

ABSTRACT

Title of Thesis: INTEGRATING EDUCATION AND COMMUNITY-
A MIDDLE SCHOOL IN BALTIMORE, MARYLAND

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This thesis argues that architecture can enhance the education process through both the plan strategy and the expression of details. This thesis investigates this idea through the development of a middle school, which emphasizes the involvement and exchange between the school, the community, and local business establishments.

Mixed-use and urban environments offer distinct amenities not found in suburban areas. Planning that recognizes and incorporates the community amenities into the school, and vice versa, will produce better schools and enhance the community.

The site for this project is the eastern segment of Patterson Park, in East Baltimore, Maryland. The site is at the junction of three distinct zones; the residential community, the commercial district, and the park. Developing this site affords the opportunity to create an urban space, which unites the three elements and establishes the school as a physical and symbolic transition between all three zones.

Integrating Education and Community

A Middle School

in Baltimore, Maryland

by

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INTRODUCTION

The excitement and vitality of the city, along with its social and cultural amenities has long drawn young adults and upper income childless couples. Since the late nineteenth century, and through out the twentieth century there has been a steady exodus of the middle and professional classes to the suburbs. Lured initially by open space and affordable land, they now flee to the suburbs for safety and a quality education for their children. Many of the amenities once found only in urban centers have followed. Established middle and lower middle class neighborhoods are threatened by this trend, as economically mobile residents vacate these neighborhoods, leaving them to elderly and the poorest residents. Cities can not survive if this continues; they are dependent on a mix of the classes to remain vital.

Recent attention to the abundant problems of American schools and the public education system has prompted many studies and proposals to amend traditional curriculum and class structure. The disparity of conditions between urban and suburban school facilities, however, has drawn relatively little attention. As a result, many urban schools are graduating students who are unable to effectively join the work force, or efficiently perform tasks even in the lowest level jobs.

This thesis examines the role of a middle school in centering an urban neighborhood and shaping a community. While it is generally accepted practice to use school facilities for some community functions, planners and administrators need to take a more aggressive position on integrating the school and community. It is imperative that the school systems recognize changing social and household structure, and respond to these by increased

involvement in the lives of the students and the larger community. School officials need to employ a progressive curriculum which integrates students' lessons with community involvement and participation. By fostering this relationship, both the school and the community benefit by providing amenities and increasing accessibility which neither would otherwise have. With further investments in urban infrastructure and amenities, an improved public school system will help stem the flow of the urban middle class to the suburbs.

In the past, school buildings were a recognizable civic presence in the neighborhood. They occupied a position of prominence within the neighborhood, and symbolized stability and permanence. Their presence defined a space or place within the community that belonged to the students. This quality of space making was muddled if not entirely lost in suburban school planning. It is imperative especially in times of social instability, that schools recognize the importance of civic symbolism and invest in quality architecture. At the same time, it is inappropriate for a school building built today to employ classical styles or stylistic applications solely for aesthetic or sentimental reasons. These styles bring to mind ideas of stability and permanence; ideas which have little in common with the current state of public education. On the contrary, a new school building should challenge it's users through critical use of quality materials and contemporary building technology.

It is important to note, however, the pace at which education methods and tools have changed with in the past twenty or so years, and will continue to change into the future. School architecture must recognize and respond to current trends in educational methodology and equipment, without trying to lead a cause which educators will not follow. It must be flexible enough, moreover, to accommodate future pedagogical changes as well as future tools and technological innovations.

This thesis uses the Highlandtown neighborhood in Eastern Baltimore. Baltimore has demonstrated a progressive attitude toward its' public education system, and was one of the first cities to experiment with private management. Several of Baltimore's public schools are managed by Educational Alternatives, a Bloomington, Minnesota company

specializing in fiscal management of public schools. This willingness to experiment makes Baltimore an ideal city to test these issues. The school building must respond to the needs of the Highlandtown community, and the site condition at the edge of a large urban park and a dense urban neighborhood. In addition, the building should be a reflection of both its place and time. The civic nature of the building is expressed through the quality of materials and the distinction between the public and private elements of the program.

Highlandtown is a working class neighborhood. It supports one middle school and four public elementary schools, as well as one private elementary school. The local high school is in a separate neighborhood. This thesis redevelops the middle school as a neighborhood center.

EDUCATION PHILOSOPHY

IN THE BEGINNING - The Evolution of Public Education

During the earliest times, education was the province of the wealthy. It was not until the advance of the Puritans and those of kindred beliefs, that education became widespread. It was believed that only through knowledge, reading the Bible and questioning its message, could a person truly come to know God. The religious descendants of the Puritans brought this philosophy to the new world when they settled in New England. They continued to instruct their children in reading, writing, arithmetic and religion. Their mission was to teach enough math to run a farm, and enough reading to read the Bible. As the colonies stabilized, classes were formalized and small schools were established. In the mid 17th century New England residents passed the Massachusetts Bay Colony code requiring the creation of formal schools for each settlement over a given population size, and specifying payment and support of the teacher as a public responsibility of each community member. Thus the first American public schools were established. The colony was comprised of a single religious philosophy, the educational intention was to homogenize the community. It never occurred to the townsmen that there would ever be any one within the community that was not also a church member, or shared in the common religious philosophy. These schools were established through a religious agenda, that they became publicly funded and available to all citizens evolved purely by accident.¹

Since the earliest days of public schools, there have been three main philosophies as to the purpose of education. They can be categorized as the “Tribal Center”, “Factory”, and “Hospital”.² The Tribal center evolved from the ideals of the early republic. Its’

mission was to promote the ideals and morals of the republican Protestant morality, and to develop the kind of literacy thought to be essential to fulfilling ones civic duties. This ideal, however, did not translate well to the increasingly multiracial and multi-ethnic world of urban America.

By the late nineteenth century, schools began to take on another role, to Americanize the immigrant child, and to sort and standardize students according to their abilities. Education reform philosopher Phillip Schlechty calls this model of schooling ‘The Factory’ model. This model developed concurrently with the increasing influx of non Anglo-Saxon immigrants, and the dawn of the industrial revolution. Its main quality is that it promoted a classist society whereby those students who already conformed to the Anglo-Saxon Protestant definition of “Americanized” had a huge advantage over those who were not.

In the late 19th and early 20th centuries the progressive view emerged as a reaction to the factory model, and an out growth of the general progressive movement. This model held that the schools should be a vehicle to remediate social ills, thus eliminating the preordained fate of a child’s future based on his or her ethnicity. The ideal being that every child advances having mastered the same skills, and graduates with an equal opportunity for success.

In today’s schools, the overwhelming philosophy is that of the school as the great social equalizer. This idealistic philosophy, however, is not easily practiced, and American schools, by and large, have failed to live up to this ideal. The problem with schools has reached such epidemic proportions that it has become a primary element of the national political agenda. The most frequently cited statistics are low ranking test scores of American students when compared to international students. The political/economical concern is that Americans will be unable to compete in the global market place within the coming generations. There is, however, a major disparity between statistical innuendo and actual conditions. Many suburban and private schools are doing an acceptable, if not an exceptional, job of serving and educating their students. The primary problems are concentrated

in the urban centers of American cities. Common conditions in urban schools include outdated, substandard, and inadequate amounts of teaching materials and equipment, and dilapidated school buildings and classrooms. In the worst cases, prisons offer nicer, newer, and more plentiful facilities than many public schools are able to offer.

Modern social ills have also crept so far into the schools that safety, security and discipline, for both the students and staff, have become such a large issue that teachers and administrators are hardly able to teach. Discipline of the students can be reinforced spatially through gridded desk arrangements and open or semi open spaces and classrooms, allowing for easy supervision of the students. These open spaces, however, are not an idealized form for a classroom, and rows of desks are not always the best seating arrangements for the students. The move toward smaller schools and smaller classes is a better counter measure. Some large urban schools, such as Brooklyn High School in New York City, are currently experimenting with ways in which to scale down the size of the schools



Fig. 1: Student Seating Arrangement - Grid
Student seating arranged in rows and columns allows for easy supervision of the students

with out actually reducing the numbers of students, or the size of the school. Solutions thus far include the creation of “houses” within the school. Each student belongs to a house based on his or her curriculum. The houses give the students a small group to identify with, and foster stronger relationships between the faculty and students of each house. This also cuts down on the anonymity otherwise inherent in a large urban school.³ In new schools, small classrooms with a low student-teacher ratio are ideal. Classes of 20-25 students per teacher allow the teachers to deal with the students on an individual basis. This also allows for relationships of mutual respect, between the students and teachers, which can not otherwise develop without individual contact between the students and faculty. While these measures will significantly decrease discipline problems, they will not be entirely eliminated.



Fig. 2: Student Seating Arrangement - Group
Students sitting and working in an informal group arrangement.

REEXAMINING THE PURPOSE OF SCHOOLS

There are two main reasons students go to school, the obvious one is to ‘be educated’, the other, less obvious reason is to socialize and be socialized. While going to school to be educated is an obvious reason to have schools, what it means to ‘be educated’ is much less obvious. Traditional thought holds that there are two fundamental elements of knowledge. The first is knowing the facts, the second is understanding concepts, how and why things are as they are. The two together are the foundations of all disciplines, and when combined with creativity, lead to the ability to think and solve problems. Teaching and learning the ‘facts’ is fairly straight forward, teaching, learning, and understanding concepts, is not so straight forward.

Significant research has been done on psychology and learning methods. Among the most significant and relevant is Harvard University Professor Howard Gardner’s philosophy of multiple intelligences. He states that there are at least seven “intelligences” that everyone possesses in varying degrees. Abilities seen previously as skills or talents are really different intelligences. He states further, that different teaching methods will have different affects on each child, depending on his or her dominate intelligence type. Gardner’s philosophy includes the idea that concepts of one discipline can be explained using ideas from other disciplines as a model to aid a students’ understanding. He, along with Brown University Theodore Sizer, advocates a “Project based” curriculum which would incorporate overlapping of disciplines. Such a curriculum would incorporate both individual and group work among the students.⁴ The results of his philosophy and ideas have a significant impact not just on how subjects are taught, but which subjects are taught, and how they are all ultimately related.

Such a change in educational pedagogy would have tremendous impact on school design. Whereas fact-based information is easily transferred to students through lectures and books, a gridded seating arrangement with a single focal point at the front of the room is appropriate. Natural daylight is important, and windows in these classrooms are

Fig. 3: Classrooms With Ancillary Spaces [P/A, June 1994, p. 79.]

Gruzen Samton's prototype classroom for New York's School Construction Authority integrates places for individual and group work. The classroom is shifted squares, creating main and ancillary spaces. In a middle school, separate work areas need not be integrated into a single classroom.

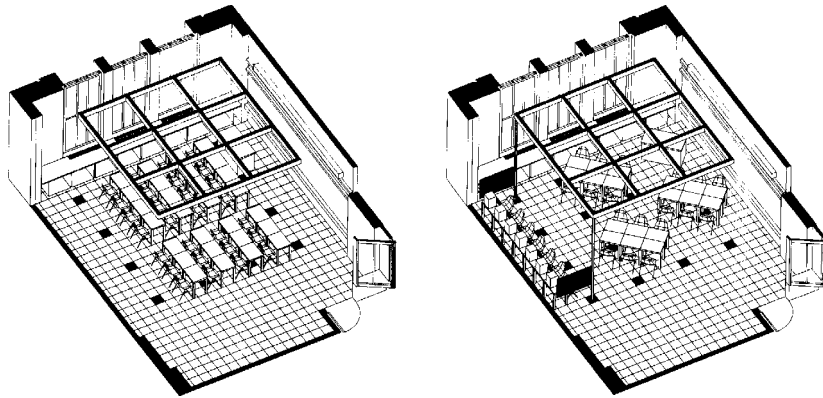
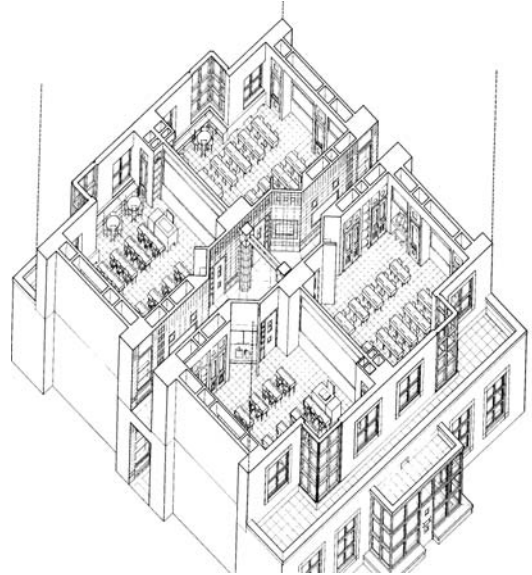


Fig. 4: Classroom With Flexible Seating [P/A, June 1994, p.81]

Ehrenkrantz & Eckstut's prototype school for New York uses a suspended trellis system incorporating an overhead power grid. This system allows for flexible seating arrangements, and the ability to place a computer terminal at each desk.

necessary, but best if they are rendered as smaller punched openings and not large expanses of glass. In addition to regular classroom space, project work areas would be required that can accommodate small, medium and large groups. These areas need not be directly within the classroom space, but should be semi-public spaces, possibly serving as transitional space between the corridor and the classroom. Seating arrangements in these areas should be in formal and informal groups. These spaces can be characterized as open, with a lot of daylight and access to the outdoors. To allow for the greatest flexibility, there should also be places for shared classroom spaces; larger rooms where two or more classes and teachers, from the same or different disciplines, can come together when

Fig. 5: Student Lounge - ACT Academy,

Texas [P/A, June 1994, p. 83.]

ACT Academy incorporates data links in many areas of the school building so that students can link onto the school network from many places within the school.



necessary. In addition, just as physical education, music, studio and industrial arts programs play a significant role in the students' education, the facilities that house these programs play a prominent role in organizing the school.

The computer is expected make a significant impact on the future of school organization and teaching methods. Ideas have been raised suggesting that the prevalence of the computer and availability of internet and other network services may soon make classrooms obsolete. Many universities and colleges offer online courses. This is not necessarily an advocacy of the beginning of a new and improved instructing system, the primary motivations are budget incentives handed down from state mandates⁵ or convenience and access for part time adult students. Computers should not be anticipated to replace classrooms, or the gathering of a group together in a central place. Human beings depend on all five senses to acquire information, not being physically present in a group significantly hampers the ability to use more than one or two of these senses to gather information, and could thus impede the learning process.

While they will not replace traditional classrooms, computers have a significant impact on their organization. The infrastructure should be in place for hard wired and wireless access throughout the building. The computer is a prime example of the interrelation of academic disciplines. Their program languages and operating systems derive from applied mathematics, yet as a tool, the scope of their applications is virtually unlimited. Program languages should be taught and applications integrated into other disciplines. To

that end, there will also be several computer labs incorporating the latest technological hardware and software. These labs will be semi- public, in that use of the facilities will be available to community residents who are unable to afford this technology in their homes. In Highlandtown, this applies to most of the residents.

THE TRIBAL CENTER — The School Day As A Social Event

The second function of the schools is to participate in the community, and to provide a place for the students to continue to grow socially. The social aspect of the schools has recently gained a great deal of attention, most of it in response to a study on the differences between male and female student performances in a coeducational environment. In the simplest of terms, female students between the beginning of middle school and the high school graduation, allegedly do not fair as well as they could. While the female is beginning to question herself, and her self esteem, her male counterparts talk more in class, are called on more often, and generally receive more of the teachers' attention. This problem is linked to both the females' and the teachers' behavior, and could theoretically be corrected by modifying the behavior of both parties. Obviously the problem and solution are far more complex than this, but the situation does support an important argument; the link between social development and potential success of the student.

If asked, many teenagers would readily admit that the main reason they go to school, in fact, their main function in life, as a teenager, is to socialize, see their friends, and hangout. Schools should recognize that they are the primary stage for the students' social exchange. Schools also need to realize that society has changed and the school needs to resume a much stronger social influence over the students. The school should, ideally be a sanctuary for the students. The school should not accept that it can not be all things to all people; on the contrary, it should strive to be exactly that. Most importantly, to maintain the sphere of influence of the school, its facilities, both recreational and academic must be available to the students all day, during and after regular school hours.

THE SCHOOL AND THE COMMUNITY - Incorporating Real Life in the Classroom

Educating children is an activity that should involve all members of the community. The ages from 12-15 are the beginning of the transition from childhood to adulthood. At this stage, children are ready to participate in the community in roles which require increasing responsibility. This participation has mutual benefits for the student's development and the community as a whole. The school is the perfect vehicle for establishing and guiding this relationship.

Many educators are interested in new teaching methods and willing to experiment. New school designs have focused on designing spaces for new teaching methods, new strategies, and new learning equipment. The "Micro-Society school" represents one of the new ideas. The concept, developed by George Richmond, is intended for elementary school children. In addition to traditional classroom learning, the curriculum is based on a small town model. Children learn about governing, making and enforcing laws, business and commerce, and other aspects of community life by directly engaging in the activities.⁶ The Eugenio Maria de Hostos school in Yonkers, N.Y., is the first school designed around this concept. The center atrium is designed as an interior street, or town square, featuring the Micro-Society Town Hall and First Micro-Society Bank.



Fig. 6: Micro-Society School Town Square.

[P/A, June 1994, p. 83.]

The Eugenio Maria de Hostos school, Yonkers, NY, the first school designed around the micro-society concept, demonstrates how pedagogy influences architectural form.

In Boston, Massachusetts, there is a program called Protech, which employs inner city students in health and technology related fields while they are still in high school. The program gives the students a realistic view of the work world, as well as a head start in these careers. Most importantly, the program builds on the students' school work, and gives them a sense of achievement, and self confidence. A similar program, aimed toward middle school students' abilities and building upon their school work, would be highly beneficial to both the students and the community. In the middle school, such a program would bridge the gap between the insular community system of a micro-society program, and a high school internship program.

For middle school students, the program would begin in the classroom and progress to the place of commerce of the community business associate. Beginning in the sixth grade, participants in the program would meet in a classroom during regular class periods. During the class they would work on projects associated with relevant business or professional activities. The program will be tailored to the needs of the student and participating community member. The students who advance with the program will spend more time working outside the classroom, and will eventually spend one to two half days per week working in an office. Involving local businesses would further the ties between the school and the community and allow small business owners access to school computers and equipment not otherwise available to them. In association with this program students will also run various in house commercial ventures, selling school related merchandise and products made by the students.

SEEKING KNOWLEDGE, DEMONSTRATING TRUTH -

The Architecture of the School

We may not be able to command good or beautiful or inventive architecture; but we can command an honest architecture. . . . what is there but scorn for the meanness of deception?

- John Ruskin, The Seven Lamps of Architecture

To seek knowledge is inherently to seek truth. In 1849, This statement appeared in John Ruskin's *The Seven Lamps of Architecture*. Shortly afterward the idea of truth in architecture became an issue to early modern architects and theorists. The theory related to the use of modern materials and technology to revive earlier building technologies and movements as styles. Kenneth Frampton expands on this idea in part of his discussion of critical regionalism. The sixth of Frampton's seven points states:

“While opposed to the sentimental simulation of local vernacular, critical regionalism will, on occasion, insert reinterpreted vernacular elements as disjunctive episodes within the whole. It will moreover occasionally derive such elements from foreign sources. In other words it will endeavor to cultivate a contemporary place oriented culture without becoming unduly hermetic, either at the level of formal reference or at the level of technology...”⁷

Skidmore, Owings and Merrill's mosque in New York exemplifies these ideas in its use of contemporary building materials to refer to and abstract traditional Islamic forms. The colonnade at the University of Virginia and the covered walkway at the State University of New York at Purchase further exemplify these principles. The colonnade at the University of Virginia is a composition of several styles, and was intended as a lesson in classical architecture. The walkway at Purchase refers to Jefferson's colonnade, but is a very specific expression of contemporary material and technical ability.

