

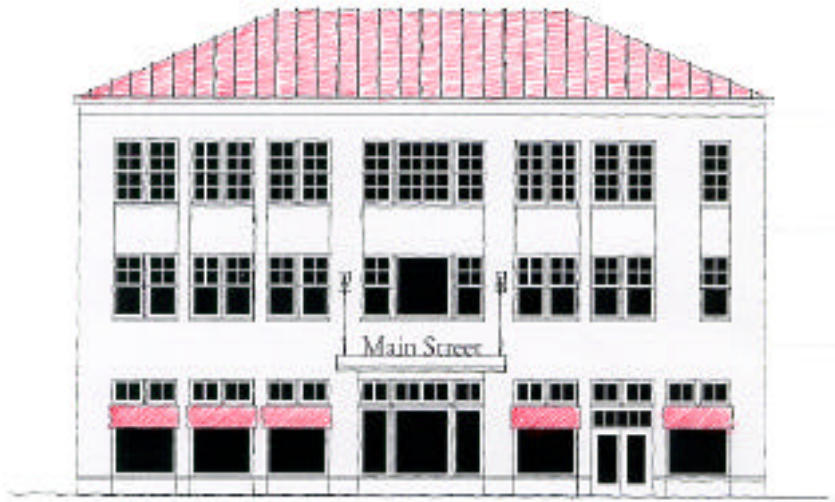


# SCALE *&* CARE

CHARTER SCHOOLS

*&*

NEW URBANISM



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CHARTER SCHOOLS  
&  
NEW URBANISM

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# SCALE & CARE

## CHARTER SCHOOLS & NEW URBANISM

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*Charter schools offer an unparalleled opportunity to provide a vast array of options within the public sector to respond to the diverse needs of students, teachers and communities.*

—Report by  
Massachusetts  
Dept. of Education

# PREMISE

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New Urbanism presents a sharp critique of and a broad reform for postwar planning and development. Charter schools challenge the entrenched standards of the postwar educational model. New Urbanism and charter schools both offer alternatives that demand deliberate scale and care.

New Urbanist designers continuously emphasize, and rightly so, the importance of human scale in successful human environments, in the building of healthy human community. Over the past few decades, school reformers, and, more recently, the Charter School movement, have also uncovered the importance of scale in creating school environments that are more responsive to the needs of children. Years of research and experience have shown that children, as all humans, are most successful in environments scaled to their needs – small schools where there are strong ties to their homes, and where they enjoy connection to the larger community. It is this common theme of scale and care in the built environment that offers a unique opportunity for partnership between school-reformers and new urbanist town-design-reformers. In many ways, charter school and small school activists, and new urbanist architects, developers and planners have a similar goal: to reconnect people — both physically and spiritually — with the civic institutions that once brought them together.



*Rendering of The Children's Storefront, 129<sup>th</sup> St., New York City.*

This paper examines the possibilities for mutual benefit for school and community by integrating school-building into the new urbanist tool kit. The discussion covers actual implementation: a prototype building, a means for integration into the community structure, and a financial analysis geared toward developers.

*Schools began with a man under a tree who did not realize he was a teacher, discussing his realizations with a few others who did not know they were students. The students reflected on the exchanges between them and on how good it was to be in the presence of this man. They wished their sons, also, to listen to such a man. Soon, the needed spaces were erected and the first schools came into existence.*

—Louis Kahn

# SCHOOL REFORM & SCALE

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The school reform movement, and charter schools in particular are in part a response to large, impersonal, bureaucratized public school systems that have alienated the children, families and even the communities they serve. In 1930, the U.S. had 128,000 school districts and 262,000 schools. Today, the number of school districts has decreased to 15,000, a nearly nine-fold reduction. The number of schools has dropped by 68 percent since 1930, while the K-12 student population has grown by 64 percent. Enormous schools that are run by large, central district offices have become more and more common, where small, neighborhood schools run by local communities have become increasingly rare.

These massive changes did not happen without detractors, and there has been a large body of research, dating back to the late 1940s, on the impact of increased school size on various student outcomes. [see sidebar] In the early years, research tended to focus on the positive effects of small school size on attitudes and satisfaction, extracurricular participation, attachment to school, and attendance, all of which have now been confirmed by decades of research. In more recent years, researchers have investigated the unique influence of school and district size on student achievement. All else held equal (particularly family income), students in smaller schools academically outperform students in larger ones.

Many researchers have attempted to identify the “optimal size” of schools for achieving both operational cost-efficiency and academic success. The vast majority of these recommendations, however, are made for the high school level, although most researchers hypothesize that the recommendations for smaller schools are applicable to elementary schools as well. John Goodlad, author of *A Place Called School*, points to 300-400 students as the optimal size for an elementary school. Education researcher Thomas Sergiovanni, in a 1993 address to the American Educational Research Association, proclaimed that a school enrollment of 300 as the largest that could sustain a true educational community.

## The (Dis)Economies of Scale

Many school environments have become victims of scale – that is, economies of scale. What has been accepted as conventional wisdom from private business, factory and mass-production/distribution process has been misapplied wholesale to school construction and governance for many decades. Economy of scale, though useful for the production model, is inappropriate for the needs of a school. As with roads, shopping malls and sprawling large-lot subdivisions, bigger is not better.

A 1992 study by the Exxon Education Foundation found that there is a point where school size actually creates penalties, or ‘diseconomies,’ of scale, at sizes greater than 600 students for an elementary school, or greater than 1400-1600 students for a high school. Another nationwide study showed that operational costs increase per capita when student populations exceed the 500-999 range.<sup>1</sup>

## The Benefits of Small Schools

Small, neighborhood-scaled schools provide a learning environment in which students feel more significant. They are more accountable and inclined to participate both in class and in extracurricular activities. The physical scale of a neighborhood school translates into a structural scale that is much more manageable, more approachable for parents and other community members.

*If education is founded on the development of the individual, the size of class and the size of buildings should be small enough to allow the individual to count.*

—Talbot F. Hamlin  
“Schools Are For Children”

Furthermore, smaller neighborhood schools lessen the negative impacts (whether real or perceived) that can be associated with a school use, including traffic or large groups of unsupervised children converging before and after school time. Safety is also a key benefit of smaller schools. In fact, a 1974 Presidential Panel determined that, “in a school larger than about 500 students, teachers no longer know the names of students they do not teach, and the principal no longer knows students by name. At about 1,000 students, the principal becomes unable to distinguish whether a particular young person belongs to a school”.<sup>2</sup>

Neighborhood schools can bring civics to the neighborhood level. Small schools better support parental trust and involvement, making the institution more approachable, and parents, teachers and students are able to become familiar with each other because of the less intimidating context. Public Education Association of New York research suggests that enrollment should be capped at “decidedly low levels”: 300-500 for elementary schools, 300-750 for intermediate schools and 750-1,200 for high schools.

