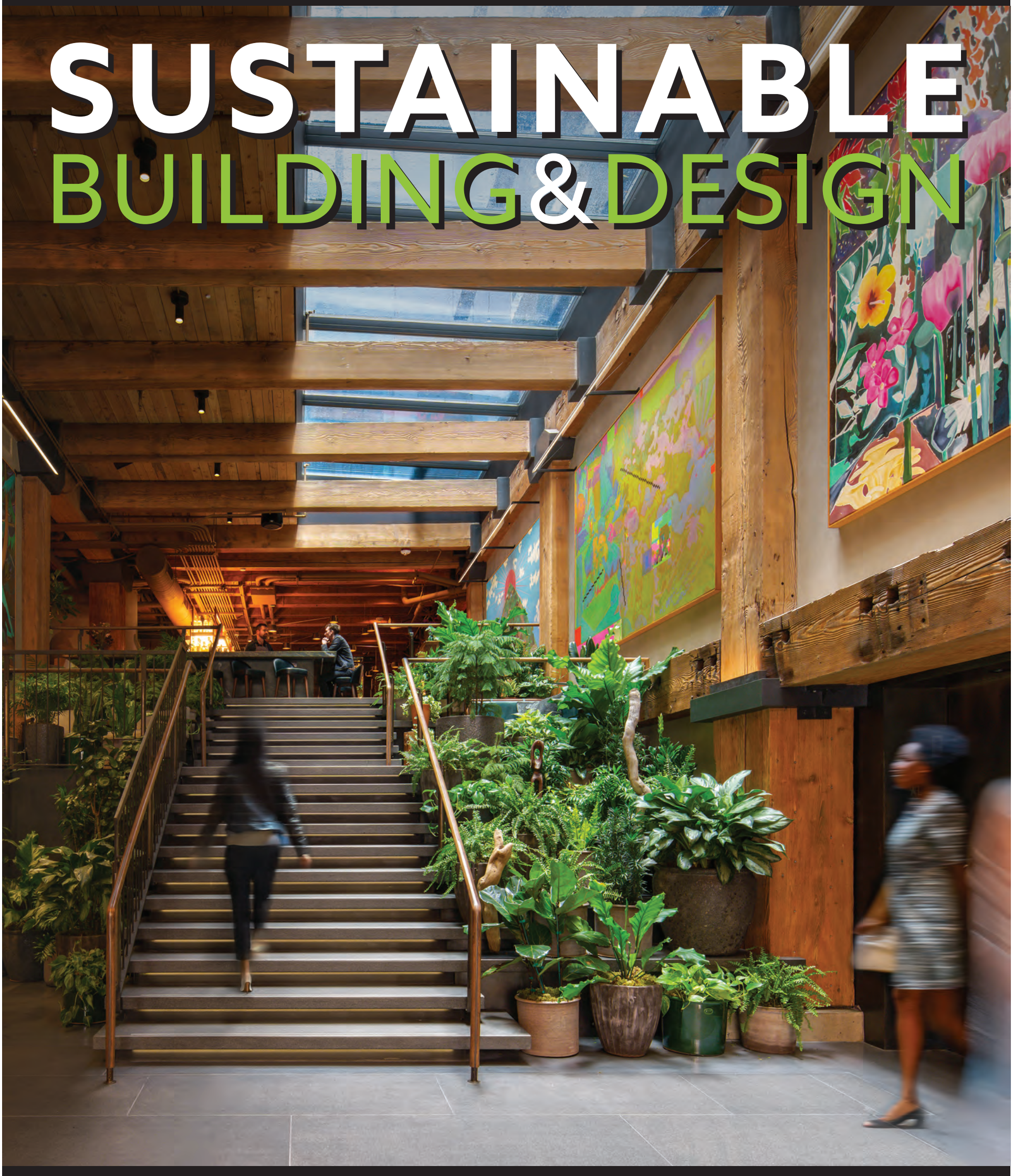
Seattle Daily Journal of Commerce

# SUSTAINABLE BUILDING & DESIGN



November 20, 2025

# REVIVING A HISTORIC PIONEER SQUARE BUILDING FOR COMMUNITY AND CLIMATE

## Adaptive reuse and ultra-low energy design transform the Metropole Building into a nonprofit hub.

The Metropole's original Tenino sandstone and brick facades were restored, and missing upper floors were reconstructed, preserving the building's historic character and neighborhood presence.

PHOTOS BY DOUG WALKER

After 17 years of vacancy and extensive damage from fire, earthquakes and weather, the 1892 Metropole Building has been given new life. Working with our client, the Satterberg Foundation, our design team, and the contractor team, we have transformed this historic Pioneer Square landmark into a center for nonprofit organizations advancing equity and community resilience. Through a blend of preservation, high-performance design, and social purpose, the project shows how restoring the past can help build a more sustainable and just future.

BY MATT AALFS
BUILDINGWORK

### A COMMUNITY-FIRST APPROACH

The building's mixed-use program was shaped by extensive engagement with nonprofit leaders, community advocates, and local residents. Through focus groups, interviews, and public meetings, we identified key needs, including affordable child care, office space for nonprofits, conference and event facilities, cultural and arts spaces, and a community kitchen. These priorities guided design decisions and ensured that the building would serve as a long-term resource for underserved communities at risk of displacement in downtown Seattle.

### HISTORIC PRESERVATION MEETS TECHNICAL INNOVATION

Exterior restoration work repaired the building's earth-

## PROJECT TEAM

**Client:**
Satterberg Foundation

**Architect:**
BuildingWork

**Contractor:**
W.G. Clark

**Structural engineer:**
Swenson Say Faget

**Civil engineer:**
LPD Engineering

**Mechanical engineer:**
Ecotope

**Electrical engineer:**
TFWB

**Lighting designer:**
DarkLight

**Acoustic consultant:**
SSA Acoustics

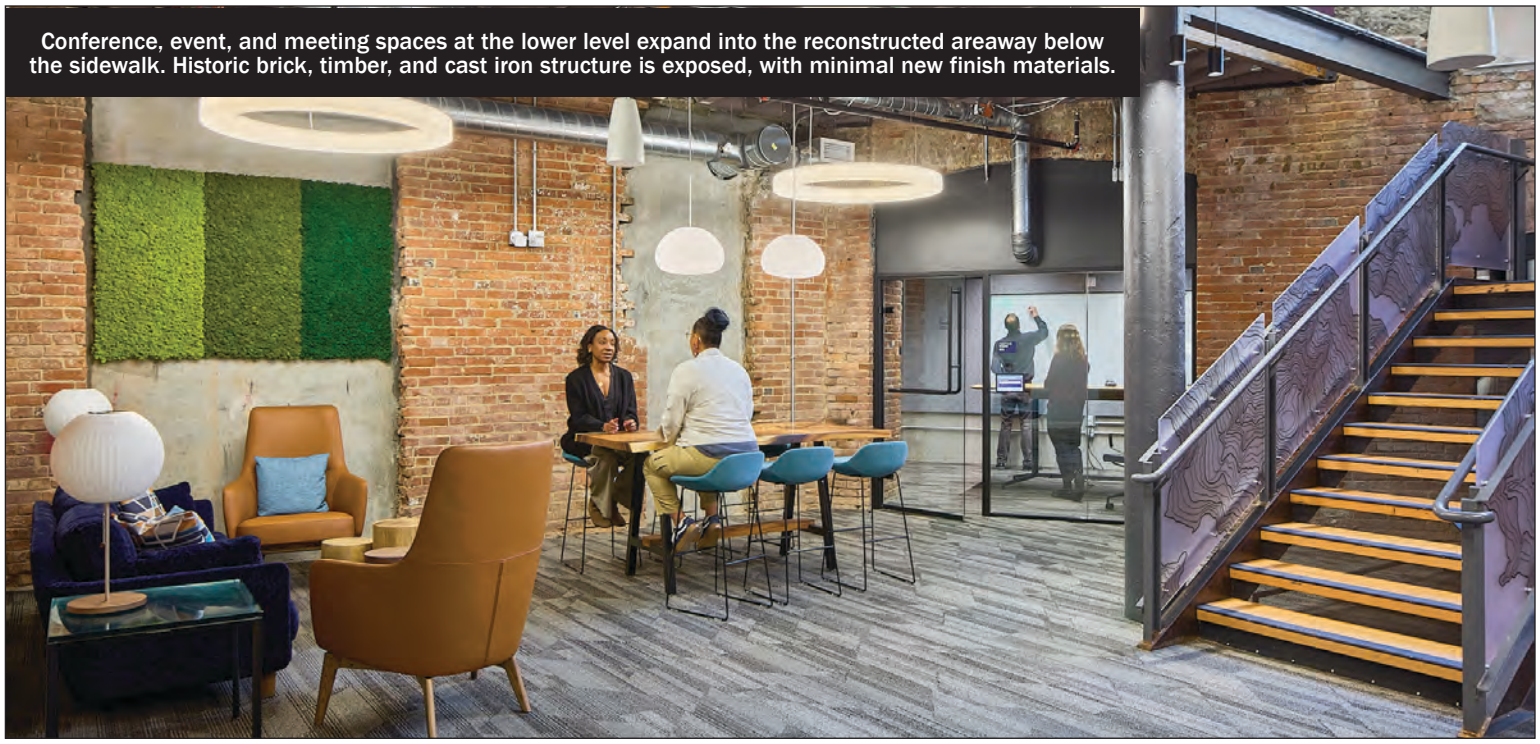
**Historic masonry consultant:**
Speweik Preservation

**Envelope consultant:**
RDH

**LEED consultant:**
O'Brien360

**Specifications:**
ABI

**Landscape architect:**
KKLA



Conference, event, and meeting spaces at the lower level expand into the reconstructed areaway below the sidewalk. Historic brick, timber, and cast iron structure is exposed, with minimal new finish materials.

quake-damaged masonry structure, preserved the original Tenino sandstone and brick facades, and reconstructed missing architectural elements, including the cornice and prism glass skylights in the sidewalk that illuminate the basement. Two upper floors that collapsed during the 1949 earthquake were reconstructed as well.

Inside, we preserved exposed brick, stone, timber, and steel while minimizing new finishes to reduce embodied carbon and maintain material integrity. Historic cast iron columns and heavy timber framing were restored and reused wherever possible. New additions—a fire-rated glass-enclosed stairwell, rooftop terraces, and rehabilitated sidewalk areaways—support code compliance and enhance the experience of building tenants and users.

