



APPLICATION FILED: June 28, 2005  
PLANNING COMMISSION: February 22, 2006  
BOARD OF SUPERVISORS: March 13, 2006

# County of Fairfax, Virginia

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February 8, 2005

## STAFF REPORT

**SE 2005-MA-022 / RPA Encroachment Exception #1166-WRPA-001-1**

**(In association with VC 2005-MA-014)**

### MASON DISTRICT

**APPLICANT:** Yuma Court, LLC c/o Lawrence E. Ireland

**ZONING:** R-2

**PARCEL(S):** 72-3 ((11)) 81

**ACREAGE:** 0.42 acres (18,185 sq. ft.)

**PLAN MAP:** Residential; 1-2 du/ac

**SE CATEGORY:** Category 6; Uses in a Floodplain

**PROPOSAL:** To permit fill in a floodplain to construct a single-family detached home on a residential lot within a 100 year floodplain.

### STAFF RECOMMENDATIONS:

Staff recommends approval of SE 2005-MA-022, subject to the proposed development conditions contained in Appendix 1a.

Staff recommends approval of Resource Protection Area Encroachment #1166-WRPA-001-1 and the Water Quality Impact Assessment #1166-WQ-002-1, subject to the proposed RPA encroachment exception conditions contained in Attachment A of Appendix 6.

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**Department of Planning and Zoning**  
Zoning Evaluation Division  
12055 Government Center Parkway, Suite 801  
Fairfax, Virginia 22035-5509  
Phone 703 324-1290  
FAX 703 324-3924  
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It should be noted that it is not the intent of staff to recommend that the Board, in adopting any conditions proffered by the owner, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Supervisors.

For information, contact the Zoning Evaluation Division, Department of Planning and Zoning, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035-5505, (703) 324-1290.



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 7 days advance notice. For additional information on ADA call (703) 324-1334 or TTY 711 (Virginia Relay Center).



APPLICATION FILED: September 29, 2005  
BOARD OF ZONING APPEALS: February 28, 2006  
TIME: 9:00 AM

# County of Fairfax, Virginia

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February 8, 2005

STAFF REPORT

VC 2005-MA-014

(In association with application SE 2005-MA-022 / RPA Encroachment Exception  
#1166-WRPA-001-1)

## MASON DISTRICT

**APPLICANT:** Yuma Court, LLC c/o Lawrence E. Ireland  
**SUBDIVISION:** Lincolnia Park Section Two  
**STREET ADDRESS:** 5213 Yuma Court  
**ZONING DISTRICT:** R-2  
**TAX MAP REFERENCE:** 72-3 ((11)) 81  
**LOT SIZE:** 18,185 sq. ft.  
**ZONING ORDINANCE PROVISIONS:** 18-401  
**PLAN MAP:** Residential; 1-2 du/ac  
**VC PROPOSAL:** To permit construction of a dwelling 22.79 feet from the front lot line.

A copy of the BZA's Resolution setting forth this decision will be mailed within five (5) days after the decision becomes final.

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For additional information, call Zoning Evaluation Division, Department of Planning and Zoning at (703)324-1280, 12055 Government Center Parkway, Suite 801, Fairfax, Virginia 22035. **Board of Zoning Appeals' meetings are held in the Board Room, Ground Level, Government Center Building, 12000 Government Center Parkway, Fairfax, Virginia 22035-5505.**

It should be further noted that the content of this report reflects the analysis and recommendation of staff; it does not reflect the position of the Board of Zoning Appeals.

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**A GLOSSARY OF TERMS FREQUENTLY  
USED IN STAFF REPORTS WILL BE  
FOUND AT THE BACK OF THIS REPORT**

**DESCRIPTION OF THE APPLICATION**

The applicant, Yuma Court LLC, is requesting approval to construct a single-family detached house with a two-car garage and driveway on a residential lot within the 100 year floodplain and Resource Protection Area (RPA). The Zoning Ordinance requires approval of a Special Exception (SE 2005-MA-022) for all uses in floodplains. Due to the location of the proposed dwelling within a Resource Protection Area, the application must also obtain approval of RPA Encroachment Exception (#1166-WRPA-001-1) and Water Quality Impact Assessment (WQIA #1166-WQ-002-1) required by the Chesapeake Bay Preservation Ordinance. In addition, the applicant is requesting approval of a Variance Condition (VC 2005-MA-014) to reduce the front yard setback from 35.00 feet to 22.79 feet as an option in order to alleviate and minimize environmental issues regarding the development in the floodplain. The variance request for the reduction of the front yard setback, if approved, would allow the location of the structure further out of the floodplain and RPA. The reduced setback would maintain alignment of the footprint of the proposed dwelling with the adjacent existing residential structure and reduce the driveway length and amount of impervious surface.

**Special Exception Request:**

The applicant, Yuma Court LLC, is requesting approval to construct a new single-family detached house with a two-car garage and driveway on a residential lot zoned R-2 (Residential, 2 du/ac) and located within the 100 year floodplain and Resource Protection Area (RPA) of Turkeycock Run. The property consists of 18,185 square feet, and the footprint of the proposed residential structure is approximately 1,650 square feet.

Use in a Floodplain is a Category 6 Special Exception Use, and is subject to the provisions of the Zoning Ordinance General Standards of Sect. 9-006 for Special Exception Uses (Appendix 10) and provisions for Uses in a Floodplain, Sect. 2-904, among others. The requirements of the Chesapeake Bay Preservation Ordinance are applicable due to the location of the proposed dwelling within a Resource Protection Area.

