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Silver Spring International Middle School Addition Feasibility Study

Silver Spring International Middle School - Feasibility Study
Addition

313 Wayne Avenue
Silver Spring, MD 20910

Montgomery County Board of Education

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Mr. Michael P. Shpur Architect, Division of Construction
Mr. Seth Adams Project Manager, Division of Construction
Ms. Deborah S. Szyfer Facility Planner, Division of Long-range Planning
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I. Introduction

The Lukmire Partnership was selected to perform the Feasibility Study for the addition to Silver Spring International Middle School (SSIMS) under the direction of Montgomery County Public Schools (MCPS), Department of Facilities Management, Division of Construction, and the Silver Spring International Middle School Feasibility Study participants.

Silver Spring International Middle School Feasibility Study Participants

The feasibility study participants reviewed, revised, and approved the conceptual design for the Silver Spring International Middle School. The meetings occurred on March 9, 2015, March 11, 2015, March 16, 2015, and April 15, 2015. The proposed design is the result of the participants’ recommendations, suggestions, and guidance during the feasibility study process. Participants are as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Haas</td>
<td>Principal SSIMS</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Diantha Swift</td>
<td>Principal</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Debbie Boger</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Dune Case</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Meg Clabault</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Tim Dawson</td>
<td>Teacher</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Ann Dolan</td>
<td>Assistant Principal SSIMS</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Mary Gable</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Anne Gregal</td>
<td>Teacher</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Julie Grimes</td>
<td>MCCPTA Cluster Coordinator</td>
<td>Northwood Cluster</td>
</tr>
<tr>
<td>Malia Hale</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Lynne Harris</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Susan Hester</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>William Judd</td>
<td>Community Member</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Amy Kennedy</td>
<td>PTA President</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Mindy Kassaraba</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Ashley Marchonini</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Maryse Mills-Apetweng</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Stuart Moore</td>
<td>Community Member</td>
<td>Old Blair Auditorium Project</td>
</tr>
<tr>
<td>Sarah Morgan</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
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</table>
I. Introduction (continued)

Silver Spring International Middle School Feasibility Study Participants (continued)

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jillian Newby</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Margy O’Herron</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Sergio Palacios</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
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<tr>
<td>Scott Paul</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>Mariane Quinn</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Heather Sauter</td>
<td>PTSA President</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Jerry Scotti</td>
<td>Acting Principal Assistant</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Laura Stephens</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
</tr>
<tr>
<td>David Stough</td>
<td>SSIMS Financial Assistant</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Bill Streir</td>
<td>Community Member</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Valeria Tortorelli</td>
<td>Parent</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Darian Unger</td>
<td>Parent</td>
<td>Sligo Creek Elementary School</td>
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<tr>
<td>Leigh Ann Uzamere</td>
<td>Staff Development Teacher</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>William Vernula</td>
<td>Teacher</td>
<td>Silver Spring International Middle School</td>
</tr>
<tr>
<td>Seth Adams</td>
<td>Assistant Director, Project Manager</td>
<td>Division of Construction - MCPS</td>
</tr>
<tr>
<td>Zach Larnard</td>
<td>Facility Planner</td>
<td>Division of Long-range Planning - MCPS</td>
</tr>
<tr>
<td>Michael Shpur</td>
<td>Architect</td>
<td>Division of Construction - MCPS</td>
</tr>
<tr>
<td>Debbie Szyfer</td>
<td>Facility Planner</td>
<td>Division of Long-range Planning - MCPS</td>
</tr>
<tr>
<td>James Tokar</td>
<td>Project Manager</td>
<td>Division of Construction - MCPS</td>
</tr>
</tbody>
</table>
II. Executive Summary

Purpose

The purpose of this feasibility study is to explore alternatives and provide specific recommendations to Montgomery County Public Schools (MCPS) for the addition and renovations to the Silver Spring International Middle School. The recommendations are to accommodate the educational needs of the school and comply with current Montgomery County Public Schools Educational Specifications.

History

Silver Spring International Middle School is located in Silver Spring, Maryland. The original school building was constructed in 1934. Additional buildings were added to the site in 1936, 1940, 1949, and 1951. These buildings were connected with additions in 1953, 1959, 1969, 1974, 1976, 1985 and 1999. The existing building is approximately 251,530 gross square feet. The middle school portion of the building is 173,205 gross square feet. The elementary portion of the school is 98,799 gross square feet. Current capacity of the middle schools is 1,118 with current enrollment of 967. Capacity after the addition will be 1,300 with a 1,440 core capacity. Projected enrollment in 2020-2021 is 1,311.

Methodology

A design team of architects and engineers has evaluated the school in order to develop alternative locations for the addition. The study is based on the analysis of the existing building and the site conditions, meetings with the feasibility study participants, and review of the educational specifications prepared by the MCPS Staff for Silver Spring International Middle School.

The study is based on the following:

- Consensus Workshops with the feasibility participants and MCPS Staff; there were five meetings
- Analysis of the existing physical building
- Review of the existing available construction documents provided by MCPS
- Review of the Educational Specifications and Summary of Space Requirements provided by MCPS
- Research conducted by the design team
II. Executive Summary (continued)

Overview

The Feasibility Study assesses the advantages, disadvantages and relative costs of various alternatives for developing the best means to meet the primary goals and objectives of the school staff, PTA, and MCPS Educational Specifications.

The goals and objectives include:

- Provide an accessible main entrance to SSIMS
- Provide an accessible main entrance to SCES
- Add parking to the site
- Explore options to bring the physical education suite inside the middle school building
- Consider the Purple Line master plan when designing options for the addition to SSIMS
- Explore options both keeping the existing abandoned auditorium as well as using the area it occupies for middle school programs
- Study the options regarding where to add the need additional science labs, both adjacent to the current suite and in a proposed sixth grade suite
- Both SSIMS and SCES is to remain in session during the addition process
- An outdoor courtyard renovation is currently in design and should be considered when planning this addition
- SSIMS currently does not have dedicated access to an elevator, explore ways to gain dedicated access
- SSIMS does not currently have a performance space in the building, explore ways to gain a performance space
- Neither SSIMS nor SCES have controlled entrances, explore ways to provide this at one or both schools
- SSIMS has multiple abandoned spaces within the building, explore ways to use them
- Add space to the existing multi-purpose room
- One corridor is less than five feet wide and is a significant issue during class changes
- The administration and guidance suites are undersized
- Enrollment growth requires an 11 classroom addition
- The existing field house is too small
II. Executive Summary (continued)

Three options were developed by The Lukmire Partnership to meet the programmatic requirements developed by the Montgomery County Public Schools. Due to the complexity of the project and the number of stakeholders, no recommended option has been selected in this feasibility study report.

Options Considered

Option 1:

- The field house is to remain operational.
- The auditorium is to remain in its current location and is to remain abandoned.
- The existing abandoned lower level area along Wayne Avenue will be occupied with classrooms.
- One of the currently unoccupied areas on the third floor will become classroom space.
- Sligo Creek ES retains the four classrooms in the SSIMS second floor hallway.
- The problematic bottle neck corridor at the east stair gets resolved in all options.
- Science classrooms will remain in their current location.

Option 2:

- The physical education department is to be relocated inside the middle school building. It will occupy a new two-story physical education suite located in the area of what is currently the existing abandoned auditorium.
- The abandoned auditorium is to be demolished and the field house is to be abandoned.
- The existing abandoned lower level area along Wayne Avenue will be occupied with classrooms.
- The existing abandoned spaces on the third floor will remain abandoned.
- SSIMS gains the four classrooms in the SSIMS second floor hallway.
- The problematic bottle neck corridor at the east stair gets resolved in all options.
- Main entry access control is improved in this option.
- Science classrooms will remain in their current location.

Option 3:

- The physical education department is to be relocated inside the middle school building. It will occupy a new one-story physical education suite located in the area of what is currently the existing music and administration suites.
- New music and administration suites will be constructed.
- The abandoned auditorium is to be demolished and the field house is to be abandoned.
- The existing abandoned lower level area along Wayne Avenue will remain abandoned.
- The existing abandoned spaces on the third floor will remain abandoned.
- SSIMS gains the four classrooms in the SSIMS second floor hallway.
- The problematic bottle neck corridor at the east stair gets resolved in all options.
- Main entry access control is provided in this option for both SSIMS and SCES.
- New science classrooms will be constructed.
II. Executive Summary (continued)

Summary of Options

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lower Level Plan</strong></td>
<td><strong>Main Level Plan</strong></td>
<td><strong>Second Floor Plan</strong></td>
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<tr>
<td><img src="image1" alt="Option 1 Lower Level Plan" /></td>
<td><img src="image2" alt="Option 1 Main Level Plan" /></td>
<td><img src="image3" alt="Option 1 Second Floor Plan" /></td>
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<td><img src="image4" alt="Option 2 Lower Level Plan" /></td>
<td><img src="image5" alt="Option 2 Main Level Plan" /></td>
<td><img src="image6" alt="Option 2 Second Floor Plan" /></td>
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<td><img src="image7" alt="Option 3 Lower Level Plan" /></td>
<td><img src="image8" alt="Option 3 Main Level Plan" /></td>
<td><img src="image9" alt="Option 3 Second Floor Plan" /></td>
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</table>

**Total**

- **Existing =** 173,205 GSF
- **Demolition/Abandoned =** 3,900 GSF
- **Added* =** 37,205 GSF
- **Total =** 206,510 GSF

*New Construction, Renovated Previously Abandoned Space and/or Claimed GSF from Sligo Creek ES*
II. Executive Summary (continued)

Summary Table and Cost Comparison of Options 1, 2 & 3

Square Footage Comparison

<table>
<thead>
<tr>
<th>Square Footage</th>
<th>Option 1</th>
<th>Option 2</th>
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<tr>
<td>Existing SF of Occupied Area of Middle School to Remain Occupied</td>
<td>169,305</td>
<td>122,455</td>
<td>101,755</td>
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<tr>
<td>Existing SF of Abandoned Auditorium Area to Remain as Abandoned</td>
<td>25,700</td>
<td>0</td>
<td>0</td>
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<td>Existing SF of Other Abandoned Areas in the School to Remain as Abandoned</td>
<td>7,200</td>
<td>14,000</td>
<td>20,250</td>
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<td>Existing SF of Other Abandoned Areas in the School to be Occupied</td>
<td>13,050</td>
<td>6,250</td>
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<tr>
<td>Existing SF of Field House to Become Abandoned</td>
<td>0</td>
<td>46,850</td>
<td>46,850</td>
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<td><strong>Total Existing Square Feet of Middle School Areas to be Occupied (not including Auditorium)</strong></td>
<td>182,355</td>
<td>128,705</td>
<td>101,755</td>
</tr>
<tr>
<td>Existing to Remain (see total directly above)</td>
<td>182,355</td>
<td>128,705</td>
<td>101,755</td>
</tr>
<tr>
<td>Demolition (not including the Auditorium)</td>
<td>3,900</td>
<td>3,900</td>
<td>24,600</td>
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<tr>
<td>Demolition of the Auditorium</td>
<td>0</td>
<td>25,700</td>
<td>25,700</td>
</tr>
<tr>
<td>New Addition Construction</td>
<td>24,155</td>
<td>45,995</td>
<td>77,075</td>
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<td>Renovation of Existing Occupied Area</td>
<td>2,355</td>
<td>7,060</td>
<td>8,646</td>
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<tr>
<td>Renovation of Previously Abandoned Area</td>
<td>13,050</td>
<td>6,250</td>
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<tr>
<td>Renovation of Area Previously Controlled by Sligo Creek ES</td>
<td>0</td>
<td>6,250</td>
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<tr>
<td><strong>Total Gross Square Feet to be Operated by Middle School</strong></td>
<td>206,510</td>
<td>180,950</td>
<td>185,080</td>
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<td><strong>Cost Estimates</strong></td>
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<td><strong>Construction Cost</strong></td>
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<td><strong>Planning Cost</strong></td>
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<td><strong>Contingency and Related Costs</strong></td>
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<td>$2,414</td>
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<td><strong>Furniture and Equipment</strong></td>
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<td>$7,243</td>
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<tr>
<td><strong>Totals</strong></td>
<td>$15,083</td>
<td>$25,538</td>
<td>$36,698</td>
</tr>
</tbody>
</table>

The cost estimate in this feasibility study is based on current construction market conditions for both building and site.
III. Scope of Work and Study Objectives

Scope and Intent
The intent of this feasibility study is to explore alternatives and provide specific recommendations. The finished project should meet all the programmatic requirements, satisfy the staff and community concerns and provide a cost effective and energy efficient facility to meet current and changing educational needs.

