Timber Lofts



Milwaukee's First Mass Timber Building





Adaptive reuse project reimagined with mass timber.

It has been said that the greenest buildings are the ones that already exist. [1] Whether for sustainability reasons, or to preserve cultural heritage, adapting historic buildings for modern uses can create new community beacons that help achieve smart growth. [2]

'Adaptive reuse' is the process of redeveloping structurally sound older buildings for economically viable modern uses^[3], infusing new life into a historic shell. An alternative to new construction, adaptive reuse can allow a project to significantly reduce its embodied carbon as well as the volume of materials sent to landfill through the construction process. ^{[4][5]} Today, historic districts around the country are experiencing revitalization as cities renovate past cultural monuments as anchors for redevelopment. Adaptive reuse projects uniquely preserve authentic qualities of the built environment that provide a tangible link with the past.

Something Old is New Again

Walker's Point is said to be one of the few remaining well-preserved neighborhoods in Milwaukee, WI. [6] This historic district lies just south of downtown, showcasing its architectural roots through Greek revival, Federal and Italianate-style single family homes, and warehouse space dating back to the mid-1800s. Today, this diverse working class neighborhood has some of the "city's best nightclubs alongside award-winning restaurants and locally-made artisan food products." [7]

A direct reflection of its historic, yet trendsetting locale, Milwaukee's first mass timber building, <u>Timber Lofts</u>, is an adaptive reuse project that combines a 130-year-old warehouse renovation with new construction in an adjacent parcel. The two structures unite to create a 60-unit multifamily complex with ground-floor retail, walking distance to nearby amenities.

The building's historic status, decreed by the National Park Service (NPS), opened access to \$2 million grant for the property's renovation. However, the marriage of old and new added complexity to both the design and approval process. In response, architects Engberg Anderson's unique vision aimed to define a contemporary architectural character for the building's new addition without distracting from the timeless aesthetic of the existing artifact. They struck a balance with mass timber.

"We chose mass timber for a number of reasons, It's a more sustainable construction method because wood is a renewable resource, and it also creates that warm look. It also shaved 20% off [the time of] our construction schedule. I would use mass timber again in any part of town."

ANN PIPER EISENBROWN
OWNER - PRESIDENT, PIPER PROPERTIES - TIMBER LOFTS

"The idea from the onset was to harmonize the existing building with new construction," said Tim Wolosz, principal at Engberg Anderson. "The [developer and contractor] wanted to use cross-laminated timber (CLT), and I was thrilled. We were excited about the technology of mass timber and the opportunities it could provide."



Connecting Past and Future

One of the defining characteristics of the ambitious five-story, 28,000-square-foot renovation was to preserve and reuse original wood flooring from the historic landmark. Individual boards were meticulously deconstructed, stacked, and set aside for cleaning and sandblasting to remove paint, exposing the wood's maple grain. After subflooring and sound control materials were added, the original wood floor was reinstalled.

"We took a lot of time in making sure there was a seamless transition from the existing structure to to the new building."

DAN WOOD
PROJECT SUPERINTENDENT FOR CATALYST CONSTRUCTION,
TIMBER LOFTS CONTRACTOR

"And you can see it right away...rustic timber beams and original hardwood flooring in the historic building, complemented by warm, raw CLT in the new structure." (While Timber Lofts was the mass timber project completed by Catalyst, the idea to use CLT stemmed from their much-anticipated and highly publicized Ascent project, a 25-story mass timber high rise currently under construction in Milwaukee.)

In addition to the reclaimed wood floor, the original arched window openings, rolling fire doors, and exposed heavy timber frame - including wood joist rafters - also were preserved. A new perforated opening on the southwest side of the historic warehouse helps bridge the architectural gap to its intentionally smaller four-story addition. Here, a modern lobby greets residents and visitors with an open floor plan, including exposed CLT ceilings supported by steel post and beam and complemented by an up-lit, lattice accent wall featuring the building initials. Oversize windows provide ample sunlight and clear views of exposed CLT floors and ceilings in the remaining three levels. Interior walls are stick frame construction.

Mass timber panels were installed without additional stain or sealants to highlight the pine's natural blonde finish. Clean white walls provide a modern contrast to the natural wood surroundings. Outside, a charcoal brick façade harmonizes with the native Cream City brick of its historic neighbor.



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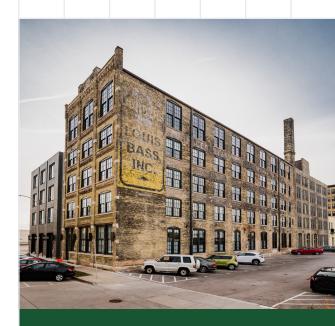


Connecting Past and Future

Material cost also was a consideration when choosing mass timber, and one that proved to pencil out. The big myth for us was that mass timber is expensive," said Wolosz. "The reality is, there is a lot to gain by offsetting costs. For example, less interstitial space between floors translates into less exterior material plus a reduction in components like resilient channels and insulation. When you start multiplying those savings by 400 square feet around the building, you see the true cost savings potential of mass timber. Now we're huge fans. For every new project I start, I propose CLT as an option to consider."

The Timber Lofts project was completed in Spring 2020, offering studio, one-bedroom and two-bedroom apartments. Residential units were 90% leased six months after opening and retail leasing is expected to increase after the pandemic.

"Walker's Point is a very diverse neighborhood, and existing residents and businesses feel strongly about keeping it that way," concluded Eisenbrown. "We received many compliments from people in the neighborhood about how beautiful that addition is. And I think that's a major accomplishment because it's not just about looking historic or just looking like the neighborhood. We want to harmonize. That's what keeps it interesting."



Project Details

Architect

Engberg Anderson Architects

Develope

Pieper Properties

Location

Milwaukee, WI

Contractor

Catalyst Construction

magery

Roost Photograpy, courtesy of Engberg Anderson

Construction Status Completed in 2020

- [1] https://www.architectmagazine.com/design/renovation-restoration-and-adaptive-reuse-the-understated-value-of-existing-buildings_o
- [2] https://www.epa.gov/smartgrowth/smart-growth-and-preservation-existing-and-historic-buildings#1
- [3] http://sig.urbanismosevilla.org/Sevilla.art/SevLab/r001US1_files/r001_US_1.pdf
- [4] https://www.architectmagazine.com/practice/the-language-of-carbon_o
- [5] https://authenticff.com/journal/repurposing-historic-gems-why-adaptive-reuse-matters
- [6] http://www.neighborhoodsinmilwaukee.org/Walker%27s%20Point.pdf
- [7] https://www.visitmilwaukee.org/neighborhoods/walkers-point/

Sources