A waiver of Sect. 118-6-7 of the Chesapeake Bay Preservation Ordinance, Exceptions for Loss of Buildable Area in a Resource Protection Area, specifically for RPA encroachment request within the seaward 50 feet, will be required prior to construction to allow the use within a RPA. The RPA Encroachment Exception #1166-WRPA-001-1 requires approval by the Board of Supervisors and is associated with this request (see Appendix 6).

**Variance Request:**

The applicant is also requesting a variance of the distance from the front lot line per Sect. 18-401 of the Zoning Ordinance to permit the dwelling to be 22.79 feet from the front property line, when a 35 foot front is required by the Zoning Ordinance. Due to the portion of the lot within the floodplain and the RPA, a variance to the minimum yard requirement would allow the structure to be located further outside the floodplain and the RPA, resulting in minimal disturbance in the RPA, as required by the Chesapeake Bay Preservation Ordinance. Without approval of the variance, the 35 foot yard required for the structure would result in greater encroachment of the development into the RPA with increased environmental impacts to the Cameron Run Creek watershed.

**Application Summary**

Due to the location of the lot in the floodplain and RPA, the applicant has submitted two development plats, Option A and Option B, for the location of the residential structure on the property. The SE plat for approval of Uses in the Floodplain, Option B, depicts the site per the Zoning Ordinance setback of 35 feet from the dwelling to the front lot line. The SE plat for Option A layout, which depicts a 22.79 ft. front yard setback, accompanies the Variance request (VC 2005-MA-014) for approval of the reduced front yard. If Option A for the 22.79 foot front yard setback is approved by the Board of Zoning Appeals, the front yard would be reduced approximately 12 feet from the required 35 foot minimum setback, locating the structure further out of the floodplain thus minimizing the effects of the development in the floodplain and RPA. If Option A is denied, the Option B layout, which depicts a 35.00 ft. front yard setback as required by the Zoning Ordinance, accompanies the Special Exception request (SE-2005-MA-022) for a residential use in the floodplain. With both options, the applicant must comply with provisions of the Chesapeake Bay Preservation Ordinance.

**LOCATION AND CHARACTER****Site Description:**

The property is located at 5213 Yuma Court, in the Lincolnia Park, Section Two subdivision and is currently undeveloped. The subject parcel was originally created as part of Lincolnia Park residential development in 1950, and was recorded on May 9, 1950, prior to the adoption of many of the policies and regulations currently governing floodplains, including the Chesapeake Bay Preservation Ordinance.

The site is located in an established residential neighborhood with single-family lots oriented along both sides of the existing cul-de-sac. Existing single-family detached structures are adjacent to the lot on the north and west, and a vacant parcel is adjacent on the southwest. The residential lots on the east side of the Yuma Court cul-de-sac, including the subject lot, are adjacent to Turkeycock Run, part of the county's stream valley park system. The lot is also adjacent on the southeast to the

right-of-way boundary for Interstate 395, an elevated major thoroughfare. The site slopes downward from the front of the lot on the west adjacent to Yuma Court toward the rear of the lot on the east, adjacent to Turkeycock Run. The site is heavily wooded with mature trees, shrubs and dense vegetation, and is located primarily within the 100-year floodplain and Resource Protection Area.

<b>SURROUNDING AREA DESCRIPTION</b>			
<b>Direction</b>	<b>Use</b>	<b>Zoning</b>	<b>Plan</b>
<b>North</b>	Single Family Detached Residential	R-2	Residential; 1-2 du/ac
<b>South</b>	Interstate Highway	N/A	
<b>East</b>	Fairfax County Park Authority	PDH-5	Neighborhood park
<b>West</b>	Single Family Detached Residential	R-2	Residential; 1-2 du/ac

## **BACKGROUND**

### **Site History:**

The lot was created in 1950 with the residential development of the Lincolnia Park Section Two subdivision. In the 1960s, Interstate 395 was constructed, with subsequent provisions for additional right-of-way in order to accommodate the construction of HOV traffic lanes and ramps. At that time, drainage improvements, including two box culverts, were installed underneath the right-of-way in Turkeycock Run, adjacent to the subject parcel. Accompanying this special exception is a variance request to reduce the front yard setback to minimize the environmental impacts to the Turkeycock Run FP/RPA.

## **COMPREHENSIVE PLAN PROVISIONS**

<b>Plan Area:</b>	Lincolnia Planning District; Area I
<b>Planning Sector:</b>	Lincolnia Community Planning Sector (L2)
<b>Plan Map:</b>	Residential; 1-2 du/ac
<b>Plan Text:</b>	

There is no site-specific Plan text which pertains to the application property. On page 22 of the 2003 edition of the Area I Plan, under the heading "RECOMMENDATIONS, Land Use," the Plan states:

“The Lincolnia sector is largely developed as stable single-family neighborhoods. Infill development within this sector needs to be of a compatible use, type and intensity in accordance with the guidance provided by the Policy Plan under Land Use Objectives 8 and 14.”

## ANALYSIS

The Special Exception Plat proposes two alternative layouts--Option A and Option B. The Variance Plat, applicable to Option A only, requests approval for a reduced front yard setback of 22.79 feet. The Special Exception Plats, for both Options A & B, request approval for Uses in the Floodplain, with Option A depicting a 22.79 foot front yard setback and Option B depicting a 35.63 foot front yard setback. Following a decision by the Board of Zoning Appeals on the Variance, one development plat, either Option A or Option B, will then apply for the development of the property.

