MCPB Item # 12A and B 3-05-09

MEMORANDUM

TO:

Montgomery County Planning Board

VIA:

Mark Pfefferle, Acting Chief, Environmental Planning Division

Stephen D. Federline, Master Planner, Environmental Planning Division

FROM:

Candy Bunnag, Planner Coordinator, Environmental Planning Division

DATE:

February 20, 2009

SUBJECT:

Staff Recommendations for Planning Board approvals of:

A. Special Protection Area (SPA) Preliminary/Final Water Quality Plan,

and

B. Preliminary Forest Conservation Plan associated with

Mandatory Referral No. 07606-MCPS-1, Paint Branch High School

STAFF RECOMMENDATIONS

Staff recommendations are made below for two Planning Board actions on the following plans:

A. SPA Water Quality Plan approval recommendations:

Approval of the SPA Preliminary/Final Water Quality Plan with the following conditions:

- 1. Total new impervious surfaces within the SPA will cover no more than currently exists (estimated at 15,951 square feet as shown on the *Existing and Proposed SPA Impervious Areas Plan*, as received via email on February 17, 2009). A hard copy of the plan will follow with original signature, and shall be available for the record at or before the Board hearing date.
- 2. Applicant will conform to the conditions as stated in DPS' water quality plan approval letter dated December 30, 2008 (Attachment 1).

B. Preliminary Forest Conservation Plan approval recommendations:

Approval of the Preliminary Forest Conservation Plan with the following conditions:

1. Compliance with the conditions of approval of the Preliminary Forest Conservation Plan. The applicant must meet all conditions prior to MCDPS issuance of sediment and erosion control permit(s). Conditions include, but are not limited to, the following:

- a. The following items must be included in the Final Forest Conservation Plan:
 - i. Detailed method for removal of bamboo that focuses on manual removal measures and avoids use of herbicides, to the extent feasible.
 - ii. Provide permanent signs and/or fencing along the boundaries of the conservation easement areas.
- b. Prior to the start of clearing or grading:
 - i. The applicant must secure Environmental Planning staff approval and proper confirmation as to the manner of meeting offsite forest conservation obligations. The 12.0- acre reforestation requirement may be met through the use of forest planting, forest save, or use of bank credits. Priority for meeting offsite obligations must be given to sites within the Upper Paint Branch SPA.
 - ii. The applicant must record a Category I conservation easement over the onsite forest retention and planting areas as shown on the Forest Conservation Plan.

BACKGROUND

Paint Branch High School is a 45.85-acre site that includes the existing high school site and land adjoining the high school that the Montgomery County Public Schools acquired from M-NCPPC and a private landowner. The site is located in the Fairland Planning Area on Old Columbia Pike, north of Briggs Chaney Road. The existing high school building, parking lots, and athletic fields cover the majority of the site. A house and driveway lie just south of the large school parking lot adjacent to Old Columbia Pike. Four forest stands, covering a total of 8.67 acres lie to the south of the existing school facilities.

There are several individual trees, some of which are specimen in size. There is also a multi-stem dogwood on the southeastern portion of the site, which has been designated as a County champion.

The majority of the site (43.1 acres) lies within the Little Paint Branch (Use I waters) watershed. Two streams, which are tributaries of Little Paint Branch, and their associated environmental buffers, flow along part of the northern property line and a part of the eastern property boundary. The eastern stream originates on the school site and flows under Rte. 29.

A small portion (2.75 acres) of the site along Old Columbia Pike lies within the Paint Branch (Use III waters) watershed; this portion is within the Upper Paint Branch Special Protection Area (SPA) and its Environmental Overlay Zone.

The proposed project is to replace the existing school with a new school. MCPS proposes to keep the existing school open during construction. This will be accomplished by locating the new school building away from the existing building.

DISCUSSION

There are three items for Planning Board review for the Paint Branch High School project: the mandatory referral, the Special Protection Area (SPA) Combined Preliminary and Final Water Quality Plan, and the Preliminary Forest Conservation Plan. This memorandum covers staff's

review and recommendations on the SPA Combined Preliminary and Final Water Quality Plan and the Preliminary Forest Conservation Plan.

The Board's actions on the SPA Water Quality Plan and Forest Conservation Plan are regulatory and binding. The Planning Board must act on the SPA Water Quality Plan and Forest Conservation Plan before it can act on the mandatory referral.

SPA PRELIMINARY/FINAL WATER QUALITY PLAN REVIEW

Of the 45.84 acres of the site, about 2.75 acres along Old Columbia Pike lie within the Upper Paint Branch Special Protection Area (SPA). The SPA portion of the site includes existing driveway entrances to the school, segments of sidewalks, a house and its driveway, some scattered trees, and a grove of bamboo. There are no streams, wetlands, or environmental buffers within the SPA portion of the site.

Within the SPA, MCPS proposes to create a practice play field on fill. There are also three proposed driveway entrances or portions of entrances within the SPA, as well as new segments of sidewalks. Small sections of Old Columbia Pike will also be widened.

Review for Conformance to the Special Protection Area Requirements

As part of the requirements of the Special Protection Area law, a SPA Water Quality Plan should be reviewed in conjunction with a mandatory referral¹. Under the provision of the law, the Montgomery County Department of Permitting Services (DPS) and the Planning Board have different responsibilities in the review of a water quality plan. DPS has reviewed and conditionally approved the elements of the Preliminary/Final Water Quality Plan under its purview. The Planning Board responsibility is to determine if environmental buffer protection, SPA forest conservation and planting requirements, and site imperviousness limits have been satisfied.

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

Site Imperviousness

Impervious surface restrictions for development projects in the Upper Paint Branch SPA are set forth in the Environmental Overlay Zone for the Upper Paint Branch SPA. The Environmental Overlay Zone has an 8 percent imperviousness limit for new projects. There is also a provision for projects with impervious surfaces lawfully existing before July 31, 2007 that exceed the 8 percent limit and are proposing to construct features within the project area. Section 59-C-18.152 (a)(1)(A) of the Montgomery County Code states:

"(A) Any impervious surface lawfully existing pursuant to a building permit issued before July 31, 2007 that exceeds the 8 percent restriction, may continue or be reconstructed under the development standards in effect when the building permit was issued."

¹ Section 19-62 (c) of the Montgomery County Code states that "before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan."

Since this site is an existing high school, the site imperviousness for this project cannot be increased over what exists today. That is, there cannot be any net gain in impervious surfaces within the SPA.

The existing site within the SPA has 15,951 square feet of impervious surfaces, or about 18.0% imperviousness. These include existing driveways into the school, portions of sidewalks, and part of a house and its driveway.