The building's structure required a careful blend of preservation and technical upgrades. A hybrid approach to the seismic retrofit combines new steel moment frames and concrete shear walls with strengthened and repaired 135-year-old masonry walls. The team used 3D scanning and BIM to document existing conditions, guiding the restoration and reconstruction process to maintain historic character while meeting contemporary safety standards.

## SUSTAINABILITY LEADERSHIP THROUGH COMMUNITY IMPACT

The Metropole Building's environmental and energy performance is exceptional. With LEED Platinum certification and an Energy Use Intensity (EUI) of just 18, the building ranks among Seattle's lowest-energy-use buildings across all sectors. An innovative HVAC system combines air-to-water heat pumps, hydronic radiant heating, and passive chilled beam cooling, with a dedicated, very high efficiency outside air heat recovery system.

Natural ventilation is managed with green light / red light displays in each space, which guide occupants to operate windows in coordination with the HVAC system, supporting comfort and energy efficiency. A new triple-glazed wood curtainwall system at the street level and triple-glazed double-hung wood windows at the upper levels help make a tight thermal envelope. Overall, the building offers a 65% reduction in energy use compared to the baseline.

On-site photovoltaic arrays with battery storage supply over 10% of the building's energy needs, and fossil fuel use and Red List materials were eliminated. Water-saving strategies reduce potable water use by over 40%, while reflective and vegetated roof surfaces help mitigate urban heat island effects. Minimal use of added new finishes, reuse of existing historic materials, and careful material selection further reduce carbon impact while promoting occupant health. Alternative transportation is supported with bike storage, showers, and access to public transit.

Through these strategies, sustainability extends beyond energy performance. By supporting nonprofit organizations focused on equity, social justice, and cultural preservation, the building strengthens community resilience and ensures that environmental improvements benefit people as well as the planet.

## BALANCING PRESERVATION, MODERN CODES AND COMMUNITY NEEDS

Navigating historic preservation requirements, accessibility, seismic upgrades, and sustainability goals proved to be a complex set of challenges. Throughout six years of design, permitting, and construction, we continually balanced these priorities with the needs of the community. The project demonstrates that historic adaptive reuse can achieve cutting-edge environmental performance while reinforcing cultural identity and social equity.

## A CIVIC ANCHOR FOR EQUITY AND INCLUSION

Today, the Metropole Building is a hub for nonprofit tenants and public-facing amenities, including a child care center, community kitchen, conference and event spaces, and arts venues. A permanent art collection, curated with input from local artists and community advocates, celebrates cultural heritage and reinforces inclusivity.

By restoring a long-vacant historic building and embedding it with equity-centered programming, the project shows that adaptive reuse can advance climate action, social equity, and urban resilience simultaneously. The Metropole sets a precedent for how historic structures can be transformed into low-energy, community-centered facilities without losing their essential character.

## LOOKING AHEAD

The Metropole Building Project exemplifies the potential for historic buildings to serve as engines for social, environmental, and cultural impact. Its combination of innovative engineering, sustainable design, and community-first programming positions it as a model for adaptive reuse in urban historic districts, illustrating how preservation and sustainability can create meaningful social, environmental, and cultural benefits.

*Matt Aalfs is the founder of BuildingWork, where he leads the design of civic, community, adaptive reuse and historic preservation projects that advance environmental, cultural and social impact.*

## INSIDE



## ON THE COVER

Exposed original timber beams and wood decking celebrate the Westland Building's industrial heritage while bringing natural warmth and biophilic character to the hotel interior. PHOTO BY MILLER HULL - DUY DANG

## DJC TEAM

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WEB DESIGN: LISA LANNIGAN • ADVERTISING: MATT BROWN

# MITIGATION BANKING: A NEW SUSTAINABLE DEVELOPMENT MODEL

Sustainable land and infrastructure development goes beyond a project's material and energy footprint to consider how it interacts with the broader landscape.

BY MICHELLE HAVEY & DAN BERLIN
ANCHOR QEA

The Port of Tacoma's Upper Clear Creek Wetland Mitigation Site restored 41 acres of degraded wetlands and re-routed Clear Creek to restore fish habitat, connect to historic floodplain areas, and reduce flood risk.

IMAGE COURTESY OF PORT OF TACOMA

In the Pacific Northwest, sustainability is no longer just about how and what we build; it's also about what we restore. From wetlands near Olympia to stream corridors in Pierce County and waterfronts along Puget Sound, a growing number of public agencies and developers are investing in mitigation strategies that offset the ecological footprint of construction and preserve the region's natural resilience.

These programs represent a new model of sustainable development. Rather than treating environmental restoration as an unavoidable cost of doing business, mitigation programs view it as an asset with tangible economic value and long-term community benefit.

## RETHINKING WHAT "SUSTAINABLE BUILDING" MEANS

Traditionally, sustainable building focused on the footprint of a structure, including materials, energy use and emissions. But for land and infrastructure development, sustainability also depends on how a project interacts with the broader landscape. For example, wetlands that filter stormwater, riparian areas that protect against flooding, and habitats that sustain fish and wildlife.

Ports, counties and municipalities throughout Washington are rethinking how to meet sustainability goals and regulations more efficiently and effectively. Rather than handling mitigation individually for each project or concurrently at the time of impacts, many are investing in larger-scale restoration projects that can serve multiple developments and agencies, as well as entire watersheds.

This approach protects valuable habitat while providing greater regulatory certainty and cost predictability, factors that are attractive to both the public and private sectors.

## MITIGATION BANKING AND A SMARTER WAY TO BUILD

Mitigation banking has become a cornerstone of this shift toward building sustainably at the watershed scale. At its core, mitigation banking is a market-based system that restores or creates large tracts of wetland, stream or shoreline habitat in advance of future development. Once a project is approved by environmental regulators, the restored site generates measurable ecological "credits." Each credit represents a quantified habitat improvement, such as restored wetland acreage or enhanced habitat function for salmon, that can be purchased by a developer to offset an equivalent impact.

This is a mutually beneficial arrangement. Developers receive a reliable, pre-approved mitigation option, and the environment gains high-quality, consolidated restoration instead of fragmented, site-specific mitigation that has a higher risk of failure. In practical terms, it's faster and less risky for builders, and it results in larger, more ecologically valuable restoration projects for communities.

The Kitsap Nearshore Umbrella Mitigation Bank near Bremerton will remove historic fill at multiple sites to restore valuable marsh habitat, including along the Ross Creek estuary, creating highly functioning off-channel habitat for salmon.

PHOTO BY ANCHOR QEA

In Washington, mitigation banks have been established for wetlands, aquatic resources and fish habitat. Projects in places like Bear Creek in Bellingham and Upper Clear Creek in Tacoma demonstrate how different landscape types—including freshwater wetlands, riparian corridors and nearshore marshes—can be restored under this model. Each site creates measurable ecological benefits, verified through long-term monitoring and adaptive management.

## UNDERSTANDING THE BROADER FRAMEWORK

Mitigation banking is one part of a larger shift toward

consolidated, supervised mitigation programs. A number of emerging mitigation programs share a common principle: restore first, build later. The distinction lies in who sponsors the work and how it's funded.

Mitigation banks are typically created by public agencies, private developers or joint ventures that invest their own capital to build restoration projects in advance. Once approved—which can take a considerable amount of time and effort—they sell credits on the open market to offset impacts from other developments.

Advance mitigation projects are usually led by cities, counties or municipal agencies that anticipate their own future needs. Rather than selling credits, these public agencies create restoration sites in advance to offset environmental impacts from upcoming projects. The goal is to save time by reducing permitting uncertainty and potential delays to planned development, and also to achieve better ecological outcomes. The earlier these projects are built, the more valuable they become.

In-lieu fee (ILF) programs offer a third approach. In these programs, developers that can't find a suitable mitigation site pay a fee to a county or nonprofit sponsor, which pools the money to build larger, regional restoration projects.

The Pierce County In-Lieu Fee Program has developed a 16-acre wetland mitigation receiving site to improve water quality, hydrologic, and habitat function within the Chambers/Clover Watershed.

IMAGE BY ANCHOR QEA

## REGIONAL SOLUTIONS FOR SHARED IMPACTS

ILF programs in Pierce County, King County and Hood Canal offer important options for developers to offset unavoidable impacts. Credit sales from these programs have funded important projects that restore wetlands, streams and fish habitat on a regional basis. By ensuring that funds are used efficiently and restoration occurs where it will have the most benefit, ILF programs demonstrate how sustainability depends not only on ecological design, but also on sound governance and management.

Together, these three mechanisms form a novel framework for sustainable development: one that replaces piecemeal, project-by-project mitigation with coordinated investments that deliver broader public benefit.

## BEYOND THE SHORELINE: RESTORING INLAND ECOSYSTEMS

While Puget Sound shorelines often draw the spotlight, much of the region's mitigation work happens inland. Wetlands, streams and riparian corridors in growing suburban and rural areas are being restored to offset road extensions, industrial parks and public works improvements.

For example:

The **Bellingham Mitigation Bank** proposes to protect 95 acres of forested habitat that will significantly enhance habitat connectivity and open space along Bear Creek.

Near Bremerton, the **Kitsap Nearshore Umbrella Mitigation Bank** will remove historic fill at multiple sites to restore valuable marsh habitat, including along the Ross Creek estuary. This will create highly functioning off-channel habitat for salmon.

In Pierce County, Port of Tacoma's **Upper Clear Creek Mitigation Site** restored 41 acres of degraded wetlands and re-routed Clear Creek to restore fish habitat, connect the wetland to historic floodplain areas, and reduce flood risk for nearby communities.

These projects reflect a broader understanding of sustainable development. While building projects still revolve mostly around where people live and work, they must also account for the ways in which these environments interact with and support the natural systems around them.

## URBAN RESTORATION AND THE VALUE OF SCARCITY

Urban environments present unique opportunities and constraints for environmental restoration. Land values are high, available space is limited, and environmental degradation is often severe. Yet these conditions can make restoration even more valuable.

