



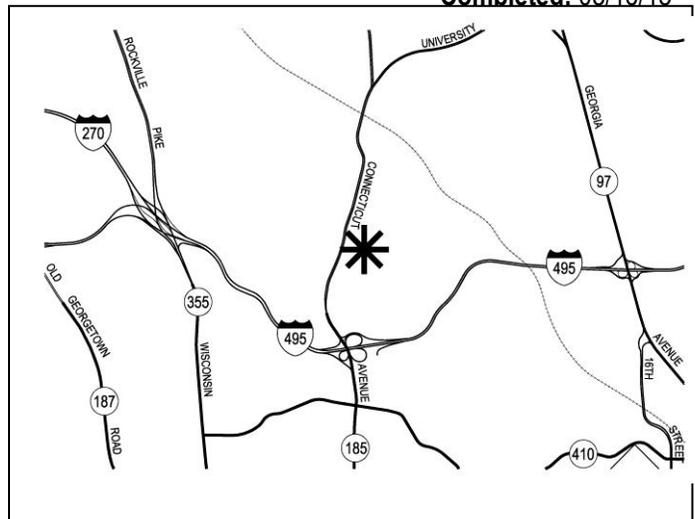
**Bethesda-Chevy Chase Middle School #2, Preliminary Forest Conservation Plan, MR2014048**

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**Description**

- Preliminary Forest Conservation Plan associated with the Mandatory Referral for the construction of a new middle school in the Bethesda-Chevy Chase cluster on the former Rock Creek Hills Local Park site;
- 3701 Saul Road, Kensington, Maryland, 20895;
- 13.39 acres zoned R-90;
- 1989 *Master Plan for the Communities of Kensington-Wheaton*;
- Applicant: Montgomery County Public Schools;
- Filing date: May 16, 2014.

Completed: 03/16/15



**Summary**

The Applicant proposes to:

- Clear 2.80 acres of forest, retain 0.75 acres of forest and plant 0.16 acres of forest on-site.
- Record a Category I Conservation Easement over .91 acres of retained and planted forest by deed.
- Remove 31 trees and impact two additional trees that require a variance, per Section 22A-12(b)(3).
- Pursuant to Chapter 22A of the County Code, the Board's actions on Forest Conservation Plans are regulatory and binding.
- Staff recommends **approval with conditions**.

## Conditions of Approval

1. Revise the Preliminary Forest Conservation Plan and variance request to show a realigned parent drop-off loop, pedestrian entrance, and associated site engineering, entering the site from Saul Road at an elevation of approximately 246' (Attachment 2).
  - a. The realigned parent drop-off loop must minimize grading and retaining walls to maximize forest and tree retention and reduce the number of trees requiring a variance.
2. Remove trees #7 36", 19", 15" black locust and #8 41" black locust from the variance request.
3. Record a Category I Conservation Easement over all areas of forest retention and forest planting.
4. Record a Category II Conservation Easement over all plantings in landscape credit area and show the individual trees on the Final Forest Conservation Plan.
5. The Final Forest Conservation Plan must include the plantings shown on the landscape plan (Attachment 3) as mitigation for the loss of specimen trees.

## Project Description

The Montgomery County Public Schools (MCPS) is proposing to construct a new middle school in the Bethesda-Chevy Chase cluster on the former Rock Creek Hills Local Park site. The site is currently developed with rectangular ball fields, tennis courts, basketball courts, a playground, roller hockey rink and a walking path.

The middle school site is surrounded by single-family detached houses to the south and east, by Kensington Parkway Stream Valley Park to the



west, and Kensington Park Retirement Community to the north. The project will include the construction of a four-story school, parking and circulation systems, ball fields and recreation facilities, and stormwater management facilities. The 13.39-acre property is owned by MCPS and located at 3701 Saul Road, Kensington, Maryland, 20895, within the 1989 *Master Plan for the Communities of Kensington-Wheaton*.