The scope of work includes analysis of the existing building and site to determine options for adding onto the school and improving the specified site problems. The options were developed according to the Educational Specifications.

Project Criteria - Methodology and Format
The feasibility study was developed per the following methodology:

- Evaluation of Silver Spring International Middle School’s existing site conditions and physical plant by a design team of architects and engineers.
- Meetings with MCPS Facilities / Planning Staff, Silver Spring International Middle School Staff, PTA members, and community representatives to determine and clarify the study’s objectives and goals.
- Development of several alternative options and studies for site improvements.
IV. Existing Conditions

A. Vicinity Map

Image courtesy of Google
IV. Existing Conditions (continued)

B. Aerial Site View

Image courtesy of Google
IV. Existing Conditions (continued)

C. Existing Lower Level Floor Plan - Silver Spring International Middle School
IV. Existing Conditions (continued)

D. Existing Main Level Floor Plan - Silver Spring International Middle School
IV. Existing Conditions (continued)

E. Existing Second Floor Plan - Silver Spring International Middle School
IV. Existing Conditions (continued)

F. Existing Third Floor Plan - Silver Spring International Middle School
IV. Existing Conditions (continued)

G. Existing Lower Level Floor Plan - Sligo Creek Elementary School
IV. Existing Conditions (continued)

H. Existing Main Level Floor Plan - Sligo Creek Elementary School

[Diagram of the existing main level floor plan of Sligo Creek Elementary School]
IV. Existing Conditions (continued)

I. Existing Second Floor Plan - Sligo Creek Elementary School
IV. Existing Conditions (continued)

J. General Site Information

Silver Spring International Middle School is situated on 15.64 acres which is owned by Montgomery County Public Schools and located at 313 Wayne Avenue, Silver Spring, Maryland within Election District 13. The property is comprised of approximately 41 individual parcels and a paper street, Woodside Parkway. The legal description of this property is Block-20 Smiths 4th ADA. This property is found on ADC Map book grids 5286-H10 and 5408-H1 and has tax account number 13-01039241. Per Maryland—National Capital Park and Planning Commission maps, the site is located within the North and West Silver Spring Master Plan, is zoned R-60, and is bounded by single-family homes and Schuyler Road right-of-way to the northwest, Sligo Cabin Neighborhood Park to the east, single-family homes and Wayne Avenue right-of-way to the south, and single-family homes and Dale Drive right-of-way to the northwest.

Based on the current Montgomery County Zoning Ordinance, dimensional regulations for the property will include the following:

- Front setback – 25’
- Side setback – 8’ min / 18’ total
- Rear setback – 20’

Maximum Building Height – The height must not exceed 35 feet when measured to the highest point of roof surface regardless of roof type, or 30 feet to the mean height level between the eaves and ridge of a gable, hip, mansard, or gambrel roof, subject to the following:
The height must not exceed 2½ stories or 30 or 35 feet, depending on the method of measurement, if other lots on the same side of the street and in the same block are occupied by buildings with a building height the same or less than this requirement. The height may be increased to either 3 stories or 40 feet if approved by the Planning Board in a site plan.

Maximum Lot Coverage – 35% (Maximum of net site area covered by buildings, including accessory buildings)
IV. Existing Conditions (continued)

K. General Information

The existing building has evolved over the years from a single structure built in 1934 to a campus of separate structures with connecting covered walks through the 1930s, 1940s, and 1950s to ultimately be incorporated into one large building with at least 7 infill projects between 1953-1999. Silver Spring International Middle School shares the site and the building itself with Sligo Creek Elementary School.

- The existing building is four stories, a lower level, a main level and a second and third floor. About half of the third floor is currently abandoned. A small portion of the lower level along Wayne Avenue is currently abandoned. The existing auditorium, which was part of the school when it was Blair High School is currently abandoned. These abandoned areas are colored gray on the existing plans in this brochure.
- The existing building also houses Sligo Creek Elementary School.
- There is an abandoned building on the north portion of the site. It was formerly used as an auto body shop when the school was used as Blair High School.
- There is an additional building on the south east portion of the site. It is currently used to house the middle school physical education program. The entry into this building is about fifty feet below the main level of the middle school and the path between the two buildings is approximately 420 feet long.
- This project will not pursue USGBC’s LEED for Schools certification as this is an addition that does not double the size of the school nor will the renovations be over 50% of the floor areas.
IV. Existing Conditions (continued)

L. Existing Building Analysis

Silver Spring International Middle School occupies the previous site of Blair High School and shares the building/site with Sligo Creek Elementary School.
IV. Existing Conditions (continued)

M. Site Analysis

Adjoining Streets, Pedestrian Access, and Vehicular Access

The site is accessed from the north by the Shuyler Road right-of-way providing access to the bus-loop and rear parking area. Access is also provided from the south by the Wayne Avenue right-of-way providing access to student drop-off and the main parking area. An additional driveway along Wayne Avenue provides access to an auxiliary parking area and is located west of the driveway to the main parking area. Pedestrian access is provided from the intersection of Dale Road and Schuyler Road at the east corner. The existing configuration of the student drop-off loop and bus loop are insufficient and inadequately support the existing school population of Sligo Creek Elementary School Silver Spring International Middle School. The current site circulation is poor, with the existing configuration of the student drop-off loop and insufficient bus loop are inadequately support the existing school population at Sligo Creek Elementary School and Silver Spring International Middle School.

Bus Loop

The bus loop is currently located along the northwest portion the site, consists of a small loop and additionally serves as a turnaround for buses. This loop can support approximately 3 buses- any additional buses stack along Schuyler Road. Buses must travel the wrong way on Schuyler Road to access the bus loop and stack. This practice is far from ideal and can pose a safety risk for students, staff, drivers and bus drivers.

Silver Spring International Middle school is currently served by eleven (11) buses and Sligo Creek Elementary School is currently served by seven (7) busses. It is assumed that arrival and dismal are schedule in such a way that the buses for the middle and elementary schools do not stack at the same time. The width of the sidewalk does not meet the required 12 foot width as required by MCPS and it is questionable if the grades are ADA compliant for bus drop-off. There is also no designated loading space for accessible vehicle loading along the street.

Additionally, with the possibility of the construction of a purple line station that is to be located with the Wayne Avenue Right-Of-Way the entrance and parking lots would be reconfigured to accommodate the purple line station. The entrance that services the main parking lot would be relocated to Dale Drive. During the design process, the location of the addition should take into consideration the overall site improvements that will be undertaken during the future modernization that will include new parking lots, a separate bus drop-off loop, and a separate student drop-off loop. Current ADA compliance is also recommended for inclusion to site improvements.
IV. Existing Conditions (continued)

M. Site Analysis (continued)

The student drop-off loop is located on the west side of the existing building and utilizes the drive aisle of the parking lot on site as the drop-off loop. The student drop-off consists of a 750-foot queuing space and a 24-foot drive aisle that is sufficient for vehicles to pass. There is no marked queuing area. Students are dropped off along cars that are parked then walk between cars to a side walk where they then cross the main drive aisle where all traffic must pass. Both of these constrictions are dangerous and should be addressed during the design phase; the 30-foot site entrance is a bottleneck location causing congestion during the morning and afternoon drop-off/pick-up times as vehicular traffic has a hard time turning left. Additionally, with the possibility of the construction of a purple line station that is to be located with the Wayne Avenue Right-Of-Way the entrance and parking lots would be reconfigured to accommodate the purple line station. The entrance that services the main parking lot would be relocated to Dale Drive. The student drop-off area should be evaluated for ADA compliance and upgrades are recommended for any non-conformance.
IV. Existing Conditions (continued)

M. Site Analysis (continued)

On-Site Parking

Currently, on-site parking is provided by four (4) parking areas that occupies the north, south, west, and northwest portions of the site. The north parking area provides 55 spaces, of which there are no designated accessible spaces. The south parking area provides 37 spaces, of which there are no designated accessible spaces. The west parking area provides 94 spaces, of which six (6) are designated accessible spaces. The northwest parking area provides 11 spaces, of which there are no designated accessible spaces.

The school provides a total of 198 spaces, which is well below what MCPS typically prefers at 100 spaces for an elementary school and 130 spaces for a middle school. It is unknown if an adequate number of space are provided to support both schools. During the design phase accessible spaces should be added to every parking area per ADA regulations.

On-Site Loading

The loading area is located on the north side of the existing building. The current configuration appears to be functional and well masked from traffic or residences along Schuyler Avenue. Due to the unknown interworking of the school its unknown if the existing loading is sufficient.

Sidewalk

While the sidewalks for the site appear to be in fair condition there are numerous ADA accessibility concerns. ADA access is not provide to the main entrance if SSIMS nor to the gymnasium. It is recommended that an ADA compliment access point be added at that main entrance to SSIMS and to the gymnasium. During the design phase it is recommended that ADA access be added to soft and hard play areas. The existing site provides sidewalks from the main building entrance to Schuyler Road. It is recommended that ADA access be provided to at least two thirds of the building entrances and exits and ADA access be proved to the portables classrooms. The onsite sidewalks appear to be in poor shape and not in compliance with current ADA requirements. Access to the athletic field should be provided to accommodate accessibility required by ADA.
IV. Existing Conditions (continued)

M. Site Analysis (continued)

Fire Access
The existing site layout does not appear to meet current fire access requirements. There are no on-site hydrants located on the school grounds; however there are five (5) hydrants within the right-of-way of Schuyer Road and Wayne Avenue. It is recommended that an additional hydrant be added to the northwest of the existing build to proved adequate fire coverage of the existing building. The proposed building additions appear to be adequately covered under the existing site configurations.

In addition, all fire exits from the building should provide accessible egress to the public right-of-way. A meeting with County Fire and Rescue personnel is suggested in order to determine what improvements will need to occur for any proposed building addition.

Site Topography

The site is divided by a steep hills and retaining walls that segregating the upper western position of the site to the lower eastern part of the site. The existing building occupies the center of the site at approximately the same elevation as Schuyler Road and the main parking area. The site slopes steeply away from the front of the existing building to Wayne Avenue. There is no off-site drainage area that enters the site. The site topography has the possible to make construction access on this site difficult.

Vegetation

The site has a number of large trees around the site and along the property line adjacent to Schuyler Road that are in good shape, providing good screening and should be preserved if possible. A second grouping of mature trees are located along the frontage of the existing building. Refer to the approved NRI/FSD for further information on species and health of trees on the site. Upon review of the NRI/FSD off-site forest conservation options may need to be explored.
IV. Existing Conditions (continued)

M. Site Analysis (continued)

Water and Sewer

The existing school is served by a 6-inch water service connection that is located along the northwest side of the building and connects to the 6-inch mainline within the Schuyler Road right-of-way. The mechanical systems shall be evaluated to ensure that the proposed building addition can be handled by the existing service. With the number of site utility improvements that will need to occur for the project it is assumed that a new outside meter for the school addition will be required.

