MCPB
Item No. 6b
3-13-2008

March 5, 2008

MEMORANDUM

TO: Montgomery County Planning Board

VIA: Dan Hardy, Acting Chief DKH
Transportation Planning
County-wide Planning Division

William R. Barron, Team Leader Eastern County
Community-Based Planning Division

FROM: David Paine: (301) 495-2191, Transportation Planning
County-wide Planning Division

PROJECT: Northwood High School Access Improvements
919 University Blvd West (MD 193), Kemp Mill Master Plan

REVIEW TYPE: Mandatory Referral No. 08601-MCPS-1

APPLICANT: Montgomery County Public Schools (MCPS)

RECOMMENDATION: Approval with the following comments to the Montgomery County Public Schools (MCPS):

1. Construct a six-foot-wide sidewalk, offset from the curb by an eight-foot-wide landscape panel with street trees, along the entire site frontage on University Boulevard.

2. Provide pedestrian ramps at all sidewalk crossings of driveways internal to the site and along its frontage.

PROJECT DESCRIPTION

The proposed project would add two driveways to the site access on its frontage with University Boulevard, and reconfigure on site circulation to provide separation of vehicle movements. One new driveway near Caddington Avenue will be for ingress. A second one closer to Arcola Avenue will be for egress. The existing driveway would remain. These improvements would improve bus and parent drop-off circulation on site and increase safety by separating bus, staff, student driven vehicles and parent drop

off movements, and allow vehicles leaving the site to queue. Figure 1 shows the site location and Figure 2 shows the site plan.

Northwood High School is located at 919 University Boulevard West (MD 193) between Arcola Avenue and Caddington Avenue. The site is 29.5 acres in size, with high school building, sports fields, courts, parking and bus staging areas. Properties and uses surrounding the site include: a wooded 150-foot wide State Highway Administration (SHA) right-of-way along the northern boundary, a nursing home to the north, single family detached homes in the Forest Knolls neighborhood to the east and south, and single-family homes across University Boulevard to the west. The site is presently accessed by a single unsignalized driveway intersection with University Boulevard.

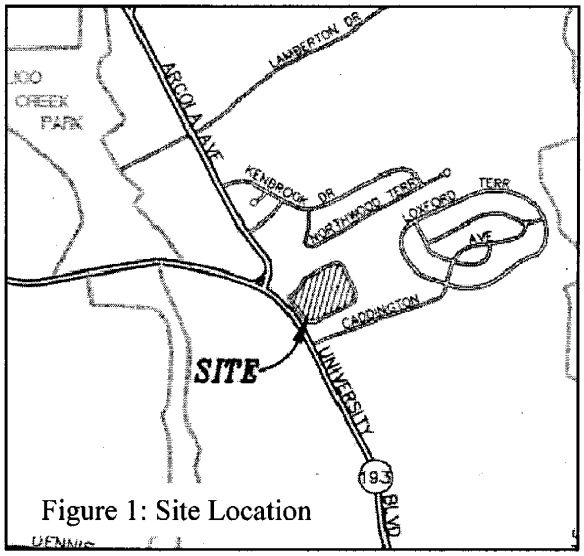


Figure 1: Site Location

The current access is configured to allow simultaneous movements from southbound University Avenue and egress to Southbound University Avenue through the single entrance, by utilizing a lane structure where inbound movements occur on the left and outbound movements on the right as viewed from University Boulevard, a configuration known as an "English T" to describe the driver-on-the-left orientation. The design has long been described as confusing by visitors to the site. The access could be improved by removing the reverse configuration. However, the technical team was unable to satisfactorily do so, given the onsite circulation requirements and projected peak vehicle movements.

The proposed solution would be a three step process:

1. Partially signalizing the northbound lanes of University Boulevard at the Access point. This would address the primary concern voiced by residents of improve safety for vehicles from eastbound University Boulevard to enter or leave the site. As there is no pedestrian generator such as a bus stop opposite the school, and the nearby intersections have signalized crosswalks, a mid-block crosswalk is not needed at the proposed partial signal. MCPS is already pursuing partial signalization of the "English T" entrance in cooperation with the State Highway Administration (SHA).