## Site Description

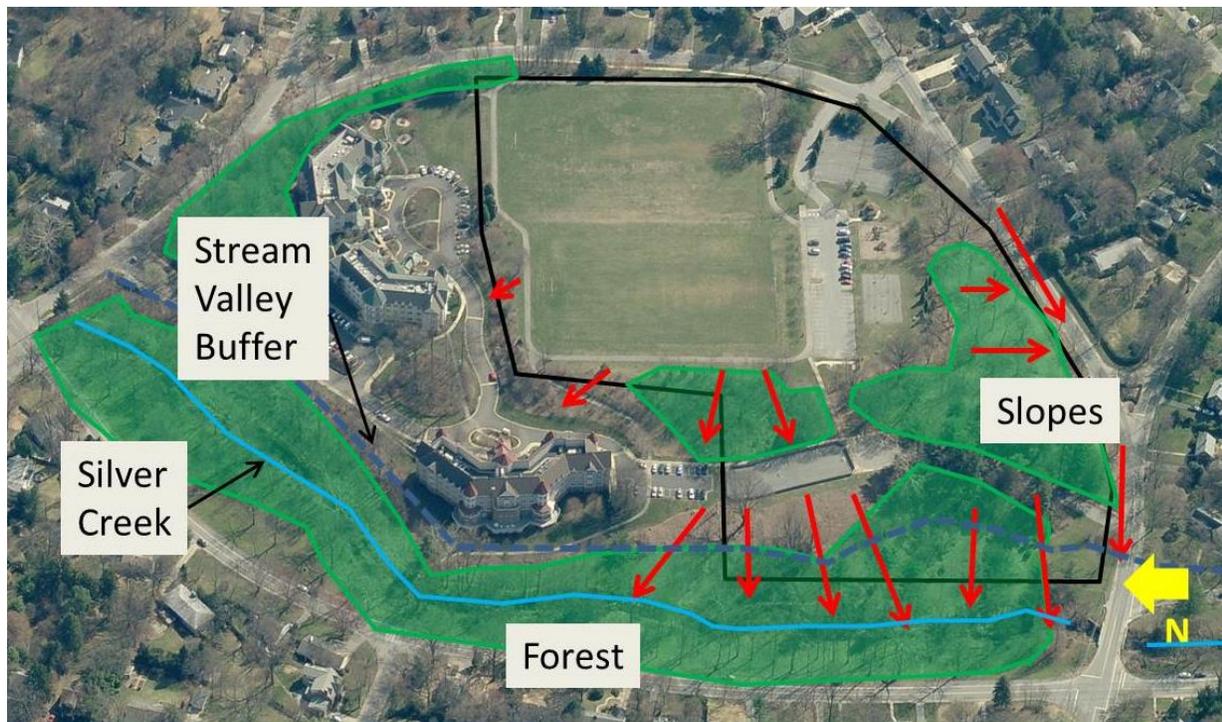
The site is constrained by areas of steep slopes, environmental buffer, and high priority forest to the west. The on-site forest extends onto Kensington Park Stream Valley Park. The site contains 3.53 acres of high priority forest, 0.02 acres of moderate priority forest and 0.89 acres of environmental buffer for Silver Creek, a tributary of Rock Creek. The site has large areas of steep slopes, with an elevation change of 60' from north to south. Currently, the forest protects and stabilizes the steep slopes.

The site also has a large number of mature trees, both within and outside of the forest. There are 55 trees that are  $\geq 24''$  diameter at breast height (DBH). Of those 55 trees, 37 trees are  $\geq 30''$  DBH and four trees are potential County champion trees. The potential County champion trees include #30 37" sawtooth oak, #52 38" sawtooth oak, #55 40" sawtooth oak, and #70 23" Virginia pine.

## ANALYSIS

### Environmental Guidelines

Staff approved a Natural Resource Inventory/Forest Stand Delineation (NRI/FSD #420140980) for the Subject Property on 2/24/2014. The proposed school construction protects all but 0.05 acres of environmental buffer in Category I Conservation Easement. The 0.05 acre encroachment is due to a stormwater management outfall. The proposed plan is in compliance with the *Environmental Guidelines*.



