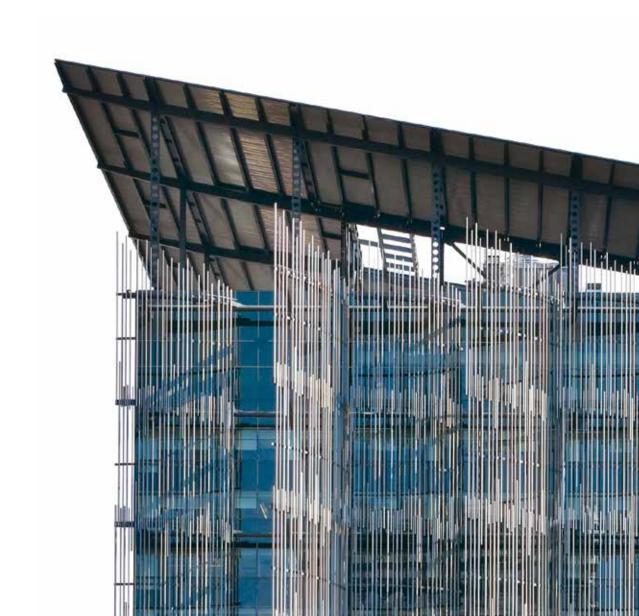
# EDITH GREEN-WENDELL WYATT FEDERAL BUILDING

Portland, Oregon



Edith Green-Wendell Wyatt Federal Building in Portland, Oregon, was renovated under the U.S. General Services Administration's Design Excellence Program, an initiative to create and preserve outstanding public buildings that will be used and enjoyed now and by future generations of Americans.

April 2017

## EDITH GREEN-WENDELL WYATT FEDERAL BUILDING

Portland, Oregon

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Each facade is attuned to daylight angles; the entire solution is based on the way the sun moves around the building.

Donald Eggleston Principal, SERA





## ORIGINS OF EDITH GREEN-WENDELL WYATT FEDERAL BUILDING

At the start of the Great Depression, half a million civilians worked for the United States. In 1965, approximately 2.7 million Americans held non-uniformed jobs. Federal civilian employment multiplied five times in less than four decades thanks to the New Deal, and Edith Green-Wendell Wyatt Federal Building (EGWW) stands 18 stories above Portland, Oregon, as a long-drawn consequence of that historic transformation.

While the New Deal expanded government services to benefit the nation's economy, it plagued federal real estate operations, which could not keep up with demand for offices and other facilities for the growing federal workforce. The U.S. General Services Administration (GSA) was founded in 1949 to furnish this workspace in a systematic, efficient manner. GSA's Public Buildings Service (PBS) would specifically oversee new construction and renovations.

A rush of construction followed the founding of GSA. The Public Buildings Act of 1949 allotted \$70 million to the agency for construction and improvement projects halted during World War II, and

the Public Buildings Act of 1959 initiated hundreds more. Of the 1,500 federally owned buildings that PBS manages today, more than one-third dates between 1949 and 1979.

GSA's mid-century building boom almost unanimously embodied the democratic ideas and sleek geometry of modernist architecture. Not only had modernism achieved popular acceptance by the time, but the movement also resonated with GSA in deliberate terms. The agency was tasked with harnessing mass production and other means of achieving economical real estate development; modernism asserted that industrialization could provide high-quality buildings for all people.

The visual language of modernism served GSA equally well. As the statesman Daniel Patrick Moynihan argued, architecture "reports faithfully for ages what the political values of a particular time were." Stripping buildings of unnecessary volumes and ornamentation communicated a responsible, sparing use of taxpayer funds. Clean-lined, glass-clad buildings conveyed the accessibility of federal services, too.

Suited as it was to federal building, modernism yielded next-generation landmarks across government. Groundbreaking designs from the 1950s and 1960s include the U.S. Air Force Academy Cadet Chapel, numerous foreign embassies, and, in GSA's real estate portfolio, the U.S. Tax Court by Victor Lundy, John F. Kennedy Federal Building by Walter Gropius, and the Chicago Federal Center by Mies van der Rohe. Moynihan encapsulated these successes in the Guiding Principles for Federal Architecture. The 1962 document states that "[m]ajor emphasis should be placed on the choice of designs that embody the finest contemporary American architectural thought." It doubly endorsed forward-looking designs that were dignified for the government and sensitive to region.

For less prominent public buildings, the federal government preferred a quieter expression of social optimism and cultural patronage. Completed in downtown Portland in 1975, EGWW exemplified this restraint.

