



Clarksburg Fire Station #35, Forest Conservation Plan and Water Quality Plan, MR2012001



Joshua Penn, Senior Planner, Joshua.Penn@montgomeryPlanning.org, 301-495-4546



Rich Weaver, Planner Coordinator, Richard.Weaver@montgomeryplanning.org, 301-495-4544



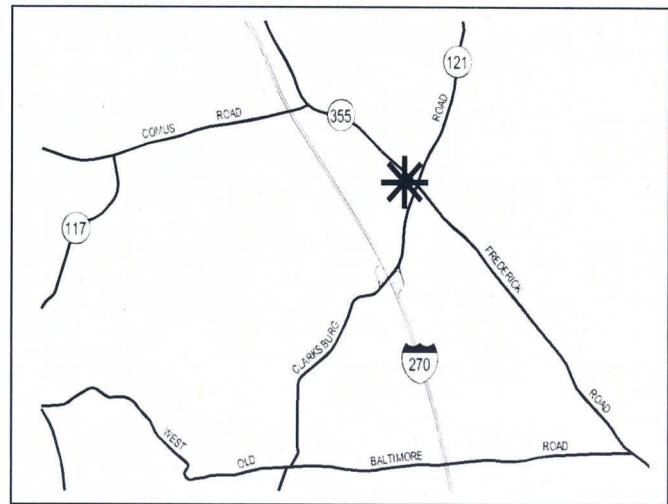
John Carter, Chief Area 3 Planning Team



description

Clarksburg Fire Station #35, Forest Conservation Plan and Water Quality Plan, MR2012001

- 23420 Frederick Road (MD 355)
- 3.99 Acres zoned R-200 in the Clarksburg Master Plan area
- Approval of a Final Forest Conservation Plan and Preliminary/Final Water Quality Plan for the construction of a new firehouse



summary

- **APPROVAL with conditions** of the special protection area Water Quality Plan:
 - 1) Conformance to the conditions as stated in Montgomery County Department of Permitting Services (DPS) Preliminary/Final water quality plan approval letter dated July 29, 2011 (Attachment 1).
- **APPROVAL** of the Final Forest Conservation Plan
- There are three items for Planning Board review for the Clarksburg Fire Station project: the Mandatory Referral plan, the special protection area (SPA) preliminary/final water quality plan, and the final forest conservation plan (FCP). This memorandum covers staff's review and recommendations on the SPA preliminary/final water quality plan and the forest conservation plan.

DISCUSSION

The Clarksburg Fire Station #35 site is a 3.99-acre site is comprised of two parcels, P50 and P04, and is located at 23420 Frederick Road (MD 355) just north of the intersection of Frederick Road (MD 355) and Clarksburg Road (MD 121). Both parcels are zoned R-200. The project site is adjacent to, but not within, the Clarksburg Historic District. The site contains 3.64-acres of forest and the topography slopes northeast from the high point of the site in the west corner.

The proposed plan is to construct a new, single story fire station to safely and responsively serve the Clarksburg vicinity. The single story design was chosen by necessity for safe and responsive reactions to emergency activities.

The Board's actions on the preliminary/final water quality plan and Forest Conservation plan are regulatory and binding. The Planning Board must act on the preliminary/final water quality and the forest conservation plan before it finalizes its recommendations on the mandatory referral.



Figure 1: 2010 Aerial Photograph of Project Site and Vicinity

SPA WATER QUALITY PLAN

This project is within the Clarksburg SPA and on publicly owned property so it is required to obtain approval of a water quality plan under section 19-67 of the Montgomery County Code. This section of the code states:

(c) Publicly owned property. Before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan.

Review for Conformance to the Special Protection Area Requirements

As part of the requirements of the Special Protection Area law, a SPA water quality plan should be reviewed in conjunction with a mandatory referral.¹ Under the provision of the law, the Montgomery County Department of Permitting Services (DPS) and the Planning Board have different responsibilities in the review of a water quality plan. DPS has reviewed and conditionally approved the elements of the water quality plan under its purview. The Planning Board responsibility is to determine if environmental buffer protection, SPA forest conservation and planting requirements have been satisfied.