Recent efforts by the city of Seattle, Port of Seattle and Port of Tacoma have shown that small, strategically located projects, such as eelgrass restoration, shoreline benches or marsh restoration along estuaries, can provide critical ecosystem services in dense areas. Regulators are responding with more flexible rules that emphasize functional performance over acreage, allowing urban projects to qualify for mitigation credits when they deliver measurable ecological results.

This evolution underscores

MITIGATION BANKING — PAGE 19

Landscape view of the city of Goldendale, Wash.

PHOTO BY STEVE MODDEMEYER

# PLANNING FOR RESILIENCE: HOW TO CREATE LASTING, SUSTAINABLE COMMUNITIES

Embracing diversity, building trust, and reinforcing the identity of a community all play an important role in helping accelerate recovery after a disaster.

BY STEVE MODDEMEYER & KRISTINA RIVERA
COLLINSWOERMAN

The investments we make today to design our projects and cities, plan our infrastructure, and engage with our communities will create a more sustainable future.

We are living through a moment of profound transformation that is propelled by climate disruption, rapid technological shifts and evolving social needs. The uncomfortable truth is the systems we rely on — from infrastructure and governance to ecology and economy — are being destabilized by climate disruption, rapid technological change, and polarized social systems. It is our responsibility to observe the challenges, orient toward our shared values, work with our communities, and create appropriate structures and actions during this time of turbulence.

The following are key principles of resiliency we can embed in our projects that will create more sustainable communities in the future.

## INVEST IN PUBLIC AND PRIVATE RESOURCES

As climate conditions shift, infrastructure ages, and social dynamics outpace policy, our planning and design processes must evolve to meet an uncertain future.

First, we need to build flexibility into the systems we design. That means anticipating systems and design thresholds to fail and creating infrastructure that can adapt or regain functionality quickly and gracefully. It also means phasing large-scale projects to allow for adjustments as conditions change and new information emerges.

Our approach to resilience must center recovery strategies, especially for communities who are already recovering from previous events. We too often plan only for the moment of impact, not the long road that follows. When we account for social inequity, capacity to adapt, and the challenges for long-term recovery, we help communities emerge stronger and more connected, rather than permanently set back.

## REDEFINE RESILIENCE

One way we can measure resilience is by how quickly and effectively a community can recover while retaining its core identity.

An example of this is the Resilient Design Performance Standard we co-developed with consulting engineer Chris Poland for the Boulder, Colo, CDBG-DR Collaborative. In this project, we worked directly with communities to set clear recovery time goals for infrastructure, based on their local priorities.

Through this process, communities identified the interdependencies between systems that might otherwise delay their return to normalcy after a disaster.

More importantly, it gave infrastructure design teams a structured way to consider social and ecological resilience in their decision-making. Planning for what happens after systems fail and then guiding how quickly they recover is essential.

This work isn't limited to theory. For over a decade, we've applied these principles in real communities across Washington, from Whatcom, Skagit and Pierce counties to Goldendale, La Conner and Seattle. Each project reflects a shared understanding that recovery planning is just as important as resistance, and that designing for resilience means designing with foresight and empathy.

## START WITH SHARED VALUES

When people see their priorities reflected in tangible projects, they are more likely to support them, advocate for funding, and help carry them through implementation. This shift from technical solutions to community-rooted planning makes a measurable difference in long-term outcomes.

Shared values begin by asking people to define the values that define them: what they want their community to stand for, protect, and build toward. From there, we explore how those values can inform planning and design choices.

For example, CollinsWoerman worked with Pierce County to come up with a solution for persistent flooding in lower Clear Creek, where years of debate had stalled progress among landowners, the Puyallup Tribe, and local residents. Through a collaborative value planning workshop, stakeholders identified a shared solution — replacing a costly levee plan with a bridge concept first proposed by a Tribe member — that ultimately saved over $30 million and

created a more sustainable, community-driven outcome.

## CREATE SCALABLE, LOCAL SOLUTIONS

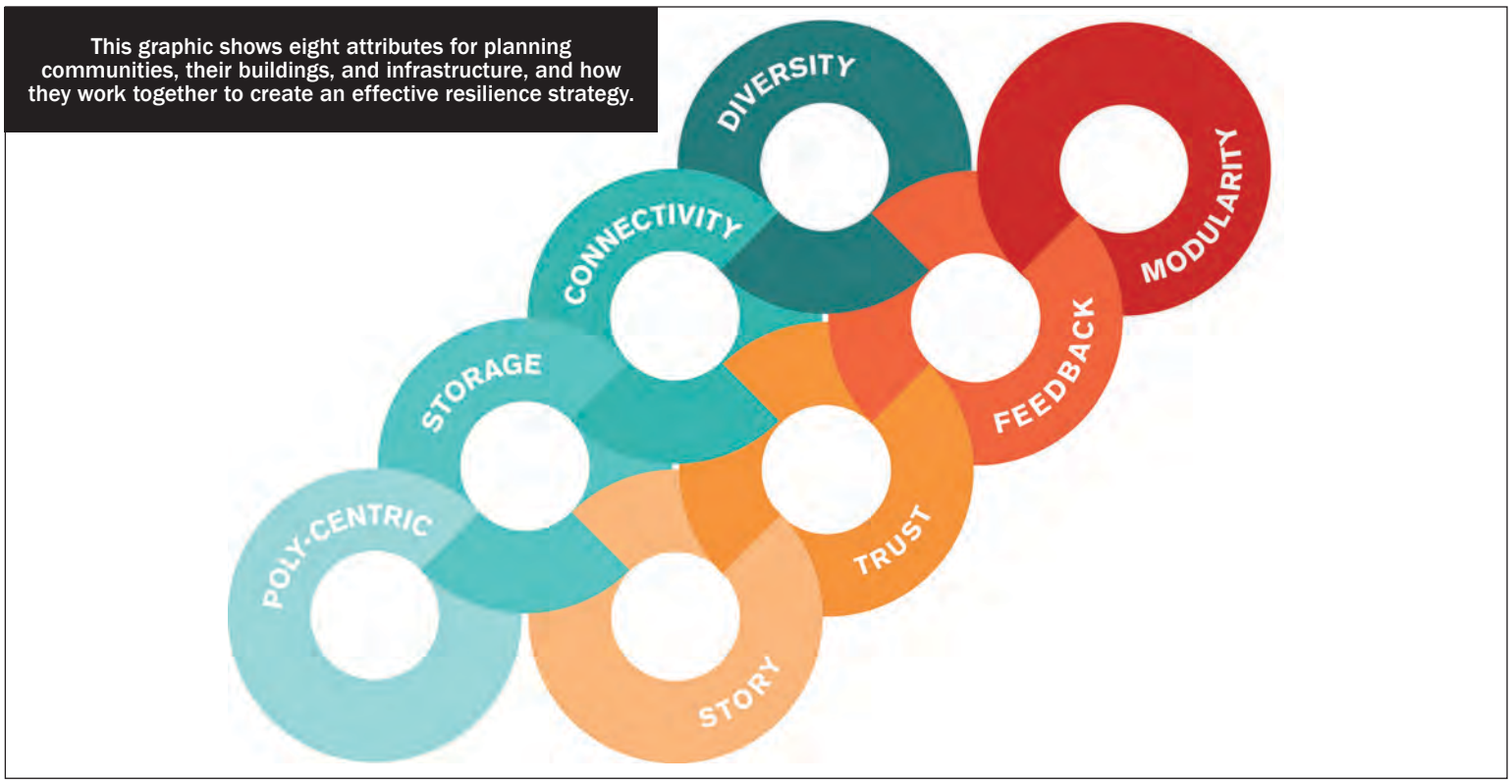
The most powerful resilience strategies are often local, specific, and small in scale but scalable in impact. Even modest projects can serve as models for broader adoption when they're rooted in shared values and designed with adaptability in mind.

A clear example comes from Goldendale, Wash. Klickitat Valley Hospital was struggling to replace its aging backup generators that dated back to World War II after traditional funding options fell short. CollinsWoerman worked with the Center for Sustainable Infrastructure for the Klickitat Valley Hospital to develop an integrated strategy that would be compelling to state legislators.

We facilitated a Sustainability and Resilience Value Planning Workshop that included local farmers, city and county officials, the school district and community members. The workshop identified shared priorities and created the Goldendale Energy Exchange. This community-scale renewable energy district offered a unified solution that met the energy needs of the hospital, the schools, and other facilities. The integrated approach reduced costs and secured buy-in across local, regional, and state levels, unlocking funding that had previously seemed out of reach.

The Goldendale project illustrates how change starts at the local level. Communities can strengthen resilience when they draw on local problem-solving capacity and values. Instead of settling for limited, one-sided solutions, stakeholders built a multi-benefit, values-driven solution that delivered wins for healthcare, education, and energy security.

This graphic shows eight attributes for planning communities, their buildings, and infrastructure, and how they work together to create an effective resilience strategy.




