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Athletic BUSINESS

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THE ATHLETIC BUSINESS STATE OF THE INDUSTRY REPORT 1988-1990

Harvard's Renovated Malkin Center

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Special Report:

Locker/Shower/Laundry

Harvard Looked at the Alternatives

That the renovation of Harvard University's Malkin Athletic Center respected the integrity of its Georgian Revival style of architecture should surprise no one.

"The building itself is symbolic of the best in the New England collegiate tradition," wrote Pauline Chase-Harrell, chairwoman of the Boston Landmarks Commission, in support of the renovation when it was nominated for (and eventually won) the National Trust of Historic Preservation's 1987 Preservation Honor Award.

It also should come as no surprise that renovating the 58-year-old building was intended to update what had become an outmoded facility by reclaiming underutilized space and creating new space.

What is surprising is that Harvard was able to accomplish both for about $30 per square foot, instead of the more typical cost of between $60 and $70 per square foot for a project of this size.

"It was a very limited amount of resources, given the size of the building," says George Oommen, Harvard's senior property development officer and project manager for the renovation.

Oommen says the building committee in charge of the renovation kept costs down by first prioritizing what needed to be done, looking for alternative ways of doing them that would save money and selecting an architect who was a renovation expert.

COST SAVERS. A prime example was the construction of a 4,000-square-foot mezzanine "bridge" above the pool that provided much-needed space for dance and aerobics.

As initially envisioned, new footings would have to be installed through the 12-inch reinforced concrete floor in the Malkin Center's basement to support the mezzanine's additional load. The real clincher was that the building is below the water table of the nearby Charles River, making any basement work a very wet operation.

So architect Douglas Okun, principal of Douglas Okun and Associates Inc., came up with an alternative design that used a 30-foot span of struts in the basement's ceiling to support the mezzanine, avoiding the basement floor altogether.

"That, in itself, saved $30,000 from the original estimate," says Okun, who had worked on other Harvard renovation projects before being selected for the Malkin Center renovation.

Another cost saver was figuring out a more efficient way of painting the pool's two-story ceiling. The original estimate came in at a steep $60,000, which included the cost of building a scaffolding to reach the tall ceiling. Oommen says the solution was to build a scaffolding on wheels that could easily be moved across the pool deck.

"We were able to paint the ceiling for something like $28,000—less than half the estimated cost," says Oommen.

Money also was saved on what had been a long-standing problem—water leaking from the men's and women's showers and staining the pool ceiling just below. Instead of repiping all of the shower floor drains, careful examination of the leaks showed that the water actually came from only one drain that had never been fixed.

NO SHORTCUTS. As successful as Okun and the building committee were at finding ways to save money, no shortcuts were taken on replacing the building's original slate roof and small-pane glass windows, both of which were replaced in-kind.

This was especially true of the windows, which make up 40 percent of the Malkin Center's exterior. The windows had deteriorated to the point that they were beyond repair and were causing major heat loss.

Okun designed a new mahogany frame with interior stops that would hold 5,000 panes of insulating glass. The interior stops would enable broken windows to be replaced from the inside.

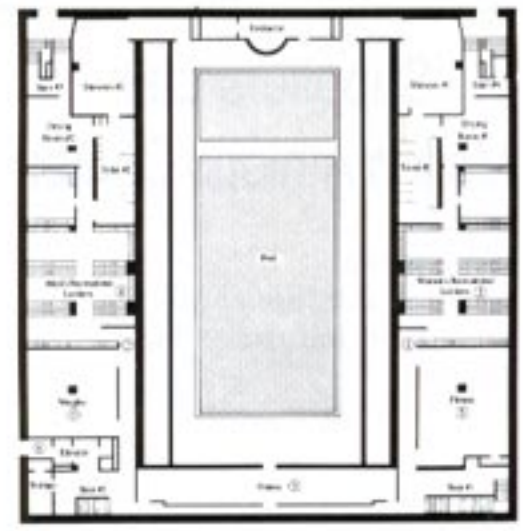
"We used mahogany instead of eastern pine," says Oommen, "because we thought mahogany would withstand the test of time."

