

# Recommendation for Modernization of

**Lower Merion High School**

**Harrilton High School**



**A Report to the  
Lower Merion  
Board of School Directors  
by the  
Community Advisory Committee**

*May 24, 2004*

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# EXECUTIVE SUMMARY

## E.1 Introduction

Lower Merion School District in Montgomery County, Pennsylvania, is nationally recognized for its educational achievement, and is committed to maintaining excellence in education for future generations. The District is near the end of a capital improvement program that began in 1997. Five of the District's ten schools have been renovated, and three elementary schools are currently undergoing major renovation. The two high schools, Lower Merion and Harriton, remain to be modernized to fulfill the District's educational requirements.

The modernization project consists of four phases: strategic planning, project decision, building design/bidding, and construction. This report is the result of the first phase, the strategic planning process. The report is advisory to the Lower Merion Board of School Directors, which has legal responsibility for further action.

## E.2 Background

Lower Merion High School now has 1,495 students in buildings totaling 375,000 square feet on a two-parcel site totaling 41 acres. The site is divided by a major roadway, with school buildings on one side and most athletic fields on the other. The Lower Merion site includes the District Administration offices, the District Operations and Technology (IT) departments, bus maintenance for all of the District's fleet of 108 buses, and storage for the majority (78 buses), all of which must be considered in a plan for the high schools.

The interconnected buildings date from 1932 to 1968. Due to their incremental design and construction, they are poorly configured both for the educational program and for security, and they are severely overcrowded. Some areas fail to meet current safety standards and are not ADA-compliant. Ventilation, heating, and cooling are inadequate in some areas, and the mechanical, plumbing, and electrical systems are reaching the end of their useful lives. Parking is grossly inadequate, which forces cars onto the side streets of the surrounding neighborhoods. In an area zoned for a maximum of 28% impervious coverage, the Lower Merion site is currently at 61% impervious coverage. The buses are unwelcome in this residential area.

Harriton High School now has 845 students in buildings totaling 166,000 square feet on a site of 50 acres. The site is located away from the center of student population, and the only access is from a two-lane road. With the exception of several portable classrooms, the buildings date from 1958. Though the District has generally maintained the buildings, in the last decade some maintenance has been deferred in anticipation of new construction, even as the 1958 construction has reached the end of its useful life; thus the original

buildings are in poor physical condition. The buildings are crowded and fail to meet current safety standards. Most of the site is not ADA-compliant. The arrangement of separate buildings presents security risks, and is not well suited for use in bad weather. Ventilation, heating, and cooling are inadequate in some areas, and the mechanical, electrical, and plumbing systems are reaching the end of their useful lives. Parking is adequate for faculty and staff, but limited for visitors and students. In an area zoned for a maximum of 21% impervious coverage, the Harriton site is currently at 23% impervious coverage. Thirty buses are housed on-site, and are unwelcome in this residential area.

The School District educates students from Lower Merion Township and Narberth Borough. Both of these areas are largely built out. Other than the parcels the District already owns, no available area of sufficient size for a new high school is known to exist within the District.

### **E.3 Planning Process**

In December 2003, the Board of School Directors decided to seek broad community participation in the high-school planning process, and it hired Baker and Associates to design and manage this effort. In January 2004, the School District's Board and Administration established a 45-member panel, the Community Advisory Committee (CAC), with representatives from community and school groups and other interested parties. This Committee was asked to recommend a course of action to the Board of School Directors.

The CAC was given extensive background information on all aspects of the high-school planning process, including (but not limited to) analysis of the high-school sites and conditions, current and projected student populations, parking requirements, busing needs, Township zoning regulations, and costs. CAC members toured the existing Lower Merion School District (LMSD) high schools and two nearby high schools, one (Ridley) that was built new and one (Radnor) that was partially new and partially renovated. CAC members also attended a public session at which a panel of five high-school principals from around the state discussed the relative merits and drawbacks of large and small schools and related matters.

The CAC established a set of weighted criteria by which alternate plans would be evaluated. It also agreed that if more than two-thirds of its members voted to accept a single plan, that plan would be the Committee's sole recommendation to the Board, and there would be no minority report. The criteria were:

- Educational quality
- Co-curricular opportunities ("co-curricular" is the currently accepted term for what used to be "extracurricular")
- Construction phasing (impact on schools and students of construction/renovation)

- Cost (construction and operating)
- Parking
- Site location and access
- Site area (adequacy for proposed use)
- Compatibility with adjacent land use
- Student transportation
- Presence of/access to community facilities
- Historic property concerns
- Other (legal, environmental, political, redistricting).

The CAC then met on three successive days for five hours per day to examine in detail a series of possible options for the high schools, as follows:

1. Full renovation of both schools
2. One separate ninth-grade-only school, and one school for grades 10-12
3. A single high school of approximately 2,500 students
4. Two new unequal-size schools, with a projected split of 1,600/900 students
5. Two new equal-size schools of approximately 1,250 students each.

A public meeting to explain the process was held before the CAC began its work. Another public meeting was held after the CAC had deliberated, to explain its preliminary conclusions, describe its reasoning, and solicit public comment. The CAC also presented its preliminary recommendations at a public meeting of the Board of School Directors.

#### **E.4 Preliminary Conclusions**

The CAC determined that Lower Merion's existing high schools are outdated and inadequate for the current and future educational needs of our students. They are poorly configured for teaching and learning, and for security; they are badly overcrowded; they fail to meet current safety standards; they are largely in poor physical condition; and the mechanical, electrical, and plumbing systems are reaching the end of their useful lives. Neither school is fully ADA-compliant; neither school has adequate ventilation, heating, and cooling. Both school sites have parking and traffic problems. Only *major* renovation or new construction should be considered.

##### *Renovation*

Estimated costs for the major renovation needed at both schools are similar to or greater than costs for new construction, and are more likely to rise due to unanticipated problems. Major renovation would take longer and would have a

much greater impact on students and on school operations than would new construction. Renovation would limit the ability to configure the schools to meet current and future educational needs. Finally, pressing site issues, including traffic circulation and parking, would not be fully resolved. Therefore, the CAC voted to drop consideration of full renovation.

This does *not* rule out the possibility of renovating and continuing to use some space and/or buildings at either site.

#### *Separate Ninth-Grade School*

The CAC heard no strong educational arguments in favor of a separate ninth-grade school, and found that very few such schools exist in the United States. The committee was concerned about adding a further transition for students, from ninth to tenth grade, and noted that co-curricular activities would be adversely affected. In addition, the panel of principals consulted earlier had expressed reservations about such a configuration. The CAC therefore voted to drop this option.

#### *Single High School (2,500 students)*

One high school would save on initial construction costs and on operating costs. The panel of principals, and other sources, assured the CAC that a big school could be subdivided to produce more personal interaction between students and staff. However, the principals also made clear the advantages of smaller schools: a greater sense of community, better relations between students and faculty, more opportunities for co-curricular activities, and a better educational outcome.

Most compelling, however, was the finding that a school of 2,500 students does not fit on either existing LMSD site. This option would create major traffic problems, and would require students to be bused to off-site athletic fields at additional cost. Impervious coverage is a prohibitive factor as well. Therefore, after full evaluation, the CAC voted to drop this option.

#### *Two High Schools of Unequal Size (1,600/900 students)*

This option does not necessarily require redistricting, which some members of the community see as a major consideration. There are advantages to a larger school, mainly in greater course offerings, and to a smaller school, mainly in school atmosphere and faculty/student interaction. However, the value of having schools of two sizes is largely lost unless all students have a choice of which school to attend. It would be difficult to give each student a choice of schools while keeping each school at a fixed enrollment. This option also does nothing to address differences in the educational offerings at the two schools. Moreover, given the evidence that smaller schools produce better educational outcomes, it is clearly best to place all students in the smallest practical schools.

If the larger school continued to be Lower Merion, the traffic and parking problems at that site would be perpetuated. If Harriton were the larger school,



school size would better match site size, but the larger school would be further from the student population center. This would necessitate even greater redistricting, create significant traffic problems around the Harriton site, and require additional busing. Although the Harriton site is larger, existing impervious-cover conditions and zoning would likely allow more area to be used for building at the Lower Merion site. The CAC concluded that if two schools of unequal size were recommended, the larger school should remain at the Lower Merion site.

This option was retained until a final vote.

#### *Two Equal-Size High Schools (1,250 students each)*

This option has educational advantages. All students would have the benefit of the smallest practical school size, which is the preferable scheme given the evidence that smaller schools are more advantageous. The two schools could be equal (though not necessarily identical) in course offerings, co-curricular activities, and facilities. The parking and traffic problems at Lower Merion would be eased, with a relatively modest increase in traffic at a reconfigured Harriton site.

The major disadvantages of this option are that it requires redistricting and a longer bus ride for some students. Furthermore, projections suggest that two equal-size schools may be slightly more costly to build and operate than two schools of unequal size.

This option was retained until a final vote.

### **E.5 Other Considerations**

The CAC also considered the placement of District buses and bus maintenance, Central Administration offices, the Technology Department, and the Operations Department, which currently contribute greatly to the severe crowding at the Lower Merion site.

The District's school buses, currently parked at the two high schools, take up valuable space on those sites and are a source of friction with neighbors. They require additional parking on the sites for bus drivers and aides. The placement of buses and the bus maintenance building must be addressed before construction on the school sites can go forward.

The CAC saw several options for the location of Central Administration, including (but not limited to) either high-school site, or off-site leased space. Requirements for staff and visitor parking spaces would be lessened by moving the Administration offices from the Lower Merion site, and the Harriton site has more land available for an Administration building; however, the historic 1932 building on the Lower Merion site may be best used for Administration offices. The CAC took no position on the location of the Central Administration or Technology offices in its final recommendations.

Unlike Central Administration and Technology offices, the Operations building would need to be removed from the Lower Merion site. Although the CAC acknowledged that the Operations Department would ideally be placed with the buses and bus maintenance, it took no position on the location of the Operations Department in its final recommendations.

### **E.6 Final Recommendations**

In its final vote, the CAC, by more than a two-thirds majority, strongly endorsed two new schools of equal size as the option that would best serve the educational needs of students and the community.

The CAC also voted, by more than a two-thirds majority, that bus parking be located away from all school sites. The CAC added that as an interim measure, the buses should be distributed as uniformly as possible on existing school sites at Lower Merion, Harriton, and Welsh Valley.