In consideration of these ideas, a school building in Baltimore should look to local building traditions for inspiration. Typical Baltimore building materials include red brick, steel, cast iron, and white marble. A school building should also demonstrate the principles of physics and technology inherent in its construction through the expression of connections and materiality, and not conceal these principles behind an applied historic architectural style.

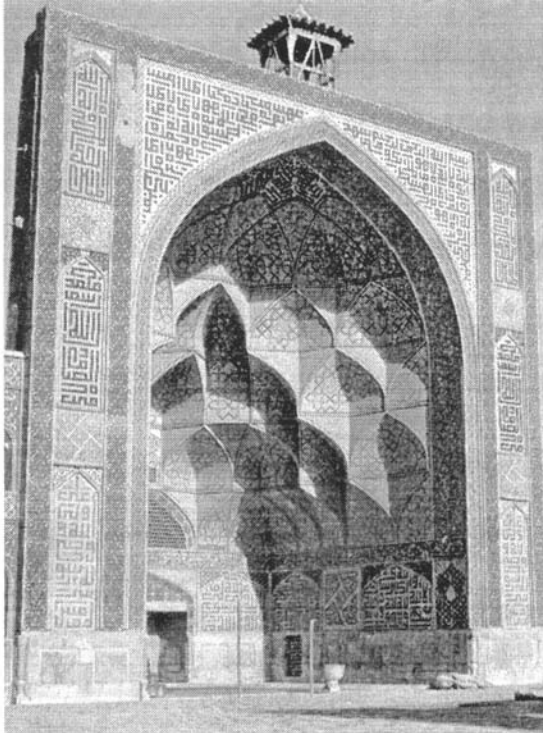


Fig. 7: Traditional Islamic Arched Entry

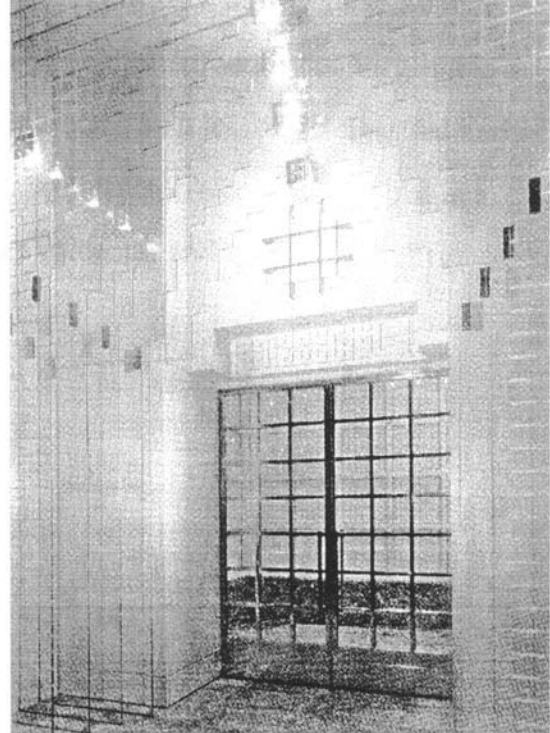


Fig. 8: Traditional Form Abstracted - Mosque, N.Y. [Architectural Record, August 1992 p. 94.]

Skidmore, Owings and Merrill's New York mosque illustrates the principles of critical regionalism by abstracting traditional Islamic forms and expressing them through contemporary materials and technology.

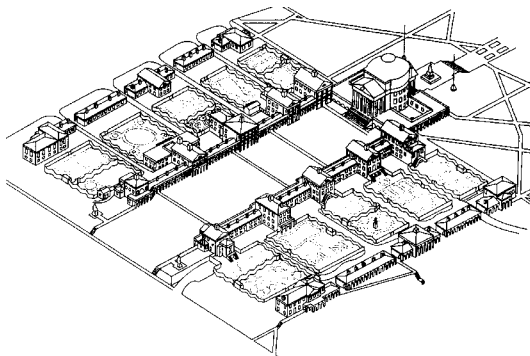


Fig. 9: Thomas Jefferson's Colonnade - University of Virginia

The colonnade at the University of Virginia is a composition of several styles, and was intended as a lesson in classical architecture. The walkway at Purchase refers to Jefferson's colonnade, but is a very specific expression of contemporary material and technical ability.

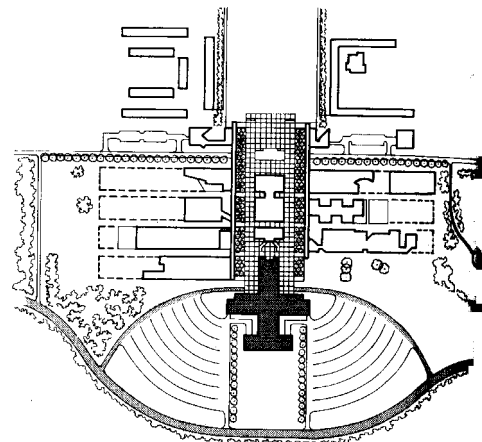


Fig. 10: Covered Walkway - State University of New York at Purchase

PUBLIC SPACE - The Baltimore Tradition

SMALL URBAN SPACES - A Public Necessity

Public spaces provide relief and variety to the urban fabric. More importantly, they bring people together and help to establish community by providing a place for business and social exchange. Well used public spaces add to the livability of a city by providing safe, controlled environments. Ironically, spaces designed to be unattractive to “undesirables” are unattractive and unpleasant to the general public as well. As such, they keep every body but the “undesirables” out. Thus the measure of a successful space is the degree to which it is used. In an urban neighborhood, public spaces are particularly important; where density prohibits extensive yards and gardens for each residence, public spaces provide quality communal space. These spaces identify the character and image of each neighborhood.

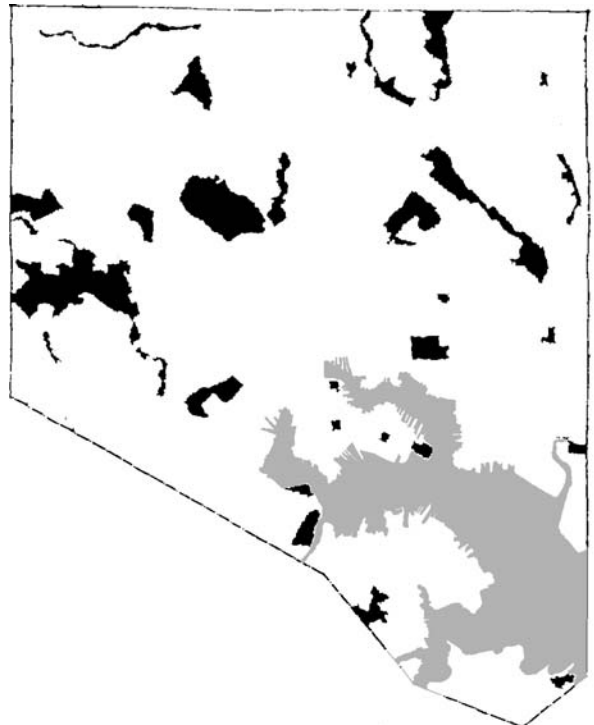


Fig. 11: Baltimore's Urban Park System
Figure/ Ground of Baltimore's park system illustrates city's commitment to open space

BALTIMORE - A City of Places and Spaces

Baltimore is a city of neighborhoods, in the older sections of Baltimore, this is especially true. In the beginning, small enclaves were settled by specific ethnic groups, as these settlements grew, they attracted more people of the same culture or religious affiliation. The character of each culture has distinctly influenced the growth and development of each neighborhood. This influence is evident today in the architecture and urban fabric of the individual neighborhoods. Places such as Mt. Vernon square and Federal Hill park define the character of certain districts today. In addition to these public spaces, Baltimore maintains a large system of urban parks and open space. This contrasts with the characteristically dense urban fabric, and allows the city a place to gather and play.

Baltimore city is a testament to the value of investing and preserving these open spaces. The on going development and transformation of the Inner Harbor and the adjacent neighborhood districts which have benefited from the urban improvement is proof of the impact of attractive urban spaces. Located in the heart of Baltimore, along the inner most water front, the Inner Harbor incorporates commercial-retail and cultural centers, and serves as a gateway to the center of Baltimore's business district. The Inner Harbor attracts street performers and has become a major tourist area. Investment in this area has spurred a once under used and unappreciated area to become the heart of the city.



Fig. 12: Figure/Ground, Baltimore Inner Harbor.

Camden Yards along with dining, retail and museums to make Baltimore's inner harbor a vibrant urban space.

SCHOOL AS GENERATOR - Utilizing Urban Amenities

Public spaces take on different characteristics according to their location and generating elements. Mixed-use spaces, spaces that provide a variety of activities, attract a variety of people through out the day. In the past, school buildings had a civic presence within the neighborhood, but public space generated by a school building was used only by the students. New education trends encourage interaction between the students and community. To encourage and facilitate this exchange, public space generated by a school building should incorporate public uses as well. School facilities intended for community use should define the public space. A bus stop or subway entry will draw area commuters, so there should be allowances for retail space meeting the needs of both the students and commuters. In this way, the school is able to make connections to commercial and residential zones, and sponsor a transportation node, connecting the school to the city.

THE SITE

HIGHLANDTOWN

In 1918 Baltimore expanded her boundaries to the East to incorporate several neighborhoods into the Baltimore city district. These areas began as rural neighborhoods; as such, they had maintained a large open space for grazing of cattle and other livestock. There was, however, no effort to create a distinct urban space or town square to mark the center of the neighborhoods. As these neighborhoods grew, they became as densely knit as Baltimore's older urban neighborhoods. Without the need for grazing land, the large open fields became Patterson Park, now part of the system of urban parks with in Baltimore.



Fig. 13: Location Map of Patterson Park

Patterson Park occupies a position in Highlandtown vicinity comparable in size to the Inner Harbor. It also serves as a lively recreational center for the surrounding neighborhoods.

Located on the East side of Baltimore, Highlandtown was among those neighborhoods annexed during the 1918 expansion. Highlandtown developed as a distinct neighborhood in 1866 when the Union troops deserted Fort Marshall in the area known as Snake Hill. The site was taken over, trees were planted and streets were laid out. The first residents were mainly Germans, who settled Highlandtown as an outgrowth of the German neighborhood of Canton. Originally, the area was characterized by butcher shops, breweries and beer gardens, and dairy farmers, due to the availability of open grazing space for the cows.⁸

Highlandtown is and always has been a Blue-collar working class neighborhood. Many residents worked in the packing houses or the nearby B&O Rail yards. Despite this, Highlandtown supported a successful commercial district. Through the 1880s and 1890s, the number of breweries in Highlandtown decreased, and the number of taverns increased, reflecting the growing urban quality of the area. At one point there were 23 taverns within

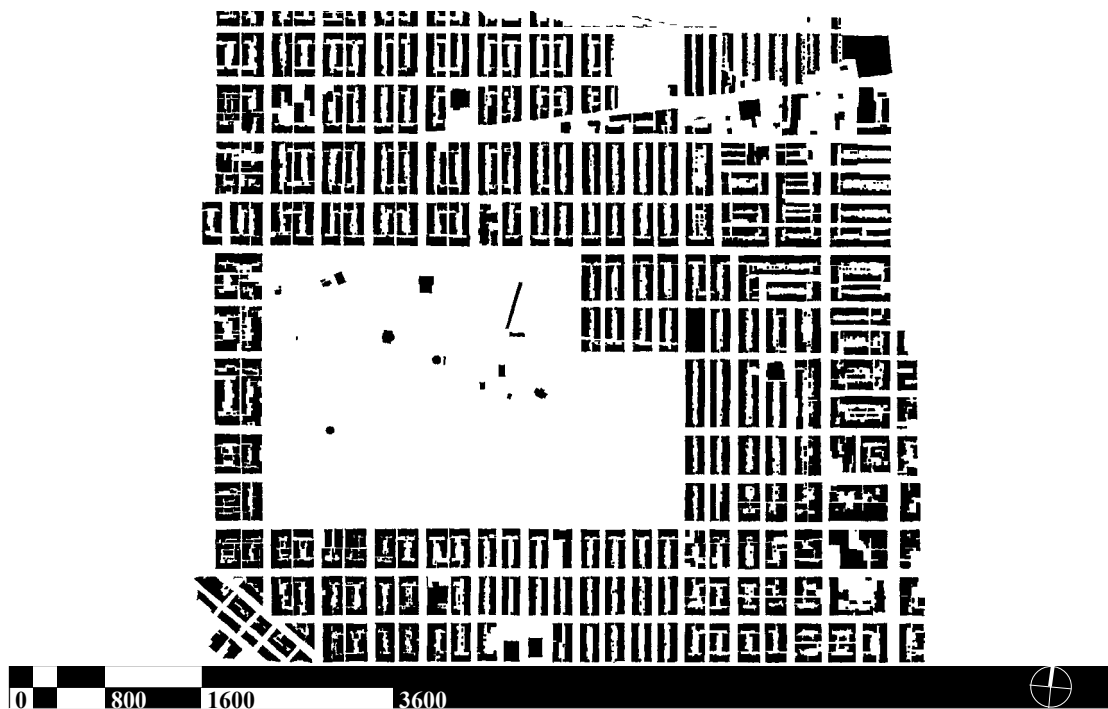


Fig. 14: Figure/Ground Highlandtown & Vicinity
Figure/Ground illustrates dense urban fabric, the primarily residential nature of the neighborhood, and the scale of Patterson Park.

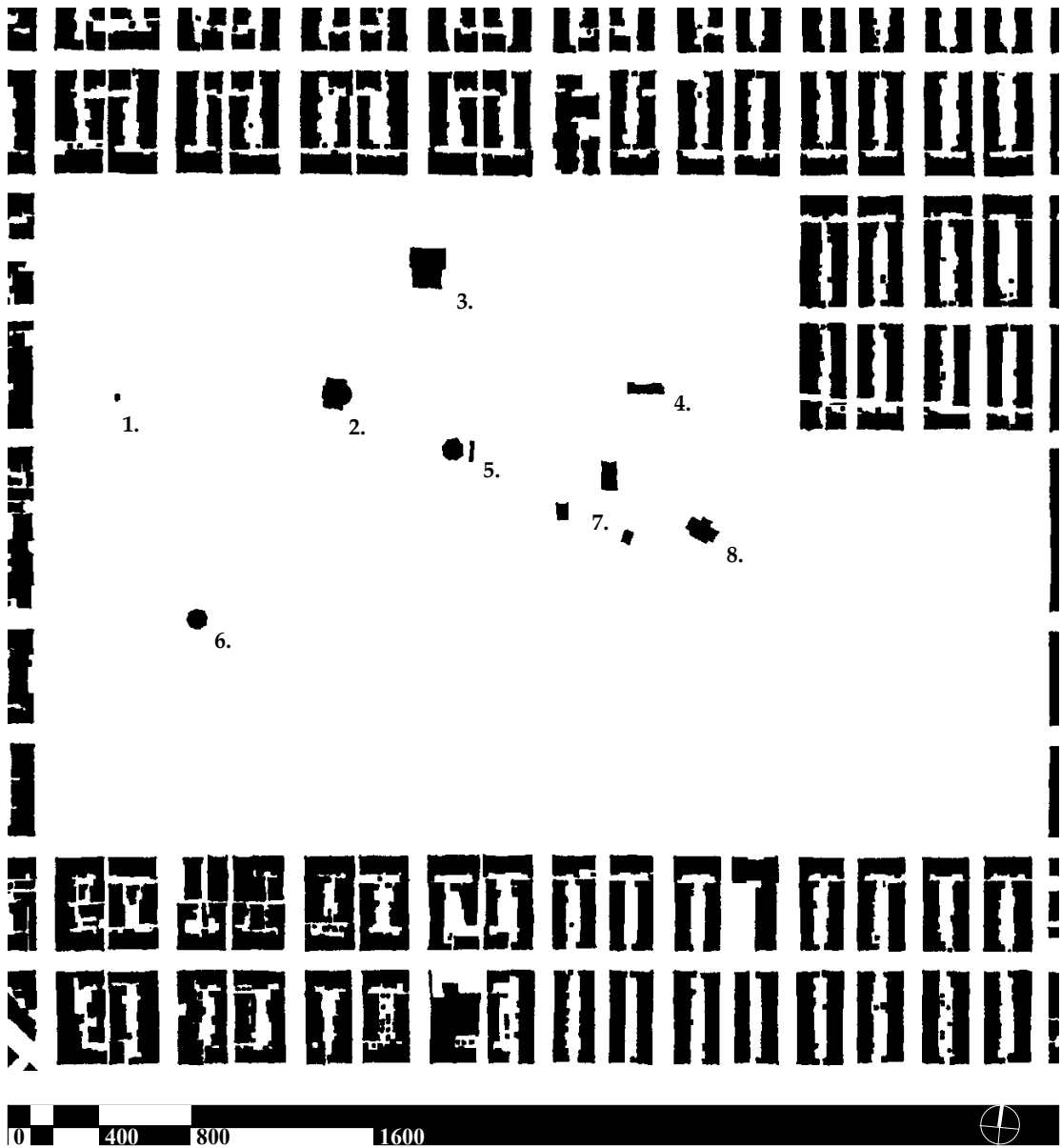


Fig. 15: Figure/Ground — Patterson Park Recreational Facilities

Buildings and Facilities:

1. Chinese Pagoda Tower
2. Casino
3. Recreation Center
4. Swimming Pool Bath House
5. Pavilion
6. Pavilion
7. Athletic Facilities
8. Ice Skating Rink

the 3500 block of Eastern Ave. In the 1920s, Highlandtown supported a major shopping district, one of the two largest in Baltimore. Prosperity continued for the area until the 1960s. With the opening of Eastpoint Mall, the high-end retail left Highlandtown for the Eastern suburbs. Available retail space was taken by low end merchandisers and discount stores. Eastern Avenue is still the main commercial street in the area; however, the character of the businesses has not improved since the late 1960s and 1970s. The only notable change is the vacancy rate for commercial space in Eastern Baltimore has climbed to 11%.⁹ It is important to note, however, that a few of the small privately owned high-end commercial and retail establishments have remained in the area, and are still able to draw from a clientele base throughout the city. This suggests an underlying stability to the neighborhood, and supports the argument that the area can be transformed to a desirable location within the city.

