Renovation vs. New Construction: Choosing the Right Path

Weighing the options is important to ensuring the right decision for the community, the district, and the students.

By Catherine Cruickshank, MA, DipArch, and Sam Statz, LEED AP

When school populations grow to the point where districts must consider new construction, many district administrators face a fork in the road: renovate or opt for new construction? The importance of this decision should not be taken lightly; it can have serious ramifications for years to come.

Each situation is unique. Just as no two students are the same, no two schools' situations completely match up. Here, we will examine the advantages and disadvantages of each choice, including factors that district leaders should consider when making a decision.

First Things First

The first step is to thoroughly explore the issues you are trying to address through this project by brainstorming with the various stakeholders, documenting the issues, and prioritizing them. Then, when weighted against other and perhaps competing issues, determine what compromises you are willing to make.

Consider pricing, life span, sustainability, and how the space can accommodate 21st-century learning. One of the primary goals should be to provide flexibility and more options for the learners.

Weave green solutions into the plans to provide immediate and enduring benefits, such as a healthier setting, fewer impacts on the natural environment, and a stronger bottom line.

Renovation

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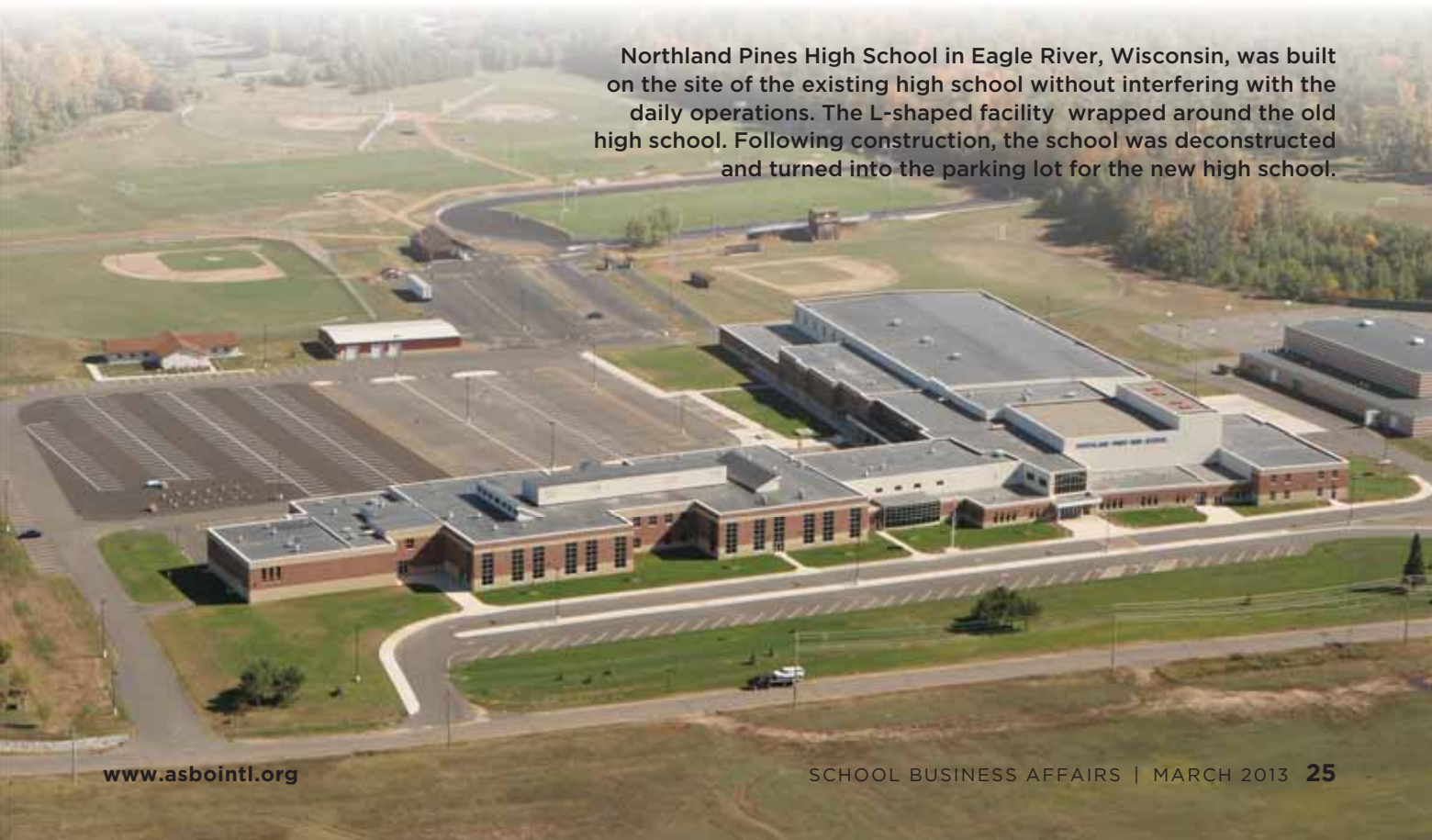
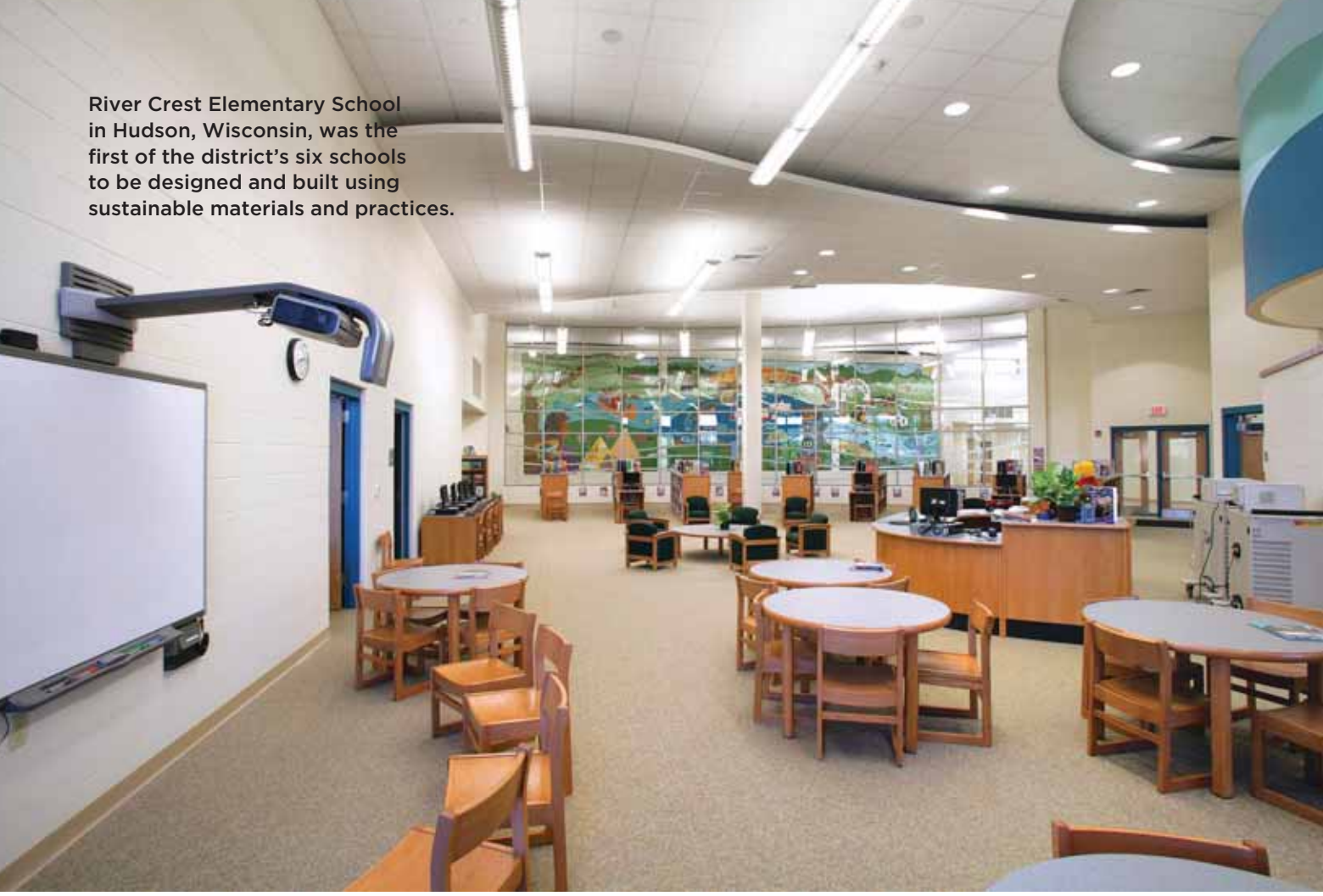


Northland Pines High School in Eagle River, Wisconsin, was built on the site of the existing high school without interfering with the daily operations. The L-shaped facility wrapped around the old high school. Following construction, the school was deconstructed and turned into the parking lot for the new high school.



River Crest Elementary School in Hudson, Wisconsin, was the first of the district's six schools to be designed and built using sustainable materials and practices.

considering renovating a large space, recognize the difficulty of keeping the facility in operation while the work is under way.

