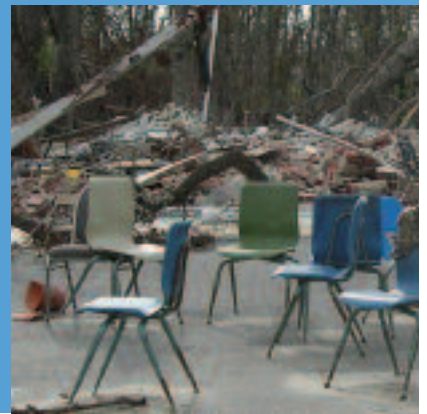


Mississippi Regional School Design Institute

A REPORT OF FINDINGS

Gulf Coast Communities
February 12 – 14, 2006





American Architectural Foundation

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Assignment Overview

In November, 2005, The American Architectural Foundation (AAF) was asked to provide advisory services to the Gulf Coast Education Initiative Consortium (GCEIC) through its *Great Schools by Design* program following the destruction caused by Hurricane Katrina on August 29, 2005. Just six months after this disaster, AAF brought a School Design Institute to the region to support local school districts in their rebuilding efforts.

The mission of the GCEIC is to serve member districts by influencing decision makers; providing professional development and technology opportunities; and collaborating with higher education, business and industry, and other groups and agencies to enhance teaching and learning opportunities for students. The GCEIC met on a monthly basis until the hurricane struck; after the storm it met once a week through December. The group has now resumed monthly meetings.

AAF's involvement in the Gulf Coast region began soon after the devastation of Hurricane Katrina through its offering of two design initiatives: the Mayors' Institute on City Design (MICD) and *Great Schools by Design*. These companion programs provide similar assistance to different audiences to promote good design and responsible development. It was through AAF's role in the MICD program that contact was first made with the consortium, resulting in the Mississippi Regional School Design Institute.

INTRODUCTION

In mid-November 2005, AAF, together with the National Endowment for the Arts and the U.S. Conference of Mayors, brought the Mayors' Institute on City Design to New Orleans Mayor Ray Nagin and the mayors of the Mississippi Gulf Coast communities. That program advised mayors and other public officials on the rebuilding process. A resource team of former mayors, planners, and designers provided advice and offered tools to help the Gulf Coast mayors begin to think about establishing guidelines for redevelopment. Informal, far-ranging, and off-the-record discussions dealt with setting goals and establishing the tools necessary to evaluate proposals for rebuilding. The session provided support and guidance to public officials but did not include recommendations regarding specific redevelopment proposals. Instead, the team provided counsel to those officials who will lead their communities during reconstruction.

Immediately following the MICD session, AAF representatives traveled to Gulfport, Mississippi, to introduce the *Great Schools by Design* program to the Gulf Coast Education Initiative Consortium at its weekly meeting. The meeting was conducted by the executive director of the GCEIC and was attended by superintendents representing most of the school districts hardest hit by the hurricane. Following this meeting, the GCEIC invited AAF to assemble a team of experts to conduct a regional school design Institute to help local counties in planning to rebuild their schools.

The Mississippi Regional School Design Institute took place February 12–14. The first session was held in Gulfport on February 13 and was attended by school superintendents from the counties along the Mississippi Gulf Coast that experienced the most severe damage and destruction. These counties, which are referred to as the *lower counties*, are Hancock, Harrison, and Jackson counties. A second Institute was held on February 14 at the Stone County Middle School in Wiggins, Mississippi, for superintendents in counties that also suffered hurricane damage but were, in addition, dealing with growth pressures typically experienced by rural areas in the path of development. These *upper counties* are Pearl River, Stone, George, Lamar, Forrest, and Jones counties.

PURPOSE OF THE INSTITUTE

The Mississippi Regional School Design Institute was organized to provide a forum for the exchange of ideas regarding system wide planning and a range of school design topics. The goal of the Institute was to introduce innovative ideas and solutions to compelling design challenges for the benefit of the Gulf Coast local community and school officials. AAF brought together a team of experts to address the issues.

There are certain basic school design principles that should be considered in any community:

- School design should enhance teaching and learning for all.
- Schools should serve as centers of community.
- Community engagement should be a part of the process.
- Health, safety, and security features must be provided.

- School facilities should be shared with other populations when appropriate
- Design flexibility should be considered

With these principles in mind, the AAF resource team (see Appendix A for resource team member biographies) offered extensive advice and guidance to the superintendents of school districts within the nine participating counties.

PROCESS

AAF worked with the executive director of the GCEIC, Tom Clark, in arranging the Mississippi Regional School Design Institute. The superintendents represented by the consortium determined the issues to be covered at the Institute's two sessions. Broad areas of concern were discussed in detail with the AAF program director. To address the issues, AAF brought together a resource team of five experts in fields related to school design and planning. Members of the resource team have a wide range of experience in architecture, planning, public service, community participation, educational facilities information and planning, construction management, and public administration. Although all team members participated in the discussions on all topics, each was assigned to give a short presentation in his or her particular area of expertise. The sessions were moderated by Ron Bogle, President and CEO of AAF.

The resource team gathered for an organizational meeting on the first day. That meeting was followed by an informational briefing by the Executive Director of the Gulf Coast Education Initiative Consortium, Tom Clark and Dr. Dewey Herring, education officer at the Stennis Space Center. The briefing provided background information to supplement briefing materials that the GCEIC had assembled and sent

to the resource team for review before the team arrived in Gulfport. A dinner followed the briefing and provided an informal setting for the resource team to meet with a number of school superintendents and their representatives.

The second day began with a narrated tour of communities affected by the hurricane. The local television station, WLOX, and Fox News joined the tour and interviewed some participants. The tour provided the team with an overview of the extent of damage to the Gulf Coast communities and made stops to further demonstrate the impact of the hurricane on local school facilities. A brief stop was made at the site of 56 mobile classrooms that now house Pass Christian Middle and High School. Those facilities sit on land owned by the school district that is contiguous to the site of an elementary school—the only school left standing in that district. Other stops included Bay-Waveland School District headquarters, Saint Martin Middle School and Upper Elementary in Jackson county, and Harper McCaughan Elementary School in Long Beach.

Group discussions began in the afternoon with short presentations on each topic by the resource team. An extensive discussion between resource team members and attendees followed the presentations. All 12 school districts in Hancock, Harrison, and Jackson counties were represented. In attendance were nine superintendents, four assistant superintendents, two principals, two finance directors, a maintenance director, and a school board member. Dr. Herring was also present, together with Tom Clark and his assistants, Sue Durbin and Jim Carlow. An observer from the 21st Century Fund and AAF regent Raymond (Skipper) Post were also present. Following the

afternoon Institute for the lower counties, the resource team had a working dinner at which discussion of general observations and possible next steps continued.

The resource team met with representatives from the upper counties during the morning of the third day. Again, all school districts from the six upper counties (Pearl River, Stone, George, Lamar, Forrest, and Jones counties) were represented. In attendance were seven superintendents, four assistant superintendents, a principal, a curriculum specialist, support staff, two finance directors, and one maintenance director. The Institute for the upper counties ended with a discussion of major observations, concluding remarks, and suggestions for possible next steps.

Refer to Appendix B for a list of participants representing the nine counties that participated in the Mississippi Regional School Design Institute. Appendix B also lists the AAF resource team members, staff, and board member in attendance.

Main topics for the lower counties generally included locational considerations, innovative design solutions, and the role of public officials, whereas topics for the upper counties dealt with accommodating an influx of students, addressing the more general effects of growth, and determining how school district officials can attract and provide necessary support. Discussion guides were developed for each session in consultation with the GCEIC, to help frame the issues for consideration by the resource team.

The questions listed below guided discussion. Resource team members developed short presentations on each of the topics. However, discussion

was not restricted to these specific questions; participants were free to discuss other topics with resource team members.

TOPICS: LOWER COUNTIES

On December 13, the superintendents from the lower counties first met Federal Emergency Management Agency (FEMA) representative Ray Figueroa, who has been assigned responsibility for overseeing the public school recovery effort. Five project officers were assigned to assist him. Once FEMA completes its task, officials from the Mississippi Emergency Management Agency (MEMA) take over.