## Small Schools Study

In 1989, a unique partnership was formed to look at the issue of smaller schools for New York City. The Public Education Association, a citizens policy analysis and advocacy group, and the Architectural League of New York, which helps architects, artists and the public enrich their understanding of the art of architecture, began a collaborative effort to investigate a new approach to school building: creating schools that were small enough to implement new understandings of an effective learning environment, and that were oriented to, and integrated into, the neighborhood community. The project held juried competitions for 6 potential school ‘sites’ (the smallest of which was on a 50’x100’ parcel) within the city and analyzed the strengths and weaknesses of many proposed design solutions.



*Seaside Charter School, Seaside, Florida*

*Small schools inherently support the evolution of parental trust and involvement, as parents, teachers, and students become familiar with each other in an unthreatening context.*

—Jeanne Silver Frankl  
“Advocacy and Architecture”

In describing their strategy for creating smaller schools, project leaders coined a very descriptive term, “urban opportunism” to describe processes of insertion, renovation and combination with other facilities as building and development strategies. This last strategy – combination with other facilities, probably has the most bearing on new neo-traditional development, and is the focus of what is presented here. It deserves mention, however, that new urbanists are increasingly taking on opportunities for urban redevelopment or infill projects that could make use of insertion or renovation strategies for small, neighborhood schools.

The 1989 Public Education Association study emphasized the notion that “established procedures, entrenched rules of thumb, standard furniture and equipment orders and other usual ways of doing things that constrain school planning and construction must give way to a new openness to alternative approaches on the part of program writers and program managers,” and that new structures should be set up to “encourage and allow decisions to be made on judgement of quality, feasibility, and appropriateness rather than adherence to preconceived formulas.”<sup>4</sup>

This emphasis on scale, care, quality and neighborhood civics is completely in keeping with new urbanist philosophy that the physical form of community directly affects human well-being. In addition, the Charter of the New Urbanism states that “concentrations of civic, institutional and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.”

*Enrollment should be capped at decidedly low levels ... and where appropriate and possible, schools should actively and indeed physically collaborate with community service providers.*

—Jeanne Silver Frankl  
“Advocacy and Architecture”

# CHARTER SCHOOLS

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One of the most promising approaches to school reform, especially in the absence of conventional public schools' willingness to change entrenched standards and frameworks, is charter schools. A 1996 Hudson Institute study of 43 charter schools in seven states concluded "Charter schools may be the most vibrant force in American education today."

Charter schools are not a new "program" *per se*, but a legislative framework that has been enacted by 29 states (plus the District of Columbia) to allow for a new type of public school to be created. The schools are autonomous, tax-funded public schools that are essentially self-governing. Pupil enrollment in charter schools is determined not by residential zones but by parental discretion. No state allows for the schools to impose admissions requirements and, in the case of over-enrollment, places are made available by lottery.

The charter schools idea rests on the balance between flexibility and accountability. The school, which can be established by a variety of organizers (depending on the state), is freed from the uniformity and confines of many top-down regulations and mandates. Except for basic health, safety, and non-discrimination laws, most charter schools operate unencumbered by bureaucracy. All elements to operating a school can be reconfigured, including curriculum, personnel, scheduling, budgeting, as well as facilities planning, design and maintenance. Their autonomous structure allows charter operators the flexibility to differentiate their programs, and the fact that their existence depends on parents choosing to send their children to their school encourages them to do so. Charters are typically granted for five years, depending on the state.

In exchange for this greater amount of freedom in which to operate, charter schools are held to a greater standard of accountability than traditional public schools. If the schools fail to meet the terms of their charter in the given time (terms which frequently include student performance objectives), their charter is revoked. (Charters can be rescinded early for financial mismanagement, non-compliance with law, or other good cause.) In addition to the risk of closure due to poor performance, a charter school that fails to attract enough students also folds, much like any business that is unsuccessful.

The ability to succeed in the education "marketplace," many argue, is the most powerful accountability lever. The point of the charter laws is not to simply create a few "model schools" or "demonstration sites" that can then be emulated by the "regular" systems. Rather, the main promise of the reform strategy rests in its potential to foster marketplace dynamics within the public sector and raise the level of performance across the board.

## "Live" Laws & "Dead" Laws

Charter school laws vary widely from state to state and not all have equal potential to achieve the desired effects. Some critics distinguish between "real" and "fake" laws or "live" and "dead" ones. (A host of factors account for these distinctions; some states put so many obstacles before charter-starters that nobody bothers to apply.) Of the 26 jurisdictions, about 15 have "live" laws.

The strongest of the live laws (in "rank order" from strongest to weakest) are in Arizona, District of Columbia, Michigan, Delaware, North Carolina, Florida, Massachusetts, South Carolina, Illinois, Minnesota, New Hampshire, New Jersey, California, Texas, and Colorado. As illustrated in the table below these states have almost 700 schools in operation, and another 260 approved to open or pending approval.

*The basic charter concept is simple. Allow a group of teachers or other would-be educators to apply for permission to open a school. Give them dollar for dollar what a public school gets for each student. Free them from the bureaucracy that cripples learning and stifles innovation at so many public schools.*

—US Charter Schools'  
"Overview of Charter Schools"



Nationwide there are currently 787 operating charter schools, serving over 150,000 students, with another 68 approved to open in the near future. Nearly every one of these operating schools (and those still in planning) is over-subscribed with some having waiting lists with more names than they currently have students enrolled. The largest numbers of charter schools are currently found in Arizona, California and Michigan, although laws recently enacted in many other states place no “cap” on the total number of schools which may be chartered and are expected to attract large numbers of charter operators.

## Charter School Statistics in “Live Law” States

| <b>Rank</b>                    | <b>State</b>   | <b>Passed</b> | <b>Schools<br/>Opened</b> | <b>Approved<br/>to Open</b> | <b>Pending<br/>Approval</b> | <b>TOTAL</b> |
|--------------------------------|----------------|---------------|---------------------------|-----------------------------|-----------------------------|--------------|
| 1                              | Arizona        | 1994          | 241                       | 27                          |                             | 268          |
| 2                              | Michigan       | 1993          | 110                       | 7                           | 20                          | 137          |
| 3                              | D.C.           | 1996          | 3                         | 8                           | 8                           | 19           |
| 4                              | Delaware       | 1995          | 3                         | 4                           |                             | 7            |
| 5                              | Massachusetts  | 1993          | 25                        | 12                          |                             | 37           |
| 6                              | Minnesota      | 1991          | 27                        | 3                           |                             | 30           |
| 7                              | North Carolina | 1996          | 34                        | 31                          |                             | 65           |
| 8                              | Texas          | 1995          | 20                        | 41                          |                             | 61           |
| 9                              | South Carolina | 1995          | 4                         | 1                           |                             | 5            |
| 10                             | Florida        | 1996          | 33                        | 16                          | 21                          | 70           |
| 11                             | Colorado       | 1993          | 50                        | 8                           | 5                           | 63           |
| 12                             | California     | 1992          | 128                       | 7                           | 6                           | 141          |
| 13                             | New Hampshire  | 1995          |                           |                             | 3                           | 3            |
| 14                             | Illinois       | 1996          | 7                         | 6                           |                             | 13           |
| 15                             | New Jersey     | 1996          | 13                        | 26                          |                             | 39           |
| <b>Total “Live Law” States</b> |                |               | <b>698</b>                | <b>197</b>                  | <b>63</b>                   | <b>958</b>   |