The proposed project would remove the house and its driveway and construct new entrances into the school. Sidewalks would also be connected, and a portion of Old Columbia Pike would be widened near one of the main driveway entrances. The proposed project would result in 15, 812 square feet of impervious surfaces within the SPA, or about 17.8% imperviousness. The proposed project would result in a slight decrease in imperviousness. Therefore, the project conforms to the Environmental Overlay Zone provisions for imperviousness.

Environmental Buffers

There are no streams, wetlands, floodplains, or environmental buffers on the SPA portion of the subject site.

County DPS Special Protection Area Review Elements

DPS has reviewed and conditionally approved the elements of the SPA water quality plan under its purview with a synopsis provided below (see Attachment 1).

Site Performance Goals

As part of the water quality plan, the following performance goal was established for the site: Promote groundwater recharge to ensure that the redirection of surface flows away from the SPA will be compensated for in the final design. Recharge areas must be spread out as much as practical, in addition to location of recharge below the proposed Montgomery County Sand Filter.

Stormwater Management Concept

Portions of the SPA drainage area will be regraded to flow into the Little Paint Branch watershed. Water quality for the proposed practice play field will be provided with a Montgomery County Sand Filter. Additional water quality controls will be provided by stormwater flows through vegetated areas on the site and through storage beneath the sand filter structure.

Sediment and Erosion Control

DPS is requiring the use of super silt fences around the perimeters of disturbed areas. Immediate stabilization of disturbed soils is also required.

Monitoring of Best Management Practices

One groundwater well will be located near the sand filter and will provide continuous monitoring of groundwater levels pre- and post-construction. If the practice fields are to be treated with fertilizers or pesticides, DPS may require monitoring of chemicals that may enter into the groundwater.

REVIEW OF FOREST CONSERVATION PLAN

A Natural Resources Inventory/Forest Stand Delineation (NRI/FSD #420072390) was approved by Environmental Planning staff on June 21, 2007. The southern portion of the site has 8.67 acres of forest. There are also many specimen trees on the site. A multi-stem flowering dogwood (Cornus florida), which was added to the Montgomery County Forestry Board's Register of County champion trees during the review of this project, is located on the south side of the site. Two streams and their buffers are located on the northern and eastern portions of the site, within the Little Paint Branch watershed.

This project is subject to Chapter 22A of the County Code (Montgomery County Forest Conservation Law). The Preliminary Forest Conservation Plan proposes to clear 8.08 acres and retain 0.59 acres of forest. The forest retention area is proposed within the environmental buffer at the northeastern corner of the site. Onsite reforestation covering a total of 1.92 acres is proposed within the two environmental buffer areas on the site. The project also includes landscaping with native trees. Part of the landscape, native trees can be used to satisfy 2.17 acres of the project's 16.16-acre reforestation requirement. The remaining 12.07 acres of reforestation will be satisfied by purchasing credits from a forest bank, forest preservation, and/or reforestation at an offsite location. Staff recommends that the first choice for a forest bank or offsite reforestation site should be at a site located within the Upper Paint Branch SPA.

The champion dogwood is located in the proposed loading dock and dumpster area of the new school building. Because the project involves keeping the existing school building open and operating while the new school is constructed, there is almost no flexibility in changing the design or grading for the project. MCPS determined, and staff agrees, that the dogwood cannot be retained at its current location because of the grading and configuration for the new school building.

MCPS had hired a certified arborist to evaluate the feasibility of moving the tree to a different location. The arborist determined that the damage to the tree could be severe if it was moved (Attachment 2). Environmental Planning's arborist also concluded that the likelihood of the tree surviving and thriving if it were moved was low because of the difficulty of moving a large tree in fair condition.

At an earlier phase of the project, a neighbor of the school, Mr. Lawrence Silberman, requested to MCPS that the champion dogwood be preserved. However, because of MCPS' requirement to keep the existing school operational during construction, the project had very little flexibility to change to save the tree where it is located. MCPS had met with Mr. Silberman and had explained to him that the tree could not be protected. MCPS and Mr. Silberman agreed that he would coordinate a volunteer program with the high school and others to graft the tree and plant successful grafts of the tree on the school site (Attachment 2). Staff supports this effort to graft the dogwood as a voluntary effort that involves the students at the school.

The Preliminary Forest Conservation Plan, if modified to meet staff's recommended conditions, meets the requirements of the Forest Conservation Law.

Z:\Mandatory Referrals (MR)\FY '09\07607MCPS1 PaintBranchHighSchool cb.doc



DEPARTMENT OF PERMITTING SERVICES

- 10 1 1

Carla Reid
Director

Isiah Leggett
County Executive

December 30, 2008

Mr. Patrick Welker Adtek Engineers, Inc. 97 Monocacy Boulevard, Unit H Frederick, MD 21701

Re: Revised Preliminary/Final Water Quality

Plan for

Paint Branch High School

SM File #: 233139

Tract Size/Zone: 45.85 acres/R-200 Total Concept Area: 45.85 acres Watershed: Upper Paint Branch (2.75 acres), Little Paint Branch (43.1 acres)

SPECIAL PROTECTION AREA

Dear Mr. Welker:

Based on a review by the Department of Permitting Services Review Staff, the revised Preliminary/Final Water Quality Plan for the above mentioned site is conditionally approved. For the SPA portion of the project, water quality control and groundwater recharge is proposed to be provided via construction of a Montgomery County Sand Filter. For the remainder of the project, (which drains to the Little Paint Branch Watershed) channel protection and overbank flood control is proposed to be provided via underground detention; and, water quality control is proposed to be provided by various approaches including Montgomery County Sand Filters, Bio Filters, and proprietary filtration cartridges.

This approval is for the elements of the Preliminary Water Quality Plan of which DPS has lead agency responsibility, and does not include limits on imperviousness or stream buffer encroachments. This approval supersedes the approval granted on September 23, 2008.

Site Description:

The site is located at 14121 Old Columbia Pike and is the currant location of Paint Branch High School. The existing school will be demolished and replaced with a new school on the same property.

Approximately 2.75 acres of the site drains to the Upper Paint Branch, which has been designated a Special Protection Area. The remainder of the site, approximately 43.1 acres, drains to Little Paint Branch.

For the SPA portion of the project (2.75 acres in Upper Paint Branch):

ATTACHMENT 1 (continued)

Mr. Patrick Welker December 30, 2008 Page 2

Stormwater Management:

Proposed work in this area consists of placement of fill to create a practice play field. In addition, approximately 0.09 acres of impervious area from the driveway entrance will drain to this location. Portions of the existing drainage area will be regarded to flow to the Little Paint Branch.