There is presumably a 50 to 75 percent reimbursement obligation from FEMA to cover recovery costs, but no one knew—three months after the hurricane—how much money had been set aside for the Mississippi public schools. It was recently determined that the 50 percent rule, which determines whether new construction is warranted, will consider the presence of mold and asbestos in the calculation. Properties must have endured at least 50 percent destruction to qualify for federal replacement payment. Properties must be tested for mold, asbestos, and hazard mitigation to determine whether the 50 percent rule is met. FEMA suggests writing project worksheets (PWs) for repairs and then determining whether renovation or new construction is required. (Any project that costs more than \$55,500 requires a PW and a final inspection.) The time it will take between submitting the PWs and receiving money is uncertain. The FEMA representative agreed to meet individually with each community to help prepare the forms that will determine eligibility. (One problem is that FEMA's engineering consultants work on a 90-day contract, causing a continuity

issue. Superintendents have already prepared many versions of PWs. FEMA regulation ESF-14 provides for long-term reconstruction by private engineers with two people assigned to each county. These assignments are not yet in place.)

Recovery needs vary widely among the communities within the three lower coastal counties (Hancock, Harrison, and Jackson). For instance, as of mid-December 2005, Gulfport had 85 percent of its population back in place and expected to have 93 percent after by the end of 2005, approaching its original population by August 2006—one year after the hurricane. In Biloxi, two recently built elementary schools suffered extensive flood damage. One was located in a flood zone in a historically black neighborhood. Only 264 of 600 students had returned by the end of 2005. At issue is how to convince the community that only one school is needed now. A companion issue is whether it is wise to rebuild in the same location.

Quite a different issue exists in Hancock County, where the schools were the heart of the community and people will not return until the schools are rebuilt. Such issues, together with many more specific challenges in rebuilding, affect locational factors.

TOPIC: LOCATIONAL CONSIDERATIONS

What are the most crucial locational considerations for school facilities and other support services?

Considerations that were discussed included whether schools should be rebuilt within a velocity zone, given that buildings can be “hardened” to withstand flood conditions. In the search for land, there may be a proposal to swap state-owned wetlands for federally owned public land. Doing

so, however, could create new complications. For example, when land is sold, the FEMA payment received for cleanup must be subtracted from the sale proceeds.

Given the range of new restrictions, locational considerations come into play in different ways in the various communities. The floodplain area may be increased from 13.2 feet to 19 feet, thereby reducing buildable area or creating challenging design and construction requirements. Because casinos can now be built on land within 800 feet of the shoreline, other challenges arise. For instance, in D'Iberville, an elementary school is located within 200 feet of a casino.

Another issue is how to deal with sites located in floodplains in historic districts where historic school buildings once stood. In Pass Christian, two school campuses are gone and at least one must be rebuilt. Some of those buildings were historic, and the school sites enjoy a certain historic legacy. The sites lie within the velocity zone. Some people in the community feel strongly that the schools should be rebuilt in the original locations.

Another concern is community engagement in the rebuilding process. Communities need to garner citizen support to make hard decisions to provide for the greater good. Questions abound, not only about where to rebuild, but also about how many facilities to rebuild. A question to consider is whether some consolidation would improve functionality and cost-effectiveness.

TOPIC: DESIGN INNOVATIONS

What are the latest innovative design solutions?

School superintendents are interested in how recent design innovations can improve existing and new facilities. Their concern is with identifying the best layout to support the educational mission and improve student achievement. The resource team was asked to present examples of the latest innovations in school design.

Jackson County will need a new school within two years. Community use of facilities after school hours is of interest. The superintendent may be willing to consider a new school configuration that, with support services, could serve as the center of the community. In December, there were 400 fewer students in the county as a result of the devastation, but the superintendent expected to be short only 150 students after the holidays.

Increasing land values will affect the type and cost of residential development and increase the need for new school construction to accommodate the growing population. Despite the hurricane and because of these rebuilding opportunities, school superintendents know that new schools will be built and that they can affect the quality of design and construction. It is estimated that as many as 50,000 new homes will be built in the lower counties. The value of land is rising. Wetland in D'Iberville now sells for \$130,000 per acre. The new casino rule allowing construction within 800 feet of the shoreline will further affect development patterns. If the federal government buys flood-prone land, mitigation issues are reduced and development can move ahead at a faster pace. These factors highlight the need for new school facilities to serve

both the recovery effort and the anticipated growth in the school-age population.

The question is how increasing land values may affect school construction. With new development comes the requirement for developers to provide infrastructure, including schools. The community needs to be part of such discussions.

TOPIC: THE ROLE OF PUBLIC OFFICIALS

What should be the role of school superintendents and other public officials in the rebuilding effort?

The political situation varies among the counties and school districts. School superintendents who represent an entire county are elected every four years. School superintendents who represent municipal or special separate areas are appointed by the school board in that city or area. Their terms vary according to their contracts. The contracts can be for one or more years but are usually for three-year terms. The resource team will advise the superintendents on how they can be most effective during the rebuilding process in terms of the design and location of public facilities. In addition, consideration will be given to the potential effect of involvement by the state superintendent—particularly to how educational policies can be reflected in the design of school facilities: *it is hard to build innovative schools if the education program is not innovative.*

With growth and new development come emerging industries, which can provide a wealth of partnership opportunities. In the past, the Mississippi Gulf Coast communities had a very supportive partnership arrangement with the National Aeronautics and Space Administration (NASA) under which NASA's Stennis Space Center helped create

and support a highly regarded math and science curriculum. The resource team will work with the school superintendents to identify potential partners in new industries that may be likely candidates for a public-private partnership to support public schools. Discussions will also focus on charitable giving and potential funding from other sources.

Another opportunity is for schools to partner with each other to provide programs and shared space. Such an effort would eliminate the need to duplicate all educational offerings, would allow students to experience more diverse classroom situations, and could result in the need for less space.

The school superintendents must lead citizens in support of schools. If the community remains involved in the rebuilding process, citizens will better understand some of the hard choices that they may be asked to make. Their involvement is also more likely to lead to an understanding of the community benefits available through innovative design solutions.

TOPIC: COMMUNITY INVOLVEMENT

How can school superintendents and officials effectively involve the community in the rebuilding effort?

What are the most effective strategies for involving the community in the planning and design of neighborhood schools? What has worked best in other disaster areas? Many issues rally public interest. Are there different formats associated with particular issues that work best to engage more people? How do open enrollment issues affect neighborhood schools? Although open enrollment may eliminate the need for busing, it raises other issues. How can these tradeoffs be evaluated and presented to the community to foster acceptance of the

concept of a community learning center? The existing school population has changed: many students have left; some have returned. The future population is unknown. How many students will ultimately return to the lower counties? In the upper counties, it is known that school-age population will increase with anticipated growth in those counties. Will this growth eventually spill over to the lower counties?

Community members need to be brought into the planning process to represent future interests. Successful planning depends on broad-based community participation. New facilities that aim to improve the performance of public school students may help sustain families in the coastal areas. Many issues need to be discussed at a community forum and should, theoretically, generate interest in participating in the planning and design of new facilities. The resource team will discuss the best methods to ensure community engagement.

TOPICS: UPPER COUNTIES

Schools in the upper counties were closed for no more than two weeks following the hurricane disaster. According to FEMA representatives, 7.5 percent of public funds are designated for mitigation. It is anticipated that these counties will receive their allotted FEMA funds by the end of January 2007. It is apparent that most of the money is going to private citizens, not toward public facility reconstruction. Apparently FEMA will have an office in the area for the next eight years but employees' 90-day assignments will result in a lack of continuity. As noted previously, any project that costs more than \$55,500 requires a PW and an inspection. One way to get around the audit is to submit split payment requests.

TOPIC: ACCOMMODATING THE STUDENT POPULATION

How can the influx of both temporary and permanent students best be accommodated?

This question relates to the recent influx of students from the lower counties and New Orleans as well as the influx of new students resulting from increased growth and development.

