

# **New Schools, New Sites—in Older Cities: School Siting Practices in New Jersey**

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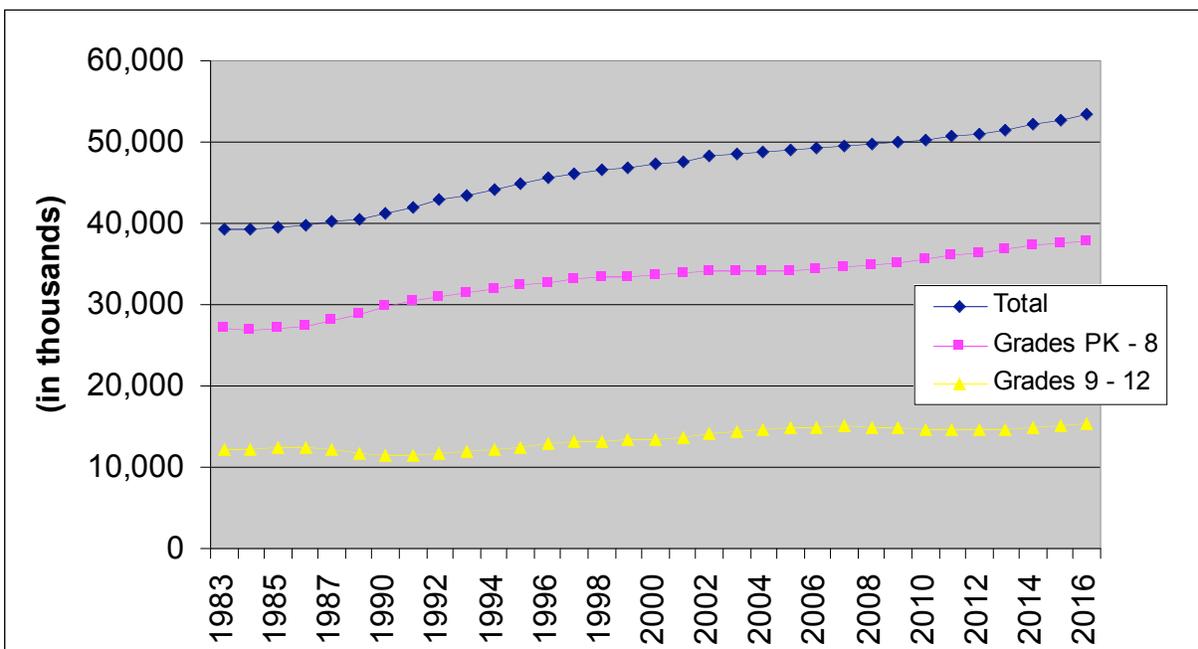
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### Introduction

Many school districts across the country are facing a steady and significant increase in the number of school-age children. In the next decade, thousands of new schools will be needed to relieve overcrowding and to accommodate the 250,000 additional students that will enter the nation’s classrooms each year (National Center for Education Statistics 2003). By the year 2016, according to projections, U.S. public schools will need to accommodate more than 53 million students, an increase of nearly 3.5 million over the current public school population (see Figure 1 below).

Perhaps one can better grasp the scale of this coming wave of enrollments by considering that the increase is expected to be greater than the combined current student population of the nation’s largest school districts: New York City, Los Angeles, Chicago, Miami, Las Vegas, Detroit, Philadelphia, Houston, and Dallas. And unlike the past century, when school enrollments rose and fell repeatedly, growth in the 21<sup>st</sup> century, fueled by the “baby boom echo”—the grandchildren of the baby boomers, now entering school in large numbers—and by the increasing number of families immigrating to the US, is expected to continue for decades.

**Figure 1: SCHOOL ENROLLMENT:** Public elementary and secondary enrollment in pre-kindergarten through grade 12, with projections after 2004



SOURCE: U.S. Department of Education, NCES. (2007). Projections of Education Statistics to 2016

The children now going to outmoded and deteriorating public schools and the students who will be entering classrooms in the next generation will require more public resources, including major investments in the construction and renovation of school facilities. This need has not gone unheeded. Each year since 2000, school districts in the United States have spent on average 20 billion dollars on school construction, additions, and renovations, with new school building accounting for some 60% of the spending (School Planning and Management 2007).

With this tremendous surge in school building, we have an unprecedented opportunity to design and build schools that not only meet the needs of students and educators, but also to build healthier, more robust communities. Educational researchers have shown that school facilities affect student achievement and teaching quality (Schneider 2002; Buckley, Schneider *et al*, 2004). They have also shown that a school can serve as a learning and service center for the entire community, providing a full range of services such as day care, health care, recreational opportunities, and libraries (Beaumont and Pianca 2000; Bingler, Quinn *et al*, 2004). More broadly, community advocates and others have argued that school siting and design decisions have had, and will continue to have, an enormous impact on regional development patterns and environmental quality, the fiscal strength of cities and suburbs, and on the opportunities (or lack thereof) to revitalize urban neighborhoods where the notion of “failing urban schools” hinders community development (Passmore 2002; Baum 2004; Vincent 2006).

