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A Short History of School Facility Issues and Use

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Education and the education process have always been central to the formation and development of the American culture and economy. As our nation continues to adjust to new and rapidly emerging technological advances, informed citizens and policymakers realize more than ever that our continued success as a leading industrial power requires learning at all age levels—indeed life-long learning—with education as a top national priority. Yet as improvements in our security and quality of life depend on continued learning, there follows a need to recognize and understand the intricately connected role of the facilities where learning takes place. High-quality educational facilities are required in today’s competitive environment to improve student learning and to address the interconnected needs of our increasingly complex, diverse society.

Early Educational Facilities

Early American society struggled to mix the labor needs of an expanding frontier with the educational needs of a society just entering the industrial age. In rural America prior to the Civil War, schoolhouses often were no more than basic shelters built of logs and chinked with mud located near crossroads of major towns. Huge open fireplaces supplied heating, and it was customary for the closest farmer(s) to donate firewood. Roofs were of rough-hewn clapboards laid atop horizontal pole rafters. Usually, there was only one window, made of panes covered with greased paper. Doors were hung on wood hinges. Floors consisted of split logs laid split-side-up. Students sat on benches fashioned from split logs, and if there was a writing desk in the room, it was generally placed to one side, being typically a flat board resting on pegs driven into the wall. Pens for writing were fashioned from goose-quills and were supplied with indigo or pokeberry ink. Blackboards simply were boards painted black. Shaped soapstone foreshadowed chalk.

The Modern School Facility

The use of newly discovered organic materials, new artificial lighting systems, improved insulating materials, and environmental controls—design and construction innovations never dreamed of before World War II, rapidly became standard practice and helped the U.S. to meet the demand for more and better new schools. As the twentieth century came to a close, a major issue facing public schools concerned the learning and physical effects on students of old school buildings, including health problems such as asthma associated with poor indoor air quality. Another large problem is the need for increased student safety and security. There also was the clear decline in academic achievement associated with overly large schools brought about by changing demographics funding to student achievement levels. Many studies demonstrated that a “healthy school or classroom” could improve student learning. Although there was no nationally-critical Y2K computer snafu on New Year’s Day 2000, as expected, there were 45,000 U.S. schools—nearly half of its entire stock of 92,000—that had exceeded their lifespan and were approaching 50 years of age

Old School Problems, New Century

One of these problems is to provide a safe and secure environment for students from violence and disruptions coming from within and without the school facility. While most schools have established security and zero-tolerance-of-violence policies designed to counter threats from within, they must also work diligently to become better prepared for threats from outside the school. Conflicting forces to make schools more open to communities and yet more secure against vandalism and violence add to the complexities of school design.

Other facilities-based design challenges include integrating technological learning aids and tools, mainly computer use, and conflicts and concern over school size and class size. Clearly, our nation is concerned about

academic achievement of our students, with the establishment of statewide testing, despite difficulty in reaching and maintaining accepted education standards.

School systems have attempted to cope with these facility-related issues by increasing the public/private partnerships where students can learn and earn credit at private firms. Many school systems have extended school hours, developed specialized academies within larger high schools, and established magnet schools that emphasize a specific curriculum. Yet an effect of all these forces is to show clearly the blurring of the boundaries of what constitutes education and, hence, what makes effective classrooms and schools.