*Charter schools may  
be the most vibrant  
force in American  
education today.*

—Hudson Institute

# SMALL SCHOOLS & NEW URBANISM

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Neotraditional communities emphasize an intimate, human scale, with many uses integrated into a thriving, walkable neighborhoods able to serve most of its residents' day-to-day needs. Schools should be an integral part of this community-building vision. Because of unique provisions of charter school law, and the value that quality schools add to development projects, charter school operators and new urbanist developers have much to offer one another.

## ■ CHARTER SCHOOLS NEED BUILDINGS. NEW URBANIST DEVELOPERS NEED TOWN CENTER TENANTS.

The single largest problem for charter schools nationwide is their inability to secure affordable, safe, quality facilities. New urbanist developers could incorporate charter schools in their developments as anchor tenants, providing them with leased space.

Charter schools are currently located in a hodgepodge of facilities: strip malls, church basements, under-utilized space in municipal buildings, or in facilities donated by community non-profit groups. With the exception of a few charters located in traditional school buildings (that had previously been closed by districts) or formerly private schools, only a handful of the country's 455 charter schools operate in facilities designed with their needs in mind. Of the schools they visited, Hudson Institute researchers classified only 40 percent of the facilities as "generally good"; they found 34 percent "adequate" and 26 percent "sub-standard."

The reason why facilities are such a problem for charter schools is that, unlike their traditional counterparts, charters are not able to issue bonds for the construction, purchase, or renovation of buildings. Whereas most states have special programs for the development of small businesses, no such equivalent exists for charter schools. Charters receive their funding on a per-pupil basis once their doors open. (Funding levels vary from one state to another and are typically equal to the state's average per-pupil funding.)

New Urbanist developers have a need for viable schools in general for viable commercial and civic uses for town/neighborhood main streets. This need is especially critical in redevelopment of central city and first-ring suburban neighborhoods.

## ■ NO MANDATED FORM FOR CHARTER SCHOOL BUILDINGS.

While securing proper facilities is a major problem for charter schools, it also presents a wide range of opportunities. Most conventional schools are constrained by a cumbersome and time-consuming process of voter approval and bond issuance, submission and selection of proposals, and internal bureaucratic logjams. Charter schools are more nimble, where it can often take years for a school district to get a building on the ground. Charters are able to locate practically wherever they want, as their student base is not geographically assigned. Unlike traditional schools, which may be compelled to offer similar amenities in each school in a district (running tracks, swimming pools, on-site libraries, auditoriums, etc.), charters are not similarly constrained.

*The most direct way we can recover our cities' lost sense of community is through small schools that bring support and learning to children and their families.*

—Irving S. Hamer, Jr.  
Chair, Public Education Association

- INTEGRATING CHARTER SCHOOLS IN MIXED-USE NEIGHBORHOODS WOULD ALLOW SCHOOLS TO FOCUS ON WHAT THEY DO BEST, AND DEVELOPERS TO DO LIKEWISE.

A new urbanist developer could attract a mixed collection of civic, commercial, and residential tenants to a development, increasing the value of the project for both the developer and the school. Locating a variety of facilities near the charter school would be of tremendous benefit to charter operators, potentially reducing their operating costs by allowing them to sub-contract for (or “free ride” on) existing products and services. Sub-contracting for services peripheral to an organization’s core mission is common in many industries but largely foreign to most schools, which tend to build “stand alone” operations. Such an arrangement would be of significant financial benefit to charter operators, saving operating dollars which could be used to improve the quality of their programs.



*School brownstone buildings, Manhattan.*

A general rule of thumb is that 1/3 of a school’s construction costs are associated with an auditorium, gym and cafeteria. These uses could be coordinated and/or shared well with other neighborhood facilities, such as a:

- Library
- Community Recreation Center
- YMCA or Boys & Girls Club
- Park/Playground
- Service organization hall (Elks, Vets, etc.)
- Church (for parking, also)

Businesses and organizations that might take part in such a project include: a Kinko’s-type copy center to replace the need for some central office space; a coffee shop as an alternative to the faculty lounge; restaurants or delis to provide catering services in place of a school cafeteria; an internet service provider which could provide network access for the school and the neighborhood; a private day care center; a church or synagogue for shared parking or assembly space; a city park, baseball diamonds, ice skating rink, etc.

Leasing space rather than investing in bricks and mortar would eliminate the need to raise capital and allow schools to better focus on their educational mission, without the

*Concentrations of civic, institutional and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.*

—CNU Charter

need to contend with facilities-related issues (site selection, financing, construction, operation and maintenance). Finally, developers would reap the obvious benefit of a high-circulation environment, and the co-location of a quality school would help make residential and commercial developments more attractive.

■ CHARTER SCHOOL OPERATORS ARE BOTH EDUCATORS AND ENTREPRENEURS.

Necessity being the mother of invention, charter school operators are forced to find innovative solutions to their facilities problems. Also, by nature of the types of individuals inclined to start their own schools from scratch, many are likely to be more comfortable working with innovative developers than operators of the established public school systems. Indeed, the Hudson report found, “Charter schools are performing their own version of the miracle of loaves and fishes. Most have faced serious financial problem, receiving less money per pupil than conventional schools. Yet far from dampening their enthusiasm or energy, this adversity seems to have spurred administrators, teachers, families, students, and others to be enterprising and shrewd in their use of resources and has evoked extraordinary improvements in efficiency and productivity.”

While no charter school has yet become part of the new urbanist approach to neighborhood development described here, many have already forged partnerships with other entities in order to more productively accomplish their missions. One school in Michigan, for example, is a collaborative effort among the Henry Ford Museum in Dearborn, the Ford Motor Company, and Michigan State University, leveraging the talents and resources of each institution. A school in Boston, which serves a low-income population, is located in a YMCA building that was previously only used after school hours. Part of the school’s agreement with the YMCA is that students have after-school access to the athletic facilities until as late as 10 o’clock in the evening.