As stated previously, it is likely that a second hydrant will be required per fire code requirements. This would likely need to be installed near the northeast corner of the building.

The school is currently served for sewer by a 6-inch sewer connection that exits the building near the north side of the school and flows to the 8-inch mainline within the Schuyler Road right-of-way.

Gas, Electric and Telephone, Etc.

The sites utility service connections run from multiple right-of-ways to the building. Gas service is provided by a connection from the Schuyler Road right-of-way to a meter at the rear of the school. Electric and telephone are routed underground and connected to the building from the Wayen Avenue right-of-way.

The existing conditions of these are unknown. Any proposed upgrades to the existing building may require the consultation of a Mechanical Engineer and Electrical Engineer. This site is known to have undergone several additions and renovations of this school long history it is to be expected that there will be many unmarked utilities underground that may add cost to the project.
IV. Existing Conditions (continued)

M. Site Analysis (continued)

Storm Drainage and Stormwater Management

There are no existing stormwater management facilities located on the site. It can be anticipated that site improvements will be required to include Environmental Site Design (ESD) to the maximum extent practicable in order to treat all areas inside the limits of disturbance. If ESD efforts are exhausted and the site has still not been able to reach a hydrologic state of “woods in good condition,” then structural practices may be permitted as determined by Montgomery County.

Potential ESD stormwater management practices for the site include both micro-scale practices and alternative surfaces. Micro-scale facilities could include the utilization of bio-swales and micro-bioretention facilities where available open space can be found, such as parking lot islands and around the athletic fields. Alternative surfaces would include vegetative roofing for building additions. Due to limitations of the soils, as indicated below, permeable pavements should not be considered. However, if infiltration tests are conducted, MCDPS will allow permeable pavements to be used as long as the test results meet their guidelines.

Site Soils

Per the Soil Survey of Montgomery County, Maryland the predominant soils on the site are in the Glenelg and Wheaton slit loam. According to the USDA, the depth to bedrock is usually greater than six and half (6.5) foot. In terms of hydrology, all on-site soil groups are characteristically known to provide Good drainage and moderate infiltration. The site is indicated as hydrologic soil group ‘B’ per the USDA Soil Survey.

Floodplains, Stream Valley Buffers and Non-Tidal Wetlands

Initial investigations reveal that a portion of the site adjacent to Sligo Cabin Neighborhood Pack where the track is located appears to be within the floodplain the site. The rest of the site is located outside of mapped floodplain in Zone “X” as shown per FEMA Flood Insurance Rate Maps number 24031C0370D and 24031C0460D. Furthermore, according to the U.S. Fish and Wildlife Mapping services there are no nationally recognized wetlands located on or around the site.

Sligo Creek runs along the eastern property line, there is the potential of a stream buffer and floodplain. Since an NRI/FSD has not yet been prepared for this site, it cannot be determined if there will be any impacts due to this.
IV. Existing Conditions (continued)

M. Site Analysis (continued)

Gymnasium

The gymnasium is located in a separate building located to the southeast of the main building. The nature of a secondary building exposes students and staff to the elements and possible security issues. In addition, there is no ADA access the field house. It is recommended at a minimum that ADA access be provided to the field house.
V. Description of Options - Silver Spring International Middle School

A. Option 1

- The field house is to remain operational.
- The auditorium is to remain in its current location and is to remain abandoned
- One of the currently unoccupied areas on the third floor will become classroom space
- Sligo Creek ES retains the four classrooms in the SSIMS second floor hallway
- The problematic bottle neck corridor at the east stair gets resolved
- Science classrooms will remain in their current location
- Add space to existing Multi-Purpose Room
- Renovate abandoned music suite into a new science team space; add elevator to make this area accessible
- Demo 2 classrooms on the main level, add 10 new classrooms and support spaces in their place
- Renovate and add to administration and guidance suites
- Add second gym, health classroom, storage, elevator and stair to field house
- Renovate support room to science prep room

**Pros**

- Can be occupied during construction
- Uses abandoned space on lower level on Wayne Avenue
- Opportunities to improve architectural aesthetic
- Field house remains adjacent to fields
- Solves the bottleneck issues at the connection between the 2 three story buildings

**Cons**

- Field house remains inaccessible and remote
- SSIMS still has no dedicated performance space
- SSIMS still does not have a dedicated elevator
- Construction in 6 locations
- SCES retains the 4 classrooms
- Does not provide a secured main entry
- Field house addition is a level above the gym floor level
- Students travel through SCES or outside during construction
V. Description of Options - Silver Spring International Middle School (continued)

A. Option 1 (continued)

Lower Level Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

A. Option 1 (continued)

Main Level Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

A. Option 1 (continued)

Second Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

A. Option 1 (continued)

Third Floor Plan

- No survey work required in this area.
- Construct new stair during summer.
- Construct new restrooms.
- Provide 2 CR + 100 SF, 4 CR + 320 SF, and restrooms need to be done over the summer (construction of CRs).
- 2 new CR + 100 SF supply.
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V. Description of Options - Silver Spring International Middle School (continued)

B. Option 2

- The physical education department is to be relocated inside the middle school building. It will occupy a new two-story physical education suite located in the area of what is currently the existing abandoned auditorium
- The field house is to be abandoned
- The existing abandoned lower level area along Wayne Avenue will be occupied with classrooms
- The existing abandoned spaces on the third floor will remain abandoned
- SSIMS gains the four classrooms in the SSIMS second floor hallway
- The problematic bottle neck corridor at the east stair gets resolved
- Main entry access control is improved in this option
- Science classrooms will remain in their current location
- Add space to existing Multi-Purpose Room
- Renovate abandoned music suite into classroom space; add elevator to make this area accessible
- Demo 2 classrooms on the main level, add 8 new classrooms in their place
- Renovate and add to administration and guidance suites
- Renovate support room to science prep room

Pros
- Can be occupied during construction
- Physical education suite is accessible and secure
- SSIMS gains the 4 classrooms from SCES and a dedicated elevator
- Accessible front entry
- Uses abandoned space on lower level on Wayne Avenue
- Opportunities to improve architectural aesthetic
- Solves the bottleneck issues at the connection between the 2 three story buildings

Cons
- SSIMS still has no dedicated performance space
- Construction in 5 locations
- Does not provide a secured main entry
- Two new science labs and one auxiliary gym have no natural daylighting
- Students travel through SCES or outside during construction
- Travel distance from new physical education suite to fields
V. Description of Options - Silver Spring International Middle School (continued)

B. Option 2 (continued)

Lower Level Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

B. Option 2 (continued)

Main Level Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

B. Option 2 (continued)

Second Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

B. Option 2 (continued)

Third Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

C. Option 3

- The physical education department is to be relocated inside the middle school building. It will occupy a new one-story physical education suite located in the area of what is currently the existing music and administration suites as well as a portion of what is currently the existing abandoned auditorium
- New music and administration suites will be constructed
- The abandoned auditorium is to be demolished and the field house is to be abandoned
- The existing abandoned lower level area along Wayne Avenue will remain abandoned
- The existing abandoned spaces on the third floor will remain abandoned
- SSIMS gains the four classrooms in the SSIMS second floor hallway
- The problematic bottle neck corridor at the east stair gets resolved
- Main entry access control is provided in this option for both SSIMS and SCES
- New science classrooms will be constructed
- Add space to existing Multi-Purpose Room

Pros
- Can be occupied during construction
- Physical education suite is accessible and secure
- SSIMS gains the 4 classrooms from SCES and a dedicated elevator
- Accessible front entry
- Uses abandoned space on lower level on Wayne Avenue
- Opportunities to improve architectural aesthetic
- SSIMS gains a dedicated performance space
- Construction in only 3 locations
- Provides a secure, accessible main entry to both SSIMS and SCES
- More efficient music suite
- Administration, health and guidance in proper locations
- Students do not have to travel through SCES or outside during construction
- Solves the bottleneck issues at the connection between the 2 three story buildings

Cons
- Travel distance from new physical education suite to fields
V. Description of Options - Silver Spring International Middle School (continued)

C. Option 3 (continued)

Lower Level Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

C. Option 3 (continued)

Main Level Floor Plan
V. Description of Options - Silver Spring International Middle School (continued)

C. Option 3 (continued)

Second Floor Plan

[Diagram of second floor plan with labels and notes]
V. Description of Options - Silver Spring International Middle School (continued)

C. Option 3 (continued)

Third Floor Plan
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VI. Description of Options - Sligo Creek Elementary School

A. Option 1

- This option coordinates with Option 1 for SSIMS
- Demolish abandoned auto body building; a net gain of 24 parking spaces
- Add space to existing Multi-Purpose Room
- Adds classrooms and support spaces in a two story courtyard design overlooking a green roof
- Provides two new kindergarten classrooms in existing, renovated area
- Sligo Creek ES retains the four classrooms in the SSIMS second floor hallway

Pros
- Can be occupied during construction
- Construction in 1 location
- Opportunities to improve architectural aesthetic
- Net gain of 24 parking spaces

Cons
- Sligo Creek ES retains the four classrooms in the SSIMS second floor hallway
- Does not maximize expansion area available
- Does not provide a secured main entry
VI. Description of Options - Sligo Creek Elementary School (continued)

A. Option 1 (continued)

Lower Level Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

A. Option 1 (continued)

Main Level Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

A. Option 1 (continued)

Second Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

B. Option 2

- This option coordinates with Option 2 for SSIMS
- Demolish abandoned auto body building; a net gain of 24 parking spaces
- Add space to existing Multi-Purpose Room
- Adds classrooms and support spaces in a two story courtyard design overlooking a green roof
- Provides two new kindergarten classrooms in existing, renovated area
- Adds four additional classrooms; SCES no longer requires the four classrooms in the SSIMS second floor hallway

Pros
- Can be occupied during construction
- Construction in 1 location
- Opportunities to improve architectural aesthetic
- Net gain of 24 parking spaces
- SSIMS gains the 4 classrooms from SCES and a dedicated elevator
- Maximizes expansion area available

Cons
- Does not provide a secured main entry
VI. Description of Options - Sligo Creek Elementary School (continued)

B. Option 2 (continued)

Lower Level Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

B. Option 2 (continued)

Main Level Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

B. Option 2 (continued)

Second Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

C. Option 3

- This option coordinates with Option 3 for SSIMS
- Demolish abandoned auto body building; a net gain of 24 parking spaces
- Add space to existing Multi-Purpose Room
- Adds classrooms and support spaces in a two story courtyard design overlooking a green roof
- Provides two new kindergarten classrooms in existing, renovated area
- Adds four additional classrooms; SCES no longer requires the four classrooms in the SSIMS second floor hallway
- Provides a secured main entry
- Includes new administration and health suites

Pros

- Can be occupied during construction
- Construction in 1 location
- Opportunities to improve architectural aesthetic
- Net gain of 24 parking spaces
- SSIMS gains the 4 classrooms from SCES and a dedicated elevator
- Maximizes expansion area available
- Provides a secured main entry

Cons


VI. Description of Options - Sligo Creek Elementary School (continued)

C. Option 3 (continued)

Lower Level Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

C. Option 3 (continued)

Main Level Floor Plan
VI. Description of Options - Sligo Creek Elementary School (continued)

C. Option 3 (continued)

Second Floor Plan
VII. Proposed Project Implementation Schedule

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<th>Schedule:</th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
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*Design Phase*

*Construction*
When this project is complete, the following spaces are to be provided:
The capacity will be 1300 with a core of 1440.