- Water quality control for the field will be provided via construction of a Montgomery County Sand Filter (MCSF). Additional water quality will be provided via flow through vegetated areas and additional storage beneath the proposed MCSF. The surface area of the sand filter should be maximized to promote better recharge.
- Recharge for this area must be computed based upon the pre developed drainage divide.

Sediment Control:

 Silt fence alone will not be allowed as a perimeter control. The use of Super Silt Fence will be acceptable. Immediate stabilization is to be emphasized.

Performance Goals:

 Promote groundwater recharge to ensure that the redirection of surface flows away from the SPA will be compensated for in the final design. Recharge areas must be spread out as much as practical, in addition to location of recharge area below the proposed MCSF.

Monitoring:

One groundwater well, located near the sand filter and monitored for continuous
elevations pre- and post- construction, will be required. If the practice fields are going to
be treated with fertilizers or pesticides, it may also be appropriate to ask for groundwater
chemistry at this location.

For the remainder of the project, which is outside the SPA (approximately 43.1 acres):

- MSHA must approve a drainage analysis for the existing pipe at Study Point 1
 prior to approval of the stormwater concept prior to final sediment
 control/stormwater management plan approval. Overbank Flood Control must be
 provided as required to provide safe conveyance through the receiving storm
 drain system.
- Underground detention is proposed to be provided via a proprietary device (StormTrap). This product has been approved for use in Montgomery County. The final design may use any material or product approved for this purpose by Montgomery County DPS. However, all utilities must be horizontally located at least 10 feet away from the detention facility.
- All utilities, including gas, electric, water and sewer, must be located at least 10 feet away from stormwater management facilities.
- Drainage areas to proprietary filtration cartridge facilities may not exceed one acre.

ATTACHMENT 1 (continued)

Mr. Patrick Welker December 30, 2008 Page 3

- All surface facilities must be limited to less than 2 feet of storage in order to avoid hazardous conditions.
- Do not use curb inlets as flow splitters except in cases where the flow splitter pipe can be sized to be 12-inches in diameter or greater, due to concerns about clogging. For pipes 12-inches and larger, no trash rack will be required.
- The proprietary filtration structures must be designed as storage based facilities.

Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended Water Quality Plan requirements.

If you have any questions regarding these actions, please feel free to contact Mark Etheridge at (240) 777-6338.

Sincerely,

Richard R. Brush, Manager Water Resources Section

Division of Land Development Services

RRB:dm: CN233139

CC:

C. Conlon (MNCPPC-DR)

C. Bunnag (MNCPPC - EP)

R. Gauza (MCDEP) SM File # 233139

QN -On-Site 45.85 acres

QL - On-Site 45.85 acres

Groundwater recharge is provided for the Upper Paint Branch portion of the project only.



April 8, 2008

Ms. Candy Bunnag Environmental Planner M-NCPPC Countywide Planning Division 8787 Georgia Avenue Silver Spring, Maryland 20910

Dear Ms. Bunnag:

Re: New Paint Branch High School County Champion Dogwood Tree

As you know, Natural Resource Inventory (NRI) and Forest Stand Delineation (FSD), #4-07239, prepared by the Montgomery County Public Schools (MCPS) and submitted to The Maryland-National Capital Park and Planning Commission (M-NCPPC) was approved on June 21, 2007. Subsequently, and based upon that approved NRI/FSD, MCPS architects and engineers aggressively moved forward with the design of the new Paint Branch High School. The MCPS 65% Construction Document review was held on November 7, 2008. By that date, the configuration of the new school and all proposed site amenities had been worked out to minimize impacts on forest and buffers around the perimeter of the property.

To minimize these impacts, every effort was made to design a new school that took advantage, to the greatest extent possible, of the existing topographic relief over the Paint Branch High School property and the additional property to be conveyed to MCPS by the M-NCPPC. Nonetheless, site topographic constraints, Americans with Disabilities Act (ADA) compliant grading requirements, building design codes, and efficiency of building operations and management drove the design and configuration of the new school.

Additionally, flexibility in locating and designing of the new school is severely complicated by the requirement to keep the existing Paint Branch High School open, occupied, and efficiently operating throughout the construction of the new school and its amenities. The functional interface between the existing school and the new school controlled the actual design location, elevation and configuration of the new school.

On November 11, 2007, a neighbor of the school, Mr. Lawrence Silberman, sent an e-mail to Ms. Kate Harrison, acting director, MCPS Public Information Office, regarding the possible removal of a dogwood tree on the proposed school site. Mr. Silberman noted that he enjoyed seeing the tree when he walked his dog in the woods and was hopeful that the tree could be saved or moved. The MCPS Division of Construction (DOC) contacted Mr. Silberman and assured him that we would assess the tree and investigate opportunities to either save or relocate the tree. On December 5, 2008, MCPS solicited a proposal from a licensed arborist, ArborCare, to visit the site, inspect the tree, and advise DOC as to the health of the tree and the feasibility of canopy reduction and relocation of the tree and counsel us as to whether the tree qualified for recommendation as a County

Ms. Candy Bunnag

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April 8, 2008

Champion. Mr. Steve Castrovanni of ArborCare visited the site in January of this year and via telephone provided the following insight into the tree (see attached letter).

- The tree canopy is quite large with a multi-trunk configuration
- Moving the tree would be problematic and come at great expense. Because of the size of the tree, conventional spade equipment can not be used. The tree would have to be hand excavated and craned to another location.
- The tree is within its last five years of normal life expectancy
- It is highly doubtful that the tree would survive being located in the midst of a major construction site where the grading is being significantly changed.
- Because this is a multi-trunk tree and does not meet the exact definition of a Champion Tree, Mr. Castrovanni was non-committal as to whether the tree qualified as a County Champion.

On December 12, 2008, Mr. Dennis Cross, our DOC Project Manager, Mr. Norman Haines, landscape architect, and I met with you and Ms. Amy Lindsey at the Paint Branch School site to inspect the subject dogwood tree and evaluate its condition. All in attendance agreed that, while the dogwood was large and had a large canopy, the tree was showing signs of stress. MNCPPC staff noted that, if the tree were to be moved, canopy reduction of approximately 30 percent would be required. It was agreed that, given the disturbance around the tree, its age and stressed condition, it would not be possible to save the tree.

At the end of that meeting we met Mr. Silberman and discussed our findings. We also re-assured him that we would continue to make every effort reasonably possible to save the tree. It was at that meeting that we first became aware that Mr. Silberman had nominated this particular tree as the County Champion. Subsequently, we spoke with Mr. Joe Howard, of the Montgomery County Forestry Board who informed us that his determination as to the tree being the County Champion was based solely upon size with no consideration given to its health or remaining limited life.