# INTRODUCTION

## **I.1 Background**

Lower Merion School District, in Lower Merion Township, Montgomery County, Pennsylvania, is widely recognized as one of the finest school districts in the nation. The District has received consistent recognition from both the U.S. Department of Education (Blue Ribbon Award) and the Pennsylvania Department of Education. This educational excellence represents the aspirations of the community that supports the School District.

Lower Merion Township occupies an area of 24 square miles. The District serves both Lower Merion Township and Narberth Borough and is its own taxing authority. The District is essentially “built out,” with few remaining vacant sites. This condition of little developable space, and the fact that the current high schools are located in areas zoned residential, constrains the schools and places a burden on the surrounding neighborhoods. The presence on the Lower Merion High School site of 78 of the District’s 108 buses, the District Administration offices, District Technology (IT) and Operations departments, and bus maintenance facilities further constrains that site.

The modernization of the two high schools is the final phase of a capital improvement program that began in 1997. Five of ten school projects have been completed, and three elementary schools are under renovation. The remaining projects are Lower Merion High School, with 1,495 students and 41 acres, and Harriton High School, with 845 students and 50 acres. These buildings have outlived their useful lives, do not meet current safety and security requirements, and are not ADA-compliant. They are also too small for their current student populations, and for current and future educational needs.

In May 2001, the Board of School Directors approved project concepts to rebuild the two high schools. However, shortly after the November 2001 elections, the projects were placed on hold. The goal of the current Board of School Directors is to create high-school facilities that reflect its commitment to educational excellence.

## **I.2 The High-School Modernization Process**

The Board established the Community Advisory Committee (CAC) to provide a recommendation by Spring 2004 on how to proceed with a comprehensive plan for the high schools. Its charge was to reach a decision through an intensive planning process during which a representative team of community stakeholders would research, define, and explore design options.

The overall modernization process consists of four phases: strategic planning, project decisions, design and bid, and construction. The work of the Community Advisory Committee addresses the first phase of the process.

### **I.3 Goals and Objectives**

#### *Continuation of Lower Merion School District as an Excellent School System*

The heart of the CAC recommendation is to maintain excellence in education for current and future students in the Lower Merion School District.

#### *Community Involvement*

Committee members sought input from the community, including elected officials, the schools' neighborhoods, home and school associations, civic associations, school administrators, staff, and students. A complete list of CAC members and the groups they represented is included in Appendix A.1.

#### *Evaluation of High-School Options*

The Committee considered the advantages and disadvantages of several options, as follows.

1. Full renovation of both schools
2. One separate ninth-grade-only school, and one school for grades 10-12
3. A single high school of approximately 2,500 students
4. Two new unequal-size schools, keeping the present split of 1,600/900 students
5. Two new equal-size schools of approximately 1,250 students each.

# 1. THE STRATEGIC PLANNING PROCESS

## 1.1 The Strategic Planning Team

### *Community Advisory Committee*

A Community Advisory Committee (CAC) was established to advise the Lower Merion Board of School Directors and to recommend a specific direction for the modernization of the two high schools. This committee, consisting of a broad cross-section of community and school members, studied the issues in depth and developed options for meeting the charge to the committee. Invitations were sent requesting representatives from:

- The Federation of Lower Merion Civic Associations
- Narberth Borough
- Lower Merion Township Commissioners
- Lower Merion Township Building and Planning Department
- Lower Merion Township Public Works Department
- Harriton and Lower Merion High School students
- Harriton and Lower Merion High School principals
- Harriton and Lower Merion High School teachers
- Lower Merion Education Association
- Harriton and Lower Merion Home and School Associations
- Interschool Council
- Senior citizen groups
- Lower Merion Historical Society
- Private schools
- Business associations
- Lower Merion-Narberth Community Coalition
- At-large members.

See Appendix A.1 for a list of CAC members and their affiliations.

The Committee had a total of 45 members. Many had children in different grade levels attending public schools. A few members had children attending non-public schools. Nine of the CAC members had graduated from Lower Merion School District schools. Several members had no children in the schools. The CAC members came from a wide range of professional backgrounds. They represented their constituents' interests, and provided information to and solicited input from their constituents.

The CAC reported to the Board of School Directors on the outcome of the workshops. The Committee's role was advisory, with the final decisions on high-school modernization to be made by the Board of School Directors.

### *Lower Merion Board of School Directors*

The Board of School Directors has the legal responsibility to make a decision on the scope of project(s) for the high schools and land usage. This report is intended to be used as a basis for that decision.

### *Lower Merion School District Administration*

Lower Merion School District (LMSD) Administration provided comprehensive background information to the CAC. Administration representatives participated in the planning process by clarifying empirical data, organizing tours and a principals' panel, coordinating and distributing information, and providing logistical support. The LMSD Administration did not have voting rights.

### *Baker and Associates*

Baker provided independent, third-party technical assistance to the Lower Merion School District and the CAC. Baker assisted in compilation of historical information, recommended procedures, facilitated CAC and public meetings, reported to the Board of School Directors, and assembled all the CAC recommendations into an initial draft report.

Baker's role was to remain impartial and to provide assistance without influencing any decisions.

## **1.2 Public Involvement**

The public had many opportunities to review and comment upon all findings and recommendations.

### *CAC Communications*

It was the task of the CAC members to report to their constituent groups and bring the input from those groups back to the CAC meetings and workshops.

### *Public Meetings*

The intent of these meetings was to keep the public informed of the strategic planning process activities, and to solicit comments and feedback. There were also three reports at public meetings of the Board of School Directors. Information was available through the District's cable station, Channel 6, as well.

### *Internet Communications*

The Internet was used to deliver information to and collect input from the community. The School District dedicated a link on its home page at [www.lmsd.org](http://www.lmsd.org) to the strategic planning process. The website gave an overview of the process, listed recent announcements, gave a schedule of upcoming events, and provided meeting minutes. The names of CAC members and the organizations they represented were listed on the website. Community members could forward suggestions and comments via e-mail to the CAC and to Administration.

### 1.3 The Process

The goal of the Committee was to develop a recommendation to the Board of School Directors for the modernization of the LMSD high schools. The CAC proceeded as follows.

#### *Gathering of Information*

CAC members reviewed all the information that was provided; toured Lower Merion High School, Harriton High School, and two neighboring high schools; attended a panel of principals discussing the relative merits of large and small schools; and held two preliminary meetings to establish procedures and criteria.

#### *Identification of Evaluation Criteria*

CAC members established a set of objective evaluation criteria (Table 1.1) and assigned a weight to each.

Table 1.1. Evaluation Criteria

Criterion	Weight	Description
Educational Quality	5	How do the educational opportunities for students compare to current opportunities? Does this option allow for interaction between all age groups?
Co-Curricular Opportunities	5	How do co-curricular opportunities for students compare to current opportunities? Does this option allow for interaction between all age groups?
Construction Phasing	5	Impact of construction on the daily operation of the schools and safety of the students.
Cost (Construction and Operational)	4	Are the construction and operational costs of this option reasonable?
Parking	4	Determines whether the site is able to accommodate the amount of parking that is required for the facility (staff, student and visitor parking).
Site Access/Location	4	Will traffic to the proposed site have a significant impact on the surrounding community? Is it relatively easy for students, staff and visitors to enter/exit the site? Is this the most ideal location for the project?
Site Area/Site Developable Area	4	Determines whether the site is large enough to accommodate the entire program. Is there ample open space for sports facilities / recreational areas? Is the site capable of accommodating further building expansion in the future?
Compatibility to Adjacent Land Uses	3	Examines the consistency with the land use and character of the surrounding uses.
Student Mode of Transportation	3	Looks at how many students currently walk and take the bus to school versus how many students will walk or take the bus to the proposed facility.
Presence or Access to Community Amenities	2	Evaluates proximity and access of the new school location to various community amenities.
Historic Property Issues	2	How significant are the impacts of historic properties to the school?
Other Issues	2	Determines whether there are other issues that could delay or prevent construction. (i.e. political, legal, environmental)

### *Consideration of Options*

In a three-day planning workshop, CAC members identified the following options for modernization of the high schools:

1. Full renovation of both schools
2. One separate ninth-grade-only school, and one school for grades 10-12
3. A single high school of approximately 2,500 students
4. Two new unequal-size schools, with a projected split of 1,600/900 students
5. Two new equal-size schools of approximately 1,250 students each.

After consideration of the five options, the CAC members voted by more than a two-thirds majority to remove the following two options from further consideration:

- Full renovation of both schools.
- One separate ninth-grade-only school, and one school for grades 10-12.

### *Study of Remaining Options*

The remaining options were discussed and developed in detail by individual groups for comparison. Baker and LMSD Administration representatives provided technical assistance to each group in the development of its option.

### *Evaluation of Options*

Each option was presented to the entire group and evaluated using the pre-established criteria. The full committee then participated in a detailed discussion and voted on the options.

### *Reporting to School Board*

The CAC reported its recommendation of two equal-sized high schools to the Lower Merion Board of School Directors at its March 23, 2004 meeting. Representatives from the CAC presented the pros and cons of the three options that received full evaluation (One School, Two Schools of Unequal Size, and Two Schools of Equal Size).

### *Public Feedback*

At a public meeting on April 12, 2004, three CAC representatives presented the committee's recommendation to a wider public forum, and CAC members received community feedback.

### *Final Report*

On April 21, 2004, the CAC met to review material assembled by Baker for use in its final recommendation report. At that meeting, CAC members appointed four editors to write and refine the report to reflect the actions and opinions of the Committee. The editors shared drafts of their work with other CAC members via e-mail and incorporated members' comments into the report. The



final recommendation report was sent via e-mail to all CAC members for approval. It was then presented to the Board of School Directors.

Appendix A.2 details the strategic planning schedule.

## 2. ASSESSMENT OF EXISTING CONDITIONS

Figure 2.1. Left, Aerial View of Lower Merion High School; Right, Aerial View of Harriton High School



### 2.1 Existing Conditions of the Two High Schools

The Lower Merion and Harriton buildings are severely overcrowded, are not suitably configured for current and future educational use, fail to meet current safety standards and security needs, and are not in compliance with the Americans with Disabilities Act (ADA). Maintenance on the high schools has been deferred for many years in the expectation of major renovation or new construction. The effects of this deferred maintenance are apparent throughout the schools.

The LMSD schools have, among other problems, narrow hallways and stairs, outdated and insufficiently ventilated science laboratories, some dark and windowless classrooms and offices, poor light and ventilation throughout the schools, no proper workspaces for teachers, insufficient rooms for student/teacher or small group meetings, and inadequate gym spaces. There are no large group instructional spaces. The libraries are severely undersized and inadequately configured for study and research. The mechanical, electrical, and plumbing systems are reaching the end of their useful lives. Storage areas and closets have been converted to offices and classrooms.