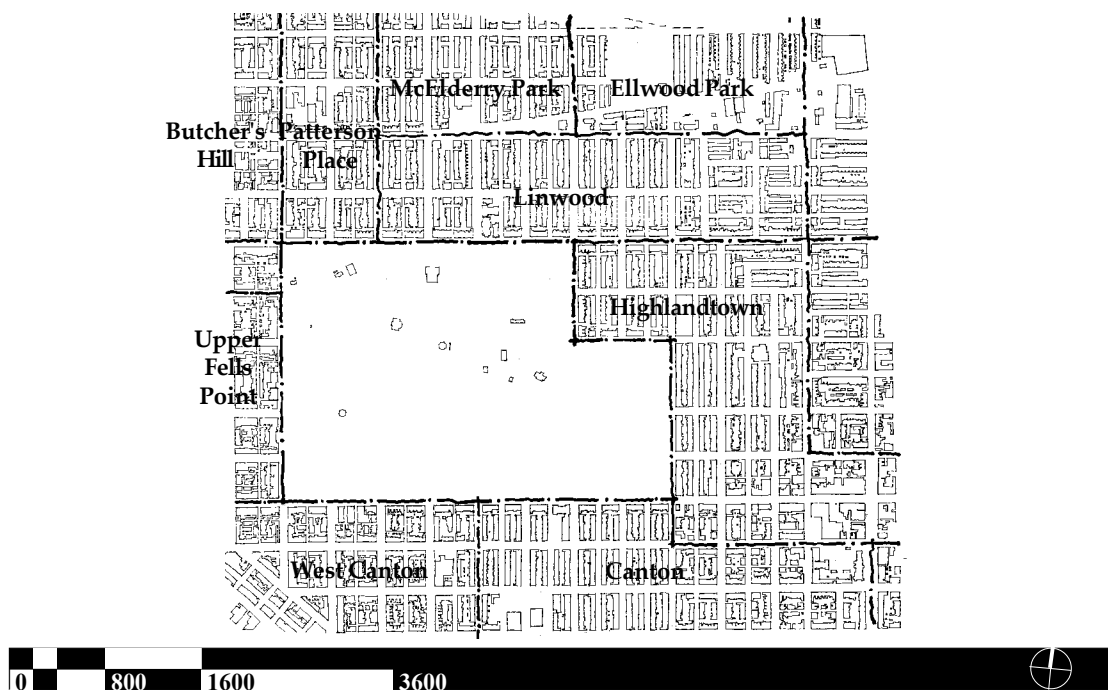


Fig. 16 Figure/Ground — Highlandtown showing neighborhood boundaries, Patterson Park, an oasis of green space with in the dense residential fabric, serves to unite several neighborhood districts, but does not fall with in the boundaries of any one of them.

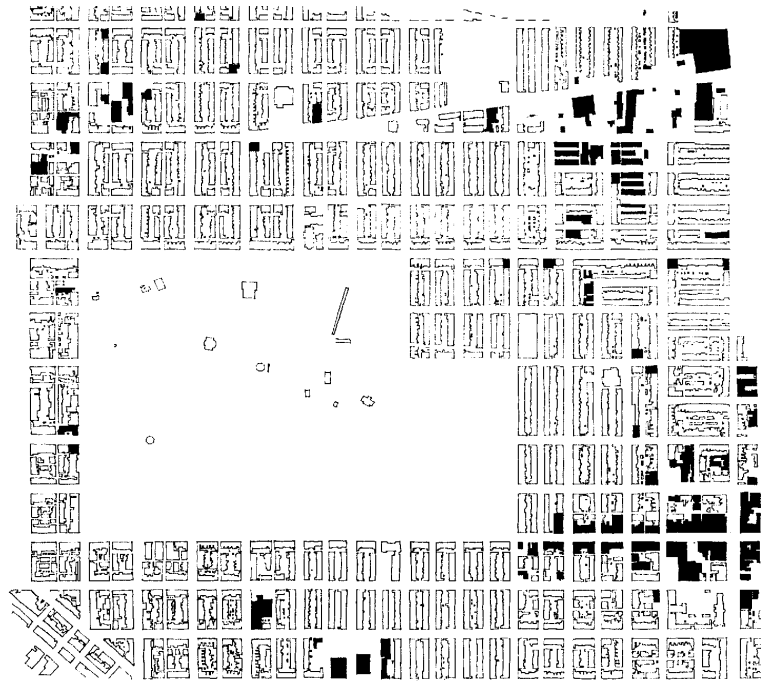


Fig. 17: Figure/Ground — Highlandtown Commercial buildings
 Figure/Ground diagram shows concentration of commercial buildings along Eastern Avenue, the street forming the southern edge of Patterson Park.

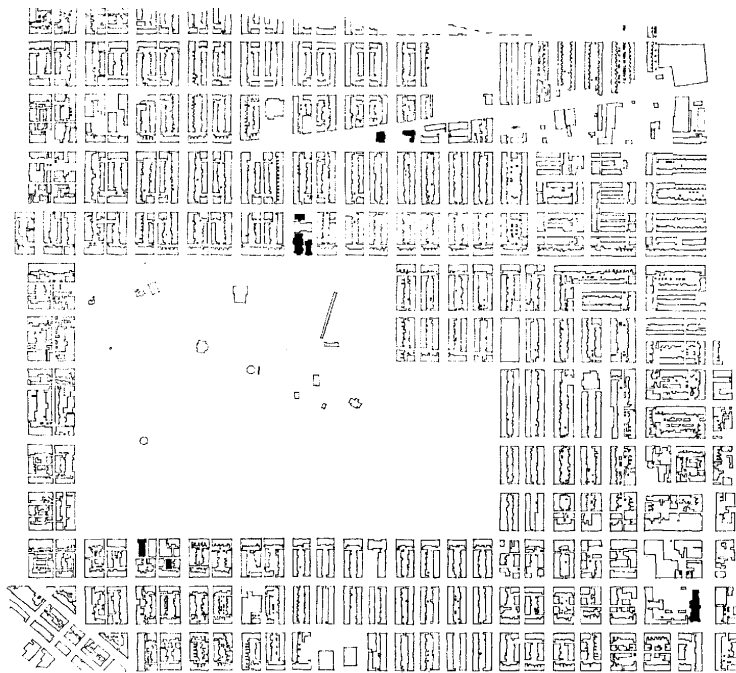
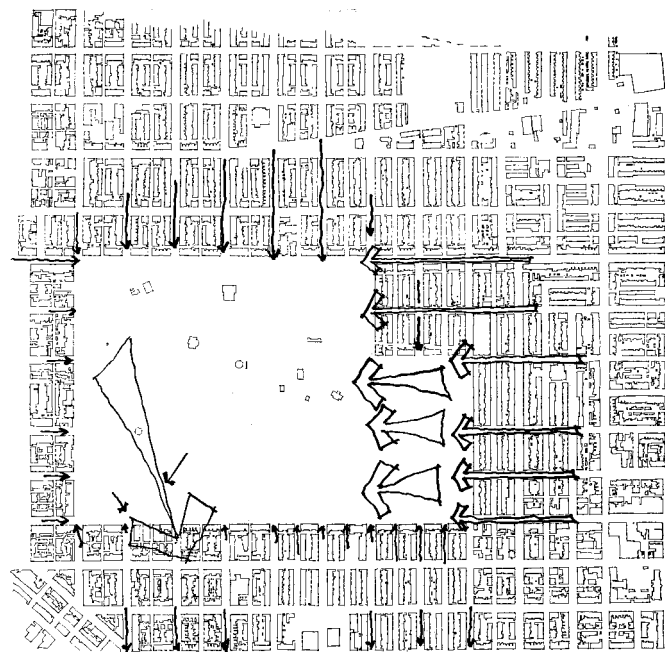


Fig. 18: Figure/Ground Highlandtown Religious Facilities

Highlandtown's location commands clear views through Patterson Park to the Baltimore skyline. In addition, it also shares, and depends upon the adjacent park to provide much needed open space and greenery not present in the neighborhood. Despite its adjacency, however, the park is not a part of the neighborhood, but a separate and distinct element. The park defines the edge of Highlandtown and its other neighboring districts, and serves as a kind of recreational district of its own, uniting the neighboring districts. Highlandtown, in and of itself, does not have an imageable space to define the neighborhood, but can therefore only be defined by its neighboring district, the park.

The remainder of the site is primarily lower-middle class residential. The housing stock consists of row houses, with only slight variation in size, style, material, or internal organization. A typical Highlandtown row house is a two story brick structure, 14 feet of street frontage, and approximately 50 feet deep. Most of the houses are well maintained and still feature white marble stoops and stained glass transom windows, elements typical of Baltimore older urban row houses. Many of Highlandtown's brick row houses are clad



Figs. 19: Views From Site and Vicinity
Highlandtown's elevation and street grid provide clear views over the park to the downtown skyline

in Formstone, a cementitious coating applied to protect the lower quality porous bricks, and sculpted to resemble stone. This characteristic is typical of much of Baltimore’s pre-gentrified residential districts.

A typical residential block is approximately 170 feet across. Lots are typically 65 to 70 feet deep, with 12 feet from the curb to the front of the houses and a 10 foot center alley. The houses directly across from the park are the only exceptions. Most of the blocks run North-South, with East and West facing houses. In the blocks along the North and South side of the park, the lots turn the corner to face into the park. Houses facing the park tend to be 10 to 20 feet deeper, and feature covered front porches and slight second story bays.



Fig. 20: Typical Highlandtown Rowhouse
Highlandtown row houses, small, but well maintained, they illustrate typical elements of Baltimore row houses. Row house facing Patterson park, demonstrates grander scale, and elements not typical to the rest of Highlandtown.



Fig. 21: Rowhouse Facing Patterson Park

Fig. 22: Figure/Ground - Residential Block
Fig. 23: F/G - Block Adjacent to Park
Figure/Ground of typical block structure reinforces homogenous quality of Highlandtown’s residential architecture, and repetitive hierarchy of North - South Streets. Blocks along the park break with the pattern, orienting facades to the park.



The park, block structure, and the street grid provide for a hierarchy of small, medium and large streets. Typical Street sizes range from twenty four feet for “T” streets to forty feet for major through streets

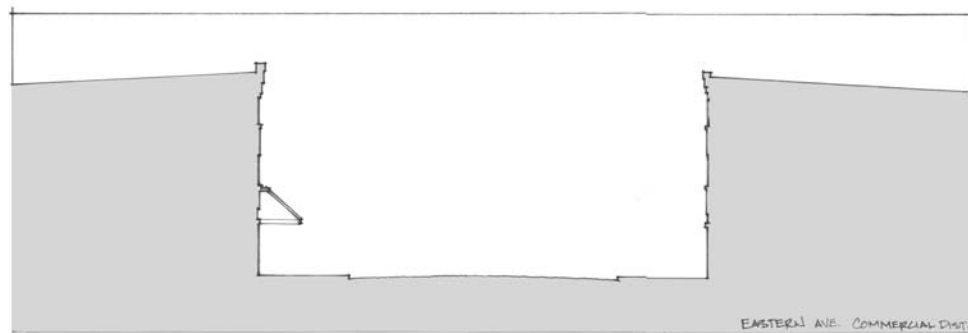
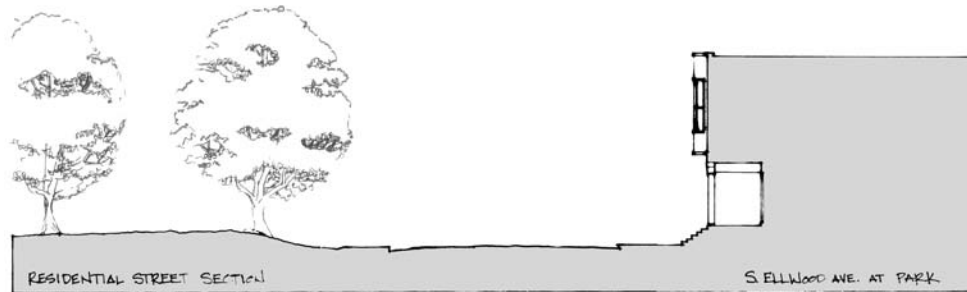
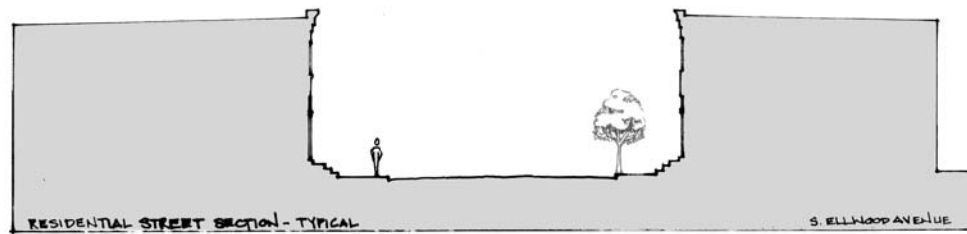


Fig. 24 & 25: Street Sections through S. Ellwood Ave. - Residential Area.
Fig. 26 & 27: Street Sections through Eastern Ave. - Commercial District



Fig. 28: Street Hierarchy - Primary Streets

Major routes through the neighborhood, these streets lead both downtown to the West and to route 95 and 395 to the East. North - South streets connect North Baltimore through Highlandtown and Canton to the waterfront.



Fig. 29: Street Hierarchy - Primary and Secondary Streets

Secondary streets within the neighborhood define groups and pairs of blocks which establish a fairly consistent A-B-A pattern of wide and narrow streets.

Highlandtown has a total of four public elementary schools, one public middle school, and one private school. There is a startling difference in quality of the facilities of the public and private schools. The private school takes up one half of a large block; its associated church occupies the other half of the block. Together they form an enclosed, private garden, providing necessary play area for the children, and a peaceful ancillary place for the church.



Fig. 30: Figure/Ground - School Buildings

The public schools are not as successfully planned; the quality of their buildings falls into one of three categories, adequate, inadequate, and totally unacceptable. The public elementary schools are fairly new, but poorly planned, and do not provide acceptable or accessible play areas for the children. The facilities of Highlandtown Elementary School, the school nearest to Highlandtown's Middle School, is an example of such planning, though the building itself is not very old. The school is on the north end of a residential block, between S. Bouldin st. and S. Clinton st., and E. Pratt st. to the North. The school building is four stories with a compact foot print. There is access to the basement level thorough an amphitheater space. The second, third and fourth stories extend over this space, and, although they provide cover, they have rendered the space essentially useless. A chain link fence was erected around the inner portion of the space, rendering it inaccessible, and denying through access from S. Bouldin st. to S. Clinton st. Thus the space has accumulated litter, beer bottles, and graffiti. The closest part of the park is three blocks west of the school. A play area exists across S. Bouldin street to the west side of the school. A 12 foot high chain link fence prevents children from using it freely. This school needs to be sited where it can take advantage of open space and grass.

The existing middle school, Hampstead Hill Middle School, is totally inadequate. It sits on a single block, less than 170 feet by 400 feet, with 100% coverage. It's massing is completely out of scale with the remainder of the neighborhood. It is four stories on the East facade, and six or more stories high in the center. The building is surrounded by two story row houses whose average dimensions are 14 ft. by 40 ft. The two streets along the long side of the block are 24 feet wide, thus the blocks to the East and West are perpetually in shade, or the shadow of the middle school building. The building and grounds provide no open space for athletic fields or recreational use. Athletic fields are provided for in the smaller section of Patterson Park, but there is no sense of them belonging to, or being a part of the school.



Fig. 31: Facade - Private Elementary School



Fig. 32: Facade - Highlandtown Public Elementary School

Private elementary school, demonstrates human scale of facade not evident on public school building.



Fig. 33: Figure/Ground - Elementary School
[Private]



Fig. 34: Figure/Ground - Highlandtown
Public Elementary School

Figure/Ground diagrams illustrates the difference in quality of open space between public and private schools.



Fig. 35: Space Beneath Highlandtown Elementary School
A space designed for children, the space beneath Highlandtown elementary school, with its accumulation of litter, graffiti, and beer bottle, represents the least maintained area in the entire neighborhood.

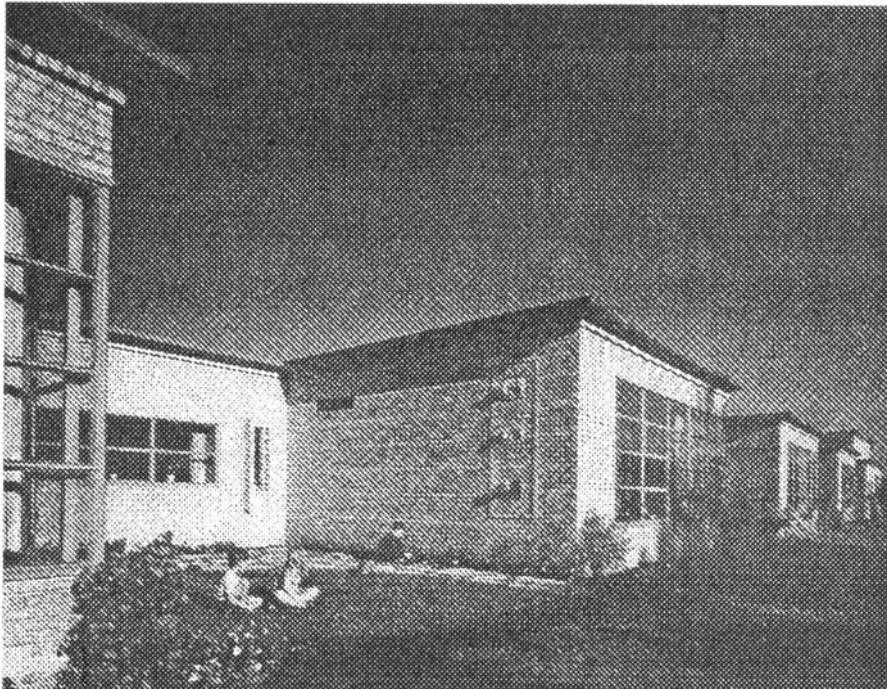


Fig. 36: Crow Island Elementary School, Winnetka, Illinois [School Ways. p. 33.]
Perkins, Wheeler & Will and Eliel and Eero Saarinen's Crow Island Elementary School, 1940, an example of an elementary school at a residential scale with direct access to the outdoors from each classroom.

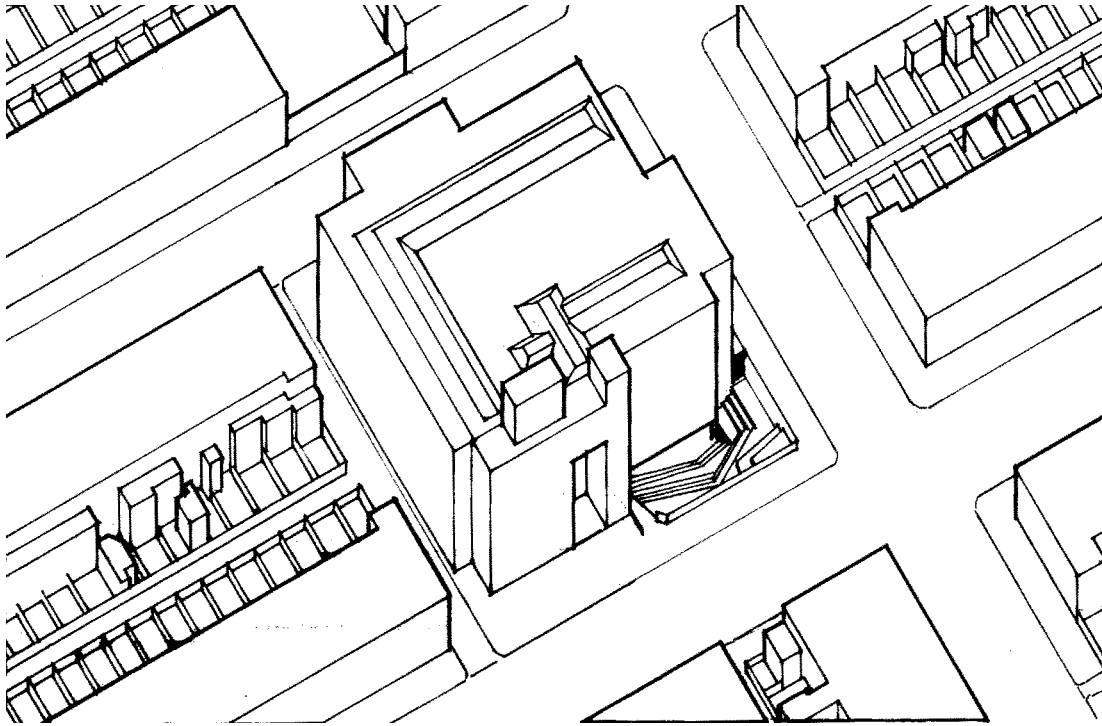


Fig. 37: Axon - Highlandtown Elementary School
 Axon shows massing of the building and cave-like nature of open space.