GRAPHIC COURTESY OF COLLINSWOERMAN

## THE RESPONSIBILITY OF NOW

During this time of instability, the choices we make today will greatly impact what's ahead. As designers,

RESILIENCE — PAGE 19

# ENGINEERING NEW LIFE INTO A HISTORIC PIONEER SQUARE WAREHOUSE

## Adaptive reuse, code innovation and structural upgrades transform Populus Seattle into a modern hotel.

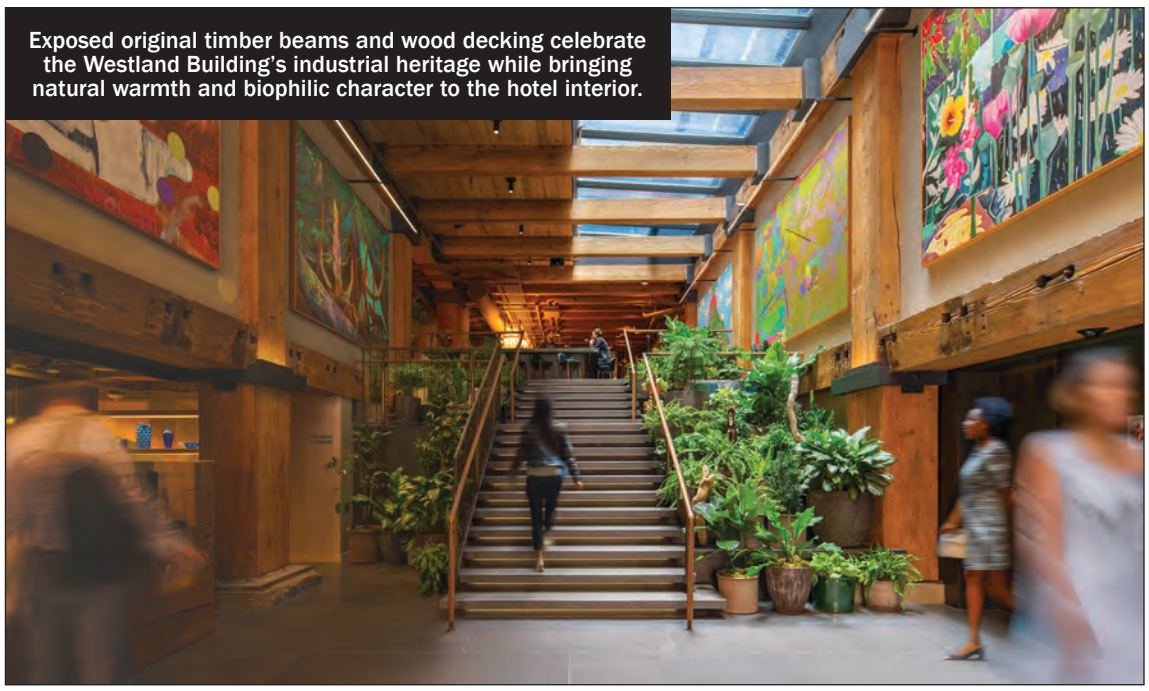
BY TETS TAKEMOTO & ANA PERARNAU
SPECIAL TO THE JOURNAL

Populus Seattle, a 120-room boutique hotel set within a 1907 pipe fitting warehouse, demonstrates how adaptive reuse propels historic districts forward while preserving character and cultural relevance. Located in Seattle's Pioneer Square, the project responds to the constraints and opportunities of working in one of the city's oldest and most historically protected neighborhoods.

Through a collaboration between The Miller Hull Partnership and Coughlin Porter Lundeen (CPL), we transformed a heavy timber warehouse into a hospitality destination that connects past to present through thoughtful structural adaptation, code strategy, and design clarity in a sustainable manner through re-use rather than new construction.

### REVITALIZING PIONEER SQUARE THROUGH ADAPTIVE REUSE

Historic buildings are essential to the future of sustainable cities, but too often they sit underutilized because they are expensive and complex to renovate. Aging structural systems, outdated layouts, restrictive zoning, and layered code requirements can create barriers to reuse. Populus Seattle offers a counterpoint. The building retains its distinctive industrial character while supporting new activations that strengthen the urban fabric of Pioneer Square. The project's design strategy preserves the original brick and timber construction while introducing contemporary building systems and seismic upgrades that extend the building's functional life for decades to come.



Exposed original timber beams and wood decking celebrate the Westland Building's industrial heritage while bringing natural warmth and biophilic character to the hotel interior.

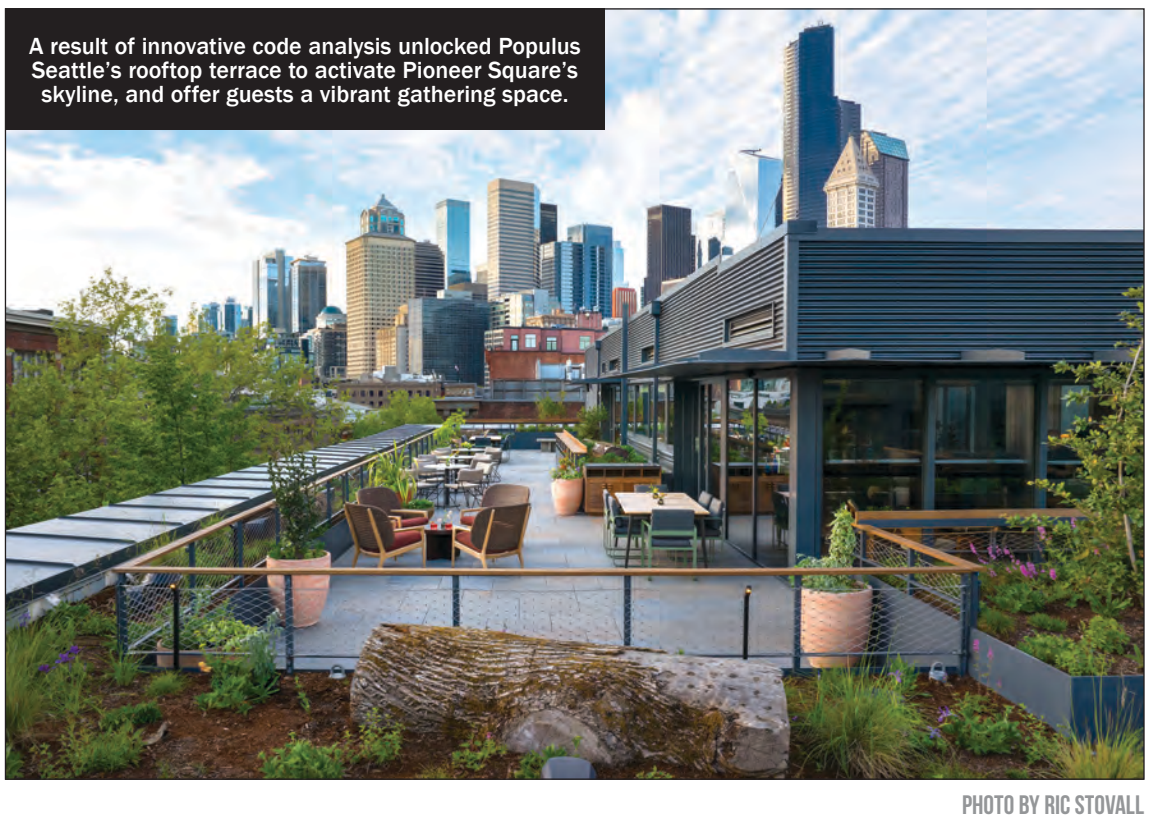
PHOTO BY MILLER HULL - DUY DANG

In order to connect the historic structure with the future of Pioneer Square, our team reoriented the existing structure around a new central organizing element: the Skygarden, which brings daylight and fresh air deep into the interior. Relocating the existing building core allowed us to open up the main entrance to reveal a clear visual and physical path from the street, through the building, and out onto the dining enclosure that extends into the RailSpur Alley. This visual connection also proceeds up to the rooftop, through a network of greenery, all centered around the Skygarden.

### NAVIGATING STRUCTURAL CONSTRAINTS

The hotel, originally called the Westland Building, featured deep floor plates that restricted natural light and limited interior programming potential. In order to support office use, the former build-





A result of innovative code analysis unlocked Populus Seattle's rooftop terrace to activate Pioneer Square's skyline, and offer guests a vibrant gathering space.

PHOTO BY RIC STOVALL

ing owner cut a narrow lightwell into the structure in 1979 and inserted an elevator in the center. For Populus Seattle, the team expanded this intervention into the Skygarden, a larger atrium that now serves as both a lightwell and a social heart for the hotel, centered on the lobby and amenity spaces. It provides natural illumination to interior-facing guestrooms and reduces reliance on artificial lighting in the lobby.

Expanding the light well required precise structural planning. We reclaimed timber joists removed during the renovation and reintroduced them in different structural locations to support the new skylight at the base of the light well. This reduced the need for new structural materials and restored the historic structural rhythm of joists that were lost in the 1979 interventions.

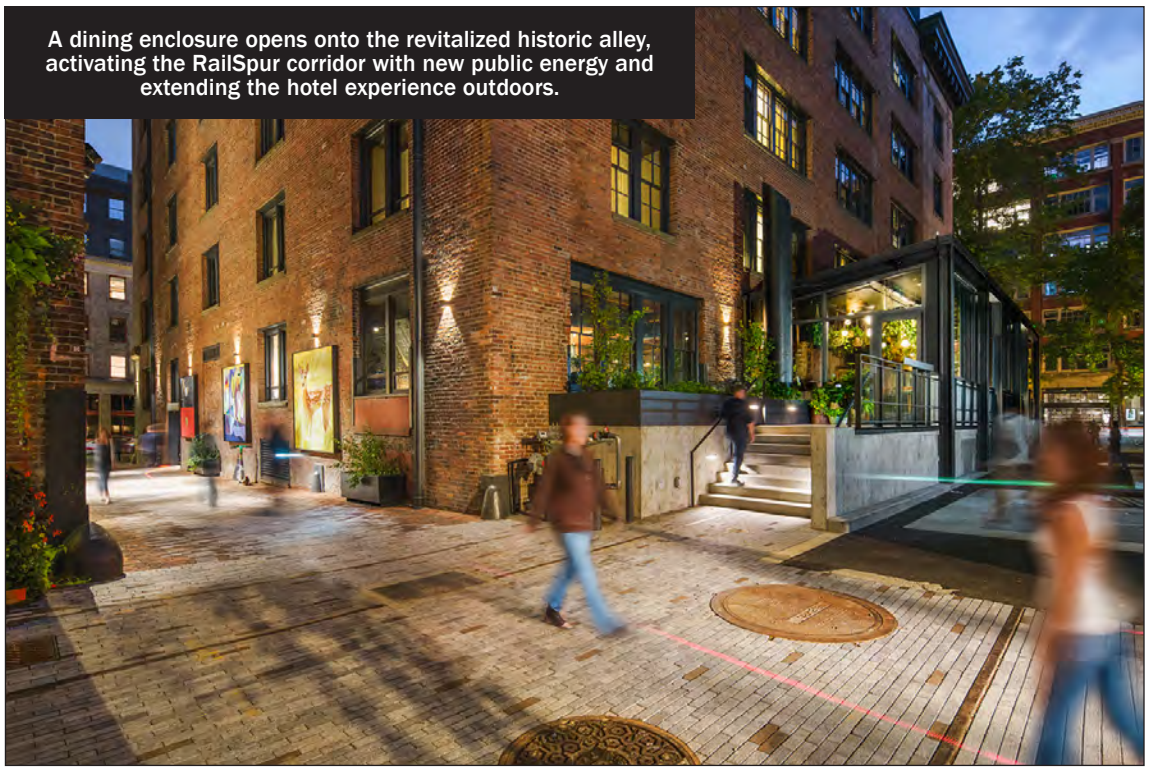
At the same time, relocating the original elevator core not only improved circulation through the building but also reinforced seismic stability. This strategic move meets lateral force-resisting requirements without resorting to visually intrusive bracing strategies that would have compromised the historic architecture and the user experience. Concrete shear walls along the north and east alley-side walls were inserted discretely to further reinforce the overall structure while reducing the impacts to the primary south and west facades. By strengthening rather than replacing the heavy timber frame and the historic masonry, we upheld both preservation goals and carbon reduction strategies inherent to adaptive reuse.