### **Special Exception Plat** (Copy at front of staff report)

**Title of SE Plat:** Development Plat, Lot 81 on Yuma Court,  
Option A and Option B

**Prepared By:** Ireland/Nelson Engineers

**Original and Revision Dates:** Option A: October 1, 2005  
Option B: December 10, 2005

### **Variance Plat:** (copy at front of staff report)

**Title of VC Plat:** Development Plat, Lot 81 on Yuma Court,  
Option A

**Prepared By:** Ireland/Nelson Engineers

**Original and Revision Dates:** October 1, 2005

### SE/VC Plat Options Comparison

Both plats, Option A and Option B, depict a two-story, 3,300 square foot residential structure with attached two-car garage and driveway on an 18,185 square foot lot. The building footprint of the structure on the lot is 1,650 square feet, with a maximum height of 35 feet. Both plats also indicate the delineation of the RPA area and the 100-year floodplain. The RPA extends from the north to the south, with the edge of the line generally along the east side of Yuma Court, encompassing all properties east toward, and including, Turkeycock Run. The floodplain includes the eastern portion of the area, with the limits extending generally along a line from the northeast to the southwest, including Turkeycock Run and generally including the eastern third of the lot. Both plats also include a legend, vicinity map, project summary, floodplain notes, retaining wall data, and proposed fill and grading calculations.

The differences between the two plats relate to the minimum front yard distance from the dwelling to the front lot line, the area of the limits of clearing and grading, the amount of impervious surface, the amount of fill required, and the height and length of the required retaining wall. Option A, with a 22.79 foot front yard setback, provides a greater area of the site protected by the clearing and grading limits which will provide a larger vegetative buffer, results in less impervious surface, fewer cubic yards of fill, and depicts a smaller retaining wall in both height and length. Option B, with a 35.63 foot front yard setback which satisfies the minimum requirement of the Zoning Ordinance for the R-2 District provides less area within the limits of clearing and grading, reduced vegetative buffer, more impervious surface and cubic yards of fill and a higher and longer retaining wall.

#### **Comprehensive Plan and Land Use Analysis (Appendix 4)**

The Comprehensive Plan does not include any site-specific text for this property, other than the text that refers to this general area as planned for residential densities of 1-2 du/ac. The area has been developed with single-family detached residential neighborhoods, with the subject parcel being one of the last remaining vacant residential lots. The proposed single-family residential house is consistent in size and height with the existing residential single-family houses in the neighborhood. The front setbacks depicted on both Options A and B each maintain compatibility with the existing neighborhood characteristics. The front yard setback depicted in Option A of 22.79 feet, although 12 feet less than the required 35 feet, maintains consistency with the alignment of the existing residential structures on Yuma Court. The front yard setback depicted in Option B of 35.00 feet meets the Zoning Ordinance requirement for the existing R-2 zoning district. With both options, the proposed residential use is in harmony and compatible with the existing residential uses. The Plan also recommends development which minimizes environmental impacts. The property is partially within the 100-year floodplain and wholly within the RPA.

#### **Environmental Analysis (Appendix 5)**

The applicant is proposing a 3,300 square foot single-family residential dwelling with a 1,650 square foot building footprint within an 18,185 square foot lot. The proposed development of the property, located within the 100-year floodplain and RPA is part of the Cameron Run Watershed, and is also the subject of a concurrent Chesapeake Bay Preservation Ordinance (CBPO) Exception request (#1166-WRPA-001-1), which is discussed in the following DPWES analysis.

Approximately two-thirds of the application property is located within the 100-year floodplain associated with Turkeycock Run Stream Valley, part of the Cameron Run watershed. This area is also Resource Protection Area as defined by the Chesapeake Bay Preservation Ordinance. The Plan recommends that such areas remain undeveloped to protect waters that flow into the Chesapeake Bay. However, staff recognizes that this lot was established in an area predating a number of regulatory and Policy Plan recommendations including guidance on the Environmental Quality Corridor and floodplain. Given these circumstances, the

development of a single-family detached house on this property may be deemed appropriate. To be in harmony with Comprehensive Plan's objectives to protect water quality through compliance with the county's Chesapeake Bay Preservation Ordinance and to reduce potential flood hazard impacts, the applicant is encouraged to minimize the amount of impervious surface on site and/or provide buffers and/or other water quality measures to the satisfaction of staff in the Department of Public Works and Environmental Services.

Due to the orientation of the lot on the bulb radius of the cul-de-sac, the 35 ft. front yard setback requirement of the R-2 District places the structure further into the floodplain and the RPA. The variance request for a 22.79 ft. front yard pulls the structure 12 feet forward and in line with the residential structure on the adjacent lot to the north. The reduced yard would result in less impervious surface and minimize disturbance in the RPA, thus lessening the development effects of the proposed structure. The amount of proposed impervious area on the property for the structure depicted on SE Plat applicable to Option B, with a 35 foot front yard setback is 2,380 sq. ft. or 13.1% of the lot area and on the SE/VC Plat applicable to Option A, with a variance for a 22.79 ft. front yard setback is 2,172 sq. ft., or 11.9% of the lot area.

Both options include the restoration of 2,500 sq. ft. of the RPA of vegetated buffer. Further, both plat options and the proposed development conditions require the limits of clearing and grading shown on the SE plat be adhered to, protecting the adjacent portion of the Turkeycock Run Stream Valley. The application property will also be subject to the development conditions associated with the approval of the pending CBPO exception.