■ THE SYNERGY CREATED BY LINKING NEW URBANIST DEVELOPERS AND CHARTER SCHOOL OPERATORS CREATES SOCIAL BENEFITS FOR BOTH THE SCHOOL AND THE COMMUNITY. THESE BENEFITS TRANSLATE INTO INCREASED PROJECT VALUE FOR DEVELOPERS.

Among the students, parents and teachers surveyed in the *Charter Schools In Action* study, a commonly expressed view of all groups was that charters offer a “family-like atmosphere.” Many of the students described the schools as a “second family”; indeed for some, the researchers found, “it was clearly the closest they had ever come to any sort of nurturing, caring family.” “Teachers and students are learning together,” the report continues, “classes are typically smaller and many teachers have genuine team-teaching responsibilities. The small size of the school means that everyone knows everyone else.”

In short, charter schools appear to provide children, as well as their parents and teachers, with a sense of “rootedness” not always found in typical schools or communities. The well-known University of Chicago sociologist James Coleman wrote how this rootedness has a wide range of social benefits for children. He wrote about “functional communities” where children have “intergenerational closure... a child’s friends and associates are sons and daughters of friends and associates of the child’s parents.” The influence of these formal and informal associations is often overlooked but can provide the basis for solving many larger social dilemmas, Coleman concluded. The small

*With the chance to design and run schools that are accountable for educating students, but not bound to follow endless government dictates, parents, educators, and citizens across the country are taking advantage of the opportunity to create new, truly neighborhood schools.*

—Angela H. Dale  
Center for  
Education Reform

school, situated in and a vital part of a real community, can be a place where these links are forged.

Many schools today are islands unto themselves and have a tenuous connection to the immediate neighborhood. Students reach the facility by bus in the morning, stay within its confines through the day, and then return by bus at the end of the day. A neotraditional development combined with a charter school, by contrast, would provide an environment that enables students, teachers and parents to benefit from the resources of the community beyond the school's walls.

Schools incorporated into mixed-use developments can provide unique advantages for students and their families. They can expose students to the adult work environment, offer facilities for the care of employees' children in a larger workplace development, and can be combined with uses such as day-care facilities that makes drop-off and pick-up for parents more efficient, and could even lessen car trips.

Locating a school in a walkable, mixed-use neighborhood would allow for much greater interaction in the "real world" outside the schoolhouse doors, increasing opportunities for field learning, service projects, and internships.

Moreover, in a neighborhood where schools, workplaces, shopping and residences are located close by, there are numerous opportunities for parental involvement in the schools, and involvement by other community members. Charters and new urbanism both bend to the needs of modern life while helping to recreate tight-knit communities of the past.

■ IN ADDITION TO THE OVERALL VALUE-ADDED TO AN AREA BY THE PRESENCE OF A GOOD SCHOOL, CHARTERS CREATE A VARIETY OF OTHER FINANCIAL BENEFITS FOR DEVELOPERS.

While charter schools typically do not receive start-up funds from the state, they do offer a reliable, public income stream once they are up-and-running. The size of the per-pupil grant varies widely from one state to another, and sometimes among districts. In Arizona, some schools receive \$3,500 per student. New Jersey charter schools can receive in excess of \$10,000 per student, depending on the district in which they are located.

Charter schools are gaining support quickly in the philanthropic/foundation community, and are increasingly viewed as a "mainstream" education reform measure. While many foundations will only make grants for programs, and not for capital costs, charter schools may be able to enhance their creditworthiness as tenants by seeking rent guarantees from these foundations, or from corporations, government entities or others, lowering the overall risk (and, therefore, cost) of the facility development. Foundations supportive of the charter school movement might also be approached to become investors in new developments, independent of their grant-making operations.

Finally, charter schools may in some cases offer a political advantage to New Urbanist developers. One of the more risky parts of the development process is the investment of time to secure necessary approvals. If a charter school were incorporated as part of a traditional neighborhood development, parents and organizers of the school would become immediate advocates of the project, which would allow the developer to build larger alliances to assist in the approval process.

*Charter schools spring up where there are hundreds of parents, community leaders and others who wanted a different kind of public school for their community. If community can be correctly defined as an association of people united by a common interest, then charter schools are quintessential communities.*

—Report by  
Massachusetts  
Dept. of Education

# CHARTER SCHOOL BUILDINGS

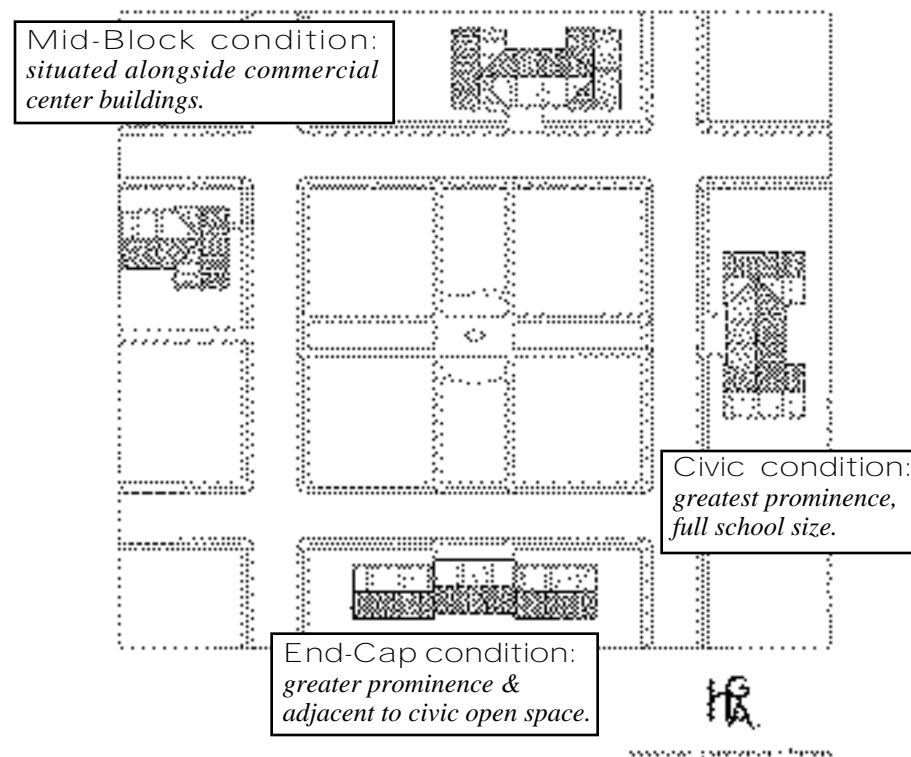
There are two prevailing 'schools' of thought on the design of school buildings:

1. School building architecture should, above all, distinguish schools from other buildings, and emphasize the public nature and civic importance of the institution within.
2. Any building can be a school. A good school could be integrated into almost any architectural edifice or development. Perhaps façade treatment can be used to demonstrate the school's presence by showing precisely what space the school occupies within a larger building/development. However, creating a school is not finding a particular type of land parcel and putting a particular type of building on it – it is providing spaces that meet the needs of students, teachers and parents, whatever they may look like.

