

Architectural Solutions Case Studies

Light Commercial | Renovations | Schools & Universities High-End Residential









THE DESIGNS YOU HAD IN MIND

Easy to do business with

With JELD-WEN, it's easy to ensure your project lives up to your creative vision. Our vast array of window and door products and options can assist you in meeting your design specifications.

Many of our products are made to order by our expert artisans. Available with nearly unlimited aesthetic and efficiency options, whichever you select, the results are sure to be as distinctive as they are reliable.

Architectural Product Capabilities

- » Custom exterior trim
- » 20-year pre-finished clad exterior
- » Simulated divided lite profiles and patterns
- » Multiple wood species options
- » Energy efficient glazing options
- » Prefinished interior options
- » Textured and Decorative glass
- » Phantom Screens® and UltraVue® screens
- » Decorative hardware options
- » Circular, radius custom shapes and sizes
- » Structural mulled units and performance verification
- » Historically accurate units and trim
- » Ogee Lugs
- » Corner Windows
- » IWP® Aurora® Custom Fiberglass doors
- » High Performance vinyl windows
- » Carved interior doors
- » Exterior folding door systems

Here for you

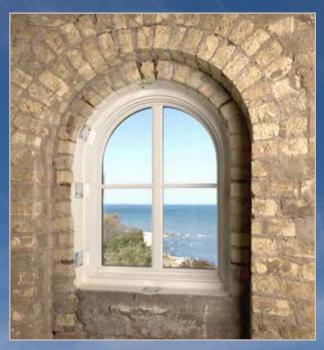
JELD-WEN's Architectural Services Group is well versed in servicing the needs of industry design professionals. For help, simply call us at (800) 441-9013, or visit us at www.jeld-wen.com

« PHOTOS: Queens University of Charlotte, NC, See Page 38

» COVER PHOTO: Greater Waco Chamber of Commerce: Waco, TX, See Page 8

AURALAST[®] SURFACE TO CORE PROTECTION

Protects against termites, wood rot, and water saturation.



Only JELD-WEN[®] makes window and door products with solid pine AuraLast—The Wood That Does Not Rot.

11.1





SURFACE TO CORE PROTECTION

RED BLOCK

TRADITIONAL DIP-TREATED METHOD OF PROTECTING WOOD

- Surface protection only, very limited penetration
- If wood surface is broken the protection is greatly compromised

GREEN BLOCK

AURALAST® METHOD OF PROTECTING WOOD

- Full protection through-and-through against wood decay, water saturation and termite infestation
- Wood surface can be cut without compromising the integrity of the AuraLast[®] protection
- AuraLast[®] offers the protection of composite materials with the flexibility of real wood

AURALAST[®]—PROTECTION TO THE CORE



SURFACE ONLY



♥AuraLast[®]

SURFACE TO CORE

ONLY JELD-WEN MAKES WINDOW AND DOOR PRODUCTS WITH SOLID PINE AURALAST[®].

STAINED BLOCK

STAINED COAT ON PINE WITH AURALAST® PROTECTION

- With AuraLast[®] you do not need to preseal the pine wood
- Stain results are consistent and beautiful

CLEAR COAT BLOCK

NATURAL LOOK OF REAL PINE WITH AURALAST® PROTECTION

• AuraLast[®] does not alter the natural wood color

Please note!

The red and green color was achieved by adding dyes to the treatments. Dyes were used for identification purposes and to show penetration rates of the two different treatment methods.





EASY ON THE ENVIRONMENT

Water-based treatment releases up to 96% fewer volatile organic compounds (VOCs) during the manufacturing process than traditional solvent-based methods.



WET WEATHER PROTECTION

Whatever the climate, AuraLast[®] protects against water damage and rot like no other. Whether it's humidity, storms or dampness, AuraLast[®] pine stands up to the rigors of wet weather.



TERMITE PROTECTION

Termites can be devastating to windows and doors, but not to those built with AuraLast[®] pine. It safely and effectively repels termites, preserving the beauty of your investment.