2. Add additional access points along the frontage. Adding an ingress south of the main entrance would reduce the confusion to motorists approaching the site from the south. The additional new egress drive north of the main entrance will further reduce pressure on the English "T" entrance. To encourage proper use of the new entrances we encourage MCPS to clearly sign the accesses directing traffic to and from the school.

3. Reconfigure the onsite access to remove turning conflicts on site and queuing to leave the site. This step isolates vehicle uses onsite by providing a new student drop off area to the south of the building, and closing the circulation drive on the east side of the building. Currently all vehicles navigating the site must drive completely around the building to exit. Closing the rear drive would further reduce pedestrian/vehicle conflicts from students walking between the main building and the sports fields. However, it would slightly increase the number of parking spaces elsewhere on the site, by 21, to recoup the spaces that will be removed from use when the rear drive is closed. Separating bus movements from student drop off and student self driven parking is an MCPS policy where possible, and this plan would also accomplish this.

The proposed site improvements provide for directed pedestrian access from sidewalks on University Boulevard in both directions. Six foot-wide, minimum, sidewalks would direct pedestrians to the main building. The sidewalk along the site frontage is currently built adjacent to the travel lanes, provides no separation of pedestrians from the travelway. The layout also encourages parents to drop off students from the rightmost travel lane, rather than enter the site. However, the current sidewalk on University Boulevard is to remain. In addition to the site access improvements proposed, **we recommend that MCPS reconstruct the sidewalk along the site frontage offset from the roadway by 8 feet separated from the roadway by street trees.** This dimension is consistent with the County Council recommended dimensions for a Major highway in Bill No. 48-06. Additionally, we **recommend that they provide pedestrian ramps at all sidewalk crossings of driveways internal to the site and along its frontage.**

Public Outreach/Community Participation

The Planning Board has held several hearings regarding improvements to the Northwood High School site recently:

- June 14, 2007 Mandatory Referral for stadium lights 07605-MCPS-1.
- April 14, 2005 Mandatory Referral for a telecommunications monopole 04606-MCPS-1.

Public involvement for this phase of the project begun in September 2006 has been extensive and thorough. Members from the school Parent Teachers Association sat in on monthly technical meetings for the project to date. Additionally, there was a public meeting at the high school to discuss the project on March 27, 2007. Public comments and involvement in the technical meetings focused primarily on the need to improve safety of access to the site for both vehicles and pedestrians, and overall encouragement to have the improvements made as soon as possible. Comments received early on in the process discouraged access to the site from Caddington Avenue, or via the SHA owned right-of-way and Northwood Terrace. While the technical team did develop concepts with those access points, due to comments received from the public about the impacts to adjacent neighborhoods, those alternatives were dropped.

Notices of the Planning Board's meeting were sent to area civic associations and immediate neighbors of the subject site.

Master Plan

The June 2001 Approved and Adopted Kemp Mill Master Plan classifies University Boulevard (MD 193) as Major Highway (M-19) with a 120 foot right of way and 6 lanes, divided by a median. The Countywide Bikeways Functional Master Plan classifies University Boulevard (MD 193) as a Dual Bikeway (DB-5) with signed/shared lanes and a shared use path on the west side of the road. Arcola Avenue is classified as an arterial (A-54) with an 80 foot right of way and 4 lanes. Caddington Avenue is classified as a primary residential street (P-4) with a 70 foot right of way and 2 lanes. If this were a private development, the applicant would be required to dedicate 10 feet along their frontage for 60 feet of right-of-way from the centerline, for the recommended right-of-way width for University Boulevard.

Environmental Consideration

As covered in the Forest Conservation item accompanying this mandatory referral there is no forest onsite but there are numerous large and specimen trees, and some are affected by the proposal. The trees serve to both screen and separate the school from adjacent single-family residences, but some are also located in the interior of the subject property. The property is within both the Sligo Creek and Northwest Branch watersheds. The applicant has an approved Natural Resources Inventory/Forest Stand Delination

(NRI/FSD) number 420080600, November 11, 2007. The site does not include any streams, wetlands, or floodplains and there are no environmental buffers on the property. There is no forest on the subject site.