This suggests an idea which experience seems to prove: in architecture, there can be very different and still valid solutions to the same problem.

## A New Urbanist Charter School Prototype

We have developed a prototype Charter School building which is integrated into a new urbanist town or neighborhood center. The building typology is consistent with the *Technique of Town Planning, The Lexicon of The New Urbanism* by Duany Plater-Zyberk & Co. (Section J 2.1).



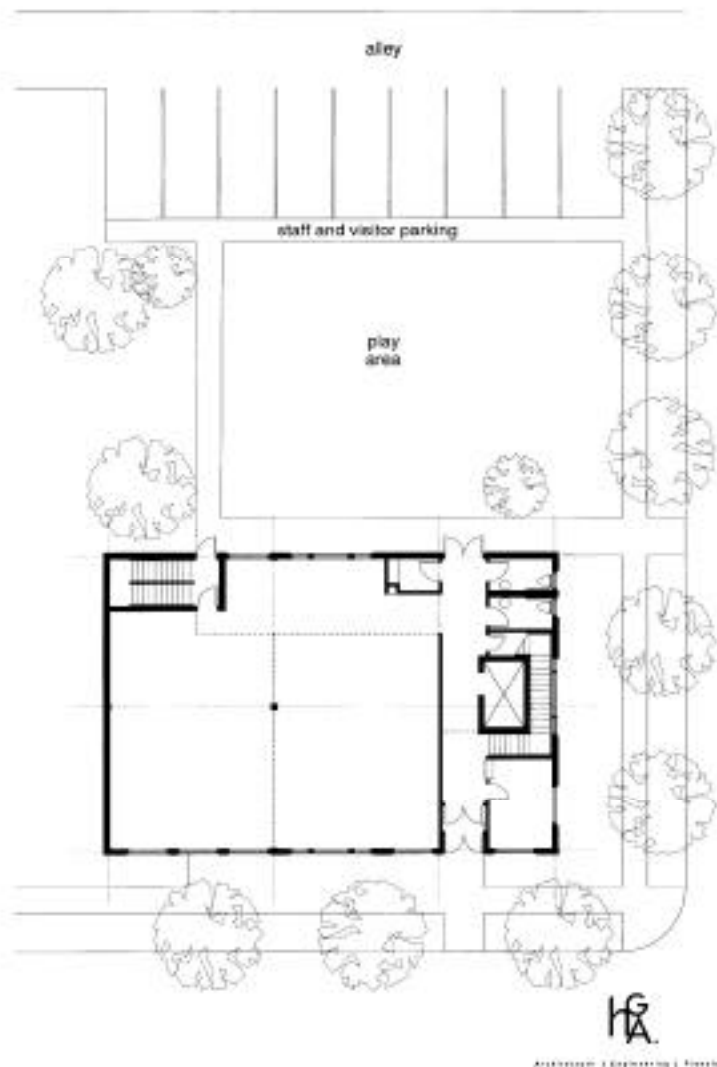
Courtesy of Hammel, Green, and Abrahamson Inc.  
Architecture, Engineering and Planning

The basic form is a three-story, 10,000 square foot (72' x 48') building, designed to handle up to 150 students (at approx. 65 sq. ft. per student). It could be located mid-block, amidst other town-center-type uses, or designed as a stand-alone building, if so desired. This basic building form can be repeated as necessary to accommodate a larger school type.

*No public edifice more deserves, or will better repay, the skill, labor, and expense ... for here the health, tastes, manners, minds, and morals of each successive generation of children will be, in a great measure, determined for time and eternity.*

—Henry Barnard  
Nineteenth Century  
Educator

Site Layout. The building is set back approximately 15' from the street and incorporates covered entrance features, creating a generous pedestrian realm in front. The prototypical lot is 125' to the alley right-of-way, providing a rear parking or play area, whichever is needed.



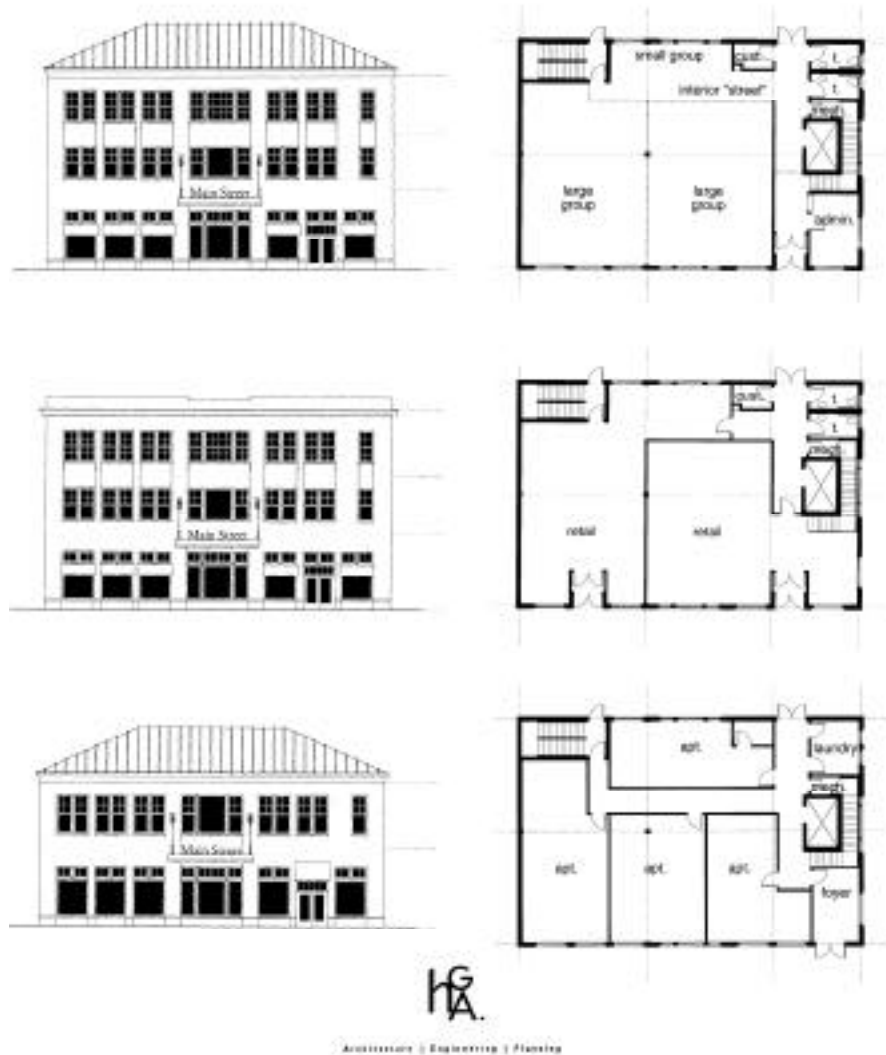
*Nowhere does an architect have a better chance to display his skill than in the planning of school buildings, and nowhere does he perform a job of greater importance for the public welfare.*

—Talbot F. Hamlin  
"Schools Are For Children"

Flexibility in Use. One of the central design tenets for this prototypical building was that it be easily convertible for retail/office/apartment/loft uses if the school were to outgrow it and move on or go out of business. The first floor incorporates storefront type windows and a 16' height to accommodate future retail. The second and third floors (12' height) could be easily converted into office or apartment space, with anywhere from one to four suites per floor.