As of February 6, 2008, portions of the site design were being reconfigured to resolve athletic facilities requirements for the school and the community. Accordingly, we kept options open in the event that we might develop a grading solution that would allow the tree to be protected and live out its life. Unfortunately, the tree is directly in the middle of the only location that works for the new school's large loading area. Due to topographic grading constraints, the design grade in that loading dock area must be eight feet lower than the elevation of the existing ground at the tree. Nonetheless, but to no avail, MCPS continued to make several further attempts to redesign grading and loading dock orientation in that area to try to accommodate the tree. Unfortunately, we are not able to save the dogwood tree.

However, in a continuing effort to extend the life of the tree, MCPS entered into talks with Mr. Silberman as to his desire and willingness to perpetuate the genetic code of the tree by using cuttings and/or grafts from the existing tree, to grow multiple trees that, after several years, could be

Ms. Candy Bunnag

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April 8, 2008

planted in protected buffers around the new school. Mr. Silberman volunteered to take the lead in developing and implementing such a propagation program. In an effort to maximize the benefit of this program, MCPS requested that Mr. Silberman and his team of volunteers coordinate their efforts with the faculty of the Science Department of Paint Branch High School to take this on as a hands-on environmental education opportunity for the students.

Mr. Silberman was successful in enlisting numerous volunteers to make this effort a successful educational project. Among those volunteers was Dr. Frank Gouin, retired professor emeritus of horticulture of the University of Maryland who, after numerous unsuccessful attempts by others to propagate the famed Wye Oak, devised a new method of bud-grafting that yielded a remarkable 97 out of 100 successful grafts. MCPS coordinated with Mr. John Peter Thompson of Behnke's Nursery who, in turn is coordinating with Mr. Phil Normandy of Brookside Gardens and Mr. Joe Kraut of Montgomery Parks to assist in the physical grafting and provide ample area in which to grow the new trees. Dr. Gouin will actually do the hands-on lecture and guide the students through the process.

MCPS, Ms.Piera Weiss of M-NCPPC and Mr. Willian Griese of the Department of Parks have all worked together to ensure access to the property for the purposes of conducting this wonderful program. MCPS regrets not being able to save the dogwood tree. However we are pleased to have played a key role in facilitating this wonderful environmental education project. Again, MCPS looks forward to planting some of the successfully grafted dogwood trees in protected buffers around the new school.

In closing, at M-NCPPC staff's request, MCPS will plant a new Monumental Tree in a protected, prominently-visible location near the entrance drive to the new school. Please feel free to call if you have any questions or need additional information.

Respectfully,

R. Craig Shuman, Jr

Project Manager

CS:mas

Attachments:

Letter from ArborCare Tree Experts

E-Mail: 02-22-2008 Mr. Silberman to Paint Branch High School

E-Mail: 02-24-2008 Mr. Silberman to MPT

Copy to:

Mr. Song

Mr. Shpur

Mr. Cross

Shawn P. Benjaminson, P.E./ADTEK



January 18, 2008

Steve Castrogiovanni ArborCare, Inc. 18001 Bowie Mill Road Rockville, Maryland 20855

Dear Steve:

I am writing to inform you of our findings concerning the large flowering dogwood (Cornus florida) located on a property adjacent to the Paint Branch High School, and overlooking Columbia Pike. The result of my analysis of this tree is that it has an appraised value of \$9,100.00 after accounting for the Size, Condition, Species, and Location of the tree. Please see the discussion below and the attached worksheet to see how this value was reached.

This dogwood has multiple stems that range from 3" dbh to 8" dbh. These 10 stems have an aggregate trunk area of 299 square inches which is roughly equivalent to a 19" dbh tree. The question was raised as to whether this might be a champion dogwood. The current champion dogwood is a 15" dbh tree. While the aggregate of the multiple stems is obviously larger than 15" dbh, I do not know if the guidelines for champion tree designation follow the same criteria in dealing with multiple stemmed trees as does the guide to plant appraisal.

The overall health of the tree is good, though there are several factors which deduct from its general good condition. These include the presence of small girdling roots around the root flare; a small amount of decay in the trunk associated with deadwood and branch stubs that have been pruned away; and minor deadwood and conflicting branches in the crown of the tree.

The factors relating to the location of the tree are in this case the most difficult to quantify. The three factors that determine a tree's location value are the site value, and the contribution and placement value of the tree within the site. Overall, the site is located in an area of average value within its general setting, but because of the proximity to Columbia Pike and the interchange with Briggs Chaney Road receives a small deduction for a value of 70%. The contribution of the tree is its aesthetic value and this is quite high considering the good health and form of the tree and as such receives a value of 80%. The placement of the tree is somewhat problematic. While the tree is well placed within the field where its aesthetic qualities could be best observed and enjoyed, there is really no access to the site or ability to regularly appreciate the tree. Because of

this the placement receives a value of 30%.

Finally, I understand that you were interested in a review of the feasibility of moving this tree. Based on the large caliper size of the tree and the low spreading canopy, relocating this tree with a tree spade is out of the question. Not only would you not get a large enough ball with a tree spade, but the damage to the scaffolds would be severe. Any attempt to move this tree would require hand digging and wrapping the root ball and extracting the tree with a crane. While it may be tempting to compare the cost of moving the tree with its appraised value, remember that several if not all three components of the location rating will change and the tree's value could be significantly increased or decreased after moving depending on the ratings of the new location.

Thank you for the opportunity to provide this appraisal and assessment of this tree. If you have any further questions or comments that need clarification please feel free to contact either Keith or myself.

Respectfully submitted,

Joseph H. Burckle

Joseph & Burch

MD Tree Expert # 1176

ISA Certified Arborist, MA-4516A

SAF Certified Forester, #1202

Keith C. Pitchford

MD Licensed Forester, #675

MD Tree Expert #589

ISA Certified Arborist, MA-0178

1. Species: Flowering dogwood (Cornus florida)

2. Condition: 85

3. Tree Diameter: 6+6+8+3+7+4+8+7+7+3

4. Location % = $(Site_{70} + Contribution_{80} + Placement_{30})/3 = 60$

Regional Plant Appraisal Committee Information

5. Species rating: 80

6. Replacement tree size: 5" caliper (20 sq in)

7. Replacement tree cost: \$500.00

8. Installation cost: \$1,000.50

9. Installed tree cost: \$1,500.00

10. Unit tree cost: \$75.00

Field calculations by appraiser

11. Appraised trunk area: 299

12. Appraised trunk area increase (#11-#6): 279

13. Basic tree cost (#12*#10+#9) = \$22,425.00

14. Appraised value (#13*#5*#2*#4) = \$9,149.40

15. Appraised value (if over \$5000, round to the nearest \$100) = \$9,100.00 (if under \$5000, round to the nearest \$10)

Comments:

Open grown multi stemmed dogwood in good condition. The tree is located in an open field surrounded on two sides by woods and on the remaining side by Columbia Pike, and the interchange with Briggs Chaney Road.