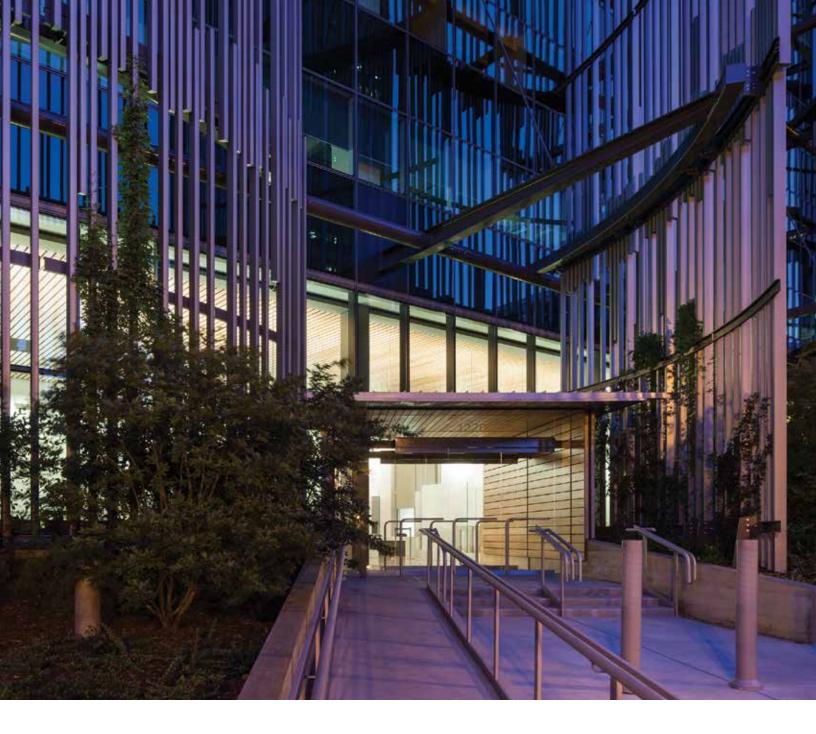
The workmanlike modernism behind EGWW and similar buildings was intended to house burgeoning federal civilian employees at the least expense to taxpayers. Indeed, Skidmore, Owings & Merrill, the same architecture and engineering firm responsible for the Air Force Academy chapel, commenced work on EGWW in 1969. That design team balanced innovation and pragmatism, in turn—it cunningly placed a lush public park above EGWW's subterranean garage, but also replaced a concrete structure with more affordable steel framing faced in single-pane glass and precast concrete panels.

Whether soaring or suitable in appearance, all buildings perform less well over time, as systems like ventilation approach functional obsolescence and occupancy standards become more rigorous. In 1997, the Portland-based firm SERA Architects contracted with GSA to solve deficiencies emerging at EGWW. As SERA principal Donald Eggleston recalls, need began outpacing its improvements: lobby security installed after 9/11 forced queuing outside the building, and the tower's uninsulated glass and concrete made interior climate control difficult. GSA subsequently planned a thorough upgrade to EGWW's mechanical systems, security, and seismic resistance.

This project has the ability to inspire building owners and private developers to think more creatively.

American Institute of Architects





#### PREPARING FOR MODERNIZATION

GSA authorized EGWW's upgrade through the Design Excellence Program, which it had founded in 1994 to realize the Guiding Principles for Federal Architecture. Among the methods by which the program accomplishes this task is overseeing procurement of design services. The process steers the agency to the architect that has a proven record of efficient, dignified, regionally sensitive buildings.

Eggleston remembers feeling enthused about the larger-scale EGWW modernization, albeit unsure that SERA's portfolio alone would strike the GSA evaluation board as sufficiently visionary to get the job. To bolster the firm's chances, Eggleston approached Cutler Anderson Architects to submit credentials as its partner and design architect. The Bainbridge Island, Washington-based design studio had recently completed a land port of entry for GSA whose simple massing and visible construction possessed a functionality and Pacific Northwest spirit that embodied the Guiding Principles for Federal Architecture. Cutler Anderson principal James Cutler agreed to vie for a second federal commission.

Accepting Eggleston's invitation prompted Cutler to scrutinize EGWW's 1975 construction drawings, and on this closer look he identified an opportunity precisely in the re-engineered structure of the halfmillion-square-foot office. Because precast concrete panels wrapped the steel frame in U shapes, "the thickness of the U was just a subtraction from the usable area," Cutler recalls. Penciling calculations on the back of an envelope, he realized that replacing the concrete with a taut, energyefficient glass curtain wall would add approximately 24,000 net rentable square feet to the building, reduce stress on the refreshed heating and cooling systems, and unload enough weight to make seismic repairs almost incidental. The architect also imagined training Boston ivy and Virginia creeper up the sunniest exposures of EGWW by way of a trellis mounted in front of the glass curtain wall. The vines' shade and insulation would unburden the mechanical systems even more.

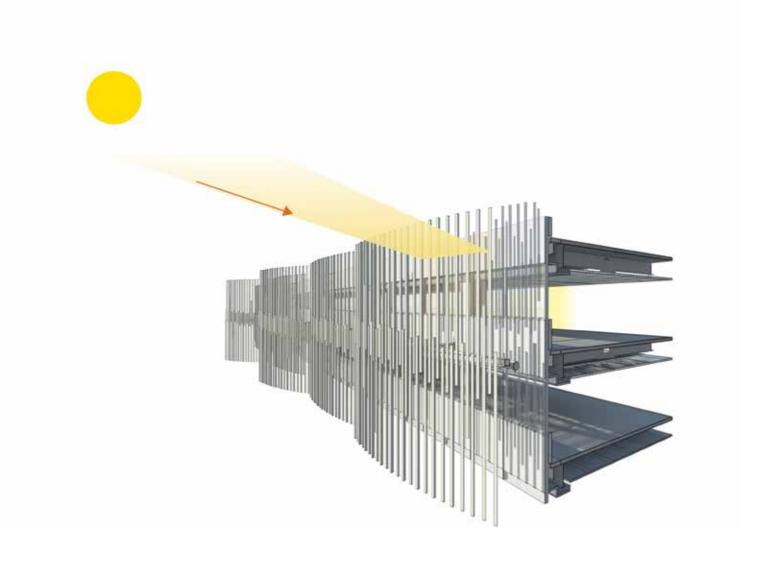
Perhaps not taking the existing scope of work for granted could be more advantageous for citizens? SERA and Cutler Anderson posed this bold question to GSA and, impressed by its vision, in 2003 the agency hired the team to design EGWW's renovation. "The best architect-client relationships are ones in which colleagues explore ideas outside of their comfort zones, and trust one another's expertise," David Insinga, chief architect of GSA, remarks of the procurement decision. "The Design Excellence Program encourages that knowledge exchange, because it produces more value for the American people. SERA and Cutler Anderson's early work on Edith Green illustrates these best practices."