An increase in population will occur in the upper counties as people continue to move north, away from the coastline. Many of these communities are 20 to 30 miles from the storm surge, so there is intense speculation that development in those communities will increase. Already new subdivisions are on line. Students from New Orleans are attending schools in the area, but it is not known how many will remain permanently.

A recent study indicated that Stone County would gain the equivalent of 15 years of growth in the next year or two. It is estimated that 43,000 acres of private land are available for new construction. This impending development will require new schools and new design solutions.

A related issue is the best way to deal with the current influx of students, some of whom are temporary and some of whom are permanent. A number of school districts are still under a court order to balance population. It will be interesting to see how the influx of students affects the composition of the student population.

The upper counties are particularly concerned with how the anticipated growth will affect their community schools. This is an opportune time to plan for near-term demand for additional public facilities of all kinds. It is a particularly appropriate

time to consider how schools and other social services could be combined in a collaborative effort to create community learning centers.

TOPIC: THE IMPACT OF GROWTH

What is the effect of growth on community dynamics, and how can schools provide added benefit?

Growth pressures are already beginning to affect community dynamics. The upper counties are interested in establishing guidelines on where new development should occur and how schools should be situated in new communities. There are different issues to consider because some of these counties are more rural, others more suburban. Some consolidation of school services has taken place, but now, given the impending growth, there is greater interest in providing neighborhood schools that can also serve as community shelters. The upper counties understand that they need to identify the high-growth districts in order to prepare for the influx of population and accommodate the school-age segment of that population. How the upper counties handle growth can serve as a model for the lower counties, where the recovery effort will obviously take much longer but where growth will eventually occur.

TOPIC: PUBLIC SUPPORT FOR INNOVATIVE DESIGN

How can the school districts attract local governmental support?

Because schools are critical to economic development and integral to community planning, the resource team discussed how to leverage school design and reconstruction to receive additional public assistance. There should also be an opportunity to partner with existing and emerging industries in support of innovative educational

programs. Private funding may also be required to support the design and construction of new schools needed to accommodate a growing student population. Rather than duplicate all programs and services at all schools, superintendents may want to consider sharing facilities and creating signature programs, thus alleviating some space needs and providing more cost-effective school design solutions.

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Many issues rally public interest. Are there different formats associated with particular issues that work best to engage more people? How do open enrollment issues affect neighborhood schools? Although open enrollment may eliminate the need for busing, it raises other issues. How can these tradeoffs be evaluated and presented to the community to foster support for a community learning center? The existing school population has changed: many students have left; some have returned. The future population is unknown. In the upper counties, it is known that school-age population will increase with anticipated growth in those counties.

Community members need to be brought into the planning process to represent future interests. Successful planning depends on broad-based community participation. New facilities that aim to improve the performance of public school students may help sustain families in the coastal areas. Many issues need to be discussed at a community forum and should, theoretically, generate interest in participating in the planning and design of new facilities.

General Discussion

Hurricane Katrina struck on August 29, 2005. All schools were back in session by November 7; most had been operational since October 15. With fewer facilities available, numerous creative solutions were used to get as many students as possible back in school. That goal was particularly important for the local community, as it was one of the only ways to provide some degree of normalcy.

BACKGROUND INFORMATION

Many students were initially on split shifts at various schools (often in Quonset huts or trailers) that operated from 7 a.m. to 12 noon and from 12 noon to 5 p.m. As of early February 2006, 80 to 90 percent of all students were back in school. There is some variation: Waveland is at about 60 percent.

The situation has been described as “organized chaos”—which is, at this point, considered almost acceptable. Sixty to 70 percent of the teaching staff have been displaced and are still homeless or in temporary accommodations. Sixty-five bus routes have been reduced to 45, with not enough drivers to serve the communities. Superintendents are now doing a multitude of tasks, including driving buses on occasion. All schools were damaged, and a number destroyed. Some have no cafeteria services. Food for breakfast and lunch is sent to the lower schools from those high schools with operational kitchens.

In terms of operational impact, the cost of destruction has been estimated at \$1.2 billion. There are 263 schools that have some damage, 24 that have severe damage, and 16 that were totally destroyed. The total estimated cost of repair and reconstruc-

tion of school facilities has been set at more than \$832 million. The cost to replace furniture and equipment is \$55 million. Technology replacement is estimated at nearly \$41 million, textbooks at \$39.6 million, and instructional materials at \$235 million. In addition, replacing the 159 school buses that were damaged or destroyed is estimated to cost \$9.4 million. (This information is current as of September 20, 2005. These figures are the best estimates that the Mississippi State Department of Education could make on the basis of descriptions from school districts; they do not represent damage assessments from engineers or architectural firms.)

The Stennis Space Center’s education program, sponsored by NASA, is an appropriate example of the type of partnership that can be established to assist in the programmatic and physical rebuilding of the area’s schools. Hancock County is home to the Stennis Space Center, which is one of ten NASA test sites nationwide. Its specialty is rocket and engine testing. The county has a 125,000-acre buffer zone around the testing center. The site contains four test stands for testing innovative parts for engines of the future.

The skills needed to undertake this type of scientific exploration are, theoretically, acquired in the classroom. The scientific community in the United States is aging, as are practitioners in the associated technical fields of math and engineering. The ratio in the United States today is three scientists age 60 or older for every one scientist age 30 years or younger. Not enough people are being trained to replace today’s experts. The NASA

program believes that today's students need to become technically proficient to maintain the country's position in the world. Science, math, and technology must equip students for the future. The Stennis Space Center will be supplementing the consortium's efforts.

MAJOR ISSUES: LOWER COUNTIES

This section includes separate discussions of major issues, as defined by the school superintendents, for the lower and upper counties. A synthesis of the information presented by the resource team is included.

LOCATIONAL CONSIDERATIONS

What is a school? It is important to determine the function and purpose of the school facility. What will the building be used for? It can provide for a range of nighttime uses, and it can serve as a hurricane shelter. In other words, it can provide far more than the traditional school building. How the building will be used helps determine where it should be located. The following activities can take place at a school facility:

- Learning place for children
- Learning place for adults
- Site for social and health services
- Community meeting place
- Job training facility
- Athletic venue
- Emergency shelter

In school planning, there is a natural convergence of many interests. These interests include the public health of the school population, historic preservation and land use planning related to construction of the facility, social services that can serve the broader community, and the possibility

for schools to serve as a catalyst for community development.

The criteria for site selection must consider the range of uses and the interests to be served.

Criteria for selecting school sites are:

- Parcel size and shape—is it appropriate for intended uses?
- Land cost—has land cost been considered in the overall construction budget?
- Utilities—who is responsible for planning and funding infrastructure?
- Topography—is it a buildable and accessible site?
- Distance to population served—is it energy efficient, and what are the costs of related transportation?
- Safety—what are the location and environmental concerns?
- Compatibility—have adjacent land uses and administrative and legal issues regarding joint use of the facility been considered?
- Environmental constraints—is remediation required, and can infill development replace greenfield development?
- Consistency with local plans—schools can help determine where population growth will occur; are the schools integrated with the land use plan?
- Educational program—it is all about student achievement; does the school site fit the program?
- Timeline or urgency—has the time been taken to plan for the best facility?
- Cultural identity and history—how does the historical location of a school impact community identity?

Obviously, there are different selection concerns when rebuilding or relocating schools in coastal

areas. Schools should not be built in floodplains or in known storm surge areas. This lesson has been learned in the coastal communities of Mississippi, but questions remain about the base flood elevation. An unexpected natural occurrence could happen again.

School construction trends have led to larger schools on bigger and more distant sites, following the consolidation of smaller schools. There is also a general bias in favor of new construction. However, these trends have had an irresponsible impact on the environment and have resulted in school sprawl, rush hour-level traffic at schools, and a reduction of biking and walking to school. Today, fewer than 15 percent of students walk or bike to school.

