

Radius wood ceilings form a gorgeous halo above the main service desks on each floor.

Bookmarking the DPL's Newly Renovated South Wing

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Photos by Clayton Studio
Architectural + Interior Photography

Like opening a beautifully illustrated book, the Main Library of the Detroit Public Library's (DPL) recently renovated South Wing unfolds into a series of spaces, some crowned with Khaya mahogany drop ceilings and others lit by decorative, almost sculptural light fixtures. This new "chapter" in the life of the two-story wing, originally constructed in 1963, includes a type of living room for the entire city, complete with a double fireplace, soft chairs, and a wonderful view of the library's broad tree-dotted lawn facing Woodward Avenue. This municipal hearth segues into a computer hub before giving way to rows of low-rise bookshelves, each equipped with computerized directories

capable of pinpointing a book's exact location.

KEO & Associates, Inc., Detroit, renovated the 33,554-square-foot South Wing, turning a box-like space into a classic but contemporary venue in the heart of Detroit's Cultural Center. Frye Gillan Molinaro Architects, Ltd., Chicago, designed this inviting space, transforming the cavernous expanse - originally outfitted with white acoustical ceilings, fluorescent lights, rows of wood tables, and traditional bookcases - into a series of sophisticated living room-like areas and a technology hub with 100 computer stations and overlapping Wi-Fi coverage throughout the South Wing.

"It simply needed to be upgraded to better serve the community through an expansion of

the use of technology," said Cledos Powell, DPL assistant director for facilities. "People are looking for computer access, and they are also looking for a comfortable reading environment."

Whether one is bookmarking a Web page or an actual book, this transformed wing accommodates all users in an inviting, intimate and welcoming space. "Currently, library users are much more interested in a space with a more personal scale," said Lonn Frye, FAIA, principal of Frye Gillan Molinaro. "What we are trying to do in this magnificent library is reuse the space in such a way that it would attract people with a more intimate and less warehouse-like environment that feels more

like a living room or coffee shop.”

Without the use of partitions or bookcases and with limited signage, Frye Gillan Molinaro defined distinct spaces within the large footprint of each floor by using borders of faux wood rubber floor tiles, different types of seating and lighting, and wood drop ceilings in radial, square and rectangular islands. One particular ceiling is pure poetry in wood. Radius wood ceilings form a gorgeous halo above the main service desks on both floors. KEO & Associates meticulously framed and assembled the 60 pieces of wood whose beautiful grain now flows over these important focal points on each floor. This type of circular ceiling - composed of the straight-grained, reddish-brown Khaya mahogany tree native to East, West and Central Africa - has been used in only one other project in the United States, said Kojo Dom, KEO vice president, operations.

These wood drop ceilings take their place among a pantheon of wonderfully crafted ceilings and phenomenal workmanship within this Italianate-style library officially opened in 1921. The Khaya mahogany ceilings fit perfectly with this classic library and its tradition of wood usage. As an extremely durable wood, known for its decay-resistant properties, the Khaya mahogany ceilings will stand the test of time and become a perfect companion to the original oak panels still in place on some of the walls of the South Wing.

Clearly, aesthetics and technology are working together to draw the community into this wonderfully renovated South Wing. “We want the people of Detroit to come and use the library by making it so special that having seen the space they will start using the library more,” said Frye.

WORKING ON THE SAME PAGE

The owner, architect and contractor worked together closely to deliver this project.

The architect met with DPL staff to help forge its design, and after selecting KEO as lowest responsible bidder under Responsible Contractor Guidelines, DPL aided the construction process every step of the way.

KEO began work in March 2010, essentially gutting the entire interior of the South Wing and anticipating a demolition time frame of four to five weeks. DPL’s temporary rerouting of the employee entrance from the main level of the South Wing at Putnam Street to the lower level of the library gave KEO exclusive access to the space. “We originally intended to begin on the upper level and work our way to the main floor, but with the owner turning over the whole space to us, we were able to accomplish demolition in three weeks,” said Christopher Duru, KEO project superintendent.

The owner representative was on site daily facilitating the construction process. “DPL is probably the best owner we have ever worked with,” said Dom. Chris Onwuzurike, KEO

president and CEO, also praised the architect’s accessibility and timeliness. “They responded to approvals in a timely manner, so we could maintain the schedule,” said Onwuzurike.