#### *Lower Merion High School*

Lower Merion has the larger student body, with 1,495 current students in buildings with an area of 375,000 square feet, located on the smaller site, which consists of two parcels totaling 41 acres (see Figure 2.1). The school is a series of interconnected buildings constructed in 1932, 1941, 1951, and 1963. The building configuration does not work well, and ventilation, cooling, and heating are inadequate. There is a general shortage of office space, workspace,

and meeting space. The buildings are not fully ADA-compliant. The school buildings are separated from the athletic fields by a major roadway, Montgomery Avenue. The site is completely surrounded by residences.

195 students are able to walk to school; the remaining 1,300 are bused.

Much of the school site is zoned R-3, for a maximum of 28% allowable impervious coverage, and is currently at approximately 61% coverage. A relatively small portion of the site north of Montgomery Avenue is zoned R-1, with a maximum of 21% impervious coverage allowed. It is currently at about 36%. (A section of the R-1 area is under a deed restriction that allows only residential construction.) Arnold Field, the area south of Montgomery Avenue, is treated as a separate parcel under the zoning ordinance. It now has less than 20% impervious cover.

The Administration Building on the Lower Merion site is designated as a Class I Historic Resource and would likely be preserved. Seventy-eight buses are stored on site. Bus maintenance, District Administration, Operations, and Technology are housed there as well. Staff and visitor parking are inadequate, and there is no on-site student parking. This forces school parking into the neighboring streets.

#### *Harriton High School*

Harriton has the smaller student body, with 845 students in buildings with an area of 166,000 square feet, located on the larger site of 50 acres (see Figure 2.1). The Harriton site consists of a series of separate buildings connected by covered walkways, all built in 1958, plus a modular building with ten classrooms and laboratories, installed in 2003, and four portable classrooms. Though the District has generally maintained the buildings, in the last decade some maintenance has been deferred in anticipation of new construction, even as the 1958 construction has reached the end of its useful life; thus the original buildings are in poor physical condition. The campus is not ADA-accessible. The multiple-building layout makes security difficult and is hazardous in poor weather conditions. The site is surrounded by residences.

At Harriton, 20 students are able to walk to school; the remaining 825 are bused.

The only access to the school is from a two-lane road, North Ithan Avenue. There is adequate parking for staff, but student and visitor parking is limited. Thirty buses are stored on site. The site is zoned residential, and is completely surrounded by residences.

In an area zoned for a maximum of 21% allowable impervious coverage, the Harriton site is currently at 23% impervious coverage.

Table 2.1 provides more detailed information about the two schools.

Table 2.1. Existing Conditions Assessment\*

Existing Conditions at the LMSD High Schools		
	Lower Merion High School	Harriton High School
2003-2004 Enrollment (3rd day)	1,495	845
Grades Housed	9-12	9-12
Gross Area (square feet)	375,500 (does not include District Administrative Offices [DAO])	165,890 total: <ul style="list-style-type: none"> <li>▪ 148,431 original building</li> <li>▪ 13,452 (M Bldg. addition)</li> <li>▪ Four portable classrooms at 1,000 sq. ft. each</li> </ul>
Site Size	41 acres total: 23 acres north of Montgomery Ave., 18 acres at Arnold Field south of Montgomery Ave.	50 acres
Year Constructed	1932, 1941, 1951, 1963	1958, 2003
Construction Type	Non-combustible	Original buildings non-combustible; M Bldg. and portable classrooms combustible.
Number of Stories	2 to 4 stories	2, multi-level
Building Capacity (per PDE formula)	1,820	1,146 (does not include M Bldg. or four portable classrooms)
Site Information	<ul style="list-style-type: none"> <li>▪ 78 buses parked on site.</li> <li>▪ The site has two pieces. The main site contains the five academic buildings, the DAO, Operations Dept. bldg. (which includes the bus garage), and the Technology Dept. (which occupies space in the school and part of what was old Ardmore Junior High). Most of the athletic fields are located across Montgomery Ave. at Arnold Field.</li> <li>▪ Limited pedestrian circulation.</li> <li>▪ Storm water lines that drain Montgomery Ave. run under a portion of the school and are prone to backing up and flooding the crawlspace.</li> <li>▪ Requirement for bus parking increases every year, primarily due to demand for special needs transportation.</li> <li>▪ The school includes two loading docks--problems exist with exhaust fumes entering the building.</li> </ul>	<ul style="list-style-type: none"> <li>▪ 30 buses parked on site.</li> <li>▪ The four buildings surround a multi-level courtyard.</li> <li>▪ Exterior athletic facilities need to be upgraded.</li> <li>▪ Site is distant from the center of student population.</li> <li>▪ Utility (domestic water, steam condensate) mains between the buildings are old and should be replaced. Several sections have had to be repaired/ replaced.</li> <li>▪ The paving on driveways and in the student parking lot is in need of replacement.</li> <li>▪ There are problems with storm water management in the area of the bus parking lot.</li> </ul>
Parking	<ul style="list-style-type: none"> <li>▪ Limited on-site parking.</li> <li>▪ No student parking--students must park in neighborhoods surrounding the school; however, parking in neighborhoods is limited.</li> <li>▪ Bus parking is congested and inadequate.</li> <li>▪ The site does not contain enough</li> </ul>	<ul style="list-style-type: none"> <li>▪ Lack of clear organization of parking and traffic flow.</li> <li>▪ Student parking is insufficient (166 spaces), and is allocated by seniority on a lottery basis.</li> <li>▪ There is adequate parking for school staff and visitors; however, there are not enough</li> </ul>

	<p>parking for all employees assigned to the school, Administration, and Operations Dept. There is inadequate visitor parking.</p> <ul style="list-style-type: none"> <li>To meet the Township code, the number of parking spaces would need to be significantly increased.</li> </ul>	<p>parking spaces for bus drivers.</p>
ADA Standards	<ul style="list-style-type: none"> <li>School is equipped with one elevator and a chair lift that meet standards. However, when chair lift is in operation, a staircase cannot be used.</li> <li>Door clearances in the older part of the school do not meet ADA standards.</li> <li>Door widths in corridors and gymnasiums do not meet ADA standards.</li> <li>Door hardware on all doors does not meet ADA standards.</li> </ul>	<ul style="list-style-type: none"> <li>The school buildings, with the exception of the M Bldg., are not accessible to students or faculty with physical disabilities.</li> <li>The majority of the site is not ADA-accessible.</li> </ul>
Building Exterior	<ul style="list-style-type: none"> <li>Brick masonry, stone, pre-cast concrete and concrete masonry.</li> <li>Conditions of exterior walls vary from good to poor.</li> <li>Emergency repairs were required in the summer of 2003 on facades of cafeteria and tech building.</li> <li>The stone facades of the buildings need cleaning and refurbishing.</li> <li>Damaged brick needs to be repaired.</li> <li>All windows are in need of replacement due to age and poor energy efficiency.</li> <li>A new roof was installed over the majority of school in 1998.</li> <li>Old roof sections still exist over library/cafeteria building. Problem areas being dealt with using short-term solutions.</li> <li>Most exterior doors are in need of replacement due to deterioration of doors and frames. Some of these doors were replaced in 2003 due to their poor condition.</li> <li>The buildings are located in a historic overlay district and may be restricted in terms of repair or replacement of exterior materials.</li> </ul>	<ul style="list-style-type: none"> <li>Brick masonry and rubble stone.</li> <li>Masonry facades are in need of major repair, especially under classroom windows.</li> <li>The steel columns supporting the concrete canopies have deteriorated--many were reinforced in the summer of 2003 to insure the integrity of the structure, and the balance will require work within the next three years.</li> <li>Roofs are 25-year-old membrane roofs that have reached the end of useful life. A foam roof coating with a ten-year expected life was installed on the original four buildings in the summer of 2003.</li> <li>The steel sunscreen on the S Building was removed in the summer of 2003 due to its deteriorated condition, which posed a safety hazard.</li> <li>The remaining sunscreens need substantial repairs.</li> <li>All windows are in need of replacement due to age and poor energy efficiency.</li> <li>Many exterior doors and frames are deteriorated and should be replaced.</li> </ul>
Hazardous Materials	<p>The building contains asbestos pipe insulation, floor tile, and transite panels. The asbestos is maintained in good condition so that it currently poses no health risk, but should be removed in</p>	<p>The building contains asbestos pipe insulation, floor tile, and transite panels. Many of the interior doors contain asbestos. The asbestos is maintained in good condition so that it</p>

	<p>any major renovation project. Most of the pipe insulation in the 1963 classroom wing has been removed. Sections of pipe insulation and floor tile have been removed as required for repairs or minor modifications. Due to the age of the school, most painted surfaces contain layers of lead paint. This paint is mostly in good condition and is covered by one or more coats of non-lead-containing paint.</p>	<p>currently poses no health risk, but should be removed in any major renovation project. Due to the age of the school, most painted surfaces contain layers of lead paint. This paint is mostly in good condition and is covered by one or more coats of non-lead-containing paint.</p>
Building Interior	<ul style="list-style-type: none"> <li>▪ In the older building, high-quality materials such as marble, slate, terrazzo, ceramic tile, and plaster were used and are in fair-to-good condition.</li> <li>▪ The newer buildings used less durable materials and should be replaced during a renovation.</li> <li>▪ Some ceilings need replacement. (Many ceiling areas will be affected by the replacement of utilities.)</li> <li>▪ Casework and finishes in specialty areas like science labs and family and consumer science rooms are worn and need replacement.</li> <li>▪ The Ardmore gym floor needs replacement or significant repairs.</li> <li>▪ Both the Ardmore and the Main gyms floors need refinishing.</li> <li>▪ Some locker room areas need complete refurbishing with new finishes and lockers.</li> <li>▪ Hallway lockers are old and too small to accommodate student requirements.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The original tile ceilings that still exist should be replaced. (Any utility replacement will have a significant effect on ceilings.)</li> <li>▪ Casework and finishes in specialty areas like science labs and family and consumer science rooms are worn and need replacement.</li> <li>▪ The large gym floor needs replacement very soon.</li> <li>▪ In general, finishes are worn and should be replaced.</li> <li>▪ Hallway lockers are old and too small to accommodate student requirements.</li> <li>▪ Toilet partitions are original and are in poor condition.</li> </ul>
Life Safety Systems	<ul style="list-style-type: none"> <li>▪ Most of the building has no sprinkler system.</li> <li>▪ No modern fire alarm system with smoke/heat detectors.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No sprinkler system except in M Building.</li> <li>▪ No modern fire alarm system with smoke/heat detectors.</li> </ul>
Plumbing	<ul style="list-style-type: none"> <li>▪ The condition of the plumbing varies with the age of the building and ranges from good to poor.</li> <li>▪ There are 6-inch galvanized water mains serving the A Building that date to 1932.</li> <li>▪ Existing piping is functional but old. Many restrooms are missing fixtures because the lead pipe drains have failed and cannot be repaired without major work.</li> <li>▪ Plumbing in the A Building, cafeteria, and tech building should be replaced.</li> <li>▪ Fixtures are old, worn, and should be replaced.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Most of the plumbing system is original and needs to be replaced. There are frequent leaks in heating mains running above ceilings in hallways.</li> <li>▪ The steam and condensate mains that run between the buildings are deteriorated and leaking.</li> <li>▪ Fixtures are old, worn, and should be replaced.</li> </ul>