County DPS Special Protection Area Review Elements

DPS has reviewed and conditionally approved the elements of the SPA preliminary/final water quality plan under its purview with a synopsis provided below (see Attachment A).

Site Performance Goals

As part of the preliminary/final water quality plan, the following performance goal was established for the site:

1. Minimize storm flow run off increases.
2. Minimize sediment loading.
3. Maximize groundwater recharge.
4. Control toxic substances on site.

Stormwater Management Concept

Stormwater management and recharge will be provided on site via five enhanced biofilters and a structural filter to treat the fueling area prior to releasing to a biofilter.

Sediment and Erosion Control

¹ Section 19-67 of the Montgomery County Code states that “ before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan.”

Redundant sediment controls are to be used throughout the site. The use of sediment traps with forebays that provide 130% of the normally required storage volume is acceptable for larger disturbed areas. Silt fence alone will not be allowed as a perimeter control. The use of super silt fence will be acceptable for small areas of disturbance.

Monitoring of Best Management Practices

The monitoring requirements must be in accordance with the best management practices monitoring protocols which have been established by the Department of Permitting Services (DPS) and the department of Environmental Protection (DEP). The monitoring requirements are described in the "Attachment to the Final Water Quality Plan" memorandum by DEP dated July 25, 2011.

Planning Board Special Protection Area Review Elements

Environmental Planning Staff has reviewed and recommends Planning Board approval of the elements of the SPA water quality plan under its purview with conditions:

Environmental Guidelines

A Natural Resources Inventory/Forest Stand Delineation (NRI/FSD # 420110590) was approved by planning staff on November 12, 2010. The site is located in the Little Seneca Creek watershed (Use I-P waters). There are no streams, floodplains, wetlands, or environmental buffers on or affecting the site. The Montgomery County Department of Environmental Protection's "Countywide Stream Protection Strategy" (February 1998) documents the subwatershed condition as *good*.

Imperviousness

Within this section of the Clarksburg SPA there is no impervious surface cap or limit. However, a main goal of all SPA's is to reduce the overall impervious footprint of new development within SPA boundaries (the impervious footprint includes roads, paved surfaces such as driveways, houses, buildings, parking lots, etc.).

The Clarksburg Fire Station project proposes 1.47 acres (63,817 square feet) of impervious surface area on 3.99 acres of land which results in 37% imperviousness. While 37% imperviousness is much higher than the average for the R-200 zone (19%) the proposed fire station design adheres closely to a standard prototype which is responsive to the required service program needs in an efficient and productive manner. By necessity, the building is a one-story structure and has four apparatus bays with a pull-through configuration. In recognition of the constraints of the site and the need to minimize impervious surfaces, the size of the facility was reduced by eliminating a "public function space". This effectively reduced the overall building footprint and the number of required parking spaces. In addition, parking was kept to the absolute minimum to serve staff and visitors and was laid out along a single drive aisle leading to the rear of the apparatus bays, eliminating the need for a second aisle.

Staff believes the applicant has taken reasonable efforts to minimize the impervious surfaces to the greatest extent possible while maintaining the intended public service in a safe and responsive manner.

Forest Conservation

This project is subject to the Montgomery County Forest Conservation law (Chapter 22A of the County code) under section 22A-4(d) *“a government entity subject to mandatory referral on a tract of land 40,000 square feet or larger...”* The site is 3.99 acres in size and contains 3.64 acres of forest.

The forest conservation plan shows 2.78 acres of forest clearing and 0.86 acres forest retention generating a 0.65 acre planting requirement. The applicant wishes to meet the forest planting requirements through 0.13 acres of landscape planting onsite, 0.33 acres of reforestation onsite, and 0.19 acres to be met via a fee-in-lieu payment.

The submitted forest conservation plan meets all applicable requirements of the Chapter 22A of the County code (Forest Conservation Law) if a Variance, discussed below, is granted.

