



## CASE STUDY

## EDUCATIONAL FACILITY CONSTRUCTION

# Transparency Builds Community

## *Windows and natural light make a comeback in new school design*

BY GREGORY J. STACK, AIA, LEED AP

Ever visited a school with no or few windows? How about one where interior windows are covered over with construction paper or paint? Prevailing wisdom used to be that preventing students' minds from wandering was achieved by restricting their view. Today this approach is being challenged by energy concerns, pedagogy, and a simple appreciation for the quality of the space containing the learning experience. In prisons, prisoners are placed in windowless solitary confinement for punishment. Can't we do better for our students?

Educational facilities across the country are recognizing the necessity of light and transparency in learning environments, and they are responding in a variety of creative ways. An elementary school student's attention span, between five and 12 minutes, only increases to eight to 14 minutes in high school. Frequent breaks, which allow students to refocus on the task at hand, are important for learning. Providing views to the exterior is one way to provide this break.

### Daylighting saves energy

From an energy standpoint, daylighting is a strategy that is increasingly used to reduce energy consumption. At Wilson High School in Tacoma, WA, classrooms use natural light, provided

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on both sides of the classroom, to afford good, even daylighting, which reduces the need for artificial light. This not only saves energy, but also provides a more visually comfortable environment for students and staff.

The use of daylighting in schools also is enhanced if interior spaces can "borrow" light from rooms along the exterior of the building. This is done using a type of interior window called a "relight." Light from the windows on the exterior of the building passes through relights to reach interior spaces that would otherwise have no access to light.

Many jurisdictions have recognized the importance of light in learning environments and have passed health requirements that limit the number of hours a day a student can spend in a room without natural light. A relight helps to meet this requirement even on interior rooms where skylights are not possible.

### Light creates community

An even greater benefit of transparency is the community it can create in a school. Recent pedagogy seeks to teach across the curriculum through integrated teaching teams that intentionally



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The view from the shared space and classroom at Kirkland Junior High School showcases design strategies for abundant daylighting.

interact with a smaller group of students. Interior windows allow student groups to meet both inside and outside the classroom while still being supervised. Both the teacher and students have the comfort of knowing they have an opportunity for instant communication.

Transparency also allows visual communication and connects a school community when used in other spaces. At the new Ardmore Elementary School in Bellevue, WA, now in the design phase, the school is particularly transparent to support the staff's desire to be connected. The library/media center is surrounded by transparent pathways that allow students and teachers to see the learning as it happens. The staff work closely together in preparing materials for classes and wanted their environment to reflect their connected philosophy. The result is a space that is bright, airy, and comfortable—all factors that improve and enhance the teaching and learning experience. ■

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