UIFETIME

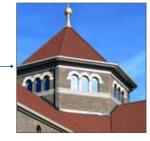
Pine wood windows, patio doors, door frames and components made with AuraLast[®] are backed with a Lifetime Limited Warranty

CONTENTS



LIGHT COMMERCIAL -

8 New Feature Chamber of Commerce, Waco, TX



14 New Feature St. Paul's Church, Columbus, OH



10 New Feature Saxon's, Bend, OR



12 New Feature TPC Clubhouse, San Antonio, TX



16 TPC Sawgrass Clubhouse, Ponte Vedra Beach, FL



20 Milwaukee Road Depot, Minneapolis, MN



22 Pan American Lofts Los Angeles, CA



24 Bedford Springs Resort, Bedford, PA



RENOVATIONS -

SOLUTIONS AS DISTINCTIVE AS THEY ARE RELIABLE

SCHOOLS AND – UNIVERSITIES



28 New Feature Boston University Boat House, Boston, MA



34 New Feature Portland State University, Lincoln Hall, Portland, OR



30 Pew Feature UC Davis, Davis, CA



36 New Feature St. Cloud State University, St. Cloud, MN



32 New Feature Project Frog: Crissy Field, San Francisco, CA



38 Queen's University, Charlotte, NC



40 Boston Condo Project, Boston, MA



46 Coastal Living Show Home, Oriental, NC



42 Sunset Idea House, San Francisco, CA



48 Greensboro Residence, Greensboro, GA



44 Home Remodeling Magazine, SF, CA



50 Country Home Idea Home, Oregon City, OR







Greater Waco Chamber of Commerce: Waco, Texas Certified: USGBC – LEED Gold

Project Challenge:

The 2009 Waco, TX Chamber of Commerce project was born of a need for a new building to call home, as well as an opportunity for the community to distinguish itself.

Fixed on the objective of designing the most sustainable and efficient building possible, the architectural team focused on sending the message that Waco is an environmentally friendly, inviting and livable economic hub.

Reaching a goal of constructing the first-ever U.S. LEED certified Chamber of Commerce involved unique challenges.

Working on a tight budget, the construction team forged an energy-efficient 14,000 square foot plan to maximize daylight and provide occupant comfort in Texas' summertime temperatures which exceed 100 degrees.

Additionally, these same extreme temperatures dictated that exterior products be durable and reliable, in addition to beautiful.

Architectural Solution:

The project team partnered with JELD-WEN for solutions, including ENERGY STAR[®] qualified doors and wood windows, aiding the reduction of energy costs while protecting interior furnishings.

Made with JELD-WEN's proprietary AuraLast[®] Wood, these windows provide assurances against termites & fungal decay, and are made with materials treated in an environmentally friendly manner.

"When it came to selecting the right windows and doors, our top priority was quality that would also help us achieve a certain look and profile," said Keith Bailey, Partner at RBDR Architects. "That led us to JELD-WEN."

"The experts at JELD-WEN worked with us to solve design challenges that helped us meet all of our goals. In addition to beautiful, high quality products, this project benefitted greatly from their support and expertise. It's why we've used JELD-WEN products for our other commercial projects as well."











Siteline EX[™] Clad Wood Windows and Patio Doors with AuraLast[®] Wood

- » AuraLast[®] Wood provides termite protection
- >> ENERGY STAR® qualified
- » Structural mulled window units
- » Continuous trim coil and mullions provide design flexibility
- » Seamless integration of window and door units

Architect:	RBDR Architects	Waco, TX
Builder:	Barsh Company	Waco, TX
Dealer:	EnergyShop Car	rollton, TX

Comments:

Upon completion, the United States Green Building Council awarded the project LEED Gold certification, not only meeting the goals of the project team, but exceeding them.

This was the first U.S. Chamber of Commerce building to earn LEED Gold distinction. JELD-WEN is proud to have been part of such a major achievement, setting a high standard for other commercial projects of this type.



Saxon's Jewelers:

Bend, Oregon

Project Challenge:

A project which endeavored to revitalize the existing Power House and Fuel buildings in the Bend, Oregon Old Mill District, these adjacent historic buildings were renovated into an REI Outfitters and a Saxons retail jewelry store.

Both original buildings are located on the site of one of the largest sawmill operations in the world at one time.

The two buildings team in comprising elements of Bend's landmark Old Mill District project, offering a rich history along with spectacular mountain views and scenic river vistas.