Yet despite the clear-cut educational and community benefits from new and better designed schools, decisions about where schools are built can be among the most complicated and contentious in any community (Hersh 2005) (Hersh 2005; Fishbach 2006), (Ponessa 2004). In urban areas, building new schools must take into account the following considerations:

- **Availability of potential school sites**

The cost of land in many cities is escalating; and in densely populated areas, large, uncontaminated vacant properties are hard to find. With few clean sites available, contaminated properties such as pipeline land, paint and dye plants, fuel oil storage sites, and former chromium factories have been proposed as potential school sites in urban areas, requiring assessment and remediation by the state (Ellerbusch 2004).

- **Importance of “ratables” for local government**

Municipalities and school districts may have competing interests that can pit school construction against other land uses. This means that instead of cooperating with school districts to identify suitable sites for schools, some municipalities may decide to sell off potential school sites for private development, from which the city can gain property tax revenues. Schools, by contrast, do not bring in any tax revenue directly and in this way are less attractive. This lack of coordination and cooperation can lead to increased land acquisition costs for school districts and longer project timelines.

- **Lack of coordination between school districts and local government**

In most states school districts are special purpose units of local government, and under state law are guaranteed political and financial independence from municipalities. With this autonomy, school boards may select school sites with little or no cooperation with local governments and with scant attention to a municipality’s master plan. This makes it more difficult for school districts, as well as community stakeholders and parents, to take into account the costs and benefits across potential school sites (including brownfields) at the outset of the school siting process.

- **Negotiating multiple objectives**

Under certain conditions, particularly where there is perceived to be an opportunity for joint gain and when state funding for school construction is available, school districts and municipalities may engage in lengthy negotiations to identify, assemble, and acquire a site or several sites for schools. A project to build a new school or to expand an existing school,

apart from its direct educational benefit to children, can also serve the municipality's interest in economic development or revitalizing a neighborhood or improving infrastructure. A municipality, for example, may see new school construction as an opportunity to clean up blighted neighborhoods through the condemnation process, or as a means to encourage the reuse of a mothballed property or a brownfield site. Satisfying educational and broader community development goals is worthwhile, but the question that needs to be asked is how do these negotiations influence where schools end up, and what relative importance is given to environmental considerations.

- **Funding mechanisms**

Without adequate state funding to supplement local property tax revenues, poorer urban school districts may lack the means to build a much needed new school. Apart from state funding, the ability of a school district to fund new school construction is tied to the value of a community's property. Impoverished communities have lost much of their property tax base and voters, already burdened by high tax rates, may be unable or unwilling to assume the levels of debt necessary to upgrade school facilities or build new schools.

- **Environmental review**

The very real pressures to get a school up and running to meet enrollment needs or to qualify for state funding may influence how environmental site assessments of potential school sites are interpreted, as well as how school districts and other organizations involved in school construction use probabilistic risk information contained in site assessments (Hersh 2005). Moreover, when alternative sites are considered, conflicts of interest may make the environmental part of the site selection process less important than other site considerations—size, traffic, access, air quality, cost, proximity to student population, location—and the environmental staff in the school district may have to revise its opinion about the severity of the threat. Only a handful of states—California, Illinois, Rhode Island, and New Jersey—require the state regulatory agency to review site assessments at potential school sites and to audit cleanups.

In a broad sense, the decisions school boards and other organizations make about where to build schools is part and parcel of a more fundamental debate in our society. How do we provide our school children, particularly those in impoverished neighborhoods, with the best resources and opportunities to succeed in life? How can we ensure that all children are able to attend safe and decent schools? How can we create and sustain vibrant neighborhoods by allocating public dollars to build community-centered schools? How can school districts be encouraged to work more collaboratively with planning agencies to coordinate school construction with land use decisions related to housing and transportation? How can we make regulatory oversight of school siting and cleanup effective and yet sufficiently streamlined so that school construction is not delayed unnecessarily? And finally, under what conditions, if any, is it appropriate to build schools on contaminated sites, and how should such decisions be made?

### The School Construction Program in New Jersey

New Jersey, perhaps more than any other state, has been forced to confront these questions over the past decade. In a landmark 1998 decision<sup>1</sup> known as *Abbott V*, the New Jersey Supreme Court ordered a set of educational reforms to improve public education for some 350,000 children living in 31 low-income and minority-dominated urban school districts, known originally as Abbott districts.<sup>2</sup> In its ruling, the court directed the state of New Jersey to fully fund and manage the needed facility improvements in the Abbott districts—including both “new and rehabilitated facilities to adequately house all programs, relieve overcrowding and eliminate health and safety violations”—so that students in these districts could receive a “thorough and efficient” education, required by the state constitution. Two years later, the New Jersey Educational Facilities Construction and Financing Act (EFCFA, P.L. 2000 c. 72) was signed into law, and with it state funding of \$6 billion for school renovation and new construction in Abbott school districts. Under EFCFA, the State undertook the funding of the entire cost of repairing, renovating, and constructing new school facilities in the 31 Abbott districts. To be eligible for state funding, each Abbott district was required to complete a five-year long range facilities plan (LRFP), which included a physical assessment of school buildings, needed building upgrades, enrollment projections, space requirements, etc. As one long-standing participant has put it:

New Jersey’s experience with assuming direct responsibility for school facilities financing, planning, design and construction in thirty urban communities offers a unique opportunity to inform the national debate over the proper role of the state in ensuring that all students have the opportunity to learn in a physical environment that is safe, healthy, and educationally adequate. (Ponessa 2004)

Without doubt, New Jersey’s school building program and its efforts to improve public education for poor children has been one of the most ambitious in the nation. It has dealt head on with many of the issues noted above: lack of coordination between school districts and municipalities, school funding for impoverished communities, aligning economic development concerns with community centered schools, identifying sites and building schools in densely populated neighborhoods, and mandating environmental review of school sites. The intensity, depth, ambition, and complexity of the New Jersey experience provides rich material for program analysis, benchmarking, and evaluation of best practices.

