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# Los Altos School District Master Plan Update—Los Altos, California

Gelfand Partners Architects



On a typical summer morning in Los Altos the coastal fog burns off late. Along a covered walkway at the Georgina Blach Intermediate School, the sun is just beginning to beam through a series of circular cut-outs, playfully dotting the pavement with natural light. A few more steps and we enter a large L-shaped courtyard punctuated by a clock tower. The hands on the clock point to 10:30—but this information already seems superfluous. Everywhere we have seen signs of the sun’s presence—a shadow, a streak, a glow. The school itself is a teller of time, its architecture a register of the day’s progress.

Blach typifies Gelfand Partners’ integrated approach to the retrofit of schools in this woodsy Silicon Valley suburb. In their work to complete Phase One of the district’s mod-

ernization plan, they have tried to adapt the more technical aspects of “sustainable design” to the art of place-making. This has involved reinforcing existing daylighting schemes, modeling energy usage to optimize HVAC systems, and attempting to reclaim previously wasted outdoor areas as instructional settings. It has meant infilling between existing buildings (instead of tearing them down), creating new spaces that reinforce the social landscape. And in some cases it has included designing building elements that deliberately double as teaching tools. At Blach, for example, a triangular steel entry canopy casts a precise shadow on lines scored in the sidewalk below, doubling as a gnomon in an architectural sundial, and reinforcing a lesson familiar to all middle-schoolers.

According to Lisa Gelfand, Principal of the San Francisco-based firm, architecture can be used to augment the “creative enterprise” of education. “Inside a school there’s more productivity than consumption going on. The buildings need to express that difference.”

The oak tree in the Blach Middle School courtyard. Before modernization work began, when the architects asked students what they liked most about the school, many of them emphatically replied, “The tree! The tree!” The design now surrounds it with a circular, wheelchair-accessible platform.

### From Dreary to Demonstrable

The story of Blach Intermediate School and the ongoing relationship between Gelfand Partners and the Los Altos School District began with the passage of a \$94.7 million bond issue in 1998. At the time, most Los Altos' public schools dated to the post-World War II California suburban construction boom. During the 1980s and 1990s, when the district first became crunched for space, it had managed only to augment these facilities with dreary portables.

The original intent of the bond issue was to modernize all these facilities and replace the portables with permanent buildings. But Los Altos administrators also saw the chance to create a unique identity for each school, and in 1999 they chose five separate architects to modernize a total of nine schools—seven elementary and two intermediate. As part of this drive for design diversity, Gelfand Partners was hired to redesign Blach in accordance with an existing master plan.

Throughout 1999 Gelfand's design work went smoothly, and at the end of the year bids were received indicating the reconstruction would come in on budget, and on schedule. But this was not the case with other projects in the district. Most importantly, bids for Covington Elementary School and for a new two-story building and modernization at Egan Junior High School, Los Altos' second intermediate school, failed to meet projected budget and schedule constraints. It was then that Gelfand's design for Blach caught the eye of district administrators.

For the firm, the idea of "modernization" does not necessarily mean the construction of new buildings. Rather, they have tried to renovate existing buildings in keeping with a philosophy of sustainability and energy efficiency, while adding new structures to activate the spaces between.

At Blach this has meant that some of the most important program elements are now housed by infill buildings. The library, a new double-height space, joins the previously existing administration and art "wings"—while the student store (with clock tower on top) connects a set of classrooms with the school's covered walkway. Meanwhile, a new row of classrooms has also been built along the western edge of the site, and two longer buildings have been set perpendicular to the eastern edge to create an L-shaped courtyard that has become the social heart of the school.

Recognizing how well these strategies fit its goals, in 2000, while managing the construction of Blach, Gelfand Partners was asked to rewrite the district's master plan to project credible budgets and schedules for sustainable modernizations at all the remaining schools while determining whether there was enough remaining bond money to replace more of the portables. This effort was so success-



ful that by 2001 the district had decided to entrust Gelfand with the entire modernization campaign and the task of overseeing the redesign of the six remaining schools.

The first phase of work at Blach was completed in 2002, and Phase One of Los Altos' modernization effort was completed in 2003. Today the district is waiting to pass a new bond to fund Phase Two.

The energy-saving measures at Blach have also now proved so successful—and the systems so high performing—that the school has been adopted by the local utility, PG&E, as the first "demonstration project" in its Collaboration for High Performance Schools (CHPS). As Gelfand was working on the schematic design for Blach, PG&E had also been seeking a project in the Bay Area that could demonstrate energy-saving measures for schools throughout the region. Eventually, PG&E offered a large grant to upgrade lighting controls and other sustainable systems at Blach. It now uses the school as an example for other districts and designers interested in using similar strategies.