The project developer bucked convention by renovating rather than rebuilding these historic buildings.

Among the challenges the project team encountered included installation details in old brick openings, large window sizes and matching the original product design.

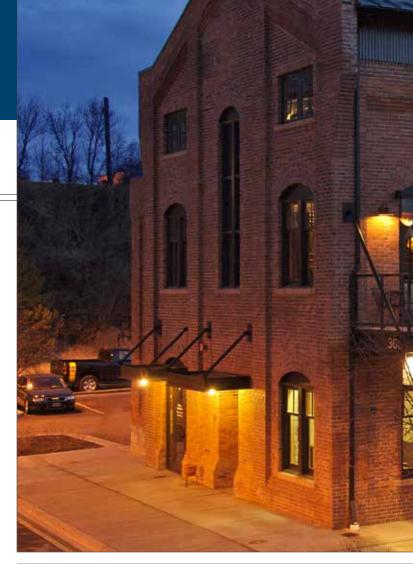
Architectural Solution:

The Architectural Services Group at JELD-WEN assisted in the design of an efficient system for application on the original brick facing incorporating factory applied trim, eliminating the need for field applied trim.

JELD-WEN also provided window design details which closely replicated the original, without the need for costly custom extrusions.

The historic Fuel Building retrofit features a JELD-WEN[®] Entry Door with Copper Clad panels and Chestnut Bronze frame.











Custom Wood Epic® Double-Hung Windows with AuraLast® Wood

- $\boldsymbol{\boldsymbol{\gg}}$ Low maintenance Fixed Epic Double-Hung with historic look
- $\boldsymbol{\boldsymbol{>}}$ Six inch clad spread mulls to replicate original appearance
- » Mix of Cottage style and traditional double hung windows to mimic original design

Custom Wood Epic Commercial Entry Doors

- Depic Copper Clad entry door and sidelights in Saxons (Fuel Building) with matching door and sidelights in interior of vestibule.
- » Factory applied aluminum brickmould customized for use within existing masonry openings.
- $\boldsymbol{\boldsymbol{\varkappa}}$ Epic Commercial doors provide access to second floor balcony

Architect:	Ron Henderson, CIDA Architecture – Portland, OR
	BTL Engineering – Woodinville, WA

Builder: Keeton-King Construction – Sisters, OR

Developer: Bill Smith – Bend, OR

11



TPC Clubhouse: San Antonio, Texas

Certified: USGBC - LEED

Project Challenge:

Opened in January, 2010, The Players Championship (TPC) courses in San Antonio, Texas raise the bar for environmentally sensitive golf course design.

Enlisting the services of PGA icons Greg Norman and Pete Dye, the project today features two of the most well-planned, environmentally friendly and visually stunning layouts ever conceived.

With an eye on protecting the underlying aquifer below the courses, as well as conserving water with sophisticated irrigation and moisture monitoring techniques, the TPC San Antonio achieved its goal of course designs blending harmoniously with their surroundings in perfect balance with nature.

Architectural Solution:

JELD-WEN was proud to partner with HKS Architects in the construction of the lavish TPC San Antonio Clubhouse & Spa overlooking the Oaks Course 18th green.

Concerned with energy efficiency and design flexibility, the designers integrated a total of 105 JELD-WEN° Custom Clad Wood Windows and Epic° Clad Patio Doors into the project.

The project earned LEED designation from the U.S. Green Building Council in 2010.

Originally designed with aluminum commercial store-front windows for the clubhouse, the design team instead chose reliable JELD-WEN products after a visit to the TPC Sawgrass Clubhouse in Florida, another high profile project featuring JELD-WEN Wood Windows.

With plans featuring an impressive 68 foot wide and 14 foot tall radius wall, JELD-WEN's team was up to the task. Working closely with the builder, the task of this challenging installation was achieved, with stunning results.