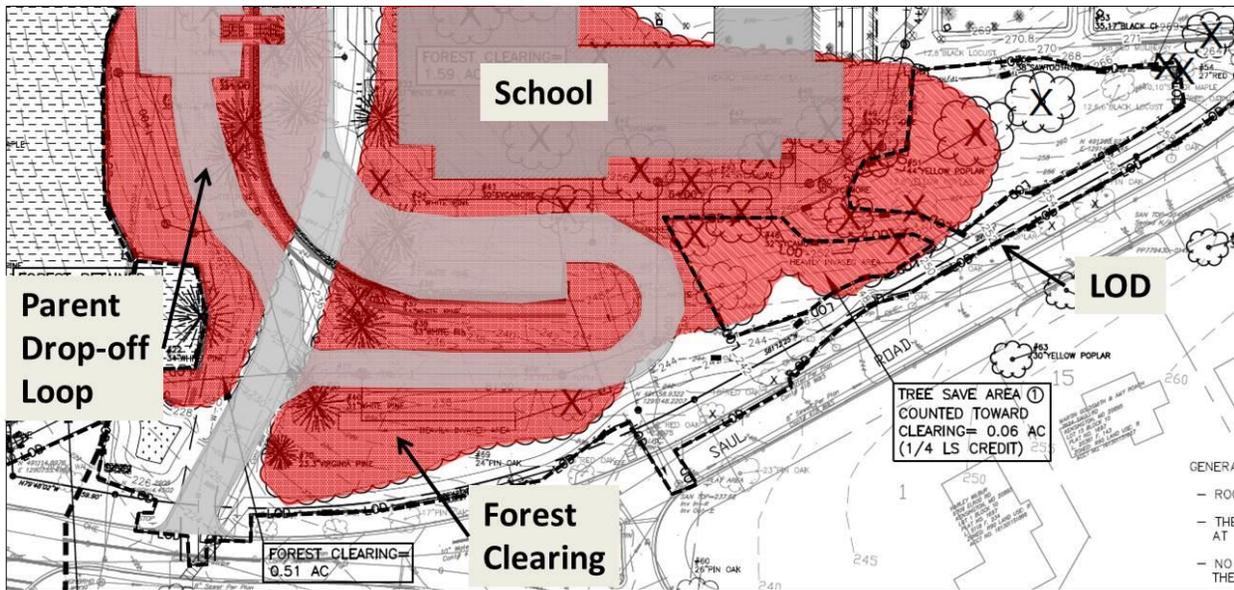
## Forest Conservation

The site is subject to the Montgomery County Forest Conservation Law (Chapter 22A of the County Code). Of the 3.55 acres of forest on-site, 3.53 acres of forest is categorized as being the highest priority for retention due to the presence of stream valley buffers, slopes greater than 25%, slopes over 15% on highly erodible soils, and the presence of many specimen trees, per COMCOR 22A.00.01.07. The PFCP proposes to clear 2.80 acres of forest, 2.78 acres of which is categorized as high priority, and plant 0.16 acres of forest. (Attachment 1)

While some of the forest will be cleared to construct the school, approximately 1.2 acres will be cleared to build the parent-drop off loop. The parent drop-off loop shown on the PFCP was designed to meet the community's goal of reusing the existing curb cuts for the new school. The current site entrance on Saul Road is at an elevation of 222', while the school entrance is at an elevation of 258'. Meeting these two elevations with a

parent drop-off loop requires the use of a switch-back system with high retaining walls. While the current design meets some of the Applicant's goals, Forest Conservation Law requires that the Applicant maximize the retention of high priority forest.





Section 22A(b) of Forest Conservation Law states

*“ (1) The primary objective of the forest conservation plan should be to retain existing forest and trees and avoid reforestation in accordance with this Chapter. The forest conservation plan must retain certain vegetation and specific areas in an undisturbed condition unless the Planning Director finds that:*

- (A) the development would make maximum use of any available planning and zoning options that would result in the greatest possible forest retention;*
- (B) reasonable efforts have been made to protect the specific areas and vegetation listed in the plan; and*
- (C) the development proposal cannot be reasonably altered.*

*(2) In general, areas protected under this subsection include:*

- (A) floodplains, stream buffers, steep slopes, and critical habitats;*
- (B) contiguous forests;*
- (C) rare, threatened, and endangered species;*
- (D) trees connected to an historic site;*
- (E) champion trees and other exceptionally large trees; and*
- (F) areas designated as priority save areas in a master plan or functional plan.”*

There are other design options that would allow access to the site with the same architectural plan while retaining more high priority forest. Some of these options were shown in the Applicant’s feasibility study. For example, the Applicant could have created an entrance further up Saul Road, at a higher elevation, reducing the amount of grading and accompanying forest loss necessary for construction. The parent drop-off loop and pedestrian circulation systems could also be aligned, potentially saving more trees.



