



# MONTGOMERY COUNTY PLANNING DEPARTMENT

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB  
ITEM # 9B  
1/7/10

December 23, 2009

## MEMORANDUM

**TO:** Montgomery County Planning Board

**VIA:** John Carter, Chief *JAC*  
Urban Design and Preservation Division

**FROM:** John Marcolin, RLA, ASLA, Planner Coordinator (301/495-4547) *JM*  
South Central Transit Corridor Team, Design Division

**SUBJECT:** Mandatory Referral No. 09743-MCPS-1:  
Montgomery Knolls Elementary School  
807 Daleview Drive, near Linton Street, R-60 Zone,  
East Silver Spring Master Plan

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**RECOMMENDATION: APPROVAL** to transmit the following to Montgomery County Public Schools:

1. Any mandatory referral submission for future improvements at the school must include a traffic study for Adequate Public Facilities (APF) purposes if those improvements will increase school's student core capacity beyond 640 students.
2. Continue to coordinate with M-NCPPC, SHA, and DOT staff on an administrative review of the traffic study.

## PROJECT SUMMARY

The Montgomery County Public Schools (MCPS) has submitted a Mandatory Referral to build an addition to the existing Montgomery Knolls Elementary School. It will be composed of a 15 classroom addition to alleviate the need for temporary classroom structures now located on site and to provide program space for Kindergarten and grades 1 and 2 at the completion of the project.

### Location

The Montgomery Knolls Elementary School is located in the East Silver Spring neighborhood, east of University Boulevard (Rt 193) and south of Franklin Avenue. The school property is bounded by Daleview Drive on the north, Linton Street on the west, Patton Drive on the south and the Northwest Branch on the east. The school site is approximately 10.33 acres with some relatively steep slopes at the rear of the site sloping to the south- southeast. The school is located in a neighborhood that is composed of primarily single family homes, with a few townhouses. The sole point of vehicular access is Daleview Drive. The school property is rectangular in shape with approximately 84 feet of elevation difference from high to low point.

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## **Project Description**

The original school was built in 1952 with additions in 1957, 1961, 1969, 1972 and modernized in 1989. Montgomery Knolls has a student body of approximately 409 students with a future enrollment expected to reach 475 students by the 2011-2012 school year. As a class size reduction school the current school capacity is approximately 273. The proposed addition will increase the capacity of the school will be 528 students.

The proposed two story classroom addition along with the gymnasium, and space for a Linkages to Learning program, are located at the rear of the existing building adjacent to the existing parking, play area and ball fields. The proposed site plan also expands the existing bus loop to accommodate additional 11 parking spaces and reconfigures all play areas. The existing school is presently 57,231 square feet. The proposed renovation area is 1,500 square feet and the new construction area is 38,961 square feet, for a total of 40,461 square feet. The new gross area will be 96,192 square feet.

## **ANALYSIS**

### **Conformance with the East Silver Spring Master Plan**

Montgomery Knolls Elementary School is located in the Approved and Adopted East Silver Spring Master Plan area. The Plan notes that the East Silver Spring area has a full complement of community facilities throughout the area. The school is identified in the Plan's existing community facilities maps. The Plan recommends an institutional land use on the site. This project is in conformance with the Master Plan.

### **Conformance with the Development Standards in the R-60 Zone**

The site is zoned R-60, and the following chart depicts the requirements of this zone. As submitted and shown on this chart, the new school will satisfy the requirements for the R-60 zone.

<b>Development Standards</b>	<b>Zoning Requirement</b>	<b>Provided</b>
Minimum Net Lot Area	6,000 square feet	449,975square feet (10.33 acres)
Minimum Setbacks		
Front	25 feet	37 feet
Side/Sum	8/18 feet	39/205
Rear	20 feet	315 feet
Maximum Building Height	35 feet	31 feet
Maximum Lot Coverage	35 percent	21 percent

## **Environment**

A separate staff report has been provided by Environmental Planning Staff regarding Storm Water Management and the Forest Conservation Plans.

## **Transportation Analysis**

A traffic study was required for the Mandatory Referral. A traffic study was forwarded to both Maryland State Highway Administration (SHA) and Montgomery County Department of Transportation (DOT) on November 20, 2009.

