



The Heights School Modification: Final Forest Conservation Plan Amendment CBA-2197-C

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Completed: 01/02/15

Description

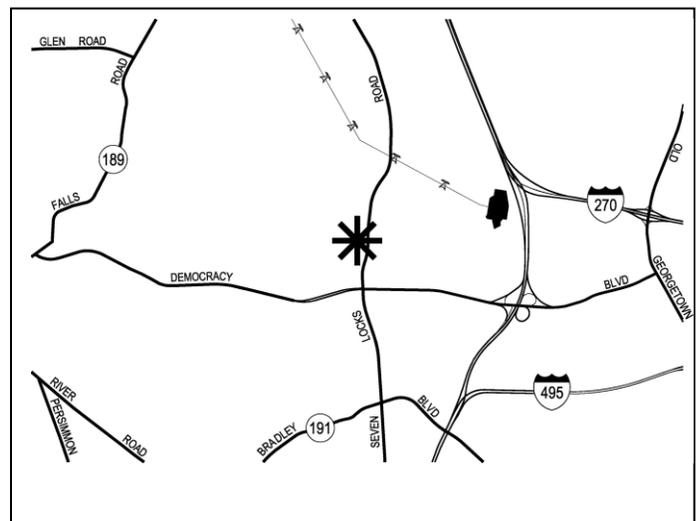
The Heights School Modification: Final Forest Conservation Plan Amendment No. CBA-2197-C

Request to amend the Final Forest Conservation Plan for a private educational institution, located at 10400 Seven Locks Road, 19.8 acres, R-90 Zone, Potomac Subregion Master Plan

Staff recommendation: Approval with conditions

Applicant: Jerry Hadley, Heights School

Filing Date: August 22, 2013



Summary

There are two items for Planning Board review for the Heights School Modification: the Special Exception and the final forest conservation plan (FFCP) amendment. This memorandum covers the staff review and recommendation on the forest conservation plan amendment. The amendment includes:

- Removal of 0.53 acres Category I Conservation Easement,
- Easement removal mitigation of 2:1, to be met offsite (1.06 acre planting requirement),
- Variance request for the removal of 5 Protected Trees and impacts to an additional 16 Protected Trees, and
- Resolve improperly recorded Category I Conservation Easement Issue.

FOREST CONSERVATION PLAN RECOMMENDATION AND CONDITIONS

Approval of Final Forest Conservation Plan Amendment, subject to the following conditions:

1. Prior to issuance of a sediment and erosion control permit, fifteen (15) native canopy trees with a minimum size of 3 inch caliper size (or native canopy trees with a 43-inch cumulative caliper size, individual trees with a minimum size of 3 inch caliper) must be planted onsite as mitigation for the loss of specimen trees.
2. Within 120 days of the mailing date of this Resolution, the Applicant must record the new Category I Conservation Easement by deed in the Land Records for Montgomery County, Maryland. The existing conservation easements remain in full force and effect until the deed is recorded.
3. Within 90 days of the recordation of the revised Category I Conservation Easement, the Applicant must delineate the revised Category I Conservation Easement boundary on the Subject Property with permanent easement markers and appropriate signage.
4. Prior to recordation of the revised Category I Conservation Easement, the Applicant must submit a Certificate of Compliance to use an M-NCPPC approved offsite forest mitigation bank. The Certificate of Compliance must provide 1.06 acres of mitigation credit for the removal of 0.53 acres of Category I Conservation Easement.
5. Prior to any land disturbing activities, the Applicant must delineate the Category I Conservation Easement area boundary adjacent to the proposed middle school and adjacent to the proposed theatre/music/dining facility with split rail fencing, or other Staff approved equivalent and signage.
6. Prior to recordation of the revised Category I Conservation Easement, all debris, equipment, and outdoor structures, including but not limited to the gazebo and benches, must be removed from the existing conservation easement areas on the Subject Property.
7. The Applicant must submit a revised Forest Conservation Plan, subject to Staff approval, for the following:
 - a. Include a signed developer's certificate on every page,
 - b. Include an original Qualified Professional's signature on every page,
 - c. Add a note that indicates that Fifteen (15) – three inch (3") caliper size native canopy trees are required to be planted onsite as required for the Variance Tree mitigation,
 - d. Show locations of where Variance Tree mitigation will be planted, and
 - e. Clearly indicate where split rail fencing, or other Staff approved equivalent will be located.

SITE DESCRIPTION

The 19.8-acre property is located at 10400 Seven Locks Road, approximately 2112 feet north of the intersection with Democracy Boulevard in Potomac. It is described as Parcel I, Block J. The Subject Property is in the R-90 Zone and in the Potomac Subregion Master Plan. The Property is bounded by single-family residential development to the north, west, and south. The Property is also bounded by Seven Locks Road to the east. This application proposes a Final Forest Conservation Plan (FFCP) amendment to facilitate a special exception modification for the increase in enrollment, staff, and facilities associated with the private educational institution.



Figure 1: 2013 Aerial of Subject Property

BACKGROUND

The Heights School has operated under a special exception (Case No. CBA-2197) originally granted in 1967. School facilities and operations have subsequently been altered in varying degrees over the last 44 years in order to accommodate the growing educational needs of its students and those of the greater community. In 1996, a modification to the special exception required a forest conservation plan that was originally approved on March 23, 1998. This forest conservation plan was subsequently amended in 2000 and 2007, and it proposed to be amended with the concurrent special exception case CBA-2197-C.

PROPOSED AMENDMENT

On August 22, 2013, the Applicant submitted an application proposing to amend Final Forest Conservation Plan No. CBA-2197, by removing 0.53 acres existing onsite conservation easements. The proposed 2:1 mitigation, a 1.06 acre planting requirement, will be met off-site. The Applicant suggests that the proposed layout of conservation easements will work better with the proposed master plan build-out of the school.

PLANNING BOARD REVIEW AUTHORITY

The Forest Conservation Regulations requires Planning Board action of certain types of modifications to an approved FCP. Section 22A.00.01.13 of the Forest Conservation Regulation states:

Major amendments which entail more than a total of 5000 square feet of additional forest clearing must be approved by the Planning Board or the Planning Director (depending on who approved the original plan).

The Applicant proposes to remove 0.53 acres (approximately 24,400 square feet) Category I Conservation Easement on the Subject Property, and the Application must be reviewed by the Planning Board.

Notification and Outreach

The Subject Property was signed with notification of the upcoming Special Exception amendment prior to the August 22, 2013 submission. Additionally, all adjoining and confronting property owners and local civic associations will be notified of the Planning Board Hearing. As of the date of this report, Staff has not received any inquiries. Any communications received will be forwarded to the Planning Board.

Environmental Guidelines

There are no streams, wetlands, floodplains, or associated buffers on the property. There are areas of highly erodible soils present along the west side of the Property. There are pockets of moderately steep slopes onsite, generally towards the west side of the Property. The Property is within the Cabin John Creek watershed, a Use I/IP watershed. The Countywide Stream Protection Strategy rates the tributaries in this watershed as in overall fair condition. This Property is not located within a Special Protection Area or Primary Management Area.

Forest Conservation

This Property is subject to the Chapter 22A Montgomery County Forest Conservation Law and has an approved Final Forest Conservation Plan (FFCP) dated March 27, 2000. The site is subject to the forest conservation law because it is a special exception on a tract of land greater than 40,000 square feet. The Subject Property totals 19.8 acres and is identified as Parcel I, Block J. The Applicant has submitted an amendment to the FFCP.

The purpose of this FCP Amendment is three-fold. First, the Amendment seeks to rectify what appears to have been an incomplete recordation of previously approved Category I Conservation Easement areas on the Subject Property in 2007. Secondly, the amendment will require the Applicant to remove debris, equipment, and structures from the Conservation easements. Thirdly, the Amendment seeks to remove portions of the previously approved easement areas to facilitate a master plan of future development for the School campus.

The proposed Amendment is necessary to accommodate the construction of an expanded Gymnasium facility previously approved in Special Exception Case No. CBA-2197-B as well as to accommodate additional facilities presently proposed in pending Special Exception Case No. CBA-2197-C all of which are designed to address the School's core facility needs and constitute the minimum necessary to achieve the School's educational mission.

After the March 27, 2000 approval of the FFCP for CBA-2197-A, the Applicant processed through the M-NCPPC the Conservation easement agreements. When the agreements were recorded in the Montgomery County Land Records, the easement description and sketches were not included. This recordation created an easement without the appropriate boundaries in the Land Records. The Applicant will record by deed in the Land Records the new easements with sketches and descriptions after the Planning Board Approval. This will resolve the outstanding recordation issue.

The current Category I Conservation Easements have areas where debris, equipment, and outdoor structures including a gazebo, and benches are located. The easements should be cleaned-up and all debris, equipment, and outdoor structures should be removed prior to the recordation of the new easements.

The FFCP Amendment proposes to remove 0.53 acres of Category I Conservation Easement from the four easement areas identified on Figure 2. The proposed easement removals are the minimum necessary to achieve a functional campus master plan.



Figure 1: Conservation Easement Removal Locations

Area 1

This easement area wraps around the Middle School wing of the existing Signature Academic and Administrative Building. The proposal is to remove 3,095 square feet or 0.071 acres of Category I Conservation Easement in this area to accommodate modernization of the Middle School. Although the School made its best efforts to limit its Middle School modernization project to areas outside of the easement, the need to comply with fire access requirements necessitate removal in this area.

The proposed Middle School structure was purposely located on the site of the existing Middle School building to have a very limited increase in footprint. The extension of the building to the west, toward the existing easement area, occurs where needed to accommodate a required stairwell or achieve a functional size of classroom. The added width of the building is due to the need to make all spaces, including hallways, ADA accessible.

Area 2

This easement area is adjacent to an existing "open area" playground designated for use by Middle School students. The proposal is to remove 670 square feet or 0.015 acres of Category I Conservation Easement in this area to allow sufficient space for its continued use as an "open area" playground. This part of the campus provides the only relatively level area in close proximity to the Middle School that allows students open green space.

Area 3

This easement area is adjacent to the proposed Theater/Performing Arts/Dining Hall facility. The proposal is to remove 1,223 square feet or 0.028 acres of Category I Conservation Easement in this area to facilitate a minimally-sized theater auditorium that will provide much-needed on-site facilities for the School's performing arts program. Additionally, within Area 3 the proposed plan requires 523 square feet or 0.012 acres of Category I Conservation Easement to be removed for an ADA accessible pathway along the entrance drive.

The Heights School along with the design team have studied multiple locations and prepared concept designs for many locations on the campus for the Theater/Performing Arts/Dining Hall building. Issues of access, infringement on forest conservation, relationship to other buildings were all considered before the building was located on the site of the existing outdoor basketball courts. While the location maintains convenient visitor access and separation of the more public part of the campus from the more protected academic areas, the space available to accommodate the functions of the building is limited. The 19.8 acre campus combined with existing forest conservation easements, as well as some steep conditions on the site make finding areas suitable to accommodate the School's facility needs challenging. Immediately to the north and east of the proposed Theater/Performing Arts /Dining Hall building is a Category I Conservation Easement. Due south of the building is the proposed soccer / lacrosse field with a parking garage located below. Another Category I Conservation Easement is located south of the field / parking garage. The theater has been considerably reduced from the originally designed size of 750 seats to 464 seats. The facilities have been redesigned to be as efficient as possible to fit the tight site.