Options from MCPS feasibility study

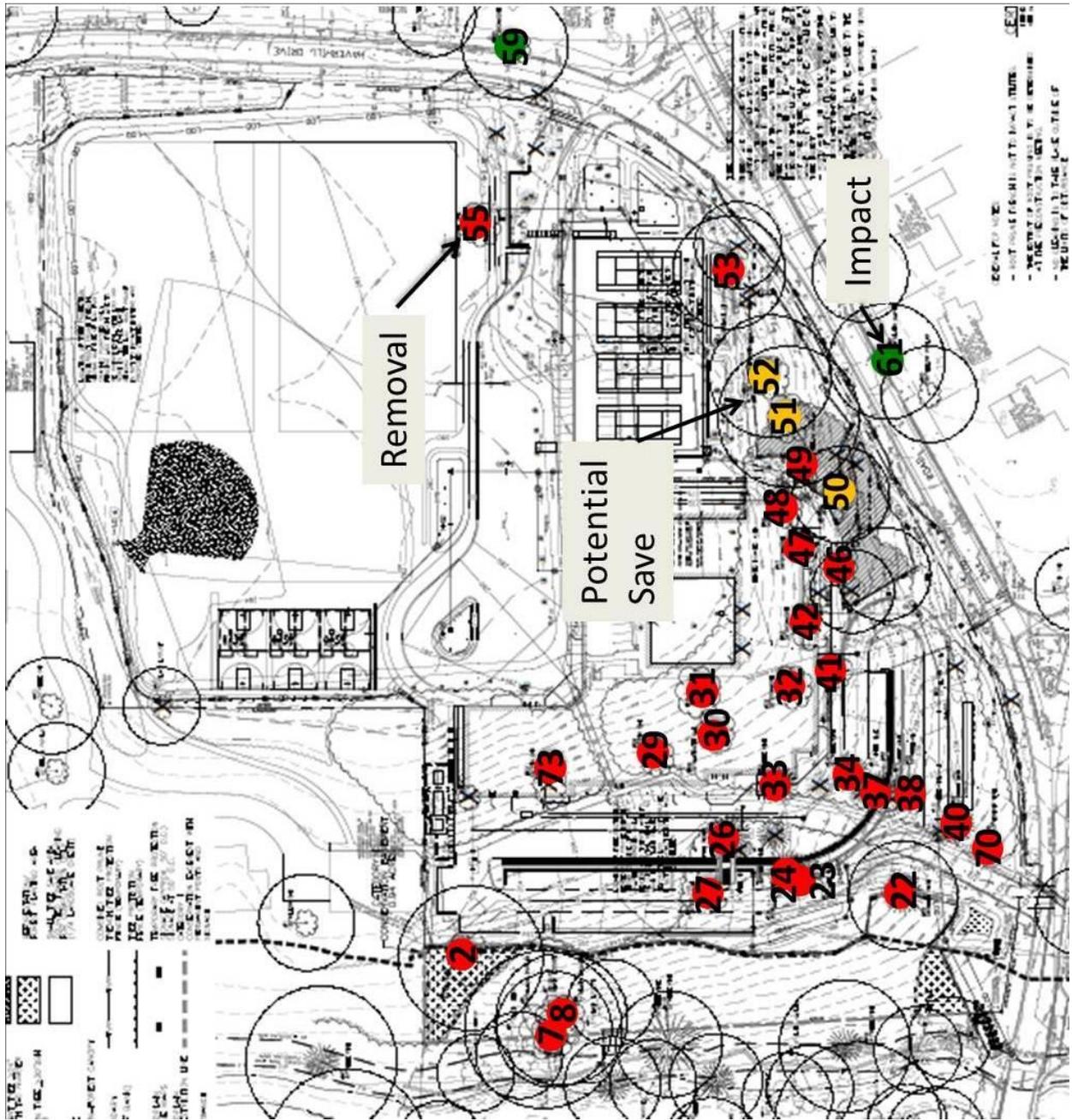
The Applicant is working with staff to design a new entrance and parent drop-off loop that will minimize grading and retaining walls and maximize forest and specimen tree retention. (Attachment 2)

### Forest Conservation Variance

Section 22A-12(b) (3) of Forest Conservation Law provides criteria that identify certain individual trees as high priority for retention and protection. Any impact to these trees, including removal or 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 a variance to impact trees that: measure 30 inches or greater diameter at breast height (DBH); are part of a historic site or designated with a historic structure; are designated as national, State, or County champion trees; 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 submitted a variance request on 5/16/2014 and a revised variance request on 1/28/2015 for the impacts to trees. (Attachment 4) The proposed layout will remove 31 trees and impact, but not remove, two trees that are considered high priority for retention under Section 22A-12 (b) (3) of the County Forest Conservation Law. Three of the trees shown for removal may be able to be saved, depending on final engineering.