Fig. 38: Figure/Ground - Hampstead Hill Middle School

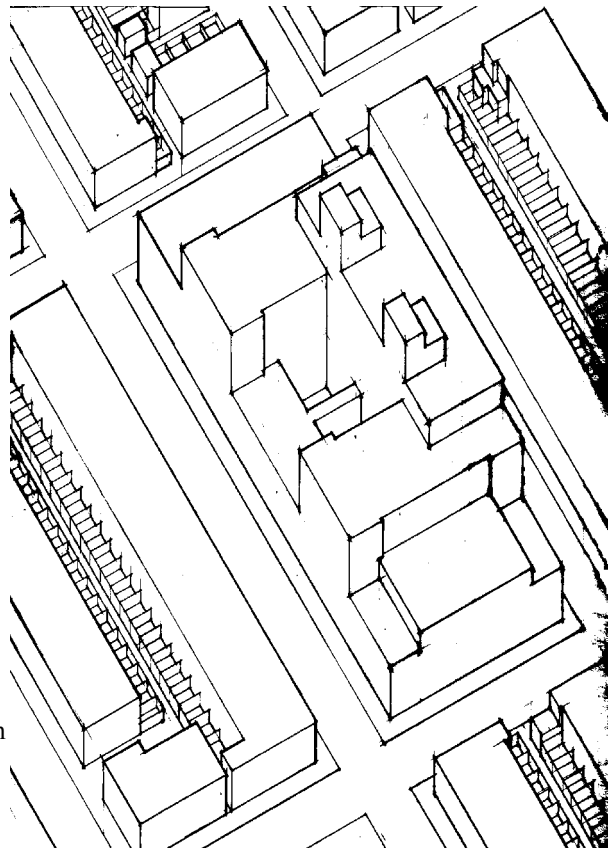


Fig. 39: Axon - Hampstead Hill Middle School in Context
 Axon demonstrates the importance of scale and context to the urban fabric.

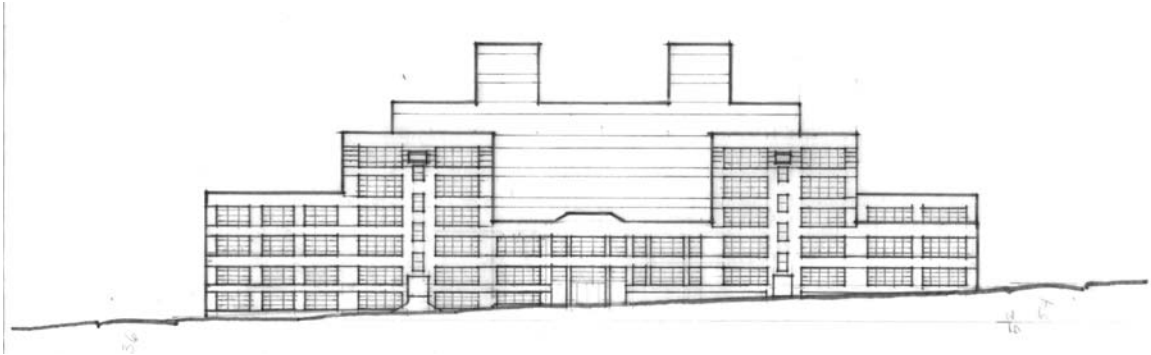


Fig. 40: Facade - Hampstead Hill Middle School



Fig. 41 & 42: Hampstead Hill Middle School
On the west side, the school is two stories high at the center, respectful of the residential scale. On the east side the building towers over the street.

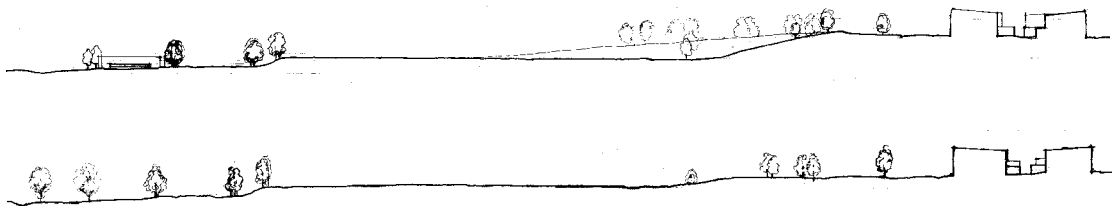


Fig. 43: Hampstead Hill Middle School
The view from Patterson Park - The school towers over the neighborhood.

SITE ANALYSIS

The east end of Patterson Park is relatively flat through the center, but follows the grade of the surrounding streets along the border of the park. The slope rises gradually along the street, but creates a ridge along the east side with a fairly steep slope, and a grade change of about 24 feet at the center of the park.

The surrounding buildings are low, two to three story residential and commercial buildings and will not shade the site. Any part of the site is suitable for building, however open space is a valuable commodity in the neighborhood, and should be thoughtfully incorporated into developing this site.



Figs. 44: Site Sections

Highlandtown is positioned on a hill; the topography slopes down to the South toward the Patapsco River and terraces down to the West through Patterson Park.

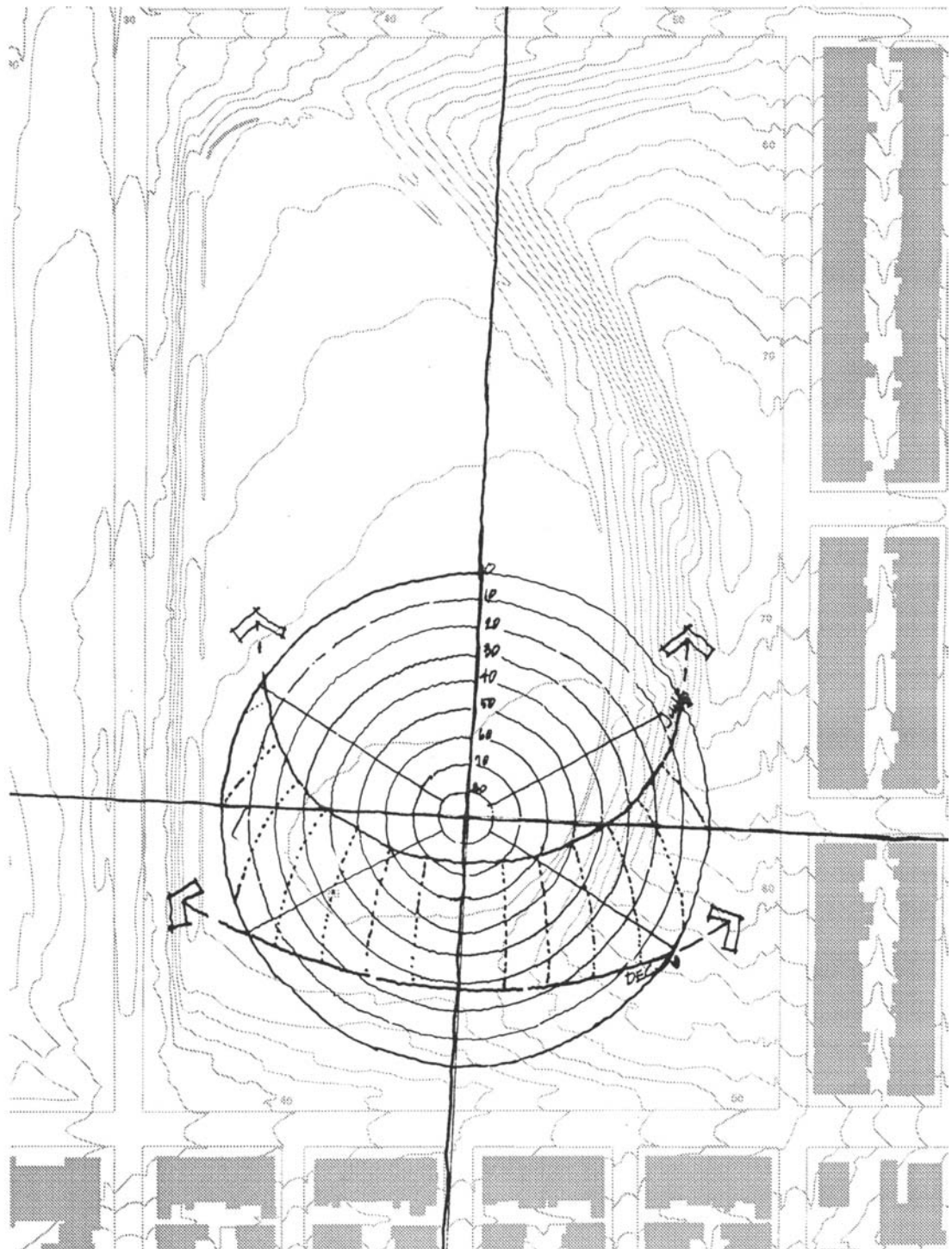


Fig. 45: Sun Diagram

Design Considerations should include positioning group work areas and other large open spaces so that they do not receive direct afternoon sun.

BUILDING PROGRAM

GENERAL CONSIDERATIONS

The architecture of the school should address the following considerations. The school should consider the principles of critical regionalism and truth in architecture, and be "of its place and time". Materials considered typical to Baltimore, such as red brick and steel, are appropriate. Public spaces within the school should employ elegant and aesthetically pleasing materials. Classrooms and utilitarian facilities should consider durability of materials as a primary concern.

Consideration should be paid to sun angles and room orientation. Areas within the building with large expanses of glass should ideally face North. Classrooms with larger windows should ideally face North as well, however, Southern and Eastern orientations are preferable to Western orientation.

The school day is organized around eight periods, there are four basic courses, one lunch and three electives. Basic courses meet daily, electives meet on alternate days. On the fifth day of the week students schedules vary. They may be doing field work, lab work or group projects related to the community/commerce program. Ideally the 'fifth day' will rotate throughout the week so that students involved in field work can experience the various weekday routines.

The program for a new middle school can be divided into several categories. Academic areas, including classrooms, art and music areas; research and lab facilities, including the library and computer rooms, community interface facilities, mainly the business and commerce departments; public spaces, including the athletic facilities, and performance areas, administrative facilities, and support services.

SPACE ALLOCATIONS:

ACADEMIC AREAS

Classrooms (24) 750-900 sq. ft.

There should be six English, six science six math and six history

Science Labs(2) 600 sq. ft.

Ancillary Spaces As Required

Art Studio 1,000 sq. ft.

The studio should be a large open space plenty of ancillary spaces for equipment and storage of student work. Natural light from an indirect source is a priority. Security is a significant concern.

Art Classrooms (2) 500 sq. ft. ea.

These rooms should be directly connected to the main studio space. The classrooms will be used for smaller projects and media, as well as small class meeting spaces.

Art Office 150 sq. ft.

The art teacher's office should be adjacent to large studio and classrooms. If there is more than one art teacher, they will share this space.

Art Storage closet 200 sq. ft.

Should be adjacent to the art office.

Band Room 800 sq. ft.

Adjacent to band area and auditorium.

Chorus Room 800 sq. ft.

Adjacent to chorus area, music storage, practice rooms, and auditorium.

Practice Rooms (3-4) 150 sq. ft. ea.

Adjacent to band area, music storage, and auditorium.

| | |
|--|-----------------------|
| Instrument Room | 400 sq. ft. |
| should be adjacent to auditorium, (backstage) and music practice rooms | |
| Wood/Metal Shop (2) | 800 sq. ft. ea. |
| Cooking Class | 1,200 sq. ft. |
| Two kitchens within the classroom. | |
| Sewing Class | 700 sq. ft. |
| Drafting Classroom | 1,000 sq. ft. |
| Circulation | 4840 sq. ft. |
| Mechanical | 6450 sq. ft. |
| <u>Total Academic Area</u> | <u>43,540 sq. ft.</u> |

RESEARCH FACILITIES

| | |
|--|-----------------|
| Computer Lab | 1,800 sq. ft. |
| A large open room, it accommodates 30-40 computer terminals and a variety of hardware and equipment. Security is an important consideration. This room must have a desk for a lab monitor to supervise and assist lab users. This facility operates all year long and is open through evening hours to accommodate late classes and community use. | |
| Classrooms (2) | 900 sq. ft. ea. |
| Accommodates twenty terminals per classroom, should be adjacent to the main lab. Classrooms share security concerns, but have more restrictive hours of operation. | |

| | |
|---|----------------|
| Library | 4,000 sq. ft. |
| Includes stacks, reading area and library administrative functions. | |
| Circulation | 1,140 sq. ft. |
| Mechanical | 1,520 sq. ft. |
| Total Research space | 10,260 sq. ft. |

PUBLIC SPACES

| | |
|------------|----------------|
| Auditorium | 10,800 sq. ft. |
|------------|----------------|

Area allotment includes lobby stage, and back stage areas. There should be enough seats to accommodate 1200 students. This space will accommodate significant community use. Natural light is undesirable.

| | |
|---------------------|---------------|
| Small Assembly Hall | 2,400 sq. ft. |
|---------------------|---------------|

Seats 100 students. Used for rehearsals, small productions and theatre classes. Natural light is undesirable.

| | |
|-------------|--------------|
| Circulation | 1980 sq. ft. |
|-------------|--------------|

| | |
|------------|--------------|
| Mechanical | 2880 sq. ft. |
|------------|--------------|

| | |
|----------------|---------------|
| Main Gymnasium | 5,600 sq. ft. |
|----------------|---------------|

This serves as the main gym and assembly space. Minimum ceiling height in both gyms is 20'. Optimum dimensions for the small gym are 36'x52', for the large gym they are 65' x 86'. Gymnasiums must have direct access to outdoors

| | |
|-----------------|---------------|
| Small Gymnasium | 1,870 sq. ft. |
|-----------------|---------------|

Used for small classes and team practices

| | | |
|--|--|-----------------------|
| Swimming Pool | | 6,400 sq. ft. |
| | The pool should include a diving area and stands for spectators. | |
| | Optimum pool dimensions are 64' x 100' | |
| Locker Rooms | | 1,200 sq. ft. ea. |
| | One locker per student plus large temporary lockers. Male and Female locker rooms should be equal in size and facilities. Both locker rooms should connect directly to the Swimming pool room. | |
| Mechanical | | 3200 sq. ft. |
| Site Should Include Athletic Fields For: | | |
| Baseball and Softball | Foul Line - 200' | 40,000 sq. ft. ea. |
| Football | 160' x 360' | 57,600 sq. ft. |
| Soccer | 330' x 195' | 64350 sq. ft. |
| Tennis Courts, | 60' x 114' | 6840 sq. ft. ea. |
| Track and Field | L=120 m radius=49 m | |
| Outdoor Basketball Courts | 42' x 74' and 50' x 84' | 4200 sq. ft. ea. |
| <u>Total Public Space</u> | | <u>37,530 sq. ft.</u> |

SUPPORT SERVICES

| | |
|--|---------------|
| Cafeteria/cafe | 2,300 sq. ft. |
| Seating for 400-460 students. Features 2 full service counters, and one half counter for snacks and beverages. Occasionally features a fourth student run counter. | |

| | |
|--|--------------|
| Kitchen | 2600 sq. ft. |
| Should be adjacent to student cafeteria. Should also adjacent to loading dock and service area | |

| | |
|-----------------|-------------|
| Mechanical room | 980 sq. ft. |
|-----------------|-------------|

| | |
|-----------------------|---------------|
| Total Support Spaces, | 5,880 sq. ft. |
|-----------------------|---------------|

ADMINISTRATION

| | |
|------------------------------------|-------------|
| Secretary/Reception | 400 sq. ft. |
| Near front entrance of the school. | |

| | |
|---|-------------|
| Principal's office | 300 sq. ft. |
| Adjacent to secretary and reception stations. | |

| | |
|--|-------------|
| Assistant Principal | 200 sq. ft. |
| Adjacent to the Principal and reception/secretary. | |

| | |
|-----------------|-------------|
| Conference Room | 400 sq. ft. |
|-----------------|-------------|

| | |
|---------------------|-------------|
| Records and Storage | 600 sq. ft. |
|---------------------|-------------|

| | |
|---------------|-------------|
| Nurses Office | 800 sq. ft. |
|---------------|-------------|

| | |
|-------------------------|--------------|
| Teachers' Offices | 1200 sq. ft. |
| Open plan, secure room. | |

| | |
|------------------|--------------|
| Teacher's lounge | 1000 sq. ft. |
|------------------|--------------|

| | |
|-----------------|--------------|
| Guidance Office | 1200 sq. ft. |
|-----------------|--------------|

| | |
|-------------|-------------|
| Circulation | 915 sq. ft. |
|-------------|-------------|

| | |
|------------|---------------|
| Mechanical | 1,220 sq. ft. |
|------------|---------------|

| | |
|-----------------------------|----------------------|
| <u>Total Administration</u> | <u>8,235 sq. ft.</u> |
|-----------------------------|----------------------|

DESIGN APPROACH:

Each of the following partis uses the Eastern segment of Patterson park as the site for the middle school. In addition, the site of Highlandtown Elementary School has been relocated to the existing site of Highlandtown middle school. This site is large enough to provide suitable open space for play areas on the same grounds as the school.

The primary design objectives for the partis are as follows:

- To create an imageable open space for the neighborhood, in response to the dense urban fabric, and the lack of street trees or grass outside of the park.
- To create a place of sanctuary for the students that insulates them from the problems of contemporary urban society.
- To reconcile the issue of a physical edge with a psychological center.
- To create physical links and connections bridging the middle school to the neighborhood elementary schools, and the park.

PARTI ONE - THE CAMPUS MALL

This parti uses an organizational spine to sponsor different elements of school program. Classroom pavilions and specialty pavilions take on unique character reflecting the activity within the pavilion as well as the position of the pavilion within the neighborhood. This parti looks to the traditional campus mall plans at The University of Virginia and SUNY Purchase. And the plan of Crow Island Elementary school.

The schemes' advantages are that the parti controls the open space and is easily divisible into building in phases. The parti also allows light and air into each classroom and allows each classroom pavillion direct access to the landscape.