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Remodeling when school is in session can be a formidable obstacle, so consider the time and the level of inconvenience. If, because of those concerns, you must phase the project over two or three years to take advantage of summer vacations, then the cost of renovation will likely escalate significantly.

In addition, depending on the facility's age, you may need to upgrade it entirely to conform to the requirements of the Americans with Disabilities Act. Often, once renovation begins, the entire property must meet the current code requirements instituted in the years following the original building construction.

As well, you must determine the life span of the existing building to see whether the additional investment makes sense. You certainly don't want to be accused of "putting lipstick on a pig."

The following are some additional considerations for renovation:

- **Structural integrity.** Are the mechanical, electrical, and plumbing systems sound and able to provide a basis for the expanded capacity?
- **Architectural merit.** Do the architectural attributes of the facility necessitate its continued use?
- **Thermal benefits.** Can the existing construction provide the right temperature to support learning at a reasonable cost?
- **Hazardous material.** Would the existence of hazardous materials such as certain paints, cleaning materials, or asbestos make the cost of renovating the property prohibitive?
- **Location.** Is building in another location unlikely? For example, schools in urban and downtown areas typically cannot be moved, so renovation is perhaps the only viable option.
- **Heating, ventilating, and air-conditioning system.** The inferior quality of the existing HVAC system can be a disadvantage of renovation. The technology of today's systems typically produces efficiencies that far exceed those of earlier years.
- **Community connection.** Is there an emotional attachment to the existing facility? Would demolition or

lack of use upset or offend a large number of people or key stakeholders?

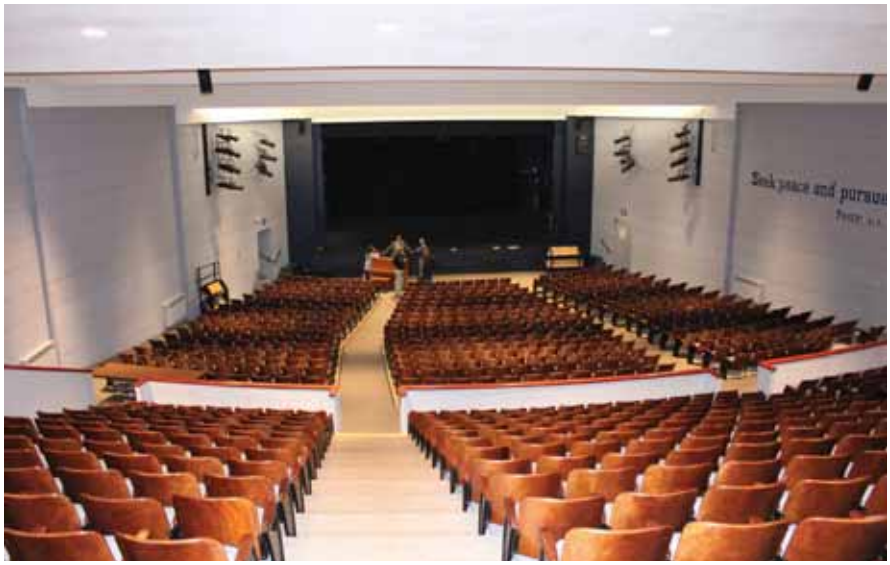
Each situation is different and must be considered on its own virtues. For example, we've seen property that was built in 1927 by fine craftspeople and represented excellent work. Comparatively, the quality of a property that was constructed in the 1960s was found to be inferior. At times, the often-used adage "They don't make it like they used to!" is accurate; solid construction can affect decisions about whether to remodel or start anew.