New sash weights, brass chain and other hardware were needed to support the heavier weight of the double-paned glass, but the end result doubled the R-value without changing the center's exterior appearance.

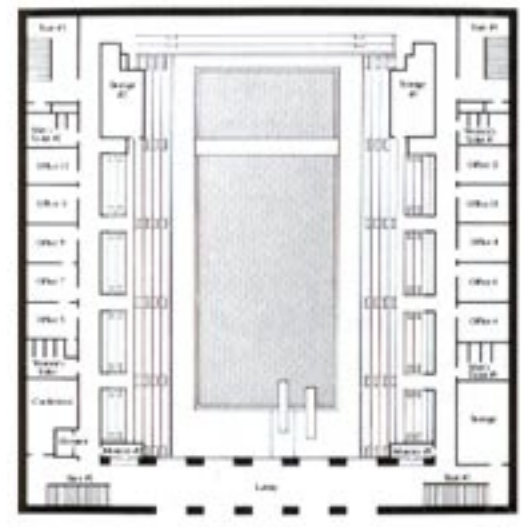
To compensate for the high cost of replacing the roof and windows, there were other areas that needed very little work.

"The project looks as if the whole building was renovated when, in fact, only certain portions had major work done on them, like the mezzanine above the pool, and those cost up to $140 per square foot," Oommen says.

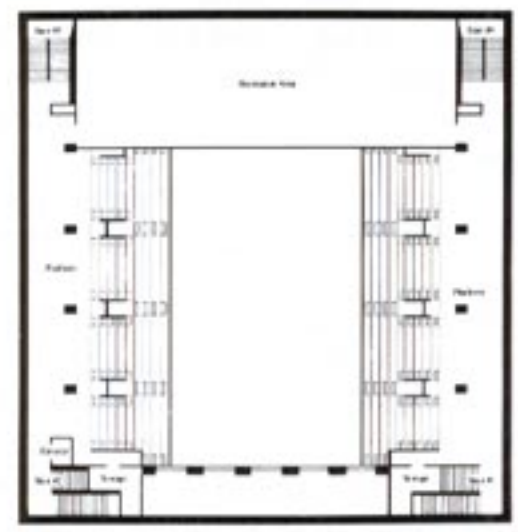
"But when you walk through the entire building, the end result is as if the whole project reads as one, major renovation." ■



BASEMENT



FIRST FLOOR



SECOND FLOOR

THIRD FLOOR

UPDATING THE OUTMODED AT $30 PER SQUARE FOOT

Renovation is never an inexpensive proposition, but with a little creative design, Harvard University's Malkin Athletic Center underwent a complete facelift for about $30 per square foot.

It was March 1930 when the Malkin Athletic Center, then known as the Indoor Athletic Center, was christened during the seventh annual NCAA swimming championships. The 120,000-square-foot Malkin Center was hailed as a state-of-the-art facility that would serve Harvard athletes for years to come.

Fifty-eight years later, having undergone a $4 million renovation, the Malkin Center should be around for many more years, but with some major changes.

The facility has been upgraded to serve the needs of not just varsity athletics (fencing and wrestling), but recreational activities as well, and it is no longer open exclusively to male athletes.

The Harvard building committee in charge of the renovation and architect Douglas Okun, principal of Douglas Okun and Associates Inc. of Cambridge, Mass., had a substantial piece of real estate to work with when they started the project.

Located in the core of the campus, the four-story-tall facility had been designed to fit in among four residential colleges constructed during the 1920s in the Georgian Revival style of architecture. The original architects—Coolidge, Shepley, Bullfinch and Abbott—molded the large, square building to complement the surrounding colleges. Its red brick, small-paned windows and pitched slate roof with rounded ventilation monitors that are capped with a balustraded top are reflected in many of the neighboring buildings.