# Variance Tree Locations

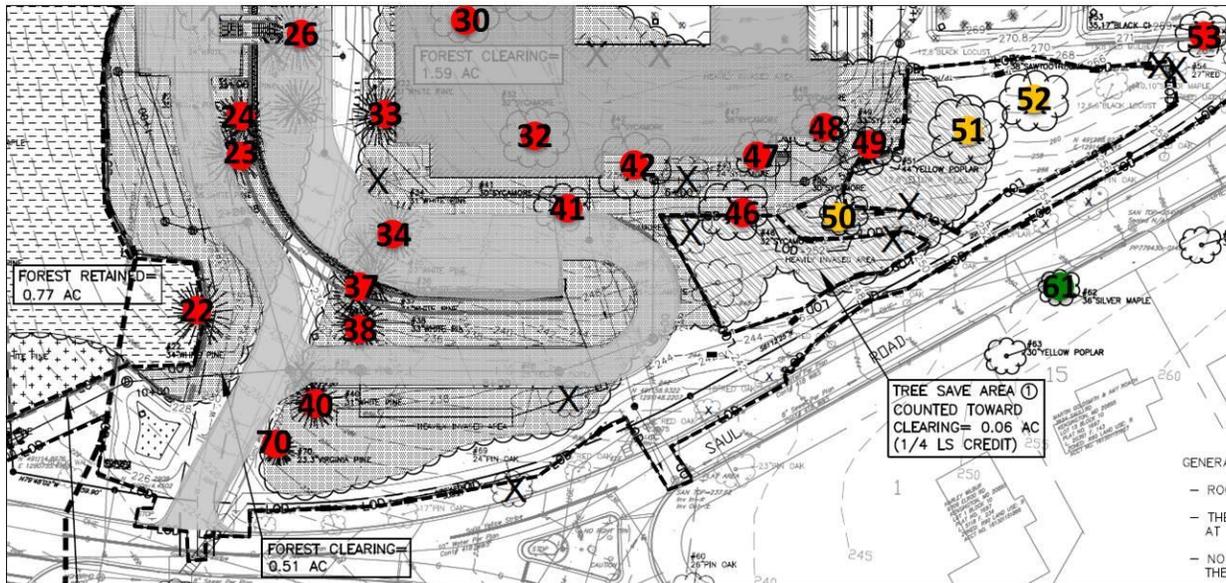


Variance Tree Table

Specimen Tree Summary							Percent Rootzone Impacts	Status
Tree Species #	Tree Species (Scientific Name)	Species (Common Name)	D.B.H (inches)	Tree Condition	Impact Comments			
2	QUERCUS PALUSTRIS	PIN OAK	45	FAIR	GRADING, UTILITY CONNECTION & PARKING LOT	35	REMOVE	
7	ROBINIA PSEUDOACACIA	BLACK LOCUST	36,19,15	FAIR/POOR	REMOVE DUE TO POOR CONDITION, FLUSH CUT	0	REMOVE	
8	ROBINIA PSEUDOACACIA	BLACK LOCUST	41	FAIR/POOR	REMOVED DUE TO POOR CONDITION, FLUSH CUT	0	REMOVE	
22	PINUS STROBUS	WHITE PINE	34	GOOD	IMPACTS FOR UTILITIES AND DRIVE ENTRANCE	55	REMOVE	
23	PINUS STROBUS	WHITE PINE	36	GOOD	IMPACTS FOR UTILITIES AND DRIVE ENTRANCE	100	REMOVE	
24	PINUS STROBUS	WHITE PINE	35	GOOD	RETAINING WALLS BETWEEN DRIVES	100	REMOVE	
26	PINUS STROBUS	WHITE PINE	37	FAIR	IN DRIVE AISLE	100	REMOVE	
27	PLATANUS OCCIDENTALIS	SYCAMORE	36	GOOD	IN DRIVE AISLE	100	REMOVE	
28	QUERCUS PALUSTRIS	PIN OAK	30	GOOD	IN BUILDING	100	REMOVE	
29	QUERCUS PALUSTRIS	PIN OAK	33	GOOD	IN BUILDING	100	REMOVE	
30	QUERCUS ACUTISSIMA	SAWTOOTH OAK	37	FAIR/POOR	IN BUILDING	100	REMOVE	
31	QUERCUS PALUSTRIS	PIN OAK	39	FAIR/POOR	IN BUILDING	100	REMOVE	
32	PLATANUS OCCIDENTALIS	SYCAMORE	32	POOR	IN BUILDING	100	REMOVE	
33	PINUS STROBUS	WHITE PINE	31	GOOD	GRADING FOR BUILDING, WALK, DRIVE AISLE	100	REMOVE	
34	PINUS STROBUS	WHITE PINE	31	GOOD	IN PROPOSED WALK ALONG DRIVE AISLE	100	REMOVE	
37	PINUS STROBUS	WHITE PINE	31	GOOD	IN RETAINING WALL BETWEEN DRIVE AISLES	100	REMOVE	
38	PINUS STROBUS	WHITE PINE	33	GOOD	IN PARKING	100	REMOVE	
40	PINUS STROBUS	WHITE PINE	31	GOOD	GRADING FOR DRIVE AISLE	100	REMOVE	
41	PLATANUS OCCIDENTALIS	SYCAMORE	30	FAIR	GRADING AND WALK FOR DRIVE	100	REMOVE	
42	PLATANUS OCCIDENTALIS	SYCAMORE	39	GOOD	GRADING AGAINST BUILDING	100	REMOVE	
46	PLATANUS OCCIDENTALIS	SYCAMORE	32	GOOD	SIDEWALK CIRCULATION AND GRADING	100	REMOVE	
47	PLATANUS OCCIDENTALIS	SYCAMORE	36	GOOD	IN BUILDING	100	REMOVE	
48	PLATANUS OCCIDENTALIS	SYCAMORE	30	GOOD	IN BUILDING	100	REMOVE	