Area 4

The proposal to remove 11,038 square feet or 0.25 acres of Category I Conservation Easement in this area is necessary to facilitate construction of the previously approved expanded Gymnasium (Case No. CBA-2197-B) as well as the partially, subterranean parking structure proposed to be constructed underneath the School's existing upper field.

The parking garage will provide 156 new on-site structured spaces, but it will double as a synthetic turf soccer/lacrosse playfield. The playfield has been sized 20 feet shorter than the Secondary School recommended length of 330 feet in order to limit the amount of forest conservation easement being removed. This effort to conserve site area and create additional parking, in the form of a structured garage that is integrated into the upper field will increase the School's on-site parking supply from the current 117 spaces to 252 spaces.

In addition, although the expanded Gymnasium project was originally approved as part of the School's 1996 major modification application and affirmed again in the 2000 major modification, the necessary fire access lane and loading area requirements and their potential impact to nearby forest conservation easements were not fully evaluated until the more recent campus master planning effort. The easement removal proposed in Area 4 is necessary to meet County Code requirements relative to fire access and loading for the expanded Gymnasium.

Additional Requirements

Staff supports the 0.53 acres of removal in the four areas indicated above, but recommends that the Category I Conservation Easement area boundary adjacent to the proposed middle school (Area 1 and Area 2) and adjacent to the proposed Theater/Performing Arts/Dining Hall building (Area 3) be demarcated with split rail fencing or other Staff approved equivalent. These areas are likely to have high traffic and require more landscaping maintenance, and a split-rail fence would provide a hard delineation of the easement areas and prevent accidental encroachments. A gate or opening should be left at the access point of the trail that will remain within the easement in Area 3.

Forest Conservation Variance

Section 22A-12(b)(3) of the Montgomery County Forest Conservation Law provides criteria that identify certain individual trees as high priority for retention and protection. The law requires no impact to trees that measure 30 inches or greater, DBH ("Protected Tree"); are part of a historic site or designated with an historic structure; are designated as a 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. Any impact to a Protected Tree including removal or disturbance within the Protected 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. In the written request for a variance, an applicant must demonstrate that strict adherence to Section 22A-12(b)(3), i.e. no disturbance to a Protected Tree, would result in an unwarranted hardship as part of the development of a property.

Unwarranted Hardship

The use of this site for a private school is an established use, permitted by special exception in the R-90 zone, and operated in a manner consistent with that of the other private school facilities in the area. The current school facilities meet zoning requirements.

Without a Variance, the Applicant would be unable to achieve the facilities necessary to meet its programmatic requirements and unable to proceed with stormwater management facility improvements. This would cause an unwarranted hardship to The Heights School students and faculty, as well as to the community that it serves.

Variance Request

In October 2014, the Applicant requested a variance for impacts to 16 Protected Trees and the removal of 5 Protected Trees (Attachment 2).

Table 1: Protected Trees Impacted

Tree #	Species	D.B.H (inches)	Tree Condition	% CRZ Impact	Comments	Reason for disturbance
25	<i>Liriodendron tulipifera</i>	37	Good	32		Location of retaining wall for fire access, site grading
61	<i>Liriodendron tulipifera</i>	32	Avg.	5	Poison Ivy on trunk	Construction access for middle school
65	<i>Liriodendron tulipifera</i>	33	Good/Avg.	12	Slightly leaning	Storm drain line
84	<i>Quercus rubra</i>	42	Good	5	Greenbrier beginning to climb trunk	Construction access for performing arts / dining hall building
96	<i>Quercus coccinea</i>	30	Poor	3	Major dieback, major Poison Ivy girdling tree; small canopy	Location/ construction access for performing arts / dining hall building
115	<i>Nyssa sylvatica</i>	30	Avg.	21	Poison Ivy on trunk, dead limbs in crown	Location/ construction access for middle school
116	<i>Liriodendron tulipifera</i>	32.5	Avg.	18	Poison Ivy on trunk, dead limbs in crown	Location/ construction access for middle school
134	<i>Quercus rubra</i>	32	Good	21		Location/ construction access for middle school

147	<i>Quercus rubra</i>	35	Good	8		Location/ construction access for middle school
172	<i>Quercus rubra</i>	35.5	Avg./Poor	25	Fruiting bodies on East side of trunk; recommend removal	Poor condition/ proximity to heavily used areas
190	<i>Quercus rubra</i>	30.5	Avg.	1	Dieback in canopy	Location/ grading for access sidewalk
192	<i>Liriodendron tulipifera</i>	50	Good	13		Location/ grading for access sidewalk
196	<i>Quercus rubra</i>	31	Good	7	Codominant leaders	Location/ grading for access sidewalk
198	<i>Liriodendron tulipifera</i>	33	Good/Avg.	15	Poison Ivy in canopy	Location/ grading for access sidewalk
199	<i>Liriodendron tulipifera</i>	32	Good/Avg.	18	Poison Ivy in canopy, Codominant leaders	Location/ grading for access sidewalk
200	<i>Platanus occidentalis</i>	30.5	Good	26		Location/ grading for access sidewalk

Table 2: Protected Trees Proposed for Removal

Tree #	Species	D.B.H (inches)	Tree Condition	% CRZ Impact	Comments	Reason for removal
90	<i>Quercus alba</i>	30	Avg./Poor	51	Major <i>Vitis</i> sp. and vines, leaning, epicormic growth	Poor condition/ Location of performing arts/ dining hall building

101*	<i>Quercus velutina</i>	31	Good	37		Location/ construction access for performing arts / dining hall building
187*	<i>Quercus rubra</i>	35.5	Avg./Poor	72	Heart rot at base; recommend removal	Location/ construction access for middle school
201*	<i>Platanus occidentalis</i>	34	Good	52		Location/ grading for access sidewalk/ construction access/ stormwater management facilities
202*	<i>Quercus rubra</i>	41	Good/Avg.	46	Gravel paths within root zone	Location/ grading for access sidewalk/ stormwater management facilities

While trees 101, 187, 201, and 282 are proposed for removal and will be mitigated for at this time, the school is interested in trying to save them as part of the construction process. The trees are counted as removals in case field conditions are not favorable and it is necessary to remove the trees. Staff could not recommend these trees for retention due to the impacts and proximity to the construction activities.

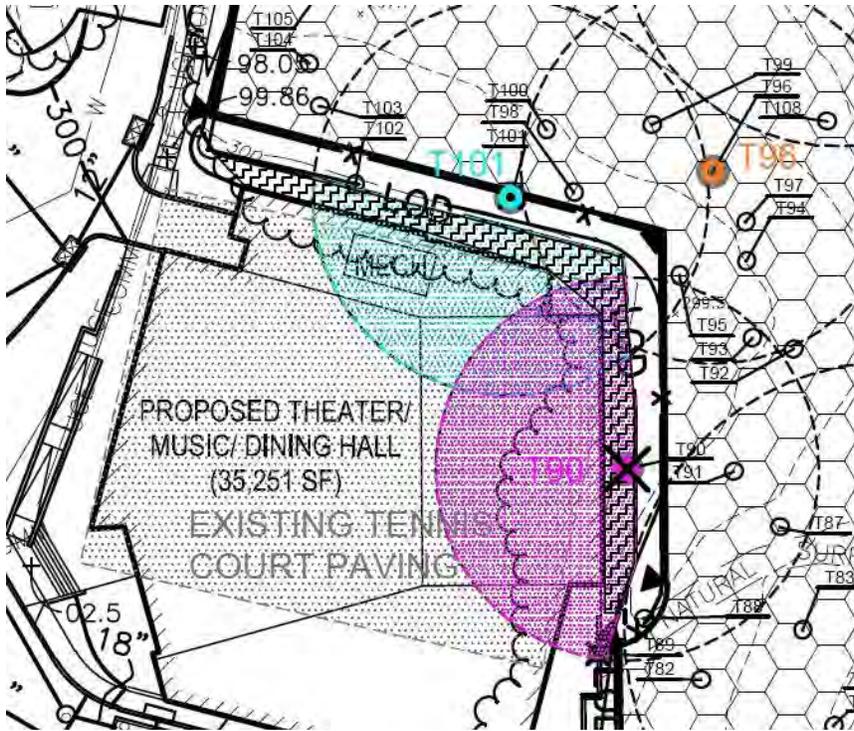


Figure 2: Impacts to Tree #101

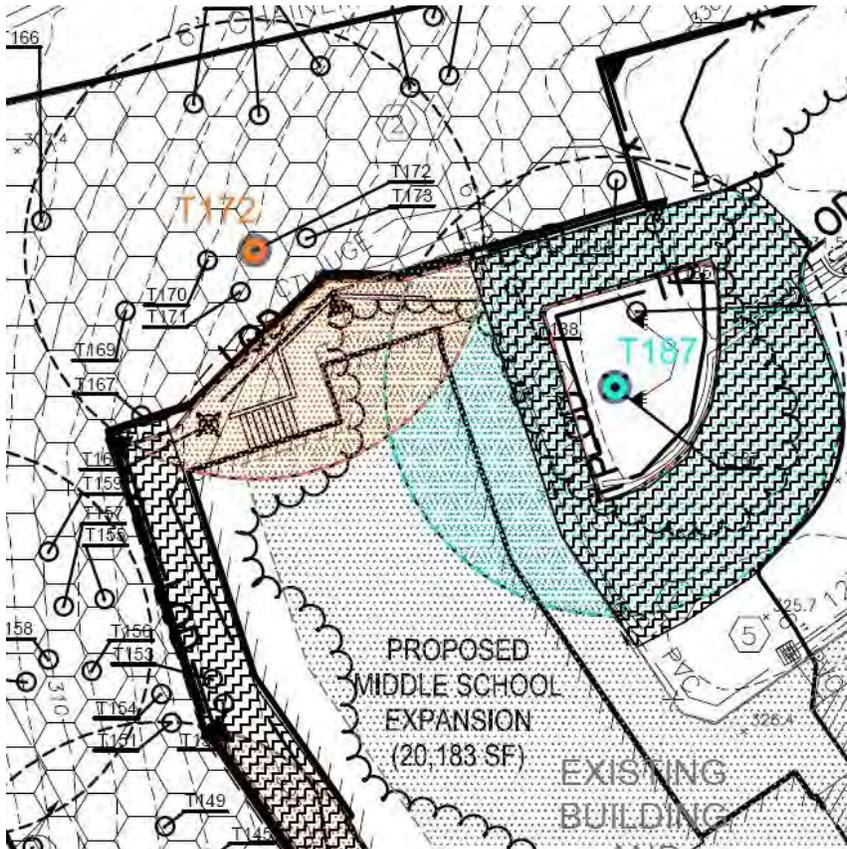


Figure 3: Impacts to Tree #187

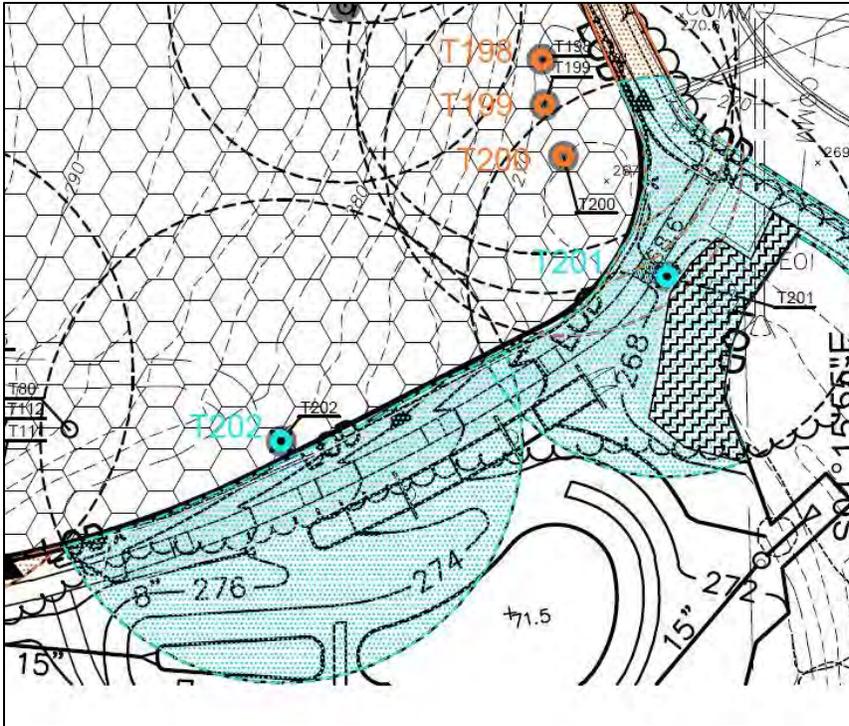


Figure 4: Impacts to Trees #201 and #202

Variance Findings

The Planning Board must make findings that the Application 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 for granting the variance:

1. *Will not confer on the applicant a special privilege that would be denied to other applicants:*
 The use of this site for a private school is an established use, permitted by special exception in the R-90 zone, and operated in a manner consistent with that of the other private school facilities in the area. The current school facilities meet zoning requirements for building height and setbacks. The proposed buildings meet these zoning requirements as well. The Granting of this variance is not unique to this Applicant and does not provide special privileges or benefits that would not be available to any other applicant.