"There was nothing wrong with the building as a building," says George Oommen, Harvard's senior property development officer and project manager for the Malkin renovation. "There was space that was underutilized, and there were windows and a roof that needed to be replaced."

A 1987 Facility of Merit

Photos by Douglas Okun

The Malkin Center's south facade after the renovation shows how Okun and the building committee respected the architectural integrity of the 54-year-old facility.

As was the case with the original construction, the renovation's primary source of funding was an anonymous donor. The facility was renamed for Harvard graduate Peter Malkin, who was the project's fundraising chairman.

CONTEMPORARY USES. There were two major reasons for renovating the Malkin Center. One was to improve the building's overall condition by giving it a fresh coat of paint, and installing new electrical, plumbing, ventilation, fire protection and handicapped access systems. The second reason was to make activity space meet contemporary needs.

Those needs included a 4,000-square-foot area for dance and aerobics and an additional 4,000 square feet for new weight, fitness and team rooms, as well as expanded fencing facilities and men's and women's locker rooms.

Early plans called for a one-story addition, but Okun came up with a better design that created new space and reclaimed underutilized areas without the need for an addition. The area needed for dance and aerobics was found by designing a mezzanine "bridge" over the small pool in the natatorium.

"This space had to be self-con-

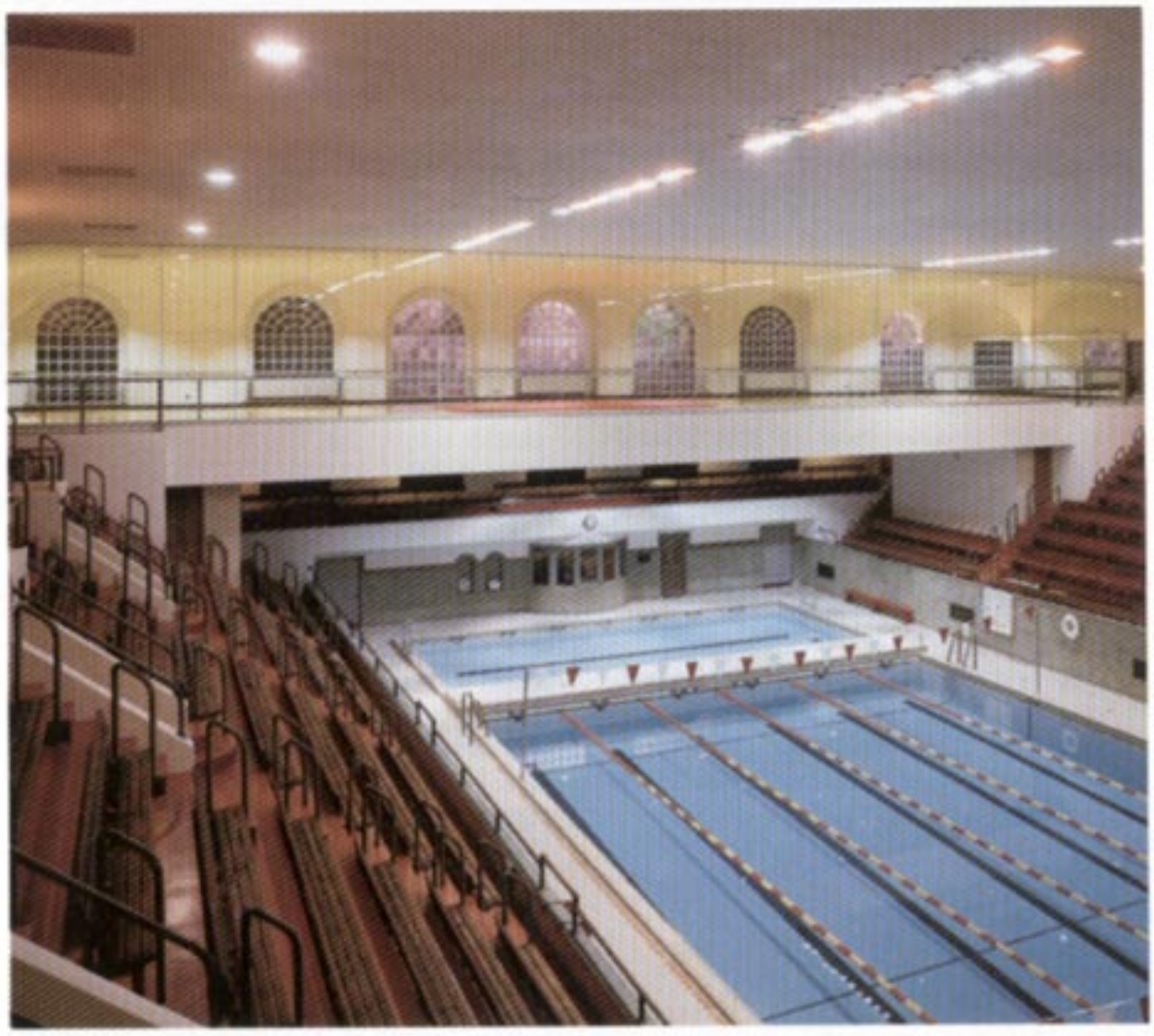
Suppliers List: Malkin Athletic Center

Gymnasium
Flooring (Multipurpose):
Gerland Industries Inc.
Lighting:
Abolite Lighting Inc.

Mezzanine
Flooring:
Robbins Inc.

Weight Training/Exercise Areas
Flooring:
Rubber Products Inc.
Multistation Machines:
Nautilus Sports/Medical Industries
Treadmills:
Tunturi

Support Facilities
Locker Rooms
Lockers:
Republic Storage Systems
Washroom Partitions:
Bobrick Washroom Equipment Inc.



Oommen says that "a great deal of attention was paid" to making sure that, while the mezzanine was "a big intrusion" in the pool, it was designed to be "very transparent." The mezzanine is enclosed by ¾-inch glass, making the windows beyond it visible from the pool. Its narrow design also helps make it a less imposing structure.