With such an ambitious and large-scale program, one that launched hundreds of construction projects and created a large and complex organization, the New Jersey Schools Construction Corporation (NJSCC)<sup>3</sup> to administer the program, it is not surprising that New Jersey has had its share of successes and failures. Much of this history is examined in lucid detail by Ponessa (2004) and in a critical report by the New Jersey Office of the Inspector General (OIG, 2005).

This paper does not dwell on the frailties of the NJSCC’s internal management structure or the financial control problems that plagued the program’s first wave of construction. Nor will

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<sup>1</sup>Additional information on this landmark process can be found on the website of the Education Law Center [www.edlawcenter.org](http://www.edlawcenter.org) or in Yaffe, D., *Other People’s Children: The Battle for Justice and Equality in New Jersey’s Schools* [New Brunswick, New Jersey: Rivergate Books, an imprint of Rutgers University Press].

<sup>2</sup>At the time of the initial *Abbott V* decision in 1998 there were 28 districts. As of the end of 2008, there were 31, now called “SDA Districts.”

<sup>3</sup>To overcome several administrative, legal, and organizational difficulties the Corporation was reshaped into the New Jersey Schools Development Authority in August 2007.

it consider in any detail the difficulties Abbott districts had in producing long range facility plans to provide the state authorities with a baseline that could help them make the best use of existing instructional space and determine whether it was more feasible to renovate existing buildings or build new ones.

This paper's focus is much narrower, examining the following questions: How do school districts and local governments identify and select sites for school construction? What regulatory, political, and economic factors do they weigh in deciding where to locate schools?

School site selection in New Jersey cities is tied to a complex skein of legal and regulatory requirements. Under New Jersey's current administrative code (6A:26-7.1), a school district must comply with detailed site acquisition criteria. These are reviewed by the state's Department of Education before the New Jersey School Development Authority—the successor to the NJSCC—can begin a school construction project. In addition, the state's environmental regulatory agency, the Department of Environmental Protection (DEP), reviews all environmental site assessments and investigations of potential school sites. DEP also oversees cleanups at brownfields sites in accordance with interagency Memoranda of Understanding (2003 and 2007).

But the school construction program in New Jersey demonstrates that while states create rules in statutes, regulations, and court decisions, organizations such as school districts, regulatory agencies, and municipalities often live by norms—that is, informal rules and practices that they make themselves. My approach to examining the site-selection process and its consequences owes a great deal to the insight offered by Malinowski: “The true problem,” he wrote, “is not to study how human life submits to rules—it simply does not; the real problem is how rules become adapted to life.” (Malinowski 1926)

The article is structured as follows: I first look broadly at the conditions that influence how school districts and municipalities identify and select school sites in New Jersey's Abbott districts. I then review in more detail the incentives at play for various organizations involved in school siting. I consider how, in what are often lengthy, complex negotiations, the broad educational objectives tied to new schools are commingled with other policy goals—economic revitalization, increasing tax revenues, addressing blight, and cleaning up brownfields.

Next I discuss site acquisition criteria and the regulations that apply to site assessments. To find out how these rules are likely to bend and adapt to local interests—through what are often complex and lengthy negotiations—I then examine the site selection process as it unfolded in one of the Abbott school districts in New Jersey, which I call “Brown City.” I conclude with a series of recommendations.

My primary intention is to shed light on how better school siting policies can be put into practice, not simply legislated. My second objective is to contribute to the national discussion on school site-selection guidelines, a subject that perhaps has new urgency. In December 2007, in Title III-E (Healthy, High-Performance Schools) of the federal Energy Independence and Security Act, Congress required the United States Environmental Protection Agency (EPA) to establish voluntary environmental health and safety guidelines for states to consult when locating and constructing schools. These guidelines are supposed to account for the special vulnerability of children to pollution in any case for which “the potential for contamination at a potential school site exists.” By looking closely at implementation issues, we hope this paper can inform EPA's deliberations.

### **Searching for New Sites in Old Decaying Cities**

Both school construction and the redevelopment of residential neighborhoods in the “urban crust” (Gale 2006) of northern New Jersey is influenced by the region’s industrial legacy. Industrial and commercial properties are typically found in residential neighborhoods in these older “rust belt” cities. Although not recognized as “brownfields” since they are still occupied by commercial or industrial uses, these properties are often run down and detrimental to the surrounding neighborhood. The purchase and redevelopment of these properties by the private sector is slow due, in part, to fears of liability for cleaning up site contamination from past industrial and commercial activities. This is especially problematic in many New Jersey cities that are burdened with a long and rich chemical legacy from previous waves of industrialization, including the manufacture of textiles, metal plating, chromate processing, and the production of incandescent lamps and radio tubes.