2. *Is not based on conditions or circumstances which are the result of the actions by the applicant:*
 The configuration of the Subject Property, regulatory requirements, and the location of the Protected Trees are not the result of actions by the Applicant. There are no feasible options to reconfigure this existing school to avoid impact to the Protected Trees.

3. *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 not related in any way to a condition on an adjacent, neighboring property.

4. *Will not violate State water quality standards or cause measurable degradation in water quality:*
The variance will not violate State water quality standards or cause measurable degradation in water quality. The specimen trees being removed or disturbed are not within a stream buffer, wetland, or a special protection area. A Stormwater Management Concept Plan approval will be required by the Montgomery County Department of Permitting Services.

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 for a recommendation prior to acting on the request. In a letter dated October 10, 2014, the County Arborist recommended the variance be approved with mitigation (Attachment 3).

Mitigation

Mitigation for Trees Subject to the Variance Provision - There are five (5) trees proposed for removal in this variance request. Three of these trees (#90, #101, and #202) are located within the existing forest and their loss is normally accounted for in the forest conservation worksheet, however, these trees are within forest previously counted as saved and therefore have not previously been mitigated for. Additionally two trees (#187 and #201) are located outside of the existing forest. Additional mitigation is recommended for all five trees proposed for removal

Mitigation should be at a rate that approximates the form and function of the trees removed. Staff recommends that replacement occur at a ratio of approximately 1" caliper for every 4" DBH removed, using trees that are a minimum of 3" caliper size. For example, this means that for the 171.5 DBH of trees removed the Applicant should replace with 43 caliper inches of trees or fifteen 3" caliper size, native, canopy trees on the Property. While these trees will not be as large as the trees lost, they will provide some immediate canopy and ultimately replace the canopy lost by the removal of these trees.

There is some disturbance within the critical root zones of sixteen trees, but they are candidates for safe retention and will receive adequate tree protection measures. No mitigation is recommended for trees impacted but retained.

Variance Recommendation

Staff recommends that the variance be granted with mitigation. The submitted FFCP meets all applicable requirements of the Chapter 22A of the County Code (Forest Conservation Law).

CONCLUSION

Staff recommends that the Planning Board approve this amendment to the Final Forest Conservation Plan for The Heights School.

Attachments:

1. Amended Final Forest Conservation Plan
2. Tree Variance Request
3. County Arborist Tree Variance Recommendation



PROPERTY INFORMATION:
(FOR SUBJECT PARCELS)

PARCEL NUMBER: 02860804
ACCOUNT NUMBER: 0026
SUBDIVISION NUMBER:
ADC MAP/GRID:
LIBER/FOLIO:
TAX MAP: GP123
WSSC GRID: 21 5N/W8
TOTAL TRACT AREA: 19.81 AC



GENERAL NOTES

1. THE PROPERTY BOUNDARY SHOWN ON THIS PLAN IS FROM INFORMATION PROVIDED BY CPJ ASSOCIATES.
2. ZONING FOR THESE PARCELS IS R-90.
3. THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN IS FROM A FIELD SURVEY COMPLETED BY A. MORTON THOMAS & ASSOCIATES, INC. ON JANUARY 14, 2013, MONTGOMERY COUNTY GIS TOPOGRAPHIC INFORMATION, AND M-NOPC TOPOGRAPHIC INFORMATION.
4. THE SITE IS LOCATED WITHIN THE CABIN JOHN CREEK WATERSHED WHICH IS DESIGNATED USE-1/1P.
5. THE 100-YEAR FLOODPLAIN ON THIS SITE IS SHOWN AS DETERMINED FROM FEMA FLOOD MAP 240310345D.
6. WETLANDS ONSITE ARE SHOWN ON THE PLAN.
7. THE SITE IS NOT WITHIN A SPECIAL PROTECTION AREA.
8. THERE ARE NO KNOWN RECORDS OR READILY OBSERVABLE ARCHAEOLOGICAL, HISTORICAL OR CULTURAL FEATURES ON THIS SITE.
9. FIELD WORK WAS CONDUCTED BY MATTHEW WEIR AND ANDREW STREAGLE, R.L.A. OF A. MORTON THOMAS & ASSOCIATES, INC. IN MAY AND OCTOBER, 2012. TREES WERE MEASURED USING A D-TAPE.
10. THERE ARE NO KNOWN RECORDS OR READILY OBSERVABLE RARE, THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITATS ON THE SITE.
11. THE SIGNIFICANT AND SPECIMEN TREES ON THE SUBJECT PROPERTY ARE SHOWN ON THE PLANS.
12. THE MONTGOMERY COUNTY CHAMPION TREES ON THIS PARCEL ARE SHOWN ON THE PLAN.

CONSULTANTS

REGISTRATION STAMP

OWNER

PROJECT TITLE

THE HEIGHTS SCHOOL
10400 SEVEN LOCKS ROAD
POTOMAC, MD 20854

REVISIONS

MARK	DATE	DESCRIPTION

AMT FILE NO. 109-493.003
DATE: SEPTEMBER 8, 2014
SCALE: 1" = 50'
DESIGNED BY: AMT
DRAWN BY: AMT
CHECKED BY: AMT

SHEET TITLE

FOREST CONSERVATION PLAN

SHEET

LF-101



R=2904.7
Δ=5°41'5
A=288.94
T=144.58
CHB=S0
CHD=28'

SEVEN LOCKS ROAD
(80' WIDE)

R=11
Δ=31
A=31
T=11
CHB
CHD

OFF-SITE EASEMENT REPLACEMENT

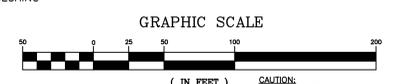
0.53 ACRES ON-SITE EASEMENT REMOVED
1.06 ACRE PLANTING REQUIREMENT TO BE MET OFFSITE IN
A FOREST CONSERVATION BANK

LEGEND

- EDGE OF CANOPY
- LIMIT OF DISTURBANCE
- PROPERTY LINE
- TREE TO BE REMOVED
- SPECIMEN TREE
- SIGNIFICANT TREE
- PERMANENT TREE PROTECTION SIGNAGE
- PERMANENT TREE PROTECTION FENCE
- TREE PROTECTION FENCING
- VERTICAL MULCHING
- MULCH MAT

NR/IFSD NUMBER
#4-96165
APPROVED:

FCP NUMBERS
#CBA-2197A
APPROVED: 2007-03-05



CAUTION:
IF THIS DRAWING IS A REDUCTION,
GRAPHIC SCALE MUST BE USED.
(ORIGINAL SIZE = 30"x42")

CERTIFICATION

I CERTIFY THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND AND THAT THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND IN COMPLIANCE WITH THE FOREST CONSERVATION PLAN REQUIREMENTS.

ANDREW E. STREAGLE
LICENSE NUMBER MD_RLA #3381



DEVELOPER'S CERTIFICATE

THE UNDERSIGNED AGREES TO EXECUTE ALL THE FEATURES OF THE APPROVED FINAL FOREST CONSERVATION PLAN NO. CBA-2197A INCLUDING FINANCIAL BONDING, FOREST PLANTING, MAINTENANCE, AND ALL OTHER APPLICABLE AGREEMENTS.

DEVELOPER'S NAME: THE HEIGHTS SCHOOL
PRINTED COMPANY NAME
CONTACT PERSON OR OWNER: JERRY HADLEY
PRINTED NAME
ADDRESS: 10400 SEVEN LOCKS ROAD, POTOMAC, MD 20854
PHONE AND EMAIL: 301-365-0227 x124 jhadley@heights.edu
SIGNATURE:



CONSULTANTS



R=2904.7
 Δ=5°41'5
 A=288.94
 T=144.56
 CHB=50'
 CHD=28'

R=1:
 Δ=1:
 A=3:
 T=1:
 CHB
 CHC

SEVEN LOCKS ROAD
 (80' WIDE)

REGISTRATION STAMP

OWNER

PROJECT TITLE

THE HEIGHTS SCHOOL
 10400 SEVEN LOCKS ROAD
 POTOMAC, MD 20854

REVISIONS

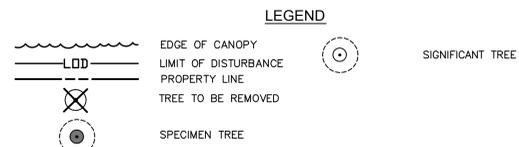
MARK	DATE	DESCRIPTION

AMT FILE NO. 109-493.003
 DATE: SEPTEMBER 8, 2014
 SCALE: 1" = 50'
 DESIGNED BY: AMT
 DRAWN BY: AMT
 CHECKED BY: AMT

SHEET TITLE

FOREST CONSERVATION COLOR EXHIBIT

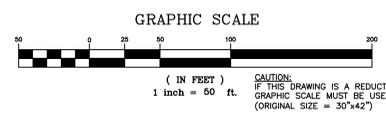
SHEET **LF-101A**
 SHEET 6 OF 6



CERTIFICATION

I CERTIFY THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND AND THAT THESE DOCUMENTS WERE PREPARED UNDER MY SUPERVISION AND IN COMPLIANCE WITH THE FOREST CONSERVATION COLOR EXHIBIT REQUIREMENTS.