New trends are emerging as a result of these conditions. There is now more demand for high-performance schools, which should be measured by the cost per graduate rather than the cost per student. The concept of schools as community learning centers is gaining acceptance. Small schools seem to be the preferred model: 350 to 500 students in elementary schools, 500 to 750 students in middle schools, and 750 to 1,000 students in high schools. Even in a high school of this size, schools within schools can be developed, creating smaller spaces within the larger schools. More people seem to want neighborhood schools, meaning that older schools are being rehabilitated and new schools are being built as centers of communities, incorporating joint-use arrangements. Small schools on infill sites allow students to explore nearby cultural offerings. Certainly, charter schools have gained in popularity because they allow for greater community input and involvement.

In summary, the main questions for the Mississippi coastal districts to consider are:

- Should schools be rebuilt where they originally stood, or should relocation be considered?
- Should new and rehabilitated facilities incorporate multiple or joint uses, or should buildings remain for a single-use?
- Should construction occur on infill sites or greenfield sites?
- Should there be regional school facilities, or should there be neighborhood schools?
- How can integration of school facility planning with land use planning be ensured?

It should also be recognized that not all decisions will be rational. Schools are endowed with a certain cultural significance; people have an emotional attachment to their community schools. Although some believe that building new is generally cheaper, new construction is often not of the same quality as original construction. The issue of historic significance in terms of cultural identity is a legitimate concern when considering the location of school facilities.

DESIGN INNOVATIONS

The resource team presented images of award-winning school designs to spur new thinking about how schools can better serve the students and the community. The American Institute of Architects' (AIA) Committee on Architecture for Education (CAE) identifies national educational facility issues critical to architects and works to strengthen relationships with allied organizations, client groups, and the public. The group is concerned with the quality and design of all types of educational, cultural, and recreational facilities. Although a large portion of its members practice in the K-12 and higher-education markets, CAE

looks to serve the needs of those in the entire market. The goals of the committee focus on effective project delivery, teambuilding, collaboration, project management, financial management, communications skills, management skills, and cutting-edge design issues for architects providing the diversified services associated with educational architecture. Design awards presented by this group are highly regarded.

Developing partnerships with designers can serve schools in numerous ways. One possible approach is allowing designers the freedom to explore new solutions to school design, including incorporating shared uses and other options into design solutions. A number of current trends related to the design of education facilities can be readily identified and are discussed below.

Small learning communities

Learning communities are based on a variety of courses associated with a particular subject or area of interest. Teams are formed on the basis of these communities, and students stay with their teams throughout their time in school. This program is designed to build strong student-teacher relationships, which are considered critical for academic success. A number of schools should be explored as examples of this concept. An example of a small learning community is Todd Beamer High School in Seattle, Washington, which was designed as three semiautonomous academies for 1,300 students. Woodland Regional High School in Beacon Falls, Connecticut, is a school for 800 students organized according to learning suites. West Woods Upper Elementary School in Farmington, Connecticut, a school for 700 students, is organized by grade and team.

Project-based learning and themed schools

The project-based learning model emphasizes learning activities that are long term, interdisciplinary, student centered, and integrated with real-world issues and practices. Project-based learning helps make learning relevant to students by establishing connections and developing problem-solving skills to deal with real-world situations. Teachers build relationships with students and other teachers as well as connections with the larger community. Examples to consider include

- Crosswinds Arts & Science Middle School in Minneapolis, designed for 600 students, grades 6 to 8, with six “home bases” of 100 students each. Here student workstations are grouped in teams of 16 to 18 with students working in nine-week, project-based blocks around a yearlong theme.
- The Canby Applied Technology Center in Portland, Oregon, is designed for 300 students, grades 9 to 12. The facility integrates academic and technical learning in a rigorous, project-based curriculum and is supported by higher-education and business partnerships.
- University High School of Science and Engineering in Hartford, Connecticut, is a public magnet school for students in grades 9 to 12. The school provides a challenging curriculum in math, the sciences, and engineering, as well as a strong foundation in core academic subjects. Students are selected by a lottery. Each freshman class consists of approximately 100 students. University High School follows the early college high school model in which the high school serves as a bridge to a college education. Students at UHS can attend classes at the University of Hartford and earn up to two years of college credit without paying any college tuition fees. Upon graduation, students receive

both a high school diploma and a transcript of completed college-level classes; the transcripts can be submitted for college credit.

- Marine Science Magnet High School of Southeastern Connecticut is a themed school designed to serve up to 250 students interested in the marine trades, including boatbuilding and shipbuilding. Enrollment at the magnet school will be open to students from 24 school districts. Students attending this school will continue to be officially enrolled at their current schools to comply with Connecticut Interscholastic Athletic Conference guidelines. Construction is to be completed in 2008.

A strategy for developing a project-based learning center is discussed below. Several steps are necessary to develop a school design that addresses a community's specific goals:

1. Develop the educational vision with input from business leaders, school district patrons, and staff members. The vision is based on the educational achievement goals set for the students.
2. Refine the vision through a request for proposal process wherein staff members are invited to reconceptualize their programs based on the goals.
3. Allow an estimated two-year planning and training period for implementation of the selected proposal.
4. Engage national researchers, education planners, and others to define the physical requirements for the new program.
5. Develop the facility design to support the new educational goals and vision.

Adaptive reuse and mixed-use schools

This model encourages the adaptive reuse of existing facilities and shows how it is possible to effectively retrofit underused buildings for new education-related purposes.

Examples include

- The Pueblo Academy in Pomona, California, is a K–10 educational complex developed in a former shopping center. It consists of a series of smaller schools of various grade levels sharing a library, assembly space, food service, and a playfield. It provides an anchor for the revitalization of an urban area.
- Millennium High School in Piedmont, California, occupies several floors of a 35-story office building. Built in partnership with the Young Men's Christian Association (YMCA), it provides a variety of learning spaces.
- The Learning Corridor in Hartford, Connecticut, is a mixed-use development plan encompassing most of a square block. In a linear plan, the facilities house a Montessori elementary school, a magnet middle school, a math and science high school, and an arts high school. The facilities share the commons, which offer open space and recreation for all the schools.
- A YMCA in Louisville, Kentucky, was renovated to house 180 students in grades 9 to 12, as well as 15,000 square feet of office and retail space and 58 apartment units.
- The Carver Academy and Community Center in San Antonio, Texas, is a mixed-use project for pre-K through grade 8. The master plan notes future projects: Carver Cultural Center, the School for Visual and Performing Arts, and Carver Academy Athletic Center. This mixed-use project was developed as a campus plan.

It is suggested that school superintendents review these projects and others on the web and then consider visiting the schools that appear most appropriate to address the needs of their communities. Doing so is an opportunity to walk through a variety of educational spaces and experience the range of possibilities.

THE ROLE OF PUBLIC OFFICIALS

The Gulf Coast communities might consider organizing a task force to serve as a liaison between the communities and potential developers. For instance, developers might be interested in establishing a high-tech corridor. The three most important industries for the Gulf Coast now are tourism, military training, and shipbuilding. In the future, economic development may need to focus on new employment opportunities that could be associated with high technology, medicine, and NASA-inspired engineering. Thus, students should be trained for new industries. Defining who needs to be part of that conversation is important; it might include industry leaders in medicine and those affiliated with area colleges and universities, with chambers of commerce providing the connection to local businesses. Cisco Systems' involvement with the Moss Point School District is encouraging. Resiliency requires strong leadership. There is an opportunity in the Mississippi Gulf Coast for public officials to establish a legacy. Given that some municipal facilities were significantly damaged by the hurricane, the GCEIC could take the lead in building connections between schools and social services.

The Gulf Coast communities require both technical and adaptive assistance. Getting the schools up and functioning was a technical challenge, as is rebuilding. However, rebuilding can be an adaptive

challenge as well, providing a wide range of new opportunities:

- New types of school buildings
- New mechanisms for financing rebuilding
- New strategies for reaching student achievement goals
- New services and programs for the broader community
- New ways of thinking about education and economic and community development

Technical challenges can be addressed in a mechanical manner. Adaptive challenges, however, require a new way of thinking. Communities can forge a new path in addressing a range of educational and social goals. Thus, different challenges require different styles of leadership. In an effort to restore order—and begin the recovery process—conflicts naturally occur. Although an adaptive leadership approach requires a more complicated process, it can yield greater and more systemic results.