49	PLATANUS OCCIDENTALIS	SYCAMORE	33	GOOD	GRADING FOR BUILDING AND SIDEWALK CIRCULATION	100	REMOVE	
50	PLATANUS OCCIDENTALIS	SYCAMORE	30	GOOD	SIDEWALK CIRCULATION AND SOFT PATH THROUGH WOODS	74	REMOVE**	
51	LIRIODENDRON TULIPIFERA	YELLOW POPLAR	44	GOOD	GRADING AND STORMWATER MANAGEMENT	32	REMOVE**	
52	QUERCUS ACUTISSIMA	SAWTOOTH OAK	38	GOOD	GRADING AND STORMWATER MANAGEMENT	30	REMOVE**	
53	PRUNUS SEROTINA	BLACK CHERRY	35,17	GOOD	GRADING, TENNIS COURT & SIDEWALK ALONG ROAD	100	REMOVE	
55	QUERCUS ACUTISSIMA	SAWTOOTH OAK	40	GOOD	IN THE BALL FIELD AREA	100	REMOVE	
59	PLATANUS OCCIDENTALIS	SYCAMORE	33	FAIR	SIDEWALK AND RIGHT-OF-WAY	8	SAVE	
62	ACER SACCHARINUM	SILVER MAPLE	36	GOOD	ACTUAL IMPACTS ACROSS SAUL ROAD NOT LIKELY	8	SAVE	
70	PINUS VIRGINIANA	VIRGINIA PINE	23.3	GOOD	SIDEWALK, ENTRANCE DRIVE AND GRADING	100	REMOVE	
73	QUERCUS PALUSTRIS	PIN OAK	30	FAIR	IN BUILDING	100	REMOVE	

\*\*TREES ARE TO TRY TO BE SAVED DURING CONSTRUCTION BUT IMPACTS ARE SUBSTANTIAL TO LIST AS REMOVAL

**Unwarranted Hardship for Variance Tree Impacts** - Per Section 22A-21, a variance may only be granted if the Planning Board finds that leaving the requested trees in an undisturbed state will result in unwarranted hardship. The site is challenging due to topography, configuration, stream valley buffer and existing high priority forest. While it is 13.39 acres in size, more than 5 acres of the site is limited by steep slopes, moderately steep slopes with highly erodible soils, high priority forest, and stream valley buffer. The variance is necessary to build a middle school of this size and associated recreational facilities, circulation, and stormwater management facilities. However, staff believes that some of these variance trees can be retained with the redesign of the parent drop-off loop and pedestrian access.



A redesign of the parent drop-off loop may be able to save the following trees: #22 34" white pine, #40 31" white pine, #70 23.3" Virginia pine (potential County champion).