Custom Clad Windows with AuraLast[®] Wood Epic[®] Clad Patio Doors with AuraLast Wood

- » ENERGY STAR[®] qualified windows and doors featuring Low-E glazing
- » Prefinished aluminum clad exterior for ease of maintenance
- » Reliable 20-year warranted AuraLast Wood for durability
- » JELD-WEN[®] Commercial Solutions Team provide installation and design assistance

Architect: HKS Architects - Dallas, TX

Builder: Austin Commercial - Austin, TX

Comments:

Partnering since 1998, JELD-WEN'S ENERGY STAR qualified windows with Low-E glazing maximize daylight in the building and protect the TPC clubhouse against the heat of summer, helping the energy efficient building to reduce cooling costs, as well as protect interior finishes and fabrics from harmful UV rays.



St. Paul Catholic Church: Westerville, Ohio

Project Challenge:

Tasked with the design of a new Catholic church in the Central Ohio to meet the needs of a growing congregation, Architect David Meleca's seven-year project blended traditional and Romanesque styles in congruence with warmth, comfort and energy efficiency.

Featuring imported Jerusalem Stone accent sills and pediment heads from Israel, his project plans required window designs flexible enough to accommodate utilizing salvaged art glass obtained from previously closed churches in the surrounding area.

Architectural Solution:

"Windows are important to a Church project" said Meleca, whose maximum daylighting design dictated "aesthetics and scale." Meeting the need for quality window construction, cost efficiency and value engineering, JELD-WEN[®] products were selected for the job.

With over 164 windows in total, the transept-shaped St. Paul's Church made use of 100-year old stained glass units salvaged from churches recently closed in the Cleveland area.

JELD-WEN Custom and Siteline EX[™] Wood windows offered the flexibility and compatibility to handle oversized radius windows, custom sized stained glass windows and a three-piece, twelve foot diameter 'suspended circle' mulled window strategically positioned at the front of the church.

Meleca stated "I know architecture, but not necessarily windows," adding that "knowledgeable window manufacturer's representatives were extremely helpful."

JELD-WEN provided unique, structurally reinforced and colormatched units integrating extended sill nosings, frame expanders and custom brickmoulds.

In using JELD-WEN DP-50 windows with durable AuraLast[®] Wood, the construction team utilized JELD-WEN's Commercial Solutions group for flashing details, CAD drawings and component selection. Citing the need for materials that last, project manager Jim Valentas noted "we're building a 100-year structure."











Custom Clad Windows with AuraLast[®] Wood Siteline EX[™] Windows with AuraLast Wood

- » Siteline EX Windows with AuraLast Wood
- » Color matched aluminum clad exterior for ease of maintenance
- » Reliable 20-year warranted AuraLast Wood for durability
- » JELD-WEN Commercial Solutions Team provide installation and design assistance
- Architect: Meleca Architecture Columbus, OH
- Builder: Corna Kokosing Construction Co. Westerville, OH
- Dealer: Northern Window & Door Westerville, OH



TPC Sawgrass Clubhouse:

Ponte Vedra Beach, Florida

Project Details

Architect: Chapman Coyle Chapman

Contractor: Clark Construction Group, LLC

Products: Custom Wood fixed radius and geometric windows and Epic® series swinging patio doors, Custom Wood exterior and interior doors

Comments:

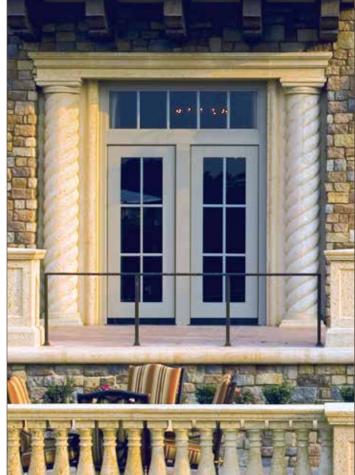
Architect Mike Shue praised JELD-WEN® products for having a wide range of options that gave him "a good opportunity to create a distinctive look."

He also appreciated the assistance from JELD-WEN representatives. In fact, they even tested the windows to ensure they'd withstand the demands of Florida's climate.