Forest Conservation and Tree Protection

The property is subject to the Chapter 22A Montgomery County Forest Conservation Law and a Forest Conservation Plan has been submitted for approval. The site has a 4.41 acre planting requirement. Since there are no priority planting areas or opportunities onsite for creating or connecting to contiguous forest, the planting requirement will be met on-site with tree cover. We support the use of tree cover on this property because of the land use and relatively urban location. A mix of native canopy trees will be planted in the parking lot and along the southern property line, adjacent to single-family residences. The trees planted in the parking lot will help mitigate the impervious surface by reducing the heat island effects, stormwater runoff and ozone formation, as well as remove pollutants from the air. Trees planted along the southern property line will add to the existing screen.

A number of large and specimen trees will be affected by the parking lot reconfiguration. Some trees are within existing parking islands and will be retained with appropriate tree protection measures. However, a significant number of trees on the southern property line, both on-site and off, could be affected. As these trees are on a slope and the disturbance will occur on the uphill side of the critical root zones, it is extremely important that the disturbance be minimized.

The Preliminary Forest Conservation Plan contains tree protection measures for both on-site and off-site trees. Detailed and specific measures will be required on the Final Forest Conservation Plan.

Water Quality and Stormwater Management

A portion of the subject property is located in the Middle Mainstem subwatershed of the Northwest Branch watershed. The *Countywide Stream Protection Strategy* (CSPS) assesses this tributary as having fair overall conditions. The subwatershed is designated a Watershed Restoration Area where the CSPS recommends a comprehensive watershed restoration action plan to identify and implement stormwater retrofit and stream restoration projects.

The remainder of the subject property is located in the Upper Sligo subwatershed of the Sligo Creek watershed. The *Countywide Stream Protection Strategy* (CSPS) assesses this tributary as having poor overall conditions. The subwatershed is designated a Watershed Restoration Area where the CSPS recommends a comprehensive watershed restoration action plan to identify and implement stormwater retrofit and stream restoration projects.

A Stormwater Management Concept Plan was approved by the Department of Permitting Services on 2/21/2008.

DP:tc

Cc: Amy Lindsay
Dennis Cross

Attachment

MR mmo to mcpb re Northwood.doc

FIGURE 2

SITE NOTES

1. REFER TO DRAWING C-1A OF THIS PACKAGE FOR GENERAL NOTES THAT ARE APPLICABLE FOR THIS SET OF CONTRACT DOCUMENTS.

2. ALL PAVING SHALL BE INSTALLED FREE OF LOW PONDING AREAS AND SHALL BE GRADED TO DRAIN TO INLETS AND/OR OTHER DRAINAGE STRUCTURES.

3. ALL PAVEMENT STRIPING AND HANDICAP ACCESS RAMPS SHOWN ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MOST CURRENT APPLICABLE ADA CODES, SPECIFICATIONS AND DETAILS SHOWN ON THE CONTRACT DOCUMENTS.

4. WHERE NEW GRASS/SOD IS CALLED FOR ON PLAN, SEED AND MULCH OR SOD AND PEG PER STANDARDS AND SPECIFICATIONS. REFER TO LANDSCAPE DWG'S FOR SPECIFIC LOCATION AND IDENTIFICATION OF PLANTING MATERIALS.

5. ALL STANDARD PARKING SPACES SHALL BE STRIPED @ 9'x 18' AND HANDICAP SPACES STRIPED AS SHOWN. SEE DETAIL 7, SHEET C-3C.

6. ALL SIDEWALKS TO BE 6' WIDE, UNLESS SPECIFICALLY DIMENSIONED OTHERWISE. ALL CURB RADII AND SIDEWALK RADII TO BE 5', UNLESS NOTED OTHERWISE.

7. PROPOSED ELEVATIONS ARE ABBREVIATED, REFER TO EXISTING CONTOURS FOR DATUM.

8. ALL CURB LINES ARE NOTED AS HAVING A NORMAL GUTTER PAN (CC&G) OR SPILL GUTTER PAN (CC&SG). SEE DETAIL 1, SHEET C-3C.

9. SPOT ELEVATIONS ALONG A CURB LINE ARE TO THE FLOW LINE, UNLESS SPECIFICALLY NOTED OTHERWISE.

10. TEMPORARY TREE PROTECTION FENCE SHALL BE MAINTAINED UPRIGHT AND IN GOOD CONDITION FOR THE DURATION OF THIS PROJECT AND SHALL BE REMOVED TOWARD THE END OF PROJECT, WITH APPROVAL FROM INSPECTOR.