## PRESERVATION AND PERFORMANCE

Historic reuse projects require respect for original materials, but preservation alone is not enough—buildings must also perform at modern standards of safety, efficiency and comfort. Our work on Populus Seattle was reviewed through the National Park Service Historic Preservation Tax Incentives Program, which mandates that modifications remain reversible wherever possible. This criterion informed much of the detailing and engineering decision-making.

Adaptive reuse is also inherently sustainable through material conservation and reduced carbon impact. By retaining much of the original structure, we avoided the emissions associated with demolition and new construction. Structural reinforcements were added only where required for seismic resilience.

We preserved large spans of original Douglas fir timber framing, exposed structural decking, and brick masonry walls. Mechanical and electrical upgrades were integrated with minimal disturbance to historic materials. Where new systems were introduced, such as guestroom mechanical distribution, we carefully threaded infrastructure around the existing structure to avoid unnecessary demolition.



A dining enclosure opens onto the revitalized historic alley, activating the RailSpur corridor with new public energy and extending the hotel experience outdoors.

PHOTO BY MILLER HULL - DUY DANG

The Skygarden is one example where design performance and preservation intersect. Its framing references the rhythm of the original warehouse bays, while its scale and placement dramatically improve

WAREHOUSE — PAGE 20

# GOOD WOOD: TURNING THE SPOTLIGHT FROM MASS TIMBER TO ARCHITECTURAL FINISH WOOD

## Partnering with Taan Forestry for Ocean Pavilion's rain screen allowed the project team to meet twin goals of FSC-certified and tribally-sourced Alaskan Yellow Cedar.


The Seattle Aquarium's feature exterior rain screen is made of FSC-certified Alaskan Yellow Cedar and encompasses the entire seaward west façade.

PHOTO BY LARA SWIMMER-ESTO

Alaskan Yellow Cedar was chosen for its natural rot resistance, longevity, and UV resilience.

PHOTO BY LARA SWIMMER-ESTO

Conversations surrounding the embodied carbon of our structures have taken the spotlight in recent years, with additional importance placed on the need to transition from concrete and steel structures to mass timber. And rightfully so – steel and concrete alone are estimated to be responsible for around 16% of carbon emissions globally (Energy Policy, 2023).

BY ALI AL ALOOSI
TURNER CONSTRUCTION

Many designers and organizations like SE 2050, a collective of structural engineers committed to designing zero carbon buildings by 2050, see mass timber as a key solution to the climate crisis. But for those projects that can't do mass timber, what are the opportunities to source responsible, and even climate positive, wood?

This was a question that the Seattle Aquarium team asked back in 2019, when the owner set the stage for the new Ocean Pavilion project by requiring both FSC and tribally sourced wood at the feature exterior rain screen, which encompasses the entire seaward west façade. The Seattle Aquarium champions local community stewardship, ecological conservation, and waterfront revitalization, and it wanted its new addition to embody these values.

Given the screen's exposure to the elements, LMN Architects specified the use of Alaskan Yellow Cedar, which is known for its natural rot resistance, longevity, and UV resilience. After a great effort to find a forestry tribal partner that cultivated FSC-Certified Alaskan Yellow Cedar, Turner's Self-Perform Operations team connected with Taan Forestry located just across the border in Vancouver, BC.

The connection between Turner Construction and Taan Forestry proved to be a natural fit, as both organizations were in lockstep align-


Already, Ocean Pavilion's naturally durable rain screen is starting to develop a beautiful patina as the summer sun and seawater sprays begin to change the façade into a more permanent Pacific Northwest expression.

PHOTO BY SEATTLE AQUARIUM

ment in terms of sustainable stewardship and cultural values.

"Initially, finding suppliers that met both FSC and Tribal Wood criteria was challenging," explained Vandad Mazarei, SPO Project Manager. "Tribal communities exemplify the ideal approach to sustainable forest management, guided by centuries of land stewardship. As a result, many tribes view certification as an added bonus rather than a necessity. Nonetheless, FSC certification is widely recognized by the public, and sharing that narrative and supporting the brand is crucial. Connecting with Taan Forestry was a fantastic achievement and made the procurement process incredibly rewarding."

Mazarei continued: "This collaboration not only highlights the importance of sustainable practices but also bridges the gap between traditional knowledge and modern certification standards. By working with Taan Forestry, we were able to showcase the exceptional management practices of tribal communities while also adhering to globally recognized standards. This dual approach ensures that we maintain the integrity of our forest lands and promote sustainable practices on a larger scale."

The project's commitment to sustainability and responsible material sourcing was recognized with the FSC Leadership Award in 2025.

The Seattle Aquarium sits proudly aside the Salish Sea; the naturally durable rain screen of the Ocean Pavilion is starting to develop a beautiful patina as the summer sun and seawater sprays begin to change the façade into a more permanent Pacific Northwest expression.

The Seattle project is not the only project to proudly tout its environmentally friendly architectural wood features at Turner. In Sacramento, another public-facing project is telling a story with its wood finishes. The New Natural Resources Headquarters building, home to the Natural Resources Agency, features a stunning 30-foot wood wall upon entry into its cavernous lobby. The 7,000-square-foot curved wall is made from two species: California Walnut sourced from retired Californian orchards, and Cedar salvaged from the devastating 2018 Paradise wildfires.

Restoration wood, as this genre of salvaged or preventatively harvested wood is

GOOD WOOD — PAGE 19

# RETHINKING THE SUPPLY CHAIN: HOW TO BUILD A MORE SUSTAINABLE CONSTRUCTION INDUSTRY

## How to reduce harm, promote inclusion, and support long-term business resilience through material use, labor practices and transparency.


Wood waste was converted into finished wall panels and furnishings at Portland International Airport.

PHOTO BY EMA PETER PHOTOGRAPHY

The construction industry is facing a critical inflection point. With the built environment responsible for an estimated 40% of greenhouse gas emissions, contractors and designers have embarked on innovating ways to reduce their carbon footprint. At the core of this transformation is the supply chain.

Supply chains are not just logistics. They influence the environmental footprint of every project, impact labor conditions across continents, and shape the social and economic well-being of communities. Sustainability in construction starts with what we choose to build with and who we choose to build it.

BY STEVE CLEM
SKANSKA

A sustainable supply chain is one that reduces harm, promotes inclusion, and supports long-term business resilience. This means responsibly sourced materials, minimized waste, ethical labor practices, and full transparency from procurement to project delivery. Based on our experience, here are five strategies that help move the industry in that direction.

### BUILD KNOWLEDGE ACROSS THE SUPPLY CHAIN

Many construction leaders think sustainability begins on the jobsite. In reality, it starts with understanding the upstream impact of the materials and labor that feed every project.

This understanding doesn't have to come at a high cost. There are industry-wide frameworks now making it easier to evaluate and choose responsibly manufactured products. The Common Materials Framework, from Mindful MATERIALS, for example, aggregates transparency data on material health and environmental impact. Tools like BuildingEase streamline the process of selecting products that meet these criteria.

In the U.S., the Supply Chain Sustainability School, now available through a partnership that includes Skanska, offers free online training for industry professionals across topics such as waste reduction, biodiversity, energy, and community engagement. In the last 13 years, the school has trained more than 140,000 individuals across four countries.

There are also initiatives tackling the human side of sustainability. The Design for Freedom by Grace Farms highlights the risks of modern slavery in the global supply chain. Education is key here. We encourage teams to learn about these tools and share them with subcontractors, suppliers, and clients to strengthen the sustainability baseline across every project stakeholder.

### DEFINE AND ALIGN AROUND SHARED STANDARDS

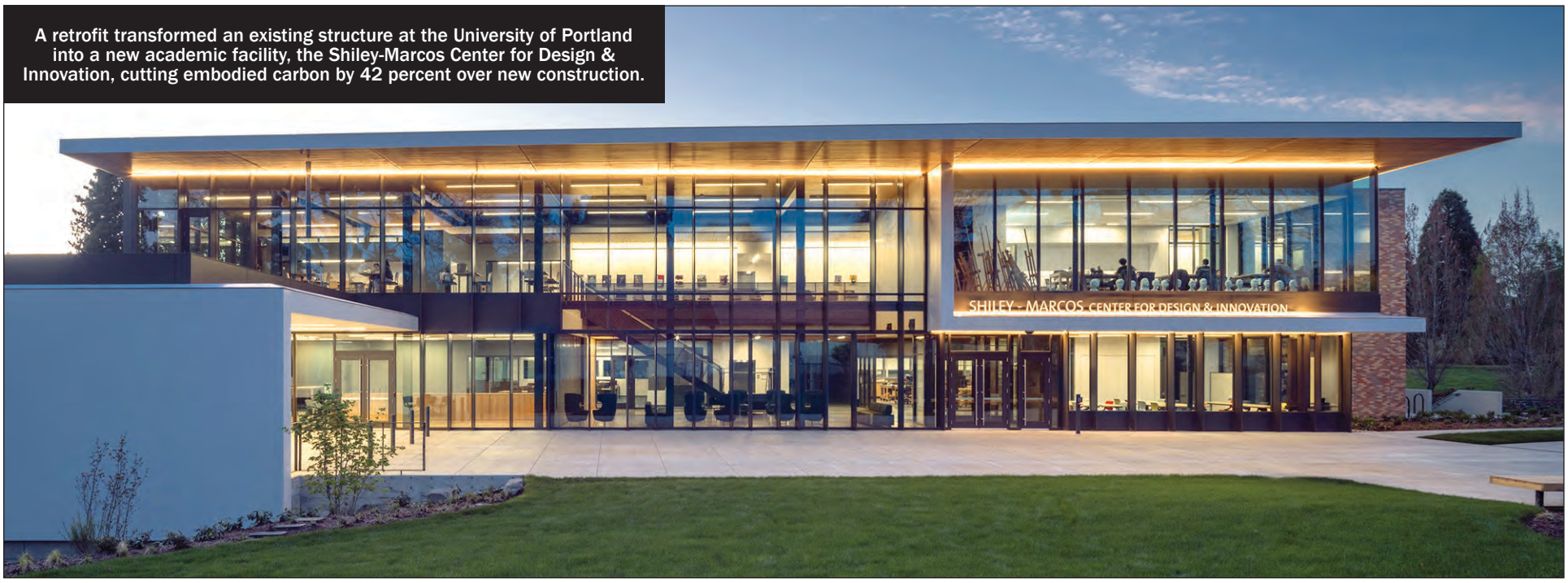
Sustainability goals must be both measurable and understood by everyone involved, from architects to procurement teams to subcontractors.