ANDREW E. STREAGLE
 LICENSE NUMBER MD.L.A. #3381



SPECIMEN, CHAMPION AND HISTORIC TREE TABLE					
NO.	COMMON NAME	SCIENTIFIC NAME	D.B.H (INCHES)	CONDITION RATING	CONDITION COMMENTS
1	White pine	<i>Pinus strobus</i>	15	AVG./POOR	Vitis, Poison Ivy on canopy, trunk
2	Black walnut	<i>Juglans nigra</i>	12.5	AVG./POOR	Virginia Creeper and Vitis in canopy
3	Virginia pine	<i>Pinus virginiana</i>	25	POOR	Massive Poison Ivy on trunk, in canopy
4	White pine	<i>Pinus strobus</i>	15.5	GOOD	
5	White pine	<i>Pinus strobus</i>	16	GOOD	
6	White pine	<i>Pinus strobus</i>	12	GOOD/AVG.	Small canopy
7	White pine	<i>Pinus strobus</i>	13	GOOD	
8	Virginia pine	<i>Pinus virginiana</i>	18.5	GOOD	
9	Virginia pine	<i>Pinus virginiana</i>	23.5	GOOD/AVG.	
10	White pine	<i>Pinus strobus</i>	13.5	AVG./POOR	Excessive Vitis in canopy
11	#N/A		19	AVG./POOR	Double trunk (13.5", 13.5"); excessive Poison Ivy in canopy; co-dominant leader
12	White pine	<i>Pinus strobus</i>	17	AVG.	Vitis in canopy
13	White pine	<i>Pinus strobus</i>	15	AVG.	Vitis in canopy
14	White pine	<i>Pinus strobus</i>	16	GOOD/AVG.	Crowded; canopy growth on west side only
15	White pine	<i>Pinus strobus</i>	13	AVG.	Wound on trunk; Vitis on trunk
16	White pine	<i>Pinus strobus</i>	14	AVG./POOR	Vitis in canopy; Poison Ivy on trunk
17	White pine	<i>Pinus strobus</i>	16	AVG.	Vitis in canopy; minor dieback
18	White pine	<i>Pinus strobus</i>	16	GOOD	
19	Tulip poplar	<i>Liriodendron tulipifera</i>	19.5	GOOD	
20	Mockernut hickory	<i>Carya tomentosa</i>	19	GOOD	
21	Tulip poplar	<i>Liriodendron tulipifera</i>	20.5	GOOD	
22	White pine	<i>Pinus strobus</i>	16.5	GOOD/AVG.	Leaning, small canopy
23	White pine	<i>Pinus strobus</i>	15.5	GOOD/AVG.	Small canopy
24	White pine	<i>Pinus strobus</i>	16	POOR	Small canopy, wound in trunk
25	Tulip poplar	<i>Liriodendron tulipifera</i>	37	GOOD	
26	Mockernut hickory	<i>Carya tomentosa</i>	19.5	GOOD	
27	Tulip poplar	<i>Liriodendron tulipifera</i>	14	GOOD	
28	Tulip poplar	<i>Liriodendron tulipifera</i>	13	GOOD	
29	Mockernut hickory	<i>Carya tomentosa</i>	19	POOR	Major heartrot in trunk
30	Tulip poplar	<i>Liriodendron tulipifera</i>	20	GOOD/AVG.	Minor epicormic growth
31	Mockernut hickory	<i>Carya tomentosa</i>	15	GOOD	
32	Tulip poplar	<i>Liriodendron tulipifera</i>	24.5	GOOD	Cable and wood blocks around trunk
33	Black gum	<i>Nyssa sylvatica</i>	17	GOOD	
34	Mockernut hickory	<i>Carya tomentosa</i>	18	GOOD/AVG.	Epicormic growth
35	Black gum	<i>Nyssa sylvatica</i>	14	AVG.	Crowded
36	Red maple	<i>Acer rubrum</i>	24	GOOD	
37	Mockernut hickory	<i>Carya tomentosa</i>	16	GOOD	
38	Mockernut hickory	<i>Carya tomentosa</i>	27.5	GOOD	
39	Mockernut hickory	<i>Carya tomentosa</i>	14	GOOD	
40	Black oak	<i>Quercus velutina</i>	19.5	GOOD	
41	Black oak	<i>Quercus velutina</i>	18	GOOD	Compacted root zone
42	Tulip poplar	<i>Liriodendron tulipifera</i>	16.5	POOR	Leader removed, poor form
43	White oak	<i>Quercus alba</i>	15	AVG.	Epicormic growth
44	Tulip poplar	<i>Liriodendron tulipifera</i>	28	GOOD/AVG.	Broken limb in canopy
45	Tulip poplar	<i>Liriodendron tulipifera</i>	21	GOOD/AVG.	Broken limb in canopy
46	Southern red oak	<i>Quercus falcata</i>	19	GOOD/AVG.	Epicormic growth
47	White oak	<i>Quercus alba</i>	13	GOOD/AVG.	Epicormic growth
48	Red oak	<i>Quercus rubra</i>	24.5	GOOD	
49	Red oak	<i>Quercus rubra</i>	28	GOOD/AVG.	Compacted root zone
50	Red oak	<i>Quercus rubra</i>	22.5	AVG./POOR	Compacted root zone, possible heart rot, cracked trunk
51	Red oak	<i>Quercus rubra</i>	17	GOOD/AVG.	Compacted root zone
52	Black oak	<i>Quercus velutina</i>	16	GOOD/AVG.	Compacted root zone, epicormic growth
53	Southern red oak	<i>Quercus falcata</i>	27	GOOD	
54	Black oak	<i>Quercus velutina</i>	15	GOOD/AVG.	Crowded canopy
55	Red oak	<i>Quercus rubra</i>	26	AVG.	Co-dominant leader, possible weak crotch
56	White oak	<i>Quercus alba</i>	21.5	GOOD	
57	White oak	<i>Quercus alba</i>	23	AVG.	Extensive Poison Ivy on trunk, canopy
58	White oak	<i>Quercus alba</i>	22	GOOD/AVG.	Poison Ivy on trunk
59	American holly	<i>Ilex opaca</i>	12	GOOD	
60	White oak	<i>Quercus alba</i>	24	GOOD	
61	Tulip poplar	<i>Liriodendron tulipifera</i>	32	AVG.	Poison Ivy on trunk
62	White oak	<i>Quercus alba</i>	27.5	GOOD	Lights, electrical wires mounted on trunk
63	White oak	<i>Quercus alba</i>	20	GOOD	Lights, electrical wires mounted on trunk
64	Red maple	<i>Acer rubrum</i>	18	GOOD	
65	Tulip poplar	<i>Liriodendron tulipifera</i>	33	GOOD/AVG.	Slightly leaning
66	Leyland cypress	<i>Cupressus x leylandii</i>	14	AVG.	Dieback in lower branches (crowded); Vitis sp. climbing into canopy
67	Leyland cypress	<i>Cupressus x leylandii</i>	12	AVG./POOR	Dieback in lower branches (crowded); leaning
68	Leyland cypress	<i>Cupressus x leylandii</i>	12	AVG.	Dieback in lower branches (crowded); Vitis sp. climbing into canopy
69	Leyland cypress	<i>Cupressus x leylandii</i>	13	AVG.	Vitis sp. climbing into canopy
70	Leyland cypress	<i>Cupressus x leylandii</i>	13	AVG.	Vitis sp. climbing into canopy; Dieback in lower branches (crowded)
71	Leyland cypress	<i>Cupressus x leylandii</i>	9.5	AVG./POOR	Leaning; dieback in lower branches (crowded); Vitis sp. climbing into canopy; triple trunk (3", 4", 8")
72	Leyland cypress	<i>Cupressus x leylandii</i>	15	AVG.	Leaning; dieback in lower branches (crowded)
73	Leyland cypress	<i>Cupressus x leylandii</i>	10.2	AVG.	Dieback in lower branches (crowded); Vitis sp. climbing into canopy; double trunk (2", 10")

74	Leyland cypress	<i>Cupressus x leylandii</i>	14	AVG./POOR	Significant Vitis sp. in canopy; dieback in lower branches (crowded)
75	Leyland cypress	<i>Cupressus x leylandii</i>	13	AVG./POOR	Dieback in lower branches (crowded); Vitis sp. climbing into canopy
76	Leyland cypress	<i>Cupressus x leylandii</i>	10	AVG./POOR	Vitis sp. climbing into canopy; poor form; leaning
77	Leyland cypress	<i>Cupressus x leylandii</i>	9	POOR	Dieback in lower branches (crowded); significant amount of vines climbing into canopy
78	Leyland cypress	<i>Cupressus x leylandii</i>	10	AVG./POOR	Dieback in lower branches (crowded); Vitis sp. climbing into canopy
79	Leyland cypress	<i>Cupressus x leylandii</i>	10	AVG./POOR	Dieback in lower branches (crowded); Vitis sp. and vines climbing into canopy
80	Scarlet oak	<i>Quercus coccinea</i>	26	GOOD	
81	Red oak	<i>Quercus rubra</i>	20	GOOD	
82	White oak	<i>Quercus alba</i>	22	GOOD	
83	White oak	<i>Quercus alba</i>	20	GOOD	Dead Poison Ivy vine on trunk
84	Red oak	<i>Quercus rubra</i>	42	GOOD	Greenbrier beginning to climb trunk
85	Tulip poplar	<i>Liriodendron tulipifera</i>	12	AVG./POOR	Vines starting to climb; epicormic growth
86	Black oak	<i>Quercus velutina</i>	19.5	GOOD	
87	Mockernut hickory	<i>Carya tomentosa</i>	16.5	GOOD	
88	Black oak	<i>Quercus velutina</i>	18	AVG.	Small canopy
89	Tulip poplar	<i>Liriodendron tulipifera</i>	14	AVG.	Epicormic growth, vines starting to climb
90	White oak	<i>Quercus alba</i>	30	AVG./POOR	Major Vitis sp. and vines, leaning, epicormic growth
91	Southern red oak	<i>Quercus falcata</i>	28	GOOD/AVG.	Greenbrier, Poison Ivy starting to climb
92	Black oak	<i>Quercus velutina</i>	20	GOOD	
93	Red oak	<i>Quercus rubra</i>	27.5	POOR	Recently dead; possible heart rot
94	Black oak	<i>Quercus velutina</i>	22	GOOD	
95	Scarlet oak	<i>Quercus coccinea</i>	26	GOOD/AVG.	Minor dieback in lower branches
96	Scarlet oak	<i>Quercus coccinea</i>	30	POOR	Major dieback, major Poison Ivy girdling tree; small canopy
97	Tulip poplar	<i>Liriodendron tulipifera</i>	12	GOOD	
98	White oak	<i>Quercus alba</i>	15	GOOD	
99	White oak	<i>Quercus alba</i>	12	GOOD	
100	Mockernut hickory	<i>Carya tomentosa</i>	13	GOOD	
101*	Black oak	<i>Quercus velutina</i>	31	GOOD	
102	Black oak	<i>Quercus velutina</i>	22	POOR	Leaning, poor form, vines climbing
103	Tulip poplar	<i>Liriodendron tulipifera</i>	18.5	GOOD	
104	Tulip poplar	<i>Liriodendron tulipifera</i>	20	AVG.	Major Poison Ivy on trunk and in canopy
105	Mockernut hickory	<i>Carya tomentosa</i>	21	GOOD/AVG.	Epicormic growth
106	Southern red oak	<i>Quercus falcata</i>	26	AVG./POOR	Very small canopy (dieback)
107	White oak	<i>Quercus alba</i>	24	GOOD/AVG.	Small canopy
108	Tulip poplar	<i>Liriodendron tulipifera</i>	16	AVG./POOR	Some dieback, broken limbs in canopy
109	Tulip poplar	<i>Liriodendron tulipifera</i>	17	GOOD	
110	Southern red oak	<i>Quercus falcata</i>	20	AVG.	Excessive epicormic growth
111	White pine	<i>Pinus strobus</i>	14	AVG.	Small canopy, Poison Ivy
112	White pine	<i>Pinus strobus</i>	15	AVG.	Small canopy, vines
113	White oak	<i>Quercus alba</i>	28	AVG.	Epicormic growth, Poison Ivy on trunk
114	Tulip poplar	<i>Liriodendron tulipifera</i>	12	AVG./POOR	Major Poison Ivy
115	Black gum	<i>Nyssa sylvatica</i>	30	AVG.	Poison Ivy on trunk, dead limbs in crown
116	Tulip poplar	<i>Liriodendron tulipifera</i>	32.5	AVG.	Poison Ivy on trunk, some dead in crown
117	Sweet cherry	<i>Prunus avium</i>	7	GOOD	
118	Sweet cherry	<i>Prunus avium</i>	10.5	GOOD	
119	Mockernut hickory	<i>Carya tomentosa</i>	12.5	AVG.	Some dead in crown
120	Mockernut hickory	<i>Carya tomentosa</i>	18.5	AVG./POOR	Dead leaders, in decline
121	Tulip poplar	<i>Liriodendron tulipifera</i>	29	AVG./POOR	In decline
122	Tulip poplar	<i>Liriodendron tulipifera</i>	32	AVG.	Some dead branches
123	Mockernut hickory	<i>Carya tomentosa</i>	12	GOOD	
124	Mockernut hickory	<i>Carya tomentosa</i>	16	GOOD	
125	Green ash	<i>Fraxinus pennsylvanica</i>	25	GOOD	
126	American holly	<i>Ilex opaca</i>	9	GOOD	
127	Tulip poplar	<i>Liriodendron tulipifera</i>	41.5	GOOD/AVG.	Some dead limbs
128	Mockernut hickory	<i>Carya tomentosa</i>	14.5	GOOD	
129	Red maple	<i>Acer rubrum</i>	32	AVG.	Poison Ivy on trunk, some broken limbs
130	Mockernut hickory	<i>Carya tomentosa</i>	16	GOOD	
131	White oak	<i>Quercus alba</i>	20.5	GOOD	
132	White oak	<i>Quercus alba</i>	22.5	GOOD	
133	Mockernut hickory	<i>Carya tomentosa</i>	14	GOOD	
134	Red oak	<i>Quercus rubra</i>	32	GOOD	
135	Mockernut hickory	<i>Carya tomentosa</i>	13	GOOD	
136	Red oak	<i>Quercus rubra</i>	23.5	GOOD	
137	Red oak	<i>Quercus rubra</i>	19.5	GOOD	
138	Red oak	<i>Quercus rubra</i>	25.5	GOOD	
139	White oak	<i>Quercus alba</i>	14.5	POOR	Topped
140	American holly	<i>Ilex opaca</i>	7	GOOD	
141	White oak	<i>Quercus alba</i>	13	GOOD	
142	White oak	<i>Quercus alba</i>	20.5	GOOD	
143	White oak	<i>Quercus alba</i>	14.5	GOOD	
144	White oak	<i>Quercus alba</i>	16.5	GOOD/AVG.	Wound on lower trunk
145	White oak	<i>Quercus alba</i>	12	GOOD	
146	White oak	<i>Quercus alba</i>	18.5	GOOD	
147	Red oak	<i>Quercus rubra</i>	35	GOOD	
148	Red oak	<i>Quercus rubra</i>	22.5	GOOD	