Having committed leaders is key. A positive vision must be established to guide redevelopment of the school system. To address greater community needs, connections must be made and relationships must be established to move beyond the crisis mode. Public officials must provide this leadership and build partnerships to strengthen schools.

For instance, a shared-space arrangement creates an opportunity to share costs and personnel and to collaborate around shared needs. Business partnerships can help with funding, provide expertise, and help establish programs to serve students and the community. In addition, business partners can help substitute or augment school resources by providing various goods and services.

Community learning centers focus on academic achievement and can build a community of students, families, and area residents and businesses. Services and programs can offer enrichment and remove barriers to learning.

COMMUNITY INVOLVEMENT

Engaging the public in the planning process will improve the outcome. Facility plans produced with authentic community involvement will

- Be more responsive to community needs.
- Develop the community's understanding of essential tradeoffs.
- Support transparent and sound decision making.
- Develop support for financial commitments.

There are certain guiding principles when planning for community engagement on an ongoing basis: early input is vital; clarity regarding the framework, the process, and roles and responsibilities is essential; and parameters must be understood.

The school facility must support the educational vision that is reflected in a long-range plan. The plan should include consideration of demographic trends, program descriptions, grade organization, community use of facilities, school capacity issues, and other factors.

A facility advisory council might be established to serve the school board as a citizen's oversight committee. This group would meet regularly and be staffed by school administration personnel. The council could make recommendations to the school superintendent or the school board regarding priorities and specific issues.

The capital improvement program (CIP) can also foster community involvement. The CIP supports

the educational, demographic, and facility needs that are delineated in the long-range plan and updated periodically. Because it basically describes all infrastructure needs, it forms the basis for bond programs. The CIP can include utility needs as well as a range of community services such as fitness centers, civic association meeting spaces, community theater space, and the like. Before a bond offering, focus groups provide useful input and can become the basis for establishment of a bond committee, which then serves as a link between the school district and the community. Public hearings also provide a forum for community discussion where other concerns may be raised, such as effects on the transportation network, historic preservation, sustainable design, and the like.

As an example, Arlington County, Virginia, keeps the community engaged in its school projects through the Building Level Planning Committee (BLPC). Citizens are appointed by the school board and volunteer their time, remaining involved in the building process from the initial preliminary planning phase through post occupancy review. Participants in the BLPC can include school staff members, parents, a member of the local civic association, a school facility staff member acting as a resource, the assistant superintendent, and advisory council members.

Education facilities are built in three phases: from words, to specifications, to bricks and mortar. The community can be involved in the selection process for the architect, solicited through a request for proposal. Advisory council members may have input in the process. Generally, a feasibility study or preliminary design is submitted for review, leading to design development.

The resource team suggests consideration of a school design competition as a possible strategy for providing a good design in a short time frame. Another option is a charrette to consider economic development and design issues. The charrette process brings a team of design and related professionals on site to work with the community in creating plans and drawings that reflect a vision for future development.

MAJOR ISSUES: UPPER COUNTIES

These counties have rural school systems, requiring extensive travel between facilities. There was no help for 72 hours after the hurricane struck. There was no safe place for evacuees; many schools had to be used as shelters.

Mississippi's public education program is characterized by high achievement relative to many other states. Although the upper counties were not affected by the hurricane in the same way as the lower counties, a range of community issues were exacerbated by the event. In Hattiesburg, for instance, there was \$2.5 million in damage, primarily to the local timber industry. Some school districts financed operations and maintenance needs by selling timber from school-owned land. There is not enough of a revenue stream to build new schools, but the money received from land leased for timber production did help cover some expenses. That income has now been lost.

Many of the school buildings in these counties have flat roofs, and the mechanical systems on the roofs are gone. So, while the schools may be in relatively decent condition, a significant amount of damage did occur. For instance, Forrest County suffered an estimated \$1.8 million in damage.

FEMA sent three different teams to investigate but no contractors to actually do the work.

Lamar County is among the fastest-growing districts and has four new elementary schools. Before the storm, there had been a "Band-Aid building program" that added classroom space in new wings of old buildings. This program has accentuated building code problems. Although new construction must be built to code, older buildings with no smoke or fire alarms persist in an unimproved condition.

A ripple effect is now occurring in the cost of construction. These school districts are in a constant planning mode, attempting to deal with future growth. Problems are exacerbated by the increase in construction costs resulting from the scarcity of building materials, another byproduct of the hurricane.

Stone County was the only county that had an adequate insurance experience. The county is considered to be 90 percent whole, not as a result of FEMA assistance, but rather thanks to Liberty Mutual Insurance Company. The county's good fortune is a result of its relationship with the insurance company. Stone County is the only district in southern Mississippi that has had a positive outcome, in terms of receiving the funds necessary to address its building problems.

ACCOMMODATING THE STUDENT POPULATION

The growth issues in these counties relate to an anticipated natural increase in population as well as the need to accommodate displaced students from the lower counties and from the New Orleans area. With the anticipated growth and development, demand for public services will also increase. To

address this issue, the government can acquire acreage for schools and other community facilities.

A natural increase in the student population attributable to growth in the area is usually predictable and should occur relatively slowly. However, the increase attributable to displacement caused by the hurricane was sudden, unexpected, and of uncertain permanence. Future enrollment projections require an understanding of regional development activities, especially related to the housing market.

There is no zoning in the upper counties; only building codes apply. It is important, therefore, to set standards that relate to the local context. A useful way to establish standards is the use of pattern books. Architects can be required to recreate design features that are preferred by the community in order to retain local identity. Pattern books can also be used to speed up the design and permitting process because they reflect agreed-upon design details. Given that design is further regulated by building codes, it is important for school officials to be aware of code issues if they are considering nontraditional space. Local officials should develop constructive relationships with code officials so that the building process can move along smoothly and expediently.

A number of actions can address increases in the student population:

- Double sessions (some schools in the lower counties are on split shifts, which is considered undesirable)
- Additions to existing school facilities
- New school construction
- Use of portable classrooms
- Development of satellite schools

- Use of nontraditional space for schools (vacant stores, shared space with other community services, and the like)

For the upper counties to plan sufficiently for growth, it is necessary to assess minimum, optimal, and maximum enrollment per school type (elementary, middle, and high school). A master plan should attempt to determine the necessary capacity additions at each site to reach a desirable level of enrollment. Making this determination requires thinking differently about core facilities at each site. For example, is it necessary to duplicate all functions?

School superintendents must understand the development potential and student generation factors in each community. Land banking might be considered to safeguard land for future expansion needs; the upper counties need to plan for growth. A master plan can designate areas for future publicly financed projects, thereby guiding where development can occur. Community involvement should be structured as part of the master planning process, with a view toward encouraging and maintaining participation.

THE IMPACT OF GROWTH

A combination of elected and other public officials, planners, and community residents need to be at the table when considering how to control the impact of growth on community dynamics. Rapid growth generally causes an increase in traffic congestion, a loss of open space, and a loss of community character. Schools can become overcrowded and the infrastructure overburdened, resulting in a backlash against newcomers.

Communities in the upper counties are experiencing a number of these effects today. School superintendents anticipate that high growth will continue and a majority of the recent newcomers will stay. Many students come from Saint Bernard's Parish in New Orleans, a community that may not be rebuilt. Some of the Mississippi school districts are experiencing congestion, a clash of cultures, and a change in community character. Some of this change is a result of workers coming into the area to do jobs that local citizens are unable or unwilling to perform.

Most rural counties tend to want growth. However, along with growth may come "big box" development and the demise of local businesses. A particular difficulty associated with growth in this area is that so much of it occurred all at once—a result of people fleeing the effects of the hurricane. Thus, here the problem is associated with the *rate* as well as the anticipated *extent* of growth.

This situation has led to more pressure on elected officials to help control the negative effects of growth. With a significant increase in population estimated for the next two to five years, perhaps zoning should be considered. The next local election is scheduled for November 2007. Sixty-five school superintendents are elected throughout the state; others are appointed. Communities can grow by chance or by choice. The issue is how best to deal with growth. It is incumbent on elected officials, in particular, to provide leadership.