Municipal officials in New Jersey’s urban crust face an extensive local inventory of deteriorating properties as well as gasoline stations, constructed between the 1940s and 1960s, that have been converted to ubiquitous used-car lots. For various reasons—location, size, configuration, current use, and possible contamination—these properties have not been targeted as investment opportunities by real estate developers or by public redevelopment agencies. But when the State provided funding for school districts and local governments in Abbott districts to acquire and remediate sites for new schools in these older cities, these derelict sites in blighted neighborhoods lost much of their stigma.

With site assessments and cleanup costs funded by the state school construction program, school districts and municipal officials were given strong incentives to consider brownfields as locations for new schools. More generally, as described below, the school construction program was seen at the local level not only as a way to build new schools to improve the educational opportunities for disadvantaged children, but also as a trigger for local economic development.

#### **Design Criteria**

As elsewhere, the need to find new sites for schools in urban New Jersey has been driven by court judgments, statutes, and subsequent administrative regulations. In particular, the court mandated (under *Abbott v. Burke*, or *Abbott II*, June 1990) parity in the educational facilities of suburban and urban students. In urban areas, the state and school districts must plan for fewer students per teacher and more square footage per student. These guidelines also emphasize the need to provide cafeterias, gymnasiums, libraries, and rooms for the study of music and art. They have thus led to the construction of new and larger school buildings housing smaller student populations.

The New Jersey Supreme Court in its decision of May 21, 1998, *Abbott V*, (Supreme Court - State of New Jersey 1998) defined the “types of educational spaces needed to provide adequate programs to enable students to meet the Core Curriculum Content Standards.” Facility Efficiency Standards were devised to provide the maximum number of students per room: 15 for pre-kindergarten, 21 for kindergarten through third grade, 23 students for grades 4 to 8<sup>th</sup> and so on (New Jersey Department of Education 1997). To meet these standards, school districts need more square footage to educate and house existing students, as well as more square footage to replace obsolete schools and to address enrollment increases.

Because many of the Abbott districts enroll students above their “model capacity,” and thus do not meet the state’s Facility Efficiency Standards (FES), the priority has been to construct additional classrooms for “un-housed students.” This has been done either through the construction of entirely new schools on new sites or through the construction of additions to existing school buildings. School districts can also choose to upgrade and renovate existing schools to meet FES guidelines. Typically this requires school districts to relocate students to alternate (temporary) schools, and in many instances, such renovations have been deferred until some of the temporary capacity is built.

Whether through new school construction or renovation, the program’s objectives are to upgrade all the buildings in Abbott districts, to increase capacity to house a growing student population, and to provide conditions equivalent to that of the wealthier districts in New Jersey. New schools would not only add seats, to deal with increased enrollments, but they would also enable the school district to shift students out of antiquated buildings. Once these older buildings are vacant, necessary reconstruction and renovations can be implemented.

Most of the Abbott districts and the municipalities in which they are located were intensively engaged in the statewide process of rebuilding educationally adequate school infrastructure between 2002 and mid-2005. This effort was financed with the bonds issued through the Educational Facilities Construction and Financing Act (EFCFA) of 2000. Program Management Firms<sup>4</sup> (PMF) were engaged on behalf of the series of State government organizations in charge of school construction: NJEDA<sup>5</sup> (2000-2002), NJSCC (2002-2007), and NJSDA<sup>6</sup> (2007-present). These PMFs were given the task of assisting their respective Districts with the entire range of school construction—from concept to reality: programming, design and construction. These efforts immediately focused on the need to find sites for the new schools detailed in the District’s 1999/2000 Long Range Facility Plan.

### **Identifying Appropriate Sites**

In many jurisdictions, the school board and local government have three possible, approaches, or options when it came to school construction. They can opt to consume existing open space on school property, build new facilities on adjacent properties, or find new sites.

***Consuming existent open space:*** This option is the most straightforward because it uses land, owned by a school district, next to an overcrowded school. A district taking this approach chooses to sacrifice its own land for an extension of a school building. For example, a new wing might be planned on the school’s sole playground. The consumption of existing land, even if presently used for educational purposes (physical education), is an expedient and easy solution. However, this is a solution at the expense of the school’s educational program, which by statute and regulation is supposed to include adequate outdoor physical education for all students. This solution also reduces the quantity of public open space that is available in a dense urban area, increases the density on the site, and decreases the available play space or play time per child.

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<sup>4</sup>The “Program Management Firm” was how NJSCC (2002) quickly mobilized skilled staff for this program after the delays following the approval of the EFCFA in 2000. Essentially outsourcing the bulk of the program management to over ten construction/engineering/management firms, the State was able to immediately engage qualified professionals from the construction profession. The PMFs worked with the Districts under the direction of internal NJEDA staff and then the NJSCC.

<sup>5</sup>New Jersey Economic Development Authority

<sup>6</sup>New Jersey Schools Development Authority

**Enlargements:** The enlargement approach uses an existing school facility as the nucleus for expansion. This approach encumbers an existing facility with years of construction and does not generate as substantial an increase in square footage as a “new start.”

**New Starts:** To increase the capacity of an urban school system new schools must be constructed. These new buildings, on new sites, are needed in the short run to create the “swing space” needed by these districts to completely close antiquated facilities and embark on necessary renovations and upgrades. Some spare space is needed to accommodate students who must be moved out of the oldest buildings where renovations are desperately needed.