Forest Conservation Variance

Section 22A-12(b)(3) of the County Forest Conservation Law identifies certain individual trees as high priority for retention and protection. Any impact to these trees, including removal of the subject tree or any disturbance within the tree’s critical root zone (CRZ) requires a variance. An applicant for a variance must provide certain written information in support of the required findings in accordance with Section 22A-21 of the County Forest Conservation Law. The law requires no impact to trees that measure 30 inches or greater, DBH; trees that are part of a historic site or designated with a historic structure; trees that are designated as a national, State, or County champion tree; trees that are at least 75 percent of the diameter of the current State champion tree of that species; or trees, shrubs, or plants that are designated as Federal or State rare, threatened, or endangered species. The applicant had submitted a variance request on August 12, 2011 for the impacts and/or removal of trees within the proposed limits of disturbance of the project (Attachment B). The applicant currently proposes to remove 3 trees that are 30 inches and greater, DBH, and to impact, but not remove, 2 others.

Tree #	Species	Diameter (inches)	Condition	Disposition	CRZ Area (sf)	CRZ Impacts (sf)	CRZ Impacts (%)
12	Acer saccharinum	30" DBH	Good	Save	6793	2112	31%
13	Acer saccharinum	31" DBH	Good	Save	6362	2038	32%
17	Acer saccharinum	37" DBH	Good	Remove	N/A	N/A	N/A
18	Acer saccharinum	30" DBH	Good	Remove	N/A	N/A	N/A
20	Acer saccharinum	58" DBH	Good	Remove	N/A	N/A	N/A