Transportation staff has reviewed the proposed traffic study and finds. A traffic study was required for the Mandatory Referral. The Mandatory Referral satisfies the LATR requirements of an Adequate Public Facilities Test. The project also satisfies the PAMR requirements.

Sidewalks are located on both sides of Dale View Drive and along the east side of Linton Street to provide access for pedestrians. Vehicular access is from Daleview Drive. Student drop-off/pick-up areas are separated from bus areas.

## **Community Notification**

Montgomery County Public Schools carried out a series of meetings with the Facility Advisory Committee, composed of MCPS Staff, Design Consultants and parents of students attending Montgomery Knolls Elementary School. Those meetings were held on September 4, 2008; September 17, 2008; October 2, 2008; and January 14, 2008.

### **Attachments:**

1. Vicinity Map
2. Existing Site Plan
3. Proposed Site Plan
4. Existing & Proposed First Floor Plan
5. Proposed Second Floor Plan
6. Proposed Elevations

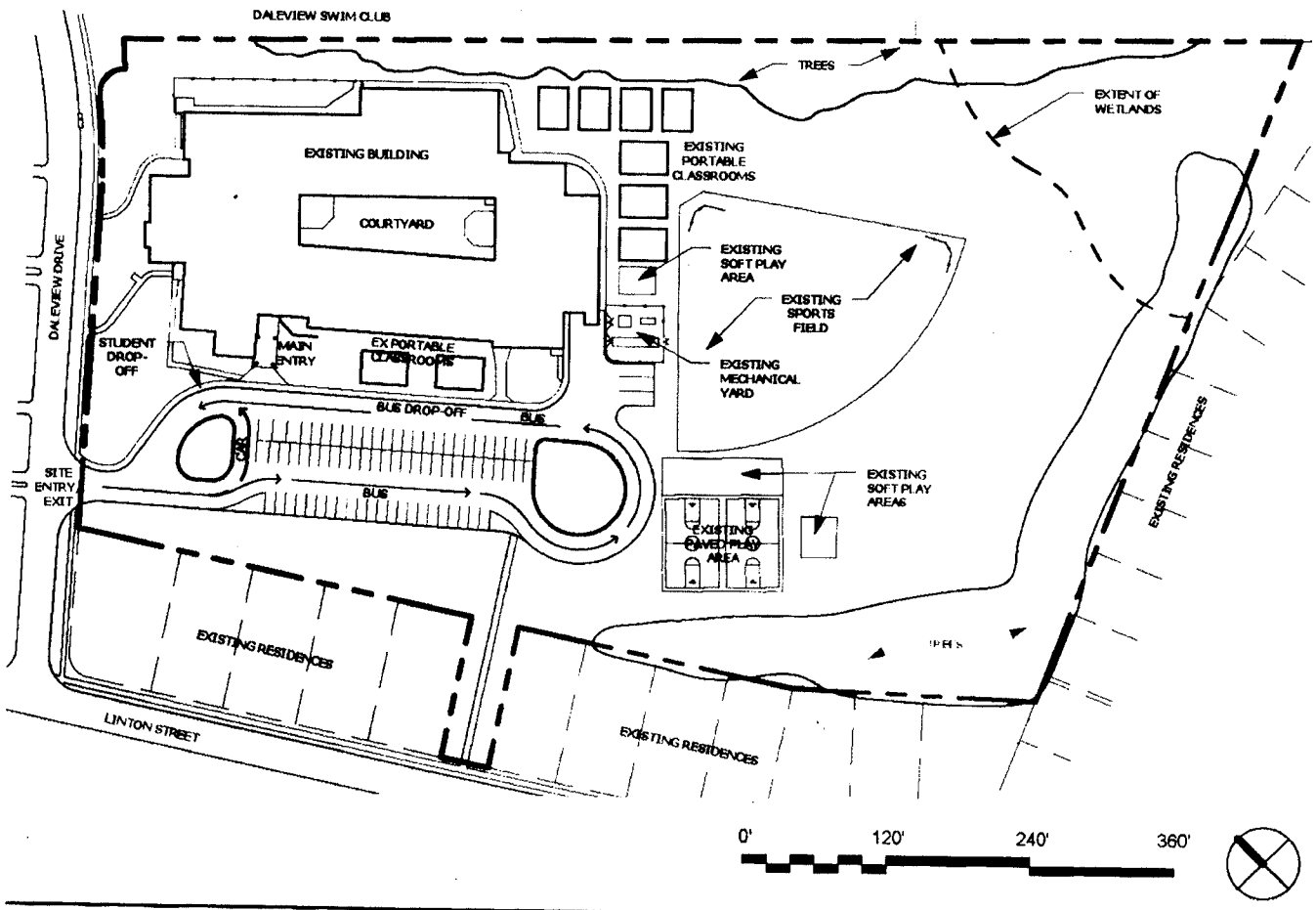
JM:rb: M:/Marcolin/MR Staff Report Montgomery Knolls E