149	White oak	<i>Quercus alba</i>	20	POOR	In decline, heart rot
150	White oak	<i>Quercus alba</i>	26	GOOD/AVG.	English Ivy and Poison Ivy on trunk
151	White oak	<i>Quercus alba</i>	18	GOOD/AVG.	Poison Ivy on trunk
152	White oak	<i>Quercus alba</i>	18	GOOD	
153	White oak	<i>Quercus alba</i>	10.5	AVG.	Poor form
154	White oak	<i>Quercus alba</i>	12.5	GOOD	
155	White oak	<i>Quercus alba</i>	16.5	GOOD	
156	White oak	<i>Quercus alba</i>	10.5	GOOD	
157	Red oak	<i>Quercus rubra</i>	22.5	GOOD	
158	Red oak	<i>Quercus rubra</i>	10	GOOD	
159	White oak	<i>Quercus alba</i>	12	GOOD	
160	Pin oak	<i>Quercus palustris</i>	23	GOOD/AVG.	Satellite dish on trunk
161	Red oak	<i>Quercus rubra</i>	30.5	GOOD/AVG.	Broken leader
162	Sweet cherry	<i>Prunus avium</i>	11.5	AVG.	Poor form
163	White oak	<i>Quercus alba</i>	23	GOOD	
164	Tulip poplar	<i>Liriodendron tulipifera</i>	28	GOOD	
165	Green ash	<i>Fraxinus pennsylvanica</i>	16	GOOD	
166	White oak	<i>Quercus alba</i>	10	AVG.	Broken leader
167	Red oak	<i>Quercus rubra</i>	27.5	AVG.	Dead leader
168	Red oak	<i>Quercus rubra</i>	28	GOOD	
169	White oak	<i>Quercus alba</i>	14	AVG.	Healing wound on lower trunk
170	Red oak	<i>Quercus rubra</i>	27.5	AVG.	Wound in mid-trunk
171	White oak	<i>Quercus alba</i>	16	AVG.	Euonymus on trunk, broken limbs
172	Red oak	<i>Quercus rubra</i>	35.5	AVG./POOR	Fruiting bodies on East side of trunk; recommend removal
173	White oak	<i>Quercus alba</i>	11	GOOD	
174	Tulip poplar	<i>Liriodendron tulipifera</i>	30	GOOD	
175	American holly	<i>Ilex opaca</i>	8.5	GOOD	
176	Mockernut hickory	<i>Carya tomentosa</i>	9	GOOD	
177	Red oak	<i>Quercus rubra</i>	25	GOOD	
178	White oak	<i>Quercus alba</i>	13	GOOD	
179	White oak	<i>Quercus alba</i>	12	GOOD	
180	White oak	<i>Quercus alba</i>	11	GOOD	
181	Red oak	<i>Quercus rubra</i>	10.5	GOOD	
182	White oak	<i>Quercus alba</i>	10.5	GOOD	
183	Red oak	<i>Quercus rubra</i>	22	GOOD	
184	Red oak	<i>Quercus rubra</i>	21	AVG.	Some dead limbs
185	Red oak	<i>Quercus rubra</i>	22.5	AVG.	Some dead limbs
186	Red oak	<i>Quercus rubra</i>	21.5	GOOD	
187*	Red oak	<i>Quercus rubra</i>	35.5	AVG./POOR	Heart rot at base; recommend removal
188	Red oak	<i>Quercus rubra</i>	29.5	AVG.	Some dead limbs in crown
189	Red oak	<i>Quercus rubra</i>	27	AVG.	Dieback in canopy
190	Red oak	<i>Quercus rubra</i>	30.5	AVG.	Dieback in canopy
191	Tulip poplar	<i>Liriodendron tulipifera</i>	29.5	AVG.	Minor dieback in canopy; broken branches
192	Tulip poplar	<i>Liriodendron tulipifera</i>	50	GOOD	
193	Southern red oak	<i>Quercus falcata</i>	25.5	GOOD/AVG.	Minor dieback
194	Tulip poplar	<i>Liriodendron tulipifera</i>	34.5	GOOD/AVG.	A few broken limbs in crown
195	Red oak	<i>Quercus rubra</i>	31	GOOD	Co-dominant leader
196	Red oak	<i>Quercus rubra</i>	31	GOOD	Co-dominant leader
197	Red oak	<i>Quercus rubra</i>	30	GOOD	Minor Poison Ivy climbing into canopy
198	Tulip poplar	<i>Liriodendron tulipifera</i>	33	GOOD/AVG.	Poison Ivy in canopy
199	Tulip poplar	<i>Liriodendron tulipifera</i>	32	GOOD/AVG.	Poison Ivy in canopy; co-dominant leader
200	Sycamore	<i>Platanus occidentalis</i>	30.5	GOOD	
201*	Sycamore	<i>Platanus occidentalis</i>	34	GOOD	
202*	Red oak	<i>Quercus rubra</i>	41	GOOD/AVG.	Gravel paths within root zone

SHADED TEXT DENOTES TREE TO BE REMOVED, * DENOTES TREE NOTED AS REMOVED WITH THE INTENT TO SAVE
 BOLD TEXT DENOTES SPECIMEN TREE

MONTGOMERY COUNTY STANDARD FOREST CONSERVATION NOTES	
1. PRE-CONSTRUCTION:	CONSTRUCTION MEETING IS REQUIRED AFTER THE LIMITS OF DISTURBANCE HAVE BEEN STAKED AND FLAGGED, BUT BEFORE ANY CLEARING OR GRADING BEGINS. THE PROPERTY OWNER SHOULD CONTACT THE MONTGOMERY COUNTY PLANNING DEPARTMENT INSPECTION STAFF BEFORE CONSTRUCTION TO VERIFY THE LIMITS OF DISTURBANCE AND DISCUSS TREE PROTECTION AND TREE CARE MEASURES. THE REPRESENTATIVE, CONSTRUCTION SUPERINTENDENT, ISA CERTIFIED ARBORIST OR MARYLAND-LICENSED TREE EXPERT THAT WILL IMPLEMENT THE TREE PROTECTION MEASURES, FOREST CONSERVATION INSPECTOR, AND DEPARTMENT OF PERMITTING SERVICES (DPS) SEDIMENT CONTROL INSPECTOR SHOULD ATTEND THIS PRE-CONSTRUCTION MEETING.
2. NO CLEARING OR GRADING SHALL BEGINS BEFORE STRESS-REDUCTION MEASURES HAVE BEEN IMPLEMENTED. APPROPRIATE MEASURES MAY INCLUDE, BUT ARE NOT LIMITED TO:	A. ROOT PRUNING B. CROWN REDUCTION OR PRUNING C. WATERING



A. Morton Thomas and Associates, Inc.
Consulting Engineers

October 1, 2014

Mr. Mark Pfefferle

Environmental Planning Division
Maryland - National Capital Park and Planning Commission (M-NCPPC)
8787 Georgia Ave.
Silver Spring, MD 20910

Re: The Heights School
Plan No. **CBA-2197C**
AMT File No. 109-493.003

Dear Mr. Pfefferle:

On behalf of The Heights School and pursuant to Section 22A-21 *Variance provisions* of the Montgomery County Forest Conservation Ordinance and Md. Code Ann., Natural Resources, §5-1602 et seq., we are writing to request a variance to allow disturbance in the critical root zones of the following specimen trees for the above-named construction project:

Tree #	Species	D.B.H (inches)	Tree Condition	% CRZ Impact	Comments	Reason for disturbance
25	<i>Liriodendron tulipifera</i>	37	Good	32		Location of retaining wall for fire access, site grading
61	<i>Liriodendron tulipifera</i>	32	Avg.	5	Poison Ivy on trunk	Construction access for middle school
65	<i>Liriodendron tulipifera</i>	33	Good/Avg.	12	Slightly leaning	Storm drain line
84	<i>Quercus rubra</i>	42	Good	5	Greenbrier beginning to climb trunk	Construction access for performing arts / dining hall building
96	<i>Quercus coccinea</i>	30	Poor	3	Major dieback, major Poison Ivy girdling tree; small canopy	Location/ construction access for performing arts / dining hall building
115	<i>Nyssa sylvatica</i>	30	Avg.	21	Poison Ivy on trunk, dead limbs in crown	Location/ construction access for middle school
116	<i>Liriodendron tulipifera</i>	32.5	Avg.	18	Poison Ivy on trunk, dead limbs in crown	Location/ construction access for middle school
134	<i>Quercus rubra</i>	32	Good	21		Location/ construction access for middle school