In so doing, officials should consider eight principles for building livable communities:

- Engage the community throughout the process.
- Invest in existing communities—preserve local character.

- Build walkable communities—communities should be safe and pedestrian-friendly.
- Design for people of all ages—consider the aging of the population.
- Link schools and neighborhoods—schools can be the heart of the community.
- Protect open space—use cluster development.
- Create places with well-defined centers.
- Foster distinctive communities—maintain identity and character.

Development follows infrastructure. In this way, local government can affect the location and pace of growth by preparing strategic plans. Strategic plans can be accomplished with or without zoning. Form-based codes are more about the building than about use. Uses can change. Thus, form-based codes allow greater adaptability over time.

Upper county communities need to better develop a vision as to the kind of community each wants to be. A build-out analysis should be conducted to determine how much growth can be sustained without sacrificing that vision. Communities should develop a plan and adopt the policies necessary to achieve desired goals. Incentives should be created to attract and control development.

PUBLIC SUPPORT FOR INNOVATIVE DESIGN

Good design does not have to cost more money; it can be cost neutral. Cost has to be figured on a case-by-case basis, taking into account relocation as well as the cost associated with the type of construction: renovation, adaptive reuse, mixed use, or new construction. Cost estimates can be more complicated when adapting existing space for new uses. There are many new concepts relative to the design of learning spaces. These concepts are discussed in the section on "Design

Issues” in “Major Issues: Lower Counties.” Please refer to this section and the examples suggested for further consideration.

Educators are finding that greater efficiency in design can provide cost savings in a number of ways in the physical space and in teaching techniques. The physical design of a school can influence how education is delivered. It affects the size and shape of classrooms and introduces a variety of learning spaces. Teaching techniques can further be influenced by physical design in ways that encourage teachers to work together and to work with students in different types of learning spaces. There is a greater need today to establish spaces for small learning groups. In addition, physical design can incorporate shared space and multiple uses. In the design of new learning centers, technology should be part of the infrastructure, which, in turn, offers numerous options to share information.

Site planning can lead to environmental sensitivity and can encourage learning beyond the classroom, encompassing the entire site. This can be reflected in lessons on conservation, preservation, green building, sustainable design, and increased environmental awareness and responsibility. The learning environment can further extend into the community. Fences are often used to separate schools from each other and from the community when, in fact, just the opposite should be developed. It is better to connect and integrate school facilities with the community to help strengthen each of them.

Energy savings can be built into the design. Students can appreciate firsthand the applications of responsible design. It is important to note that green design generally requires higher initial costs.

However, projected long-term savings can more than compensate for initial costs.

COMMUNITY INVOLVEMENT

Working together to establish collaboration and civic engagement can be viewed as a linear planning process leading to implementation. Citizen participation should be established during the visioning phase and maintained through school occupancy. It is important to include all stakeholders in the planning phase, distribute key information to everyone, follow the rules, give stakeholders a chance to challenge the proposal, and continue working with the community until consensus is reached.

It is inevitable that there will be some opposition. However, opposition is less likely if there is collaboration throughout the planning process. Community leaders must bring proponents, opponents, and bystanders together to support improvements in how educational services are delivered.

Who are the stakeholders? The stakeholders include those with decision-making authority; those with resources that can affect the outcome; those with a point of view that needs to be heard; those affected by the issues of development; those who can block or slow down a decision; and members of the general public. In other words, stakeholders must reflect the community at large.

There is a rationale for collaboration and partnering. It is important to determine the best strategy for building a shared commitment between multiple agencies and numerous stakeholders. A shared commitment creates the framework for expanding resources and managing shared responsibility. Establishing rules up front helps create order in

the process. It is essential to build goodwill early on and to muster the support needed later for implementation.

Why is civic engagement important? Community participation allows for the presentation of diverse ideas, it builds local knowledge and provides support for projects, and it strengthens the school community while building trust in public agencies. There are many layers of engagement. School districts can devise a long-range plan for educational facility development, a facility advisory council can be established, and a capital improvement plan outlined.

Collaboration is valuable because it allows stakeholders to pool their funds and resources for greatest efficiency. Thus, superintendents should continue to work together and share information. Often public officials want to involve stakeholders but not let them make decisions. It is far more productive if all stakeholders work together.

Consensus building should involve meetings, workshops, and retreats, which might use a facilitator to ensure the most effective agenda. Consultation is more focused and includes interviews, meetings, focus groups, feedback sessions, and briefings. Public education entails producing reports, briefings, newsletters, and electronic mailings and conducting town and neighborhood meetings.

The importance of collaboration cannot be overstated. Collaboration is the way to build effective working relationships and resolve conflicts. To build a shared sense of direction through visioning helps, in turn, to build community capacity to do what no one group can do by itself. The main idea is to build social capital and a sense of community.

Below is a list of public engagement venues that may be helpful for superintendents and other public officials to involve the community in the rebuilding effort:

- Large-scale civic meetings
- Focus groups
- Interviews
- Community meetings
- Charrettes
- Hotlines
- Citizen surveys
- Community workshops
- Visioning exercises

The upper counties have different patterns of leadership. Some have mayors but, for those that do not, it may be hard to define who should be at the table. The upper counties need to determine who has influence on growth decisions—is it the mayor, the alderman, the superintendents? Once that is determined, as many people as possible must be brought into the process. A countywide planning effort should be considered to discuss growth management in greater detail.

Summary

The Mississippi Regional School Design Institute for the Gulf Coast communities provided local leaders with knowledge on school design and a forum for discussing major issues and concerns. Highlights from the discussions are noted below.

CONCLUDING REMARKS

Public officials in the Mississippi Gulf Coast have an opportunity to establish a legacy. Rebuilding will encompass not only education facilities but also municipal facilities, providing an opportunity to build a connection between the schools and social services. To address greater community needs, officials must establish partnerships to move beyond the crisis mode and serve the students and the wider community. Doing so, of course, will require strong and committed leaders.

An educational vision must be established to guide redevelopment of the school system. School officials must work with the community to begin the process of rebuilding. First, the components to be housed in the new learning centers should be considered. They will define how the facilities will be used. Then the location of the facilities can be determined. Site selection must consider the range of uses and the interests to be served. The concept of community learning centers is gaining acceptance, and a preference for small, neighborhood schools is widely endorsed. Historic significance in terms of cultural identity is also a legitimate concern when considering location. And, most important, schools should not be built in floodplains or within the velocity zone.

School facility planning should be integrated with land use planning. New school facilities must support the educational vision reflected in a long-range plan. Engaging the public in the planning process will improve the outcome.

A number of trends related to the design of education facilities can be readily identified. They include small learning communities, project-based learning, and themed schools. In addition, learning facilities can be developed as adaptive reuse projects by taking advantage of underused existing space. Schools are now also being developed as part of major mixed-use projects. The resource team suggested a school design competition as a means to provide good design in a short time frame. Another possibility is a charrette about economic development and design issues. (The design competition would be for the lower counties; the charrette for the upper counties.)

The resource team suggested that the Gulf Coast communities consider organizing a task force to serve as a liaison between the communities and potential developers. For example, if a high-tech corridor were to be developed, students should be trained to take advantage of this opportunity. Business leaders can be called on to help augment school resources to offer the educational training needed to prepare students to work in new industries.

In the upper counties, where the communities are faced with an increase in the student population, a master plan should be developed to determine the necessary capacity additions for each school site.

A number of actions can address this need, from double sessions to school additions, construction of new schools, use of portables or satellite schools, and development of nontraditional space. A master plan can designate where future publicly financed projects can be located, thereby guiding where development can occur. Community participation is a key part of the master planning process.

The upper counties are experiencing a number of effects associated with growth that are affecting community dynamics. In these areas, problems are associated with both the *rate* of growth and the anticipated *extent* of growth. The resource team suggests that zoning be considered. Currently, building codes are the only regulations. Alternatively, strategic plans can be developed to define infrastructure improvements that determine the pattern of future development. It is incumbent on elected officials to provide leadership so that communities grow by choice and not by chance. Leaders must engage the community to control development, and thereby safeguard the identity and character of the area. The goal is to build social capital, through collaboration with all stakeholders, and to create a sense of community. Toward this end, a countywide planning effort should be considered to discuss growth management in greater detail.