VICINITY MAP

ATTACHMENT 1

# Existing Site Plan

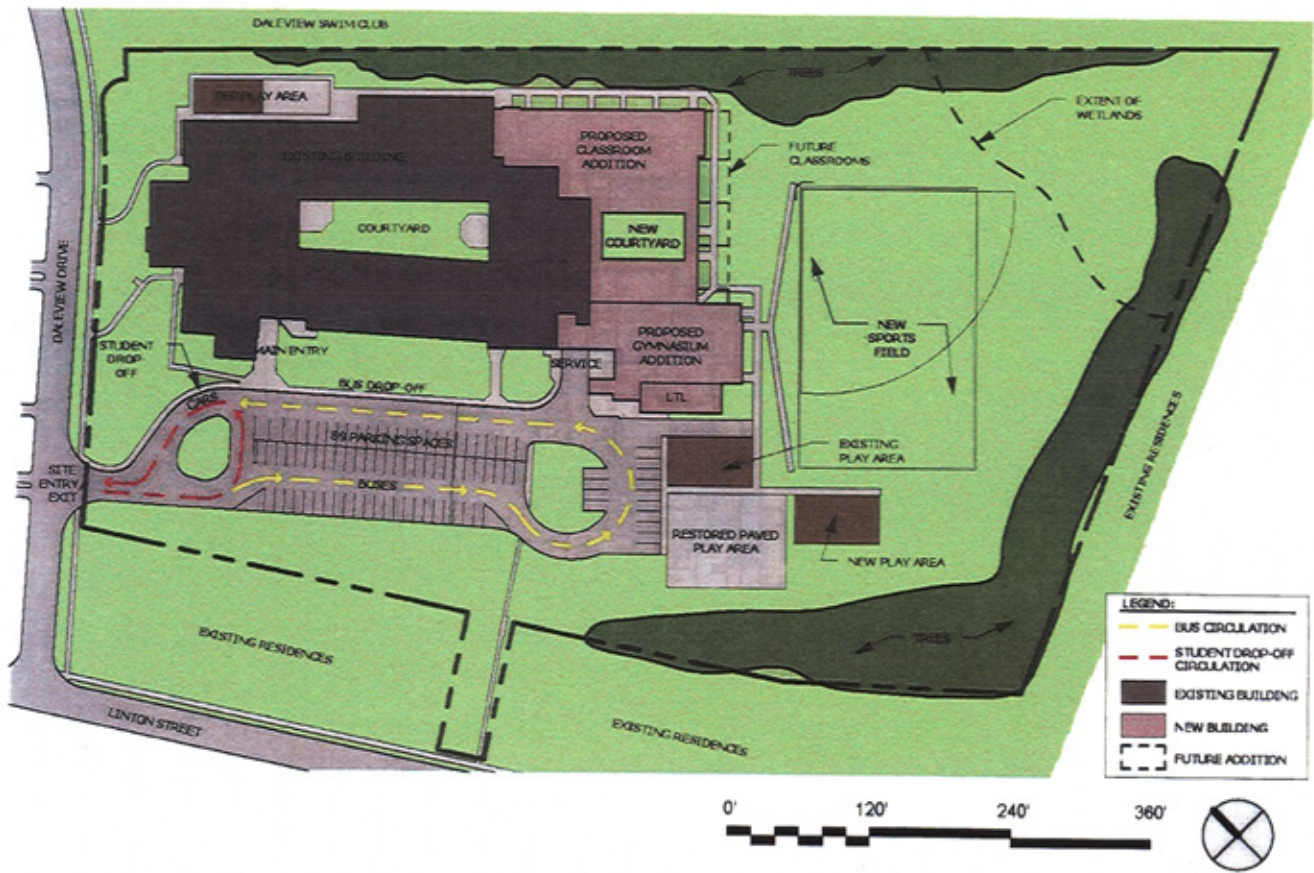


Montgomery Knolls Elementary School – Addition  
GWWO, Inc./ARCHITECTS

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ATTACHMENT 2

# Proposed Site Plan



Montgomery Knolls Elementary School – Addition  
 GWWO, Inc./ARCHITECTS

Page 5A

ATTACHMENT 3

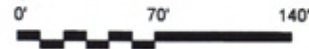
# Existing and Proposed First Floor Plan