The Applicant has also requested permission to remove two trees that are in fair/poor condition, but are outside of the proposed development area. Trees #7 36", 19", 15" multistem black locust and #8 41" black locust are located in the stream valley buffer with no proposed disturbance. Staff does not support the removal of these trees because they do not present a hazard because there are no potential targets if the trees suffer a catastrophic failure.

**Variance Findings** - Based on the review of the variance request and the proposed Preliminary Forest Conservation Plan, staff makes the following findings:

1. *Granting the variance will not confer on the applicant a special privilege that would be denied to other applicants.*

The Applicant must work with staff to realign the parent-drop off loop to minimized the impacts to trees #22 34" white pine, #40 31" white pine, #70 23.3" Virginia pine (potential County champion) and remove trees #7 36", 19", 15" multistem black locust and #8 41" black locust from the variance request. With the stated conditions, the requested variance will not confer on the Applicant any special privileges that would be denied to other applicants.

- 2. The need for the variance is not based on conditions or circumstances which are the result of the actions by the applicant.*

The requested variance is based on the need to build a new middle school in the Bethesda-Chevy Chase cluster to alleviate overcrowding at Westland Middle School. The development footprint of the school is caused by MCPS middle school educational specifications and the County regulations for development. The variance tree removals are a result of imposing the development footprint on a limited size site with environmental constraints. The site is limited by steep slopes, environmental buffer, and high priority forest, with a further design challenge of a 60' elevation change. With the stated conditions, the need for the variance is not based on conditions or circumstances which are the result of the actions of the Applicant.

- 3. The need for the variance is not 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 proposed site design and layout on the subject property and not as a result of land or building use on a neighboring property.

- 4. Granting the variance will not violate State water quality standards or cause measurable degradation in water quality.*

Staff generally recommends that the Planning Board approve variance requests with mitigation to replace the form and function of the trees proposed for removal, outside of areas of forest removal. Mitigation is calculated at a rate of 1" caliper replaced per 4" DBH removed, using a minimum 3" caliper native canopy trees. In this case, the majority of the trees proposed for removal are within forest proposed for clearing. Of the 31 trees proposed for removal, only four are located outside of areas of forest removal - #2 45" pin oak, #52 38" sawtooth oak, #53 35", 17" multistem black cherry, and #55 40" sawtooth oak. The loss of these trees yields a mitigation planting of 15 3" caliper native canopy trees. Staff does not believe this is an adequate amount of planting to replace the form and function of the variance trees proposed for removal. However, MCPS has prepared a landscape plan (Attachment 3) that includes approximately 127 native canopy and understory trees. Staff believes that these plantings will compensate for the form and function of the loss of the variance trees. Using the mitigation rate outlined above, 252" caliper tree planting would have been required if all of the variance trees were located outside of forest; the landscape plan shows 254" caliper of native trees. If the landscape planting plan is incorporated into the Final Forest Conservation Plan, granting the variance will not violate State water quality standards or cause a measurable degradation in water quality.

**County Arborist's Recommendation on the Variance** - 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 (MCDEP) for a recommendation prior to acting on the request. The County Arborist has reviewed the variance request and recommended approval (Attachment 4).

The difference in Planning Department staff and MCDEP recommendations on the variance is based on the type of review each agency provides. The County Arborist provides a technical review only, based on the plan and disturbance presented. No changes in site design as a method of reducing or removing impacts are reviewed or requested. Planning Department staff considers site design and planning options as methods for reducing disturbance to high priority trees, as well as detailed and specific tree save measures.

## **CONCLUSION**

Staff concludes that the proposed site design and the site circulation are not the most optimal design for this site. Staff believes that one of the alternatives considered by the Applicant early on in the design process—curb cut for parents drop-off and parking further along Saul Road—but not carried to the final design stage offers a better alternative to save additional variance trees and high priority forest. Staff recommends that the proposed PFCP be modified to reduce the number of variance trees and the amount of forest clearance by redesigning the parent drop-off and pedestrian and vehicular circulation by moving the main vehicular entrance point for parents and teachers at a higher elevation on Saul Road as indicated in the conditions of approval in this report. Staff therefore recommends that the Planning Board approve the Preliminary Forest Conservation Plan and associated variance, with the above conditions.

### Attachments

1. Preliminary Forest Conservation Plan
2. Sketch of redesigned parent drop-off loop
3. Landscape plan
4. Variance request
5. Letter from County Arborist