There are several small girdling roots associated with the tree as well as minor decay in old branch stubs on the main trunk. Within the canopy there is additional minor deadwood and several conflicting branches.

Page 1 of 1

(continue)

Shuman Jr, Richard C

From: LAWRENCE SILBERMAN [llawrence9@verizon.net]

Sent: Friday, February 22, 2008 7:57 AM

To: Fary, Laura C.

Cc: Shuman Jr, Richard C

Subject: Paint Branch Dogwood

Mr. Craig Shuman Jr., the Project Manager for the new school, would like written assurance that the school will cooperate with the propagation of the Paint Branch Dogwood.

Could Ms. Dixon. be kind enough to give it to him.

Ms Sondak has written that the students can cooperate.

The students would be under the supervision of John Peter Thompson owner of Behnkes Nurseries, Dr. Guen, a retired professor of the University of Maryland, and Karen Sondak. Students would be taking hardwood cuttings from the tree and rooting them.

This must take place within the week during the coldest part of the winter. Time is of the essence.

The costs of material as I understand is under \$100. I can cover that.

Larry Silberman

Page 1 of 1 (continued)

Shuman Jr, Richard C

From: LAWRENCE SILBERMAN [llawrence9@verizon.net]

Sent: Sunday, February 24, 2008 8:39 AM

To: menglish@mpt.org

Cc: John Peter Thompson; Shuman Jr, Richard C; Sondak, Karen E.; Fary, Laura C.

Subject: Burtonsville Champion dogwood

The Montgomery County champion dogwood is scheduled to be cut down to aid in the building of the new Paint Branch High School. It is impractical to move the tree, dogwoods being short lived trees, and the tree being in a very stressed state. It would not survive, and changing the design doesn't work. The Students at Paint Branch High School are going to take cuttings and try to grow more championship stock. John Peter Thompson, CEO of Behnkes nursery is providing all the materials necessary to do the cuttings, logistics to aid in propigation, and has taken charge of the project. He also enlisted Dr. Gouin a noted horticulturalist of the University of Maryland to supervise the cuttings. Gratis. The students in the horticulture classes of Ms. Karen E. Sondak will be responsible for the cutting activities. Project Manager of the new school Richard C. Shuman Jr helped coordinated all necessary approvals from MNCPPC and other stake holders and is a model of public private cooperation. I think it would make a wonderful Outdoors Maryland Story. The Montgomery Gazette has already started to cover parts of this story. See December 5, Gazette.

The cuttings will have to take place early this week, so I know time is short.

Please contact me if I can be of assistance. 301 384 2811

Larry Silberman

Larry

February 20, 2009

MEMORANDUM

TO: Montgomery County Planning Board

VIA: John A. Carter, Chief

Urban Design and Preservation Division

FROM: Calvin Nelson, Jr., Planner Coordinator/Urban Designer

Urban Design and Preservation Division

SUBJECT: Mandatory Referral No. 07606-MCPS-1: Paint Branch High School Modernization, -

14121 Old Columbia Pike, R-200 Zone and the Environmental Overlay Zone for the Upper Paint Branch Special Protection Area, 1997 Approved and Adopted Fairland

Master Plan

RECOMMENDATION:

APPROVAL to transmit the following comments to Montgomery County Public Schools:

- 1. Prior to the conveyance of Airy Hill Local Park to the Board of Education (BOE), provide an executed Memorandum of Understanding between the BOE and the Interagency Coordinating Board (ICB) that assures adequate community use of the recreation facilities on the school property (see Parks Department comments).
- 2. Provide a Local Area Transportation Review (LATR) study for review by Transportation Planning staff if future improvements at the school would increase the school's core capacity of 2,400 students.
- 3. Coordinate with the Montgomery County Department of Transportation (DOT) on implementing the intersection improvement identified in the traffic study (eastbound Greencastle Road to southbound US 29 right-turn lane) for this Mandatory Referral. This project must therefore be included in the MCDOT CIP Project No. 509036, Transportation Improvement for Schools.

This staff report reviews and makes recommendations for the Paint Branch High School Modernization Mandatory Referral. There are two other regulatory items required for this project. The Planning Board must act on the Special Protection Area (SPA) Water Quality Plan, and the Preliminary Forest Conservation Plan. Staff will be handling these two items in separate staff reports.

DISCUSSION

Project Location

The school is located between Old Columbia Pike and US 29, approximately 1,200 feet north of the intersection of Briggs Chaney Road and Old Columbia Pike. The existing school is a two-story, 260,000 square foot building served by a bus loop, two parking areas with a total of 413 parking spaces, and athletic facilities including tennis courts, basketball courts, a stadium and ball fields. Since opening in 1967, Paint Branch High School expanded once in 1986 adding 86,000 square feet. The high school currently serves a core capacity enrollment of 1,593 students (9 -12th grades). Enrollment totaled 1,753 students in October 2006. Currently there are four relocatable classrooms on the site. Enrollment projections exceed capacity throughout the current six-year CIP (2008-2013).

The Perrywood Community is located north of the site. Houses are located opposite the site along Old Columbia Pike. US 29, a six lane divided major highway, is east of the site and to the south is 11.3 acres owned by the Maryland-National Capital Park and Planning Commission (M-NCPPC). The Burtonsville Fire Station No. 15, a dentist's office, Briggs Chaney Plaza (a small shopping center), the Avonshire Community, a subdivision of attached and detached homes, and the Briggs Chaney Road/US 29 interchange are located in the vicinity. The site is zoned R-200.

A small portion of the site (2.75 acres) along Old Columbia Pike lies within the Paint Branch (Use III waters) watershed; this portion is covered by the Upper Paint Branch Special Protection Area (SPA) and its Environmental Overlay Zone.

Project Description

Paint Branch High School is one of three high schools in the Northeast Consortium that serves the Eastern County. Each high school offers a comprehensive school curriculum and a Signature Program. All students within the consortium may apply for acceptance into the Signature Program. The Signature Program for Paint Branch High School is the Academy of Science and Media.

The modernization replaces the existing building with a new three-story building designed for a core capacity of 2,400 students. The initial capacity of the new school will be 1,963 students with master planned space for a 24-classroom addition. There will be 500 parking spaces on the site, and the bus loop will accommodate 20 buses. The proposed layout covers 45 acres, 33.9 acres of existing school property and 11.3 acres of parkland.