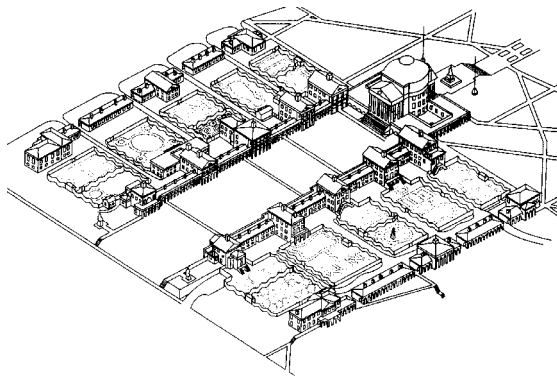


Fig. 46: The University of Virginia Mall Plan

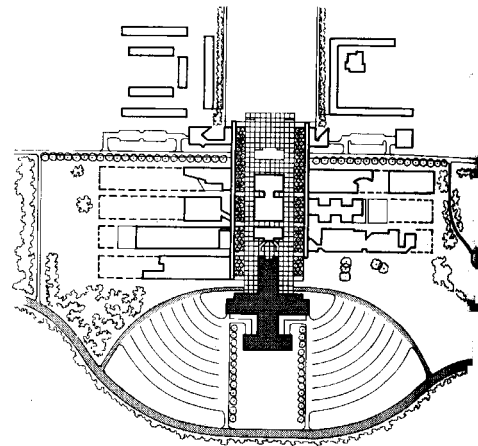


Fig. 47: The State University of New York at Purchase

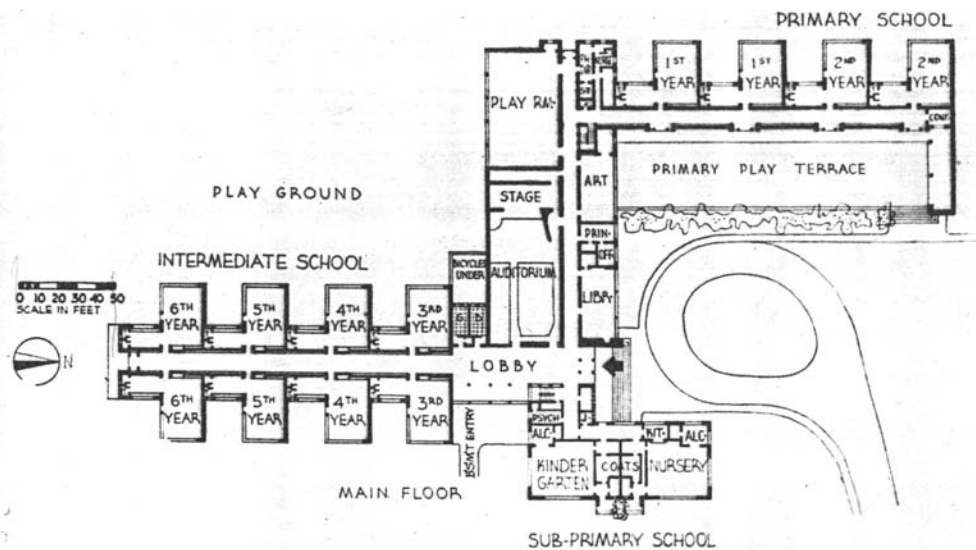
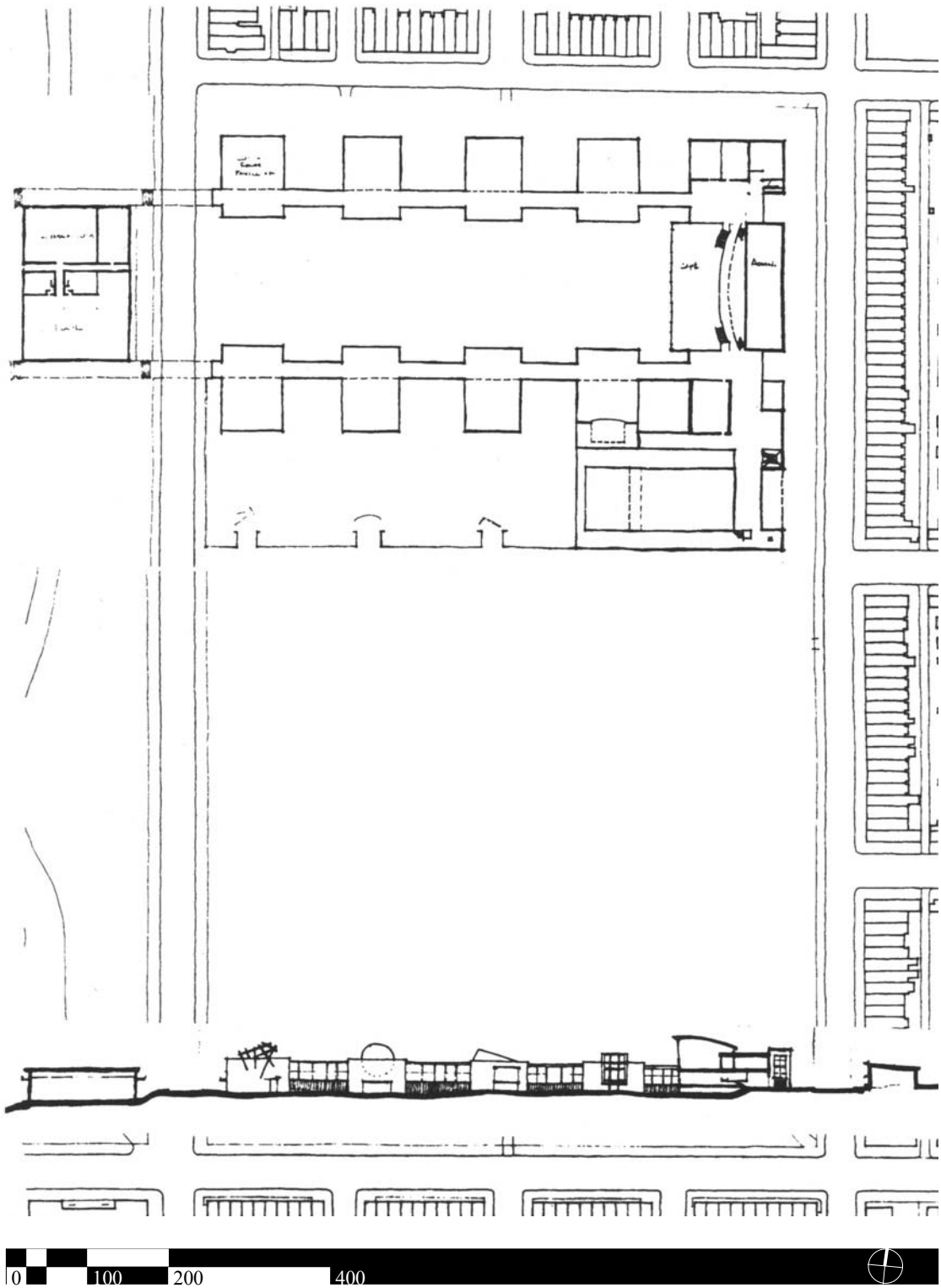


Fig. 48: Crow Island Elementary School, Winnetka, Illinois [School Ways. p. 93.]



Figs. 49, 50: Campus Mall Parti - Site Plan and Section

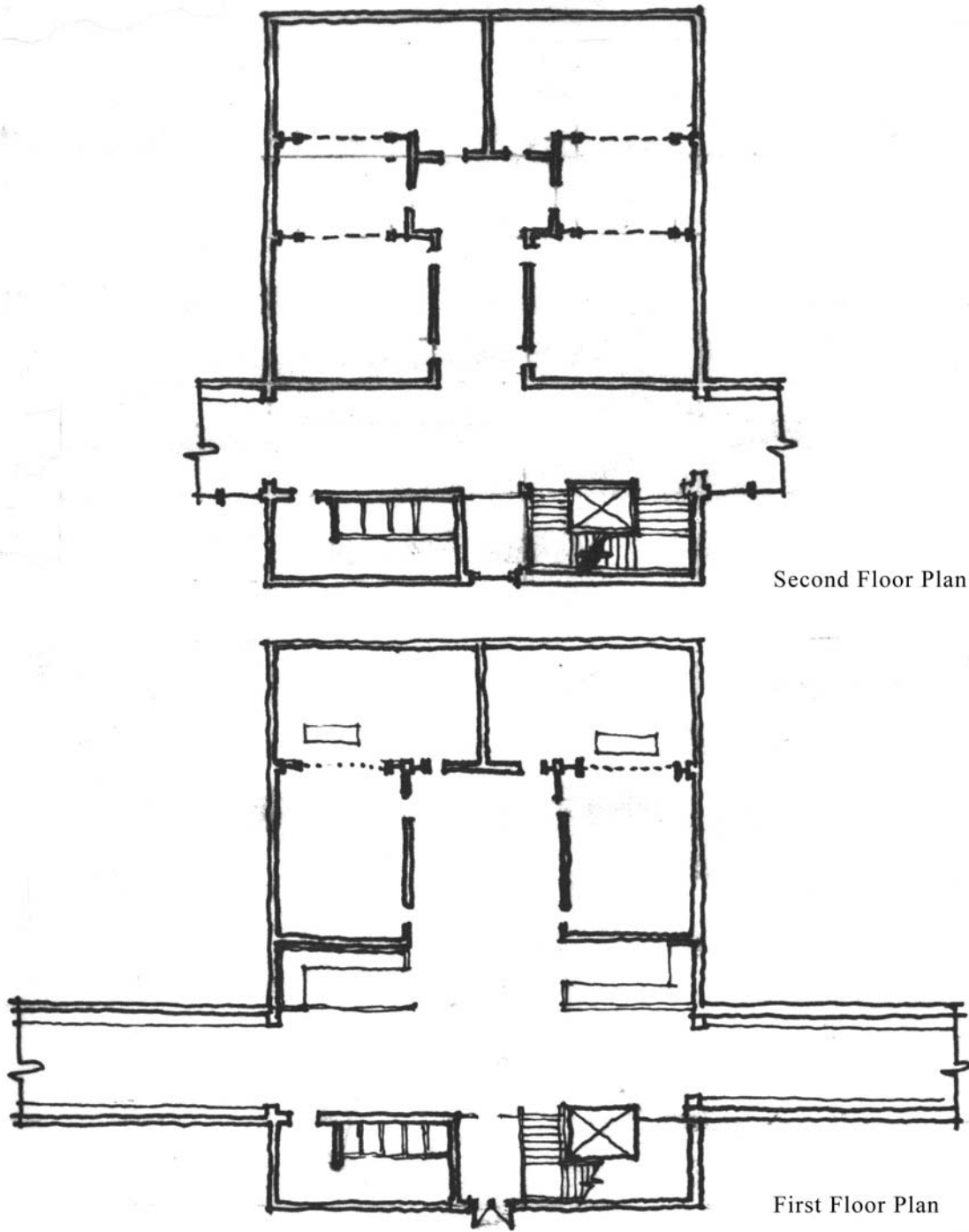


Fig. 51: Campus Mall - Pavilion Floor Plan

PARTI TWO — TRADITIONAL APPROACH.

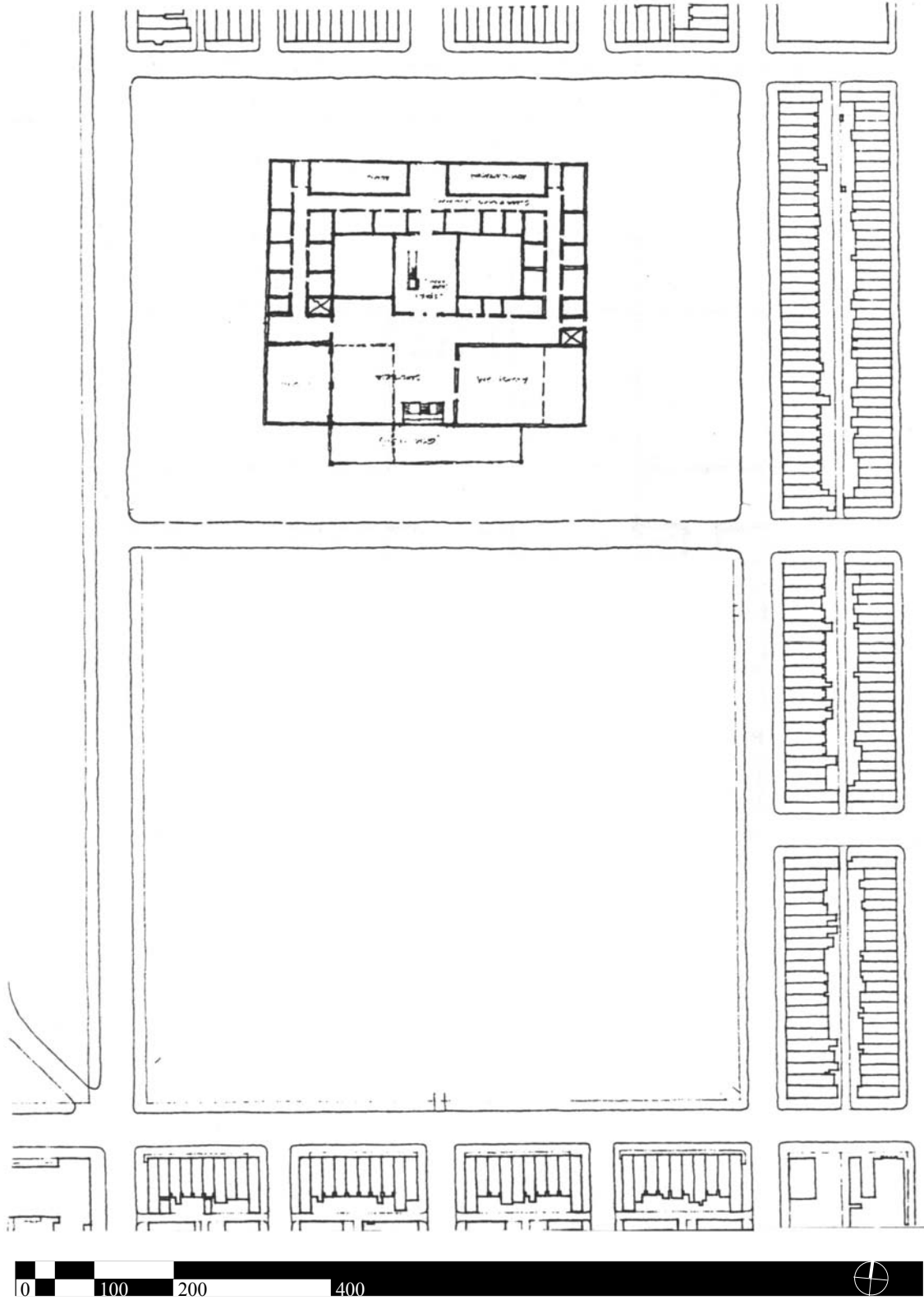
Named for its precedents and organizational strategy, the traditional scheme is situated in the center of the site, and is both introverted and extroverted. The class room areas are organized around two internal courtyards. The scheme fronts both the park and the neighborhood, and provides civic presence to both. Service is located on the south side. Economy of construction and security are inherent in the scheme's compact footprint and construction. This parti looks to beaux arts buildings, Renaissance cloisters and traditional school architecture as precedents.



Fig.52: Beaux Arts School Building



Fig. 53: Sta Croce Cloisters, Brunelleschi



Figs. 54: Traditional Approach - Site Plan

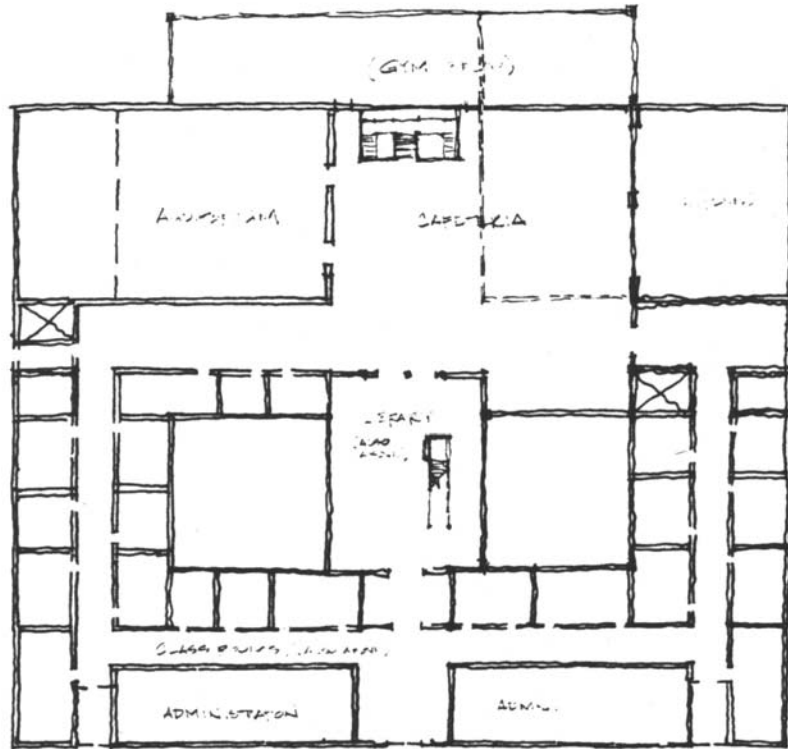


Fig. 55: Traditional Approach - Typical Floor Plan

PART THREE — THE GREEN SCHEME

This parti takes the most aggressive approach toward establishing the presence of the school within the community. The scheme responds directly to the site, urban, and regional conditions. The scheme uses three separate elements for the program to form an urban square as the “center” of the school. The building is anchored to the site, but reaches into different neighborhood zones to establish appropriate programmatic elements. The concept is similar to the way Mies Van Der Rohe’s brick country villa reaches into and controls the landscape.

This scheme aggressively socializes students into community, and provides the most advantageous environment for vocational training. School amenities are intended to be open and available to the community. Building security is simplified by separating programmatic elements into different buildings and different locations. Precedents include the architecture of Frank Lloyd Wright and the principles and architecture of the “Green movement”. Material and detail precedents look to Louis Kahn’s use of brick, Sir Norman Foster’s use of steel, glass, and masonry, and connections between them.