Two years later, funding for EGWW's upgrade was halted, and construction documents remained half complete.

The project would not become eligible for funding again until passage of the American Recovery and Reinvestment Act of 2009 (ARRA), which apportioned \$4.5 billion to GSA for high-performance modernizations of existing federal properties.

The delay ultimately helped clarify what the EGWW modernization should achieve, and how. In 2007, for example, GSA regional executives tapped Patrick Brunner to lead the effort upon its revival. Brunner had spent the previous five years pioneering a collaborative approach to designing and constructing GSA projects known as integrated delivery: the method allows an architect to flesh out the most salient aspects of a design; it then introduces a general contractor and other construction professionals to advise the completion of that scheme. Established objectives like energy efficiency or renewable power production serve as benchmarks through the completion process, Brunner says, "and all parties work on the details, iterating solutions and giving and taking on budget allocations, to achieve as many requirements as possible."

The open dialogue and tangible successes of Brunner's recent GSA projects "convinced me that this was really the only method to use on a complex assignment." When EGWW came back online, he proposed, it should proceed by integrated delivery. SERA and Cutler Anderson enthused to de-compartmentalizing responsibilities when that time arrived, and GSA approved the necessary acquisition and contracting tools to make it happen.



Aluminum reeds on the west elevation provide 50 percent shading

Rigorous energy- and water-conservation requirements of the Energy Independence & Security Act of 2007 (EISA) had also taken effect in the intervening years, and ARRA's own sustainability requirements for shovel-ready projects exceeded EGWW's existing scope. In order for the modernization to restart in 2009, then, GSA had to align the benchmarks of integrated design to the ambitious goals of legislation. "We modified the contract to include 16 high-performing green building specifications," Brunner says. In addition, compliance with EISA and ARRA "meant exploring the previous design and making sure it could hold its own against all the new measures, and especially those dedicated to energy conservation."

ARRA was a response to the Great Recession, and the project team took that crisis under consideration as it readied the modernization for new environmental specifications. In the plan that had been shelved, EGWW was to remain partially occupied during construction, which would have lengthened the project schedule and disrupted those tenants who remained. With private-sector office vacancies rising

and construction prices falling, cost-benefit analysis favored GSA's entirely vacating EGWW and modernizing it. The project would create temporary tenancy to support the local real estate market, as well as achieve superior performance, within its original budget.

Presented with updated environmental and occupancy parameters, SERA and Cutler Anderson collaborated intensely on a redesign through 2009. In January 2010 they were joined by general contractor Howard S. Wright and firsttier subcontractors to give feedback on the scheme and refine it for completion. Numerous stakeholders co-located in a field office inside EGWW to complete design work in as coordinated a fashion as possible, and demolition started nine months later. EGWW was rededicated in May 2013. ARRA required funding to be obligated no later than September 2010 and spent by the end of September 2015.



View of building before renovation



View of building after renovation

## EGWW'S MUTUALLY REINFORCING SOLUTIONS

The vegetated building envelope that Cutler proposed to SERA, and which earned the partners their GSA contract, was sweeping in its potential benefits: additional square footage, fewer seismic retrofits, and less stress on the mechanical systems. During the redesign of EGWW, the project team embraced a cutting-edge mechanical system that could similarly do good on many levels.

In sustainable building modernizations, mechanical systems offer the greatest improvement of performance, and in 2009 the EGWW team determined to replace the original forced-air heating and cooling with hydronic radiant heating and cooling. The latter system is dramatically efficient, as it allows warmth and cooling to emanate from panels and convect naturally; here the reduced energy consumption would equate \$2 million in operations savings over its life cycle compared to traditional means. Eggleston adds, "Shifting to a radiant system eliminates ducting and air recycling, which would allow us to raise the ceilings as high as possible and rely completely on fresh air." Increasing ceiling height simultaneously improves daylight

penetration to interiors, and circulating unrecycled air through those spaces promised a healthier indoor environment for all building users.

Yet the team also was aware that hydronic radiant heating and cooling is carefully tuned. To prevent EGWW's system from becoming overtaxed, it would have to minimize the building envelope's exposure to temperature extremesexcessive thermal gain from the sun, in particular. So the collaborators returned to the proposed curtain wall and shading system, subjecting the pairing to rigorous computer simulation to optimize its design. As Brunner puts it, "The original idea of a shaded envelope inspired the change in mechanical plan, but then we had to backtrack and ensure that that shading was as effective as possible."

The team employed two advanced digital models to analyze possible configurations of the glass curtain wall. One evaluated peak thermal gain for all four elevations of the tower; that model varied percentages of vision glass to confirm the facade area that required shading, as well as the amount



of time those surfaces would need to be shaded during the day. The other explored the relationship between a shading system and daylight harvesting, in order to strike the right balance between preventing thermal gain and providing employees and visitors with natural light. Today, EGWW's high-performance glass curtain wall comprises 43 percent vision glass.