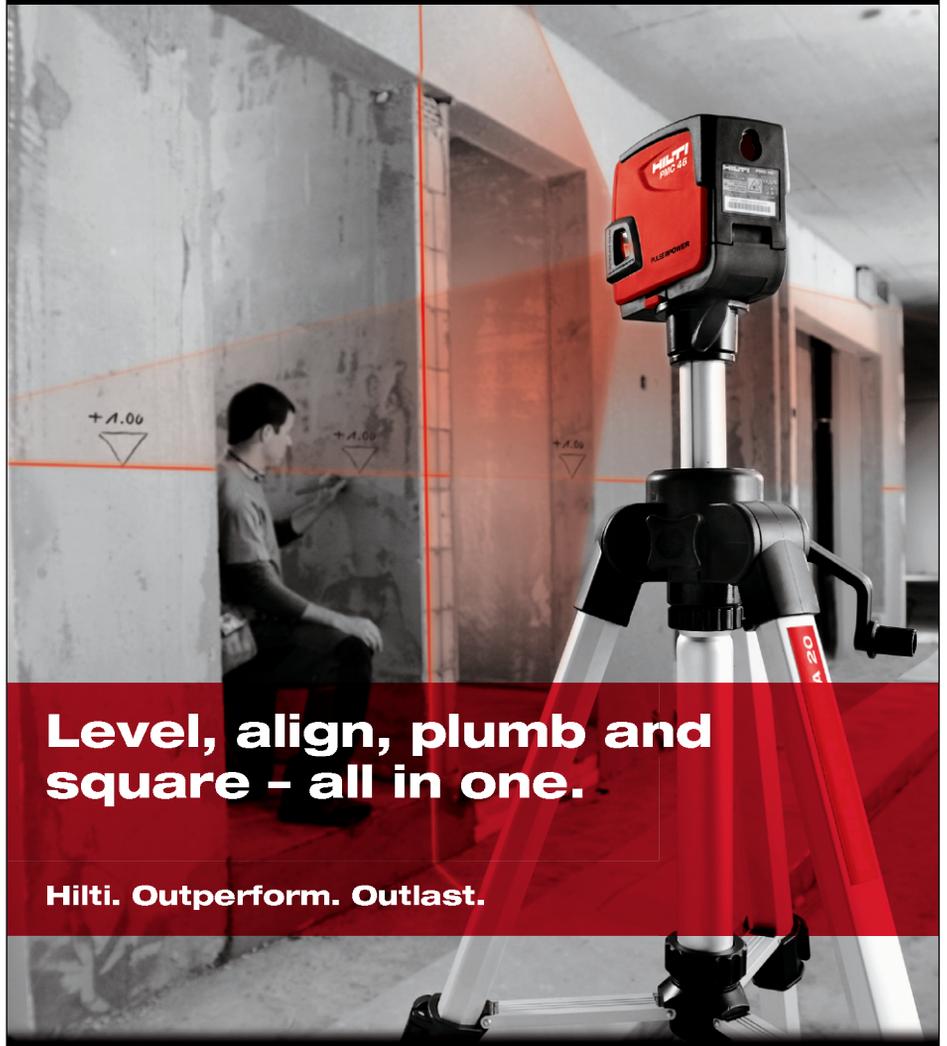
KEO and the architect also worked together closely on threading new data and conduit into the space. In bringing the South Wing into the 21st Century, KEO & Associates and Frye Gillan Molinaro had to grapple with a waffle floor slab common to library construction in the 1960s. As the name suggests, the floor slabs on the

main and second level resemble a waffle iron in concrete.

As the floor of choice in the ‘60s, the waffle slab structural system allows for fewer columns and increased flexibility for bookstack layouts. In today’s flexible and tech-savvy spaces, working with the cumbersome waffle slab proved challenging. “The very deep ridges of solid concrete were more or less impenetrable as far as creating ‘poke-throughs’ for new conduit and data,” said AJ Rosales, AIA LEED AP

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Double fireplaces offer comfortable reading areas on both levels of the South Wing.

BD+C, principal of Frye Gillan Molinaro. "We had to figure out a way to work around the ridges of the waffle slab when locating furniture, data and power." The team also had to avoid the solid 12-inch slabs of concrete spread out in a five-foot radius around every interior column.

Frye Gillan Molinaro extensively surveyed the waffle slab configuration, first plotting the furniture layout and then the actual location of drill holes in the troughs rather than the ridges of the waffle floor slab. KEO worked closely with the architect in drilling approximately 100 strategic core borings through the concrete to provide electrical service to staff workstations and public computer stations. For the main floor, KEO had to wet core the slab, first assembling a crew to protect the thousands of books in the basement below from any water or concrete debris, added Duru.