#### **Issue: Highway Noise**

Due to the proximity of the property to I-395, compliance measures are required to minimize impacts from transportation generated noise for all properties within 200 feet of the I-395 right-of-way. As part of the site plan review process, a noise analysis will be required in order to determine the impacts of the noise, and the applicant may be required to provide mitigation by utilizing building materials and other shielding measures to conform to the noise requirements. A development condition to this effect has been proposed; therefore, this issue has been resolved.

#### **Department of Public Works and Environmental Services Analysis (Appendix 6)**

#### **Issue: Chesapeake Bay Preservation Ordinance**

The subject property is located almost entirely within an established RPA. The applicant has filed an RPA Encroachment Exception (#1166-WRPA-001-1) for Loss of Buildable Area and Water Quality Impact Assessment #1166-WQ-002-1 through DPWES to permit the construction of a single-family detached house with two-car garage and driveway within an RPA/FP. DPWES staff has provided an analysis included as Appendix 6, and recommends approval of the exception to the Board of Supervisors.

This parcel was recorded as a lot in 1950, prior to the adoption of the CBPO. The proposed disturbed area within the RPA for VC Plat, Option A, is approximately 6,754 sq. ft. and for SE Plat, Option B, is approximately 7,472 sq. ft. With both options, a retaining wall is proposed to maintain the effects of on-site grading along the southern portion of the site. The retaining wall for Option A is approximately 35 feet in length, with a two-foot height, located south of the structure. The retaining wall for Option B is approximately 135 feet in length, with a two foot height for 100 feet and a four and one-half foot height for 35 feet, and located south and east of the structure. The proposed retaining wall is necessary to limit the grading and disturbance within the RPA to the minimum amount required to reclaim buildable area on the lot. With both options, the applicant is proposing to restore the disturbed portion of the RPA by establishing a vegetative buffer area of about 2,500 square feet, consisting of seven over-story trees, 14 under-story trees, 61 shrubs and groundcovers within a mulch bed to mitigate the effect of the encroachment and to provide water quality benefits.

Approval of the variance request for the reduced setback would allow the structure to be pulled 12 feet forward, resulting in a 22.79 ft. front yard and a reduction in the driveway length. The reduced front yard will also decrease the amount of disturbed area from 9,923 square feet to 7,472 sq. ft., and will result in less disturbance and impervious area within the RPA. The proposed impervious area within the RPA is reduced from 2,380 sq. ft. to 2,172 sq. ft., which represents 11.9% of the total lot area. In addition, the applicant has indicated limits of clearing and grading, as shown on the SE plat, in the rear yard from below the proposed retaining wall to the rear lot line and along both side yard boundaries adjacent to the north and south lot lines.

RPA Encroachment Exceptions for Loss of Buildable Area may be granted upon the findings listed in CBPO Sections 118-6-6 and the criteria listed under Section 118-6-7. As stated in the DPWES staff report, the applicant's request meets the criteria for the minimum requirements to achieve a reasonable buildable area: for no conference of special privileges, for harmony with the purpose and intent of the CBPO, for no substantial detriment to water quality, for no self-imposed conditions, and for imposition of reasonable and appropriate conditions to prevent the degradation of water quality. To be in harmony with Comprehensive Plan's objectives to protect water quality through compliance with CBPO and to reduce potential flood hazard impacts, the applicant is encouraged to minimize impervious surface area on site and provide buffers or other quality measures as required by DPWES.

**Resolution:**

As shown on the approved floodplain study submitted to and reviewed by DPWES, the changes to the floodplain limits will be to the horizontal shift around the proposed fill on the site with no increase in the water surface or floodplain elevations. From an environmental perspective the Option A layout is preferred as it reduces the impact to the RPA, reduces impervious area and minimizes disturbance within the buffer area with the reduced front yard setback, reduced driveway length, reduced fill and reduced retaining wall. However, with either option any grading or

disturbance below the proposed retaining wall and within the main streambed will be minimized by providing mitigation measures as required by DPWES. Preliminary findings of the submittal have been satisfied with the application review for the RPA Encroachment Exception with the proposed development conditions.

### **Issue: Floodplain Regulations**

The proposed disturbance area and fill placement for the proposed development on the lot are within an area that has been designated as floodplain, as indicated on the SE plat. A previous floodplain study (#1166-FP-01-3), approved in 2002, reflects the impact of the proposed residence on the floodplain and shows that the proposed fill in the floodplain associated with this development results in no changes in the floodplain elevations. The study indicates that the Zoning Ordinance floodplain setback requirements of 15 feet horizontal distance and 18 inches above water surface elevation would be met. A detailed discussion of the structure in the floodplain follows in the Zoning Ordinance analysis section.

### **Urban Forest Management (Appendix 7)**

The property is entirely wooded with mature over-story and under-story trees and shrubs. Several of the large trees are in various stages of decay and stability. The areas of the site that will be cleared and graded could resolve safety issues associated with some of the existing trees. The construction of the retaining wall to address the elevations on the site will create a sloped area at the rear of the property toward the stream. The reforestation of the area with various native tree species to restore the area to a more natural state is recommended. A development condition to this effect has been proposed with the development conditions for the RPA Exception as well as the SE; therefore, this issue has been resolved.