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<th>Facility</th>
<th>#</th>
<th>Net Sq. Ft</th>
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<tr>
<td>Assistant School Administrator Office</td>
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<tr>
<td>Administrative Secretary's Office</td>
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<td>Staff Development Office</td>
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<td>Test Room</td>
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<td><strong>Guidance Suite</strong></td>
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Appendix B - Educational Specifications - Silver Spring International Middle School

Introduction

• This document describes the facilities that are needed for the Silver Spring International Middle School addition educational program. The descriptions provide the architect with useful guidelines and are used by staff representatives when reviewing drawings and specifications for the facility.
• The program capacity for this school will be 1300 with a master-planned (core) capacity for 1440. The school needs a 6-classroom master-planned addition to bring the program school up to its master-planned capacity. The architect should show the location for the future classroom addition.
• The educational specifications are divided into three sections.
• The first section, the space summary, lists the type of spaces and square footage required when the project is complete.
• The second section describes the general design, location, and specific requirements for each type of space in accordance with Montgomery County Public Schools (MCPS) guidelines.
• The third section identifies additional program requirements for the school.
• The architect should show the location for relocatable classrooms, should they be required in the future. These units should be sited in a location where it will not cause conflict with the constructability of a future addition. The necessary utility connections, i.e. electrical power, fire alarm, public address, and data should be provided near the future location of relocatable classrooms.
• The architect will provide a space summary comparison between the programmed space requirements and the proposed after each the schematic design, design development, and final design phase.
• This project is to provide the facilities to meet the educational specifications for a Grades 6–8 middle school program. Middle school organization assumes teams of about 125-150 students per team. The middle school philosophy of teams of teachers and students should foster an atmosphere of cohesiveness by grade level. The design of the building should make it possible for sixth, seventh, and eighth graders, to be separated from each other for their academic classes. Flexibility of design should be provided to accommodate changing educational programs.
• For all new schools and modernizations, the project will be designed for LEED Silver certification by the United States Green Building Council (USGBC) under the LEED for Schools guidelines. If this project is a classroom addition, the certification requirement applies only if the addition doubles the existing building footprint. If this project is a building renovation, the certification requirement applies only if the renovation alters more than fifty percent of the existing building gross floor area.
Appendix B - Educational Specifications - SSIMS (continued)

General Planning Considerations

In the general planning of this building and development of the site, special consideration should be given to the following comments and instructions:

• The architect is expected to become thoroughly familiar with all national, state and local fire safety, life safety, and health code regulations and to follow applicable rules of the State Interagency Committee on School Construction.

• The building is to be accessible to the disabled within the meaning of the latest edition of the Americans with Disabilities Act and to conform to all the latest requirements of the Americans with Disabilities Act Standards for Accessible Design. (The regulation can be found at www.ada.gov/2010ADASTandards_index.htm)

• In addition to the ADAAG, the Maryland Accessibility Code (COMAR.05.02.02) also is required for public schools. (The regulation can be found at http://mdcodes2.umbc.edu/dhcd/access.htm)

• The facility is to reflect an appealing visual, acoustic, and thermal environment and is to be properly furnished and equipped. Well chosen colors and textures are to be used. Lighting must meet current guidelines and provide adequate levels.

• High quality materials are to be used in the construction. The architect should refer to the MCPS Design Guidelines.

• The architect should refer to the MCPS Facility Guideline Specifications when noted. The document can be found at: http://www.montgomeryschoolsmd.org/departments/construction/publications/guidelines.shtm

• The first impression of a building is important. The main entrance to the school should have a clear and inviting identity, and the entrance area should be designed and landscaped to emphasize its importance. A covered walkway from the bus loading area to the front door is desirable. The design of the entry foyer needs to convey a feeling of warmth and welcome.

• A location for an LCD screen and appropriate electrical and data outlets should be incorporated into the wall design of the administrative office or main entrance of the school.

• The inclusion of lighted showcases to display student work should be provided in the corridors of the main entrance, art, multipurpose laboratories, gymnasium, and in each grade level area. They should be recessed into the wall with access from within a room and have an electric outlet.

• Every teaching station, support space, and core area must be wired for computer, CCTV, and telephone, along with adequate electrical supply in compliance with Maryland State design guidelines for Technology in Schools and the MCPS Office of the Chief Technology Office (OCTO) guidelines. Facilities must be adaptable to accommodate rapid development in high technology and its equipment since educational program and organization in this field are dynamic. Space and power supply must be flexible to meet these changing needs.

• The cafeteria, gymnasiums, and instructional media center should be easily accessible for community use and secure from the rest of the building after school hours.

• An MCPS designed alarm system will provide security for this facility. The architect will provide for this system in consultation with the DOC staff.
Appendix B - Educational Specifications - SSIMS (continued)

For maximum instructional flexibility, large special instruction areas such as those provided for general music and multipurpose laboratories should be designed to allow easy conversion of some or all of the space for other kinds of instruction in the future.

• Some windows must be operable in each space in the building. Transmission of radiation through windows into various portions of the plant is to be considered in relation to heating and ventilating and in relation to planning the building for air conditioning. All instructional spaces should have windows, preferably exterior windows. If the design does not permit exterior windows, windows onto corridors should be provided.

• Zoning the plant for heating and air-conditioning should be related to after hours use of various areas such as offices, gymnasium, multipurpose room, and the instructional media center. Appropriate location of parking, corridor barriers, and toilet rooms is necessary for after-hours use. Some classrooms nearby the multipurpose room should be zoned for after hour use as well.

• For security purposes, all doors into classrooms, conference rooms, offices etc. must have a sidelight window with shades. If a sidelight is not possible, then the door requires a vision panel.

• The architect should refer to MSDE’s 2006 Classroom Acoustic Guidelines to address the acoustical qualities for classrooms. In addition, the architect should refer to American National Standard, Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools (ANSI S12.60-2002) for additional information.

• Noise and distracting sounds are to be minimized. In areas such as the multipurpose room and classrooms, which may be used for meetings and adult education, the sound of operating fans for ventilation should not interfere with instruction.

• Bathrooms should be located throughout the building. Bathrooms should be central to the classrooms, with some provided for each grade level area. Student bathrooms also must be located near the cafeteria and main gym.

• Adult bathrooms must be provided on all levels convenient to instructional areas and must conform to the latest code requirements.

• The architect must design all athletic/physical education facilities to reflect equitable facilities for boys and girls based on Title IX requirements.

• The room numbering system should be logical and understandable.

• Blinds capable of darkening to be used in instructional areas, including seminar and conference type spaces, with complete darkening in all science rooms should be provided.

• The location of whiteboards and tackboards should relate to classroom seating and windows. The location of bulletin boards and showcases should relate to team groupings and administrative areas.

• The number of lockers in the corridor should be equal to the core capacity plus 10% of the core capacity.

• Landscaping is to be included. Planting is to include screen planting and that needed for erosion control. Plantings for sidewalks, and wooded and flowered areas, are to be situated to enable the physical education program to be carried on without undue disturbance to the classrooms. Other landscaping to support energy conservation and to relate the building to the site with aesthetic appeal must be included. Note: Landscaping must be minimal, tasteful and allow for easy maintenance.

• Spaces that serve no real educational function, such as corridors, should be limited while at the same time assuring an easy to supervise and smooth flow of pupil traffic to and from the instructional media center, multipurpose room, gymnasium, specialized centers, and support rooms.
Appendix B - Educational Specifications - SSIMS (continued)

- Carpeting should be limited to the principal’s office, assistant principal’s office and conference room in the administration suite and the main reading room of the instructional media center.
- All student occupied spaces must be able to be supervised from the corridor or an adjacent space.
- The shape of the classroom and the design of built-in features and storage areas should provide optimum net usable floor area. Elongated rooms and features that protrude into floor area, limiting flexibility, are to be discouraged. Rectangular shaped classrooms are preferred.
- The classrooms should be designed to accommodate various size groups. Each classroom should be readily adaptable for group work, various presentation formats, and should have maximum connectivity to outside resources.
- Metal adjustable shelving is to be provided in all building storage closets.
- All plan reviews will be coordinated through the DOC.
- Special consideration must be given to energy conservation including total life cycle costs. The current Maryland State Department of General Service (DGS) requirements will be applied as design criteria. Life cycle cost accounting in accordance with DGS criteria is required.
- Per COMAR 23.03.02.29, Emergency Power Generation, all school projects that include replacing or upgrading the electrical system should be designed and constructed so that a designated public shelter area can be fully powered in the event of an emergency.

Technology Framework

The latest technology should be integrated into every aspect of building. The architect should consult with the Office of Strategic Technology and Accountability (OCTO) and the Division of Construction (DOC) for the latest technology requirements. The architect must at a minimum plan for the following elements.
- Through the use of wireless access, local area and wide area computer and video networks, students should have access to each other, to schools throughout the county with similar capabilities, and to universities and government institutions throughout the world.
- Multiple outlets should be added in all common areas of the school to provide areas for charging mobile devices.
- Each classroom is to have one dedicated 20 amp electrical circuit for a charging mobile laptop cart.
- Each classroom will have a promethean board at the teaching wall and CNO for the teacher’s computer.
- Computer network outlets (CNOs) consisting of a flush mounted standard electrical box with 1 1/2” conduit to the ceiling space overhead should be located in all classrooms, offices, and other work locations according to the following general rules:
  - one CNO per office, staff office, planning room, etc. adjacent to telephone outlet
  - Two CNOs for student use located 3’ apart along the back or side wall in each classroom.
  - Multiple CNOs in media center at circulation desk, reference areas, etc.
- One CNO at each science lab workstation
- All other areas such as the stage, bookstore, dining room, etc., where computers might be used.
Appendix B - Educational Specifications - SSIMS (continued)

• The number and location of telecommunication closets required to support the building-wide computer network is dependent on the size and geometry of the building. The layout of the telecommunication closets will be determined during the design phase of the project.

• Provisions for high-resolution fiber optic cable for television must be included in the design of all teaching stations.

Description of Facilities

The following is an approach to the design of new and modernized schools. Please refer to the summary of spaces for the square foot requirements for each space described below. Square foot allocations should be considered the standard to be followed, although minor deviations are allowed.

Standard Classrooms

• Classrooms should be arranged to support the grade level team organization for middle schools. Each grade’s area of the building also will have two or three science laboratories and various instructional support spaces

• Each classroom should be designed to support flexible furniture arrangements that will support a variety of teaching and learning models.

• A lockable teacher’s closet is to be provided for general supply storage, personal storage, and wardrobe.

• Every classroom must have computer outlets for two student workstations and one teacher workstation. The building information and communications distribution system and other aspects of the building design must comply with the latest edition of MSDE Maryland Public School Standards for Telecommunications Distribution System.

• Book storage should be located along the window wall with half of the cabinets equipped with hinged, lockable doors. A minimum of 60 linear feet should be provided for book storage.

• Each classroom should have between 48 and 60 feet of whiteboard. The architect should refer to the MCPS Facility Guideline Specifications for the main teaching wall layout.

• Map rails and tack rails are to be placed above all whiteboards. One flag holder attachment is to be placed on all map rails with four to six map holders.

• Each classroom should be equipped with window blinds. The specifications for the window blinds will be provided by DOC.