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147	<i>Quercus rubra</i>	35	Good	8		Location/ construction access for middle school
172	<i>Quercus rubra</i>	35.5	Avg./Poor	25	Fruiting bodies on East side of trunk; recommend removal	Poor condition/ proximity to heavily used areas
190	<i>Quercus rubra</i>	30.5	Avg.	1	Dieback in canopy	Location/ grading for access sidewalk
192	<i>Liriodendron tulipifera</i>	50	Good	13		Location/ grading for access sidewalk
196	<i>Quercus rubra</i>	31	Good	7	Codominant leaders	Location/ grading for access sidewalk
198	<i>Liriodendron tulipifera</i>	33	Good/Avg.	15	Poison Ivy in canopy	Location/ grading for access sidewalk
199	<i>Liriodendron tulipifera</i>	32	Good/Avg.	18	Poison Ivy in canopy, Codominant leaders	Location/ grading for access sidewalk
200	<i>Platanus occidentalis</i>	30.5	Good	26		Location/ grading for access sidewalk

As well as removal of the following specimen trees for the above-named construction project:

Tree #	Species	D.B.H (inches)	Tree Condition	% CRZ Impact	Comments	Reason for removal
90	<i>Quercus alba</i>	30	Avg./Poor	51	Major <i>Vitis</i> sp. and vines, leaning, epicormic growth	Poor condition/ Location of performing arts/ dining hall building
101*	<i>Quercus velutina</i>	31	Good	37		Location/ construction access for performing arts / dining hall building
187*	<i>Quercus rubra</i>	35.5	Avg./Poor	72	Heart rot at base; recommend removal	Location/ construction access for middle school
201*	<i>Platanus occidentalis</i>	34	Good	52		Location/ grading for access sidewalk/ construction access/ stormwater management facilities
202*	<i>Quercus rubra</i>	41	Good/Avg.	46	Gravel paths within root zone	Location/ grading for access sidewalk/ stormwater management facilities

*Tree noted as removed with the intent to save.

This project consists of new gymnasium building, new theatre/music/dining hall building, new entry plaza, renovated middle school building, new synthetic turf sports field atop a new parking structure, new pedestrian/ADA sidewalk connections, and new stormwater management facilities. The trees described above have been evaluated by two certified arborists who work for **AMT**¹. The construction will require disturbance in the critical root zones of trees 25, 61, 65, 84, 96, 115, 116, 134, 147, 172, 190, 192, 196, 198, 199, and 200. Root pruning will be performed and tree protection fencing and mulch matting installed to protect the remaining area of critical root zone as needed. The construction will require removal of trees 90, 101, 187, 201, and 202 due to placement of proposed building. The attached "Exhibit 1", "Exhibit 2", "Exhibit 3", "Exhibit 4", and "Exhibit 5" show the project site and its surroundings.

Section 22A-21(b) *Application requirements* states that the applicant must:

- (1) Describe the special conditions peculiar to the property which would cause the unwarranted hardship;
- (2) Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas;
- (3) Verify that State water quality standards will not be violated or that a measurable degradation in water quality will not occur as a result of the granting of the variance; and
- (4) Provide any other information appropriate to support the request.

Pursuant to "(1) *Describe the special conditions peculiar to the property which would cause the unwarranted hardship*, The Heights School is located on the west side of Seven Locks Road, approximately 1000 feet north of the intersection with Democracy Boulevard on approximately 19.81 acres, 4.80 acres of which are covered by Category 1 Forest Conservation Easements. The facility's use as a private school is a permitted use by special exception in the R-90 zone. The school has occupied this site and served the surrounding community since the late 1970's. It is an established, integral element of the area, providing necessary and suitable benefits and services to students, faculty, and the community alike.

In 2011, the Board of Directors and the School's administration undertook a study of the fifteen year old campus master plan and an assessment of the existing as well as approved but unbuilt facilities to determine whether modifications might be necessary to the School's physical plant in order to meet its programmatic goals for the foreseeable future. In that study, the School has been assisted by the architectural firm of Cox, Graae & Spack. As a result of that review, the Board and administration of The Heights School determined that an update of the campus master plan was necessary and in the process have created a definitive vision for the last stages of the School's development.

The School's present special exception modification application (Case No. CBA-2197-C) embodies that vision. It seeks approval of the following additional physical improvements to the

¹Gregory Osband, ISA #MA4950A and Andrew Streagle, ISA #MA4826-A

future campus master plan that requires critical root zone impacts to and/or removal of specimen trees as specified herein in order to achieve:

- 1) To modernize the existing one-story Middle School (to a fully renovated two-story structure with a slightly increased building footprint),
- 2) To accommodate an existing 'open area' playground used by Middle School students, located along the northern boundary,
- 3) To construct a new Performing Arts / Dining Hall facility over an area currently improved with two outdoor basketball courts,
- 4) To construct a new parking structure underneath the School's existing upper athletic field (to be replaced with synthetic turf),
- 5) To provide required fire access as well as trash and loading facilities in conjunction with the previously approved Gymnasium expansion project,
- 6) To construct a new one-story Lower School Building, and
- 7) To reconfigure a portion of its surface parking area to create a 'transitional quad-type' gathering place for students between the main Signature Academic and Building, the expanded Gymnasium and new Theatre/Music/Dining Hall.
- 8) To construct new sidewalk along the entry road and adjacent to sports fields to provide pedestrian and ADA access to the baseball field and central area of the campus.

The proposed 'transitional quad-type' plaza space in the center of the campus connects the existing Upper School/Administration Building with the proposed Gymnasium Building and the proposed Performing Arts/Dining Building (proposed for location of existing outdoor basketball courts). This central plaza space also helps to separate the more public side of the campus from the more protected academic side of the campus. The area available to accommodate the functions of these buildings around a central plaza space is very limited. Due to this limited central location space, the size of the proposed Performing Arts/Dining Building (theatre space reduced from 750 seats with 50' x 60' stage to 464 seats with 42' x 60' stage; dining room and kitchen space reduced by about half) has been considerably reduced from what was originally desired by the applicant. In addition the kitchen is served from a remote loading dock and deliveries and trash move to and from the building via an underground tunnel connecting the Performing Arts/Dining Building to the parking garage and the loading dock in the proposed Gymnasium Building. The proposed Performing Arts/Dining Building is sited in the location of the existing outdoor basketball courts to allow for fewer impacts to specimen trees and forest on-site. The size/shape of the building have been reconfigured to minimize clearing of Category 1 easement protected forest, disturbance of specimen trees, and allow for required fire department access to the building. Forest clearing and specimen tree impacts related to the required fire access for the proposed Gymnasium Building have been minimized through the use of a retaining wall on the south and west sides of the T turnaround. The reductions in facility capacity have indeed resulted in less forest clearing and fewer impacts to specimen trees due to reduced building square footages/footprints as compared to the originally proposed building layouts.

The proposed synthetic turf sports field has been reduced in size (330 yard standard field to 310 yard proposed field) along with the reconfigured baseball field (shorter first base side outfield). A 156 space parking structure is proposed underneath of the synthetic turf sports field to provide additional parking while conserving site area. Sidewalks are proposed to provide ADA-compliant accessibility from the public right-of-way into the property. Proposed sidewalks encircle the

eastern forest conservation area near the entrance. A sidewalk adjacent to the driveway north of the easement provides access to the central portion of the campus, a second sidewalk south of the easement area provides access to the baseball field. Impact on the existing forested area is minimized by using a 1.5H:1V back slope, where possible, between the proposed sidewalk and forest to remain.

The proposed Middle School is to be rebuilt in the location of the existing Middle School, which was originally constructed in the 1960's. The existing structure does not meet current standards for educational buildings, and does not meet the School's program needs for its Middle School, as the central corridor is too narrow, classrooms are connected with the central corridor via steps, only one small student bathroom is available for the entire building, the HVAC system is outdated and no single space can accommodate even one entire class. The proposed Middle School was purposely located on the site of the existing Middle School building to have a limited increase in footprint, and has been designed to create a more efficient use of classroom space, increase the total number of modestly sized classrooms to meet the school's expanding population, provide much needed support space, and make the facility ADA accessible. To provide for the program needs within the limited area available, the proposed Middle School has been designed on two stories instead of the current one story. The proposed Middle School building sits in the same location as the current Middle School building and has also been reconfigured to minimize clearing of Category 1 easement protected forest, disturbance of specimen trees, and allow for required fire department access to the building.

The proposed stormwater management facilities provide the minimal level of control required by Montgomery County Code, Chapter 19 as enforced by Montgomery County Department of Permitting Services. The Environmental Site Design practices (greenroofs, microbioretention, etc.) fall short of water quality control target volumes and are augmented by supplemental underground concrete filtration vaults. The on-site quantity controls do not provide full Channel Protection Volume requirements which are addressed through payment of fee-in-lieu. The proposed stormwater management controls are the absolute minimum allowable due to the limited amount of suitable space to site the facilities.

To reduce specimen tree impacts, the proposed stormwater management facilities are either sited at the location of existing stormwater management facilities (retrofits) or are proposed in areas that have been previously developed. In the instance of micro-bioretenion facilities #3 & #4 (near tree #202), the facilities are located in an area previously mass graded to construct the existing baseball field. Microbioretention facilities #3 & #4 are proposed at the location of the existing home plate, back stop, first base line, dugouts and bleachers, an area that has been previously cut and filled by up to eight vertical feet, which likely disturbed tree roots in the vicinity.

The site and programmatic constraints described above are **special conditions peculiar** to this site. Were the applicant to be denied the requested variance to disturb the critical root zone of trees 25, 61, 65, 84, 96, 115, 116, 134, 147, 172, 190, 192, 196, 198, 199, and 200, and remove trees 90, 101, 187, 201, and 202, the applicant would be unable to achieve the facilities necessary to meet its programmatic requirements and unable to proceed with stormwater management facility improvements. As such, this would cause an **unwarranted hardship** to The Heights School students and faculty, as well as to the community that it serves.

Pursuant to “(2) Describe how enforcement of these rules will deprive the landowner of rights commonly enjoyed by others in similar areas”, enforcement of a prohibition on disturbing the critical root zone of the specimen trees 25, 61, 65, 84, 96, 115, 116, 134, 147, 172, 190, 192, 196, 198, 199, and 200, and removal of trees 90, 101, 187, 201, and 202, the applicant would be unable to achieve the facilities necessary to meet its programmatic requirements and unable to proceed with stormwater management facility improvements, thus **depriving The Heights School, students, faculty, and the community of rights commonly enjoyed by others** who are served by similar facilities that have many of the same features as the subject property.

Pursuant to “(3) Verify that State water quality standards will not be violated or that a measurable degradation in water quality will not occur as a result of the granting of the variance”, the specimen trees are not located near any water bodies as none are present on the site. The surrounding conservation easement protected green space that currently exists is to remain, and will continue to provide water quality and quantity benefits. New tree planting and stormwater management facilities are proposed for the site and will provide additional quality and quantity benefits as well. For the above reasons, the disturbance of the critical root zone of trees 25, 61, 65, 84, 96, 115, 116, 134, 147, 172, 190, 192, 196, 198, 199, and 200, and removal of trees 90, 101, 187, 201, and 202 **would not violate the aforementioned standards, nor would it result in a measurable degradation in water quality.**

Pursuant to “(4) Provide any other information appropriate to support the request”, the proposed work is consistent with The Heights School Master Plan. In addition, the proposed facilities have been redesigned/reconfigured, as described above, to meet minimum programmatic requirements while minimize disturbance to, and removal of, specimen trees on the site.