HVAC	<ul style="list-style-type: none"> <li>▪ The majority of the HVAC system-- hot water mains, steam mains and terminal units--has reached the end of its useful life and should be replaced. School does not meet current codes for ventilation.</li> <li>▪ AC is limited to portions of the building.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Original system needs to be replaced. Terminal units and steam/hot water heat exchangers need to be replaced. School does not meet current codes for ventilation.</li> <li>▪ There is no central AC system except in administration office.</li> </ul>
Electrical	<ul style="list-style-type: none"> <li>▪ The current service size is probably adequate.</li> <li>▪ The wiring is old. Wiring in older part of building dates to 1932. The tech building wiring dates from 1941.</li> <li>▪ The number and location of convenience outlets is inadequate.</li> <li>▪ Data cabling infrastructure present.</li> <li>▪ Lighting levels do not meet current standards. Lights should be replaced to improve energy efficiency.</li> <li>▪ There is a limited intrusion alarm security system. There are several cameras used to cover loading dock area only.</li> </ul>	<ul style="list-style-type: none"> <li>▪ The majority of the electrical system is original, which may indicate a need to upgrade.</li> <li>▪ Service and distribution appear to be currently adequate, but may not serve future requirements for computer and AV equipment.</li> <li>▪ The number and location of convenience outlets is inadequate.</li> <li>▪ Emergency power system is not adequate to support the new IP phone system.</li> <li>▪ Lighting levels do not meet current standards. Lights should be replaced to improve energy efficiency.</li> <li>▪ Data cabling is not complete and needs to be expanded.</li> <li>▪ There is a limited intrusion alarm security system.</li> <li>▪ The system is at the end of its useful life and should be replaced in its entirety to improve energy efficiency.</li> </ul>
Educational Issues	<ul style="list-style-type: none"> <li>▪ Size of classrooms is a problem.</li> <li>▪ There is too much distance between classrooms at extreme ends of the buildings.</li> <li>▪ Science labs and classrooms are obsolete and should be totally redone.</li> <li>▪ Library is undersized and antiquated.</li> </ul>	<ul style="list-style-type: none"> <li>▪ There are four leased modular classrooms on site that are in fair to poor condition.</li> <li>▪ In order to accommodate the growing student enrollment, the District in 2003 constructed a modular classroom building containing six additional classrooms and three modern chemistry laboratories.</li> <li>▪ Library is undersized and antiquated.</li> </ul>

<p>General Overview/Miscellaneous Issues</p>	<ul style="list-style-type: none"> <li>▪ There are many exterior doors, which creates a security problem.</li> <li>▪ School is not configured to meet current and future educational requirements.</li> <li>▪ Circulation space is limited.</li> <li>▪ There is limited space for faculty workrooms and meeting rooms (needed for IEPs).</li> <li>▪ Swimming pool depth no longer meets PIAA standards for block starts. (Any competition held at LMHS must use in-water starts.)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Multiple buildings on an open campus create security problems.</li> <li>▪ School not configured to meet current and future educational requirements.</li> <li>▪ There is limited space for faculty workrooms and meeting rooms (needed for IEPs).</li> </ul>
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\*Information in this table was obtained from the Feasibility Study for the Lower Merion School District by Foreman Program and Construction Managers, 22 October 2001, and from the LMSD Operations Department.

## 2.2 Bus Storage and Maintenance

Only 925 LMSD students are within walking distance of their schools; bus transportation is provided for the remaining 5,800 students. In addition, the School District buses 2,500 children who do not attend Lower Merion public schools. In all, the District transports 8,300 children from Lower Merion Township and Narberth Borough to 135 locations daily. The District maintains a fleet of 108 buses; in 2002-2003, those buses drove 1.37 million miles, including 734 field trips and 1,156 sports trips. The District employs 115 bus drivers and 30 bus aides. Buses are operated by the District about 300 days each year.

The District buses are currently parked at the two high school sites, with 78 on a little less than an acre at Lower Merion, and 30 on approximately 0.6 acres at Harriton. The bus maintenance building, built in 1951, is located on the Lower Merion site as well. Bus parking and maintenance puts pressure on the already crowded high-school sites, not only because of the space required by the buses themselves and the effect on the impervious surface allotment, but also because of the additional parking spaces needed for the bus drivers and aides. The noise associated with the buses, particularly in the early morning, is disturbing to the neighbors.

A site of approximately 4 acres is required to store and maintain the buses properly, house the administrative staff for the Transportation Section, and provide parking for the approximately 159 bus drivers, aides, mechanics, and administrative staff.

## 2.3 Administration, Technology, and Operations

The District Administration offices are currently housed in a historic building on the Lower Merion site, and contribute to the overcrowding on the site. The total gross area required for Administration offices is approximately 30,000 square feet. Township regulations call for 156 parking spaces for Administration staff and visitors. Administration offices can be housed



anywhere in the District, but if Pennsylvania Department of Education (PDE) funds are sought for a new Administration building, it must be built on a school site.

The District's Information Technology (IT) Department is currently housed at Lower Merion High School, and contributes to the overcrowding on the site. It requires a gross area of approximately 14,000 square feet, and 62 parking spaces. The IT Department can be housed anywhere in the District.

The Operations Department oversees the District's custodial, buildings and grounds, and transportation staff. It maintains 150 acres of grounds and 20 District buildings at 10 locations. It is currently housed on the Lower Merion site, and contributes to the overcrowding on that site. The Operations Department handles storage of District vehicles and equipment, such as mowers, vans, snowplow blades, tires, and trucks. It requires a gross area of approximately 8,500 square feet for administrative space and 40,000 square feet for shops and storage, as well as 79 parking spaces.

The Operations Department can be housed anywhere in the District, but because of the noise associated with its functions and the hours of operation, it is best suited for a non-residential area, along with the bus storage and maintenance facilities. The District would need approximately 5.75 acres to build a combined Bus/Operations facility.

## **2.4 Zoning Requirements**

Both schools are located in residential zones. Harriton is zoned R-1; Lower Merion is zoned R-3, except for a small region at the north end, which is zoned R-1. Two tables showing the zoning requirements are included in Appendix A.4.

The principal limitations imposed by the zoning requirements are:

Building height: 65 feet maximum

Percentage of land area covered by buildings: 15% in R-1, 20% in R-3

Percentage of land area impervious surface: 21% in R-1, 28% in R-3

Parking: 1 space per faculty/staff member

1½ spaces per 2 students of driving age

1 visitor space per 25 students

1 space per each 5 seats, or per each 50 sq. ft. of floor area if no seats are installed, for the largest space of public assembly.

Variances from any zoning requirements may be granted by the Township Zoning Hearing Board, but these are not given lightly.

Both schools now fail to meet the impervious cover and parking limits, Harriton by relatively little, Lower Merion by a lot. Both are "grandfathered" because of

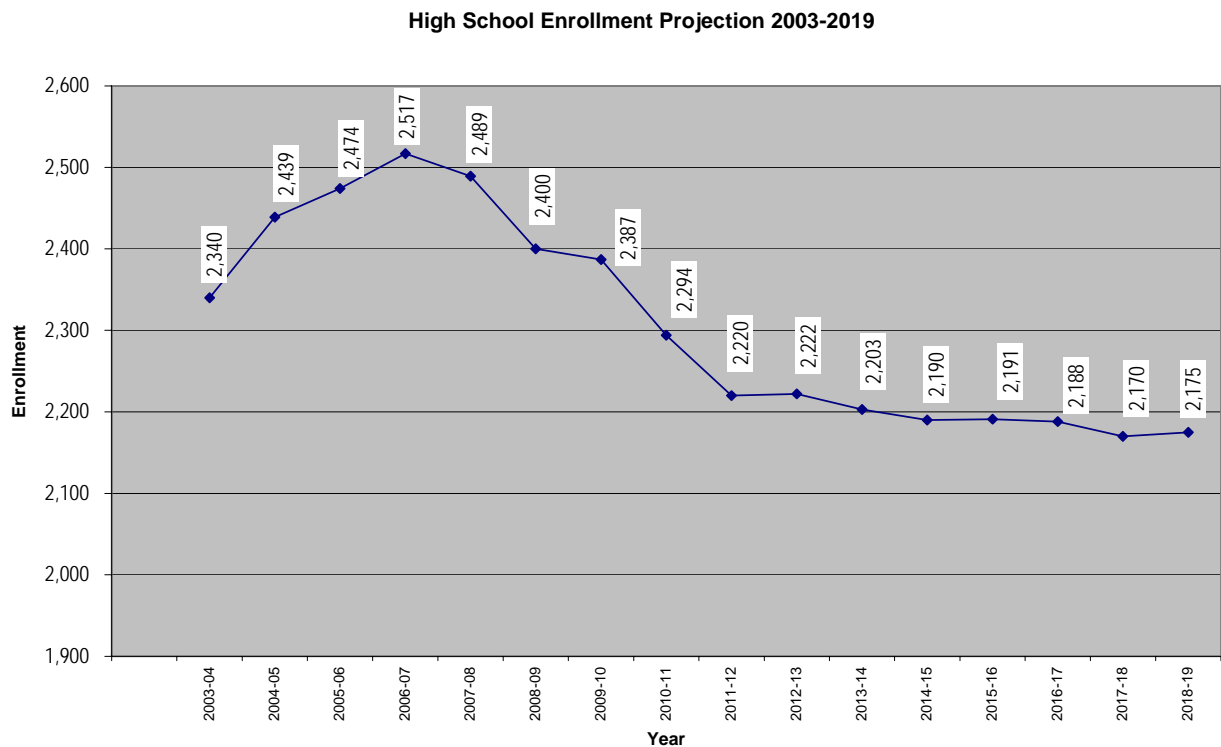
their age, but would be required to meet zoning requirements if 50% or more of the site is upgraded.