• Battery operated clocks will be installed.
Appendix B - Educational Specifications - SSIMS (continued)

Science Laboratories
Spatial Needs

Laboratory
Preparation Room
Chemical Storage

• Science laboratories should be designed in pairs, within team areas, with a preparation room preferably between pairs of labs.
• If the science labs are on separate floors of the building, they should be located near an elevator.
• The teaching wall should be on one of the long walls of the laboratory.
• Space should be designated in the laboratory to charge 2-3 laptop carts.
• The architect also should refer to the MSDE document, Science Facilities Design Guidelines, 1994 when designing the science laboratories.
• These rooms serve as a lecture/laboratory space and should be equipped with the basic equipment as listed below.
• Each science lab should have two exits.
• Seven student lab stations should be provided in an island, trough style design, with hot and cold water, electricity, and gas are to be provided.
• One mobile bench (dry sink type) should be located under windows in each lab to facilitate work with plants.
• A three by five foot demonstration table should be located at the front of the room, but should not block the student view of the Promethean board. This demonstration table should be equipped with a stone sink, hot and cold running water, gas, and electricity.
• Twenty-four feet of whiteboard and adequate tackboard are required. Wiring for a promethean board should be provided in the center of the whiteboard.
• Two four foot project cabinets and two four foot storage cabinets, all lockable, are to be located in each room.
• All rooms are to be capable of complete darkening.
• One installed fume hood with full utilities (water, sink, gas, and light) is needed in each laboratory that fits in a cabinet (24” x 36”). A pass-through fume hood, shared with the prep room may be considered.
• A safety station is to be installed, with shower, automatic shut-off eyewash, and drain with a sloped floor, and should accommodate persons with disabilities. The shower and eyewash should have a spring loaded mechanism.
• The safety station should be located fifteen to twenty feet away from the fume hood.
• Each room should be wired for tie-in to the school computer network at each lab station.
• There should be a master cutoff switch for gas, water, and electric in each room. The master cutoff switch should be strategically located so that it is not overly accessible to students, and should not be located near the exit door of the classroom. The cut offs should operate electrically (as panic buttons) with a visible light indicator for gas and electric.
• In accordance with ADA guidelines, at least one science lab station in each laboratory should be made accessible to individuals with disabilities.
• Cabinetry for storage of laboratory equipment and microscopes should be provided in all of the labs.
Appendix B - Educational Specifications - SSIMS (continued)

- A sanitizing goggle cabinet, with 36 goggles, should be provided for all labs.
- A teacher’s wardrobe should be provided.
- A location should be identified for a file cabinet.
- Locks with a common key are to be provided on drawers in special areas and the teacher demonstration table.
- Two pull-down electrical outlet fixtures should be provided in each lab: one in the center, one in the rear.

Preparation Rooms
- These rooms are to facilitate the preparation of student projects and short-term storage of projects, as well as to provide general storage.
- Each room is to contain adjustable locked storage and counter facilities, electrical hookup and space for a refrigerator.
- Easy accessibility to the science rooms is important and is a required for visual control of the rooms from adjacent rooms.
- These rooms should contain sinks equipped with hot and cold running water and a floor drain and workbenches equipped with electrical and gas outlets.
- Space and utilities should be provided in each prep room for a dishwasher.
- Emergency shut-off and telephone should be located in the chemical storage and prep room only.

Chemical Storage Room
This storage room should be located adjacent to the 7th and 8th grade science labs and must meet code requirements for chemical storage including:

- The chemistry storage room requires a steel flammable storage cabinet, with outside power vent, and an acid cabinet.
- This room should be located adjacent to the chemistry prep room.
- This room must have a 24-hour, 365 day per year exhaust system vented directly to the outside in compliance with the latest applicable codes.
- Sturdy, wood, and chemical resistant shelves with safety anti-roll lips on each shelf to prevent accidental roll-off.

Instructional Support Rooms
Spatial Needs

Team Workroom
Interdisciplinary Textbook Storage Room
Departmental Textbook Storage Room
Staff Office
Developmental Reading Room
Appendix B - Educational Specifications - SSIMS (continued)

**Team Workroom**
- Two team workrooms are to be provided for each grade level, providing space in each for teacher desks or a large conference table.
- These rooms should be located next to each other and have an interconnecting door and a 4’ x 6’ window with blinds between one another.
- A telephone will be located in these rooms.
- Storage and open/closed bookshelves to store teaching supplies and instructional materials should be provided.
- A work counter with sink and electric outlets is needed.
- Three feet of tackboard and four feet of whiteboard are required.
- Wiring for four computers in each team room is required.

**Interdisciplinary Textbook Storage Room**
- An interdisciplinary textbook storage room is to be provided for each grade level and is to be easily accessible from the classrooms and the team workroom and should have adjustable built-in shelving.
- These rooms must have adequate HVAC and lighting for flexible use by staff as office space.
- Secure storage for computers should be provided within this space and should include adequate electric power for recharging battery powered laptop computers.

**Departmental Textbook Storage Room**
- Three departmental textbook storage areas are to be provided with the same requirements as the interdisciplinary textbook storage rooms.

**Foreign Language Textbook Storage Room**
- A foreign language textbook storage room must be centrally located for foreign language materials.
- It needs to have adequate HVAC for flexible use as office space for staff.

**Staff Office**
- The room should be wired for a computer with printer.
- This room needs a telephone.
- A tackboard should be installed.
Appendix B - Educational Specifications - SSIMS (continued)

**Developmental Reading Room**
- The developmental reading room should be centrally located.
- This classroom needs 15 computer stations along two walls.
- A standard teaching wall should be provided per MCPS Facility Guideline Specifications.
- Tables for 20 students should be provided in this classroom.
- Storage should be provided under the windows.
- Two 4’ tackboards should be provided in this classroom.

**Physical Education**

Spatial Needs

2nd Gymnasium
Health Classroom
2nd Gymnasium Storage

- Major entrance doors to the gymnasiums and locker rooms should be double doors with no center posts. Non-glazed doors throughout the entire area are preferred.
- Doors should be forty-eight inches wide.
- Storage closets should have no center posts and should be able to be held open to allow for easy movement of equipment.
- If design allows, operable windows in the gymnasiums should be provided.

**2nd Gymnasium**
- The 2nd gymnasium is to have a wooden floor.
- A 27 foot clear ceiling is required.
- Fixed equipment will include the following:
- Insertion type (Senoh only) floor plates for volleyball and badminton game standards and gymnastic equipment (Senoh only) red aluminum combination uprights that work for both volleyball and badminton, therefore only requiring one size of poles and one size of sleeves. There should be four smaller badminton/volleyball courts in this gym.
- A clock with cage at each end of the gymnasium
- Two end baskets should be motorized and adjustable with key. There should be no doors under the basketball goals.
- Wall safety padding must be mounted under each basket.
- Provisions for reducing glare should be considered.
Appendix B - Educational Specifications - SSIMS (continued)

- Shielded metal halide lighting should be provided.
- Acoustics should be addressed.
- All switches, fire alarms, etc. should be located in corners, covered with wire boxes.
- Each wall of the gymnasium should have four sets of electrical outlets.
- Painting and creative artistic wall graphics should be provided.
- A 4’ whiteboard should be provided in this gymnasium.
- The gymnasium should be equipped with acoustical deck, computer and cable hookups and sound system.
- A location should be identified for a Promethean Board including the appropriate power and wiring.
- A recessed water fountain should be provided outside each end of the gymnasium or integrated into an alcove within the gymnasium.
- Security doors should be provided to close off other parts of the building from the gymnasium/lobby areas.
- If the gym opens to the outside, a step-down entrance with concrete landing is needed.
- Emergency lights should be at least 12 feet from the floor.
- MCPS staff will provide gymnasium court markings.
- Attention should be given to the design of lighting fixtures so that they will not be damaged by indoor ball sports.

2nd Gymnasium Storage Room
- Mats, gymnastic equipment, and other physical education materials and equipment need to be accommodated.
- Two doors, each four feet wide and seven feet high with no thresholds or center mullions and heavy-duty hardware are required for the interior storage rooms.
- All storage areas should include shelves, bins, pegs, and pulley system for storing goals.

Health Classroom
- The health classroom should be designed with the same specifications as all academic classrooms on opposite sides of the room.
- A moveable partition wall should be provided for this classroom.
- This classroom needs to be located in close proximity to the physical education suite since the health and physical education teacher may be the same person and may have to supervise the locker rooms.
Appendix B - Educational Specifications - SSIMS (continued)

**Student Activities Facilities**
Spatial Needs

Student Government Storage Closet
- This room should have direct access to a corridor and are to be near the cafeteria and/or gymnasium.
- Flow of student traffic to and from the area is an important consideration.

**Administration Suite**
Spatial Needs

Assistant Principal’s Office
Assistant School Administrator Office
Administrative Secretary’s Office
Staff Development Office
Security Office
Testing Room

**Assistant Principal/Assistant School Administrator Office**
- A student waiting area close to these offices should be provided.
- Each office should be planned for an L-shaped desk, computer, phone, file cabinets, and a small round table with four chairs for small group meetings.

**Administrative Secretary’s Office**
- The administrative secretary’s office should be located adjacent to the principal’s office and close to the general office.
- The office should be designed with a window to the general office to allow for supervision of the space by the administrative secretary.
- This office should be planned for an L-shaped desk, computer, phone, file cabinets, and chairs to serve as a waiting area.

**Staff Development Office**
- The staff development office may be centrally located and near the administrative suite.
- This office needs a space for a desk, file cabinet, and round table with chairs.
- The office also needs whiteboard, tackboard, closet, and video, voice and data outlets.
Appendix B - Educational Specifications - SSIMS (continued)

**School Security Office**
- This office should accommodate up to 4 staff persons and should be located directly off a main corridor.
- Space is needed for a table and chairs to meet with students.
- This office must have lockers and secure storage.
- This office suite must accommodate the cameras and accompanying communication equipment for a visual monitoring system.

**Testing Room**
- This room should be designed as a secure room for testing materials and should have a counter with lockable cabinets above and below.
- This room needs acoustical treatment as well as video, voice, and data outlets.

**Guidance Suite**

**Spatial Needs**

**Counselor’s Office**

**Itinerant Staff Office**

- The guidance suite should be separate from the administration suite, but easily accessible from the main entrance.
- The suite consists of a waiting area with space for the secretary, seating for visitors, storage for office supplies and a coat closet, the conference room, the records room and counselors’ offices.
- These spaces must have window walls, doors with windows, and be designed so that students can find them easily and feel free to drop in between classes.
- The waiting area must be wired for the secretary’s desk and not be designed as part of the corridor/hallway to the main office.
- Mini blinds must be provided on all windows within in the suite to provide privacy when required.

**Counselor’s Office**
- Counselor’s offices should be provided at the rate of one per every 250 students.
- Each office should be planned for the counselor’s desk with computer, phone, file cabinets, and a small round table with four chairs for small group counseling.

**Itinerant Staff Office**
- This room needs space for a teacher’s desk file cabinet and computer and phone outlets.
- This room needs a space to administer tests to students including a student computer workstation.
- This room also may be used to accommodate post test conferences with teachers and/or parents.
Appendix B - Educational Specifications - SSIMS (continued)

Food Services Facility

Cafeteria
Spatial Needs

Student Dining Area
Stage (if possible)

Student Dining
• The student dining area should be capable of seating one third of the student body at cafeteria tables or one half in rows of chairs.
• Acoustics, ventilation, and color are important considerations in the cafeteria.
• A public address system should be built-in.
• An LCD monitor should be included in the dining area.
• Tackboard is to be placed near the entrance.
• Care is to be exercised in the location of windows in relationship to the location of tables and chairs.
• Trash from the dining area must not flow through the kitchen.
• Student toilet rooms must be located near the cafeteria and have good sound absorption.
• Outside access from the cafeteria to a paved area should be considered in the design of the student dining area.
• There must be a water fountain in the cafeteria.
• A listening assistance device for the hearing impaired should be included in the cafeteria.
• Security gates are to deny access to other parts of the building from the cafeteria/stage/lobby areas.
• An outside entrance to the cafeteria for easy access in the evening and an outside eating area with permanent trash cans (preferably a courtyard) are desirable.
• Consideration should be given to the use of electronic menu boards.