NEXT STEPS

AAF would like to continue to work with those school districts that require additional support to deal with specific challenges. AAF suggests that a follow-up session be held with school districts in the lower counties. This session would be a case-based Institute with each school district presenting a specific school development project or plan for consideration and review by a team of experts.

The case-based model allows each district to participate in the discussion, and benefit from solutions proposed for the others. This format allows the resource team to provide new knowledge, review proposed development plans, and offer tools to help each district evaluate proposals and establish guidelines within the context of an established vision for educational facility development.

For the upper counties, AAF could bring together districts struggling with specific design challenges unique to the development of rural school districts. Alternatively, an Institute could focus more on system wide planning to control growth and determine where new schools might be built and how existing facilities can be expanded.

SUGGESTED RESOURCES

American Architectural Foundation
www.archfoundation.org

American Institute of Architects Committee on Architecture for Education (AIA/CAE)
www.aia.org/cae

American Planning Association
www.planning.org

American School and University Magazine
www.asumag.com

Architectural Record Building Types Study: K-12 Schools
<http://www.archrecord.construction.com/projects/>

The Big Picture Company
www.bigpicture.org

Building Educational Success Together (BEST)
www.21csf.org/csf-home/best/best.asp

Children's Aid Society
www.childrensaidsociety.org

Coalition for Community Schools
www.communityschools.org

Collaborative for High Performance Schools (CHPS)
www.chps.net

The Council of Educational Facility Planners
International
www.cefpi.org

DesignShare
www.designshare.com

George Lucas Educational Foundation:
(Re)Designing Learning Environments
www.edutopia.org/redesigning

The Harwood Institute
www.theharwoodinstitute.org

Healthy Schools Network
www.healthyschools.org

KnowledgeWorks Foundation
www.kwfdn.org

Learning By Design
www.asbj.com/lbd

National Clearinghouse for Educational Facilities
www.edfacilities.org

National School Boards Association
www.nsba.org

National Trust for Historic Preservation:
Historic Schools
www.nationaltrust.org/issues/schools/index.html

New Schools Better Neighborhoods (NSBN)
www.nsbns.org

Schools as Centers of Community:
A National Search for Excellence
www.nationalschoolsearch.org

School Design Research Studio:
Thirty-Three Educational Design Principles
for Schools & Community Learning Centers,
by Jeffery A. Lackney, Ph.D, AIA
<http://schoolstudio.engr.wisc.edu/33principles.html>

SchoolDesigns.com
www.schooldesigns.com

School Planning and Management Magazine
www.peterli.com/spm

Smart Schools, Smart Growth Initiative
www.smart-schools.org

United States Environmental Protection Agency
School Design Tools
www.epa.gov/iaq/schooldesign

Appendix A: Resource Team Members

Ronald E. Bogle President and CEO, American Architectural Foundation

Washington, D.C.

(Moderator of the Mississippi Regional School Design Institute)

In 2002, Ron Bogle was named the seventh president of the American Architectural Foundation (AAF). Bogle brought to the position a career-long commitment to public service and his lifelong passion for community development, civic engagement, education, art, and architecture.

Today Bogle continues to be an innovative leader. His professional interests include the impact of local community design choices and processes on community development, urban neighborhood revitalization, civic engagement, quality of life, and governance systems in educational institutions and municipalities. At AAF, Bogle's efforts are squarely focused on creating and sustaining supporting programs like *Great Schools by Design* and the Mayors' Institute on City Design—programs that help transform communities by encouraging design excellence. Most recently, he helped create the Architecture & Design K–12 Education Network in partnership with the Chicago Architecture Foundation. The network promotes architecture and design education programs and organizations within the United States by offering leadership, training, resource sharing, curriculum models, and networking capabilities.

Bogle's professional experience includes senior leadership appointments in higher education, business, and nonprofit organizations. A native of Oklahoma City, he served nine years on the Oklahoma City Board of Education and several years as the board's president. While in Oklahoma, Bogle was a leader in two major initiatives that resulted in nearly \$1 billion in publicly funded support to strengthen the commercial and cultural viability of the city's urban center by replacing or restoring a wide range of civic facilities and spaces. Additionally, as part of a decade-long plan to strengthen urban neighborhoods and create a model urban school district, Bogle co-founded and helped lead a community-wide initiative that resulted in \$700 million in taxpayer

support to replace or renovate every public school facility in Oklahoma City. On a per pupil basis, the measure is believed to have been the largest public school financing initiative in the nation at that time.

In November 2004, Bogle was appointed by Secretary of State Colin Powell to the National Commission for the United Nations Educational, Scientific, and Cultural Organization (UNESCO). In association with the National Endowment for the Arts and the U.S. Conference of Mayors, Bogle is a managing partner for the Mayors' Institute on City Design.

James E. LaPosta, AIA

Hartford, Connecticut

Jim LaPosta is chief executive officer and director of design at JCJ Architecture, Inc., a 170-person architectural, planning, interiors, and graphic design studio. LaPosta serves as design principal for many of the firm's pre-K–12 and college and university commissions, with a focus on themed learning environments, urban school district capital planning, environments for the visual and performing arts, and early childhood education. JCJ serves its national public and private clientele from three offices in Hartford, New York City, and San Diego and was recently featured in *Architectural Record* as one of the largest architect-led design firms in the publication's annual ranking.

Whether juxtaposing contemporary, new architecture with renovated existing space, creating bold new construction, or sensitively reworking a community landmark, buildings designed by LaPosta are characterized by their conscious optimism, ability to delight, disciplined siting, environmental responsiveness, and clarity of educational purpose. JCJ's Education Facilities Design Group has received more than 45 major awards for design excellence over the past eight years, including recognition from the AIA, American Association of School Administrators, Association of School Business Officials, CEFPI, DesignShare, National School Boards Association, *American School & University*, and *School Construction News*. In 2003, LaPosta's West Woods Upper Elementary School was selected as one of three

international finalists for CEFPI's prestigious James D. MacConnell Award.

An articulate contributor to the civic and professional dialogue surrounding architecture for learning, LaPosta has been an adviser for the Boston Architectural Center, the University of Massachusetts School of Fine Arts, and Yale University's School of Architecture, as well as a popular design award juror and symposia participant. He serves on the Leadership Group of the AIA Committee on Architecture for Education and co-chaired CAE's "Implement the Dream: Collaboration Required" conference in the fall of 2005. LaPosta holds a bachelor of science in civil engineering and a master of architecture, both from the Rensselaer Polytechnic Institute, and has been a practicing architect since 1986.

Major recent commissions include the Center for Film Studies and Cinema Archives at Wesleyan University; the Webster Life Science Academy and Will Angier Elementary School in San Diego; a new downtown campus for the University of Connecticut in Waterbury; the Marine Science Magnet High School of southeastern Connecticut; the Saxe Middle School in New Canaan; the West Woods Upper Elementary School in Farmington; the Wilbert Snow Elementary School in Middletown; Hartford's landmark 16-acre Learning Corridor campus; and major school facilities capital plans for the cities of Waterbury, Hartford, New Haven, and Norwalk, Connecticut.

William R. Potapchuk

Annandale, Virginia

William Potapchuk is president and founder of the Community Building Institute (CBI). He works to strengthen the capacity of communities to conduct public business inclusively, collaboratively, and effectively, to build healthy, sustainable futures.

Potapchuk has worked with states and communities around the country as well as with a number of federal agencies. He is an experienced trainer and an accomplished public speaker, delivering workshops and speeches for groups ranging from the National League of Cities and International City/County Management Association to state-local negotiation teams in Maryland and the Annual Leadership Symposium of the Institute for Portland Metropolitan Studies. He also has served

as a facilitator and mediator in a wide range of settings, including successful efforts to merge school systems in Durham, North Carolina; to develop a new zoning ordinance in Loudoun County, Virginia; and to strengthen a partnership among national associations focused on children and family issues.