### **Factors Influencing Site Selection**

When searching for a viable new site for a new start, the municipality and the school district first consider a wide range of territory. This effort brings to the fore a new set of complexities, considerations, and constraints. For example, when assembling a “new start” site there is a need to carefully aggregate a set of continuous properties to form a rationally shaped and adequately sized school site, or alternatively to target individual properties that have sufficient acreage for a school and school grounds. In urban areas, such as the Abbott districts, such properties are typically brownfields. In the second step, the range of lots that could potentially be acquired are typically evaluated on seven criteria:

- **Adjacency/Continuity:** Are the parcels immediately adjacent and thus continuous with the school district’s existing property? How many sides of the school’s property border on the street? Can the school span or close the street?
- **Residential or Commercial?** Are the parcels immediately adjacent to the school owned by constituents? Are they occupied by their owners? Are nearby commercial establishments locally owned by voting constituents? How many residents or voters would be affected? From an environmental perspective, low-density residential properties are ideal as they are unlikely to be contaminated. However, selecting and assembling a site composed of occupied single and two-family homes will have a negative social impact on the neighborhood and tends to be a relatively expensive process of expropriation and relocation.
- **Design:** The outline of the possible expansion is also evaluated. What sort of expanded facility could be built on the selected parcels? Will the attachment of selected parcels lend themselves to the design of an improved and larger facility?
- **Tax Impact:** Does this property contribute to the municipal tax base? Will its expropriation and transfer to the district result in a significant loss of ratables (annual income)?
- **Environmental Condition:** For school board members and local government officials, the environmental characteristics of a site are typically subordinate to other concerns such as size, location, acquisition costs, and proximity to students. But clearly there can be controversy between those who believe that any site can be remediated when faced with a shortage of land and others who argue that the characteristics of some sites should immediately place them beyond consideration. The extent and severity of contamination is normally established through a series of environmental investigations conducted only after the initial screening for appropriate sites has concluded.
- **Size:** Can enough parcels be assembled to create a site of the necessary size? How many parcels are needed? Who owns and who occupies these properties? Many Abbott school districts assemble adequately sized sites by acquiring either former industrial land or tracts of

contiguous blighted residential slums and adjacent low-performing commercial properties. These may be the only properties that can serve as the nucleus for a site large enough for a school that will include the necessary area for a building, physical education, and staff parking.

- **Socio-Demographic Characteristics:** How many persons are affected by possible relocation, and what are the socio-economic characteristics of the neighborhood? How many residents would be affected? While there is an overall reluctance to remove families from their homes, particularly apartment houses, the New Jersey school construction program has found itself directed, on several occasions, by local government and school districts to acquire swaths of low density, disinvested, “end of useful life cycle” neighborhoods for new school sites. These are neighborhoods that are filled with marginal housing that is not being maintained. Generally, a disinvested, poorly maintained area is also home to an area’s disenfranchised population—that is the unemployed or under-employed, immigrants, persons of color, and the poor. In the eyes of some school boards and local governments, there is little political cost to declaring such a neighborhood blighted and displacing local residents. This displacement usually occurs quietly, with little to no opposition or repercussions at the political level.

Typically, parcels for new school construction are identified through an informal consultation between the municipal and school district leaderships, with little transparency or public input. Decisions often emerge from personal conversations between school district and local government power brokers. The decisions are then formally delivered by the district superintendent of schools to the board of education in the form of a proposal, a draft resolution. The draft resolution includes a list of detailed addresses (lots) that the district is requesting the NJSDA to evaluate as the first step to acquisition. In parallel, this information is transmitted to the Department of Education, the NJSDA, and the Program Management Firm.

### **Selecting the Preferred Site**

The attempt to fit a school project into a neighborhood’s fabric often emerges from this informal discussion of the constraints and opportunities that various sites present, and it then leads to a formal process. In this formal process, school site selection must take into account school-siting criteria embodied in state code. The New Jersey Administrative Code (NJAC 6A:26-7.1 and 7.2) details a series of criteria that must be addressed by the applicant for site acquisition approval. These criteria range from the marginally unimportant to the extremely significant. The twenty-two criteria are formalized in checklist “DOE-150.” The most important of these criteria include:

- A statement from an architect or engineer that the land is suitable for the planned school and meets the requirements of the administrative code, specifically that the school site has sufficient acreage for:
  - Placement of the school facility
  - Expansion of the building to maximum potential enrollment
  - Multi-purpose physical education fields to support core curriculum standards
  - Disabled-accessible walkways, roadways, and parking
  - Public access and service roads, school bus roads, drop off areas, and 18-foot wide fire lanes
  - 30-foot wide access around entire building

- Proof of submission (not necessarily approval) of the project to the local planning board
- Prior approval or review by the New Jersey Department of Environmental Protection
- Documentation that the soil conditions have been reviewed and the determination made that they are appropriate for intended use

The project applicant needs to present material to the approving authority, the State Department of Education. The applicant must address every element of the checklist to receive approval for the site. All elements of the checklist must be answered in the affirmative.