The completed building envelope also incorporates sunshade elements—most notably aluminum reeds that run the entire height of the west elevation, and which lend EGWW its new, organic silhouette. Individual reeds are attached to one of six armatures, two of which fan out from the curtain wall to identify EGWW's public entrance and exit. An orthogonal assembly of sunshades and daylight harvesters dance along the south- and east-facing glass, and the north elevation is unadorned.

The metal elements replace Boston ivy and Virginia creeper, which would have required several years of growth to adequately protect the curtain wall. The designers sought a manmade substitution that mimicked plants' behavior by tailoring the size, angle, and spacing of every shading device to solar orientation. "Each facade is attuned to daylight angles; the entire solution is based on the way the sun moves around the building," Eggleston says.

This iterative process epitomized integrated delivery as much as regional sensitivity. "You don't expect this from architects, but I told the engineers they were in charge," Cutler says. "If they gave me the areas of open and closed, heat transference values, amount of reflection, and any other data, then I would come back with a handsome product." After Cutler crafted a design, SERA studied its metrics and daylighting ramifications, and curtainwall fabricator Benson Industries would deem it buildable or not. Since EGWW's 2013 rededication, vines have been weaving up through the completed aluminum reeds with the passing seasons, though building performance does not depend on their growth.

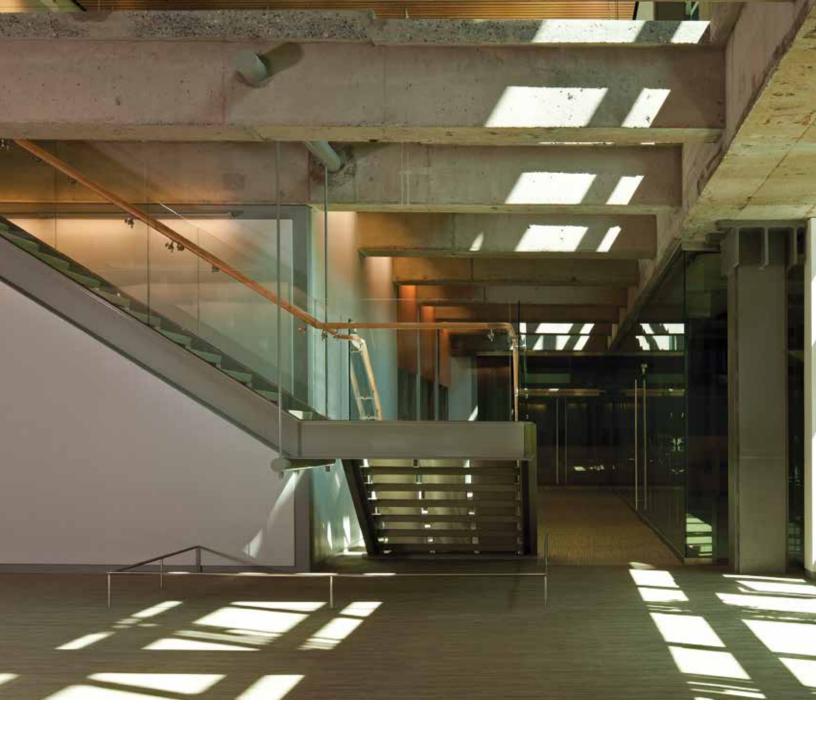
Just as EGWW's building envelope and climate-control systems engage in a mutually reinforcing relationship, so do its other high-performance systems. Take the 25,000-square-foot roof canopy that crowns the federal office. Angled for maximum sun exposure, the canopy is embedded with 180 kilowatts of photovoltaics that fulfill 4 percent of EGWW's energy demand. It provides the building with another protection from solar thermal gain, as well.

The roof canopy also plays a key role in collecting rain. The expansive surface channels precipitation into a former basement-level rifle range, which has been converted into a 165,000-gallon cistern. The collected stormwater is then reused for toilet flushing and irrigation, and it is the hydronic medium for heating and cooling. Measured in concert with drought-tolerant landscaping and a more efficient mechanical cooling tower, reclamation reduces potable water consumption by 65 percent compared to a typical office building.

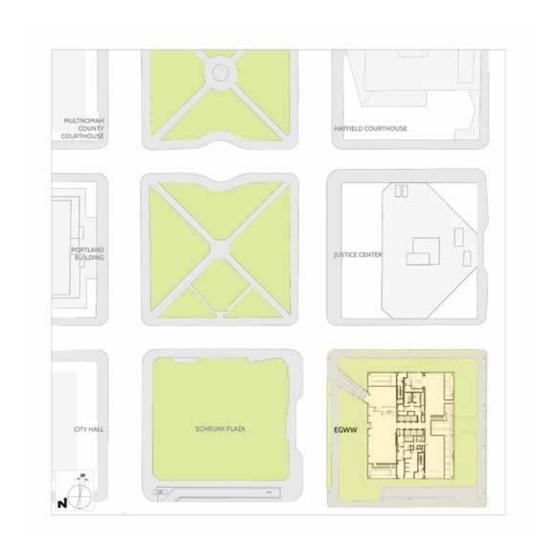
Even seemingly small strategies at EGWW represent cutting-edge and best practices in sustainability, and contribute to goals of reducing energy and water use. A dedicated outside air system supplies the interior with 100 percent fresh air, as Eggleston

had envisioned, and a ventilator system recovers heat from exhaust and transfers it to incoming air. In a similar vein, elevators regenerate power as they descend, and employment of a demand-dispatch system allowed GSA to reduce the total number of elevators from eight to six. Low-flow plumbing fixtures and automatically adjusting lights populate the interiors.