Sub-Modules. Within the basic 72' width, there are three sub-modules which organize the interior space. This provides further means for modifying the building design to fit individual school needs by adding on one or two of these sub-modules to the basic building type.

Spatial Organization. The organization of the building's interior space lends itself to the creation of two 900 sf classrooms, with two 150 sf spaces that could be adapted for special uses, such as a small-group space or a teacher planning space, and remaining space for private teachers' alcoves. 'Hard' or permanent interior walls are kept to a minimum, thus maximizing the flexibility for a school to organize the space to fit their needs. An internal circulation is created in the rear 15' of the building, essentially a shared space which organizes access to the 'public' areas - restrooms, elevator and outside staircases. The floor plan could easily be modified to become a 2300 sf assembly space, if desired.



*'School sprawl' ... makes towns less attractive and marketable, feeds exurban growth, forces many students from their bikes onto buses, removes students from the lively flow of neighborhood life, and indeed simply feeds the isolation many of today's teenagers feel.*

—Neil Pierce  
"Fighting for our Community's Soul"

Accessory Uses. Ideally, the school would be situated near some public outdoor space, such as a park or green, which would provide outdoor play space. Alternately, the parking area could be used as a play space, or a space created behind a line of adjacent retail liner buildings. Other uses likely included in a mixed use town center which could be utilized by the school include a library, eating establishments (for an informal teachers' 'lounge,' for catering hot lunches, etc.), churches and service club halls (as additional parking or assembly space).



# CHARTER SCHOOL ECONOMICS

The financial status and responsibilities of charter schools can vary widely both between and within states. In some states, charter schools are funded and manage their funds as though they are a school district unto themselves. In other states, charter schools are a fiscal arm of an existing school district and have less financial autonomy. The revenue sources available to charter schools vary widely from state to state depending on the specific terms of the state’s laws and how these laws place charter schools in the state’s overall school finance system. These state finance systems are often complex and subject to changes.

## Per Pupil Revenues

The per-pupil funding level is the starting point for charter school operators. A 1997 research report into charter school finance policies and activities in four states highlights the range of funding levels. As the table below indicates, the funding in Massachusetts is roughly double that in California.

| State         | Approx. State Per-Pupil Funding Level | Description/Comment   |
|---------------|---------------------------------------|---|
| Arizona       | \$4,100                               | Amount based on the same formula as regular schools, for example, foundation level plus additional amounts for K-3, special education and small schools. Charter schools sponsored by districts receive funding through district. Each district charter school negotiates with its sponsor amount of additional local money it may receive.   |
| California    | \$3,300                               | All charter schools must be sponsored by school district. Charter schools are entitled to an amount equal to what they would receive as a regular school within that district. Sponsoring districts are allowed to withhold a percentage of charter school funding to cover administrative expenses. The charter school and district negotiate this amount, as well as any other additional services and/or funding district may provide. |
| Massachusetts | \$6,400                               | All charter schools sponsored by the State Board of Education and treated like school districts. Funding based on enrollment, with charter schools receiving different amounts of funding per student based on where each student resides. Average per-pupil funding includes the state’s foundation level plus adjustments for special characteristics of district in which the student resides.   |
| Michigan      | \$5,700                               | Charter schools may be sponsored either by school district or university. Funding flows from state to the sponsor (which keeps 3% for admin. costs) to charter school. Charter schools receive same amount of state aid per pupil as district schools receive (less the 3%), but amount may not exceed the statewide average.   |

Source: Education Commission of the States, 1997

*‘The revenue sources available to charter schools vary widely from state to state depending on the specific terms of the state’s laws and how these laws place charter schools in the state’s overall school finance system.*

—US Charter Schools  
“Budget and Finance”

## Charter School Facilities

The available literature on charter schools includes only limited information on facility needs and finance issues. Not surprisingly, most research, reports, and operational ‘handbooks’ deal more with policies, governance, curricula and instructional issues. However, the U.S. Department of Education-sponsored “National Study of charter schools”, noted that along with the lack of start-up funds, adequate facilities are among the most difficult challenges faced by charter operators. In a survey conducted by the authors, fully a third (35%) identified ‘inadequate facilities’ as a difficult or very difficult barrier to developing and implementing charter schools.

According to a survey of 250 schools conducted by the Center for Education Reform, charter schools have found locations in a variety of facility types. These include school district facilities (33%), retail/ commercial buildings (24%), churches (12%), and other non-profits (12%). Of the sample, 17% indicated “other” facilities, which included new construction, modular buildings, and various rented, leased, renovated and converted public and private locations, from closed private schools to day care facilities to factories.

The Pioneer Institute is a Boston-based non-profit public policy research organization which provides advice and guidance to Massachusetts-based charter schools. Like several other state-based organizations, it authored a detailed manual, “The Massachusetts Charter School Handbook”, to provide a foundation for those interested in starting a school. Regarding facility needs, it suggests consideration of office space, industrial parks, and nursing homes, as well as the use of vacant or old public facilities. For those schools considering building their own facilities, the Institute suggests a rule of thumb of \$100/square foot for new construction.

Some charter schools are housed in portable buildings. General Electric Credit Corporation is the major provider of this type of space, which are normally leased, but can be purchased. Lease rates range from \$6.50-\$9.00/square foot; purchase prices from \$50-\$60/square foot.

## Rent Factors & Occupancy Rates

An examination of several Charter School operating budgets which include facility costs begins to put general parameters around two key variables which help determine development possibilities. The first variable, a rent factor, is the percentage of revenues which a charter school is capable of paying for its facilities. Rent factors in various industry sectors can range from 6-20% depending upon type of business, location, revenue per square foot, etc. A rent factor is distinguished from an facility factor or cost, the latter generally referring to the total cost of occupancy, i.e. base rent plus utilities, property taxes, maintenance and repair, etc. These costs can add another 5-7% to the rent factor.