### **Public Facilities Analysis--Parks (Appendix 8)**

The Park Authority owns the Turkeycock Run Stream Valley Park which is adjacent to the applicant's parcel. The Comprehensive Plan citations for resource protection state the county parks' resources should be protected from the adverse impacts of development on nearby properties. As well, the Chesapeake Bay Preservation Ordinance requires the provision of a minimum of a 100-foot riparian buffer area adjacent to perennial streams. As recommended by the Park Authority, the applicant has proposed, as shown on both plats, to preserve as much of the forested buffer on this parcel as possible and to replant a forested buffer where preservation is not possible and where sloping permits.

All public facilities issues have been resolved with proposed development conditions.

### Transportation Analysis (Appendix 9)

The proposed application would not create any significant additional impacts on the surrounding public street system.

### ZONING ORDINANCE PROVISIONS

Bulk Standards (R-2)		
Standard	Required	Provided
Lot Size	15,000 sq. ft.	18,184 sq. ft.
Lot Width	100 feet	103 feet
Maximum Building Height	35 feet	35 feet
Front Yard	35 feet	22.79 feet Option A 35.63 feet Option B
Front Yard-adjacent to I-395 ROW	35 feet	47 feet Option A 44 feet Option B
Side Yard-southwest adjacent to Lot 80	15 feet	22.74 feet Option A 29.24 feet Option B
Side Yard-north adjacent to Lot 82	15 feet	25.50 feet Option A & Option B
Rear Yard	25 feet	102.04 feet Option A 90.00 feet Option B

#### Other Zoning Ordinance Requirements:

#### Special Exception Requirements (Appendix 10)

##### ➤ General Special Exception Standards (Sect. 9-006)

General Standard 1 states that the proposed use shall be in harmony with the adopted Comprehensive Plan. The Comprehensive Plan calls for residential development at 1-2 du/ac for this property. The applicant is proposing construction of a single-family detached dwelling in a RPA and floodplain. The environmental goals of the Plan, to minimize the impacts of development within these areas, have been addressed with the proposed SE and RPA Encroachment development conditions. Therefore, this standard has been satisfied.

General Standard 2 states that the proposed use shall be in harmony with the purpose and intent of the applicable Zoning District regulations. This application is in harmony with the purpose and intent of the R-2 district, which permits single-family detached residential development. Therefore, this standard has been satisfied.

General Standard 3 states that the proposed use shall be such that it will be harmonious with and will not adversely affect the use or development of neighboring properties. The proposed use is adjacent to existing residential structures. The proposed setbacks and grades on the property are equivalent to the adjacent residential dwelling and property. The adjacency to the county's stream valley park requires that any impacts to the park are reduced. The applicant will be required by the development conditions associated with the CBPO to satisfactorily reduce and minimize any impacts that will affect the area. Therefore, this standard has been satisfied.

General Standard 4 states that the proposed use shall be such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood. As the property is an existing lot, there are no traffic impacts. A residential structure is proposed on residential property, and as such, pedestrian and vehicular traffic would not be adversely affected. Therefore, this standard has been satisfied.

General Standard 5 states that the Board shall require landscaping and screening in accordance with Article 13. Transitional screening and barriers are not required for this use. Tree cover will be required in accordance with the Zoning Ordinance and CBPO. As required by the CBPO and stated in the development conditions, a vegetative area of a minimum of 2,500 sq. ft. will be restored. Therefore, this standard has been satisfied.

General Standard 6 states that open space shall be provided in accordance with that specified for the subject zoning district. In the R-2 district, there is no open space requirement. This standard is not applicable.

General Standard 7 stipulates that adequate drainage, utilities, parking and loading shall be provided to serve the site. Adequate utilities are currently available and in place. The proposed structure is for a single-family residential dwelling, which includes a two-car garage and a driveway with the adequate dimensions to comply with the required parking for two vehicles.

General Standard 8 states that signs shall be governed by Article 12, but that the Board may impose stricter requirements than those provided in the Ordinance. This standard is not applicable.

### **Category 6 Standards, Provisions for Uses in a Floodplain (Sect. 9-606)**

This standard states that the Board may approve a special exception for the establishment of a use in a floodplain in accordance with the provisions of Part 9 of Article 2.

#### ➤ **Floodplain Regulations – Use Limitations (Sect. 2-905) (Appendix 11)**

Standard 1 states that except as may be permitted by Par. 6 and 7 of Sect. 903, any new construction, substantial improvements, or other development, including

fill, when combined with all other existing, anticipated and planned development, shall not increase the water surface elevation above the 100-year flood level upstream and downstream, calculated in accordance with the provisions of the Public Facilities Manual. Staff has proposed a development condition which states that, prior to approval of a building permit, it must be demonstrated to DPWES that the proposed construction, including fill, when combined with all other existing, anticipated, and planned development, shall not increase the water surface elevation above the 100-year flood level upstream and downstream. Therefore, this standard has been satisfied with DPWES review and finding of no off-site impacts and with adoption of the proposed development conditions.

Standard 2 states that except as may be permitted by Par. 8 of Sect. 903, the lowest elevation of the lowest floor of any proposed dwelling shall be 18 inches or greater above the water-surface elevation of the 100-year flood level calculated in accordance with the provisions of the Public Facilities Manual (PFM). Staff has proposed a development condition stating that the lowest elevation of the lowest floor will comply with the required calculation per the PFM. Therefore, this standard will be satisfied with adoption of the development conditions.