- EXISTING BUILDING
- NEW CIRCULATION
- PROPOSED ADDITION
- RENOVATION



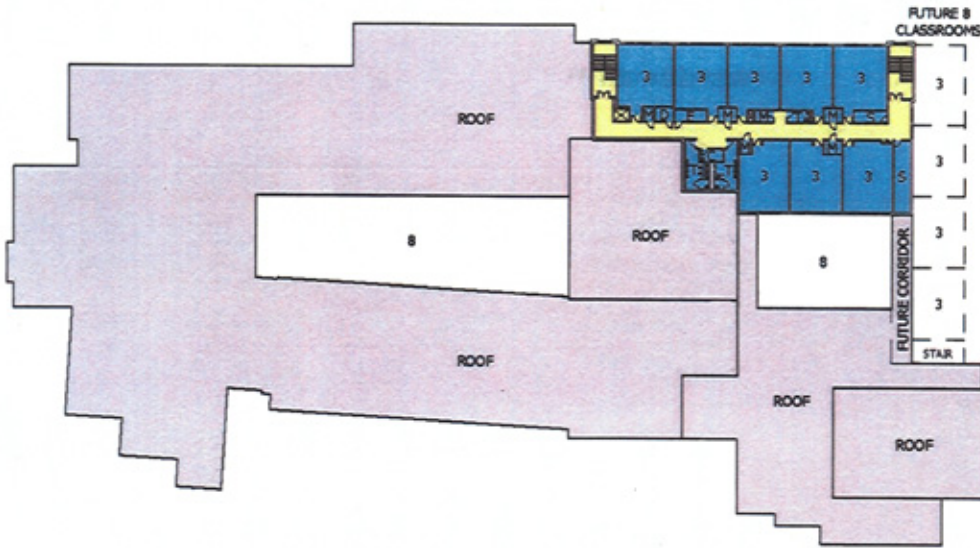
### ROOM KEY

- |                               |                            |
|-------------------------------|----------------------------|
| 1 KINDERGARTEN CLASSROOM      | 30 KITCHEN                 |
| 2 PRE-KINDERGARTEN CLASSROOM  | 31 MULTIPURPOSE ROOM       |
| 3 CLASSROOM                   | 32 PLATFORM                |
| 4 ESOL ROOM                   | 33 MUSIC CLASSROOM         |
| 5 ART CLASSROOM               | 34 ELEVATOR CONTROL CLOSET |
| 6 PEP CLASSROOM               | 35 ART STORAGE             |
| 7 OFFICE                      | 36 DUAL PURPOSE CLASSROOM  |
| 8 COURTYARD                   | 37 RECYCLING               |
| 9 TRASH                       | 38 GYM OFFICE              |
| 10 PHYSICAL THERAPY           | 39 GYMNASIUM               |
| 11 SPEECH THERAPY             | 40 RECEPTION               |
| 12 CONFERENCE                 | 41 PLAY/THERAPY ROOM       |
| 13 COMMUNICATIONS CENTER      | 42 OFFICE                  |
| 14 CONTROL ROOM               | 43 CONFERENCE ROOM         |
| 15 WORKROOM                   | 44 OBSERVATION ROOM        |
| 16 INSTRUCTIONAL MEDIA CENTER | 45 SECURITY VESTIBULE      |
| 17 MATH ASSESSMENT            | C CUSTODIAN                |
| 18 READING                    | D DATA CLOSET              |
| 19 RESOURCE                   | E ELECTRICAL               |
| 20 PARENT/VOLUNTEER ROOM      | M MECHANICAL               |
| 21 COMPUTER CENTER            | S STORAGE                  |
| 22 GENERAL OFFICE             | T TOILET                   |
| 23 RECORDS                    |                            |
| 24 HEALTH SUITE               |                            |
| 25 THERAPY SUPPORT            |                            |
| 26 SPEECH                     |                            |
| 27 TESTING                    |                            |
| 28 FACULTY WORKROOM           |                            |
| 29 BUILDING SERVICES          |                            |