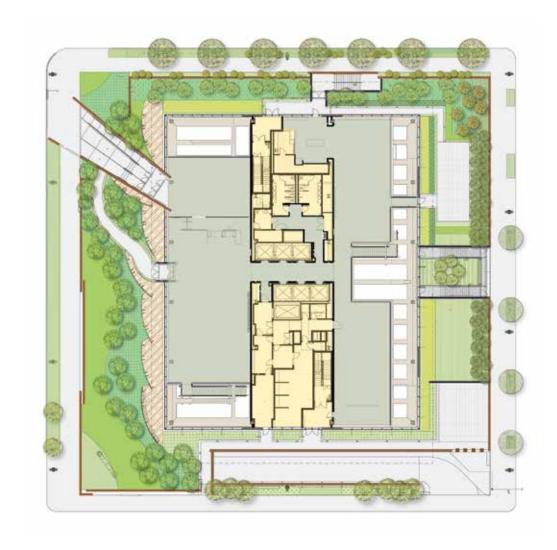
In all, EGWW's performance strategies reduce resource consumption to save approximately \$400,000 in annual operations expenses. And together they have reinvented an aging, largely unremarkable building as a national symbol of visionary thinking and efficiency. The American Institute of Architects (AIA) called the modernization of EGWW "heroic" in 2014, when it included the building among the Committee on the Environment Top Ten Projects. In giving EGWW this venerable award, the jury commented, "It takes a really challenging building type, a generic high-rise office building, and rethinks it. This project has the ability to inspire building owners and private developers to think more creatively."







#### Neighborhood Plan



#### Site Plan

#### THE PORTFOLIO PERSPECTIVE

In addition to the EGWW modernization's sustainability accomplishments, its contributions to contemporary city life, construction, and business have been an inspiration to the real estate community. In 2014, the Council on Tall Buildings and Urban Habitat honored EGWW as an exemplar of 21st-century skyscraper architecture. Portland-based writer Brian Libby echoed that praise in the magazine Architect, stating that the "design...embodies the interlocking GSA goals of commissioning visually compelling architecture while advocating leading-edge sustainability. This is not architecture as sculpture, but with a racecar-like beauty rooted in function." In the world of construction, the trade organizations Lean Construction Institute and Construction Users Roundtable have incorporated EGWW in its education materials concerning integrated delivery—the very series from which Brunner first learned about the subject, he says. And by moving the building envelope outward as Cutler originally envisioned, as well as reclaiming mechanical housing no longer required by hydronic radiant heating and cooling, the project increased leasable area by 33,000 square feet.

Ongoing measurement of EGWW's performance is validating the awards and plaudits. After two years of use, the building met and exceeded its projections: gas and electrical utility bills demonstrated 45 percent energy savings; the former rifle range collected almost 90,000 gallons more water than expected; radiant climate control should reach \$2 million in savings well ahead of schedule. More than three-fourths of EGWW's occupants are satisfied with the renewed space.

Consequently, the project's influence is now becoming discernible in the field. In 2016 the City of Portland tapped Howard S. Wright to co-lead the modernization of its landmark municipal building, and it has asked GSA to advise the undertaking. Other project team members like SERA are now widely respected providers of integrated delivery, and the method itself is becoming popular in institutional and commercial real estate.

Insinga believes that such direct impacts will only expand. "There are thousands of mid-century offices that no longer enjoy Class-A status, and Edith Green's modernization provides a road map for elevating those buildings' desirability," says the chief architect. The group poised to most quickly benefit from the lessons of EGWW's modernization may very well be the 1,500 mid-century buildings that GSA owns.

Numerous factors justify reinvestment in the federal buildings, such as their consistent proximity to public transit, and, Insinga adds, "Since the 1990s, GSA has treated this building stock as an enduring legacy, earning wide recognition for that vision." As functional obsolescence slowly descends on the agency's mid-century inventory, GSA has begun shepherding these valuable assets into the 21st century. This initiative dates at least to 1999, when the agency conducted a seismic upgrade of the 1963 Wallace F. Bennett Federal Building in Salt Lake City. That project employed unbonded brace frames, in a first-ever use of the technology in a public building, and included curtain-wall replacement. More recently, the ARRA-funded modernization of the Anthony J. Celebrezze Federal Building in Cincinnati bears resemblance to the EGWW renovation, as it is America's first high-rise to be entirely overclad in a new glass facade; the new surface creates an insulating cushion of air in the gap between it and the original building envelope. GSA's work in this arena has carefully melded performance innovation and historic merit, too. In one example, the social importance of the Byron G. Rogers Federal Office Building in downtown Denver led GSA to modernize that facility as a potential landmark.

So while EGWW is only the most visible recent example of GSA's ensuring the longevity of federally owned midcentury buildings, its transformation also culminates the knowledge and collaboration of that years-long effort. The modernization's commitment to environmental performance and users' well-being illustrates the full potential of any mid-century retrofit. And for GSA in particular, EGWW shows how an entire era of modest federal buildings can be remade both in the service of frugality and of local and national pride.





Architecture is inescapably a political art, and it reports faithfully for ages what the political values of a particular time were.

Daniel Patrick Moynihan

#### **EGWW'S ARTS LEGACY**

GSA allocates a small portion of a major federal building project's construction cost to fine arts. Through its Art in Architecture and Fine Arts programs, the agency commissions and stewards public art. By enhancing the civic meaning of federal architecture through art, the programs celebrate American culture and art's contributions to democracy. GSA helped other Percent for Art programs gain momentum nationwide, and the Fine Arts Program manages one of America's oldest and largest public art collections.