### The Finger Plan, Revamped

The jury chose to give a design award to Gelfand both for the general Los Altos Master Plan Update as well as its realization in Blach and several other district projects. In comments, jurors were particularly impressed with how

The design severs the old covered walkway at Blach and adds a row of classrooms along the western edge of the site to frame a large new L-shaped courtyard. Clerestories were added to brighten existing classrooms, while new structures, including a double-height library, fill in between older buildings.



the approach might be extended to the hundreds of similar “finger-plan” schools throughout California and other areas of the western United States.

The finger plan was introduced in the 1950s as an economical way to construct schools in warmer climates, where outdoor spaces could be used for activities and circulation throughout the school year. In reality, the name says more about the strategy of *siting* buildings than it does about the buildings themselves. This was typified by a highly rational arrangement of barracks-style structures connected to one another by covered walkways.

Lisa Gelfand’s research on the Los Altos version of such schools ultimately led her to co-author a report with Sandra Vivanco titled “School Design and Ideology.”



The report credits Ernest J. Kump Jr., a Berkeley- and Harvard-trained architect, as the first designer of finger schools in California. The height of Kump’s career also came as the underlying program for public education—and for public school buildings—was finding a new base in the “universalistic values” of Chief Justice Earl Warren’s decision in the 1954 Supreme Court case *Brown vs. the Board of Education of Topeka, Kansas*.

While *Brown vs. Board* inspired a new commitment to equality in public schools, Gelfand and Vivanco believe it also inspired an over-regularization of school facilities, “The normative function of the school,” they wrote, “is realized through the design of one-size-fits-all classrooms

**Left:** Dreary no more: new north-facing clerestories allow diffused daylight into each classroom. Other design strategies increase the possibilities for natural ventilation, heating and cooling.

**Right:** The new Blach gymnasium shows how energy-efficient design need not preclude subtler aesthetic qualities.

and the provision of outdoor spaces laid out for team sports, or games organized by rules and lines on pavement. Very little space is devoted to individual study or recreation, or to the casual social encounters fostered by the provision of courtyards or circulation paths that intersect.”

In its technical aspects, however, the finger plan was not without merits. Kump made the crucial decision to site buildings so their long walls of windows faced north. In one sense this was an aid to education, allowing north-facing walls to look out on an “inactive buffer.” But Lisa Gelfand also points out that it would have been difficult to reshape Blach’s campus and achieve increased levels of energy performance within individual buildings if they had been oriented any other way.



### Efficiency by Example

Gelfand’s recognition of the positive qualities of the finger plan ultimately allowed the firm to recycle about 25 percent of all building components district-wide, which left room in the budget for the latest innovations in daylighting controls, efficient lighting design, and heating and cooling systems. At Blach, for instance, each classroom is equipped with a sensor that automatically shuts on and off when a window or door is opened or closed. Slim HVAC units are also light enough to affix to rooftops, saving space around buildings and increasing the aesthetic appeal of outdoor areas.

As with most sustainable projects, the district’s initial cost for these energy-saving features was substantial—at Blach alone, the cost was over \$75,000. But according to a study by PG&E, this investment will pay itself back in cumulative energy savings in just over five years. The most “sustainable” element of Blach, however, may be the remarkable improvement in faculty and student morale.



There are no published reports quantifying just how much teachers and students love their “new” school—but in any case, this is not a value that fits neatly into a column in a spreadsheet.

Lisa Gelfand believes much of this quality has to do with the new day-lit interiors that both improve energy efficiency and the educational experience. Typical of these is the multipurpose gymnasium her firm designed for Blach. There is little pretense (or mystery) to what the building is—it’s not much larger than the basketball court inside. However, the room is noticeably bright and airy, and in a departure from the dark, stuffy feel of a typical gymnasium, the polished wooden floor scatters beams of natural light everywhere.

“It’s not enough that we lowered the bill—we want the schools to be beautiful,” Lisa Gelfand says. “We use light to wake kids up [and help them] be aware of what’s out there in the world. More importantly, [when] kids see the light, they start to understand efficiency—they see us all acting the way that we said we would.”

At Blach, the benefits of reorganizing the outdoor spaces are also clearly in evidence. As we end our visit, students spill out of their classrooms. Some rush with wild abandon to get a turn at pin bowling in the courtyard, while others form up as spectators alongside the “lane.” Others settle into the cluster of lunch tables to chat face-to-face, or meet at the large oak tree to organize a game of tag. Several siphon themselves off for a round of Chinese jump rope. Three students sit on the steps with their backpacks still on, seemingly eager to get back to class.

Pin bowling, however, is where the bulk of the action is. “SPARE! SPARE!” one student cheers, after—under heavily relaxed rules—a bowler rolls three consecutive misfires.

“It’s not about strength,” the teacher reminds the bowler. “It’s about location!” The same could be said about Gelfand’s approach to design.

—Julie Kim

All images courtesy of Gelfand Partners Architects.