Figure 2: Trees Requiring a Variance

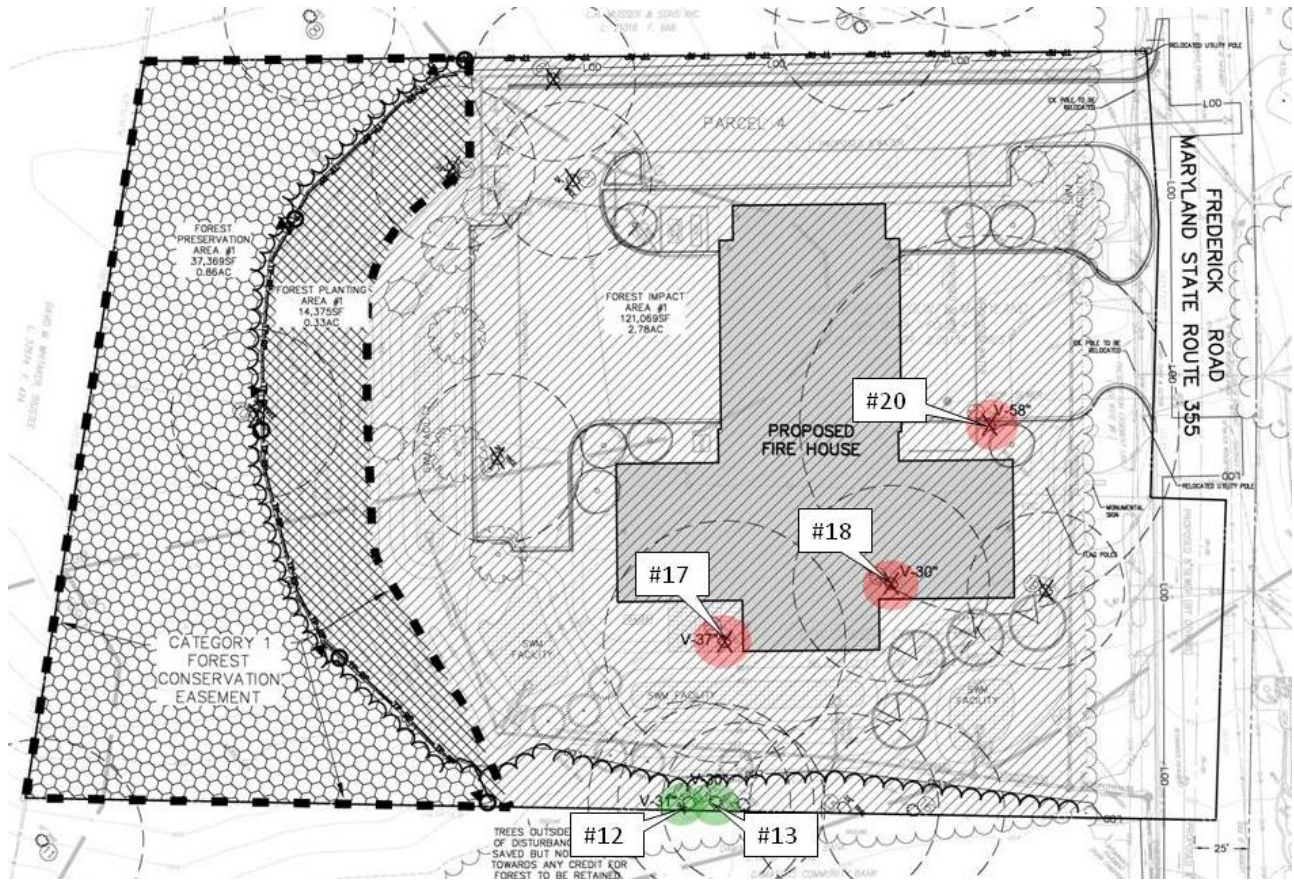


Figure 3: Plan View of Trees Requiring Variance

Section 22A-21 of the County Forest Conservation Law sets forth the findings that must be made by the Planning Board or Planning Director, as appropriate, in order for a Variance to be granted.

Unwarranted Hardship Basis

The applicant believes that the proposed development is situated in an area of the Clarksburg Master Plan that was identified for future development and that the site could not be developed as fire station without the removal/impacts to trees requiring a Variance. Staff concurs with the applicant’s assessment. The site cannot be developed as a functional fire station without the loss of, or impact to, the trees identified in this Variance. Efforts have been made to address tree impacts; however, the applicant has a sufficient unwarranted hardship to consider a Variance request.

County Arborist’s Recommendation

In accordance with Montgomery County Code, Section 22A-21(c) the Planning Department is required to refer a copy of the variance request to the County Arborist in the Montgomery County Department of Environmental Protection for a recommendation prior to acting on the request. The request was forwarded to the County Arborist on August 19, 2010. On September 6, 2011 the County Arborist issued

her recommendations on the Variance request (Attachment C). The County Arborist's recommendation for the Variance request was favorable, but made a recommendation of mitigation for the impacts.

Variance Findings

The Planning Board must make findings that the applicant has met all requirements of Section 22A-21 of the County Code before granting the Variance. Staff has made the following determination on the required findings:

1. Will confer on the applicant a special privilege that would be denied to other applicants;

The proposed development is situated in an area of the Clarksburg Master Plan that was identified for future development. The applicant is filing a standard Forest Conservation Plan concurrently with this variance request, and will follow the rules and requirements set forth by that plan. The project is not seeking any special privilege only the minimal amount of relief necessary through the established variance process.

2. Is based on conditions or circumstances which are the result of the actions by the applicant.

As shown on the proposed plans, the grading for the site and the location of the storm water facilities seek to minimize the impacts to the existing forest and the few specimen trees on the site. Impacts to the specimen trees are the unavoidable result of the proposed development, not an inappropriate action taken by the applicant.

3. Is based on a condition relating to land or building use, either permitted or non-conforming on a neighboring property.

The requested variance is a result of the required buildable envelope as well as the proposed site design and layout on the subject property, and is not a result of land or building use on a neighboring property.

4. Will violate State water quality standards or cause measurable degradation in water quality.

The proposed fire station has an approved Storm Water Management (SWM) Concept Plan, with final SWM Plans under-going review with MCDPS. The project will be developed in accordance with the latest state and local regulations for stormwater management designed to provide sufficient protection of the streams. These include five proposed bio-filtration facilities which will filter and cleanse the runoff generated by the proposed development.

MITIGATION

Staff does not recommend that compensation be required beyond the reforestation requirement of the forest conservation plan for the proposed impacts to, or removal of, the 5 trees. All five of the affected trees are within the existing forest. As part of the forest conservation plan, the applicant is required to

provide reforestation to mitigate for the loss of forest. Part of this reforestation will be done on the site. Staff believes the required reforestation on the site will also mitigate for the loss of the 3 large trees in the existing forest and the impacts to the 2 others to remain. Additionally, Staff believes such impacts are due to necessary infrastructure and are unavoidable.