The modernization of EGWW allowed GSA to leverage both of its art programs for the benefit of the American people. Through Art in Architecture, the artist Vera Lutter created *Forest*, a translucent screen of four acrylic panels that are printed with an image of an ethereal woodland. Lutter used a room-size *camera obscura* to expose an image of a forest landscape onto a large sheet of silver gelatin paper, to produce a photographic negative. She then re-photographed the negative and heightened the image's tonal contrasts digitally, and printed the final depiction onto the acrylic panels.

As installed in the federal building, *Forest* is both photographic and sculptural. By using a photographic negative, which reverses areas of light and dark, Lutter has made a familiar scene appear unfamiliar. That surprise all but guarantees the attention of EGWW's occupants and visitors. The artwork's physical engagement with architectural space and the always-changing daylight further involves viewers, focusing their thoughts to the complex relationship between humans and nature.

Known for creating vibrant, abstract artworks based on music samples, Tim Bavington translated the rock-androll classic "Louie Louie" into an Art in Architecture commission of the same name for EGWW. Richard Berry's original song was relatively unknown until 1963, when both The Kingsmen and Paul Revere & the Raiders cut separate versions at the same recording studio in Portland. Louie Louie comprises 80 cast-acrylic panels, which are three-dimensional depictions of the sound waves that make up the 80 bars of the song. Bavington also assigned colors to spectrographic images of the music, and the resulting color combinations of the

acrylic correspond to the song's changing chords. Viewed from different angles and at various times, the forms appear fluid.

GSA has commissioned nearly 500 artworks through Art in Architecture since its establishment in 1972. Two of the program's earliest commissions date to 1976, when Dimitri Hadzi and Jack Youngerman were invited to create an outdoor sculpture and a tapestry for the plaza and lobby of the original EGWW. As part of the high-rise's modernization, the Fine Arts Program conserved and reinstalled these two artworks.

Dimitri Hadzi initially had planned to cast a bronze sculpture for this commission, but a trip along the Columbia River, during which he admired the natural geological formations, inspired him to use native Oregon basalt. The resulting archshaped, free-standing sculpture unites art and environment. The title *River Legend* refers to a Native American myth about a natural bridge that had crossed the river, but for Hadzi it also alluded to man's power over nature and the taming of the wilderness. Although the sculpture appears

to be a monolith, it is actually five separate sections of hand-worked stone, which are pinned together to form a monumental arch. Originally placed on the east side of EGWW, the sculpture was relocated to its current site in 2013.

Jack Youngerman collaborated with Gloria F. Ross to translate his bold design into tapestry. The composition's central yellow shape is surrounded by swirling red forms that are anchored by more subdued green elements in each corner of the deep blue field. The green elements also interrupt the tapestry's primary-color triad of yellow, red, and blue. For many years, Youngerman had been intrigued by the writings of the 13th-century Persian poet and mystic Rumi. The tapestry's whirling forms and vibrant colors, balanced by a strong underlying structure, recall a dervish dance pattern and prompted Youngerman to title the piece Rumi's Dance.





#### THE DESIGN AND CONSTRUCTION TEAM

#### Owner

U.S. General Services Administration Public Buildings Service Northwest/Arctic Region

George E. Northcroft, regional administrator

Patrick Brunner, project executive and senior contracting officer

Paul Witherspoon, project manager

Richard Broderick, senior project manager

Chad O'Brien, contracting specialist

RJ Angeles, Luke Arant, Dawn Ashton,
Barbara Bailey, Roselyn Bailey, Kim Baker,
Donald Bednarz, Chaun Benjamin, Jessica Best,
Kate Betz, Pete Blakely, Daniel Brown,
Ross Buffington, Linda DeLap, Camron Doss,
Susan Foster, Darin Frost, Kristy Frost, Todd Gillies,
Robin C. Graf, Susan Harrison, Stephanie Kenitzer,
Chuck Koval, Frank Krawcyk, Darin Lenderink,
Michael Levine, Robert McCarty-O'Hairt,
Frederick Moorehead, Carrie Mosher, Sonny
Neumiller, Paul Oresik, Bob Ortiz, Melanie Powers,
Kelly Sarver-Lenderink, Sue Saucier, James Silk,
Kay Lynn Smartt, Je (Richard) Sung, Story Swett,
Judy Tomlinson, Chelsea Turnbull, Sue Turner,
John Vickers

#### **Design Architect**

Cutler Anderson Architects Seattle, Washington Jim Cutler, design architect David Curtain, Pat Munter

#### **Executive Architect**

SERA Architects Portland, Oregon

Donald Eggleston, partner-in-charge

Jennifer Taylor, Stuart Colby, project managers

Jim Riley, project architect

Suzanne Blair, tenant improvements project architect

Cathy Ballensky, Fernand Banna, Liatt Braun, Clark Brockman, Audrey Craig, Logan Cravens, Travis Dang, Jon DeLeonardo, Trevor Elvey, Jessamyn Griffin, Jessica Gracie-Griffin, Erin Hastings, Russell Holzinger, Elizabeth Johnson, RJ Johnson, Natasha Koiv, Nick Mira, Kristie Morrison, Carissa Mylin, Roberta Pennington, Lisa Petterson, Matt Piccone, Joe Pinzone, Russ Pitkin, Priya Premchandran, Gauri Rajbaidya, Margo Rettig, Craig Rice, Timothy Richard, Andrea Schultz-Winter, Anneliese Sitterly, Crawford Smith, Kate Turpin, Sara Vonde Veld, Tuan Vu