Standard 3 states that all uses shall be subject to the provisions of Par. 1 of Sect. 602, which states that, notwithstanding the provisions of Sect. 601 (Limitation on the Removal and Addition of Soil), no building shall be erected on any land and no change shall be made in the existing contours of any land, including any change in the course, width or elevation of any natural or other drainage channel, in any manner that will obstruct, interfere with, or change the drainage of such land, taking into account land development that may take place in the vicinity, under the provisions of this Ordinance, without providing adequate drainage in connection therewith as determined by the Director in accordance with the provisions of the Public Facilities Manual. Should the application be approved, staff has proposed a development condition which states that stormwater drainage shall be directed to Turkeycock Run as recommended and required by DPWES. Therefore, this standard has been satisfied.

Standard 4 states that no structure or substantial improvement to any existing structure shall be allowed unless adequate floodproofing as defined in the Public Facilities Manual is provided. Staff has proposed a development condition which states that all construction shall be in conformance with Section 3107.0, Flood-Resistant Construction, of the Virginia Uniform Statewide Building Code, and that a statement certifying all floodproofing proposed shall be provided with the Building Permit application. Therefore, this standard has been satisfied with the adoption of the proposed development conditions.

Standard 5 states that, to the extent possible, stable vegetation shall be protected and maintained in the floodplain. The limits of clearing and grading have been indicated on the SE/VC development plats for both Option A and Option B. A development condition is proposed which states that trees and other indigenous vegetation shall be preserved on the site during the construction process to the

maximum extent feasible, as determined by the Urban Forest Management Branch of DPWES. Therefore, this standard has been satisfied.

Standard 6 states that there shall be no storage of herbicides, pesticides, or toxic or hazardous substances in a floodplain, as set forth in Title 40, Code of Federal Regulations, Parts 116.4 and 261.30 et seq. A development condition to this effect has been proposed; therefore this standard has been satisfied with the adoption of the proposed development conditions.

Standard 7 states that for uses other than those enumerated in Par. 2 and 3 of Sect. 903, the applicant shall demonstrate to the satisfaction of the approving authority the extent to which: there are no other feasible options available to achieve the proposed use; the proposal is the least disruptive option to the floodplain; and the proposal meets the environmental goals and objectives of the adopted Comprehensive Plan for the subject property. The requirements for development per the RPA Encroachment Exception, if approved by the Board of Supervisors, would require the development to comply with CBPO. Therefore, this standard will be satisfied with the approval of the RPA Encroachment Exception and the adoption of the proposed development conditions.

Standard 8 states that nothing herein shall be deemed to prohibit the refurbishing, refinishing, repair, reconstruction or other such improvements of the structure for an existing use provided such improvements are done in conformance with the Virginia Uniform Statewide Building Code and Article 15 of this Ordinance. This standard is not applicable.

Standard 9 states that nothing herein shall be deemed to preclude public uses and public improvements performed by or at the direction of the County.

Standard 10 states that notwithstanding the minimum yard requirements specified by Sect. 415 for Yard Regulations for Lots, dwellings and additions proposed for location in a floodplain may be permitted subject to the provisions of this section and Chapter 118 of The Code, which is the Chesapeake Bay Preservation Ordinance. The applicant has submitted a request for an RPA Encroachment Exception (#1166-WRPA-001-1) per CBPO for full review and consideration for the structure. Therefore, this standard has been satisfied.

Standard 11 states that all uses and activities shall be subject to the provisions of Chapter 118 of The Code. Section 118-6-7, Loss of Buildable Area in a Resource Protection Area, states the provision requiring review and approval of an RPA Encroachment Exception for residential development on the site. The applicant has submitted a request for an RPA Encroachment Exception (#1166-WRPA-001-1) per CBPO for full review and consideration for the use. Therefore, this standard has been satisfied.

Standard 12 states that when as-built floor elevations are required by federal regulations or the VUSBC for any structure, such elevations shall be submitted to the County on a standard Federal Emergency Management Agency Elevation Certificate prior to approval of the final inspection. In the case of special exception

uses, the elevation certificate shall show compliance with the approved special exception elevations. Staff has proposed a development condition which states that as-built floor elevations for the dwelling shall be submitted in accordance with the VUSBC 2000 on a standard FEMA Elevation certificate prior to approval of the framing inspection; therefore, this standard has been satisfied.

### **Variance Requirements (Appendix 12)**

The applicant is requesting approval of a variance of the minimum front yard distance from the front lot line to the proposed dwelling to be reduced from 35 feet to 22.79 feet. Due to the orientation of the lot on the bulb radius of the cul-de-sac, the 12 foot reduction of the front yard setback would align the front of the structure with the adjacent residential dwelling to the north and would allow the location of the structure 12 feet further out of the floodplain and the RPA. The length of the driveway and amount of impervious surface would also be reduced. The reduced front yard for the structure would reduce the amount of earthfill required to reclaim the floodplain by 49 cubic yards, reduce the disturbed area within the lot by 718 sq. ft, reduce the fill area in the floodplain by 3,421 sq. ft, and reduce the amount of new lot area in the floodplain by 754 sq. ft. The variance application must satisfy all of the nine requirements contained in Sect. 18-404, Required Standards for Variances. If the BZA determines that a variance can be justified, it must then decide the minimum variance which would afford relief as set forth in Sect. 18-405.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Staff Conclusions**

Staff concludes SE 2005-MA-022 is in harmony with the Comprehensive Plan and is in conformance with the applicable Zoning Ordinance provisions with the adoption of the proposed development conditions.