### **School Site Selection in Practice: Discretion and “Pencil Whipping”**

There is a good deal of discretion in evaluating these criteria. The phenomenon known as “pencil-whipping” may be encountered where an advocate or promoter of a particular site focuses on complying with the checklist process. In other words, the “letter” of the regulation may be followed, with declarations made that the site meets the administrative requirements. However, qualitative nuances are omitted from the process. This arrangement allows projects to seek the lowest threshold: a minimal level of acceptable mediocrity.

For example, the administrative code asks if:

the school site has sufficient acreage for multipurpose physical education field(s) and, for pre-school through grade five school facilities, a playground required to support the achievement of the Core Curriculum Content Standards as defined by the number of physical education teaching stations applicable to the school facility pursuant to the facilities efficiency standards and the approved programmatic model, or if not, has been supplemented with acreage leased from the municipality as evidenced by a long-term lease so that the acreage as supplemented is sufficient.

The compliant response is: “The school site includes sufficient acreage for physical education facilities for both the elementary school and the early childhood center.”

The definition of “sufficient acreage” per child could range from 20 to 140 square feet. This depends on the size of the playground and how many classes are simultaneously sent to play. Thus “sufficiency” is subjective, especially where there is pressure to minimize land acquisition for political or financial reasons. Achieving suburban-scale acreage in an American inner city is virtually impossible. Most of the guidelines propagated by the State Departments of Education and the Council of Educational Facility Planners International (CEFPI) (the nationwide group concerned with school design) address the typical new suburban school. In developing areas, the school district or municipality can purchase (or demand from large scale developers) large green-field parcels for new schools. CEFPI’s guidelines recommend at least ten acres of land plus one acre for every 100 students for an elementary school (Weihs 2003). Applying this standard to a 700-student elementary school in one of New Jersey’s urban areas would call for the acquisition of a 17-acre site. Clearly this is unrealistic.

State guidelines for school design set specific targets for interior spaces and the ratio of capacity-generating spaces (seats for school children in classrooms) to auxiliary spaces. However, the same guidelines do not set the minimum site size for an urban school or the minimum outdoor physical education space per student. The guidelines also fall silent on the relationship between the school building’s footprint, square footage for staff parking, and space for physical education. The only exception to this rule is codified in New Jersey regulations for early childhood education (NJAC 6A:26-6.4(d)1): “There shall be outdoor play space sufficient

to support the achievement of the Early Childhood Education Program Expectations ... evidenced by a standard of sufficiency such as the following: 100 square feet per child of outdoor play space for each child using that space at one time.”

The failure of the guidelines to define acreage requirements for urban schools leads to considerable local discretion. The creative ambiguity contained within the term “sufficient acreage” can be interpreted as “*make due with what is offered*” or a “*small inferior site is better than no site at all*” in discussions between local governments and school districts.

Through informal negotiations, school districts and local governments have tried to balance local educational needs with the dynamics of real estate acquisition and large-scale urban redevelopment. In such negotiations one plausible outcome is school district capitulation and a sacrifice of the opportunity to create a satisfactory educational facility. In the following section I examine how this dynamic played out in one Abbott district in northern New Jersey, which I call by the generic name “Brown City.”

### **“Brown City,” New Jersey**

The “Brown City” School District was classified an Abbott District in accordance with the NJ Supreme Court’s Abbott II decision in 1990. Although Brown City is an extreme case, with its population exceeding 50,000 persons in its square mile (US Census 2000), many of New Jersey’s and America’s older cities present the same pathologies. Newark, Irvington, Camden, and Trenton all lack available space, open space, or space that is not environmentally impacted. Thus Brown City is a prototype for learning about building schools in dense urban environments.

The municipality, the school district, and the school projects that are being referred to in this section are real, and the processes described have been part and parcel of the school site selection process. Since some of the interviewees expressed their views “on background,” I have tried to maintain a degree of anonymity and have called the municipality “Brown City.”

Unlike many towns in New Jersey, where the school board is elected, in Brown City the Board of Education is appointed by the mayor of Brown City. Brown City’s mayor has been in office for nearly ten years. Successful in running his city, he also holds office as a state legislator. He is a central figure in decision-making at the municipal and state levels regarding his section of Northern New Jersey. The dependence and the ties of the chairperson and members of Brown City’s Board of Education to the Mayor who appointed them plays a role in how the Brown City Board of Education maneuvers itself through the process of considering and eventually selecting sites for new and expanded school facilities.

Assisted by its Program Management Firm (PMF), the District began to tackle the entire range of school construction—from concept and programming to design and construction—in 2002. These efforts immediately focused on the need to find sites for the new schools that had been detailed in the Brown City School District’s recently completed 1999/2000 Long Range Facility Plan.

At the peak of activity, 2003-2004, the combined forces of the NJSCC, Brown City School District, Brown City, and the PMF were working on a school construction program with an estimated cost of approximately \$150,000,000. This included, in its ultimate build-out as defined by the 1999/2000 LRFP, eleven new school buildings, one renovation/addition, and six renovations (Education Law Center 2008).

Because all Brown City school buildings were filled with students above their “model capacity” (Facility Efficiency Standards), the District and NJSCC’s priority was to construct space for “un-housed students.” This was to be done either through the construction of entirely new schools on new sites or through the construction of additions to existing school buildings. A parallel thrust of the Brown City program was the fundamental upgrading and renovation of existing schools. As this would require the relocation of students to alternate (temporary) schools, these renovations were deferred until some of the new capacity could be built.