#### **General Contractor**

Howard S. Wright, a Balfour Beatty Company Portland, Oregon

Al Arguedas, Dan Armstrong, Kenneth Ball, Anson Borrows, Troy Boardman, Matthew Braun, Troy Dickson, Rhonnda Edmiston, Josh English, Doug Greenwalt, Chris Hartson, David Henson, Bill Jensen, Jason Kribs, Frank Lee, Ryan McGrew, Mike McHargue, Nathan Miller, Brad Nydahl, Scott Passman, Eli Pratt, John Raglione, Lisa Reber, Everado Saldana, Ken Spruit, Leslie Walker

#### Artists

Tim Bavington Las Vegas, Nevada

Dimitri Hadzi (1921-2006)

Vera Lutter New York, New York

Jack Youngerman Bridgehampton, New York

#### **Mechanical Engineer**

Stantec Consulting Portland, Oregon

John Andary, Brendon Currie, Michael Hedrick, Bob Lauderdale, Kyle MacGillivray, Matt Nelson, John Paul Peterson, Tom Phelps, Amarpreet Sethi, Al Spring, Joe Tai

#### Structural/Civil Engineer

KPFF Consulting Engineers Portland, Oregon

Nathan Ingraffea, Deanna Hutchinson, Erik Kabusreiter, Mark Reuland, Aladdin Villanueva

#### **Electrical Engineer**

PAE Consulting Engineers Portland, Oregon

#### **Plumbing Engineer**

Interface Engineering Portland, Oregon

Jon Gray, Sarah Austin, Daniel Buck, Rachel Defouri, Dennis Kangas, Steve Roberts

#### Life Safety

Aegis Engineers Mukilteo, Washington

#### Blast Engineer

Weidlinger Protective Design New York, NY

#### Acoustics

Cascade Acoustics Tualatin, Oregon

Charles M. Salter Associates San Francisco, California

#### **Landscape Architects**

Atelier Dreiseitl Architect Überlingen, Germany

Place Studio Portland, Oregon

#### **Lighting Design**

Luma Portland, Oregon

#### Graphics

Mayer/Reed Portland, Oregon

#### Commissioning

Glumac Portland, Oregon

Steven Straus, Charles Foreman, Todd McGuire

#### **Curtainwall Subcontractor**

Benson Industries Portland, Oregon

John Beaulieu, Scott Gilchrist, Amy Hensley, Jeremy Mucha, Jose Rodriguez

#### Mechanical Subcontractor

McKinstry Portland, Oregon

Damon Cannon, Doug Moore, Daniel Morrison, Matt Nielsen, Eric Peterson, Jeff Sloan, Dave Stevens, Erik Teyema

#### **Electrical Consultants**

Dynaletric Portland, Oregon

Curt Sander, Rich Fry, John Mieras, Todd Nichols, Randy Von Tungeln

Mark Day & Associates La Center, Washington

Mark Day, Blake Bippes

#### **Building Envelope Consultant**

Professional Roof Consultants Portland, Oregon

#### **Elevators**

Otis Portland, Oregon

#### **Demolition**

Nuprecon Snoqualmie, Washington

#### Design Excellence National Peers

Donald Stastny StastnyBrun Architects Portland, Oregon W. Cecil Steward

University of Nebraska-Lincoln College of Architecture Lincoln, Nebraska

Michael Willis MWA Architects San Francisco, California

#### Art in Architecture National Peers

Elizabeth Brown Henry Art Gallery Seattle, Washington

John Griswold Griswold Conservation Associates

Culver City, California

Bruce Guenther Portland Art Museum Portland, Oregon Rosa Lowinger Rosa Lowinger & Associates Miami, Florida

Lawrence Rinder Berkeley Art Museum and Pacific Film Archive Berkeley, California

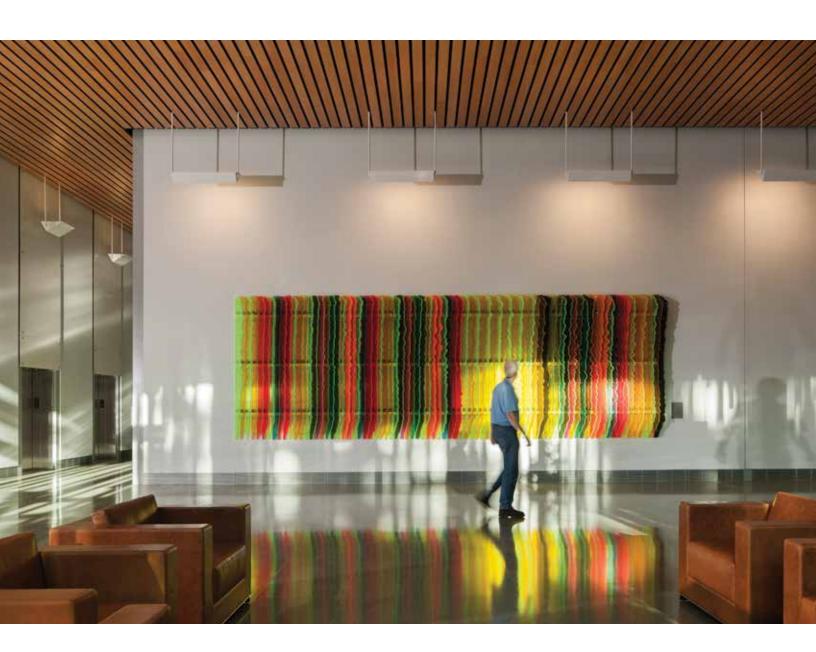
Deirdre Windsor Windsor Conservation Dover, Massachusetts