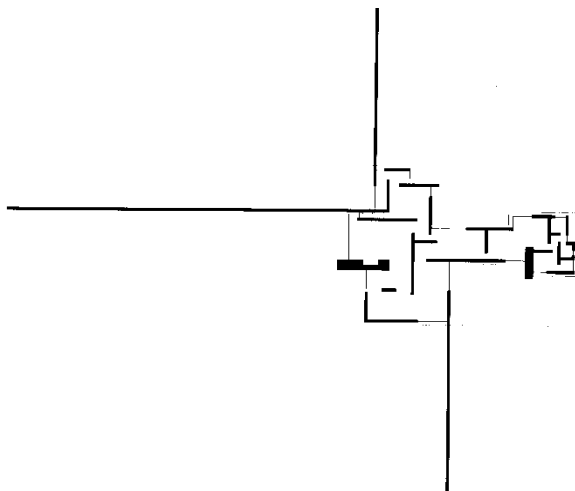


Fig. 56: Brick Country Villa L. Mies Van Der Rohe,

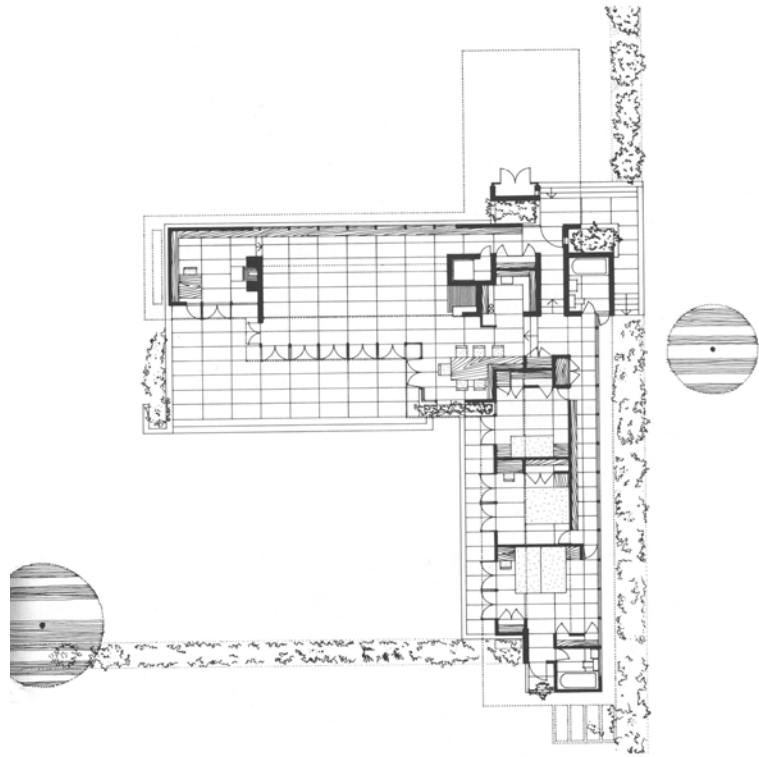
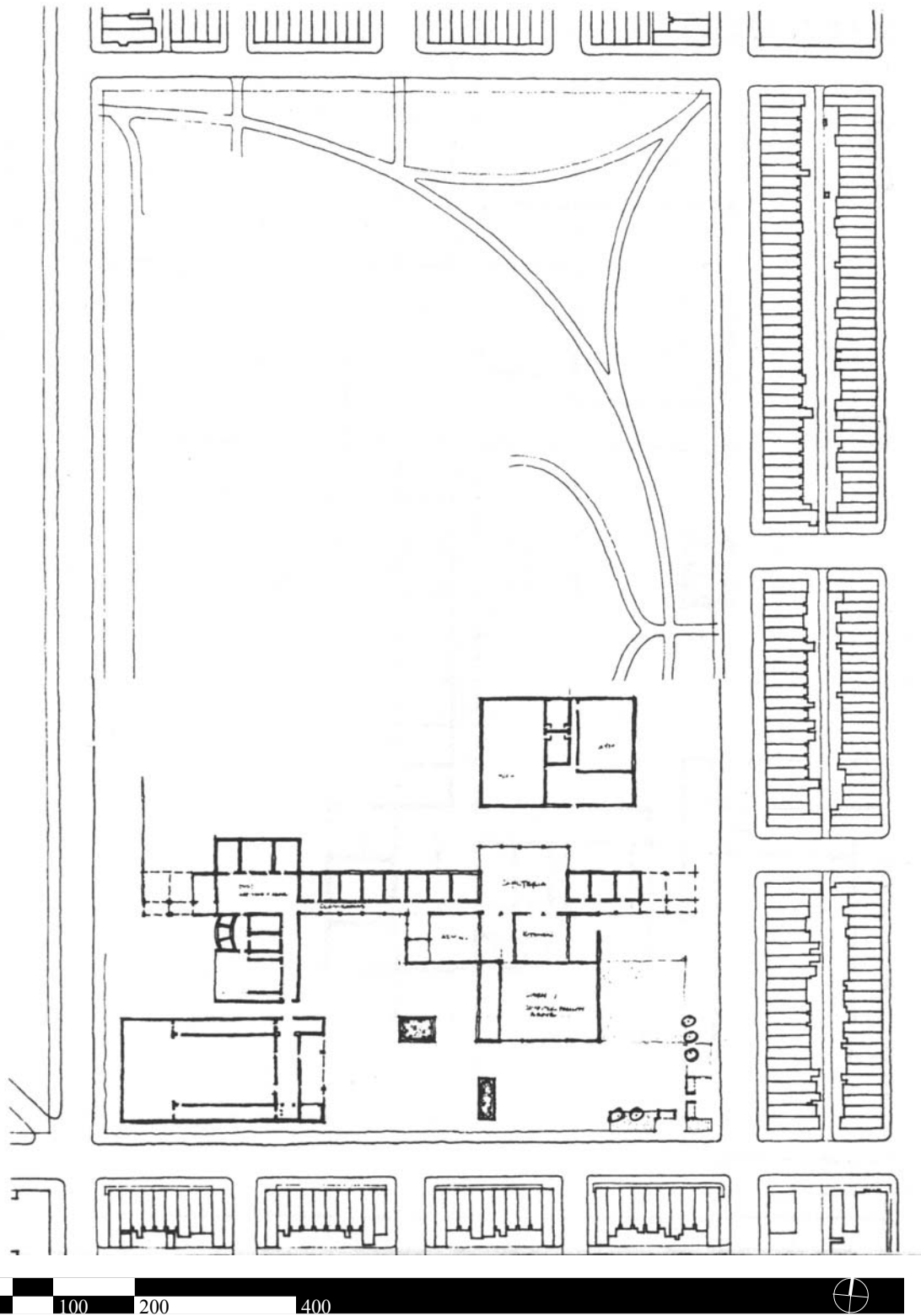


Fig. 57: Rosenbaum House, Frank Lloyd Wright. 1939, Florence Alabama



Fig. 58: ITN Headquarters, Norman Foster. 1990, London



Figs. 59: Green Scheme - Site Plan

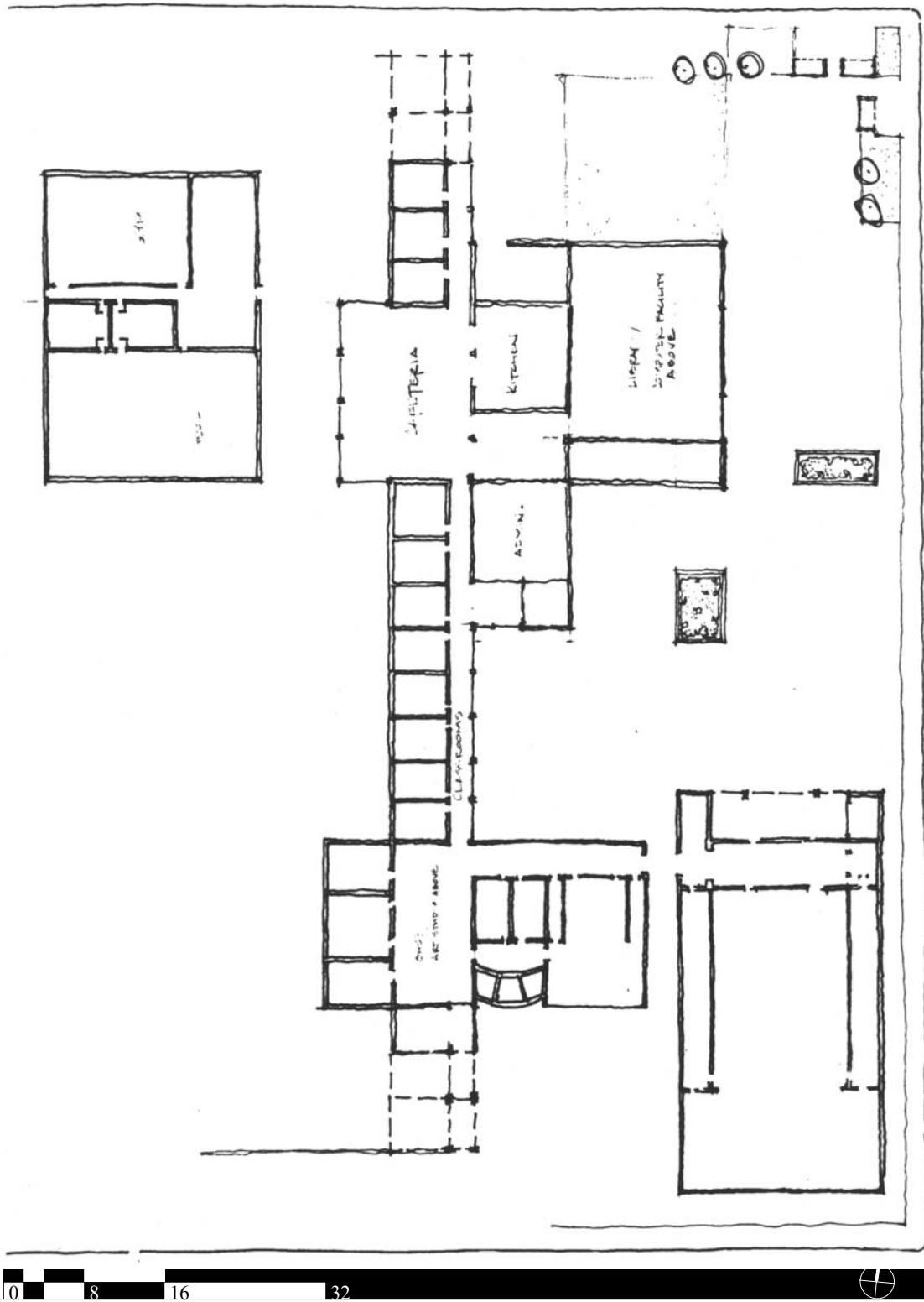


Fig.

DESIGN CONCLUSIONS

URBAN RESPONSE - Site Plan and Building Organization

The final design developed from the green scheme. The density of the existing urban fabric and the public but under utilized character of the existing park space presupposed the nature of the space formed by the new school should be public and accessible. The thesis, to unite the school and the community, accentuates that idea. The school building occupies only the south half of the site, along Eastern Ave. The north half of the site is reserved for athletic playing fields.

The classrooms are organized into a four level bar that spans the site from east to west. All of the other programmatic elements of the school are attached to the classroom bar. The site is thus organized into a series of discrete spaces, characterized by the programmatic elements that form the space.

The classroom bar is placed on the site where, from west to east, the grade change is just about one floor level. The administrative office wing is on the south side, just east of the center of the bar, and occupies two levels. It projects from the classroom bar toward Eastern Ave. and allows for the development of two distinct spaces along Eastern Ave., the west at ground level and the east one at the first level.

The library is just west of the center of the classroom bar. It occupies four levels and spans from north to south across the classroom bar, engaging it in various ways at the different floor levels.

The theater is sited at the southwest corner of the site, along Eastern Ave and S. Linwood Ave., facing the administrative wing. It is joined to the classroom bar via a bridge

at the lobby and a music wing toward the rear of the theater. The theater, library and administrative offices flank the public civic space along Eastern Ave. The main public entrance to the school is located here, just between the administrative offices and the library.

The southeast side of the site is developed as a park. The cafeteria kitchen is on the southeast side of the site, facing the administrative offices. The kitchen service area is accessed off S. Ellwood Ave., and screened from the neighboring houses by a wall and trees. The cafeteria dining area is between the kitchen and offices, separated from Eastern Ave. by a bosc.

The parking lot and bus loop are located to the north west side of the classroom bar.

The gymnasium and natatorium complex is on the north side of the classroom bar, adjacent to the playing fields. Entrances on the east side are on the first level, with access to the spectators' stands and stairs to the ground level. On the west side the entrances are on the ground level, the main floor of the gym and pool area. The gymnasium and natatorium are connected to the classroom bar by a two level wing. The main public entrance to the gymnasium & natatorium is in this wing, accessed from the west side and adjacent to the parking lot and bus loop. There is also an entrance from the east side here at the ground level.

With the exception of the classroom bar, library, and theater, all of the spaces are one to two levels.

The building is organized on a 30 by 30 ft. structural grid, modified to accommodate the vaulted, column less spaces and circulation zones. The 30 ft x 30 ft structural bay defines a typical classroom area, with a 20ft by 30ft bay for the circulation spine. The circulation zone accommodates lockers for all of the students, horizontal circulation and vertical circulation through a series of stairs connecting each level along the classroom bar.

With the ideal class size of 18 to 22 students, the 30 ft x 30ft bay allows for a flexible seating area with an ancillary space for a group work area or special equipment, depending on the particular needs of the subject. The larger rooms at the west end of on the class bar on the first, second and third levels are reserved as science labs for each of the grade levels. On the west end, the ground level contains the wood and metal shops which open to the court formed by the back of the theater and music wing. Two art studios and a few classrooms fill the remaining area along the ground level of the class bar. The first level contains most of the sixth grade class rooms, as well as the home economics class rooms, located across from the cafeteria and kitchen. The second and third levels contain the math, science, English and social studies class rooms for the sixth, seventh and eighth grade students.

STRUCTURE and MATERIAL

The school is steel frame construction with rolled steel sections forming the vaulted beams. The school is clad with precast concrete panels and punched windows along most of the classroom spaces. The precast is in two red-orange earth tones in reference to the brick construction common to the neighborhood. The darker tone forms the base along the ground level, the lighter tone clads the first and second levels. The circulation spine is glass curtain wall with attached sun shade fins on the south face of the building.

At the fourth level, the structural grid is set in one foot along the north and south face of the building. The entire south face is clad in curtain wall with sun shading fins. The vertical mullions of the curtain wall are silicone butt joint mullions, the horizontal mullions are standard cap mullions. From the exterior, the vertical joints are minimized, emphasizing the horizontal line of the building. The half vault form of the roof allows the precast to terminate at a higher point on the north side of the building so that the fourth floor classrooms on the north face have a curtain wall clerestory and high ceiling. The glazed

strip below the roof line emphasizes the non-structural role of the masonry and reinforces the horizontal line of the building.

The connecting wings, the office, kitchen and the theater bridge are all one or two levels, clad in precast concrete with punched openings and flat roofs.

The library is clad similar to the class room bar, with large expanses of curtain wall at the reading room at the first level on the south side, and at the reading areas on the north side. The remainder is precast concrete panels with minimal punched windows along the stacks, the core on the north side and in the computer center.

The gymnasium and natatorium are clad in precast concrete panels with a similar clearstory ribbon window running along the base of the vaulted roof. The north side of the lobby between the gym and pool is curtain wall, bringing light and a view of the athletic fields into the lobby. The theater is treated similarly, with a clearstory ribbon window at the base of the vaulted roof, and curtain wall in the lobby areas. The clearstory in the theater is equipped with remote operated blackout shades to meet the needs of the theatrical productions, but can remain open during orchestral or other performances where complete light control is not desired. There are also a few punched windows in the box office, facing the square along eastern ave. and eastern ave. itself.

The cafeteria, nestled between the kitchen and offices, has a free form structural glass channel wall facing into the garden. The channels are self supporting, and anchored at the base and ceiling. The roof is cantilevered from the structure and is not supported by the glass. The glass channels are the type that only offers a slightly hazy distortion when viewed straight on. The curved surface however, reflects and refracts the foliage in the garden when viewed from either the interior or exterior. At both the east and west side of the cafeteria there is access to the garden and a clear vision glass storefront system.