The program’s objective was to ultimately upgrade all of Brown City’s school buildings and increase total capacity. That is, it would increase the square footage and equipment per student provided to the levels determined by the State’s Department of Education while boosting the number of students housed. With construction of the first units of new capacity, the Brown City School District would shift students out of antiquated buildings. Once these older buildings were vacant, necessary reconstruction and renovations could be implemented.

The District’s vision included:

- Upgrading and modernizing all existing elementary schools to the approved standards
- Rehabilitating the two former high school buildings into middle schools
- Rehabilitating the former middle schools into elementary schools

#### **Facility Snapshots: The High Schools**

Brown City School District’s 1999/2000 LRFP called for two high school facilities accommodating approximately 1450 to 1700 students each. For planning purposes, they were labeled HS 1 and HS 2 and would replace two existing high schools: Emory and Brown Hill. After the new high schools were opened, the old high school buildings were to become middle schools with 800 to 900 students each.

*High School No. 1.* HS 1 became a “Demonstration Project,” taking advantage of a specific section of the EFCFA which financed the construction of community-oriented facilities in school projects jointly developed with a local redevelopment authority. The school district and the city directed this project to the land occupied by a municipal stadium that had been built by the Works Progress Administration (WPA) in 1936. This stadium’s field had been the city’s premiere sports facility for nearly 70 years. The primary advantage of this site is that it was neither residential nor commercial. The stadium’s recreational use was addressed in the short-term by replacing the existing football field with a temporary field on land adjacent to Brown City’s new middle school. In the long term, upon completion of this structure, a new elevated football field would provide space for the high school’s physical education and sports programs. It would also be open for community events on weekends, evenings, and holidays. The acquisition of several additional parcels of auto repair and maintenance businesses with minor environmental encumbrances along the adjacent main street was necessary to complete the project. However, because the majority of this site had been a public sports stadium since before World War II, there were few environmental issues. Land was quickly found for the new high school and the project is nearing completion.

*High School No. 2.* This project met a different fate. With no suitable site readily available, the city tried various locations, and the NJSCC conducted a series of site feasibility studies. These studies drew upon a full spectrum of disciplines, ranging from architectural pre-design, traffic, historic and cultural resources, and geotechnical, as well as environmental assessment in accordance with NJDEP regulations (NJAC 7:26-E), which roughly equate to

ASTM Phase I and Phase II environmental due diligence standards. The first site, advocated by the former district superintendent of schools, called for utilizing the air rights above a highly congested and extremely polluted highway. This six-lane roadway bisects Brown City and leads to a major artery into New York City. The superintendent's vision was to erect the high school and its athletic fields on a new platform spanning the roadway. This proposal, due to its cost and its proximity to one of the region's most congested roadways, was ignored by the local board of education after the superintendent's departure and subsequently rejected by the NJSCC.

The district and the city next asked the NJSCC to examine a second site for HS 2. This site, on the service road of the above referenced major highway, was quickly found to be too small for a high school. For a few months, the site was examined as a potential elementary school, but then a real estate developer expressed interest in the site and it was dropped from consideration. In a third iteration, efforts focused on a site that seemed to barely have adequate acreage for a high school, but which housed manufacturing buildings dating to the late 1890s. During the site feasibility phase, it was found that one of the former facilities contributed to the development of the atomic bomb in the Manhattan Project by rolling uranium rod. Although few traces of any lingering radiation could be found in 2005, the school site also included an operating dry cleaner and a gasoline station. As the rush to find new school sites slowed in early 2005, this site was quietly dropped from consideration. The site remains blighted.

Facing the loss of the second new high school and the decreased scope of the school construction program, the school district altered the educational program in its 2005 Long Range Facility Plan to a junior high school model. This would take the ninth graders out of the high schools and decrease the quantity of seats needed at the high school level. Three junior high schools would be created for grades 7 to 9, each housing 600 to 700 students. This alteration would allow the entire district's 10<sup>th</sup> to 12<sup>th</sup> graders, 1750 to 1850 students, to be accommodated in one high school: HS 1. The demonstration project being built from 2006 to 2009, with the school and community stadium on its roof, would be the sole high school in the district. At present the new junior high school facilities remain a vision for the future and are not included in the State's current round of funding (approved in the summer of 2008).

### **Facility Snapshots: The Middle School**

The chosen site for a new middle school was a series of three municipal parking lots on portions of three city blocks: "A," "B," and "C." This property was given to the school district by the city on the condition that the NJSCC would replace the at-grade parking lots with a structured parking deck. This deck would provide parking for both shoppers and employees of the adjacent downtown businesses as well as the school's staff.

The three lots adjacent to the downtown shopping street were constructed on land expropriated from homeowners and businesses in the 1950s and 1960s. This was done to provide parking in support of the local stores, echoing efforts made by other cities around the United States to stem the drift of retail business to suburban shopping malls.



While on the one hand this could be viewed as an intelligent use of a municipal resources, the true measures of success are the design of the school and the use of the site. None of the blocks initially or subsequently identified were, individually or in aggregate, large enough for the planned middle school. Thus, to accommodate the “model” square footage, the project needed to span adjacent streets to incorporate nearby municipal properties. The parking deck on block “A” between Fifth and Sixth Streets was planned at five stories and covered nearly all the available municipal land on Block “A.” The middle school itself was planned for block “B,” between Sixth and Seventh Streets.