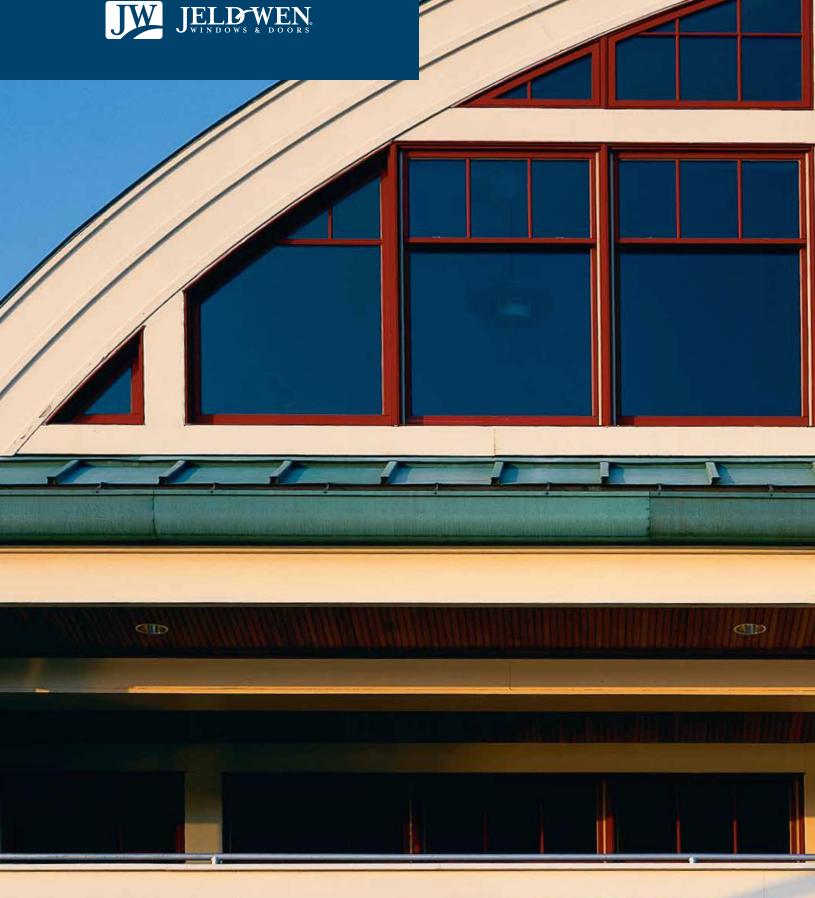






- » Windows: Custom Wood 2-wide pine picture casement windows with geometric transom mull, custom finish, SDL, Low-E glass
- » Patio Doors: Epic[®] series pine swinging patio doors, custom finish, SDL, Low-E glass
- » Windows: Custom Wood casement, radius and geometric windows, Champagne cladding, simulated divided lites (SDL), Low-E glass
- » Patio Doors: Epic series swinging patio doors, Champagne cladding, SDL, Low-E glass
- » Interior Doors: Custom Wood hand-carved Alder doors, custom finish, custom 17th hole carving
- » Windows: Custom Wood picture casement windows, custom finish, SDL, Low-E glass











BOATHOUSE







Milwaukee Road Depot: Minneapolis, Minnesota

Project Details

Architects: ESG Architects & and Shea Architects, Inc.

Contractor: Dan Ackmann, BOR-SON Construction, Inc.

Products: Custom Wood Epic[®] series double-hung windows and swinging patio doors

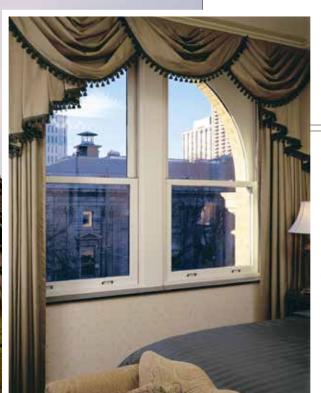
Comments:

Traditional window styles and brickmould were used to support the look of this historic train station. In addition, these energy efficient windows added exceptional thermal performance, which is especially important for the cold climate.

Product Details / Benefits

- » Windows: Custom Wood Epic series double-hung windows, Chestnut Bronze cladding, Low-E glass
- » Patio Doors: Custom Wood Epic series swinging patio door with radius transom, Chestnut Bronze cladding, Low-E glass
- » Windows: Custom Wood Epic series double-hung windows with custom curved rail, painted pine interiors, Low-E glass











Pan American Lofts Historical Renovation: Los Angeles, California

Project Details

Architect: Donald Barany Architects

Contractor: Urban Pacific Group, LLC

Products: Over 300 Custom Wood Epic[®] series double-hung and radius top double-hung windows

Comments:

For historic renovations, authenticity is often more than an ideal—it's a mandate.