# Proposed Second Floor Plan

- EXISTING BUILDING
- NEW CIRCULATION
- PROPOSED ADDITION
- RENOVATION



**ROOM KEY**

1 KINDERGARTEN CLASSROOM	30 KITCHEN
2 PRE-KINDERGARTEN CLASSROOM	31 MULTIPURPOSE ROOM
3 CLASSROOM	32 PLATFORM
4 ESOL ROOM	33 MUSIC CLASSROOM
5 ART CLASSROOM	34 ELEVATOR CONTROL CLOSET
6 PEP CLASSROOM	35 ART STORAGE
7 OFFICE	36 DUAL PURPOSE CLASSROOM
8 COURTYARD	37 RECYCLING
9 TRASH	38 GYM OFFICE
10 PHYSICAL THERAPY	39 GYMNASIUM
11 SPEECH THERAPY	40 RECEPTION
12 CONFERENCE	41 PLAY/THERAPY ROOM
13 COMMUNICATIONS CENTER	42 OFFICE
14 CONTROL ROOM	43 CONFERENCE ROOM
15 WORKROOM	44 OBSERVATION ROOM
16 INSTRUCTIONAL MEDIA CENTER	45 SECURITY VESTIBULE
17 MATH ASSESSMENT	C CUSTODIAN
18 READING	D DATA CLOSET
19 RESOURCE	E ELECTRICAL
20 PARENT/VOLUNTEER ROOM	M MECHANICAL
21 COMPUTER CENTER	S STORAGE
22 GENERAL OFFICE	T TOILET
23 RECORDS	
24 HEALTH SUITE	
25 THERAPY SUPPORT	
26 SPEECH	
27 TESTING	
28 FACULTY WORKROOM	
29 BUILDING SERVICES	

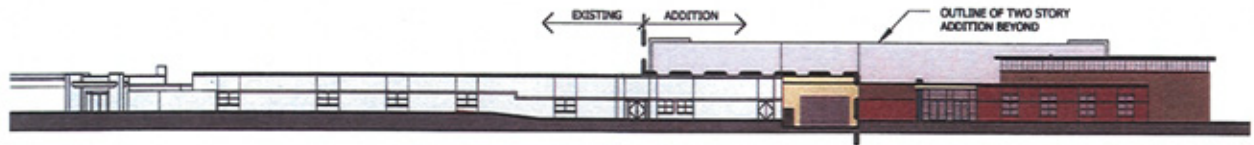


## ATTACHMENT 5



# Proposed Elevations

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PARTIAL WEST ELEVATION



SOUTH ELEVATION



PARTIAL EAST ELEVATION



ATTACHMENT 6





**MONTGOMERY COUNTY PLANNING DEPARTMENT**  
THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

December 15, 2009

**MEMORANDUM**

TO: John Marcolin, Planner/Coordinator  
Urban Design Division

VIA: Shahriar Etemadi, Supervisor   
Move/Transportation Planning Division

FROM: Cherian Eapen, Planner/Coordinator   
Move/Transportation Planning Division  
301-495-4525

SUBJECT: Mandatory Referral 09743-MCPS-1  
Proposed Classroom/Gymnasium Addition Project  
Montgomery Knolls Elementary School  
807 Daleview Drive  
Montgomery County Public Schools  
East Silver Spring  
Silver Spring/Takoma Park Policy Area

DEC 15 2009

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This memorandum presents Transportation Planning staff's review of the subject mandatory referral for Montgomery Knolls Elementary School classroom/gymnasium addition project. The school is located at 807 Daleview Drive in East Silver Spring within the Silver Spring/Takoma Park Policy Area.

**RECOMMENDATIONS**

We have completed our review of the materials submitted for the subject mandatory referral and recommend that the Planning Board transmit the following comments to Montgomery County Public Schools (MCPS):

1. Any mandatory referral submission for future improvements at the school must include a traffic study if those improvements will increase school's student core capacity beyond 640 students.