If a project owner wants every product to have an Environmental Product Declaration (EPD) or Health Product Declaration (HPD), that standard must be communicated early and clearly. These documents enable lifecycle tracking of materials and health impacts, supporting better procurement decisions.

Setting expectations at the start of a project helps ensure that goals are met without delays. The process also fosters cross-functional alignment, encourages accountability, and creates a shared definition of success. Every project benefits when this practice becomes more commonplace.

### DEMAND TRANSPARENCY AND TRACK PROGRESS

Visibility is required for real progress. That is why transparency and accountability must be built into procurement. For many firms, this starts by requiring ISO-certified partners or materials




A retrofit transformed an existing structure at the University of Portland into a new academic facility, the Shiley-Marcos Center for Design & Innovation, cutting embodied carbon by 42 percent over new construction.

PHOTO BY CHRISTIAN COLUMBRES

that meet Common Materials Framework commitments.

One of the most effective tools in this area is the Embodied Carbon in Construction Calculator (EC3), a free tool created in partnership with Skanska. It draws from a database of over 16,000 EPDs, allowing teams to compare materials by their embodied carbon impact.

On a major technology campus refresh in Redmond, when we started to ask for EPDs via EC3 for that project, the average Global Warming Potential of concrete mix designs in the Puget Sound region dropped by 18 percent – not just for Skanska projects, but for every company that purchased concrete in the region.

This level of visibility empowers teams to make informed trade-offs. It also encourages manufacturers to improve their environmental performance to stay competitive.

## INVEST IN CIRCULARITY TO MINIMIZE WASTE

Construction generates a lot of waste globally. That negative distinction also means the industry has significant potential for improvement from reuse. Circular construction, which repurposes and reintegrates materials, keeps resources in play longer, reduces embodied carbon, and preserves craftsmanship.

We've seen this in action across multiple regional Skanska projects:

**I-405, Brickyard to SR 527 Improvement Project, Bothell:** Using more than 25% recycled concrete aggregate of the 314.2 million tons of identified material. During demolition of the bridges at the 405/522 interchanges, the concrete will be hauled to a local aggregate recycler for reuse in this project and potentially others, as well. Steel from the demolished connector structures will also be recycled.

**Portland International Airport:** Wood waste was converted into finished wall panels and furnishings.

**University of Portland:** A retrofit transformed an existing structure into a new academic facility, cutting embodied carbon by 42 percent.

Circularity requires extra planning and often new partnerships. But the benefits are substantial in terms of financial savings, environmental impact and cultural value.

## SCALE CHANGE THROUGH INDUSTRY COLLABORATION

The supply chain is bigger than any one company. Driving real change requires systemic alignment.

Skanska is actively involved in efforts to build that alignment. We chaired the task force that wrote the AGC Playbook on Decarbonization and Carbon Reporting in the Construction Industry, a guide designed to help contractors address greenhouse gas emissions for the projects they build. By setting common expectations and tools, we lower the barrier for every contractor to participate.

This kind of collaboration accelerates change and multiplies impact. By pooling resources and aligning incentives, we create a stronger foundation for sustainable construction across the board.

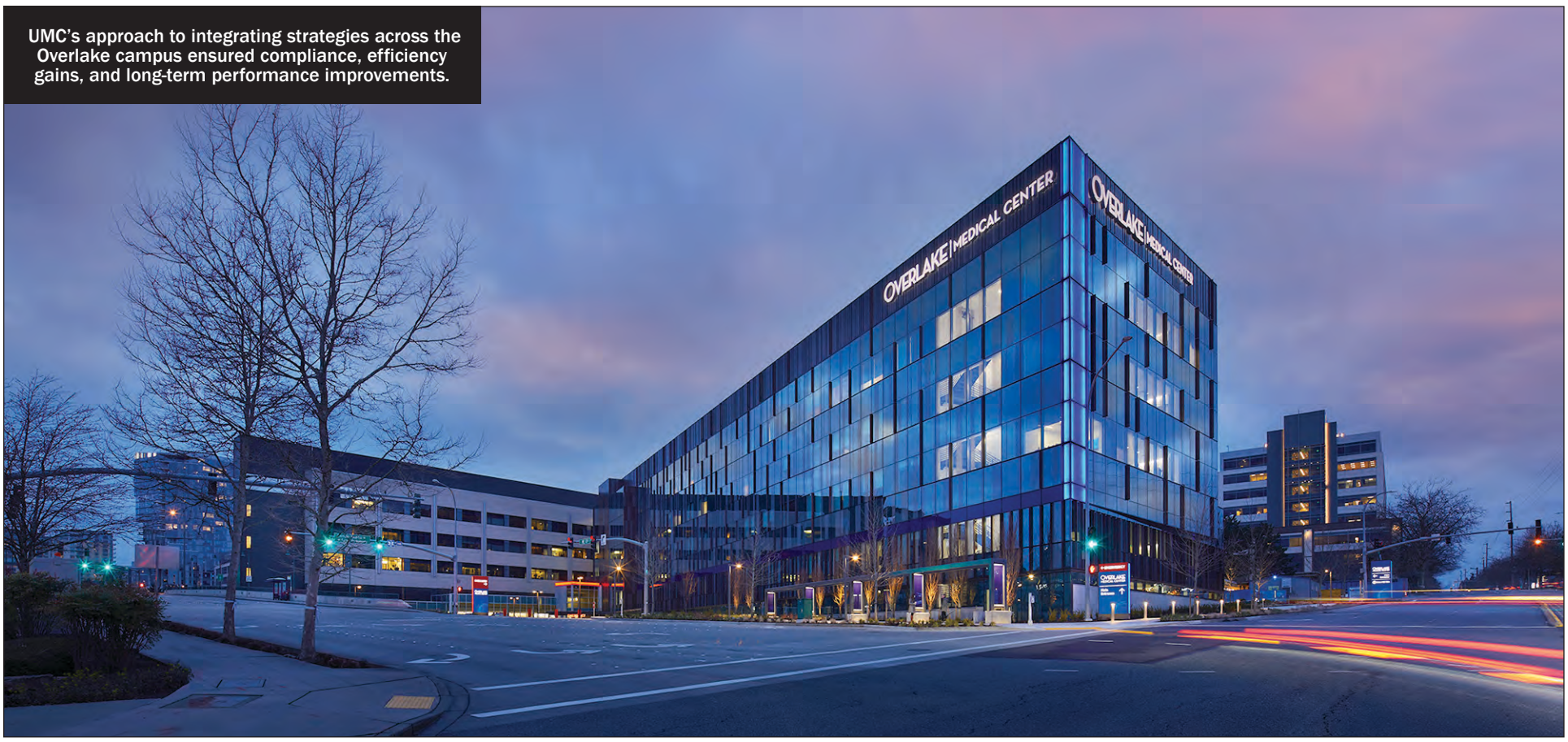
## THE PATH FORWARD

Sustainable supply chains are not built in isolation. They evolve through partnership, clear standards, and informed, intentional choices made on a project-by-project basis.

As more owners prioritize climate targets, and communities demand greater accountability, construction leaders must meet the moment. Understanding the full scope of supply chain impacts, aligning early, investing in reuse, demanding data, and collaborating across the sector are how we futureproof the industry.

The decisions we make today will shape not only the built environment but also the lives of people across the globe who are directly and indirectly impacted by our choices. Sustainability is no longer building by building or even community by community. It is a worldwide challenge that we are ready and able to tackle together.

*Steve Clem is senior vice president and regional director for preconstruction for Skanska USA Building.*




UMC's approach to integrating strategies across the Overlake campus ensured compliance, efficiency gains, and long-term performance improvements.

PHOTO BY BEN BENSCHNEIDER

# BEYOND THE PIPES: HOW OVERLAKE MEDICAL CENTER REDUCED ENERGY USAGE BY NEARLY 17%

The project team's carefully considered mechanical approach balanced energy savings, cost, risk, and long-term impacts.

BY MARTIN CLINTON
UMC

When Overlake Medical Center began planning energy upgrades across its Bellevue campus, the goal wasn't modest: achieve Clean Buildings Performance Standard compliance, improve energy and water performance, and do it all without disrupting the ongoing operations of the hospital and medical centers.

For many critical environment facilities, that kind of improvement starts and ends with HVAC or lighting controls. At Overlake, the strategy went deeper — into the walls, beneath the floors, and beyond the pipes. The project team, which included UMC, Overlake's Facilities team, Puget Sound Energy, the Washington State Department of Commerce, and others, took a carefully considered mechanical approach that accounted for multiple benefits, including piping modifications, energy management strategies, and controls optimization. By prioritizing high-impact, low-risk measures such as lighting upgrades and equipment replacements, the team helped raise the site's EnergyStar® percentile from the 24th to 61st, demonstrating meaningful progress for the healthcare market.

It's a notable milestone in the healthcare sector, where 24/7 operations, infection prevention strategies, and occupancy constraints often make deep retrofits challenging. Overlake's success underscores a key lesson: performance gains require strategic project selection and a willingness to treat plumbing and mechanical systems as central to energy strategy.


On the Overlake project, UMC's cross-discipline collaboration throughout project phases optimized system integration and performance.