As further basis for its variance request, the applicant can demonstrate that it meets the Section 22A-21(d) *Minimum criteria*, which 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

Pursuant to “(1) Will confer on the applicant a special privilege that would be denied to other applicants”, the use of this site for a private school is an established use, permitted by special exception in the R-90 zone, and operated in a manner consistent with that of the other private school facilities in the area. The current school facilities meet zoning requirements for building height and setbacks. The proposed buildings meet these zoning requirements as well. As such, by granting this variance request no **special privilege** will be conferred on the applicant that would be denied to other applicants.

Pursuant to "(2) Is based on conditions or circumstances which are the result of the actions by the applicant, the applicant has taken no **actions leading to the conditions or circumstances** that are the subject of this variance request.

Pursuant to "(3) Arises from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property, the **surrounding land uses** (residential development) do not have any **inherent characteristics that have created** this particular need for a variance.

Finally, pursuant to "(4) Will violate State water quality standards or cause measurable degradation in water quality, the applicant cites the reasoning previously provided in response to requirement 22A-21(b)(3), and restates its belief that granting this variance request **will not violate State water quality standards or cause measurable degradation in water quality**.

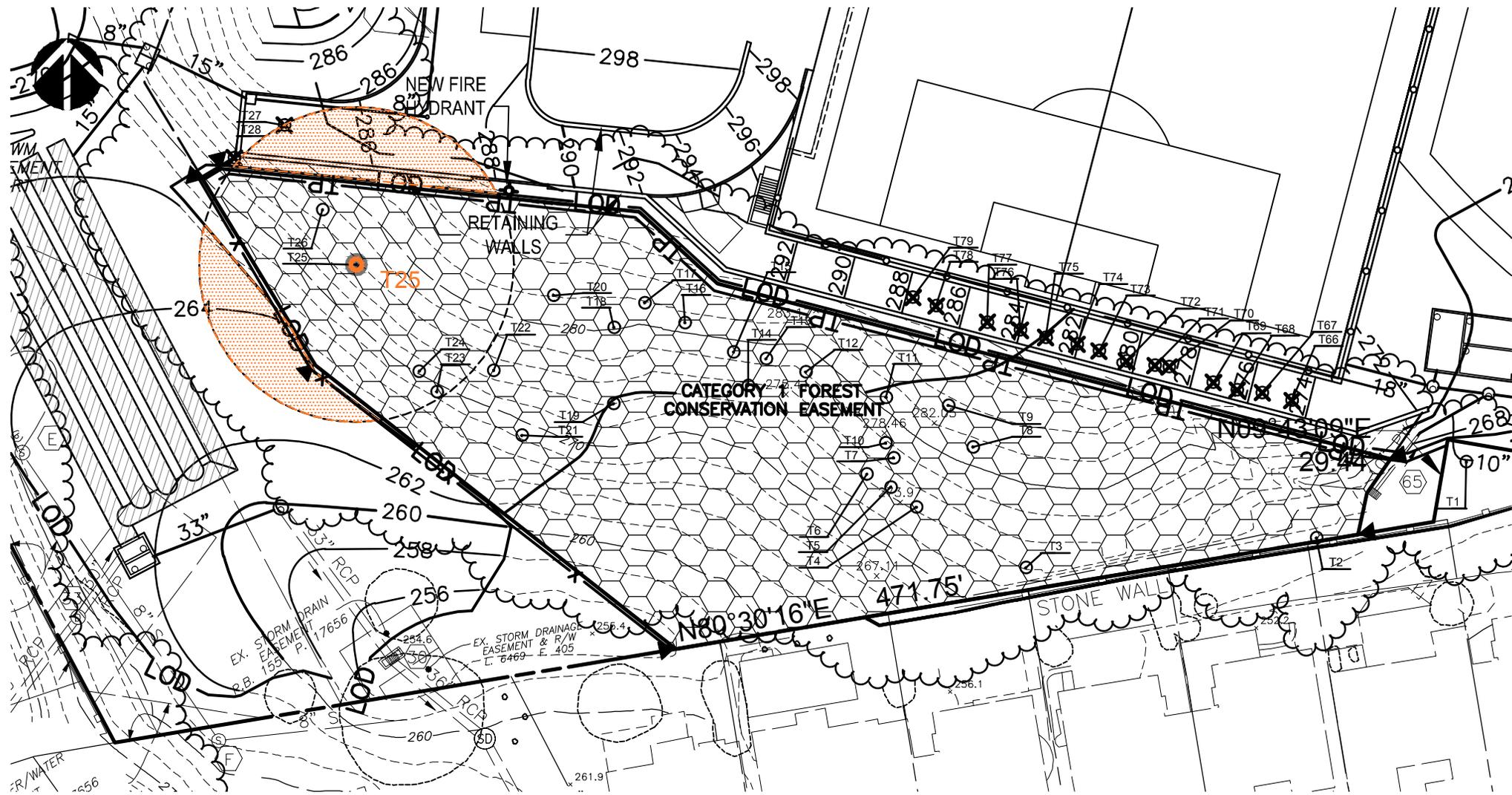
For the above reasons, the applicant respectfully requests that the Planning Board APPROVE its request for a variance from the provisions of Section 22A of the Montgomery County Forest Conservation Ordinance and Md. Code Ann., Natural Resources, §5-1602 et seq., and thereby, GRANTS permission to disturb the critical root zones of trees 25, 61, 65, 84, 96, 115, 116, 134, 147, 172, 190, 192, 196, 198, 199, and 200, and remove trees 90, 101, 187, 201, and 202 in order to allow construction of this project.

Sincerely,

A. MORTON THOMAS and Associates, Inc.



Andrew E. Streagle, RLA, ISA
Senior Project Landscape Architect



LEGEND

- | | | | | | |
|---|--------------------|---|-----------------------------|---|--|
|  | SIGNIFICANT TREE |  | SPECIMEN TREE TO BE REMOVED |  | SPECIMEN TREE NOTED AS REMOVED WITH THE INTENT TO SAVE |
|  | TREE TO BE REMOVED |  | EDGE OF CANOPY |  | SPECIMEN TREE |
| | |  | LIMIT OF DISTURBANCE |  | SPECIMEN TREE WITH CRZ IMPACT |

SCALE: 1" = 50'

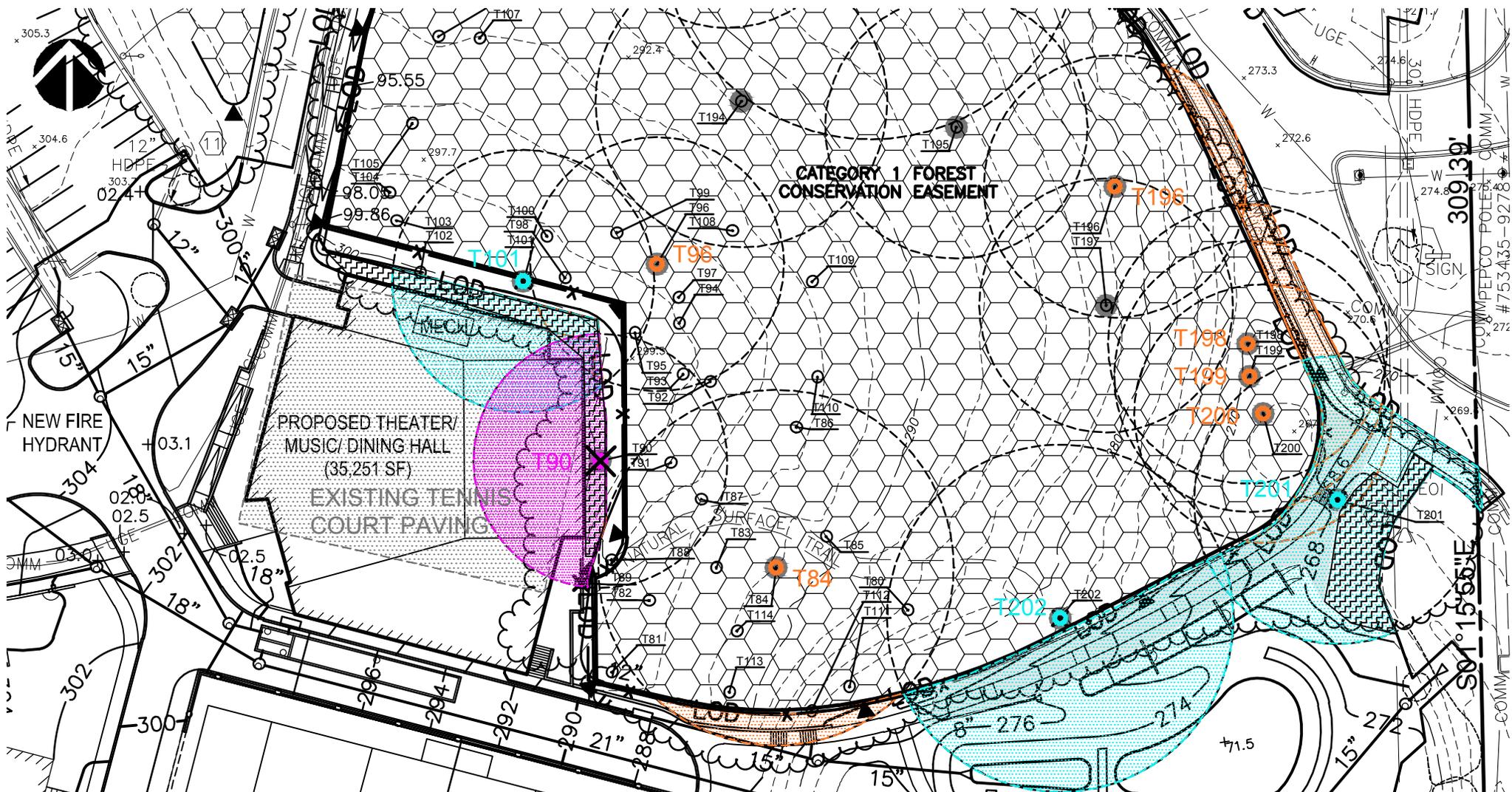


**EXHIBIT 1
FOREST CONSERVATION VARIANCE REQUEST**

THE HEIGHTS SCHOOL - Potomac, Maryland
OCTOBER 2014



A. Morton Thomas and Associates, Inc.
800 King Farm Boulevard, 4th Floor, Rockville, MD 20850
Tel: 301.881.2545 Fax: 301.881.0814



LEGEND

- | | | | | | | | |
|--|------------------|--|----------------------|--|-----------------------------|--|--|
| | SIGNIFICANT TREE | | TREE TO BE REMOVED | | SPECIMEN TREE TO BE REMOVED | | SPECIMEN TREE NOTED AS REMOVED WITH THE INTENT TO SAVE |
| | EDGE OF CANOPY | | LIMIT OF DISTURBANCE | | SPECIMEN TREE | | SPECIMEN TREE WITH CRZ IMPACT |

SCALE: 1" = 50'