A traffic study was required for the subject 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. The traffic study dated November 16, 2009, prepared for the classroom/gymnasium addition project was forwarded to both Maryland State Highway Administration (SHA) and Montgomery County Department of Transportation (DOT) on November 20, 2009, for their review and comments. Since comments on the traffic study from SHA and DOT are still pending, we recommend that the following additional comment be incorporated into Planning Board's comments to MCPS regarding this mandatory referral's transportation review:

- Continue to coordinate with M-NCPPC, SHA, and DOT staff on an administrative review of the traffic study. If the administrative review confirms that additional changes to site design and/or offsite improvements based on the increase in core capacity at the school are not needed, then this mandatory referral will be completed by a staff memo to that effect with a copy provided to Planning Board members. However, if the administrative review results in new technical comments by SHA and/or DOT staff, then MCPS must resubmit a revised mandatory referral application for the school reflecting those changes.

## **DISCUSSION**

### School Location, Existing Area Roadway/Pedestrian Facilities, Public Transit, and Land Uses

Montgomery Knolls Elementary School is located to the east of University Boulevard (MD 193) between Piney Branch Road to the south and Franklin Avenue to the north. Specifically, the school is to the southeast of Linton Street and Daleview Drive intersection in East Silver Spring. The Daleview Swimming Pool is located to the northeast of the school.

The streets in the immediate vicinity of the school, such as Daleview Drive, Linton Street, Compton Street, Buckingham Drive, Weaver Street, Patton Drive, and Langley Drive are secondary residential streets. There are sidewalks along both sides of Daleview Drive and Weaver Street. A sidewalk is provided along the east side of Linton Street between Buckingham Drive and Patton Drive and along the south side of Buckingham Drive between University Boulevard and Weaver Street. Sections of Buckingham Drive and Linton Street have sidewalks on both sides.

University Boulevard is served by RideOn Route 14, which runs between Silver Spring Metro Station and Takoma Park Metro Station and Metrobus routes C2 and C4, which runs between Prince George's County and Wheaton/Twinbrook Metro Stations. The closest bus stop along University Boulevard at Buckingham Drive/East Wayne Avenue is approximately 1,300 feet from the school.

Land use in the immediate vicinity of the school is primarily residential.

### School Access, Hours of Operation, and Parking

Vehicular access to the school is exclusively from Daleview Drive via a driveway

approximately 150 feet east of Linton Street. Buses and parent vehicles enter the school via this driveway and circulate through the parking lot and a circular drop-off/pick-up area in front of the school to drop-off and pick-up students. The parent vehicles use the short loop and the buses use the long loop through the parking lot to drop-off children in the morning. In the afternoon, parent vehicles do not enter the school. Parents generally park their vehicles along both sides of Daleview Drive and pick up children at the school door or curbside.

The morning student drop-off activity is characterized by a significant number of parent drop-offs, which coincides with the bus drop-off timeframe. In the afternoon, the student pick-ups by parents do not conflict with that by buses since the parent vehicles are either parked along Daleview Drive or at the Daleview Swimming Pool parking lot. The mandatory referral will not change existing access and circulation arrangements at the school.

Montgomery Knolls Elementary School is open between 8:50 a.m. and 3:05 p.m.

Parking at the school is provided to the west of the school building. A total of 78 parking spaces, including two handicapped spaces are currently provided at the school. The classroom/gymnasium addition project will increase parking by 11 spaces and will provide a total of 89 parking spaces at the school.

#### School Enrollment and Capacity

Students at Montgomery Knolls Elementary School are enrolled in Grades Pre-K through 2. The school is paired with Pine Crest Elementary School on Woodmoor Drive to serve area children in Grades 3 to 5.

Montgomery Knolls Elementary School currently has an enrollment of approximately 464 students. The enrollment is projected to remain generally at this level in the future. MCPS is planning to eliminate portable classrooms currently at the school and add 15 permanent classrooms. The proposed classroom addition/gymnasium project will thus increase school's program capacity from approximately 271 students to 528 students. The traffic study however was completed for a core capacity of 640 students identified for the school, and thus considers impact from an additional 176 students at the school.

#### Master Plan Roadway/Bikeway Facilities

The 2000 Approved and Adopted *East Silver Spring Master Plan* and the 2005 Approved and Adopted *Countywide Bikeways Functional Master Plan* describes the following nearby master-planned roadway/bikeway facilities:

- University Boulevard (MD 193), as a six-lane divided major highway (M-19) with recommended minimum right-of-way width of 120 feet and with dual bikeway (shared-use path on both sides and signed shared roadway) between Capital Beltway (I-495) to the north and Prince George's County line to the south.