### 2.5 Current and Projected High-School Enrollment

During the 2003-2004 school year, 1,495 students attended Lower Merion and 845 attended Harriton, for a total of 2,340. This is an increase of 112 (5%) from the previous year. Figure 2.2 shows projected high-school enrollment through 2019; the number rises to a little over 2,500 students in 2007, and then drops to a nearly constant value of about 2,200 students after year 2011.

Approximately 38% of Lower Merion children attend parochial or private schools. This percentage has remained fairly constant for many years, but could change due to general economic conditions or other unpredictable factors, with consequences to the public schools.

Figure 2.2. High-School Enrollment Projection



## 3. EVALUATION OF OPTIONS

### 3.1 Introduction

Prior to meeting for an intensive three-day planning workshop, the CAC toured four different high schools and attended a panel discussion with five principals of various-sized high schools. They also met twice to discuss the goals and workings of the group, as well as to define the information and data they would require (e.g., population trends, previous studies, e-mails from the community, etc.) at the workshop.

Meeting minutes and a transcription of the principals' panel are available at the LMSD Administration offices.

### 3.2 Tours of High Schools

In early March 2004, CAC members toured the two existing LMSD high schools as well as Ridley High School (a three-year-old newly built high school) and Radnor High School (a newly renovated school). These tours underscored the poor conditions and configurations of the LMSD schools.

### 3.3 Discussion of Large versus Small Schools

On March 15, 2004, prior to the CAC workshop, the Lower Merion School District sponsored a panel discussion with principals representing five different-sized Pennsylvania high schools to consider the advantages and disadvantages of large and small schools. The schools represented were Council Rock South (2,000 students), Mount Lebanon (2,000 students), and Lower Merion (1,495 students), Harriton (845 students), and Springfield, Montgomery County (870 students).

#### *Major Findings from the Panel Discussion*

The principals answered prepared questions as well as questions submitted by the audience. In the process, they made these points:

- Smaller schools are better than large, all other things being equal. It is easier to create an effective learning community/environment in a smaller school.
- Learning relationships are easier to develop at a smaller school.
- Large schools have geometrically increasing scheduling complexities, smaller schools can be limited in course offerings.
- Two schools versus one offer more academic opportunities for college applications (two valedictorians, two highest-ranked math students, etc.). Several principals agreed that more children in a single district are likely to be accepted into a prestigious university from two high schools than from one.

- There are more co-curricular opportunities for students at two schools than at one large one. (“Co-curricular” is the currently accepted term for what used to be “extracurricular.”)

### **3.4 High-School Configuration Options**

Five high-school configuration options were evaluated during the three-day CAC planning workshop. They were:

1. Full renovation of both schools
2. One separate ninth-grade-only school, and one school for grades 10-12
3. A single high school of approximately 2,500 students
4. Two new unequal-size schools, keeping the present split of 1,600/900 students
5. Two new equal-size schools of approximately 1,250 students each.

On the first day of the workshop, after extensive discussion, two of the options, Full Renovation and the Ninth-Grade/Grades 10-12 Campuses, were eliminated from further consideration due to educational, cost, and practicality concerns.

Also on the first day of the planning workshop, a CAC member presented a third site for evaluation: Ashbridge Park/Arboretum, at the corner of Montgomery Avenue and Airdale Road in Rosemont, approximately one mile from the Harriton campus. Though the size of the site was originally described to the Committee as 44 acres, research later showed that it is actually 28 acres.

The Committee agreed to consider the Ashbridge site in its evaluation of each option.

CAC members were randomly assigned to teams to study each of the remaining high-school options (One School, Two Schools of Unequal Size, Two Schools of Equal Size) in detail over a three-day period.

The following regulatory and logistical criteria were heavily factored in the evaluation process of each of these options:

- The Pennsylvania Department of Education (PDE) has guidelines for minimum ratios of student population to school-site size. For example, for a student population of 2,500, the PDE recommends a minimum site size of 60 acres.
- The Township has zoning regulations regarding impervious cover (amount of a site that can be covered by buildings and asphalt), traffic, parking, etc.

Each of the high-school configurations is discussed below.

### **3.4.1 Complete Renovation**

This plan would call for full renovation of both high-school buildings, including mechanical, electrical, and plumbing systems. The CAC decided against further consideration of the Renovation option for the following reasons:

- Renovation preserves poor existing school layouts and configuration. Existing site issues (e.g., traffic circulation, parking) would not be fully resolved.
- Renovation would limit the ability to configure the schools to meet current and future educational needs.
- Construction of “new” schools does not preclude the partial renovation of existing facilities.
- Both schools have deferred maintenance for many years, and are beyond the point of needing minor renovations.
- Neither of the existing schools is fully ADA-compliant, and both would require extensive work to become so.
- Complete renovation is not likely to be cost-effective. Because of the age and condition of the facilities, the costs of complete renovation may exceed the costs of building new. In addition, costs are more likely to rise due to unanticipated problems.
- Phasing during renovation would have much greater impact on school operations, and require increased time to complete.

### **3.4.2 Ninth-Grade Campus and Grades 10-12 Campus**

This plan would house the ninth grade in one school and grades 10-12 in a separate school on another campus. The CAC decided to eliminate this option from further consideration early in the evaluation process because:

- There were few proven models elsewhere for comparison.
- This arrangement would require two separate transitions for students, from eighth to ninth grade, and from ninth to tenth.
- Additional staffing may be needed to meet the needs of different academic levels within a single grade level.
- Students are less likely to develop an attachment to a school they attend for only a single year, and this has negative educational implications.
- Co-curricular activities would be adversely affected.
- The value of older students as role models for younger students is lost.

### 3.4.3 One School

This option would combine both high schools into a single high school of 2,500 students. The group that studied this option compared the advantages and disadvantages of putting one school with 2,500 students on each of the existing high-school sites and on the Ashbridge site.

#### *Overall Advantages and Disadvantages of One High School*

The **advantages** of having a single District high school on any site are:

- It would save on initial construction costs, and perhaps also on operating costs.
- It would eliminate the inequity between those students who have a choice of which school to attend and those who do not.
- It would eliminate the need to duplicate some facilities.
- It would eliminate inequities between two high schools.
- A greater number of course offerings would be available to all students.
- It would promote a District-wide school identity.

The **disadvantages** of having a single District high school on any site are:

- The advantages of a smaller school would be lost: a greater sense of community, better relations between students and faculty, more opportunities for co-curricular activities, and a better educational outcome.
- Traffic problems will increase for any neighborhood in which a single high school is located.

#### *Lower Merion High School Site*

The **advantages** of placing the single school on the Lower Merion High School site are:

- It is close to the center of the Township's population.
- The site is already at 61% impervious coverage, which may be grandfathered by Township regulations.

The **disadvantages** of placing the single school on the Lower Merion High School site include:

- The site is too small for a school of 2,500 students: the PDE guidelines recommend a site of 60 acres versus the 41 acres available at this site.
- The site is in the midst of a residential area.

- Traffic is already heavy on this portion of Montgomery Avenue, and adding a larger school will seriously increase traffic and safety problems.
- The impervious area percentage is already at 61% on a site zoned for 28%, and Township building requirements (such as parking regulations) may require an increase; Township approval for such an increase is not guaranteed.
- A parking garage would be needed to meet parking requirements, with congestion, security, safety, and cost implications.
- It would be an “urban” school in a suburban district.
- Some athletic fields would have to be at the Harriton site, requiring busing of students for athletics and other activities.
- It is likely that some school buildings would need to be constructed on Arnold Field, necessitating a pedestrian bridge across Montgomery Avenue, with cost implications.
- Constructing a new high school of 2,500 students while continuing to operate the existing high school would have a severely negative impact on education, safety, health, security, and co-curricular activities.

This option would definitely require that Administration, Operations, Technology, and bus storage and maintenance be moved off the Lower Merion site.

*Harriton High School Site*

The **advantages** of placing the single school on the Harriton High School site are:

- It is a larger site than Lower Merion (50 acres), and thus closer to the PDE’s recommended 60 acres.

The **disadvantages** of placing the single school on the Harriton High School site include:

- The site is too small, 50 acres versus the 60 recommended by PDE guidelines.
- The site is distant from the center of the Township’s population.
- Constructing such a large school would increase the impervious area dramatically, putting it well over the amount allowed by the Township (21%) and over its grandfathered amount (23%), with no variance guaranteed.
- The only access to the site is by way of secondary roads, which are not adequate to handle the accompanying traffic.

- The site is far from public transportation.
- The site is in a low-density residential neighborhood (zoned R-1).
- Some of the athletic fields would need to be at the Lower Merion site, requiring busing of students for athletics and other activities.
- Constructing a new high school of 2,500 students while continuing to operate the existing high school would have a severely negative impact on education, safety, health, security, and co-curricular activities.

This option would definitely require that Administration, Operations, and Technology, and bus storage and maintenance be on another site.

#### *Ashbridge Site*

The **advantages** of placing the single school on the Ashbridge site are:

- The site is close to public transportation.
- There would be no disruption of education during construction.
- The site is along a major road, Montgomery Avenue, and has non-residential properties on two sides.
- The existing school sites would be available for recreational uses.

The **disadvantages** of placing the single school on the Ashbridge site include:

- The site is much too small (28 acres).
- The Township impervious-cover limits would not allow a large school on this site.
- Sufficient parking could not be provided on the site without a parking garage.
- The athletic fields could not be located on the site.
- It is not clear whether the District would be able to acquire the site.
- Deed restrictions on the property remain uncertain.

#### *Elimination of the One School Option*

Following lengthy discussion, the committee voted to eliminate the One School option on any of the sites. Logistical, educational, and co-curricular obstacles were so numerous that it could not be considered a viable option. These obstacles included:

- Studies show that smaller is better educationally—it is harder to build good teacher/student, student/student, principal/student, and principal/teacher relationships in a single, big school.



- A 2,500-student school simply does not fit on available sites. The PDE guidelines recommend a minimum of 60 acres.
- There are significant site constraints, including impervious cover, traffic, etc., and it would be extremely difficult to meet Township zoning and building requirements.
- Athletic fields must be located off site.
- There are fewer co-curricular opportunities for students.
- Potential financial savings in construction cost may not materialize due to additional costs for a parking garage and a pedestrian bridge.
- Potential financial savings in operating cost may be partially offset by additional busing costs.