### **Recommendation**

Staff recommends approval of SE 2005-MA-022 subject to the proposed development conditions contained in Appendix 1a.

Staff recommends approval of Resource Protection Area Encroachment #1166-WRPA-001-1 and the Water Quality Impact Assessment #1166-WQ-002-1, subject to the proposed RPA encroachment exception conditions contained in Attachment A of Appendix #6.

If the Board of Zoning Appeals determines that the variance can be justified, it must then decide the minimum variance which would afford relief as set forth in Sect. 18-405. If it is the intent of the BZA to approve this application, the BZA should condition its approval by requiring conformance with the conditions set forth in Appendix 1b of this report.

It should be noted that it is not the intent of staff to recommend that the Board of Supervisors and the Board of Zoning Appeals, in adopting any conditions, relieve the applicant/owner from compliance with the provisions of any applicable ordinances, regulations, or adopted standards.

It should be further noted that the content of this report reflects the analysis and recommendations of staff; it does not reflect the position of the Board of Supervisors or the Board of Zoning Appeals.

## **APPENDICES**

- 1a. Proposed Development Conditions SE 2005-MA-022
- 1b. Proposed Development Conditions VC 2005-MA-014
- 2a. SE Affidavit
- 2b. VC Affidavit
- 3a. Statement of Justification SE
- 3b. Statement of Justification VC
4. Plan Citations and Land Use Analysis
5. Environmental Analysis
6. Environmental and Site Review—DPWES
7. Urban Forest Analysis
8. Parks Analysis
9. Transportation Analysis
10. Special Exception Standards
11. Provisions for Use in the Floodplain
12. Variance Requirements
13. Glossary

## PROPOSED DEVELOPMENT CONDITIONS

SE 2005-MA-022

February 8, 2006

If it is the intent of the Board of Supervisors to approve SE 2005-MA-022 located at 5213 Yuma Court (Tax Map 72-3 ((11)) 81) for use in the floodplain pursuant to Sect. 2-904 of the Fairfax County Zoning Ordinance, the staff recommends that the Board condition the approval by requiring conformance with the following development conditions:

1. This Special Exception is granted for and runs with the land indicated in this application and is not transferable to other land.
2. This Special Exception is granted only for the purpose(s), structure(s) and/or use(s) indicated on the special exception plat approved with the application, as qualified by these development conditions.
3. Any plan submitted pursuant to this Special Exception shall be in substantial conformance with the Special Exception Plat entitled "Development Plat, Lot 81 on Yuma Court, **Option A**," consisting of one sheet, prepared by Ireland/Nelson Engineers and dated October 1, 2005, and with these conditions if VC 2005-MA-014 is approved by the Board of Zoning Appeals; or in substantial conformance with the Special Exception Plat entitled "Development Plat, Lot 81 on Yuma Court, **Option B**," consisting of one sheet, prepared by Ireland/Nelson Engineers and dated December 10, 2005, and with these conditions, if VC 2005-MA-014 is not approved by the Board of Zoning Appeals. Minor modifications to the approved special exception may be permitted pursuant to Par. 4 of Sect. 9-004 of the Zoning Ordinance.
4. This Special Exception shall not be valid unless and until the pending Resource Protection Area Encroachment Exception #1166-WRPA-001-1 with its conditions per Appendix 6, Attachment A, and the Water Quality Impact Assessment #1166-WQ-00201 are approved.
5. Prior to approval of a grading plan, a Hold Harmless agreement in a form satisfactory to the County Attorney shall be executed with the County for all adverse effects which may arise as a result of the location of the site within a floodplain area.
6. Irrespective of that shown on the SE plat, the lowest floor elevation of the dwelling shall be that which exceeds 18 inches above the 100-year flood level. In addition, all mechanical, electrical and utility equipment shall be at or above water-surface elevation of the 100-year flood level.

## APPENDIX 1a

7. As-built floor elevations for the residence shall be submitted to DPWES in accordance with the Virginia Uniform Statewide Building Code (VUSBC 2000) on a standard FEMA Elevation Certificate prior to approval of the framing inspection.
8. No dwelling or portion of the dwelling shall be located closer than 15 feet in horizontal distance to the edge of the floodplain.
9. The area protected by the limits of clearing and grading shall remain undisturbed. No structures, to include fences, shall be placed in this area. All tree preservation-related work occurring in this area shall be accomplished in a manner that minimizes damage to vegetation to be preserved including any woody, herbaceous or vine plant species that occur in the lower canopy environment, and to the existing top soil and leaf litter layers that provide nourishment and protection to that vegetation. All activities, including any removal of any vegetation or soil disturbance in tree preservation areas including the removal of plant species that may be perceived as noxious or invasive, such as poison ivy, greenbrier, multi-floral rose, etc., shall be subject to the review and approval of Urban Forest Management, DPWES.
10. The limits of clearing and grading shown on the SE plat shall be honored during the construction of the single family dwelling as determined by DPWES. Super-silt fence shall be provided along the limits of clearing and/or grading within the RPA for the duration of the land disturbing activity and until the disturbed area is completely stabilized as determined by DPWES. An additional encroachment into, or disturbance of, the RPA shall be considered a violation of the Chesapeake Bay Preservation Ordinance and shall be subject to the penalties of that Ordinance.
11. The area of the Resource Protection Area that is disturbed shall be limited to that area shown on the SE plat. The restoration area and buffer establishment area identified on the SE plat shall be replanted prior to the issuance of a Residential Use Permit. The restoration and buffer establishment shall be consistent with the criteria of CBPO Sect. 118-3-3-(f) as determined by DPWES and shall be a minimum of 2,500 contiguous sq. ft. and shall consist of 7 over-story trees, 14 under-story trees, 61 shrubs and ground covers within a mulch bed. Trees should be 2 to 2.5 inches in caliper at the time of planting. Plant material shall be randomly spaced to achieve a relatively even spacing throughout the buffer, in conformance with the Public Facilities Manual 12-0702.1B(3). All plants shall be native species to the degree practical and adaptable to site conditions.
12. A grading plan in accordance with Chapter 104, the Erosion and Sediment Control Ordinance, shall be submitted for approval by DPWES. Plans shall be implemented as required by DPWES.
13. All construction shall be in conformance with the Flood-Resistant Construction Standards of the Virginia Uniform Statewide Building Code (VUSBC 2000). A statement certifying all floodproofing proposed, and indicating its compliance with all County, State, and Federal requirements shall be provided with the