PHOTO COURTESY OF UMC

## CONTROLS DRIVING CLEAN-BUILDINGS BREAKTHROUGH

At Overlake, energy transformation went beyond compliance: it was smart, data-driven decisions. As part of the hospital's push to meet Washington's Clean Buildings Performance Standard (CBS), the facilities team, in partnership with UMC, optimized energy usage across plumbing, HVAC and water systems.

The process began with a detailed energy modeling audit. UMC identified over 40 energy efficiency measures (EEMs) and carefully evalu-

ated payback, risk and operational impact for each. Early EEMs focused on eliminating waste and conserving energy with high-return, low-cost solutions. These were prioritized ahead of larger capital improvements, ensuring that each project delivered meaningful results with minimal operational disruptions.

"Project selection [was] critical," said Jim Dobbs, director of facilities at Overlake Medical Center. "We focused on measures that provide multiple benefits including energy savings, operational improvement, and long-term value instead of just chasing the biggest capital project. That strategy has paid off."


UMC's focus on strategic project selection and waste elimination maximized energy performance and long-term value for Overlake.

PHOTO BY BEN BENSCHNEIDER

## PROVEN RESULTS, PROVEN MODEL

UMC's approach was deliberate: energy efficiency measures were carefully selected and sequenced, starting with waste elimination and conservation strategies that often deliver returns exceeding 100%, followed by more complex equipment upgrades with lower ROI. Each project was evaluated for payback, operational impact, and long-term value, ensuring that investments contribute meaningfully to both energy performance and financial outcomes.

Subsequent initiatives were chosen strategically, considering life-cycle costs, expected equipment longevity, and broader sustainability goals, including electrification where appropriate. Demand-side management initiatives typically achieve ROI over 50%, while equipment replacements are closer to 20%, reinforcing a consistent focus on high-impact, low-risk measures that maximize both efficiency and value.

## PHASED EXECUTION, MEASURABLE IMPACT

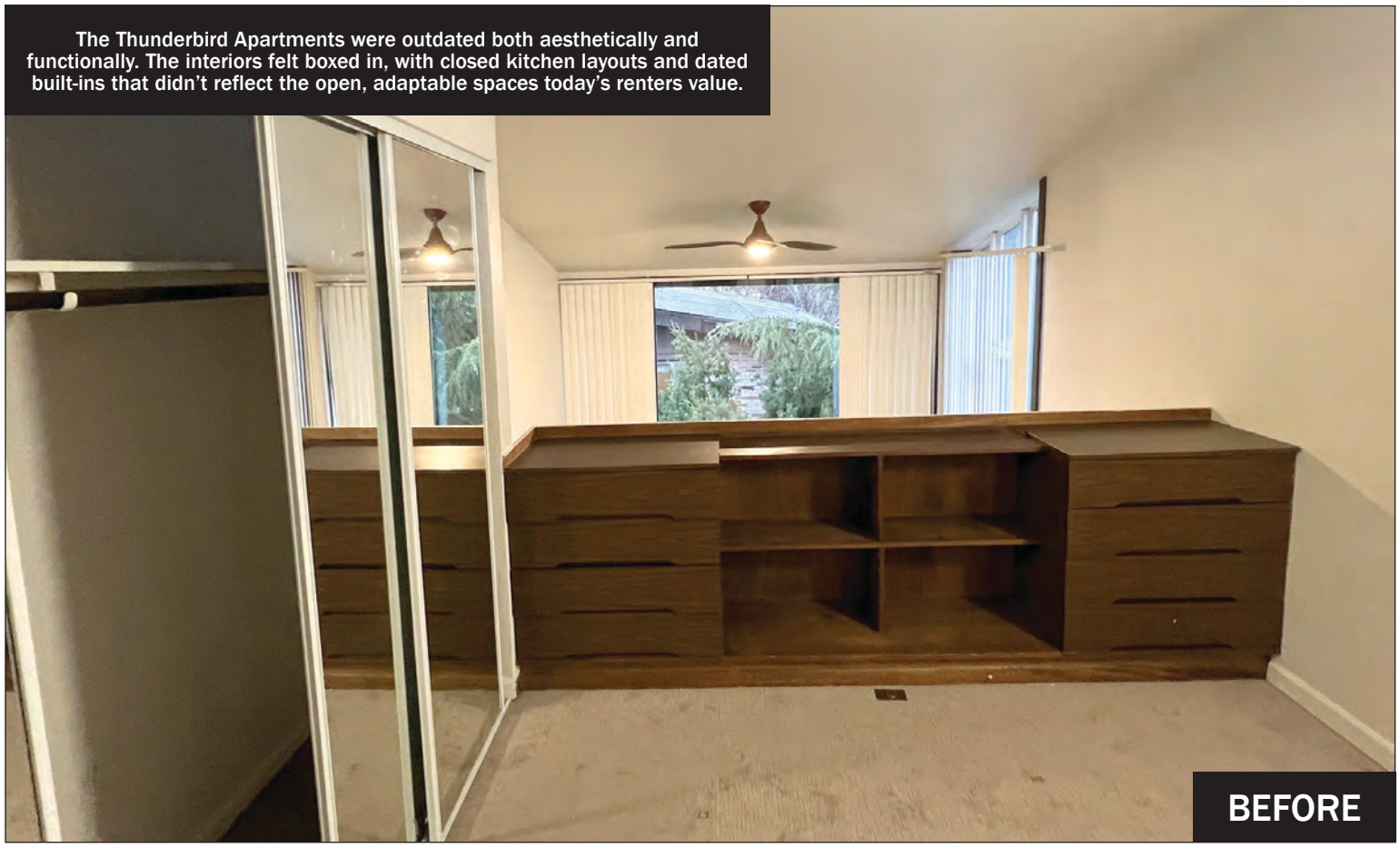
The hospital remained fully operational while the UMC-led project team completed the upgrades, requiring meticulous planning, carefully scheduled shutdowns, and strict compliance with healthcare codes and safety standards. Early coordination with trade partners allowed the phasing plans to align with clinical operations, reducing risk, and increasing efficiency.

"The collaboration and planning behind our surgical suite VAV and terminal unit upgrades were exceptional," Dobbs said. "We managed a phased shutdown of nine surgical suites over six weeks and not only avoided anticipated disruptions but also achieved record surgical vol-

BEYOND THE PIPES — PAGE 19

# BUILDING ON SEATTLE'S LEGACY: HOW MODERNIZATION AND REINVESTMENT ARE SHAPING OUR NEXT CHAPTER

**Thoughtful modernization means recognizing the structural integrity, embedded energy, and historical character of existing buildings, and carefully considering what it takes to preserve and enhance them for the future.**




The Thunderbird Apartments were outdated both aesthetically and functionally. The interiors felt boxed in, with closed kitchen layouts and dated built-ins that didn't reflect the open, adaptable spaces today's renters value.


Exterior improvements included fresh paint, updated light fixtures, and cleaned breezeways. Inside, we refreshed the aesthetic with new flooring and paint, replaced old appliances, opened up the kitchen layouts, and removed built-ins in the loft bedrooms to create brighter, more open spaces.

PHOTOS COURTESY OF LAKE WASHINGTON PARTNERS

Seattle's skyline wasn't built on short-term bets — it grew through the steady work of leaders who invested with patience and purpose. Figures like Lyman Smith, R.D. Merrill, Cyrus Clapp, David Skinner, William Pigott, and Mark Reed helped shape the city's identity through long-term investments in timber, infrastructure, manufacturing, and real estate. Their contributions laid a foundation that continues to influence Seattle today.

At Lake Washington Partners, we aim to carry forward that spirit of stewardship in our own way: preserving what's strong, improving what's needed, and making thoughtful updates that extend the life and relevance of existing properties. We may not be shaping skylines, but we believe even small improvements can make a lasting difference in the built environment.

## LOCATION, LOCATION, LOCATION

Our approach begins with location. Infill sites nestled within established neighborhoods offer irreplaceable value because they're already connected to transit, utilities, and community infrastructure. Once we've identified the right location, we focus on buildings with structural integrity, character, and the potential to be thoughtfully improved. When those elements align, the path forward is clear.

BY JORDAN LOTT
LAKE WASHINGTON PARTNERS

Even buildings that appear outdated often retain embedded energy, architectural character, and structural integrity that are difficult to replicate. For us, improving what's already there is a more thoughtful choice. It's a strategy that makes sense economically, environmentally, and culturally. This philosophy informs how we evaluate opportunities and

guides our acquisition strategy.

## PRESERVING VALUE, MINIMIZING WASTE

The sustainability and cost benefits of upgrading existing buildings are substantial. We like to say the greenest building is the one that's already been built. While new construction plays an important role in meeting housing and infrastructure needs, it also requires energy and material inputs, and demolition can generate considerable waste — factors that carry environmental costs worth considering.

Upgrading existing buildings helps reduce environmental impact while keeping disruption to a minimum. Shorter construction timelines mean less strain on surrounding communities and more continuity for the people and businesses already in place.

Renovation can also be a smart financial move. While some buildings may call for upgrades like HVAC, insulation, and seismic retrofits, the overall cost is typically lower than starting from scratch (especially when you factor in permitting and site work). And because these buildings are already in great locations, the return is often accelerated by the inherent value of both the location and the character of the asset.

## ADDRESSING THE COMPLEXITIES

Working with older buildings comes with its own set of challenges. Many were built to different zoning codes or design standards and may lack the amenities or safety features expected today. For example, sprinkler systems weren't commonly installed in apartment buildings until the mid-1990s, and accessibility standards have evolved significantly since then. Tenant expectations have also shifted. Today's residents are looking for features like EV Chargers, secure access, and high-speed internet.

These factors are part of what we evaluate when considering a property. We understand the importance of assessing building systems, layout flexibility, and compliance with current codes. In some cases, we've made light adjustments to floor plans to improve flow, and we're actively exploring the addition of EV chargers as part of future upgrades. For us, it's about understanding what's needed to responsibly extend the life and relevance of a building without overbuilding or overcomplicating.

## OUR PHILOSOPHY IN ACTION

One example of this philosophy in action is Thunderbird Apartments. At acquisition, this small multifamily property was aesthetically outdated and functionally behind the times. But its bones were solid, and the location was exceptional.

The interiors felt boxed in, with closed kitchen layouts and dated built-ins. Exterior improvements included fresh paint, updated light fixtures, and cleaned breezeways. Inside, we refreshed the aesthetic with new flooring and paint, replaced old appliances, opened up the kitchen layouts to support a more open and livable design, and removed built-ins in the loft bedrooms to create a brighter, more contemporary feel.