#### **3.4.4 Two Schools of Unequal Size**

In this option, two new high schools would be constructed. One high school would accommodate 900 students, while the other high school would accommodate 1,600 students.

The **advantages** to two schools of unequal size on any site compared to two schools of equal size are:

- It is the current LMSD high-school configuration.
- There may be some construction and operating cost savings.
- There are advantages to a large school (better selection of courses) and to a small school (better learning environment). If full choice were possible, every student would be able to attend the high school that best fit his/her needs.

The **disadvantages** of having two schools of unequal size on any site compared to two schools of equal size are:

- Educational offerings are likely to be unequal.
- Given the evidence that smaller schools produce better educational outcomes, it is clearly best to place all students in the smallest practical schools.
- Full choice likely would not be possible, and the value of having two schools of unequal size is largely lost unless all students have a choice of which school to attend.

The first option that the group studied placed 1,600 students at the Lower Merion High School site and 900 students at the Harriton High School site.

The **advantages** of having 1,600 students on the Lower Merion High School site include:

- It is not drastically different from the current high-school configuration.
- The school size would best correspond to the student population density at each site.
- Redistricting could be avoided.
- The existing impervious area would not need to be increased.

The **disadvantages** of having 1,600 students on the Lower Merion High School site include:

- Poor use of the available sites: the larger number of students is placed on the smaller site.
- The site is less flexible for future needs when compared to a 1,250- or 900-student campus.
- The campus is divided by Montgomery Avenue, and may require a pedestrian bridge.
- Construction phasing would be more difficult on this crowded site than it would be for building a smaller school.
- Current traffic and safety problems at this site would increase.

The **advantages** of having 900 students on the Harriton High School site include:

- The Harriton site has sufficient area for a school of this size.
- There is more flexibility on this site.
- This option has the least impact on the neighborhoods that surround the Harriton site.

The **disadvantage** of having 900 students on the Harriton High School site is:

- Poor use of the available sites: the smaller number of students is placed on the larger site.

The group also studied the option of placing 1,600 students at the Harriton High School site and 900 students at the Lower Merion High School site. The group decided this was not a feasible alternative to recommend, for the following reasons:

- Although the Harriton site is larger, the impervious area needed for a 1,600-student school would far exceed R-1 zoning requirements and current conditions on the site.
- The area roads are not adequate to handle the accompanying traffic.
- The larger school would be distant from the center of student population, and extensive redistricting as well as additional busing would be required.
- Some of the athletic fields would need to be at the Lower Merion site, requiring busing of students for athletics and other activities.

The CAC concluded that if two schools of unequal size were recommended, the larger school should remain at the Lower Merion site. This option would definitely require that the Operations Department and bus storage and maintenance be moved off the Lower Merion site. Administration and Technology would ideally be moved off that site as well.

The Ashbridge site was not considered in the development of this option, because the site was clearly too small by PDE guidelines.

### **3.4.5 Two Schools of Equal Size**

In this option, both schools would be designed to accommodate 1,250 students.

The **advantages** of two schools of equal size compared to two schools of unequal size are:

- This is the smallest achievable size for two schools. This is the option that provides the smallest practical school for every student.
- Impervious surface requirements should be manageable at both sites.
- Site size more closely matches site use.
- This option will reduce crowding at the Lower Merion High School site.
- The two schools could be equal (though not necessarily identical) in course offerings, co-curricular activities, and facilities.
- The parking and traffic problems at Lower Merion would be eased.

The **disadvantages** of two schools of equal size compared to two schools of unequal size are:

- Redistricting would be required.
- Bus rides for some students would be longer.

- Preliminary cost estimates show that it may be more expensive to build two schools of equal size than two schools of unequal size.
- There will be some increase in traffic around the Harriton site.

This option would probably require that the Operations Department and bus storage and maintenance be moved off the Lower Merion site. Administration and Technology could be placed at either site, or at another site.

The Ashbridge site was not considered in the development of this option, because the site was clearly too small by PDE guidelines.

### 3.5 Cost Comparisons

This section presents a summary of the construction and operating costs for each construction option.

The construction cost is a straight square-foot calculation based on the required gross square footage for each site. It is a rough estimate, useful for comparison purposes. It includes an additional 30% for “soft costs.” “Soft costs” include professional fees, testing and inspections, and temporary facilities, as well as furnishings, and fixtures, and equipment (FFE). There is a 5% contingency added to the subtotal of construction and soft costs. Renovation costs are shown in more detail in Appendix A.5.

Table 3.1. Costs for New Construction and Renovation\*

Costs for New Construction and Renovation					
	Two Schools (900/1,600 Option)	Two Schools (1,250/1,250 Option)	One High School	9 <sup>th</sup> Grade & Grade 10-12 Campuses	Full Renovation
Square Footage	564,750	588,616	507,300	538,335	N/A
Cost @ \$189 per SF**	\$106,737,750	\$111,248,236	\$95,879,700	\$101,745,315	N/A
With “Soft” or Indirect Costs @ 1.3	\$138,759,075	\$144,622,707	\$124,643,610	\$132,268,910	\$165,500,000- 167,300,000
<b>Total Cost with 5% Contingency</b>	<b>\$145,697,029</b>	<b>\$151,853,841</b>	<b>\$130,875,791</b>	<b>\$138,882,355</b>	<b>\$173,775,000- 175,665,000</b>
Difference from Least Cost Option	\$14,821,238	\$20,978,050	\$0	\$8,006,564	\$42,899,209- 44,789,209
Annual Tax Impact on a \$250,000 Home	\$365	\$380	\$328	\$345	\$435-440

\*These numbers represent preliminary area of magnitude cost and are subject to change based on the detailed design and scope of the project.

\*\*Cost includes site work, FF+E (furniture, fixtures and equipment), and other environmental issues.

Operational costs are based on staffing, requirements for co-curricular activities, maintenance, and utilities. Table 3.2 is a summary of the annual operating costs for each option. Appendix A.3 shows annual operating costs for each option in greater detail.

Table 3.2. Annual Operating Costs Summary\*

Annual Operating Costs				
	Two Schools (900/1,600 Option)	Two Schools (1,250/1,250 Option)	One High School	9 <sup>th</sup> Grade & 10 <sup>th</sup> -12 <sup>th</sup> Grade Campuses
Total Annual Operating Costs	\$31,896,297	\$32,396,151	\$28,666,298	\$30,337,185
Difference from Lowest Annual Operating Costs	\$3,229,999	\$3,729,853	\$0	\$1,670,887

\*These numbers represent preliminary estimates based on Appendix A.3, Comparison of Annual Operating Costs.

These costs do not include any additional costs associated with:

- Moving buses and bus maintenance
- Moving District Administration offices
- Moving the Technology Department
- Moving the Operations Department
- Constructing a parking garage
- Constructing a pedestrian bridge.

**3.6 Estimated Tax Impact**

The estimated cost of building two new high schools is in the neighborhood of \$150 million. The interest on a bond issue of this amount would lead to a real estate tax increase of \$380 per year on a house of assessed value of \$250,000 in the School District.

# RECOMMENDATIONS

The Community Advisory Committee (CAC) held two preliminary meetings, reviewed extensive background information, visited both existing LMSD high schools and two neighboring high schools, established evaluation criteria, and attended a panel of high-school principals before meeting in three successive five-hour sessions (March 16-18, 2004) to arrive at its recommendation for the modernization of the high schools.

The Committee considered five possible school configurations:

1. Full renovation of both schools
2. One separate ninth-grade-only school, and one school for grades 10-12
3. A single high school of approximately 2,500 students
4. Two new unequal-size schools, with a projected split of 1,600/900 students
5. Two new equal-size schools of approximately 1,250 students each.

For a variety of compelling reasons described in the body of this report, the CAC eventually narrowed its choices to two: two new schools of equal size, or two new schools of unequal size. After extensive consideration of these two options, the CAC voted by over a two-thirds majority for the following recommendations:

## **1. THE SCHOOL DISTRICT SHOULD BUILD TWO NEW SCHOOLS OF EQUAL SIZE.**

The CAC recommends that two schools of equal size, designed for 1,250 students each, be constructed on the two existing high-school sites. The CAC believes that this configuration will best serve the educational needs of the students and the best interests of the community. Among the important reasons for this recommendation are:

*All students benefit from the smallest possible schools.* The CAC heard from many respected sources that smaller schools provide a stronger sense of community, promote better student/faculty interactions, and provide a better educational outcome for all students than large schools.

*All students benefit from the most equitable access to programs and facilities.* Inequities between the schools could be minimized. Both schools could offer the same range of courses. Each would have its own sports, arts, and music programs, and its own newspaper, club, and other co-curricular activities.

*Equal-size schools make best use of the existing school sites.* The Lower Merion site is badly overcrowded, with inadequate

parking for faculty, staff, and visitors, and no parking for students. This forces cars to seek parking in the surrounding residential areas. Moving some students and faculty to the larger Harriton site, reconfigured to address current parking inadequacies there, will alleviate this problem.