11. EXISTING PAVEMENT AND SITE IMPROVEMENTS OUTSIDE THE LIMIT OF DISTURBANCE ARE TO BE RETAINED. THE CONTRACTOR SHALL RESTORE ANY AND ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER.

12. REFER TO ELECTRICAL PLAN FOR SITE LIGHTING AND LAYOUT.

13. CONTRACTOR SHALL ADJUST ALL EXISTING UTILITY TOPS AS REQUIRED TO MEET NEW GRADES.

14. ALL PERIMETERS, PAVING EDGES AND ISLANDS SHALL BE CURBED, UNLESS SHOWN OTHERWISE.

15. CURBS, GUTTERS, SIDEWALKS AND PAVING SHALL BE INSTALLED IN SUCH A MANNER AS TO PROVIDE POSITIVE DRAINAGE FOR ALL AREAS SO THERE IS NO ACCUMULATION OF SURFACE WATER.

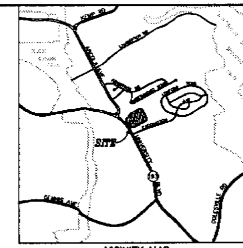
16. ALL PAVING, STORM DRAINAGE, UTILITIES AND IMPROVEMENTS ON THIS PARCEL ARE PRIVATE AND THE MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER.

17. REMOVE AND REPLACE DETERIORATED/DAMAGED CURB & GUTTER AND SIDEWALK ALONG PROPERTY FRONTAGE AS DIRECTED BY THE MCDPS RIGHT-OF-WAY INSPECTOR.

LEGEND

- BENCHMARK
- PROPERTY LINE
- STORM DRAIN
- WATERLINE (SEE APPR'D WSSC DRAW'S FOR INSTALLATION)
- SANITARY SEWER (SEE APPR'D WSSC DRAW'S FOR INSTALLATION)
- GAS LINE*
- ELECTRICAL LINE*
- TELEPHONE LINE*
- CABLE TV LINE*
- CHAIN-LINK FENCE
- LIGHT POLE (SEE ELECTRICAL DWG'S)
- CONC CURB & GUTTER SEE DETAIL 1, SHEET C-3C
- CONCRETE SIDEWALK SEE DETAIL 4, SHEET C-3C
- REGULAR DUTY ASPHALT SEE DETAIL 2, SHEET C-3C
- MILL & OVERLAY SEE DETAIL 2, SHEET C-3C

*APPROXIMATE LOCATION (SEE MEP DRAWINGS FOR EXACT LOCATION)