And for the team that created the Pan American Lofts, JELD-WEN proved to be the only manufacturer that could meet preservation requirements.

Architect Donald Barany expressed that JELD-WEN[®] double-hung windows offer both visual accuracy and necessary waterproofing.









Windows: Custom Wood Epic[®] series double-hung and radius top double-hung windows, Chestnut Bronze cladding, Low-E Sound Control glass, painted pine interiors.





Bedford Springs Resort Inn:

Bedford, Pennsylvania

Project Details

Architect: 3 North

Contractor: Reynolds Construction

Products: Premium Wood Siteline EX[™] swinging patio doors, sidelights and transoms, Premium Wood Tradition Plus[™] double-hung and fixed geometric windows and transoms

Comments:

JELD-WEN was proud to participate in the renovation of this National Historic Landmark, which was reopened in July 2007.

To meet preservation standards, our Premium Wood Siteline EX and Premium Wood Tradition Plus windows with historically approved exteriors were selected.

Other features, like Brilliant White cladding and simulated divided lites, added to the project's authenticity.





Product Details / Benefits

- » Windows: Premium Wood Tradition Plus geometric windows and transoms, painted pine interiors, SDL (on transoms), Low-E glass
- » Windows: Premium Wood Siteline EX geometric window, painted pine interior, SDL, Low-E glass

Continued in following pages...







NUMBER OF

Project Details/Benefits

- » Windows: Premium Wood Tradition Plus[™] double-hung windows pine interiors, SDL (on double-hung windows, top sash only), Low-E glass
- » Patio Doors: Premium Wood Siteline EX[™] swinging patio doors, Extra White prefinished interiors, Low-E glass
- » Windows: Premium Wood Tradition Plus geometric windows and transoms, painted pine interiors, SDL (on transoms), Low-E glass
- » Windows: Premium Wood Siteline EX geometric windows and transoms, painted pine interiors, Low-E glass
- » Patio doors: Premium Wood Tradition Plus swinging patio doors, painted pine interiors, Low-E glass



DeWolfe Boathouse, Boston University: Cambridge, Massachusetts

Project Challenge:

Located on the banks of the storied Charles River in Cambridge, the Boston University boathouse project was formally dedicated in September, 1999.

Named in honor of the grandparents of University trustee Richard DeWolfe, the boathouse serves as home to the Boston University men's and women's crew teams. The boathouse marks the starting line of the 'Head of the Charles Regatta', the world's largest two-day rowing event.

Architectural Solution:

Affording spectacular views of the University campus with the Boston skyline in the background, the boathouse was designed to meet the future needs of the school's championship rowing program.

Working in partnership with the construction team, knowledgeable JELD-WEN[®] sales representatives were able to provide detailed and accurate project drawings and installation details, aiding in the successful completion of the boathouse.

In conjunction with the need for a custom color match to the school's colors, the construction design team required windows durable enough to stand up to the demands of a waterfront facility.

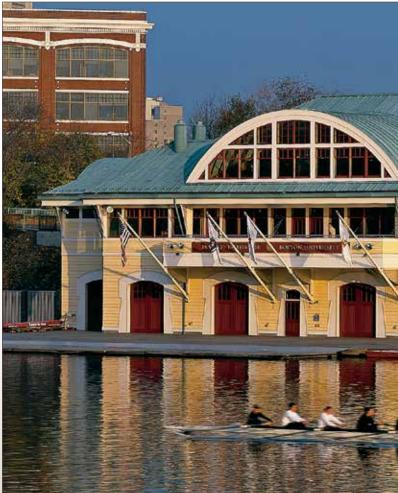
Featuring a 20-year exterior clad finish, JELD-WEN's Custom Wood double-hung, awning and fixed picture windows with insulated glazing provided a clean exterior profile with narrow contemporary divided light design.