Fig. 61: Figure Ground - Existing



Fig. 62: Figure Ground - Proposed

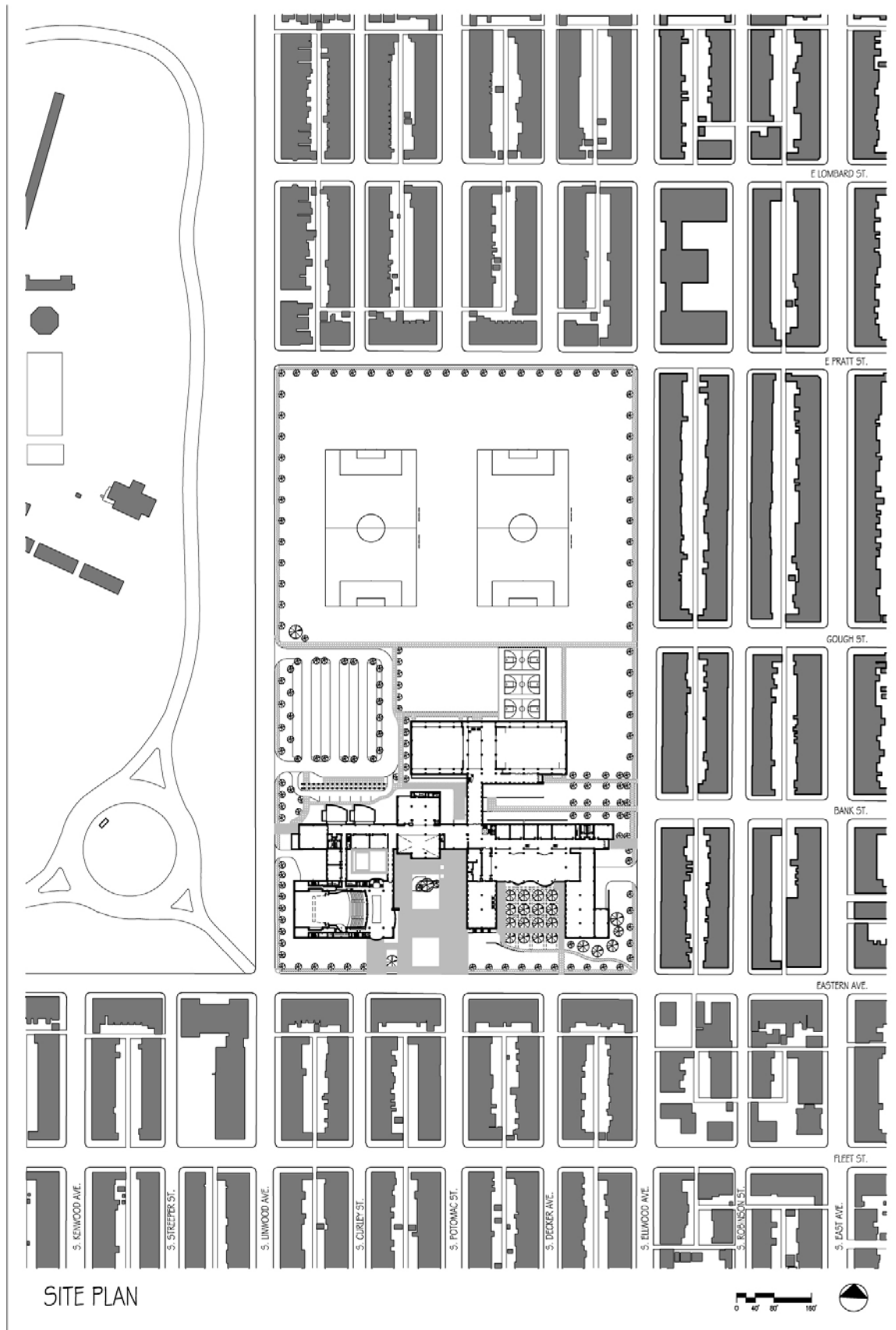


Fig. 63: Patterson Park Middle School - Site Plan

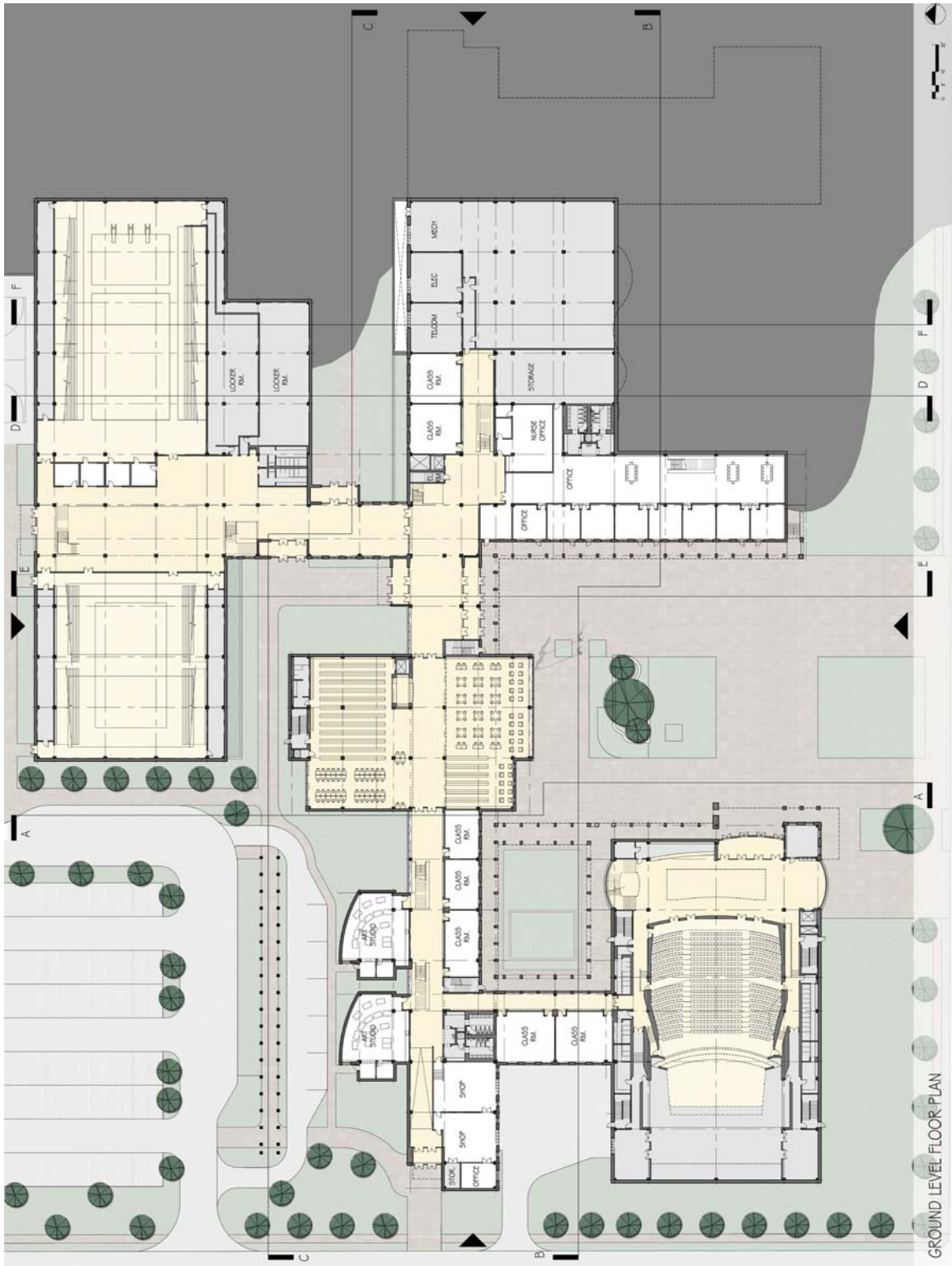


Fig. 64: Patterson Park Middle School - Ground Level Floor Plan

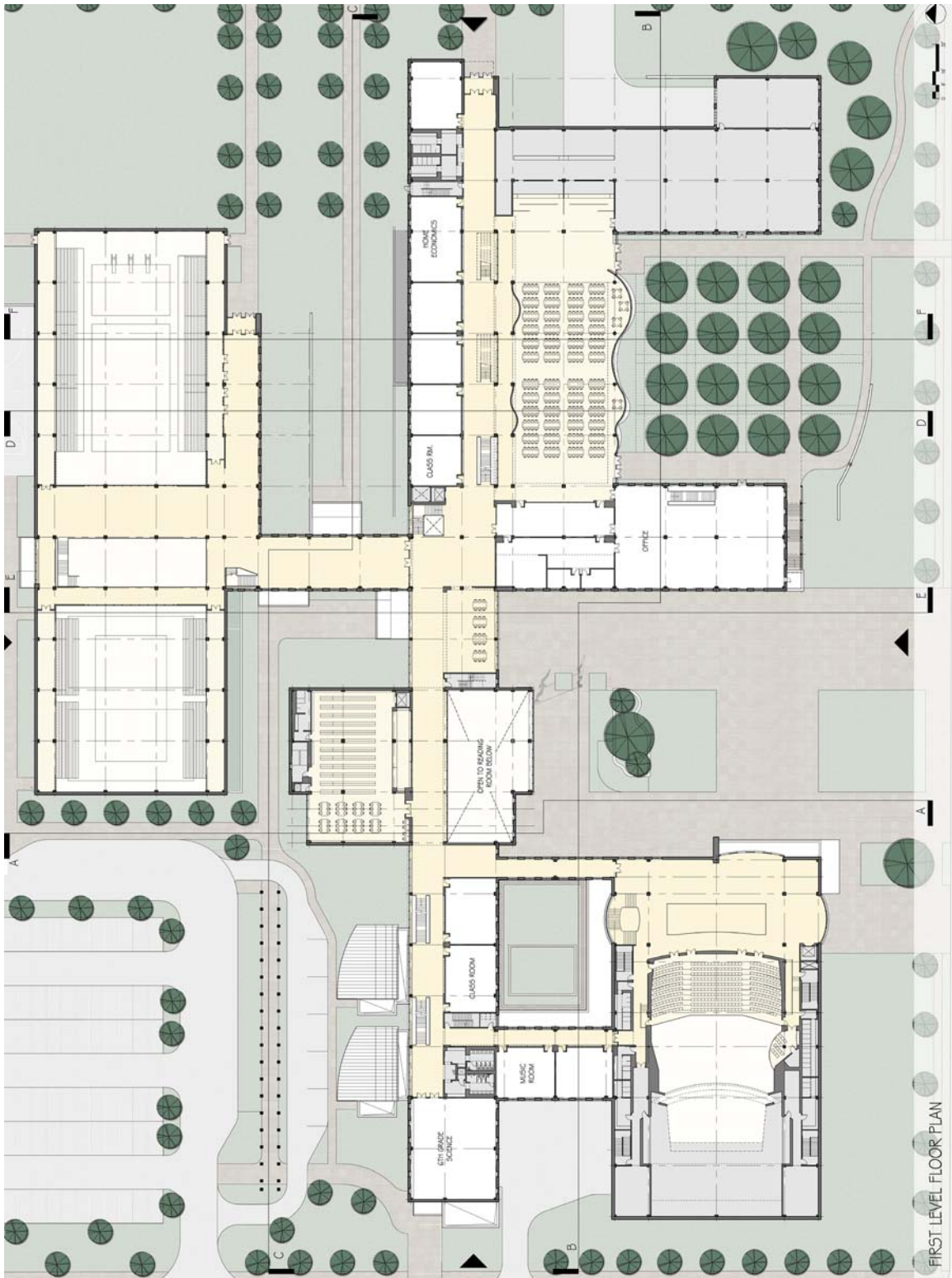
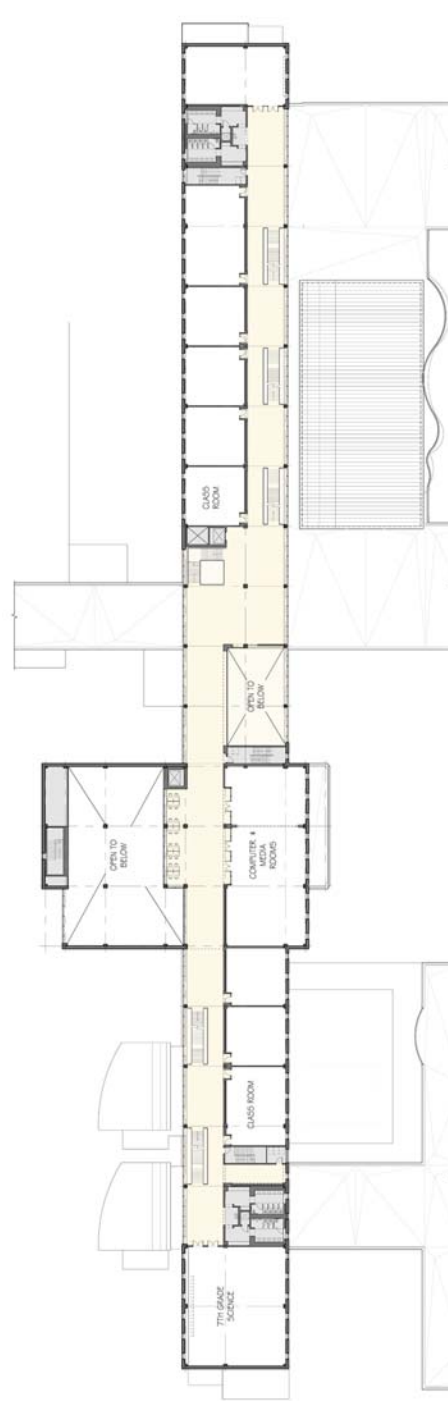