As the architects began to fit the school onto the site, they found that the selected lots on block “B” were too small. The site was expanded, after consultation between the district superintendent and the city, to include three more lots, private homes on block “B” and north across Seventh Street towards Eighth Street. The municipality was prepared to dedicate another existing municipal parking lot for the school’s physical education area. This lot, a zigzag configuration on block “C,” could accommodate two independent sports functions. Even with the addition of properties on block “B” the size of the school (its approved educational model) required the design of a structure right up to the property lines on all sides.

This project was never built because the agreement between the owner of the land (the Brown City Parking Authority) and the New Jersey Schools Construction Corporation was not finalized before all land acquisitions were halted by the State in early 2005. On its tightly constrained site, it is questionable whether this design would have provided a quality educational environment for a middle school.

The Brown City example suggests that new school sites are the outcome of complex negotiations, characterized by land availability, high land acquisition costs, the penetration of economic development interests in siting decisions, poor coordination between school districts and municipal officials, and a lack of public transparency. In the face of these various pressures, school siting often takes the path of least resistance. This means that in many Abbott Districts school sites are acquired primarily in blighted areas that are home to or employ disenfranchised populations. It also means that there has been a tendency to direct schools to former factories and commercial sites—brownfields—where state construction funds have paid for the cleanup.

On the one hand, municipalities benefit from the state-sponsored cleanup of problematic properties in the process of building a new school. On the other hand, school districts, students, and the State of New Jersey's educational facilities program are saddled with the time and cost of cleaning up brownfield sites. In addition, school districts may be obligated to sustain long-term engineering and institutional controls such as groundwater monitoring, periodic inspections, and subslab depressurization systems for sites burdened by vapor intrusion. For some school districts, the path of least resistance has meant a drift towards cramped, overloaded, "postage stamp" sites, with inadequate outdoor space, where the school building is designed as an oversized, multi-storied structure, out of proportion with neighboring structures. Because these structures are being built by the State, they are completely exempt from local site plan review, zoning, and building ordinances regarding bulk, setbacks, parking, and minimum requirements for natural light and ventilation. In Brown City, the irony is that the municipality and school districts were enabled, through the NJSDA, to build these large structures on small sites, an outcome that was not consistent with the district's long range facility plan.

### **Conclusion and Recommendations**

Finding new sites for schools in older cities is the foundation for a school building improvement program. When the New Jersey program was funded in 2001, it quickly foundered on the site-selection process. School projects could not advance into design until school sites were found. Without the real estate in place, the program stalled.

The school construction program also faltered due to the conflicts that emerged between school districts and municipalities. For school districts, the emphasis was on finding safe and appropriate sites to build schools to help realize educational objectives for underserved children, while for municipalities the possibility of new schools became part of economic development strategies. When these two entities of local government agree about siting, projects are able to advance into construction. This is a decisive piece of the puzzle. Without these parties becoming partners, "marching in step," the process has not succeeded and will not succeed.

School-siting decisions, as discussed above, are often the outcome of negotiations between school districts and municipal officials. *These negotiations can be improved by effectively engaging communities in site selection and building community support for school sites earlier in the process.* In this way, local officials and interested residents can carefully

assess the benefits and costs of potential sites across a range of alternatives and then identify preferred sites that have community and political backing.

In December 2008 the NJSDA altered the State's administrative regulations governing preconstruction activity. Among the objectives of the changes was to improve the process of site selection. For example, a district board of education and the "governing body of the municipality" now will jointly submit written analysis of each site detailed in the proposed list of potential school sites. This analysis will explain whether these possible sites are suitable for the school project identified in the district's Long Range Facilities Plan. This analysis should include: cost and schedule impacts; site considerations including constructability, compatibility, economic development plans; relocation and displacement impacts; infrastructure considerations such as water, sewer, traffic, road-widening, and utility relocations; environmental considerations such as remediation; historical and cultural resources; compatibility with adjacent land uses; and wetlands preservation. To engage the community the regulation encourages (but does not require) the district to host a community advisory committee composed of a wide range of members. It is too early to gauge the impact of these changed regulations on the selection of sites for new schools.

Building schools in older cities is not an easily accomplished task, and there are no shortcuts. Programs that create meaningful facility upgrades, increases in capacity, and safe learning environments require careful planning. These projects cannot be set up overnight or even within months. The tasks involved and the mobilization of talented persons and resources require nurturing, benchmarking, experience, and learning best practices.

In most cases, when a school district begins its first serious large-scale facility reconstruction program after a forty to fifty-year hiatus, it lacks the experience and human capital to lead and implement such a program. The boom-and-bust approach to school construction and renovation leads inevitably to poor outcomes. This is compounded by the nature of a *school* district: The primary experiences and skill sets of district leadership are not those associated with economic redevelopment, environmental site assessment and cleanup, and construction. *It is therefore preferable that each school district create a steady, multi-year construction program led by internal staff and supplemented by external consultants.* There will still be significant siting and environmental challenges, but such a program provides the capacity to take on such challenges.

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