He has worked on major projects for the Annie E. Casey Foundation; the U.S. Department of Housing and Urban Development; the District of Columbia; Montgomery County, Maryland; the Office of Juvenile Justice and Delinquency Prevention; the Maryland Governor's Office for Children, Youth, and Families; the Maternal and Child Health Bureau of the U.S. Department of Health and Human Services, the Federal Transit Administration; the Community Building Initiative in Multnomah County, Oregon; and the Healthy Neighborhood Initiative in Hampton, Virginia, among others.

Potapchuk served for almost 10 years as executive director of the Program for Community Problem Solving, a partnership of the National League of Cities, International City/County Management Association, National Civic League, American Chamber of Commerce Executives, and other national organizations. He also served as associate director of the Conflict Clinic, Inc. He is currently pursuing his doctorate in conflict resolution at George Mason University. A native of Cleveland, Potapchuk received his bachelor's degree in urban studies from Case Western Reserve University and his master's degree in political science from the University of Missouri–St. Louis. Potapchuk also completed a nine-month postbaccalaureate Public Affairs Fellowship with the Coro Foundation in 1983.

Potapchuk is widely published. He has worked with co-authors on *Pulling Together: A Planning and Development Consensus Building Manual*, *Negotiated Approaches to Environmental Decision Making in Communities: An Exploration of Lessons Learned*, and *Building Community: Exploring the Role of Social Capital and Local Government*. He has written numerous articles and edited an issue of the *National Civic Review* focused on social capital. He has co-authored chapters for the *Consensus Building Handbook* and the *Collaborative Leadership Fieldbook*. Most recently he completed *Learning from Neighborhoods: The Story of the Hampton Neighborhood Initiative, 1993–2003*.

David Salvesen, Ph.D

Chapel Hill, North Carolina

David Salvesen is the director of the Program on Smart Growth and the New Economy at the Center for Urban and Regional Studies at the University of North Carolina (UNC) at Chapel Hill. His research focuses on land-use policies, issues, and trends and their effect on the environment and the quality and character of communities. His research has been sponsored by foundations and government agencies, including the Robert Wood Johnson Foundation, the National Science Foundation, the Fannie Mae Foundation, the Z. Smith Reynolds Foundation, the Department of Commerce, and the Federal Emergency Management Agency.

Salvesen has taught graduate courses in land-use and environmental policy at UNC. He has more than 12 years of experience as a planning consultant and as a senior policy analyst at the Urban Land Institute. He has written on issues such as smart growth, school facility planning, natural hazard mitigation, and wetlands protection.

Salvesen received his Ph.D. in city and regional planning at UNC–Chapel Hill, a master’s degree in urban and regional planning at the University of Wisconsin–Madison, and a bachelor’s degree from Rutgers University.

Sarah Jane Woodhead, AIA, NCARB

Arlington, Virginia

As director of the design and construction program for Arlington, Virginia’s public school system, Woodhead brings 20 years of experience in civic architecture and school system management to her work in school system planning, design, and construction. Her career has taken her through many perspectives on school planning and management through her work in the private sector, in the nonprofit sector, and in state and local government.

In the private sector, Woodhead designed schools and civic buildings in primarily urban environments. She served as an architect for the Maryland Public Schools Construction Program. There she developed Maryland’s Science Facilities Design Guidelines as well as guidelines for sustainable design. She worked with urban, suburban, and rural school systems to master plan, design, build, and renovate schools across the state. In the nonprofit sector, she worked to develop public-private partnerships for urban systems, including the successful

construction of the first new school in the District of Columbia in more than 20 years. She eventually joined the D.C. public school system, becoming chief of facilities, and oversaw the modernization of 17 schools, including many historic structures. She developed and implemented school board policy regarding school planning and design. The D.C. program won a prestigious vision award from D.C.’s Committee of 100 on the Capital City.

Currently, Woodhead directs the design and construction program for Arlington, Virginia’s public school system. Her office supports the district’s capital plan development, manages a successful design program with an exemplary public engagement process, and oversees major construction projects for the county schools.

Woodhead has a Master of Architecture degree from the University of Utah. She is a member of the AIA, the AIA Committee on Architecture for Education, and the AIA Committee on the Environment. She has written extensively about school planning and school design. Special areas of interest and expertise include urban school planning, design excellence, accessible design, classroom acoustics, sustainable design, and community engagement.

Appendix B: Participants

GULF COAST EDUCATION INITIATIVE CONSORTIUM

Tom Clark, Ed.D, Executive Director

LOWER COUNTY PUBLIC OFFICIALS

Bay/Waveland School District (Hancock County)

Ms. Sherry Ponder, School Board member
Ms. Debbie Cox, Assistant Superintendent

Biloxi School District (Harrison County)

Mr. Paul Tisdale

Catholic Diocese of Biloxi

Dr. Mike Ladner, Superintendent
Ms. Elizabeth Fortenberry, Principal

Gulfport School District (Harrison County)

Mr. Glen East, Superintendent

Hancock County School District (Hancock County)

Mr. David Kopf, Superintendent
Mr. Eddie Danzey, Assistant Superintendent

Harrison County School District (Harrison County)

Mr. Henry Arledge, Superintendent
Mr. Russell Clark, Maintenance

Jackson County School District (Jackson County)

Mr. Rucks Robinson, Superintendent
Dr. Barry Amacker, Assistant Superintendent

Long Beach School District (Harrison County)

Ms. Carrolyn Hamilton, Superintendent

Moss Point School District (Jackson County)

Dr. Rachel Carpenter, Superintendent
Mr. David Rubenstein, Finance

Pascagoula School District (Jackson County)

Mr. Wayne Rodolfich, Superintendent

Pass Christian School District (Harrison County)

Dr. Sue Matherson, Superintendent
Mr. Ronnie Storey, Principal

Ocean Springs School District (Jackson County)

Ms. Deborah Fremin, Assistant Superintendent
Ms. Donna Nester, Finance

UPPER COUNTY PUBLIC OFFICIALS

Columbia School District (Marion County)

Ms. Cathy Creel, Curriculum

Forrest County School District

Ms. Martha Lawler, Assistant Superintendent
Ms. Debbie Burt, Assistant Superintendent

George County School District (George County)

Mr. Donnie Howell, Superintendent
Mr. Stu White, Finance

Hattiesburg School District

Dr. Johnny Simpson, Principal

Jones County School District

Mr. Thomas Prine, Superintendent
Mr. Scott Lewis, Finance

Lamar County School District

Mr. Glen Swan, Superintendent
Mr. Johnny Downs, Assistant Superintendent

Pearl River County School District (Pearl River County)

Mr. Dennis Penton, Superintendent

Petal School District (Forrest County)

Dr. James Hutto, Superintendent
Mr. Walter Farris, Maintenance

Picayune School District (Pearl River County)

Mr. Brent Harrell, Assistant Superintendent
Mr. Arnold Smith, Maintenance

Poplarville School District (Pearl River County)

Ms. Gylde Fitzpatrick, Superintendent
Ms. Louise Smith, Support

Stone County School District (Stone County)

Mr. James Morrison, Superintendent

AMERICAN ARCHITECTURAL FOUNDATION

Ronald E. Bogle, President and CEO,
Moderator of the School Design Institute
Nancy Zivitz Sussman, Program Director
Frank Walter, Director of Communications
Raymond (Skipper) Post, Jr., FAIA,
AAF Board of Regents, Baton Rouge, LA

AAF would like to extend a special thank you to Dewey Herring, Ph.D, Education Officer at Stennis Space Center, NASA.

Acknowledgments

The American Architectural Foundation (AAF) extends its thanks to the resource team members and the public school officials who were involved in the Mississippi Regional School Design Institute. We are also grateful to AAF's funding and alliance partners who share a common interest in improving America's communities and the built environment through design excellence.

For more information about AAF's *Great Schools by Design* program and its School Design Institutes, please contact:

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Published April 2006

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Design: Eileen Schramm visual communication

Cover photo: A destroyed school in Bay St. Louis, Mississippi



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