**2. SCHOOL BUS PARKING SHOULD BE REMOVED FROM ALL SCHOOL SITES.**

**UNTIL THE BUSES CAN BE REMOVED FROM ALL SCHOOL SITES, THEY SHOULD BE DISTRIBUTED AS UNIFORMLY AS POSSIBLE BETWEEN THE LOWER MERION HIGH SCHOOL, HARRITON HIGH SCHOOL, AND WELSH VALLEY MIDDLE SCHOOL SITES.-**

# Appendix A.1

## The Community Advisory Committee

<i>Name</i>	<i>Organization</i>
Mr. Bob Boote	Federation of Civic Associations
Ms. Nicolle Carville	Interschool Council (Merion Elementary)
Ms. Shelley Chatterjee	Penn Wynne Civic Association
Ms. Tran Che	Harriton High School student
Mr. Neil Clark	Ardwood Civic Association
Mr. Matthew Cramer	Interschool Council (Penn Wynne Elementary)
Mr. Charles Davidson	Lower Merion Township Planning Commission
Ms. Connie Dean	Rosemont-Villanova Civic Association
Ms. Jane Dellheim	Lower Merion Township Commissioner
Mrs. Bonnie Fox	Harriton High School teacher
Mr. Gerald Francis	President, Lower Merion Historical Society
Mr. Chad Graham	North Ardmore Civic Association
Mr. Lonnie Hovey	At-large member (architect and planner)
Mr. Tom Kelly	Narberth Civic Association
Ms. Sheila Kineke	Committee for Special Education
Mr. Mark Kocent	At-large member (architect and planner)
Mr. Michael Koep	At-large member (development/construction manager)
Ms. Jennifer Lammer	Narberth Borough Representative
Mr. Mike Leibowitz	Haverford Civic Association
Mr. Jake Lopez	Harriton High School principal
Mr. Russ Loue	Lower Merion High School teacher
Ms. Linda Madway	At-large member (lawyer)
Ms. Peggy Maltz	Interschool Council (Welsh Valley Middle School)
Ms. Carolyn McKenna	Lower Merion High School neighbor
Ms. Joyce Mosley	South Ardmore Civic Association
Mr. Kevin Murphy	Business Association
Mr. Art Noel	Lower Merion Township Building and Planning Department
Mr. David Piperato	Lower Merion High School principal
Ms. Rosalie Pressman	At-large member (LM Neighborhood/District Committee)
Ms. Eileen Riddell	Lower Merion-Narberth Community Coalition
Mr. Tim Roche	At-large member (business analyst/project manager)
Ms. Elizabeth Rogan	Lower Merion Township Commissioner
Ms. Lizzie Ross	Lower Merion High School student
Mr. Thomas Jay Rush	At-large member (software developer/business owner)
Mr. Chris Santa Maria	Lower Merion Education Association
Ms. Nancy Schwamm	Interschool Council (Belmont Hills Elementary)
Ms. Rosa Serota	Wynnewood Civic Association
Ms. Anne Siembeida	Interschool Council (Lower Merion High School)
Mr. Don Street	Gladwyne Civic Association
Ms. Susan Tachau	Lower Merion High School Home & School Association
Ms. Ann Trowbridge	At-large member (architect and planner)



Ms. Ilene Wasserman  
Ms. Sherry Wert  
Mr. Charles Whiting

Interschool Council (Welsh Valley Middle School)  
Harriton High School Home & School Association  
At-large member (South Ardmore community member)

# Appendix A.2

## The Strategic Planning Schedule

	DATE	TIME	PARTICIPANTS	ACTIVITY
Kick-off	February 10, 2004	7:00 pm – 8:00 pm	Public	Public Information Meeting #1– Strategic Plan Kick Off
	February 11	2:00 pm – 8:00 pm	CAC	Community Advisory Committee - Partnering Workshop
	February 18	10:00 am- 2:00 pm	Administration, Baker & Assoc.	Internal Strategy Meeting (LMSD Admin/Baker)
	February 23	8:00 pm	School Board	School Board Meeting – Baker Report to Board of Directors on Partnering Workshop Outcomes
Workshop Preparation and School Visits	February 27	9:30 am- 5:00 pm	Administration, Baker & Assoc.	Internal Strategy meeting to Compile Information for CAC Workshop (LMSD Admin/Baker)
	March 4	6:00 p.m.	CAC	CAC Lower Merion High School Tour
	March 8	6:00 pm- 7:30 pm	CAC	CAC Harriton High School Tour
		7:30 pm- 9:00 pm		
	March 9	6:00 pm	CAC	CAC Planning Meeting -Distribute Information Package -Finalize Roles and Responsibilities -Discuss Options -Discuss Workshop Agenda and Goals
	March 11	3:30 p.m.	CAC	CAC site visit to Ridley High School
	March 15	8:00 p.m.	School Board, CAC	CAC site visit to Radnor High School
Options Development	March 16 - 18	3:15 pm – 8:15 pm each day	CAC	Panel Discussion of principals from large and small schools
	March 22	8:00 pm – 9:00 pm	School Board	CAC Planning Workshop to Evaluate Options
	April 12	7:00 pm – 9:00 pm	Public	School Board Meeting – Baker Report to Board of Directors on Planning Workshop
Draft Strategic Plan	April 21	5:00 pm – 8:00 pm	CAC	Public Information Meeting #2 – Report on progress of CAC
	May 11	7:00 pm – 9:00 pm	Public	CAC Draft Strategic Plan Report Review
Final Strategic Plan	May 20	6:00 pm – 7:00 pm	CAC	Public Information Meeting #3 – Review Draft Strategic Plan
	May 24	8:00 pm	School Board	CAC Final Strategic Plan Report Review
	June 14	8:00 pm	School Board	Final Strategic Plan Report Submitted to the Board of School Directors
				Vote by the Board of School Directors on the Final Strategic Plan

# **Appendix A.3**

## **Comparison of Annual Operating Costs**

Table A.1. Comparison of Annual Operating Costs

Annual Operating Costs for Different High-School Configurations										
	Per Person Salary	Current		Two Schools of Unequal Size		Two Schools of Equal Size		Single High School	Ninth Grade/Grades 10-12 Campuses	
		Harriton	Lower Merion	900	1,600	1,250	1,250	2,500	625	1,875
<b>No. of Students</b>		845	1,495	900	1,600	1,250	1,250	2,500	625	1,875
<b>Personnel Costs (Salaries/Benefits)</b>										
<i>Professional Staff</i>										
No. required		74.90	122.10	79.65	129.55	105.04	105.04	193.80	54.82	150.00
Ratio (students/1 prof. staff)		11.28	12.24	11.30	12.35	11.90	11.90	12.90	11.40	12.50
<b>Total Prof. Staff Salaries</b>	<b>\$71,900</b>	<b>\$5,385,310</b>	<b>\$8,778,990</b>	<b>\$5,726,549</b>	<b>\$9,314,980</b>	<b>\$7,552,521</b>	<b>\$7,552,521</b>	<b>\$13,934,109</b>	<b>\$3,941,886</b>	<b>\$10,785,000</b>
<i>Administrative Staff</i>										
Principal (no.)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Asst. Principal (no.)		3.00	4.00	3.00	4.00	4.00	4.00	7.00	1.00	5.00
Athletic Director (no.)		1.00	1.00	1.00	1.00	1.00	1.00	1.50	--	1.50
Total No. of Admin. Staff		5.00	6.00	5.00	6.00	6.00	6.00	9.50	2.00	7.50
Ratio (students/1 admin. staff)		169.00	249.17	180.00	266.67	208.33	208.33	263.16	312.50	250.00
Principal Salary	\$119,000	\$119,000	\$119,000	\$119,000	\$119,000	\$119,000	\$119,000	\$119,000	\$119,000	\$119,000
Asst. Principal Salaries	\$101,500	\$304,500	\$406,000	\$304,500	\$406,000	\$406,000	\$406,000	\$710,500	\$101,500	\$507,500
Athletic Director Salaries	\$86,600	\$86,600	\$86,600	\$86,600	\$86,600	\$86,600	\$86,600	\$129,900	--	\$129,900
<b>Total Admin. Staff Salaries</b>		<b>\$510,100</b>	<b>\$611,600</b>	<b>\$510,100</b>	<b>\$611,600</b>	<b>\$611,600</b>	<b>\$611,600</b>	<b>\$959,400</b>	<b>\$220,500</b>	<b>\$756,400</b>
<i>Support Staff</i>										
Aides (no.)		10.00	16.00	10.00	17.00	14.00	14.00	25.00	7.00	19.00
Ratio (students/aide)		84.50	93.44	90.00	94.12	89.29	89.29	100.00	89.29	98.68
Aide Salaries	\$29,500	\$295,000	\$472,000	\$295,000	\$501,500	\$413,000	\$413,000	\$737,500	\$206,500	\$560,500
Campus Aides (no.)		5.00	10.00	4.00	6.00	5.00	5.00	10.00	2.00	8.00
Ratio (students/aide)		169.00	149.50	225.00	266.67	250.00	250.00	250.00	312.50	234.38
<b>Campus Aide Salaries</b>	<b>\$16,000</b>	<b>\$80,000</b>	<b>\$160,000</b>	<b>\$64,000</b>	<b>\$96,000</b>	<b>\$80,000</b>	<b>\$80,000</b>	<b>\$160,000</b>	<b>\$32,000</b>	<b>\$128,000</b>

Clerical (no.) Ratio (students/1 clerical staff)		9.00	12.00	9.00	12.00	10.00	10.00	20.00	5.00	15.00
Clerical Staff Salaries	\$40,460	\$364,140	\$485,520	\$364,140	\$485,520	\$404,600	\$404,600	\$809,200	\$202,300	\$606,900
Custodial (no.) Square Feet of Building Ratio (square feet per custodian)		8.00	15.00	9.50	15.00	13.00	13.00	22.00	5.50	16.50
Custodial Staff Salaries	\$43,400	\$347,200	\$651,000	\$412,300	\$651,000	\$564,200	\$564,200	\$954,800	\$238,700	\$716,100
EPER* Cost		\$941,000	\$1,000,000	\$945,000	\$1,000,000	\$980,000	\$980,000	\$1,300,000	\$400,000	\$1,150,000
Total Salaries		\$7,922,750	\$12,159,110	\$8,317,089	\$12,660,600	\$10,605,921	\$10,605,921	\$18,855,009	\$5,241,886	\$14,702,900
Total Benefits (30% of Salary)		\$2,376,825	\$3,647,733	\$2,495,127	\$3,798,180	\$3,181,776	\$3,181,776	\$5,656,503	\$1,572,566	\$4,410,870
Total Personnel Cost by Building		\$10,299,575	\$15,806,843	\$10,812,216	\$16,458,780	\$13,787,697	\$13,787,697	\$24,511,512	\$6,814,452	\$19,113,770
Total Personnel Cost by Option		\$26,106,418		\$27,270,996		\$27,575,394		\$24,511,512		\$25,928,222
<b>Building Operational Cost</b>										
Square Feet of Building Utilities Costs (sq. ft. factor 1.5)		178,652	355,882	220,275	344,475	294,308	294,308	507,300	146,700	391,635
Maintenance Costs (sq. ft. factor 4.46)		\$267,978	\$533,823	\$330,413	\$516,713	\$441,461	\$441,461	\$760,950	\$220,050	\$587,453
Total Operational Cost by Building		\$1,195,182	\$2,380,851	\$1,473,640	\$2,304,538	\$1,968,917	\$1,968,917	\$3,393,837	\$981,423	\$2,620,038
		\$1,463,160	\$2,914,674	\$1,804,052	\$2,821,250	\$2,410,378	\$2,410,378	\$4,154,787	\$1,201,473	\$3,207,491
<b>Total Personnel and Operational Cost by Building</b>		\$11,762,735	\$18,721,517	\$12,616,267	\$19,280,030	\$16,198,075	\$16,198,075	\$28,666,299	\$8,015,925	\$22,321,261
<b>Total Cost by Option</b>		\$30,484,252		\$31,896,298		\$32,396,150		\$28,666,299		\$30,337,186

Note: Figures are based upon a unit cost factor and do not reflect actual cost savings that may accompany more energy-efficient new equipment and buildings.