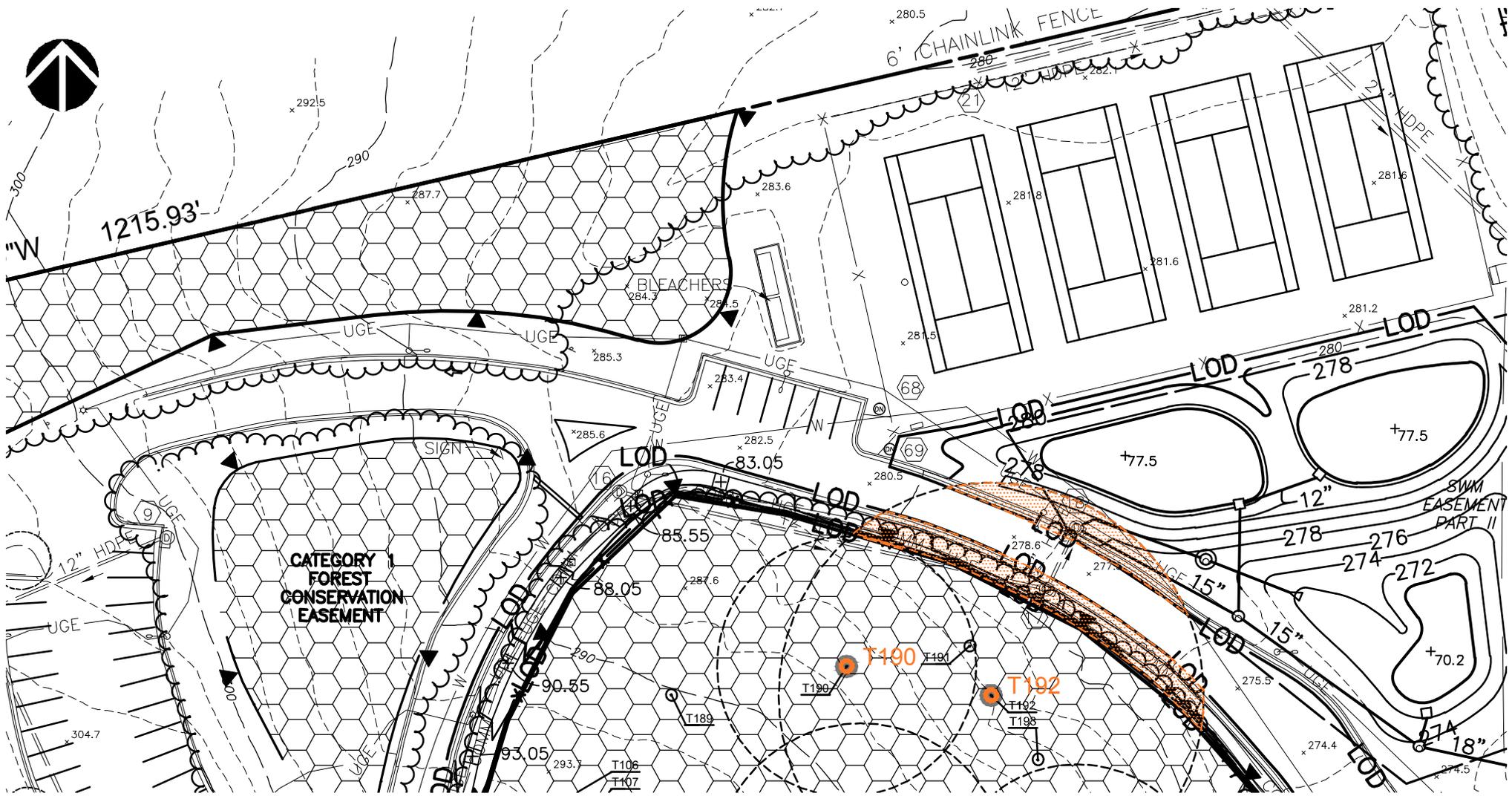


**EXHIBIT 3
FOREST CONSERVATION VARIANCE REQUEST**

THE HEIGHTS SCHOOL - Potomac, Maryland
OCTOBER 2014



A. Morton Thomas and Associates, Inc.
800 King Farm Boulevard, 4th Floor, Rockville, MD 20850
Tel: 301.881.2545 Fax: 301.881.0814



LEGEND



SIGNIFICANT TREE



TREE TO BE REMOVED



EDGE OF CANOPY



LIMIT OF DISTURBANCE



SPECIMEN TREE NOTED AS REMOVED WITH THE INTENT TO SAVE



SPECIMEN TREE

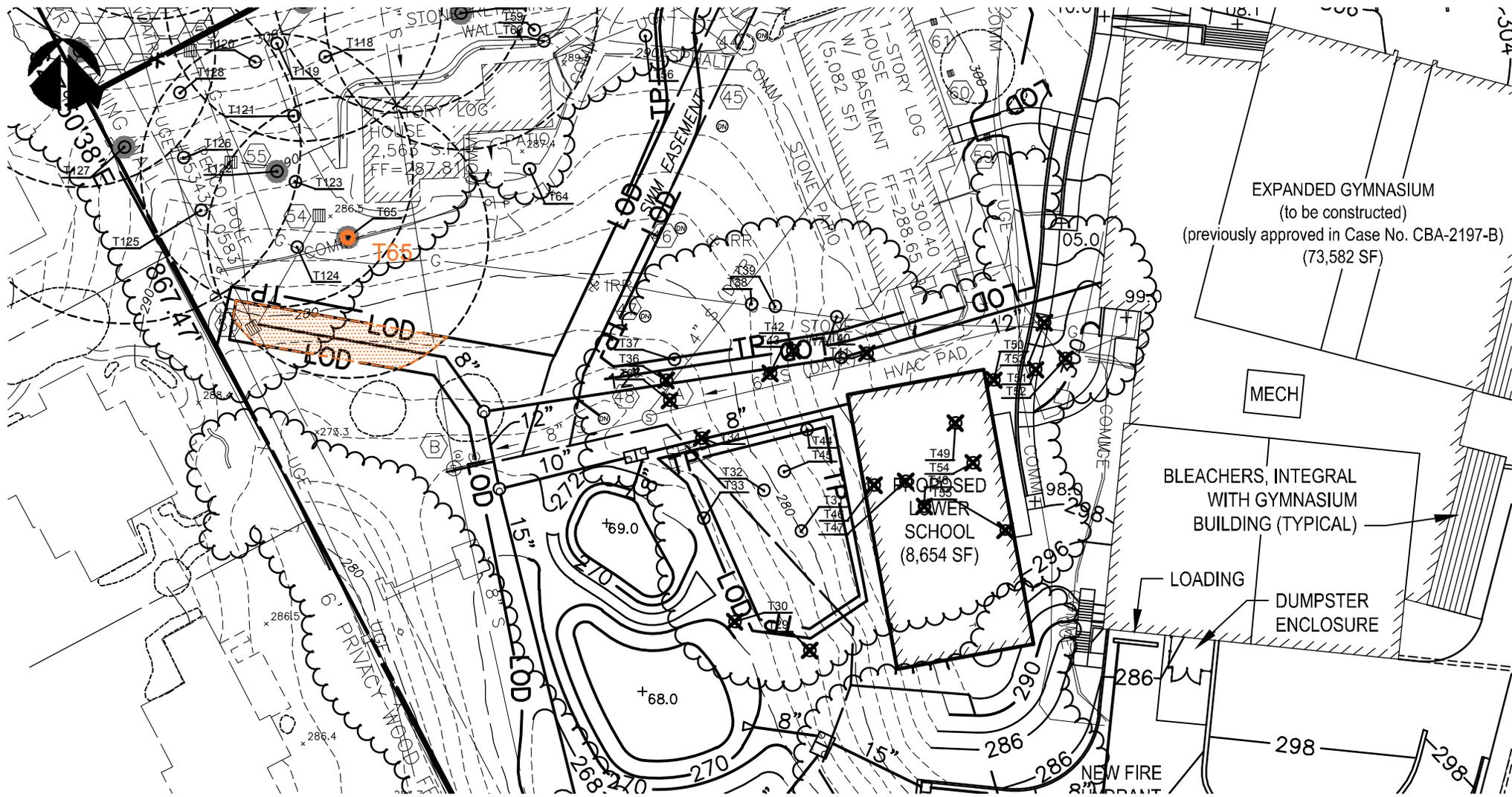


SPECIMEN TREE WITH CRZ IMPACT

SCALE: 1" = 50'



**EXHIBIT 4
FOREST CONSERVATION VARIANCE REQUEST**



LEGEND

- 

SIGNIFICANT TREE
- 

TREE TO BE REMOVED
- 

EDGE OF CANOPY
- 

LIMIT OF DISTURBANCE



SPECIMEN TREE TO BE REMOVED



SPECIMEN TREE NOTED AS REMOVED WITH THE INTENT TO SAVE



SPECIMEN TREE



SPECIMEN TREE WITH CRZ IMPACT

SCALE: 1" = 50'



**EXHIBIT 5
FOREST CONSERVATION VARIANCE REQUEST**





DEPARTMENT OF ENVIRONMENTAL PROTECTION

Isiah Leggett
County Executive

Fariba Kassiri
Acting Director

October 10, 2014

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

RE: Heights School, CBA 2197 C, application for an amendment to a special exception accepted on 8/22/2012

Dear Mr. Anderson:

All applications for a variance from the requirements of Chapter 22A of the County Code submitted after October 1, 2009 are subject to Section 22A-12(b)(3). Accordingly, given that the application for the above referenced request was submitted after that date and must comply with Chapter 22A, and the Montgomery County Planning Department ("Planning Department") has completed all review required under applicable law, 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, I make the following findings as the result of my review:

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 criterion.
2. Based on a discussion on March 19, 2010 between representatives of the County, the Planning Department, and the Maryland Department of Natural Resources Forest Service, the disturbance of trees, or other vegetation, as a result of development activity is not, in and of itself, interpreted as a condition or circumstance that is the result of the actions by the applicant. Therefore, the

Division of Environmental Policy & Compliance

Casey Anderson
October 10, 2014
Page 2

variance can be granted under this criterion, as long as appropriate mitigation is provided for the resources disturbed.

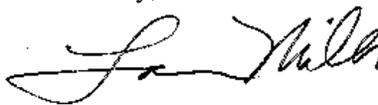
3. The disturbance of trees, or other vegetation, by the applicant does not arise from a condition relating to land or building use, either permitted or nonconforming, on a neighboring property. Therefore, the variance can be granted under this criterion.
4. The disturbance of trees, or other vegetation, 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 criterion.

Therefore, I recommend a finding by the Planning Board that this applicant qualifies for a variance conditioned upon the applicant mitigating for the loss of resources due to removal or disturbance to trees, and other vegetation, subject to the law based on the limits of disturbance (LOD) recommended during the review by the Planning Department. In the case of removal, the entire area of the critical root zone (CRZ) should be included in mitigation calculations regardless of the location of the CRZ (i.e., even that portion of the CRZ located on an adjacent property). When trees are disturbed, any area within the CRZ where the roots are severed, compacted, etc., such that the roots are not functioning as they were before the disturbance must be mitigated. Exceptions should not be allowed for trees in poor or hazardous condition because the loss of CRZ eliminates the future potential of the area to support a tree or provide stormwater management. Tree protection techniques implemented according to industry standards, such as trimming branches or installing temporary mulch mats to limit soil compaction during construction without permanently reducing the critical root zone, are acceptable mitigation to limit disturbance. Techniques such as root pruning should be used to improve survival rates of impacted trees but they should not be considered mitigation for the permanent loss of critical root zone. I recommend requiring mitigation based on the number of square feet 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.

In the event that minor revisions to the impacts to trees subject to variance provisions are approved by the Planning Department, the mitigation requirements outlined above should apply to the removal or disturbance to the CRZ of all trees subject to the law as a result of the revised LOD.

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

Sincerely,



Laura Miller
County Arborist

cc: Josh Penn, Senior Planner