The second factor, the occupancy factor, identifies the optimal utility of a building for school use. This factor is expressed in square feet of facility per student. From the school’s perspective this figure is a derivative of its optimal instructional program, i.e. number of classes, ideal class size, rooms for other uses (office/admin., teachers room, parents room, etc.). From an economic perspective, this figure enables a projection of the amount of economic activity taking place within the building, and hence, by means of a rent factor, an estimate of the building’s share of that activity. In other words, if there is an average of 80 square feet per student, a 10,000 square foot building would accommodate 125 students. This number of students would generate a level of gross revenue for the school, a share of which (the rent factor) would go to the building. Likewise, if the occupancy factor is 60 square feet per student, the number of students would be approximately 170.

*Some states have established special funds to help charter schools with facilities and other large start-up costs, such as the “Stimulus Fund” in Arizona.*

—US Charter Schools  
“Budget and Finance”

Our review of several school budgets and proformas reveals that there is no particular “standard” for facility costs. Since revenues vary greatly from state to state and costs vary widely depending on regional economics and placement within sub-markets, it is hard to determine an average or median figure which is meaningful. As a result, we have taken rent and occupancy figures from a variety of sources in an attempt to define a realistic range for these factors. The table below illustrates four different examples.

| Factor           | Source A        | Source B        | Source C        | Source D       |
|------------------|-----------------|-----------------|-----------------|----------------|
| Rent Factor      | 15%             | 12-14%          | 16%             | 12-18%         |
| Occupancy Factor | 75-80sf/student | 60-80sf/student | 50-60sf/student | 80-100/student |

Source A: Budget from Minnesota school with approximately 130 students. B: Sample school proformas from the Pioneer Institute.  
 C. Proforma from Michigan-based for-profit school operator. D: Proforma from research paper by NYC-based investment bank for education industry.

## Rate of Return Calculations.

In addition to these three variables (per pupil funding, rent factor and occupancy factor) a fourth variable would be the total building cost per square foot. A combination of these factors would result in a rate of return calculation for a building project. In order to cover a broad range of possibilities, each variable is given a range.

- **Per Pupil Funding.**  
To accommodate a broad set of possibilities, per pupil funding is set at three levels: \$5,500, \$4,500 and \$3,500.
- **Rent Factor.**  
Rent factors are set at four levels, beginning at 10% and stepping up to 16%.
- **Occupancy Factor.**  
Two occupancy factors are used, 60sf/student and 80sf/student, yielding 170 students and 125 students, respectively, for the 10,000 square foot building.
- **Building Cost.**  
Four levels, beginning at \$75/sf, increasing at \$10/sf, up to \$105/sf. This figure represents total building cost, hard and soft costs, including land. The FAR for the prototype building is approximately 1.1 (approx. 9,000sf building lot).

The table below is organized into six sub-parts: horizontally into three segments, one each for the three per pupil funding levels (upper left corners), and vertically into two segments, for the two occupancy factors. Rent factors are on the left columns of each sub-part, and per square foot costs are on the top rows. The table calculates a basic cash on cash return (no financing). Shaded areas denote returns in excess of 10%.

*There is growing statistical support to the widely held belief that a quality public school system enhances the value of the surrounding homes.*

—Furman Selz  
 “The Education Industry”

## Cash on Cash Rates of Return for 10,000 SF Charter School Building

| Occupancy=170 Students (60sf/student) |       |       |       |       | Occupancy=125 Students (80sf/student) |       |       |       |       |
|---------------------------------------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|
| <b>\$5,500</b>                        | \$75  | \$85  | \$95  | \$105 | <b>\$5,500</b>                        | \$75  | \$85  | \$95  | \$105 |
| 10.0%                                 | 12.2% | 10.8% | 9.6%  | 8.7%  | 10.0%                                 | 9.2%  | 8.1%  | 7.2%  | 6.5%  |
| 12.0%                                 | 14.7% | 12.9% | 11.6% | 10.5% | 12.0%                                 | 11.0% | 9.7%  | 8.7%  | 7.9%  |
| 14.0%                                 | 17.1% | 15.1% | 13.5% | 12.2% | 14.0%                                 | 12.8% | 11.3% | 10.1% | 9.2%  |
| 16.0%                                 | 19.6% | 17.3% | 15.4% | 14.0% | 16.0%                                 | 14.7% | 12.9% | 11.6% | 10.5% |
| <b>\$4,500</b>                        | \$75  | \$85  | \$95  | \$105 | <b>\$4,500</b>                        | \$75  | \$85  | \$95  | \$105 |
| 10.0%                                 | 10.0% | 8.8%  | 7.9%  | 7.1%  | 10.0%                                 | 7.5%  | 6.6%  | 5.9%  | 5.4%  |
| 12.0%                                 | 12.0% | 10.6% | 9.5%  | 8.6%  | 12.0%                                 | 9.0%  | 7.9%  | 7.1%  | 6.4%  |
| 14.0%                                 | 14.0% | 12.4% | 11.1% | 10.0% | 14.0%                                 | 10.5% | 9.3%  | 8.3%  | 7.5%  |
| 16.0%                                 | 16.0% | 14.1% | 12.6% | 11.4% | 16.0%                                 | 12.0% | 10.6% | 9.5%  | 8.6%  |
| <b>\$3,500</b>                        | \$75  | \$85  | \$95  | \$105 | <b>\$3,500</b>                        | \$75  | \$85  | \$95  | \$105 |
| 10.0%                                 | 7.8%  | 6.9%  | 6.1%  | 5.6%  | 10.0%                                 | 5.8%  | 5.1%  | 4.6%  | 4.2%  |
| 12.0%                                 | 9.3%  | 8.2%  | 7.4%  | 6.7%  | 12.0%                                 | 7.0%  | 6.2%  | 5.5%  | 5.0%  |
| 14.0%                                 | 10.9% | 9.6%  | 8.6%  | 7.8%  | 14.0%                                 | 8.2%  | 7.2%  | 6.4%  | 5.8%  |
| 16.0%                                 | 12.4% | 11.0% | 9.8%  | 8.9%  | 16.0%                                 | 9.3%  | 8.2%  | 7.4%  | 6.7%  |

### Other Considerations

Proforma calculations are merely a starting point for development projects, and additional considerations are necessary to refine, reassess or dismiss a development opportunity. The following points are presented in brief to broaden the discussion of development economics.