\*EPER refers to "Extra Pay for Extra Responsibility," e.g., for a coach or faculty sponsor.

# Appendix A.4

## Lower Merion Township Zoning Requirements

Information in these tables were obtained from Chapter 155, “Zoning,” of the Code of the Township of Lower Merion, volume 26.

Table A.2. R-1 Zoning

R-1 Zoning	
<i>ZONING CATEGORY</i>	<i>REQUIREMENTS</i>
Permitted Uses <b>R-1</b>	Public School
Height of Buildings <b>R-1</b>	With the provisions of Section 155-137, a building shall not exceed 65 feet.
Minimum Lot Dimension <b>R-1</b>	<ul style="list-style-type: none"> <li>▪ A lot area of not less than 30,000 square feet.</li> <li>▪ A lot width of not less than 90 feet at the street line.</li> <li>▪ Extending from the street line to a point 25 feet beyond that point of the proposed building closest to the rear lot line shall be provided for every building hereafter erected or used for any use permitted in this district.</li> </ul>
Floor Area Ratio (FAR) <b>R-1</b>	N/A
Front Yard <b>R-1</b>	At least 50 feet.
Rear Yard <b>R-1</b>	At least 25 feet.
Side Yard <b>R-1</b>	<ul style="list-style-type: none"> <li>▪ There are two side yards, one of each side of the principal building, neither, of which shall be less than 25 feet wide.</li> <li>▪ An accessory building may be erected in the side yard not closer than 10 feet to the side lot line, provided that such building is entirely separated from the principal building, is located at least 10 feet back from the front street line than the rearmost portion of the principal building and the height of the building is 15 feet or less.</li> </ul>
Building Area <b>R-1</b>	Not more than 15% of the area of each lot may be occupied by buildings.
Impervious Surfaces <b>R-1</b>	Not more than 21% of the area of each lot may be covered with impervious surfaces.
Courts <b>R-1</b>	Inner and outer courts are permitted in schools, but they must comply with the requirements of the Building Code.
Off-street Parking Requirements <b>R-1</b>	<ul style="list-style-type: none"> <li>▪ 1½ spaces per 2 students of driving age.</li> <li>▪ 1 space per faculty/staff member.</li> <li>▪ 1 visitor space per 25 students.</li> <li>▪ 1 space per five seats, or 50 square feet of floor area where seating is not installed, for the largest place of public assembly.</li> </ul>
Reduction of Parking Spaces <b>R-1</b>	Off-street parking facilities provided to comply with the provisions of this chapter shall not subsequently be reduced below the required amount.

Size of Parking Spaces R-1	<ul style="list-style-type: none"> <li>▪ The area shall not be less than 171 square feet of usable area.</li> <li>▪ The dimensions shall be no less than 9 feet in width and no less than 19 feet in depth.</li> </ul>
Location of Parking Spaces R-1	This is handled during the land development process.
Parking Access, Maintenance and Operation R-1	This is handled during the land development process.
Parking Garages R-1	<ul style="list-style-type: none"> <li>▪ A vehicle garage space shall consist of an area of not less than 171 square feet of usable area for each motor vehicle and shall be of the dimensions of no less than nine feet in width and 19 feet in depth for each motor vehicle, exclusive of adequate interior driveways and exclusive of driveways connecting the garage or parking space with a street or alley.</li> <li>▪ A garage may be located wholly or partly inside the walls of the principal building or attached to the outer walls.</li> <li>▪ If the garage is a separate structure, the garage shall conform to all accessory building requirements.</li> <li>▪ The garage may be constructed under a yard or court when authorized as a special exception, but may not extend within 10 feet of any lot line. The space above the under ground garage shall be deemed to be part of the open space on the lot.</li> </ul>
Off-street Loading Requirements R-1	<ul style="list-style-type: none"> <li>▪ Sufficient area shall be provided inside or outside the principal building for the loading and unloading of vehicles.</li> <li>▪ Truck loading must occur without affecting required parking or traffic flow.</li> </ul>
Off-street Loading Locations R-1	Sufficient area shall be provided inside or outside the principal building for the loading and unloading of vehicles.

Table A.3. R-3 Zoning

<b>R-3 Zoning</b>	
<i>ZONING CATEGORY</i>	<i>REQUIREMENTS</i>
Permitted Uses R-3	Public School
Height of Buildings R-3	With the provisions of Section 155-137, a building shall not exceed 65 feet.
Minimum Lot Dimension R-3	<ul style="list-style-type: none"> <li>▪ A lot area of not less than 10,000 square feet.</li> <li>▪ A lot width of not less than 70 feet at the street line.</li> <li>▪ Extending from the street line to a point 25 feet beyond that point of the proposed building closest to the rear lot line shall be provided for every building hereafter erected or used for any use permitted in this district.</li> </ul>
Floor Area Ratio (FAR) R-3	N/A
Front Yard R-3	At least 40 feet.
Rear Yard R-3	At least 25 feet.
Side Yard R-3	<ul style="list-style-type: none"> <li>▪ There are two side yards, one on each side of the principal building, neither of which shall be less than 20 feet wide.</li> <li>▪ An accessory building may be erected in the side yard not closer than five feet to the side lot line, provided that such building is entirely separated from the principal building, is located at least 10 feet back from the front street line than the rearmost portion of the principal building and the height of the building is 15 feet or less.</li> </ul>



Building Area R-3	Not more than 20% of the area of each lot may be occupied by buildings.
Impervious Surfaces R-3	Not more than 28% of the area of each lot may be covered with impervious surfaces.
Courts R-3	Inner and outer courts are permitted in schools, but they must comply with the requirements of the Building Code.
Off-street Parking Requirements R-3	<ul style="list-style-type: none"> <li>▪ 1½ spaces per 2 students of driving age.</li> <li>▪ 1 space per faculty/staff member.</li> <li>▪ 1 visitor space per 25 students.</li> <li>▪ 1 space per five seats, or 50 square feet of floor area where seating is not installed, for the largest place of public assembly.</li> </ul>
Reduction of Parking Spaces R-3	Off-street parking facilities provided to comply with the provisions of this chapter shall not subsequently be reduced below the required amount.
Size of Parking Spaces R-3	<ul style="list-style-type: none"> <li>▪ The area shall not be less than 171 square feet of usable area.</li> <li>▪ The dimensions shall be no less than 9 feet in width and no less than 19 feet in depth.</li> </ul>
Location of Parking Spaces R-3	This is handled during the land development process.
Parking Access, Maintenance and Operation R-3	This is handled during the land development process.
Parking Garages R-3	<ul style="list-style-type: none"> <li>▪ A vehicle garage space shall consist of an area of not less than 171 square feet of usable area for each motor vehicle and shall be of the dimensions of no less than nine feet in width and 19 feet in depth for each motor vehicle, exclusive of adequate interior driveways and exclusive of driveways connecting the garage or parking space with a street or alley.</li> <li>▪ A garage may be located wholly or partly inside the walls of the principal building or attached to the outer walls.</li> <li>▪ If the garage is a separate structure, the garage shall conform to all accessory building requirements.</li> <li>▪ The garage may be constructed under a yard or court when authorized as a special exception, but may not extend within 10 feet of any lot line. The space above the underground garage shall be deemed to be part of the open space on the lot.</li> </ul>
Off-street Loading Requirements R-3	<ul style="list-style-type: none"> <li>▪ Sufficient area shall be provided inside or outside the principal building for the loading and unloading of vehicles.</li> <li>▪ Truck loading must occur without affecting required parking or traffic flow.</li> </ul>
Off-street Loading Locations R-3	Sufficient area shall be provided inside or outside the principal building for the loading and unloading of vehicles.

# Appendix A.5

## Renovation Costs for Harriton and Lower Merion High Schools

Table A.4. Renovation Costs for Harriton and Lower Merion High Schools

Harriton and Lower Merion High Schools Preliminary Construction Estimate/Budget for Renovation (in Millions)			
<i>(Total Renovation Option as presented 3-12-01, costs updated to 2004)</i>			
	Harriton High School Total Renovation (Educational Equity)	Lower Merion High School Total Renovation	Construct New District Administration Office at Harriton (30,000 S.F.)
District Administration Bldg. (DAO)	N/A	Not On Site	(30,000 S.F.) \$5.9
Operations Dept. (OP)	N/A	On site	N/A
Swimming Pool	(18,000 S.F.) \$2.5-\$3.9	Included in renovation	N/A
Provide Educational Program Equity w/o pool	(9,000 S.F.) \$1.8	See table note	N/A
New Construction	(91,000 S.F.) \$17.9	(136,000 S.F.) \$28.0	N/A
Add Sprinkler & ADA	In total cost	\$4.5	N/A
Total Mechanical, Electrical and Plumbing Renovations (MEP)	In total cost	In total cost	N/A
Total Renovation	(161,200 S.F.) \$25.3	(295,700 S.F.) \$40.4	N/A
Demolish High School	N/A	\$1.4 (partial)	N/A
Months of Construction	44	61	12
<b>Subtotal</b>	<b>\$47.4-\$48.9</b>	<b>\$74.3</b>	<b>\$5.9</b>

16 Temporary Classrooms (if District Administration remains at LMHS; see note)	N/A	\$1.3	N/A
16 Additional Classrooms (if District Administration remains at LMHS; see note)	N/A	\$4.2	N/A
Indirect Costs @ 30% <sup>1</sup>	\$14.2-\$14.7	\$23.9	\$1.8
<b>Total</b>	<b>\$61.6-\$63.6</b>	<b>\$103.7</b>	<b>\$7.7</b>
Tax Impact on Property Valued @ \$250,000 <sup>2</sup>	\$154-\$159	\$259	\$19

Note: The District Administration offices would be in a new building at the Harriton site (see separate column for cost). Operations would remain at the Lower Merion site (buses split between LMHS and HHS). If Administration remains at LMHS, add \$5.5 million for cost of temporary classrooms and additional permanent classrooms. A parking garage may be necessary to meet township requirements; add \$10.1 million before indirect or "soft" costs.

<sup>1</sup>The estimates include an additional 30% for indirect or "soft costs," which are for professional fees, testing and inspection, temporary facilities, and furnishings, fixtures, and equipment (FFE).

<sup>2</sup>Annual increase in property taxes based on that option. Figures shown are actual dollars, not millions.