CONCLUSION

Staff recommends the Planning Board approve the final water quality plan and the final forest conservation plan.



RECEIVED

AUG 03 2011

DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett
County Executive

Carla Reid
Director

July 29, 2011

Mr. Jason Evens
VIKA, Inc.
20251 Century Boulevard, Suite 400
Germantown, Maryland 20874

Re: **Preliminary/Final Water Quality Plan**
for Clarksburg Fire Station #35
SM File #: 239636
Tract Size/Zone: 4.04 acres/R-200
Watershed: Little Seneca Creek

SPECIAL PROTECTION AREA

Dear Mr. Evens:

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

Site Description: The proposal is for the construction of a fire station and the associated infrastructure on a 4 acre property located on MD Route 355. This is located within the portion of the Little Seneca Creek watershed which is in the Clarksburg Special Protection Area.

Stormwater Management: Stormwater management and recharge will be provided on-site via five enhanced biofilters and a structural filter to treat the fueling area prior to outfalling to a biofilter.

Sediment Control: Redundant sediment controls are to be used throughout the site. The use of sediment traps with forebays that provide 130% of the normally required storage volume is acceptable for larger disturbed areas. Silt fence alone will not be allowed as a perimeter control. The use of super silt fence will be acceptable for small areas of disturbance.

Performance Goals: The performance goals that were established at the pre-application meeting still apply. The performance goals are as follows:

1. Minimize storm flow run off increases.
2. Minimize sediment loading.
3. Maximize groundwater recharge.

4. Control toxic substances on site.

Monitoring: The monitoring must be in accordance with the BMP monitoring protocols which have been established by the Department of Permitting Services (DPS) and Department of Environmental Protection (DEP). The monitoring requirements are described in the "Attachment to the Final Water Quality Plan" memorandum by DEP and included with this Final Water Quality Plan approval letter.

Prior to the start of any monitoring activity, a meeting is to be held on site with DEP, DPS, and those responsible for conducting the monitoring to establish the monitoring parameters.

Conditions of Approval: The following items will need to be addressed during the detailed sediment control/stormwater management plan stage. This list may not be all inclusive and may change based on available information at the time of the subsequent plan reviews:

1. Provide documentation that SHA will allow the proposed storm drain connection in the MD Route 355 right-of-way. Additionally, any required frontage improvements including sidewalks or pavement widening will need to address stormwater management/Environmental Site Design.
2. A detailed review of the stormwater management computations will occur at the time of detailed plan review.
3. Provide larger curb openings to spread flows as runoff enters the bioretention structures.
4. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.

Payment of a stormwater management contribution in accordance with Section 2 of the Stormwater Management Regulation 4-90 **is not required**.

This letter must appear on the sediment control/stormwater management plan at its initial submittal. The concept approval is based on all stormwater management structures being located outside of the Public Utility Easement, the Public Improvement Easement, and the Public Right of Way unless specifically approved on the concept plan. Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended Water Quality Plan requirements.

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

Sincerely,



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

Jason Evens
July 29, 2011
Page 3

cc: C. Conlon (MNCPPC-DR)
M. Pfefferle (MNCPPC-ED)
D. Jordahl (MCDEP)
L. Galanko
SM File # 239636

Qn: on-site 4.04 ac
Ql: on-site 4.04 ac.
Recharge Provided



August 12, 2011

Mr. Mark Pfefferle
Acting Division Chief
Environmental Planning Division
MNCPPC
8787 Georgia Avenue
Silver Spring, MD 20910

RE: Forest Conservation Variance Request
Clarksburg Fire Station

Dear Mr. Pfefferle:

On behalf of our client, Montgomery County, the Applicant, we are submitting this request for a Variance from the requirements of the Forest Conservation Law for the State of Maryland. The request is made under the variance provisions of the Montgomery County Forest Conservation Ordinance to comply with the newly enacted Natural Resources, Title 5, Section 5-1607 of the Maryland Code which requires the Applicant to file for a variance to remove trees that are 30" DBH or greater or trees that are 75% the diameter of the county champion for that species if a project did not receive Preliminary Forest Conservation Plan Approval prior to October 1, 2009.