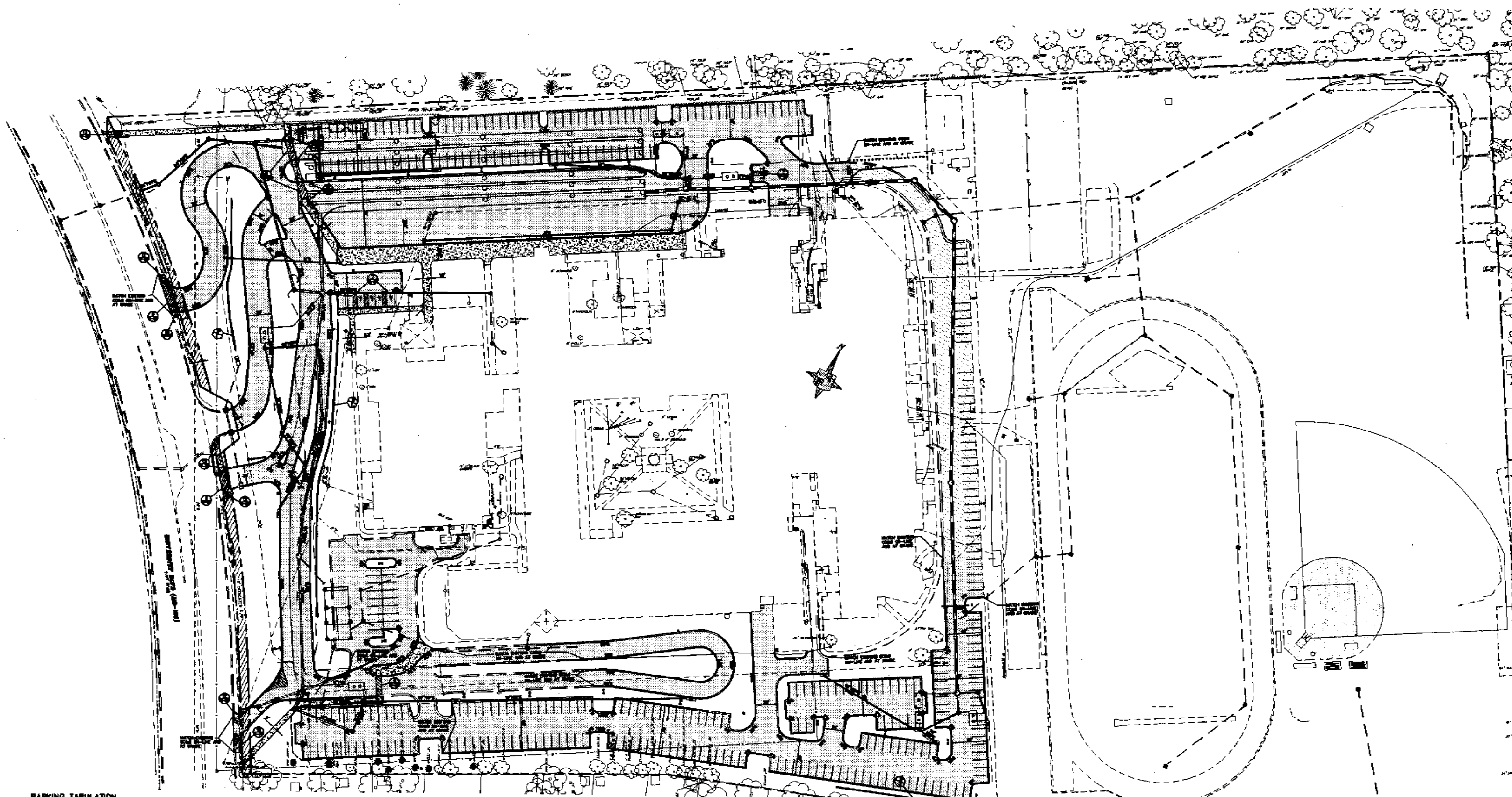


VICINITY MAP
SCALE: 1" = 2,000'±
MONTGOMERY COUNTY, MARYLAND
ADC MAP: 34th EDITION
(WSSC GRID: 214 NW 1)
MAP PAGE: 37

OWNER/APPLICANT
MONTGOMERY COUNTY PUBLIC SCHOOLS
2096 GAITHER ROAD, SUITE 203
ROCKVILLE, MARYLAND 20850
ATTN: DENNIS CROSS, AIA
TEL:(301) 548-4869 FAX:(301) 548-7274

919 WEST UNIVERSITY BOULEVARD
SILVER SPRING, MARYLAND 20901
LIBER: 19799
FOLIO: 94
PARCEL: P722
ACCT# 13-03358977
SUBDIVISION: LABYRINTH

ADTEK
CIVIL, STRUCTURAL, SPECIALTY ENGINEERING & LANDSCAPE ARCHITECTURE



PARKING TABULATION

STANDARD SPACES (9'x 18')	97
STANDARD SPACES (7'x 21')	8
AFTER HOURS SPACES (9x 18')	64
ACCESSIBLE SPACES (8'x 18')	8
TOTAL PROPOSED	173

CAUTION: IF THIS DRAWING IS A REDUCTION, GRAPHIC SCALE MUST BE USED (ORIGINAL SIZE = 30"x 42")

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

MISS UTILITY

CALL "MISS UTILITY AT 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. BEFORE EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR CALLING TICKET CHECK AT 1-866-821-4226 TO VERIFY THAT ALL UTILITIES HAVE BEEN MARKED, 48 HOURS AFTER CALLING MISS UTILITY. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH REQUIREMENTS OF CHAPTER 36A OF THE MONTGOMERY COUNTY CODE.

NORTHWOOD HIGH SCHOOL
SITE IMPROVEMENTS
919 W. UNIVERSITY BLVD SILVER SPRING, MD 20901
OVERALL DIMENSION, PAVING & UTILITY PLAN

SCALE: 1" = 50'	DATE: 01/25/08	SHEET 7 OF	
DRAWN BY: AAM	CHECKED BY: SPB	PROJECT NUMBER: 0201.68E	DRAWING NUMBER: C-3