tained mechanically, structurally and acoustically," says Oommen. "It was of prime importance not to impair the spaciousness of the natatorium."

The solution was to design a narrow structure, enclosed by ¾-inch glass.

"The mezzanine was made very transparent by using glass, so that the windows beyond it are visible from the pool," Oommen says.

Approximately 2,000 square feet of new space was found by reclaiming basement storage areas and turning them into exercise rooms. A major space saver consisted of using four-tier lockers for assigned use and a limited number of full-size lockers for transient use.

Remaining space requirements were met by reorganizing existing spaces more efficiently.

Here are some of the highlights:

• Repair and restoration of the original slate roofing and copper flashing, cornices and gutters.

• Installation of new wooden windows, replicating the original windows, but with double-paned insulating glass and mahogany frames.

> "There was nothing wrong with the building as a building. There was space that was underutilized, and there were windows and a roof that needed to be replaced."

• Restoration of the three pairs of large entry doors using concealed electronic releases to avoid the need for panic bars.

"What we used was a very simple mechanism that you normally use in an automatic door-opening device at an airport," says Oommen.

• Removal of storm vestibules, security desks and various safety devices from the lobby to restore its original, more open look and use as an air lock. The security booth is now located through double doors at one end of the lobby and a surveillance camera is mounted just above the doors.

• Conversion of an existing grade level window into a handicapped entrance, thereby avoiding the need to build a cumbersome outside ramp.

With a budget of $30 per square foot (see sidebar), one-third was spent on replacing the windows, the slate roof and the electrical systems. The remaining $20 per square foot paid for upgrading the lockers, toilets and showers; building a new varsity fencing room, a new varsity wrestling room and the mezzanine; reclaiming underutilized basement space; refurbishing the swimming pool and basketball courts; and restoring the lobby.

"The completed project is as fresh and new as it was when it opened in 1930," says Oommen. ■