Stage
• The stage should be three feet high from the floor of the cafeteria.
• The stage should include closed storage for an upright piano and some storage for costumes and flats if possible.
• The stage and backstage areas must be accessible to individuals with disabilities and be accessible from corridors and the cafeteria.
• The stage space must have adequate exhaust ventilation and lighting for other uses.
• The stage should be equipped with stage curtains and a stage sound and lighting system.
• A whiteboard, tackboard, and data for a promethean board should be included along the back wall of the stage.
Appendix B - Educational Specifications - SSIMS (continued)

- A large electric pull down screen should be designed in front of the stage and behind the short curtain to be used for assemblies.
- Electrical and microphone outlet should be provided at the front wall of the stage house.
- Floor outlet should be located in the cafeteria, approximately 15-20’, or as appropriate, for use of a projector on the screen.

Building Service Facilities

Spatial needs

General Storage

General Storage
- Flexible shelving to accommodate books, teaching aids, large size (24” x 36”) paper, and other instructional supplies is required.
- Good lighting and easy access to materials being stored are required.
- Electrical outlets, upgraded lighting and ventilation must be provided in all large storage rooms for future flexibility.

Site Requirements

The areas described below are to be used by the architect for areas of the site that are disturbed by the proposed addition. The items described below are for a school that meets the minimum useable site size of 15.5 acres that is capable of fitting the instructional program, including site requirements. At schools with smaller sites, the architect is to work with MCPS staff, including the Physical Education Curriculum Coordinator, Safety Director, and school staff to determine layout of the play areas.

- The site should be designed to provide a clear view of all play areas and to facilitate supervision from one location.
- Protective fencing may need to be provided near heavily wooded areas, busy streets, steep hills, parking lots and turnaround areas.
- Metal drains/grates should not be located in the playing fields, paved play areas and mulched playground equipment areas.
- Paved areas and fields must be as level as possible. Water should not collect on paved areas or in mulched areas. The architect should consider the architecture of the neighborhood in designing the building.
- The architect should consider the architecture of the neighborhood in designing the building.
- The design should retain as many trees as possible in order to buffer the school and the playing fields.
- Pedestrian access must be provided from the surrounding neighborhoods.
- An unimproved area on-site should be designated to serve as an environmental study area in the future.
- A covered area for students in the bus loading area must be provided.
- Space for buses to load at one time is needed. The number of buses will be reviewed during the design phase in consultation with the Department
Appendix B - Educational Specifications - SSIMS (continued)

of Transportation.
- Ideally, parking spaces for 125 cars are to be provided. At least half of the parking area should be readily accessible to the gymnasium. Outdoor lighting for all parking areas and entrances must be adequate for safety and crowd control.
- Bike racks should be provided near the building.
- Accessible parking spaces should be located near the main entrance, after hours use, and the playing fields.

**Driveway**
- The architect/engineer should refer to the MCPS Facility Guideline Specifications when designing the driveway, bus loop, service drives, etc.
- Bus traffic should be separated from car traffic at all times, when possible. Bus loading zones should be able to accommodate the entire student body.
- A student drop off area should be provided and must be separate from the bus loop area.
- All driveways must be arranged so that children do not cross them to get to the fields and play areas.
- Pedestrian access to the school facilities should be designed to make the best use of community right-of-ways and avoid crossing of loading zone areas.
- The site must comply with the most current ADA or COMAR regulations, whichever is most stringent.
- Site access must be provided to comply with fire protection and storm water management.
- Driveway aprons are to be perpendicular to the centerline of the street; and if there is an intersecting street on the opposite side from the proposed driveways, the driveway apron should line up with the intersecting street.
- Driveways should be located so that vehicle headlights do not project into adjacent homes.
- A service drive is required to service the kitchen, boiler room, and general delivery area. The architect should refer to the MCPS Facility Guideline Specifications.
- Care for safety of students must be exercised in developing the driveways including use of safety rails in the bus loading area.

**Service Drive**
- The architect should refer to the MCPS Facility Guideline Specifications for design of the service drive.
- The service drive is required for the kitchen, boiler room, shops, and general delivery areas.
- The service drive must be designed so that students do not need to cross the service drive to get to the play fields.

**Playing Fields**
- One 400’ x 400’ playing field is desired for general use.
- One 300’ x 300’ playing field with two sets of soccer goals should be installed.
Appendix B - Educational Specifications - SSIMS (continued)

**Softball Fields**
- At a minimum two softball fields are required, but ideally four softball fields should be provided if possible.
- Ideally, a 250' minimum radius with backstops is desired—one field should be designed with hood, benches, and safety fences.
- The baseline of the main field should be skinned and infield mix added.

**Track And Field Area**
- A long jump pit should be provided.
- A short, 60-yard, 6-lane track for short distances and hurdle practice should be designed for track and field instruction. This track should be connected to a walking asphalt path around the perimeter of the fields.
- Several permanent trashcans should be provided in this area.

**Basketball Courts**
- Three courts fenced with six gooseneck posts with heavy-duty basketball backboards with goals should be installed.
- A three-level chinning bar should be placed near the black top area.

**Paved Area**
- One paved play area, 55’ x 110’, with all-weather surface play area should is desirable near the cafeteria and separate from the other physical education areas.

**Tennis Courts**
- Six tennis courts are desirable each with all-weather surfacing.
- One electrical outlet on the outside of the fence of on one court is required.
- Several benches and outside trashcans should be permanently installed.
- A common “rebound” wall contiguous with the tennis courts should be provided.

**Storage Shed**
- A 12’ x 16’ storage shed should be provided at the far end of the site.
- No electric or water is needed.
- It must be designed with double steel doors with heavy-duty hardware and shelves on one wall.
Appendix B - Educational Specifications - SSIMS (continued)

Other Program Requirements
The spaces described below are to be designed as an add-alternate to the project. This program is funded by the Department of Health and Human Services.

Linkages to Learning
Spatial Needs
Reception Area
Conference/Meeting Room
Storage Closet
Mental Health Counselor’s Office/ Play Therapy Room
Case Manager’s Office
Site Coordinator’s Office

The Linkages to Learning Program is provided by a partnership between 3 entities: Montgomery County Public Schools that provides the facilities and counselors; Montgomery County Department of Health & Human Services that provides the funding; and private providers, who hire and supervise the Linkages to Learning staff.

The Linkages to Learning sites typically have three site-based staff: 1) a site coordinator; 2) a case manager; and 3) a mental health counselor. The staff provides mental health, social service, and educational support services to children that attend each school, as well as their families.

Reception Area
• The reception space should be located near the entrance of the Linkages to Learning Suite and serves as a reception/waiting area for mental health and case management clients and those attending classes, workshops and groups. Seating should be provided in this area.

Conference/Meeting Room
• The Conference Room should seat 10-12 people and will be used for team meetings as well as support groups and classes.

Storage Closets
• The storage space should include adjustable shelving that will accommodate office supplies and food/clothing bank materials.
Appendix B - Educational Specifications - SSIMS (continued)

Mental Health Counselor’s Office/Plan Therapy Room
• This space will serve as the Counselor’s Office, as well as a space for play/group therapy. Casework for supplies, toys and games should be included.

Case Manager’s Office
• This is a standard office space and can be slightly smaller.

Site Coordinator’s Office
• This is a standard office space and can be slightly smaller.
### Appendix C - Space Allocation Summary - Sligo Creek Elementary School

When this project is complete, the following spaces are to be provided:
The capacity will be 765 with a core of 740.

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<th>Facility</th>
<th>#</th>
<th>Description</th>
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Appendix D - Educational Specifications - Sligo Creek Elementary School

Introduction

- This document describes the facilities that are needed for the Sligo Creek Elementary School addition educational program. The descriptions provide the architect with important guidelines and will be used by staff representatives when reviewing drawings for the facility.
- The program capacity for this school will be 765 with a master-planned (core) capacity for 740. The educational specifications are divided into three sections.
- The first section, the space summary, lists the type of spaces and square footage required when the project is complete.
- The second section describes the general design, location, and specific requirements for each type of space in accordance with Montgomery County Public Schools (MCPS) standards.
- The third section identifies additional program requirements for the school.
- The architect should show the location for relocatable classrooms, should they be required in the future. These units should be sited in a location where it will not cause conflict with the constructability of a future addition. The necessary utility connections, i.e. electrical power, fire alarm, public address, and data should be provided near the future location of relocatable classrooms.
- The architect will provide a space summary comparison between the programmed space requirements and the proposed after the schematic design, design development, and final design phase.
- For all new schools and modernizations, the project will be designed for LEED Silver certification by the United States Green Building Council (USGBC) under the LEED for Schools guidelines. If this project is a classroom addition, the certification requirement applies only if the addition doubles the existing building footprint. If this project is a building renovation, the certification requirement applies only if the renovation alters more than fifty percent of the existing building gross floor area.

General Planning Considerations

In the general planning of this building, special consideration is to be given to the following comments and instructions:
- The architect is expected to be compliant with all national, state and local fire safety, life safety, and health code regulations and to follow applicable rules of the State Interagency Committee on School Construction.
- The building is to be accessible to the disabled within the meaning of the latest edition of the Americans with Disabilities Act and to conform to all the latest requirements of the Americans with Disabilities Act Standards for Accessible Design. (The regulation can be found at www.ada.gov/2010ADASTandards_index.htm)
- In addition to the ADASAD, the Maryland Accessibility Code (COMAR.05.02.02) also is required for public schools. (The regulation can be found at http://mdcodes2.umbc.edu/dhcd/access.htm)
- The facility is to reflect an appealing visual, acoustic, and thermal environment and is to be properly furnished and equipped. Well-chosen colors and textures are to be used. Lighting must meet current guidelines and provide adequate levels.
- High quality materials are to be used in the construction.
- The architect should refer to the MCPS Facility Guideline Specifications when noted. The document can be found at: http://www.montgomeryschoolsmd.org/departments/construction/publications/guidelines.shtm
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

- The first impression of a building is important. The main entrance to the school should have a clear and inviting identity, and the entrance area should be designed and landscaped to emphasize its importance. A covered walkway from the bus loading area to the front door is desirable. The design of the main lobby area needs to convey a feeling of warmth and welcome. The inclusion of a lighted showcase in which children’s work can be displayed is recommended.
- The design of the building and grounds must provide for a secure environment for students and staff. Isolated areas should be minimized and natural surveillance encouraged by eliminating visual barriers.
- For security purposes, all doors into classrooms, conference rooms, offices etc. must have a sidelight window with shades.
- Water coolers should be provided throughout the school.
- Every teaching station, support space, and core area must be wired for computer, CCTV, and telephone, along with adequate electrical supply in compliance with Maryland State design guidelines for Technology in Schools and the MCPS Office of the Chief Technology Office (OCTO) guidelines. Facilities must be adaptable to accommodate rapid development in high technology and its equipment since educational program and organization in this field are dynamic. Space and power supply must be flexible to meet these changing needs.
- Core spaces such as the cafeteria, gymnasiums, and instructional media center should be easily accessible for community use and secure from the rest of the building after school hours.
- An MCPS designed alarm system will provide security for this facility. The architect will provide for this system in consultation with the DOC staff.
- Building code requirements call for less than fifty percent of interior corridor space to be used for displaying flammable materials. Display areas can be provided by a 5’ x 5’ bulletin board per classroom or an equivalent amount of space in a larger area. Please refer to the MCPS Facility Guideline Specifications.
- Students should have ADA compliant access to the play areas from the multipurpose room. Play areas are to be protected from any vehicular traffic. Unobstructed supervision of play areas from one central area is desirable.
- The school is to be air-conditioned except for the gymnasium and kitchen. Careful placement of glass is required to avoid excess heat gain in occupied areas.
- Some windows must be operable in each space in the building. Transmission of radiation through windows into various portions of the plant is to be considered in relation to heating and ventilating and in relation to planning the building for air conditioning. All instructional spaces should have windows, preferably exterior windows. If the design does not permit exterior windows, windows onto corridors should be provided.
- Zoning the plant for heating and air-conditioning should be related to after hours use of various areas such as offices, gymnasium, multipurpose room, and the instructional media center. Appropriate location of parking, corridor barriers, and toilet rooms is necessary for after-hours use. Some classrooms nearby the multipurpose room should be zoned for after hour use as well.
- The architect should refer to MSDE’s 2006 Classroom Acoustic Guidelines to address the acoustical qualities for classrooms. In addition, the architect should refer to American National Standard, Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools (ANSI S12.60-2002) for additional information.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