A holding school that can be used during construction is not available. The project requires a staging plan using the existing school during construction. MCPS feasibility sketches considered various layouts including some or all of the parkland. The consensus by both MCPS staff and the community was that the most efficient and least disruptive plan located the school and critical parking lots (bus access, staff parking) on the parkland. Then, much of the existing site could be used during the building construction phase. After the school is built and the students moved into the new building, the athletic fields and facilities would be constructed.

The school will be sited towards the south end of the site with parking for buses and students at the front. The athletic fields, including tennis courts, a stadium, basketball courts, practice fields and two baseball fields are located on the northern half of the property. The layout includes a playground, visible from Old Columbia Pike that will be open to the public at all times. Tennis courts and one ball field are located

Vehicular circulation includes four points of entry. One entrance services the faculty/staff parking lot, bus loop and small parking facility. The three other points of entry provide a loop system that accesses the main parking lot and the smaller parking lot dedicated to community use during all hours.

There is a pedestrian system around the entire site and between all the athletic and recreational facilities. MCPS will be widening the sidewalk along Old Columbia Pike to five feet to accommodate pedestrians.

ANALYSIS

Master Plan Conformance

The 1997 Fairland Master Plan (p.117) recommended the acquisition of 13.3 acres of land adjacent to the school for a local park.

"This proposed park should be acquired on a 50% cost sharing with Montgomery County Public Schools. This park will provide an opportunity for two additional ball fields, one playground, and one basketball/multi-use court."

In 1998, the Montgomery County Planning Board authorized the acquisition of 12.8 acres adjacent to the Paint Branch High School. The M-NCPPC acquired the land in 1999, titled Airy Hill Local Park. In 2000, the State Highway Administration (SHA) purchased 1.48 acres to accommodate the Briggs Chaney Road interchange, leaving 11.3 acres for the future local park.

The feasibility phase of the project determined that the proposed modernization would not fit on the existing school site plus half of the parkland, as envisioned in the master plan. In 2005, the Superintendent of Schools requested the Planning Board to convey the entire site to MCPS, and forego its plan for the development of a local park. In an effort to provide park facilities for the community, a Memorandum of Understanding between the Board of Education (BOE) and the Interagency Coordinating Board (ICB) is being drafted to assure adequate community use of the recreation facilities on the school property.

Development Standards

The property is zoned R-200 and a small portion of the site lies within the Environmental Overlay Zone for the Upper Paint Branch Watershed and Special Protection Area. The school first opened in 1967 before adoption of the 1997 Master Plan and the Environmental Overlay Zone, and the Special Protection Area designation. This project, however, is subject to current zoning, both the base and overlay zones, and county regulations, including Chapter 22 A, Forest Conservation and Chapter 19, SPA Water Quality Plan.

Development Standards in the R-200 Zone are shown in the following chart:

Section No.	Development Standard	Required	Proposed
59-C-1.322.	(a)Minimum lot area	20,000 sf	45 acres
	(b)Minimum lot width	25 feet	1,830 feet
	Width at front building line	100 feet	1,860 feet
	Width at street	25 feet	1,904 feet
59-C-1.323.	Yard requirements		·
	(a)Minimum setback from street	40 feet	350 feet
	(b)Setback from adjoining lot (feet) (1) Side		
	- One side	12	70 feet
	- Sum of both	25	1,117 feet
	(2)Rear	30	122 feet
59-C-1.327.	Maximum building height	*120	*54
59-C-1.328.	Maximum building coverage	25 percent	9.7 percent
59-E-2.81.	Parking Facility Setbacks		
·	Front	30 feet	40 feet
	Side/Sum	12/25 feet	17/250 feet
	Rear	30 feet	35 feet

*Section 59-A.5.42 of the Zoning Ordinance allows public buildings to be constructed up to a height of 120 feet, if the minimum front, rear and side yard requirements are increased one foot for each one foot the height exceeds the height requirements established in the zone. In the R-200 Zone, the height requirement is 50 feet and sections of the new Paint Branch High School will be 54 feet in height. The proposed site plan shows that the front, rear, and side yard dimensions will be in excess of the additional four feet required to compensate for the proposed 54 feet height of the school. Thus, the proposed school layout is in conformance with both the R-200 and the overlay zones.

Environment

The Environmental Planning Division recommends transmittal of the Mandatory Referral and offers comments in the following paragraphs. Under a separate memo, Environmental Planning staff recommends approval of the Special Protection Area Water Quality Plan and the Preliminary Forest Conservation Plan with conditions.

Environmental Guidelines - A Natural Resources Inventory/Forest Stand Delineation (NRI/FSD #420072390) was approved by Environmental Planning staff on June 21, 2007.

Forest Conservation Plan - This project is subject to Chapter 22A of the County Code (Montgomery County Forest Conservation Law). A Preliminary Forest Conservation Plan (PFCP) has been submitted. Staff's review of the PFCP is found in a separate memorandum. Staff recommends approval of the PFCP with conditions.

Champion Dogwood Tree

A local resident, Larry Silberman, contacted staff regarding a large Dogwood tree on the park property. The County Arborist confirmed that the tree was a county champion, The tree is located in the future parking lot and near the underground geothermal heating system. Saving the tree would involve a large plateau at a grade much higher than the proposed finished grade.

After consultation with tree experts including Phil Normandy, Curator of Brookside Gardens, Frank Gouin, retired Professor of Horticulture from the University of Maryland, who devised a new method of bud grafting and cloning for the Wye Oak, and John Thompson, CEO, Behnke's Nursery, there was agreement that the tree could not be saved. The interested parties developed a plan to propagate the tree by harvesting cuttings and seeds, and that the effort would make an excellent science project for the high school students.

Stormwater Management - The project proposes underground detention structures to provide channel protection and overbank flood control within the Little Paint Branch watershed. Sand filters, bio filters, and proprietary filtration cartridges are proposed to provide water quality control. Montgomery County Department of Permitting Services (DPS) has conditionally approved the stormwater management concept plan for the project.

SPA Water Quality Plan - About 2.75 acres of the site along Old Columbia Pike lies within the Upper Paint Branch Special Protection Area (SPA). Staff's review of the SPA Water Quality Plan is provided in a separate memorandum. DPS recommends approval with conditions of the elements of the Water Quality Plan that DPS has lead agency responsibility. Staff recommends approval with conditions on those elements of the Water Quality Plan that the Planning Board has lead agency responsibility.

Sustainability - Montgomery County has a number of goals that work towards the creation of a sustainable community. These goals include the reduction of a development's carbon footprint and the promotion of walkability. In order to meet these County goals, development projects should incorporate specific measures. Public projects should lead the way in promoting sustainability. The public will reap the rewards in the long term and provide examples to the private sector of the multiple benefits of sustainable measures.