The Clarksburg Fire Station project proposes the construction of a new fire station in the R-200 Zone. The proposed fire station design adheres closely to a standard prototype which is responsive to the required service program needs in an efficient and productive manner. By necessity, the building is a one-story structure and has four apparatus bays with a pull-through configuration. In recognition of the constraints of the site and the need to minimize the environmental impact the original size of the facility was reduced by eliminating a public function space. This effectively reduced the overall building footprint and the number of required parking spaces. In addition, parking was kept to the absolute minimum to serve staff and visitors and was laid out along a single drive aisle leading to the rear of the apparatus bays, eliminating the need for a second aisle. The building setback from the front property line has also been kept to a minimum to mitigate the impact on the existing topography and the forest in the rear as well as the amount of re-grading required.

Although every effort has been made to mitigate the environmental impact through the design and placement of the fire station, the proposed improvements will result in the removal of three of the five specimen trees on the property. In Table 1 below the impacted trees are listed as they are identified and described in the Forest Conservation Plan, including their respective measurements.

VIKA, Incorporated

20251 Century Boulevard, Suite 400 * Germantown, Maryland 20874 * 301.916.4100 Fax 301.916.2262
8180 Greensboro Drive, Suite 200 * McLean, Virginia 22102 * 703.442.7800 Fax 703.761.2787

www.vika.com

The table also illustrates the potential impacts on the critical root zones of those trees which will be preserved.

Table 1

Tree #	Species	Diameter (inches)	Condition	Disposition	CRZ Area (sf)	CRZ Impacts (sf)	CRZ Impacts (%)
12	Acer saccharinum	30" DBH	Good	Save	6793	2112	31%
13	Acer saccharinum	31" DBH	Good	Save	6362	2038	32%
17	Acer saccharinum	37" DBH	Good	Remove	N/A	N/A	N/A
18	Acer saccharinum	30" DBH	Good	Remove	N/A	N/A	N/A
20	Acer saccharinum	58" DBH	Good	Remove	N/A	N/A	N/A

Tree #12- This tree is located approximately mid-way along the eastern property line of the site. The proposed storm water management pipe alignment runs approximately 22 feet off the base of the tree. Assuming a disturbance area of five feet off-set from the outside of the pipe, a determination was made that 31% of the critical root zone of the tree would be impacted which is less than the maximum threshold and therefore the tree is likely to survive. This impact was minimized through a re-design of the storm water management pipes and bio-filtration ponds to limit their size to the extent possible. Because this site is within a Special Protection Area, the use of ESD practices requires a specific amount of area and location for bio-filtration ponds. To reduce their size even more or to do away with them completely, would require concrete vaults to be buried underground and ESD measures would be lost. It should also be noted that a retaining is proposed along the western property line explicitly to allow the proposed improvements, including the bio-retention facilities, to be shifted as far away as possible from Tree #12 and the other trees along the eastern property line.

Tree #13- This tree sits in a similar position to tree 12, approximately 10 feet further south. The proposed storm water management pipe alignment is running approximately 20 feet off the base of the tree. Assuming the same disturbance area noted above for Tree #12, a determination has been made that 32% of the tree will be impacted, which we believe is minimal enough for the tree to survive. As was the case for Tree #12, the SWM facilities were re-designed to minimize the amount of impact to the critical root zone of the tree.

Tree #17, 18, and 20- These individual trees are located in the middle of the site and are proposed to be removed because of the constraints they pose to the building location and required grading. If allowed to remain, their location would pose an unwarranted hardship because it would preclude the use of the standard county prototype fire station with the result that the operational capabilities would be significantly compromised. As previously noted, every opportunity for reducing the size of the building and amount of pavement has been taken advantage of and where possible setbacks have been kept to a minimum to reduce the overall impact on the site. Finally, it should be noted that these are individual trees not contiguous with any forested area. Through their removal, larger forested area can be preserved.



To grant the requested variance, the Planning Board must find that the request:

1. Will not confer on the applicant a special privilege that would be denied to other applicants;
2. Is not based on conditions or circumstances which are the result of actions by the applicant;
3. Does not arise from a condition relating to land or building use, either permitted or non-conforming, on a neighboring property; and
4. Will not violate State water quality standards or cause measurable degradation in water quality.