Building Permit application. This certification shall be signed, sealed, and shall indicate the address of the certifying professional and it shall cover all structural, electrical, mechanical, plumbing, water and sanitary facilities connected with the use.

14. Stormwater drainage shall be directed to Turkeycock Run through the use of pipes, swales, or other methods, as determined by DPWES. All fill areas shall be stabilized, graded, or have drains installed such that normal rainfall will not flow over the filled area onto adjacent properties, as determined by DPWES.
15. Disclosure of potential flood hazards due to the location of the site within the 100-year floodplain shall be made in writing to any potential home buyers prior to establishment of a sales contract and shall be noted in the deed for the property.
16. There shall be no storage of herbicides, pesticides, or toxic or hazardous substances, as set forth in Title 40, Code of Federal Regulations, Parts 116.4 and 261.30 et seq., below the flood level.
17. Prior to the issuance of a Grading Plan, a record plat including the established floodplain on the property shall be recorded.
18. In order to reduce interior noise to a level of approximately DNL 45 dBA, the residential dwelling within a highway noise impact zone of DNL 65 to 70 dBA, as ultimately determined by the Study, shall be constructed with the following acoustical treatment measures:
  - a. Exterior walls shall have a laboratory sound transmission class ("STC") rating of at least 39.
  - b. Glazed areas, including doors and windows, shall have a laboratory STC rating of at least 28 unless glazing constitutes more than 20% of any façade exposed to noise levels of DNL 65 dBA or above. If glazing constitutes more than 20% of an exposed façade, then the windows shall have a STC rating of at least 39.
  - c. All surfaces shall be sealed and caulked in accordance with methods approved by the American Society for Testing Materials ("ATSM") to minimize sound transmission.

In order to reduce interior noise to a level of approximately DNL 45 dBA, the residential dwelling within a highway noise impact zone of DNL 70-75 dBA, shall be constructed with the following acoustical treatment measures:

- a. Exterior walls shall have a laboratory STC rating of at least 45.
- b. Glazed areas, including doors and windows, shall have a laboratory STC rating of at least 37 unless glazing constitutes more than 20% of any façade exposed to noise levels of DNL 70 dBA or above. If glazing constitutes more than 20% of an exposed façade, then the windows shall have a STC rating of at least 45.

- c. All surfaces shall be sealed and caulked in accordance with methods approved by the ASTM to minimize sound transmission.

All areas of the residential dwelling that require interior or exterior structural noise alteration shall be identified on the subdivision plat.

The Applicant reserves the right to pursue other methods of mitigating highway noise impacts if it can be demonstrated, through an independent noise study as reviewed and approved by DPWES prior to site plan approval, in coordination with the Department of Planning and Zoning (DPZ), that such other methods will be effective in reducing interior noise levels to approximately DNL 45 dBA and if these methods are in substantial conformance with the GDP and proffers.

The above proposed conditions are staff recommendations and do not reflect the position of the Board of Supervisors unless and until adopted by that Board.

This approval, contingent on the above noted conditions, shall not relieve the applicant from compliance with the provisions of any applicable ordinances, regulations, or adopted standards. The applicant shall be responsible for obtaining the required Residential Use Permit through established procedures, and this Special Exception shall not be valid until this has been accomplished.

Pursuant to Section 9-015 of the Zoning Ordinance, this special exception shall automatically expire, without notice, thirty (30) months after the date of approval unless a building permit has been obtained. The Board of Supervisors may grant additional time to establish the use or to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the special exception. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.

**PROPOSED DEVELOPMENT CONDITIONS**

**VC 2005-MA-014**

**February 8, 2005**

1. This variance is approved for the dwelling shown on the plat entitled "Development Plat, Lot 81 on Yuma Court, Option A," consisting of one sheet, prepared by Ireland/Nelson Engineers and dated October 1, 2005, and is not transferable to other land.
2. A Building Permit shall be obtained prior to any construction and approval of final inspections shall be obtained.

Pursuant to Sect. 18-407 of the Zoning Ordinance, this variance shall automatically expire, without notice, thirty (30) months after the date of approval unless construction has commenced and been diligently prosecuted. The Board of Zoning Appeals may grant additional time to commence construction if a written request for additional time is filed with the Zoning Administrator prior to the date of expiration of the variance. The request must specify the amount of additional time requested, the basis for the amount of time requested and an explanation of why additional time is required.