From a walkability standpoint, the project will reconstruct and extend a sidewalk along Old Columbia Pike so that the new sidewalk will connect to existing sidewalks to the north and south of the school. The design will improve the sidewalk system to and from the school, and aid in promoting walking by students in the neighborhood who attend the school or use its athletic fields. There were prior unsafe circumstances of walkability that existed along Route 29 at the rear of the school site from students who live east of Route 29. The reconstruction of Route 29 has prevented students from the very unsafe practice.

Although 8.08 acres of the existing 8.67 acres of forest will be cleared for the project, MCPS proposes to reforest 1.92 acres and retain 0.59 acres of existing forest on the site. In addition, MCPS proposes to plant 213 native shade trees, which would create 8.70 acres of tree canopy coverage at maturity. These new plantings serve to sequester green house gasses. This is an important part of a long-term carbon mitigation strategy.

The HVAC system for the school will be a geothermal heat pump system. Geothermal wells will be provided under the fields located in the northern portion of the site.

LEED (Leadership in Energy and Environmental Design) Certification - This project was initiated before the County requirement for LEED Silver certification for all public buildings was put in place (Montgomery County Green Buildings Law). MCPS will pursue LEED certification for this project, and it may qualify for certification as a LEED Silver project. The re-use of the existing school site results in less impact to sensitive natural areas while maximizing open space. Some of the other features that reduce environmental impacts of this project include: use of reflective roof surfaces to reduce heat island effects and provide for student learning opportunities; no permanent irrigation system to reduce potable

water use; installation of water-conserving, low-flow plumbing flow and flush fixtures; use of high-efficiency electrical lighting, HVAC, and building envelope elements.

The new building has an alternative design that includes a small green roof area. The small green roof will be constructed only if its cost is within the construction budget. Although a green (i.e., vegetated) roof is not required to meet LEED certification or stormwater management requirements, staff believes that this project should have included a green roof as an integral component over a larger proportion of the new building. The green roof could be installed as part of a new building (as opposed to a retrofit of an existing building) and could be used as an above-ground stormwater management control measure. MCPS staff indicates that originally, this project was considering a larger green roof as a pilot project. MCPS determined that the green roof would be too costly, and dropped this element from the project. Staff believes that the short term capital impact should not supersede the long term economic and environmental benefits associated with reduced heating and cooling costs and stormwater management needs.

Pervious pavement was an option that was considered for this project. MCPS has had poor success with this type of pavement at other school projects (e.g., Poolesville High School and Northwood High School). The use of pervious pavement was not included in the final design for this project.

Transportation

A Local Area Transportation Review (LATR) traffic study was required for the mandatory referral since the school generated 30 or more total peak-hour trips during the typical weekday morning (6:30 a.m. – 9:30 a.m.) and evening (4:00 p.m. – 7:00 p.m.) peak periods. As a mandatory referral submitted prior to enforcement of new Growth Policy requirements, Policy Area Mobility Review was not applicable to this mandatory referral.

The traffic study submitted by the consultant for MCPS presented traffic-related impacts of the new school (with a core capacity for 2,400 students) during the weekday morning and afternoon peak-periods. The LATR capacity analysis presented in the traffic study indicated that under Total (i.e., Build) Traffic Conditions, CLV at the US 29/Greencastle Road intersection would exceed the applicable congestion standard for the Fairland/White Oak Policy Area. The traffic study recommended that an eastbound Greencastle Road to southbound US 29 right-turn lane will mitigate this impact. The mandatory referral will satisfy the LATR requirements of the APF test with the implementation of this intersection improvement. Staff recommends that MCPS coordinate this improvement with Montgomery County DOT.

The Transportation Planning staff reviewed this application and recommend that the Planning Board transmit the following comments to Montgomery County Public Schools (MCPS):

- 1. MCPS must provide a Local Area Transportation Review (LATR) study for review by Transportation Planning staff if future improvements at the school would increase the school's core capacity, which will be at 2,400 students.
- MCPS must coordinate with Montgomery County Department of Transportation (DOT) on implementing the intersection improvement identified in the traffic study (eastbound Greencastle Road to southbound US 29 right-turn lane) for this mandatory referral. This project must therefore be included in the MCDOT CIP Project No. 509036, Transportation Improvement for Schools.

Parks Department

The Park Planning and Stewardship Division of the Department of Parks has no objection to the proposed mandatory referral for Paint Branch High School. As none of the project will be on Park Property, there will be no Park maintenance responsibilities and no park permit will be required for construction. There must be a Memorandum of Understanding between the Board of Education (BOE) and the Interagency Coordinating Board (ICB) that assures adequate community use of the recreation facilities on the school property.

Background Information

Part of the property needed for the Paint Branch High School includes the undeveloped Airy Hill Local Park property. In conformance with the 1997 Adopted Fairland Master Plan, the Montgomery Planning Board authorized the acquisition of 12.8 acres of land adjacent to the school which was purchased in 1999 for Airy Hill Local Park. State Highway Administration (SHA) requested 1.48 of the acreage in order to accommodate the Briggs Chaney Road/US 29 interchange. Approximately 11.3 acres remained after the conveyance to SHA.

In 2005, the Superintendent of Schools, in a letter to the Chairman of the Planning Board, requested that all of Airy Hill Local Park be conveyed to the Board of Education (BOE) because the existing school site was too small to accommodate the proposed modernization. It was also important to allow the students to remain on-site during construction as there is no holding school available.

The conveyance of the Commission owned property to the BOE at Airy Hill (11.4195 acres) was approved by the Montgomery County Planning Board on September 28, 2006 and it was confirmed by the Full Commission on July 16, 2008. Final land transfer will come after approval of the Mandatory Referral and Board of Education payment of the Commission's land costs, plus interest. As this property was previously proposed for a park, staff was extremely concerned that the community retain the recreation opportunities that would have been provided by a park.

In the Memorandum of Understanding between the Interagency Coordinating Board and the Board of Education, both parties must agree that community use of the recreation facilities shall be guaranteed. The Community Use of Public Facilities (CUPF) Office, which handles administrative responsibilities for the ICB, will permit and carefully monitor the use of the fields to maximize community use. This will include a minimum total of 40 hours per week for the four fields on weekdays after 5:30 PM and weekend days. The public will also have full use of the playground at all times, and after school use of the basketball and tennis courts.

Specific Park Planning and Stewardship Development Comments

- 1. As the Airy Hill property was recommended for a local park in the Fairland Master Plan with two additional ballfields, one playground and one basketball court, the mandatory referral should show how these facilities will be provided to the public.
- 2. The proposed Paint Branch modernization preliminary site plan shows a playground and separate parking area adjacent to the tennis courts which should fulfill the playground obligation if it is available during the school day for public recreation facility users. This area will be owned, developed and maintained by Montgomery County Schools.
- 3. The tennis and basketball courts should be available to the public evenings and weekends.