- Local shared on-road bikeway along Langley Drive between University Boulevard and Linton Street (to the southwest of the school), along Linton Street between Langley Drive and Daleview Drive (to the west of the school), and along Daleview Drive between Linton Street and Weaver Street (to the north of the school), extending to Franklin Avenue via other streets.

Adequate Public Facilities Review

A traffic study was required for the subject 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. Staff review of the above traffic study indicated that the study complied with the requirements of the *LATR/PAMR Guidelines* and the traffic study scope provided by the staff.

The consultant for the applicant submitted a traffic study that presented traffic-related impacts of the school with core capacity for 640 students (i.e., additional 176 students over current enrollment of 464 students) during the weekday morning and afternoon peak-periods. Based on trip generation data collected at the existing school, the study estimated that the increase in school enrollment to the maximum of 640 students would generate 98 additional peak-hour trips during the morning peak period and 46 additional peak-hour trips during the evening peak period. The trip generation data for the school is summarized in Table 1.

**TABLE 1  
SUMMARY OF TRIP GENERATION  
MONTGOMERY KNOLLS ELEMENTARY SCHOOL  
CLASSROOM/GYMNASIUM ADDITION PROJECT**

Trip Generation	Morning School Peak-Hour			Evening School Peak-Hour		
	In	Out	Total	In	Out	Total
Trip Generation – Current Enrollment (464 students)	154	105	259	58	64	122
Per Student Trip Rate	0.33	0.23	0.56	0.12	0.14	0.26
Trip Increase (176 students)	58	40	98	22	24	46
Trip Generation - Future Enrollment (640 students)	212	145	357	80	88	168

Source: Montgomery Knolls Elementary School Traffic Impact Assessment. VHB, Inc., November 16, 2009.

- Local Area Transportation Review

A summary of the capacity/Critical Lane Volume (CLV) analysis results for the study intersections for the weekday morning and afternoon peak-hours as presented in the traffic study is provided in Table 2. As shown in Table 2, the capacity analysis presented in the traffic study indicated that under Total Traffic (i.e., Build) Conditions, CLV at the study intersections would be below the applicable congestion standard for the Silver Spring/Takoma Park Policy Area (1,600 CLV). The mandatory referral therefore satisfies the LATR requirements of an APF test.

**TABLE 2  
SUMMARY OF CAPACITY CALCULATIONS  
MONTGOMERY KNOLLS ELEMENTARY SCHOOL  
CLASSROOM/GYMNASIUM ADDITION PROJECT**

Intersection	Traffic Conditions					
	Existing		Background		Total	
	AM	PM	AM	PM	AM	PM
University Blvd (MD 193)/Buckingham Dr/E. Wayne Ave	1,116	752	1,116	752	1,169	779
Daleview Dr/Linton St	241	93	241	93	321	131
Daleview Dr/School Dr	215	67	215	67	306	109
Daleview Dr/Compton St	51	56	51	56	65	61

Source: Montgomery Knolls Elementary School Traffic Impact Assessment. VHB, Inc., November 16, 2009.  
 Note: Based on morning and evening school peak-hours of 8:00 a.m. – 9:00 a.m. and 2:30 p.m. – 3:30 p.m.  
 Congestion Standard for Silver Spring/Takoma Park Policy Area: 1,600 CLV

- Policy Area Mobility Review

To satisfy the PAMR requirements of an APF test, the Silver Spring/Takoma Park Policy Area require mitigation of ten percent (10%) of new trips generated by a use.

Trip generation data collected at the school as part of the traffic study indicated that the morning peak-hour per student trip rate at the school is approximately 39 percent lower than the per student trip rate for private schools with Grades K through 8 included in the *LATR/PAMR Guidelines*. Staff therefore finds MCPS to be achieving a mitigation percentage well above the requirement for the policy area primarily through bussing of students to the school. The mandatory referral therefore satisfies the PAMR requirements of an APF test.

SE:CE:tc

cc: Bill Barron  
 Joseph DeRosa  
 Greg Leck  
 Sarah Navid  
 Jean Gries  
 Corren Giles  
 Daniel Lovas