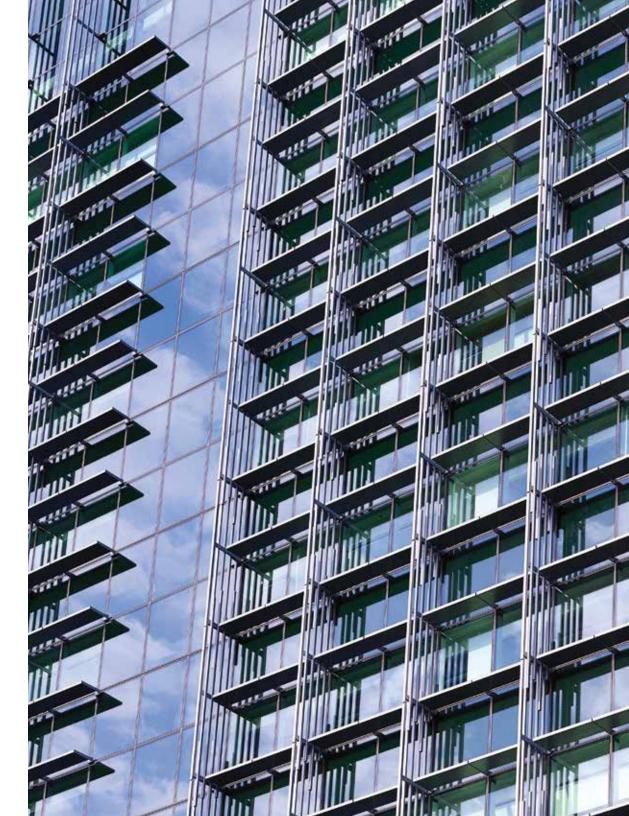
### Construction Excellence National Peers

Greg Cook Holabird & Root Chicago, Illinois

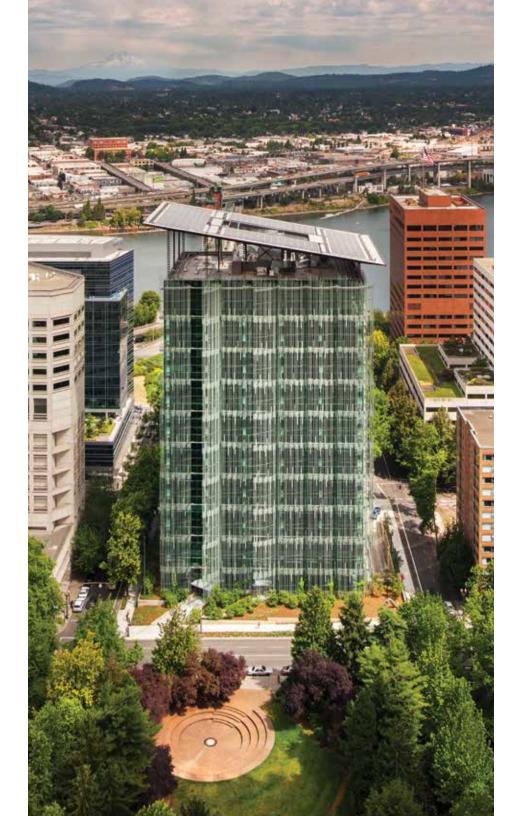
Paul Cossette M.A. Mortensen Company Excelsior, Minnesota

Larry Hopp Kiewit Construction Company Omaha, Nebraska









## U.S. GENERAL SERVICES ADMINISTRATION AND THE DESIGN EXCELLENCE PROGRAM

Public buildings are part of a nation's legacy. They are symbolic of what government is about, not just places where public business is conducted.

Since its establishment in 1949, the U.S. General Services Administration has been responsible for creating federal workplaces, and for providing all the products and services necessary to make these environments healthy and productive for federal employees and cost-effective for American taxpayers. As builder for the federal civilian government and steward of many of our nation's most valued architectural treasures, GSA is committed to preserving and adding to America's architectural and artistic legacy.

GSA established the Design Excellence Program in 1994 to better achieve these mandates of public architecture. Under this program, administered by the Office of the Chief Architect, GSA has engaged many of the finest architects, designers, engineers, and artists working in America today to design the future landmarks of our nation. Through collaborative partnerships, GSA is implementing the goals of the 1962 Guiding Principles for Federal Architecture: producing facilities that reflect the dignity, enterprise, vigor, and stability of the federal government, emphasizing designs that embody the finest contemporary and architectural thought; avoiding an official style; and incorporating the work of living American artists in public buildings. In this effort, each building is to be both an individual expression of design excellence and part of a larger body of work representing the best that America's designers and artists can leave to later generations.

To find the best, most creative talent, the Design Excellence Program has simplified the way GSA selects architects and engineers for construction and major renovation projects and opened up opportunities for emerging talent, small, small disadvantaged, and women-owned businesses. The program recognizes and celebrates the creativity and diversity of the American people.

The Design Excellence Program is the recipient of a 2003 National Design Award from the Cooper-Hewitt, National Design Museum, and of the 2004 Keystone Award from the American Architectural Foundation.



#### U.S. General Services Administration

Public Buildings Service Office of the Chief Architect Design Excellence 1800 F Street NW Washington, DC 20405

202-501-1888



**U.S. General Services Administration**