- **Lease Term.** Most state laws establish a 3-5 year term to the initial charter (Arizona allows up to 15-year charters), which means that, all things equal, funding will be for available for at least that period of time. If all things remain equal, i.e. the school is run well and produces results, the school will continue to renew its charter. This structure suggests coterminous lease and option periods.
- **Start Up/Absorption Period.** Most schools start with fewer grade levels (K-3, K-5) and add grades and augment class size over time. Usually this is done within a 2-3 year framework. Depending on whether the school is a start-up (vs. a relocation), it may be necessary to adjust leased space or rent rates accordingly. It is worth noting however, that demand for charter schools is very high, and most schools have long waiting lists.
- **Building Reuse.** The NU building prototype offered in this report can be refitted as office, residential and retail space. This flexibility should have a positive effect on loan underwriting.
- **Credit Worthiness.** Charter schools should be viewed as a small business. They are, however, a relatively recent phenomenon, and many charter operators are not experienced at running a business. (This is likely to change over time with the movement into this field of Education Management Organizations-EMO's. Most EMO's are for-profit companies with experienced management and finance staff.) On the other hand, charter school revenue is public (based on student count), and as such is relatively durable for at least the period of the charter. Therefore, most of charter schools could be considered low-grade credit tenants. As with any tenant of this type, there is no substitute for a careful review of the business plan and the people behind it.
- **Complimentary Town/Neighborhood Center Uses.** An earlier section identified some of the complimentary uses which may accompany a town/neighborhood charter school. These include a copy center, coffee shop/deli, day care center, internet service provider, as well as more civic uses such as a church, Boys and Girls Club, YMCA, library, etc. A successful charter school of 150+/- students is likely to generate increased demand for other goods and services. Opportunities to leverage this into additional development should be sought.

*"I've often said that when it comes to economic development, the state with the best schools wins. The same is true for cities and communities."*

—John Engler  
Governor of Michigan

# FOOTNOTES, BIBLIOGRAPHY & WEB SITES

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## Footnotes

1. “Small Schools and Operating Costs”, for the Public Education Association by the Exxon Education Foundation, c. 1992 – see pg. 24 in the NY book.
2. James S. Coleman et al., “Youth Transition to Adulthood,” The Report of the Panel on Youth of the President’s Science Advisory Committee, 1974.
3. “New Schools for New York: Plans and Precedents for Small Schools,” The Architectural League of New York, Public Education Association; Princeton Architectural Press, 1992.
4. Rosalie Genevro, ‘The New Schools for New York Design Study’, “New Schools for New York: Plans and Precedents for Small Schools,” The Architectural League of New York, Public Education Association; Princeton Architectural Press, 1992.

## Bibliography

Volumes have been written about the charter school movement since its genesis in 1991. As the web sites listed above, the following resources represent the best starting points for further inquiry.

*The Charter School Workbook*. Washington, D.C.: The Center for Education Reform, 1997. The Charter School Workbook is the most comprehensive national-level resource available to understand the history, laws, politics, and implementation intricacies of the charter school movement. It ranks charter school states by the relative “strength” of their charter school law (providing detailed state-by-state information on each criterion used to determine ranking). The Workbook profiles successful individual schools, points out common pitfalls, provides summaries of research findings, offers model charter school legislation, and includes an extensive bibliography. Call 202-822-9000 to order.

*Charter Schools in Action Final Report*. Finn, Chester, E. Jr., Bruno V. Manno, Louann Beirlein, and Gregg Vanourek.. Indianapolis: Hudson Institute, 1997. The Hudson Institute evaluation of charter schools is the most comprehensive to date. The final report of the “Charter Schools in Action” project is a compilation of seven earlier reports on the following topics: 1) Charter Schools as Seen by Those Who Know Them Best: Students, Teachers, and Parents; 2) The Birth-Pains and Life-Cycles of Charter Schools; 3) The Policy Perils of Charter Schools; 4) Charter School Accountability: Problems and Prospects; 5) The Educational Impact of Charter Schools; and 6) How Charter Schools are Different: Lessons and Implications. Call 800-Hudson-0 to order.

*Charter Schools: Creating Hope and Opportunity for American Education*. Nathan, Joe. San Francisco: Jossey-Bass, Inc., 1996

This basic primer discusses how the charter school movement unifies the issues of: accountability for student achievement, parental choice within the public school system, entrepreneurial opportunity to better the public school system, and competition in the education industry. It also includes an analysis of the role of unions in the charter movement, an overview of the history of charter school development, lessons learned early in the movement, and suggestions for the future.

*National Charter School Directory*. Washington, D.C.: The Center for Education Reform, updated regularly.

This directory provides a complete listing of every charter school in the country. A description of each school is included with its address, phone number, contact, enrollment, and opening date. The Directory also includes a directory of national and state charter school resources and organizations. Call 202-822-9000 to order.

*Charter School Development Guide*. Premack, Eric. Sacramento: Education Policy and Management Consulting, 1997.

Written by the well-known leader of charter school “bootcamps” for prospective school operators, this handbook is a “how-to” guide for starting a successful school. Orders for the book may be placed through the California Network of Educational Charters (CANEC) at 916-278-4600.

## Web Sites

### **U.S. Charter Schools**

[www.uscharterschools.org](http://www.uscharterschools.org)

This is perhaps the most comprehensive internet web site with information on charter schools. It is collaboration effort of the U.S. Department of Education and California State University’s Institute for Education Reform. The site includes: 1) information on starting and running a charter school; 2) an interactive discussion area; 3) a resource directory with links to other internet sites; 4) information on each charter school state (with links to state-level education agencies and research centers), and; 5) individual charter school profiles.

### **The Center for Education Reform**

[www.edreform.com](http://www.edreform.com)

The Center for Education Reform is the best known national advocate and monitor of the charter school movement. Its web site features a monthly newsletter on national education reform activity, editorials and analysis from the nation’s news media, polling data, an interactive e-mail forum, links to other charter school sites, and an array of publications related to charter schools. Particularly noteworthy are the Center’s *Charter School Workbook*, and *National Charter School Directory*.

### **The Educational Excellence Network**

[www.edexcellence.net](http://www.edexcellence.net)

The Educational Excellence Network is a Washington, D.C.-based “mini think-tank” co-founded in the early 1980s by former U.S. Assistant Secretaries of Education Chester E. Finn, Jr., and Diane Ravitch. It is sponsored by The Thomas B. Fordham Foundation and Hudson Institute. The web site covers the education reform gamut, but as a special section devoted to the Network’s “Charter Schools in Action” project, the country’s first and most comprehensive evaluative report of the charter school movement.

### **The Council of Educational Facility Planners, Int’l.**

[www.cefpi.com](http://www.cefpi.com)

### **American School & University Magazine**

[www.asumag.com](http://www.asumag.com)

The web sites of these two competing organizations provide a wealth of information about the school-building industry, including national and regional construction costs, M & O costs, industry news, new products, event calendars, and consultant directories. Currently, all data provided relates to traditional public school facilities.