FRAMING THE BIGGEST BOOK NOOK IN THE CITY

Framing the drop ceilings took the same exacting approach. The Khaya mahogany pieces were fabricated overseas in Holland and had a lead time of six months. For KEO, the challenge was framing the radius ceilings, along with the other square and rectangular drops, without having the actual pieces on

hand. "We followed the shop drawings, but there could be no mistakes in the framing," said Duru. "Eighty percent of the job was getting the framing for the wood drop ceilings in place to allow for installation of the electrical and mechanical systems. These systems were then roughed in and inspected, while we were waiting for the actual wood pieces to arrive onsite."

Achieving the perfect fit of wood ceilings, building systems, and lighting, along with the installation of a fire suppression system midway through the project, turned these broad expanses of ceiling into a jigsaw puzzle of the highest level. "The wood drop ceilings were already pre-manufactured, and we understood that there could be no new penetrations allowed," said Onwuzurike. "There was a lot of pre-installation to make sure it all fit before we did the final installation."

As a piece of the "puzzle" thrown midway into the mix, the fire suppression system with its array of sprinkler heads had to be coordinated with existing drawings and placed to avoid the wood ceilings. "The fire marshal worked with us, but they were very specific in how it should be placed and how much area the sprinkler head should cover," said Powell.

The actual assembly of all the wood drop

ceilings took two months. "Once the wood arrived, there was no room for mistakes in assembling the different pieces," said Onwuzurike. Plus, the wood ceilings differ on each floor. Instead of distinct islands, rectangular ceilings directly link to the radius ceiling over the second floor service desk.

This elaborate orchestration of materials and systems continued throughout the project. "The sequencing of the work was very important, because of the sensitivity of some of the materials," said Onwuzurike. In particular, KEO had to avoid any potential damage to the wood ceilings and the delicate light fixtures. KEO even painted the ceiling before installing the light fixtures, making these decorative, sculptural elements the last item installed in the project.

THE FINAL BOOK REPORT

Coupled with quality craftsmanship, KEO delivered this community showpiece on time and under budget. "Our primary goal is to keep the schedule and budget under control," said Onwuzurike. "We don't go out there fighting for change orders. We stick to getting the work done, and that is what we did on this project."

Substantial completion of the project was in January 2011. KEO also came in under budget under DPL's two-pronged budget structure. The construction budget is reserved for the core construction work. A separate budget pool tracked such items as asbestos, the pulling of data cables, and items falling into the change order category, said Powell.

"We don't track asbestos as part of the construction contract," said Powell. "We don't penalize the contractor. What we do is keep a separate log for such things, and we pay for it out of a separate kitty. We have a budget established for that, but we also say, 'We will not accept more than maybe five, 10 or 15 percent in change orders. Did the actual construction come in on budget? Yes it did. Did the change orders come in under our budget? Yes it did.'"

FIRESIDE CHAT

The newly transformed South Wing opened to the public on May 2, 2011. Detroit's latest public gathering space will welcome visitors with its custom designed wall paper, iconic wall panels, and double fireplaces with decorative ceramic tile. Beyond a fireplace, the boundaries of this "living room" are marked by a double border of rubber faux wood tile that replicates the look of a rug around the hearth. Frye Gillan Molinaro originally intended to use actual rugs in this space, but opted for durable, easy-maintenance tiles as a creative and cost-effective design solution. As an added amenity, a mere touch of a button draws down a projection screen for use during small meetings.

On the main floor, a series of glass-fronted study rooms offer auditory privacy for conversation and small gatherings. "The glass aids security and also brings daylight into the space," said Frye. On the upper level, support spaces, painted a vibrant orange, house library storage and the printer and copier room.

Of course, the renovated Wing leaves plenty of room for that mainstay of libraries – the bookshelf. KEO refinished and restored six hardwood book casings but replaced the shelving with light-colored metal for contrast and to blend the library's past and present. Last but not least, the South Wing hosts an extensive magazine collection on the main level that is specially illuminated to attract the eye of the library visitor and ease actual reading.

The entire wing is easy on the eye and easy on energy usage with its computerized lighting system and T5 energy-efficient fixtures. In other sustainability measures, the flooring finishes, some of the furniture, and even the ceiling tile have either recycled content or are low VOC, added Rosales. In terms of the mechanical system, "we also augmented the air-conditioning system for the South Wing," said Powell. Some existing heating and cooling systems were updated to better integrate with new electrical and mechanical components, as well.

Bringing the South Wing into the 21st Century may also bring more Midtown residents, Wayne State University students, and other people, businesses and institutions from Detroit and surrounding regions to visit, use and value this cultural gem right on their own door step. Just as Internet users bookmark their favorite websites, the public may soon select DPL's newly renovated South Wing as one of their favorite places in Detroit's Cultural Center.

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