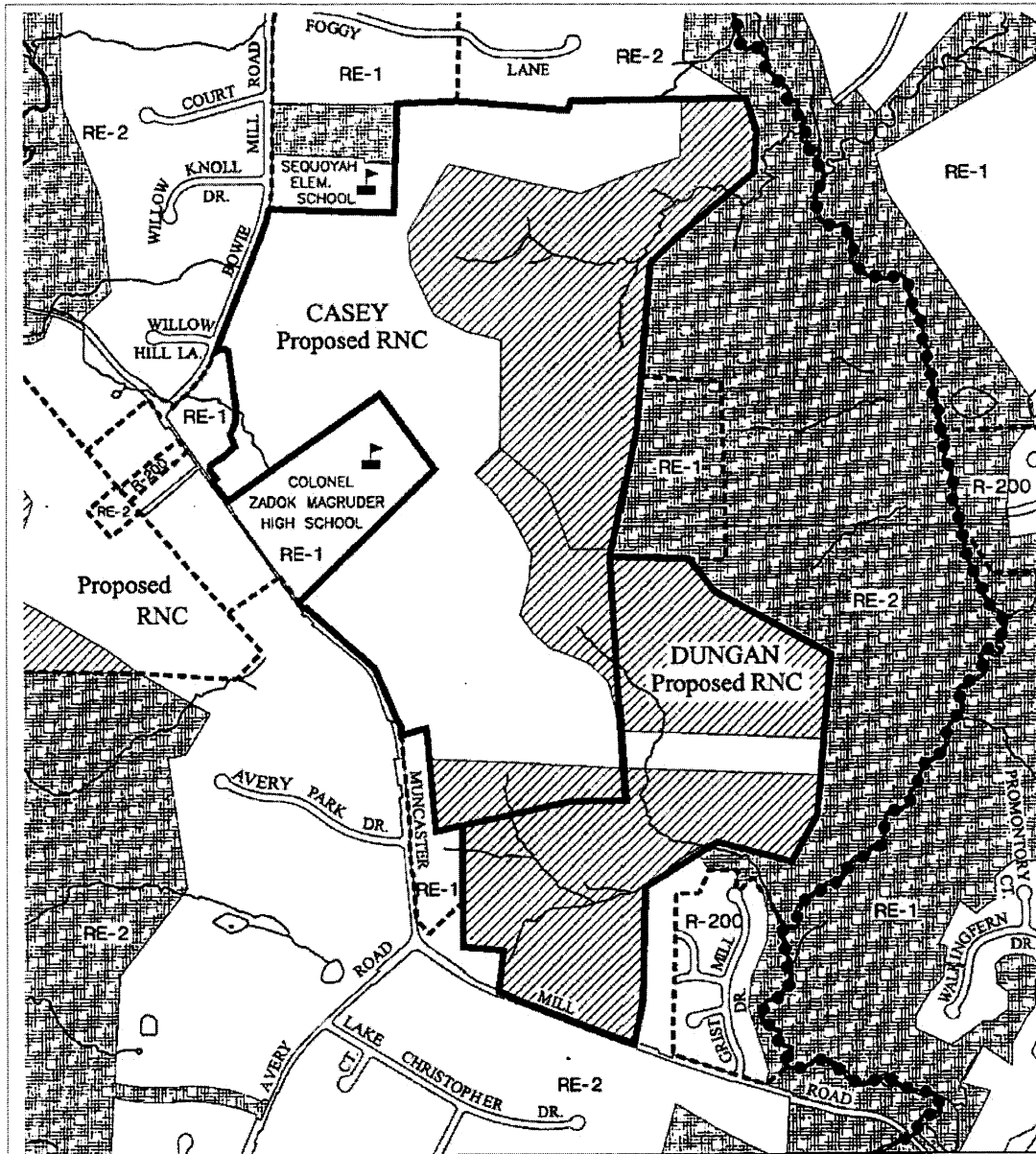
Development Standard (Optional Method) Per Section 59-C-9.574	Permitted/ Required	Proposed for Approval
Max. Density of Development (du/a)		
Per zoning	1.22	
Per Upper Rock Creek Area Master Plan (p. 15)	0.4 (w/ 15% MPDUs)	0.4 (w/ 15% MPDUs)
Min. Net Lot Area (sf.) – Townhouses:	none	2,241-15,275
– One-family 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	<u>65.15</u> <u>285.4986</u>
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 (66)	6.6	13.2	14.52	56.1	5.28
SFD II (92)	11.96	22.08	23	97.52	10.12
TH (28)	4.76	6.16	5.04	36.12	1.96
Total Demand (186)	23.32	41.44	42.56	189.74	17.36

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
Picnic Areas (6)	6	6	9	30	12
Open Play Area I (1)	6	9	12	30	2
Open Play Area II (3)	9	12	12	30	3
Total Supply	33.47	52.42	55.08	229.94	30.17

<u>Percent of Demand Provided (%)</u>	<u>143</u>	<u>126</u>	<u>129</u>	<u>121</u>	<u>174</u>
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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.

Parks

The Parks Department standards for hard surface trails typically call for a trail 10 to 12 feet in width. Given the extraordinary circumstances of this project, Park staff approves the narrower 8' hard surface trail width for the following reasons:

- 1) The property is subject to impervious caps that cannot be achieved with a wider trail: and
- 2) The applicant is providing a natural surface trail as part of the application and this will provide greater trail options and opportunities that make an 8' hard surface trail more acceptable.

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 285 acres of rural open space, 65.15% 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 285 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: See April 27, 2007, report for attachments.