4. The equivalent of two athletic fields must be made available for public permitting through the Community Use of Public Facilities Office. This may occur on a variety of fields, but must total a minimum of 40 hours per week. The 2005 Land Preservation, Parks and Recreation Plan (LPPRP) describe the capacity of softball fields as 24 hours per week and rectangular fields as 20 hours per week.

Community Outreach

MCPS developed the plans for the modernization based on specific educational specifications and conducted a number of public meetings and work sessions (11) with members of the Facility Advisory Committee, parents, neighborhood residents, School officials and staff, and PTA members. Community presentations were held in May 2006 and January 2007. After submission of the mandatory referral, Staff notified local citizen associations, adjoining and nearby property owners and other interested parties of the submittal and invited comments. Larry Silberman, a local resident, responded to the notice and brought the Dogwood Tree to our attention. Staff again sent out notices on February 17, 2009, noting the date of the Planning Board hearing.

CONCLUSION

Based on information provided by the applicant and the analysis contained in this report, staff concludes that the Mandatory Referral meets the applicable standards and guidelines for the environment, the applicable guidelines for adequate public facilities, the applicable requirements of the R-200 Zone and the land use recommendations of the Approved and Adopted Fairland Master Plan. Staff recommends approval of the Mandatory Referral with the comments listed at the front of this report.

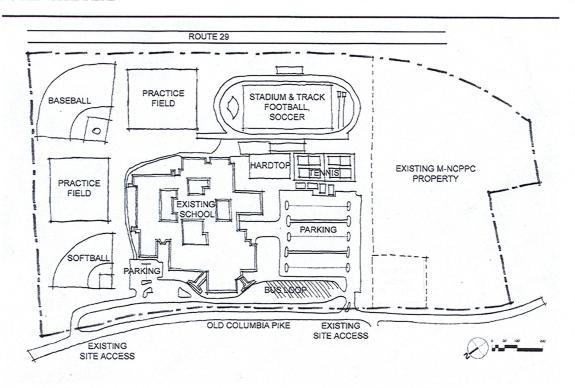
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Attachments:

- 1. Vicinity Map of Paint Branch High School
- 2. Existing Site Plan, Proposed Site Plan
- Proposed Floor Plans 1st & 2nd Levels
 Proposed Floor Plan 3rd Level, and Building Elevations
- 5. Building Perspectives

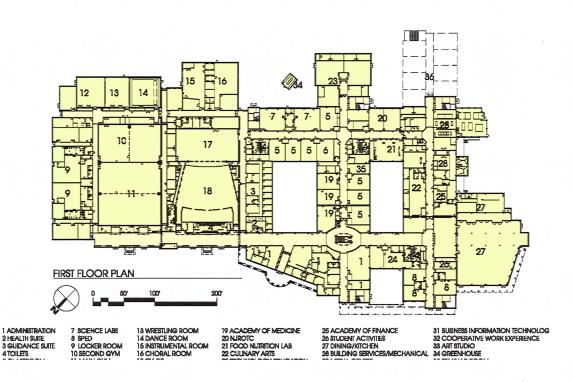
ATTACHMENT 1: VICINITY MAP PAINT BRANCH HIGH SCHOOL

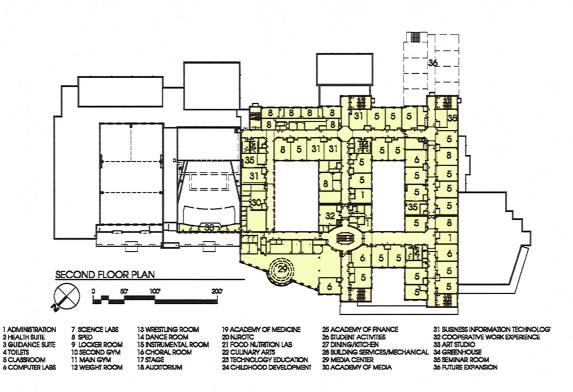


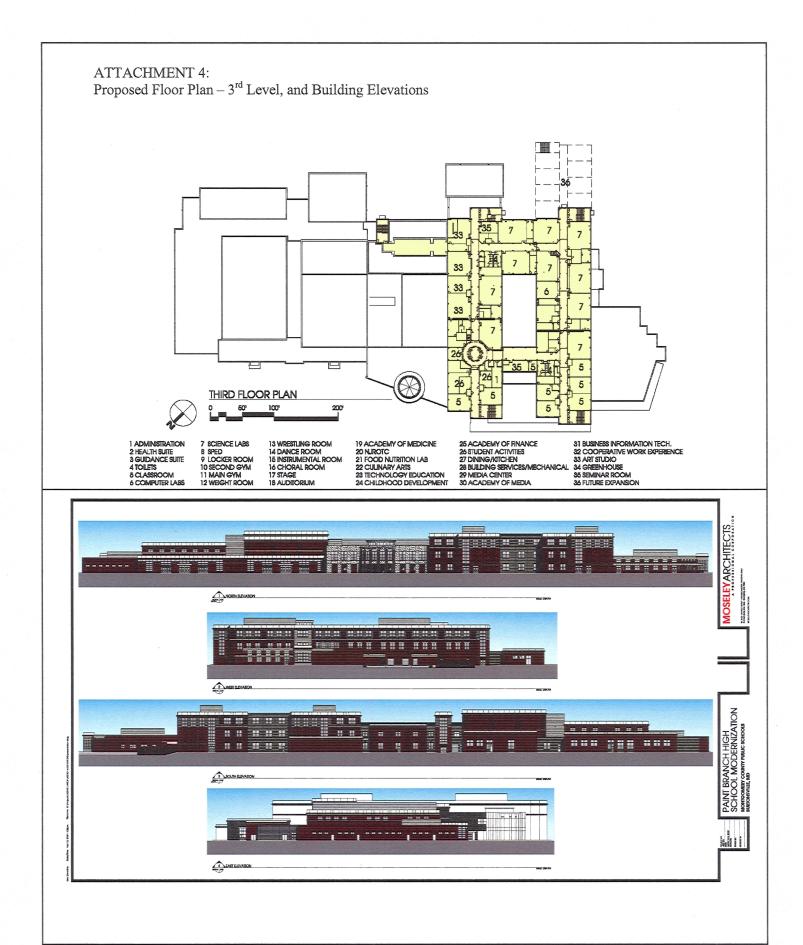




ATTACHMENT 3: Proposed Floor Plans -1^{st} & 2^{nd} Levels







ATTACHMENT 5: BUILDING PERSPECTIVES