• Noise and distracting sounds are to be minimized. In areas such as the multipurpose room and classrooms, which may be used for meetings and adult education, the sound of operating fans for ventilation should not interfere with instruction.
• Adult restrooms should be provided in accordance with the latest code requirements. Adult restrooms in elementary schools will be unisex.
• Spaces that serve no real educational function, such as corridors, should be limited while at the same time assuring an easy to supervise and smooth flow of pupil traffic to and from the instructional media center, multipurpose room, gymnasium, specialized centers, and support rooms.
• Carpentry should be limited to the principal’s office, assistant principal’s office and conference room in the administration suite and the main reading room of the instructional media center.
• All instructional, resource, or office spaces that students may occupy should be designed with either a sidelight or glass panel in the door and must be able to be supervised from the corridor or an adjacent space. Doors should be provided between classrooms whenever possible, however, expensive folding walls should be carefully considered as they are rarely utilized.
• The classrooms should be designed to accommodate various size groups. Each classroom should be readily adaptable for group work, various presentation formats, and should have maximum connectivity to outside resources.
• The shape of the classroom and the design of built-in features and storage areas should provide optimum net usable floor area. Elongated rooms and features that protrude into floor area, limiting flexibility, are to be discouraged. Rectangular shaped classrooms are preferred.
• Metal adjustable shelving is to be provided in all building storage closets.
• All plan reviews will be coordinated through the Division of Construction.
• Special consideration must be given to energy conservation including total life cycle costs. The current Maryland State Department of General Service (DGS) requirements will be applied as design criteria. Life cycle cost accounting in accordance with DGS criteria is required.
• Per COMAR 23.03.02: Regulation .29, all school projects that include replacing or upgrading the electrical system should be designed and constructed so that a designated public shelter area can be fully powered in the event of an emergency.

Technology Framework

The latest technology should be integrated into every aspect of building. The architect should consult with the Office of the Chief Technology Officer (OCTO) and the Division of Construction (DOC) for the latest technology requirements. The architect must at a minimum plan for the following elements.

• Through the use of wireless access, local area and wide area computer and video networks, students should have access to each other, to schools throughout the county with similar capabilities, and to universities and government institutions throughout the world.
• Each classroom is to have one dedicated 20 amp electrical circuit for a charging mobile laptop cart.
• Each classroom will have a promethean board at the teaching wall and CNO for the teacher’s computer.
• Computer network outlets (CNOs) consisting of a flush mounted standard electrical box with 1 1/2” conduit to the ceiling space overhead should be located in all classrooms, offices, and other work locations according to the following general rules:
  • one CNO per office, staff office, planning room, etc. adjacent to telephone outlet
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

- Two CNOs for student use located 3’ apart along the back or side wall in each classroom.
- Multiple CNOs in media center at circulation desk, reference areas, etc.
- One CNO at each science lab workstation
- All other areas such as the stage, bookstore, dining room, etc., where computers might be used.
- The number and location of telecommunication closets required to support the building-wide computer network is dependent on the size and geometry of the building. The layout of the telecommunication closets will be determined during the design phase of the project.
- Provisions for high-resolution fiber optic cable for television must be included in the design of all teaching stations.

Description of Facilities
Please refer to the summary of spaces in the front of this document for the square foot requirements for each space described below. Square foot allocations should be considered the standard to be followed, although minor deviations are permitted.

Prekindergarten/Kindergarten Classroom
- If the school has a Head Start program, the classroom should be designed as a prekindergarten/kindergarten classroom.
- Each room should allow flexibility in creation of activity areas and to provide for individualized instruction through arrangement of the “centers” approach.
- An area should be designated for placement of a 12’ by 15’ area rug over the finished floor (NIC).
- A 100 square foot walk-in storage closet and 150 square feet of general storage (casework throughout the classroom) is needed.
- When possible there should be interconnecting interior doors between all kindergarten and pre-kindergarten rooms.
- All prekindergarten rooms should have an outside door or be directly accessible to the outside and convenient to the main entrance of the school building.
- The prekindergarten classrooms must have direct access to the prekindergarten play areas. See the Site Requirements section for a description of play areas. The computers should not be located next to a whiteboard where magnets might damage the hardware and software. Glare from the windows on the computer screens should be eliminated as much as possible. Security for the computers should be planned in consultation with the DOC. Computer/technology wiring must be in accordance with MSDE/MCPS guidelines.
- Every classroom must have computer outlets for two student workstations and one teacher workstation. The building information and communications distribution system and other aspects of the building design must comply with the February 2002 revision of the MSDE Maryland Public School Standards for Telecommunications Distribution Systems.
- The main teaching wall layout should be in accordance to MCPS Facilities Guide.
- A sink with a drinking fountain must be provided, with cabinets above and below.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

• In a non class-size reduction school, the built-in student wardrobe area must provide at least 28 individual compartments to store students’ belongings. The architect is to refer to the MCPS Facility Guideline Specifications for a typical cubby design. Lockers in the classroom may be considered for the kindergarten classrooms.

• In a class-size reduction school, the built-in student wardrobe area must provide at least 24 individual compartments to store students’ belongings. The architect is to refer to the MCPS Facility Guideline Specifications for a typical cubby design. Lockers in the classroom may be considered for the kindergarten classrooms.

• A total of 20 feet of tackboard and 10 feet of magnetic whiteboard should be installed at eye level height for small children, with tack stripping along walls for display of student work.

• A small lockable teacher’s wardrobe must be provided, as per MCPS Facility Guideline Specifications.

• Each room must have a toilet room that is accessible from within the room and easily accessible from outside. The toilet room will contain a standard height toilet, a child height sink with mirror, and soap and towel dispensers that are accessible to small children. The light switch should automatically turn on the vent fan.

• Each classroom should be equipped with window blinds per the MCPS design guidelines.

• Battery operated clocks will be installed.

• All classrooms should be equipped with a handicapped accessible sink with drinking bubbler.

• A full-length mirror should be installed in the prekindergarten rooms only.

Standard Classroom

• Each classroom should be designed to support flexible furniture arrangements that will support a variety of teaching and learning models.

• 150 square feet of casework storage is needed in the classroom.

• When possible there should be interconnecting interior doors between all classrooms.

• The computers should not be located next to a whiteboard where magnets might damage the hardware and software. Glare from the windows on the computer screens should also be eliminated as much as possible. Security for the computers should be planned in consultation with the MCPS DOC. Computer/technology wiring must be in accordance with DOC/MSDE/OCTO guidelines.

• Every classroom must have computer outlets for two student workstations and one teacher workstation. The building information and communications distribution system and other aspects of the building design must comply with the latest edition of MSDE Maryland Public School Standards for Telecommunications Distribution System.

• The architect should refer to the MCPS Facility Guideline Specifications for the main teaching wall layout.

• Lockers will be provided in the hallway for storing student belongings. The architect should design the facility with 700 lockers if the core capacity is 640 and 815 lockers if the core capacity is 740.

• All classrooms should be equipped with a handicapped accessible sink with drinking bubbler.

• A storage area is needed to hold at least two science kits (approximate 27” x 17” x 12” each) and one math kit in each classroom.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

- General storage space must be built in and must accommodate 24 by 36 inch paper and a 4-drawer file cabinet. Each classroom must include 48 linear feet of built-in adjustable shelving.
- A small lockable teacher’s wardrobe must be provided, as per MCPS Facility Guideline Specifications.
- Designated shelf space, not near a window, for an aquarium/terrarium with nearby electrical outlet, is desirable.
- Each classroom should be equipped with window blinds. The specifications for the window blinds will be provided by DOC.
- Battery operated clocks will be installed.
- A school may consider reducing the size of each classroom to create small break-out rooms in the school. The number and design of these breakout rooms may be determined by school and MCPS staff.

Dual Purpose Room
- This room should be designed to accommodate both art and music activities in the school but with less detail than the regular art and music rooms.
- Some acoustical treatment should be provided in the room.
- One sink for student use should be provided along with some countertop area.
- No kiln area is needed and less shelving than described in the art room is to be provided.
- The exact details of the design should be discussed with the school staff and community.

Support Rooms
Spatial Needs

Occupational Therapy/Physical Therapy (OT/PT) Room
Testing Room
Sensory Room

Occupational Therapy/Physical Therapy (OT/PT) Room
- Each room must have whiteboard that is mounted two feet off the floor.
- A tack board, open and closed lockable storage, open shelving, and a lockable teacher wardrobe are required.
- A sink with counter space is required in the OT/PT room.
- Room for a teacher’s desk, lockable file cabinet, and assorted sized furniture with adjustable legs should be provided.
- The OT/PT rooms should be wired for access to one computer workstation each.
- The OT/PT requires a ceiling mounted hook, with a 6’ foot diameter clear space for hanging swings and other suspended equipment.
- The OT/PT room requires lockable storage with sufficient area to house large gross motor equipment (minimum of 35 square feet) such as

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The Lukmire Partnership Architects, Inc.
therapy balls, scooter boards, walkers, balance beams, ramps, etc.

**Testing Room**

- School and/or central office staff test individual students or small groups of students. Typical testing includes psychological, diagnostic, vision/hearing, gifted, and makeup testing for required standardized tests. This room also will be used to accommodate post test conferences with teachers and/or parents.
- This room should be designed as a secure room for testing materials and should have a counter with lockable cabinets above and below.
- This room needs acoustical treatment as well as video, voice, and data outlets.

**Multipurpose Room and Platform**

Spatial Needs

Multipurpose Room
Chair Storage
Table Storage

**Multipurpose Room**

- The multipurpose room should have a ceiling height of 12–14 feet.
- A building service utility closet should be provided near the entrance to the multipurpose room for convenient lunch cleanups.
- Table storage and chair storage must be located adjacent to the multipurpose room.
- Exits from the multipurpose room must be sufficient to allow maximum seating.
- The doors from the main corridor into the multipurpose room should be on hold opens.
- Toilet rooms and an electric water cooler should be near the multipurpose room to allow for public use.
- Audiences need to be able to hear and see presentations from all locations in the room.
- Ventilation equipment noise must not inhibit use of the space for auditorium purposes.
- Acoustical treatment is needed.
- Proper lighting and sound amplification are required.
- Each side of the risers at the multipurpose room floor level should be equipped with video, voice, data and electrical outlets.
- Lighting, windows, fire alarm box, clock, and ceiling must be protected to prevent damage by balls.
- Outdoor play areas should be accessible from the multipurpose room. Children should not have to cross driveways or parking lots to access the play areas.
- An audio loop system should be provided for hearing impaired students; guidelines are available through the Division of Construction.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

• An independent sound system should be provided in the multipurpose room.
• A call button to the main office should be provided.

Chair and Table Storage
• Storage rooms are required for the storing the tables in the multipurpose room and folding chairs.

Administration suite
Spatial Needs

Conference Room
Counselor’s Office
Itinerant Staff Office

Conference Room
• The conference room should be carpeted.
• The conference room requires a magnetic marker board, a tack board, and one bookcase.
• The conference room should be equipped with a video, voice, data and electrical outlets and outlets to accommodate a Promethean board.
• Casework should be provided on one wall with two, two-drawer file cabinets for confidential records, letters forms, etc.