We submit the following rationale in support of the request for a Forest Conservation variance:

1. The proposed development is situated in an area of the Clarksburg Master Plan that was identified for future development. The applicant is filing a standard Forest Conservation Plan concurrently with this variance request, and will follow the rules and requirements set forth by that plan. The project is not seeking any special privilege – only the minimal amount of relief necessary through the established variance process.
2. As shown on the proposed plans, the grading for the site and the location of the storm water facilities seek to minimize the impacts to the existing forest and the few specimen trees on the site. Impacts to the specimen trees are the unavoidable result of the proposed development, not an inappropriate action taken by the applicant.
3. Where ever possible, the design of the site including building location, grading, parking, and SWM design has been adjusted to minimize the impact to the adjacent property to the north. It should also be clear that no specimen trees are affected by neighboring properties.
4. The proposed fire station has an approved Storm Water Management (SWM) Concept Plan, with final SWM Plans under-going review with MCDPS. The project will be developed in accordance with the latest state and local regulations for stormwater management designed to provide sufficient protection of the streams. These include five proposed bio-filtration facilities which will filter and cleanse the runoff generated by the proposed development.

Thank you for your consideration of this variance request. We believe that the information provided is sufficient to warrant approval of the variance. This action is very important to the success of the project and will ensure that the facility will function in an efficient and productive manner on behalf of the larger community. Please let us know if you have any further questions or need more information.

Sincerely,
VIKA, Inc.



Meredith Byer, RLA
Associate





DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Robert G. Hoyt
Director

September 6, 2011

Françoise Carrier, Chair
Montgomery County Planning Board
Maryland National Capital Park & Planning Commission
8787 Georgia Avenue
Silver Spring, Maryland 20910

RE: Clarksburg Fire Station, MR 2012001, NRI/FSD application accepted on 10/7/2010

Dear Ms. Carrier:

The County Attorney's Office has advised me that the provisions contained in Section 5-1607 of Title 5 (Natural Resources) of the Maryland Code apply to any application required by Chapter 22A of the Montgomery County Code submitted after October 1, 2009. Since the application for the above referenced request is required to comply with Chapter 22A based on a review by the Maryland National Capital Park & Planning Commission (MNCPPC) and was submitted after this date, I am providing the following recommendation pertaining to this request for a variance.

Section 22A-21(d) of the Forest Conservation Law states that a variance must not be granted if granting the request:

1. Will confer on the applicant a special privilege that would be denied to other applicants;
2. Is based on conditions or circumstances which are the result of the actions by the applicant;
3. Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property; or
4. Will violate State water quality standards or cause measurable degradation in water quality.

Applying the above conditions to the plan submitted by the applicant results in the following findings:

1. The granting of a variance in this case would not confer a special privilege on this applicant that would be denied other applicants as long as the same criteria are applied in each case. Therefore, the variance can be granted under this condition.

2. Based on a discussion on March 19, 2010 with representatives of the Maryland Department of Natural Resources Forest Service and the MNCPPC, the disturbance of trees, or other vegetation, is not interpreted as a condition or circumstance that is the direct result of the actions by the applicant and, therefore, the variance can be granted under this condition, as long as appropriate mitigation is provided for the resources disturbed.
3. The disturbance of trees, or other vegetation, by the applicant does not arise from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property. Therefore, the variance can be granted under this condition.
4. The disturbance of trees, or other vegetation, by the applicant will not result in a violation of State water quality standards or cause measurable degradation in water quality. Therefore, the variance can be granted under this condition.

Therefore, I recommend that this applicant qualify for a variance conditioned upon mitigating for the loss of resources due to removal or disturbance to trees, and other vegetation, subject to the law. Until other guidelines are developed, I recommend requiring mitigation based on the area of the critical root zone lost or disturbed. The mitigation can be met using any currently acceptable method under Chapter 22A of the Montgomery County Code.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,



Laura Miller
County Arborist

cc: Robert Hoyt, Director
Walter Wilson, Associate County Attorney
Mark Pfefferle, Acting Chief