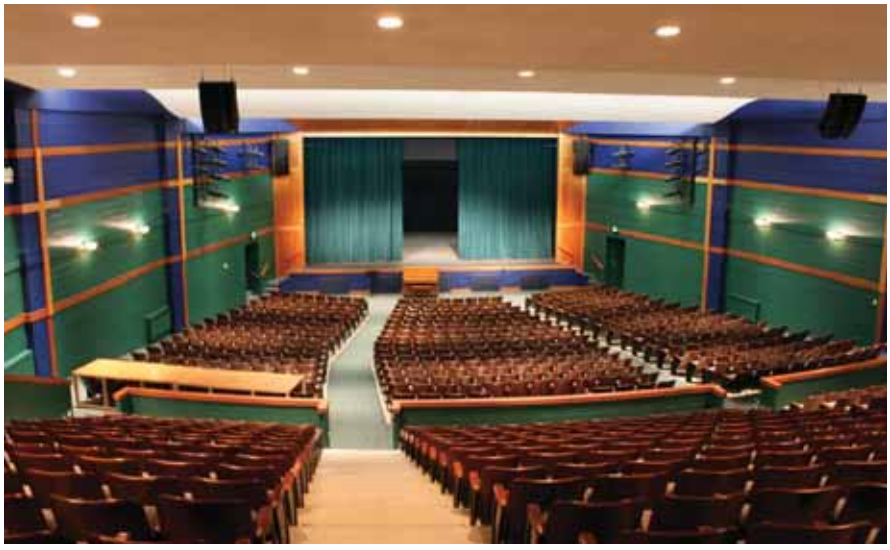
New Construction

New facilities often evoke community pride and a sense of excitement . . . once the referendum has passed. A good example is the Kimberly Area School District in Kimberly, Wisconsin. Determined to address a space shortage, the district decided that designing and building a new high school was the wisest long-term solution.

Kimberly High School, a 254,000-square-foot facility with capacity for 1,100 students, features a dual interior-exterior commons with an open balcony, two-story library, 742-seat auditorium, four-station gymnasium, and two-story weight room and fitness area for school and community use. This school quickly became a shining star for the community not only by addressing issues but by providing new opportunities for learning, performance, athletics, and community use.

Moreover, new residential developments often spring up around freshly constructed schools, boosting the economy and further improving morale in the community. With new construction, you are not limited by the existing footprint. You have a clean slate on which to work and consider the needs of your students and teachers. It allows you to more openly consider the layout that will fit the pedagogy of today.





Notre Dame Academy in Green Bay, Wisconsin, renovated their outdated, 960-seat auditorium (top photograph), which also serves as their worship space for school liturgies. The goal was to create a more colorful and vibrant environment to be enjoyed by students, staff, and the public.

New school construction has several benefits:

- **Sustainable features.** The ample benefits of green construction can be factored in from the outset, starting with site positioning.
- **New technology.** New technology that will enhance both the operation of the facility and the education of the students can be incorporated easily.
- **Better use of space.** By considering the current and future expectations of the population, you can "right size" the gymnasium, auditorium, and other gathering spaces rather than alter schedules to ensure that students can fit into the existing areas.
- **Easier prioritization.** Typically, new construction does not require as much compromise as renovation, allowing the inclusion of more items from the "wish list."
- **Efficient layout.** Many administrators find they can design the space based on real-life usage rather than succumbing to the existing layout.
- **Maintenance savings.** Because of new construction and warranties, you will likely have fewer maintenance issues for a long time.

If building new, what will you do with the existing structure? There are many options: The administration may take over the building and use it to provide more infrastructure for managing a burgeoning school system. The facility may be sold and repurposed for housing, retail space, a day care facility, or use by area nonprofits. Or the building may be deconstructed and the site used for parking, playgrounds, or public greenways.

Partial Deconstruction

In some cases, the choice doesn't have to be one or the other; it can be a hybrid of renovation and new construction. In Kimberly, an elementary school was converted into an intermediate school for grades 5 and 6. The facility had originally served as a high school onto which more classrooms were added.

The oldest, three-story portion was deemed unworthy of saving, was deconstructed, and was replaced with a new media center, cafeteria, kitchen, offices, and main entry. The elementary school classrooms were upgraded for use by older students. Some stone elements were salvaged and incorporated into the addition for their sentimental value.

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Additional Considerations

Whichever path the district chooses, leaders must keep several considerations in mind.

Ample charging stations and a wireless network have become necessities for the multitude of digital devices that will keep students competitive.

A key aspect of the education agenda is expanding a workforce that is well versed in the STEM (science, technology, engineering, and math) disciplines. To equip our students to compete globally, the new space must provide the resources to promote those opportunities.

Sustainable choices will provide a better learning environment for students. Choosing products that have few or no volatile organic compounds will contribute to better indoor air quality. Consider installing direct-indirect light fixtures where at least half the light rises, bounces off the ceiling, and becomes a source of lighting. This option reduces glare, requires fewer fixtures, and saves energy. Today's high-performance windows provide exceptional natural light while offering exceptional thermal performance.

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The bottom line for any school is careful consideration of the many factors that will go into this momentous decision. Just as we guide students to thoughtfully deliberate their future, we must weigh the various options and study the pros and cons of our decisions about construction versus renovation.

Catherine Cruickshank, MA, DipArch, is a senior project designer at Hoffman Planning, Design & Construction Inc. (www.Hoffman.net), which is based in Wisconsin. Email: ccruickshank@hoffman.net

Sam Statz, LEED AP, is director of construction services for Hoffman Planning, Design & Construction Inc. Email: samstatz@hoffman.net