The result is a property with renewed energy and relevance. And Thunderbird is now a high-performing asset that reflects our long-term approach to reinvestment and thoughtful upgrades.

This theory can also be seen at The New Carroll Apartments, a 100-year-old building where we've taken a careful approach to interior updates. In addition to in-unit refreshes, we modernized the lobby with new carpet, paint, furniture and fixtures that honor its historic charm while making it feel current and welcoming.

## DEVELOPMENT AS STEWARDSHIP

For us, this approach isn't just about buildings, it's about values. We believe in preserving the character of neighborhoods, honoring the craftsmanship of earlier generations, and investing in properties that can continue to serve communities well into the future.

We're inspired by the long-term thinking that shaped Seattle's built environment. Lyman Smith didn't build Smith Tower to flip it, but to last. R.D. Merrill's timber holdings were managed with generational foresight. Cyrus Clapp and David Skinner understood the power of strategic land ownership and civic engagement. William Pigott and Mark Reed built infrastructure that supported entire industries. Their work was grounded in permanence, not expedience.

While our approach looks different today, the values behind it are familiar. We're guided by a belief in long-term stewardship, evaluating each property for its financial potential, historical context, community impact, and environmental footprint. We believe that real estate is more than a transaction — it's a responsibility. By reinvesting in existing buildings and solving for code and comfort rather than starting from scratch, we aim to create spaces that remain relevant and valuable over time.

Seattle has always been a city shaped by resilience and reinvention. We believe progress doesn't mean starting over; it means building on what's already here.

*Jordan Lott is president and CEO of Lake Washington Partners.*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## BEYOND THE PIPES

CONTINUED FROM PAGE 15

umes. That was a huge win for the team."

The team also identified opportunities to consolidate and optimize equipment replacements, scheduling tie-ins after hours, and during low-demand periods to avoid operational impacts. This collaborative approach minimized disruptions and delivered meaningful results, both in energy performance and financial returns.

### A MODEL FOR THE INDUSTRY

Overlake achieved measurable energy savings, including 4,610,045 kilowatt hours (a 16% reduction from baseline year ending July 2025, per PSE) and 162,881 therms saved from the Commerce baseline. These savings translated into substantial incentives, with the Washington State Department of Commerce offering $2.2 million in funding and PSE projecting approximately $2.3 million in savings, plus additional payments if sustained over four years.

This project demonstrates that building systems cannot be treated in isolation. Careful project selection, balancing energy savings, cost, risk, and long-term impacts, are as important as the measures themselves.

Early collaboration among owners, engineers, contractors, and facility staff lays out the foundation for smarter sequencing, better operational alignment, and effective use of incentives. When projects are chosen strategically, executed thoughtfully, and sequenced carefully, they deliver results that extend beyond compliance to lasting operational and financial value.

*Martin Clinton is UMC's building performance services manager.*

## GOOD WOOD

CONTINUED FROM PAGE 11

referred to, helps prevent the spread of wildfire, pests, and disease (such as the pine beetle), and provides an alternative end-of-life solution for trees that are most frequently chipped and burned. The wood wall, which was sourced, milled, and finished by Tule Peak Lumber in California, was also installed by Turner Self-Perform Operations.

Looking forward, Turner is looking for ways for projects to express actively 'good' wood features even when they aren't wood structures.

"Tropical hardwoods are a major point of concern in our industry," says Emi LaFountain, sustainability strategy manager for the West Coast. "Many teams don't realize that commonly used tropical hardwoods like Ipe and Teak come from high-risk rainforests where sustainability standards are weak. Without FSC certification, use of these woods is highly likely to result in illegal and unsustainable deforestation."

Because of this, Turner Construction is collaborating with organizations such as the Rainforest Alliance, the Climate Smart Wood Group, and other design firms to develop a strategy to eliminate the use of non-certified tropical hardwoods and promote alternative exterior material solutions, like those used at the Seattle Aquarium.

"We really don't need to be turning to tropical hardwoods to meet our exterior wood needs," explains LaFountain, who has been working on a guidance document with ZGF, SERA Architects, and Sasaki to outline the alternatives to woods like Teak and Ipe. "We have solutions like polymerized wood, charred shou-sugi-ban, acetylated wood, and just naturally rot-resistant North American species like Yellow Cedar, which can not only prevent deforestation in the tropics but also support local communities. FSC certification is great when it must be used, but I think it's important that we look to what we have locally first."

*Ali Al Aloosi is a project engineer with Turner Construction in Seattle, bringing over 20 years of experience across construction, structural engineering, and academia.*

## MITIGATION BANKING

CONTINUED FROM PAGE 5

a central theme of sustainable development: working where people and nature intersect to create the greatest overall benefit.

### LOOKING AHEAD

Mitigation banking, advance mitigation and in-lieu fee programs are helping to transform the perception of sustainable building. Whether on the coast or inland, the same principles apply: plan restoration where it makes the biggest difference and build with nature in mind.

*Michelle Havey is a partner and principal fisheries biologist and Dan Berlin is a partner and principal scientist at Anchor QEA, an environmental science and engineering consulting firm specializing in aquatic, shoreline and water resources projects.*

## RESILIENCE

CONTINUED FROM PAGE 7

planners, and members of our communities, we have an ethical responsibility to recognize the changed circumstances when we plan, design, and implement our projects.

Resilience isn't just about green buildings or more efficient infrastructure — it's also about working together, listening to communities, and designing systems that can adapt and recover when things change.

This is a time to be thoughtful, collaborative and open to new ideas. By taking small, intentional steps now, we can guide our communities toward a more adaptable, equitable and prosperous future.

*Steve Moddemeyer is a principal and sustainability expert at CollinsWoerman with decades of experience leading governments, land owners, and project teams toward increased sustainability and resilience. Kristina Rivera is the marketing coordinator at CollinsWoerman.*

# WAREHOUSE

CONTINUED FROM PAGE 9

interior environmental quality. We were able to remove every other joist in this location to allow for greater daylight into the space. We also preserved the existing steel from the previous light well to retain the heritage of the building, even if it was no longer needed structurally. These interventions enhance the guest experience while reinforcing the building's industrial character.

In some instances, where new openings were required between floors, existing timber needed to be cut or removed. Our team salvaged the timbers not just for new structural uses, but also for other design elements throughout the hotel. Reclaimed joists and columns were milled down to be reused as shelving in the library and purlins for the entry canopy. Reclaimed columns were repurposed as furniture elements. Reused materials minimize waste, resulting in a hospitality environment with both environmental integrity and long-term operational efficiency.

## CODE INNOVATION UNLOCKS NEW POSSIBILITIES

Adaptive reuse projects in historic districts require a proactive code strategy. Early collaboration with the city of Seattle was critical to unlocking new use opportunities and achieving compliance without compromising design intent. Updates to Seattle's mass timber code allowed us to expand vertically to add rooftop assembly spaces that would not have been feasible under older regulations.

CPL and Miller Hull worked closely with the city to convert the building type classification from Type IV-HT to Type IV-C, a significant distinction that requires a 2-hour fire resistance rating on all the primary structure, but then allows assembly spaces like bars and restaurants at higher stories for buildings made out of wood. However, applying these new code allowances to a 1907 structure required careful hybridization between existing heavy timber and new steel framing, as they were formulated for new mass timber projects, not historic heavy timber buildings.

Knowing that the building was originally designed to support heavy warehouse loads, CPL calculated how the size of the existing Douglas fir timbers could meet a 2-hour fire rating with the lower loads for a hotel. This allowed the project to proceed under the Type IV-C designation, which allowed for unlimited exposure of the timber members, including the car decking, which also provides the required 2-hour floor rating. A requirement to protect steel connections meant wrapping existing joist hangers with either spray-applied fireproofing in concealed locations or utilizing a drywall wrap in exposed conditions for a cleaner finished look.

Zoning constraints also required creative navigation. Rooftop dining and beverage service had historically been prohibited in Pioneer Square. Working with city officials, we leveraged recent rooftop occupancy amendments to secure approvals for a rooftop bar and hospitality suite—adding a unique hospitality experience and public activation point for the neighborhood.

This collaboration between CPL and Miller Hull demonstrates the importance of code advocacy in adaptive reuse. When applied thoughtfully, building codes can expand design possibilities rather than limit them.

## INTEGRATING INFRASTRUCTURE AND PUBLIC SPACE

Populus Seattle is embedded in a dense historic urban block with layered infrastructure. One of the most complex engineering challenges involved the alley-fronting dining enclosure, located directly above an active Seattle City Light transformer vault. The original Westland Building had four loading bays facing onto the rail spur that were used for transferring goods into the warehouse. These bays were blocked up and filled with CMU blocks when the tracks were decommissioned, and an electrical transformer vault was installed within the private passageway. These openings have been restored to connect the restaurant to a new dining enclosure located atop the operational transformer vault.

The team worked closely with SCL and other authorities to coordinate a structural system that allowed for future transformer replacement without impacting the rest of the structure. The structural detailing allows for a single bay of the enclosure to be unbolted in the future, and allows the surrounding structure to remain.

At the neighborhood scale, the project reconnects Pioneer Square's historic RailSpur corridor, a former rail line that once linked industrial loading docks. Through thoughtful architectural and structural moves like the dining enclosure atop a transformer vault, the building now opens onto this corridor through a sequence of interior and exterior spaces, including the skygarden, alley restaurant, and rooftop destinations. These moves introduce pedestrian connections through the site and contribute to the reactivation of long-neglected urban passageways.

## A MODEL FOR FUTURE ADAPTIVE REUSE

Populus Seattle is both a building and a case study. It demonstrates how early design collaboration between architects and engineers can unlock possibilities hidden within historic structures. It proves that advocating within the building code framework can expand what is possible in preservation districts. And it shows that sustainability, economic viability and historic character can work together.

As urban cores evolve, the most sustainable building will continue to be the one that already exists. Projects like Populus Seattle show how we can reimagine historic structures for contemporary relevance and community value.

*Tets Takemoto is an associate at The Miller Hull Partnership. Ana Perarnau is a structural project manager at Coughlin Porter Lundeen.*