Fig. 65: Patterson Park Middle School - First Level Floor Plan



THIRD LEVEL FLOOR PLAN
7TH & 8TH GRADES



SECOND LEVEL FLOOR PLAN
6TH & 7TH GRADES

Fig. 66 & 67: Patterson Park Middle School - Second & Third Level Floor Plans

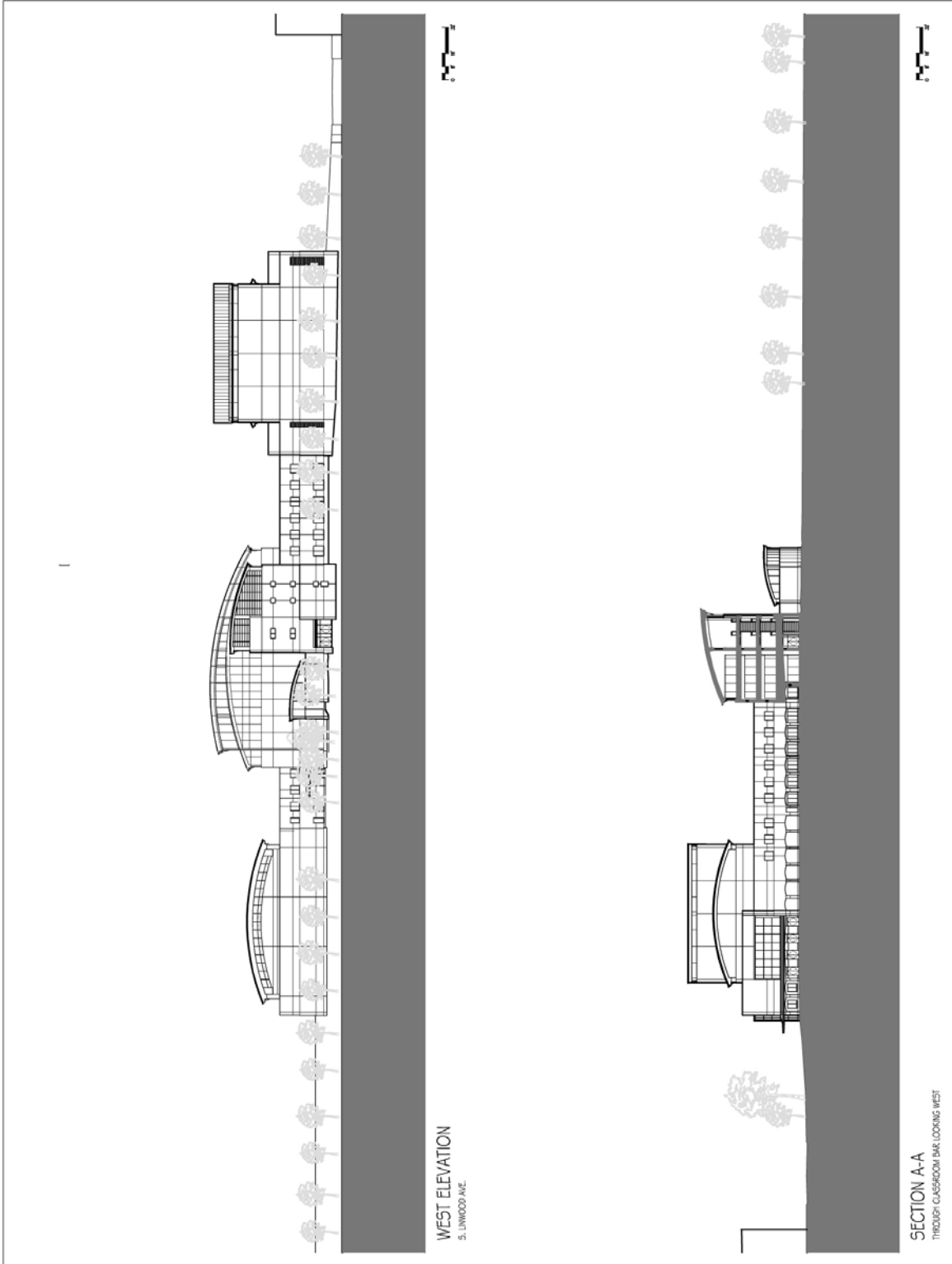


Fig. 68: Patterson Park Middle School - West Elevation

Fig. 69: Patterson Park Middle School - Section A-A

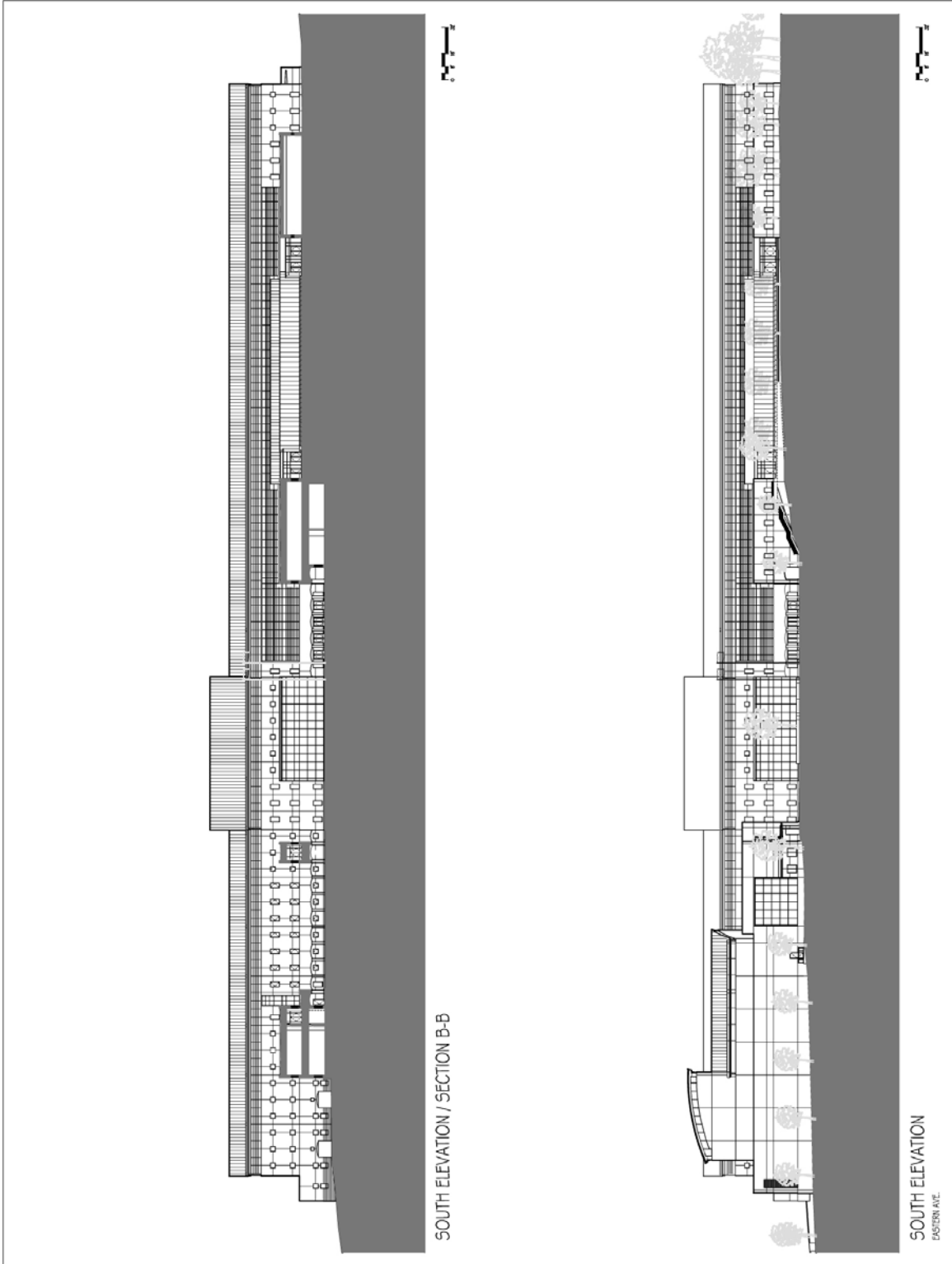


Fig. 70: Patterson Park Middle School - South Elevation / Section B-B

Fig. 71: Patterson Park Middle School - South Elevation

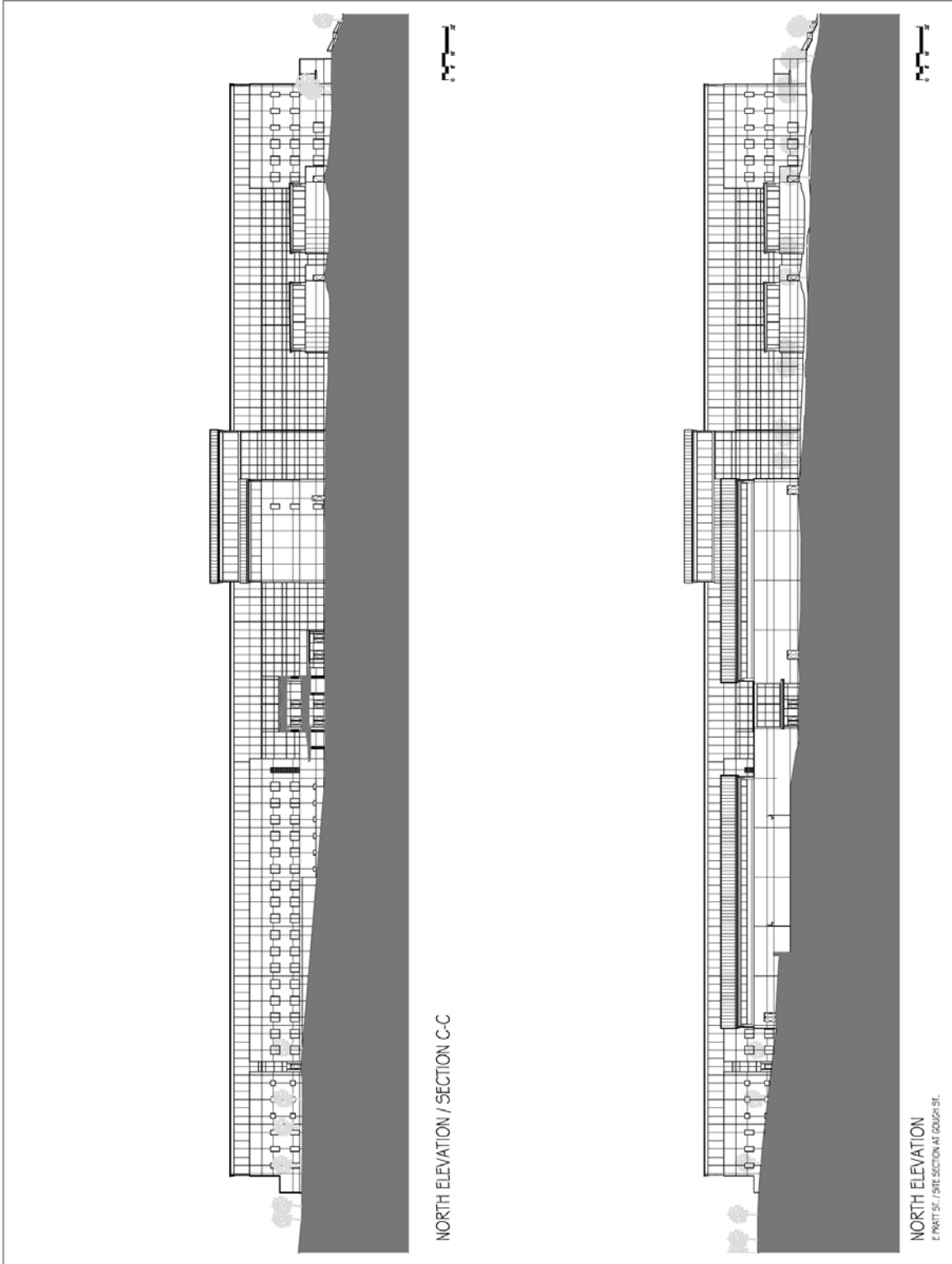


Fig. 61: Patterson Park Middle School - North Elevation / Section C-C

Fig. 62: Patterson Park Middle School - North Elevation

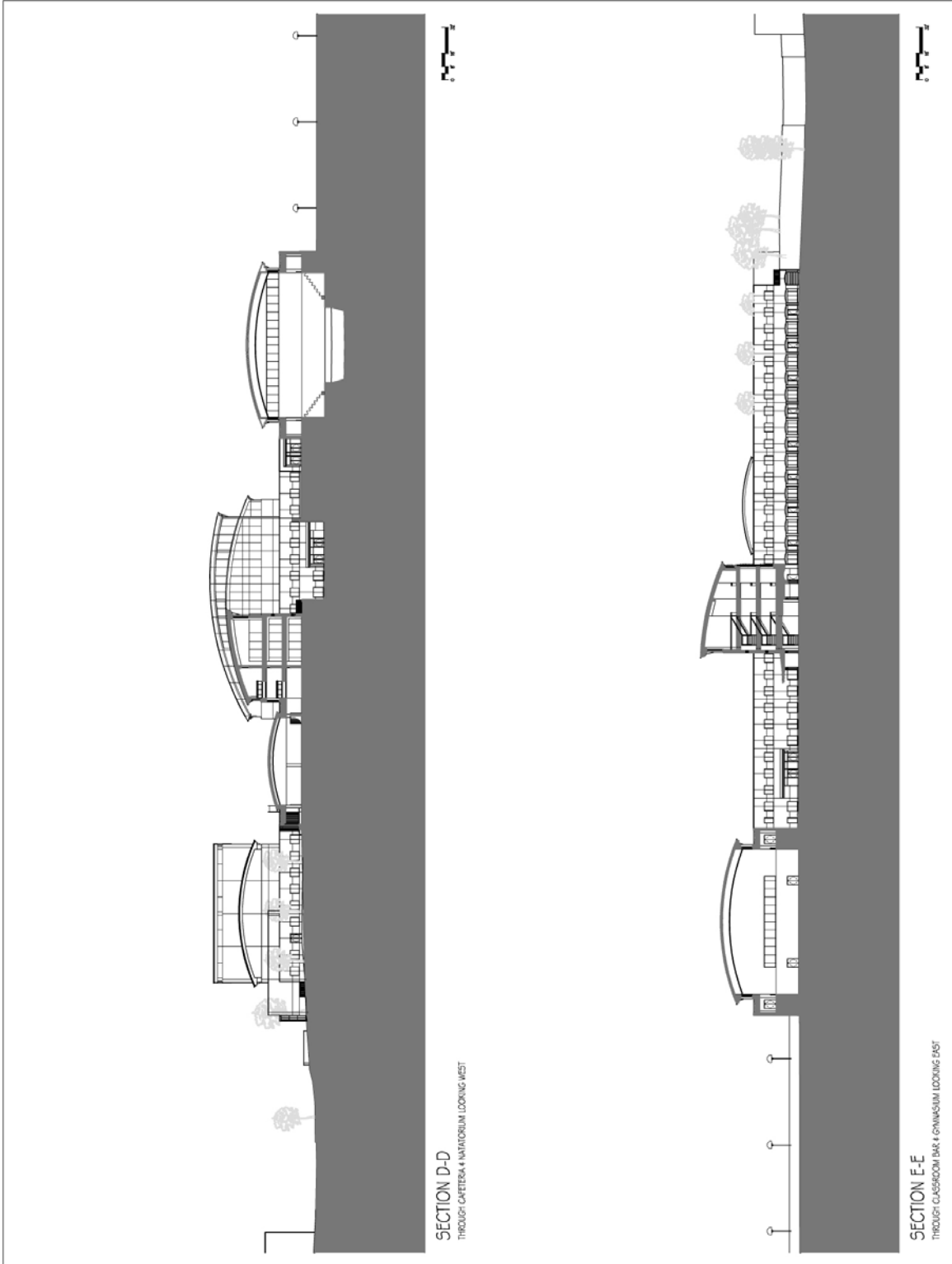


Fig. 74: Patterson Park Middle School - Section D-D

Fig. 75: Patterson Park Middle School - Section E-E

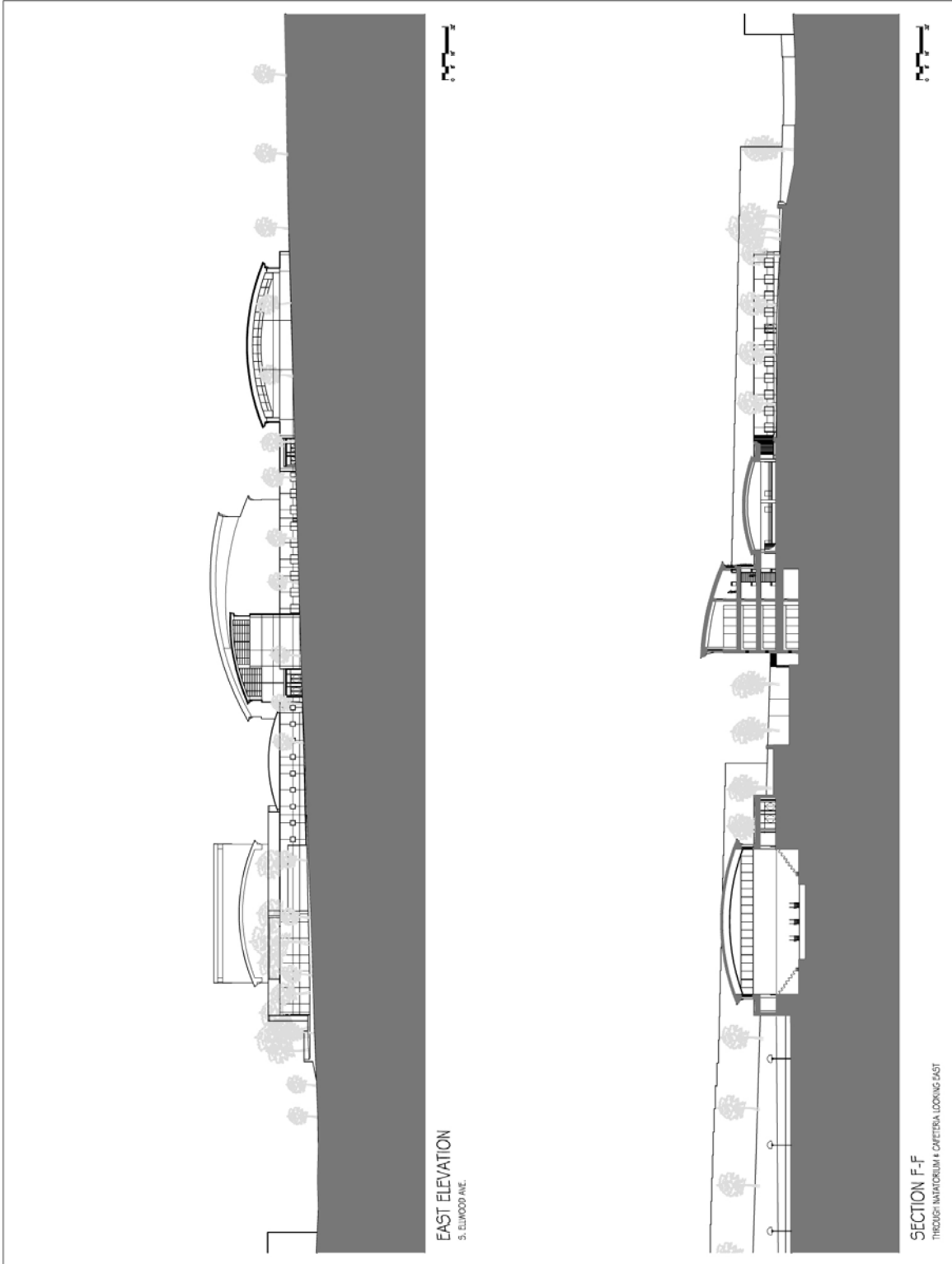
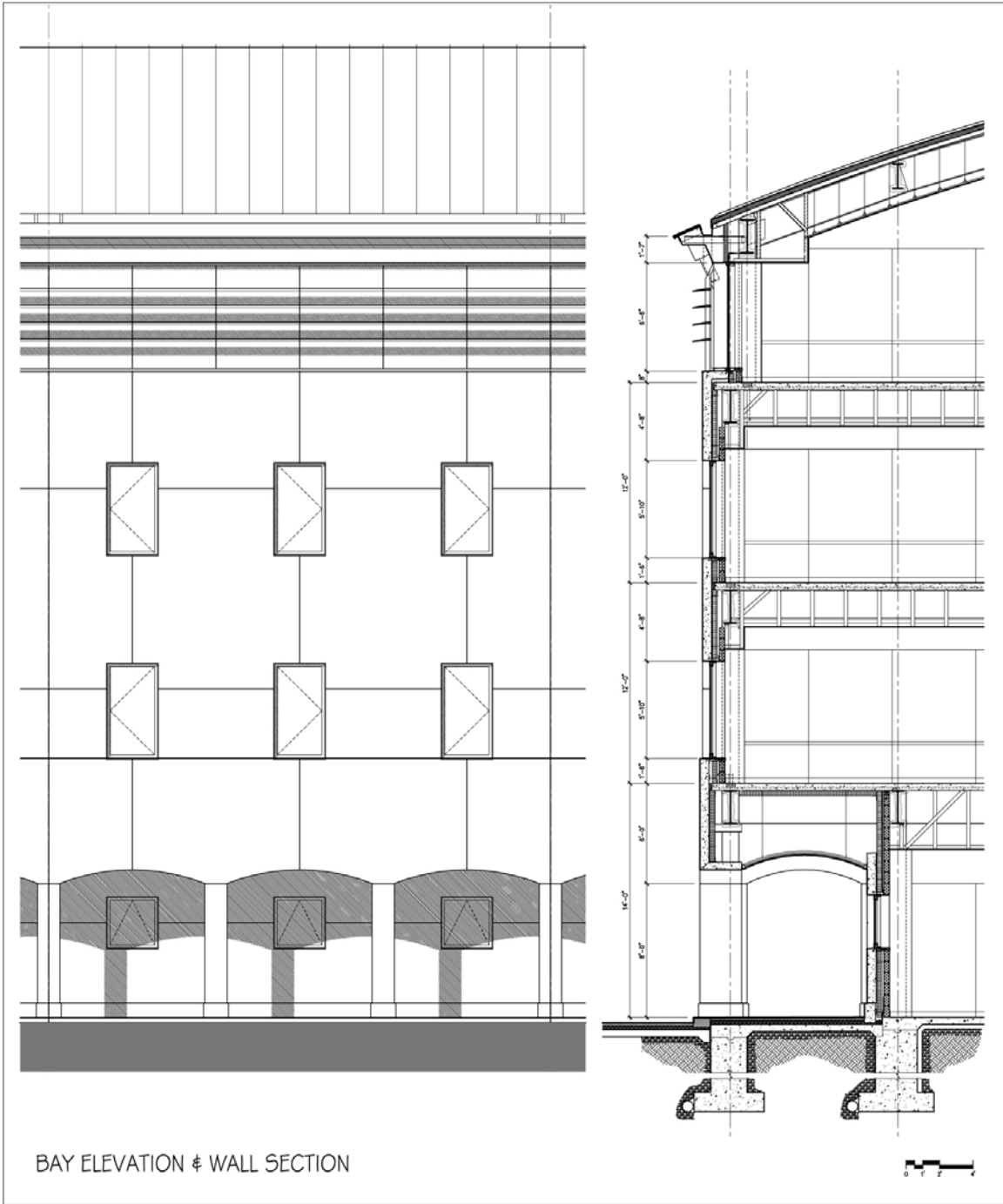


Fig. 76: Patterson Park Middle School - East Elevation

Fig. 77: Patterson Park Middle School - Section F-F



BAY ELEVATION & WALL SECTION

Fig. 78: Patterson Park Middle School - Bay Elevation
 Fig. 79: Patterson Park Middle School - Wall Section



Fig. 80: Ground Level Entrance at Eastern Ave



Fig. 81 & 82: Site Perspectives



Fig. 83 & 84: Site Perspectives



Fig. 85: Site Perspective

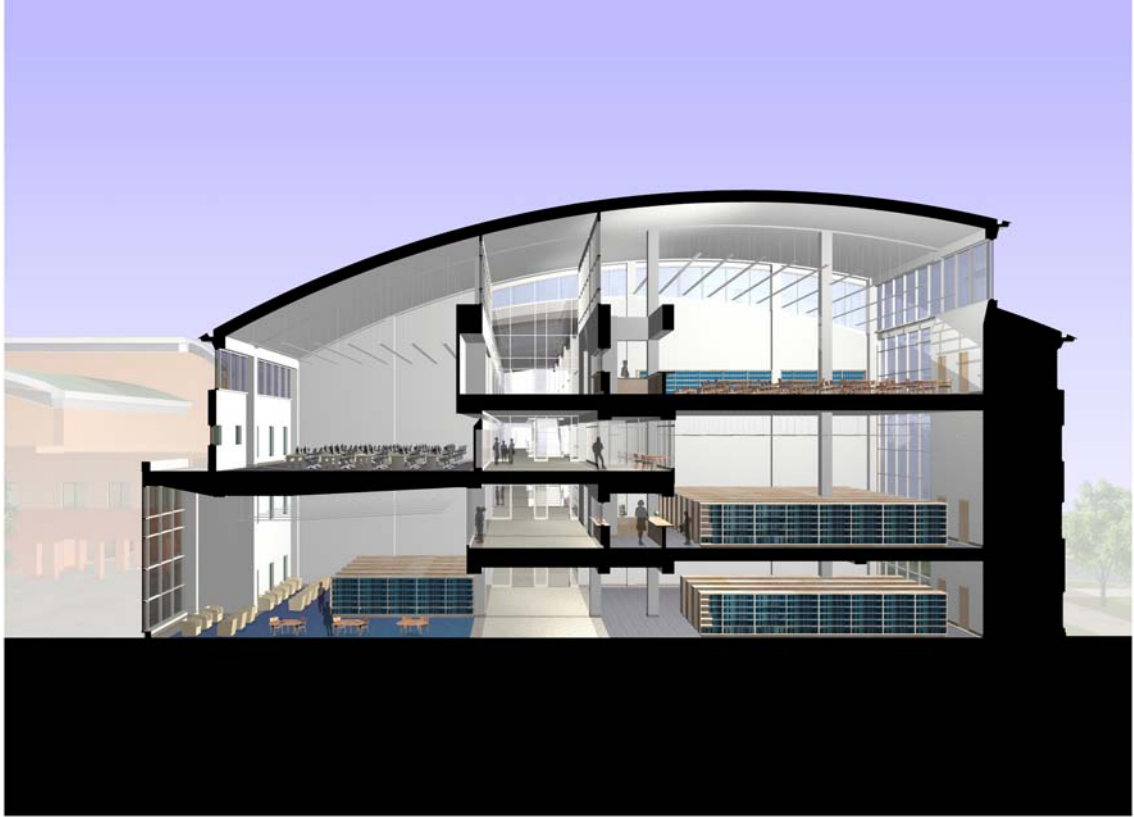
Fig. 86: Ground Level Entrance at Eastern Ave.



Fig. 87: Cafeteria



Fig. 88 & 89: Arcade and Theater Courtyard



SECTION PERSPECTIVE



Fig. 90: Section Perspective
Fig. 91: Ground Level Reading Room



Fig. 92: Third Level Reading Room
Fig. 93: Corridor Overlooking Reading Room

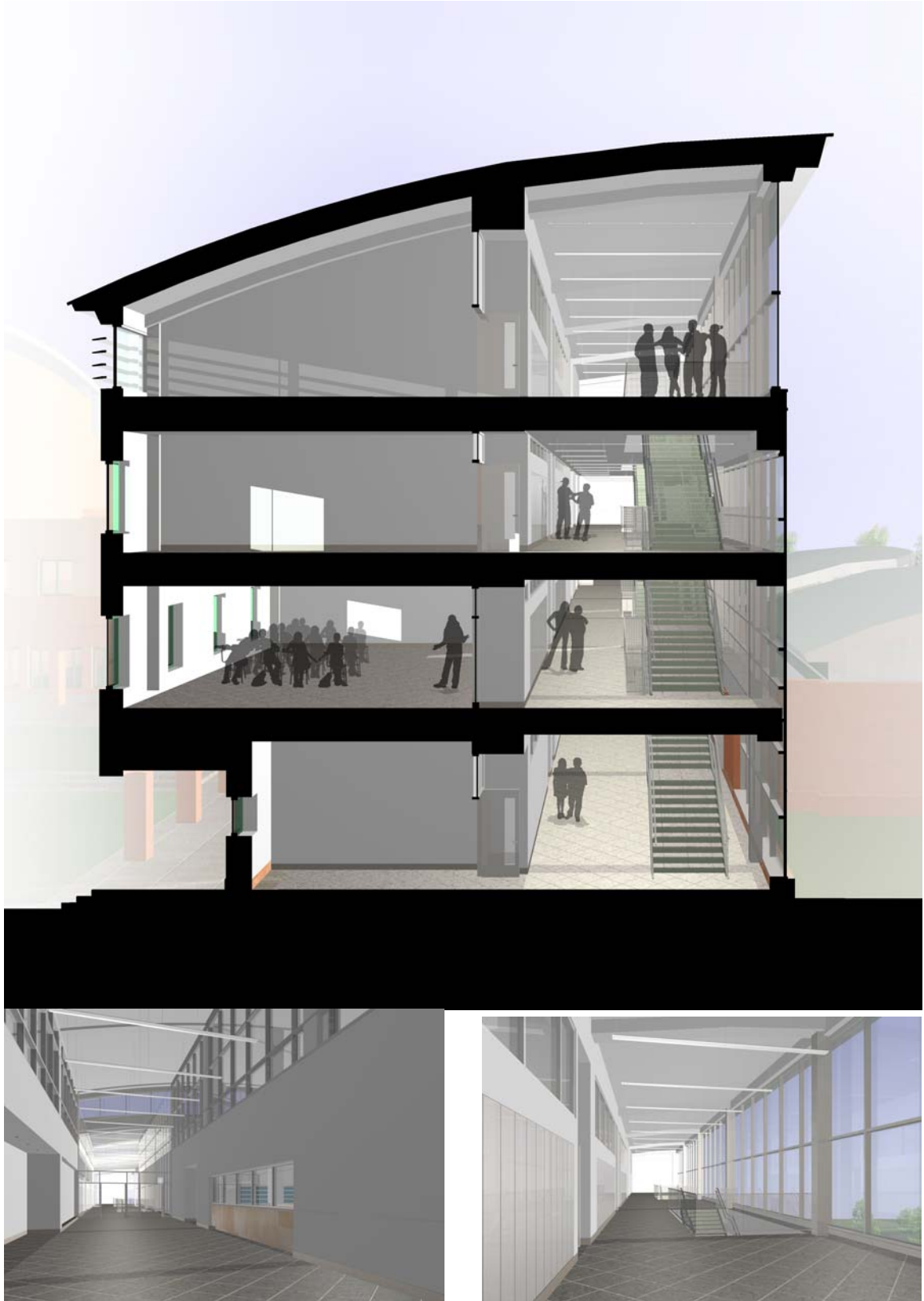


Fig. 94: Section Perspective at Corridor
Fig. 95 & 96: Third Level Corridor

ENDNOTES

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⁵ "Virginia Schools to Employ Virtual Classrooms." Washington Post Fall 1994, A1.

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⁷ Kenneth Frampton, Modern Architecture, A Critical History (London: Thames & Hudson Ltd., 1992), 327.

⁸ Donald G. Hammen, "Highlandtown," in *Beyond the White Marble Steps: A Look at Baltimore Neighborhoods*, ed. Leslie Rehbein and Kate E. Peterson (Baltimore: Citizens Planning & Housing Association, 1979), 13-16.

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