Counselor’s Office
• The counselor’s office should be easily accessible from the classrooms and near, but not a part of, the administration suite and should have a window.
• This office needs a marker board, tackboard, telephone and computer.

Itinerant Staff Office
• This office should be carpeted.
• This office should be equipped with a tack board and two-shelf adjustable bookcases under the windows. Each shelf must be able to hold a 12 inch notebook upright.
• This office should be located adjacent to the counselor’s office.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

**Staff Development Area**
Spatial Needs

Staff Development Office
Reading Specialist Office
Training/Conference Room

**Staff Development Office**
- The staff development area should be located near the classrooms.
- The office should include one workstation.
- This office needs a marker board, tack board, closet, and video, voice, and data outlets.

**Reading Specialist Office**
- The staff development area should be located near the classrooms.
- The office should include one workstation.
- This office needs a whiteboard, tack board, closet, and video, voice, and data outlets.

**Training/Conference Room**
- This room will be used for staff training needs.
- This room should include ample shelving for training materials.
- The room should be able to comfortably accommodate up to 12 participants seated around a conference table.
- A marker board and tack board should be installed.
- Data and electrical outlets should be provided to accommodate a Promethean board.

**Building Service Facilities**
Spatial needs

General Storage
Building Service Outdoor Storage
Building Service Closets
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

**General Storage**
- Flexible shelving to accommodate books, teaching aids, large size (24” x 36”) paper, and other instructional supplies is required.
- Good lighting and easy access to materials being stored are required.
- Electrical outlets, upgraded lighting and ventilation must be provided in all large storage rooms for future flexibility.

**Building Service Outdoor Storage Room**
- Outdoor storage is to be near the service area and is to be suitable for heavy mowing, snow removal, and other outdoor equipment.
- The dimensions of the outdoor storage area must be able to accommodate two tractors side by side. (one tractor is approximately 9’ long by 7.5’ wide and a second smaller tractor) and other equipment.
- A ramped and paved driveway is required for the tractor so that it can access the sidewalk and driveways of the school during snow removal.
- Electrical service and lighting inside must be provided. Access to the light switches must be available at both entrances.
- Proper ventilation for storage of gasoline is required.

**Building Service Closets**
- At a minimum, there should be a building service closet for each 19,000 gross square of the facility. In addition, there should be a building service closet on each floor and each wing of the facility and near the gymnasium.
- The closets should be a minimum of 25 sq. ft.
- The building service closet must accommodate a minimum of one utility cart.
- The closet requires shelving for cleaning supplies and a mop/broom holder is required.
- The closet requires a floor mop sink with hot and cold running water and a floor drain.
- Where feasible, closet doors should swing outward in order to maximize the storage area and provide easier access to items within the closets.

**Site Requirements**
The following areas should be used by the architect as a guide for any areas that are disturbed by the proposed addition. The items described below are for a school that meets the minimum useable site size of 7.5 acres that is capable of fitting the instructional program, including site requirements. At schools with smaller sites, the architect is to work with MCPS staff, including the Physical Education Curriculum Coordinator, Safety Director, and school staff to determine layout of the play areas.

- The architect should consider the architecture of the neighborhood in designing the building
- The site should be designed to provide a clear view of all play areas and to facilitate supervision from one location.
- Protective fencing may need to be provided near heavily wooded areas, busy streets, steep hills, parking lots and turnaround areas.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

• Metal drains/grates should not be located in the playing fields, paved play areas and mulched playground equipment areas.
• Paved areas and fields must be as level as possible. Water should not collect on paved areas or in mulched areas. The architect should consider the architecture of the neighborhood in designing the building.
• The design should retain as many trees as possible in order to buffer the school and the playing fields.
• Pedestrian access must be provided from the surrounding neighborhoods.
• An unimproved area on-site should be designated to serve as an environmental study area in the future. The architects may refer to the following two MSDE design guidelines: Conserving and Enhancing the Natural Environment on New and Existing School Sites, 1999 and A Practical Guide Planning, Constructing, and Using School Courtyards, 2012. The documents are available at the following website: www.marylandpublicschools.org/MSDE/newsroom/publications
• A covered area for students in the bus loading area should be provided.
• Space for buses to load at one time is needed. The number of buses will be reviewed during the design phase in consultation with the Department of Transportation.
• Bike racks should be provided near the building.
• Playground equipment areas should not be located at the bottom of hills unless a provision is made to channel water away from the equipment areas.
• Accessible parking spaces should be located near the main entrance, the before/after Care entrance, and the playing fields.

Driveway and Service Drive
• The architect/engineer should refer to the MCPS Facility Guideline Specifications when designing the driveway, bus loop, service drives, etc.
• Bus traffic should be separated from car traffic at all times, when possible. Bus loading zones should be able to accommodate the entire student body.
• A student drop off area should be provided and must be separate from the bus loop area.
• All driveways must be arranged so that children do not cross them to get to the play areas.
• Care for safety of students must be exercised in developing the driveways including use of safety rails in the bus loading area.
• Pedestrian access to the school facilities should be designed to make the best use of community right-of-ways and avoid crossing of loading zone areas.
• The site must comply with the most current ADA or COMAR regulations, whichever is most stringent.
• Site access must be provided to comply with fire protection and storm water management.
• Driveway aprons are to be perpendicular to the centerline of the street; and if there is an intersecting street on the opposite side from the proposed driveways, the driveway apron should line up with the intersecting street.
• Driveways should be located so that vehicle headlights do not project into adjacent homes.
• A service drive is required to service the kitchen, boiler room, and general delivery area. The architect should refer to the MCPS Facilities Guide.
• Site access must be provided to comply with fire protection and storm water management regulations.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

Parking
• Ideally, a minimum of 80 parking spaces should be designed initially for a school with regular staffing allocations, with future expansion possible. At schools with class-size reduction, 100 parking spaces should be provided.
• The parking area should be designed to maximize safety and minimize speed.
• Adequate lighting should be provided.
• Parking area should have two exits.
• Guardrails or bollards are to be installed to protect fields and play areas.

Landscaping
• Planting should include screen planting and other planting needed for erosion control.
• Existing plant stock, if on site, is to be evaluated for reuse and protected accordingly.
• Landscaping to support energy conservation and to relate the building to the site with aesthetic appeal must be included.
• Consideration should be given to safety and security when selecting plant materials.
• Provision for outdoor watering must be included.
• The landscaping plan should include areas for outdoors environmental education programs.

Physical Education Site Requirements
The items described below are for a school that meets the minimum useable site size of 7.5 acres that is capable of fitting the instructional program, including site requirements. At schools with smaller sites, the architect is to work with MCPS staff, including the Physical Education Curriculum Coordinator, Safety Director, and school staff to determine layout of the play areas. The outdoor physical educational instructional space should not be compromised for playground equipment.

Softball Fields
• Two softball fields should be provided with the following design requirements:
• 250’ radius, with a soccer field superimposed should be provided if possible. See below for the soccer field dimensions.
• The site size will determine the number and dimension of the softball fields.
• Softball fields should have metal benches protected by fencing for each team’s use.
• The fencing and benches should not interfere with soccer field usage.
• The softball backstops (2) shall be in diagonal corners of the field or in corners on the same side. See the diagram in the MCPS Facilities Guideline Specifications.
• Softball infields are not skinned for elementary schools. However, one field may be skinned if it does not significantly impact the soccer playing area.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

**Soccer**
- The site size will determine the size of the soccer fields. The elementary school size soccer field is 150’x240’ however the minimum size field should be 105’ x 180’.
- No permanent goals or temporary goals should be installed on the soccer fields.

**Paved Play Areas**
- Two paved areas, 80’ x 100’ should be provided if the site permits.
- If located adjacent to one another, a grassy strip of at least 20’ should be between the two paved areas.
- One area should have four basketball goals with appropriate striping (see diagram in the MCPS Facility Guideline Specification).
- A second area, designated for primary use, shall be striped according to drawings provided in the MCPS Facility Guideline Specification. On small sites, this pave area should be fenced for use by Grade Kindergarten students.

**Kindergarten Paved Play Area**
- A third paved area, at least 40’x 60’ but preferably 80’ x 100’, is desired, is needed for the Kindergarten students.
- This area needs to be located adjacent to the Kindergarten playground (mulched) area and close to the other paved play areas.
- This area requires a fence around it or adequate separation from the other paved play areas.
- The area will be striped according to drawings provided in the Facility Guideline Specification.

**Playground Equipment Areas (mulched areas)**
- One or two areas shall be provided near the playing fields and large paved play area for playground equipment. Each area should be approximately 40’x40’. The size and shape of the play area will be developed during the design process in consultation with MCPS staff.
- The area shall be level, bare ground, unseeded, and no sod. MCPS will provide equipment dimensions for these areas.
- An underground drainage system must be provided.
- The loose-fill surfacing material (engineered wood fiber) must meet ADA requirements. A border must be provided to contain the filler. The surfacing materials must meet or exceed safety specifications for shock absorbing qualities as outlined by US CPSC.

**Kindergarten Play Area (mulched area)**
- A mulched kindergarten play area of 40’ x 60’ should be located adjacent to the kindergarten paved play area described in the physical education section for playground equipment. The size and shape of the play area will be developed during the design process in consultation with MCPS staff.
- The area shall be level bare ground, unseeded, and no sod. MCPS will provide equipment dimensions for this area.
- Protective fencing should enclose the area.
Appendix D - Educational Specifications - Sligo Creek Elementary School (continued)

- An underground drainage system must be provided.
- The loose-fill surfacing material (engineered wood fiber) must meet ADA requirements. A border must be provided to contain the filler. The surfacing materials must meet or exceed safety specifications for shock absorbing qualities as outlined by US CPSC.

Prekindergarten Play Areas
- If the school has a prekindergarten, Head Start, or Preschool Education Program, then a separate and fenced outdoor play is required.
- This area must be adjacent to the classrooms with access directly from the classrooms.
- If the school does not have a prekindergarten program then the outdoor play area should be master planned so that it can be added on at a later time.
- The prekindergarten play area should include a 40’x40’ paved play area and a 40’x40’ mulched area. The architect will consult with the MCPS staff on the design of the playground equipment.
Appendix E - Existing Photos

Main Entry into SSIMS, west side

East Elevation of Field House

West Elevation of Abandoned Auto Body Building

East Elevation of SSIMS
Appendix E - Existing Photos (continued)

Main Parking Lot, SSIMS

Shared Bus Loop

South west SSIMS corner

Topography between SSIMS and Wayne Avenue
Appendix E - Existing Photos (continued)

Corridor Connections between 1930s Buildings

Southern SSIMS Addition along Wayne Avenue

One of the Oldest Portions of the Building

Corridor Connection between 1930s Buildings
Appendix E - Existing Photos (continued)

Path to the Field House

Play Fields

East Elevation of SSIMS

East Elevation of SCES
Appendix E - Existing Photos (continued)

SCES Hard and Soft Play Areas

SCES Main Parking Lots

SCES and SSIMS Loading Area

SCES Main Parking Lots
Appendix E - Existing Photos (continued)

Formal Entry in SCES and Parent Drop off

Main Entry in SCES and Bus Loop

Main Entry Hall into SSIMS

View of Abandoned Area on Lower Level on Wayne Avenue
Appendix E - Existing Photos (continued)

SSIMS Media Center

Main Gym in Field House

Typical Third Floor Classroom in SSIMS

Typical Corridor in SSIMS
Appendix E - Existing Photos (continued)

Typical Corridor in SCES

SCES Media Center

Corridor Connection between 1930s Buildings

Typical SCES Corridor
Appendix E - Existing Photos (continued)

Soft Play Area SCES

Multi-Purpose Room - SCES

Multi-Purpose Room - SSIMS

 Formal Entry - SCES