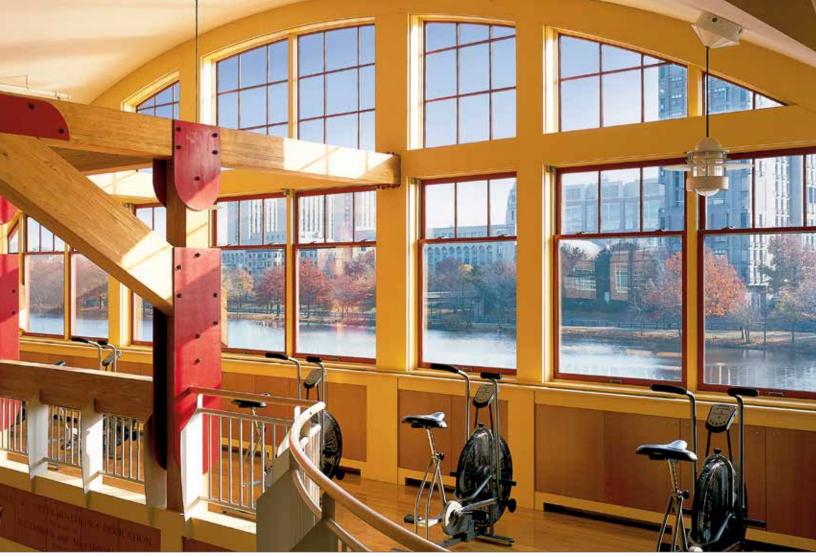
Segment top fixed picture windows in the 32-foot radius wall aided the design team in providing a clear view of the river.

Architect Jeffreys M. Johnson said, "JELD-WEN was able to produce windows customized both in size and configuration, as dictated by our design and in the client's custom color."











Custom Clad Wood Windows

- » ENERGY STAR® qualified windows featuring Low-E glazing
- » Prefinished 20-year aluminum clad exterior for ease of maintenance
- Architect: ARC / Architectural Resources Cambridge - Cambridge, MA
- Builder: Walsh Brothers, inc. Boston, MA

Comments:

The Walsh Brothers DeWolfe Boathouse project was awarded the Build Massachusetts Performance Award by the Massachusetts Building Congress.



Dutton Hall, University of California Davis: Davis, California

Project Challenge:

On the University of California Davis campus just west of Sacramento, CA, Dutton Hall is home to several student service and financial aid offices.

Sitting on the site of the original East Hall, Dutton Hall was named after Thomas Dutton, the first UCD Assistant Vice Chancellor of Student Affairs.

Designed by Fisher Friedman Associates of San Francisco, the 42,000 sq. ft. project was completed in 1999.

Architectural Solution:

Working in partnership with the project design team, including the local JELD-WEN channel partner, the use of JELD-WEN[®] Custom Collection wood windows accomplished the desired storefront system solution.

Designed with tube steel layout to accommodate standard size units, a dramatic two-story 60" wide by 24" tall inverse segmented radius wall was successfully constructed. The results provided efficient and flexible common and office space with natural daylight to permanent work areas.

The project's use of fixed bow window units in various locations required design layout considerations in order to achieve seamless contours.

JELD-WEN's Custom plant in Bend, OR was able to successfully design a solution for a particular challenge presented by a 72 " circular window positioned in the combination steel and wood wall above the entry to the building.

The Commercial Solutions Team participated in the completion of the project and assisted the project design team to meet their desired goals.

With exteriors featuring pre-finished aluminum cladding, and natural interiors of warm Ponderosa Pine with insulated glazing and unsurpassed JELD-WEN warranties, these customized JELD-WEN windows would aid in the energy efficiency and durability of the completed project.











Custom Clad Wood Windows

- » ENERGY STAR[®] qualified windows featuring Low-E glazing
- » Prefinished 20-year aluminum clad exterior for ease of maintenance
- » Structural mulled window units
- » Continuous trim coil and mullions provide design flexibility
- » Seamless integration of window and door units

Architect:	Fisher Friedman Associates – San Francisco, CA
Builder:	Barnes Construction – San Francisco, CA
Dealer:	American Building Supply – Sacramento, CA

Comments:

In 2002, the Dutton Hall project was awarded the Golden Nugget Grand Architectural and Design Award by the NAHB Pacific Coast Builders.



Crissy Field Center– Project Frog San Francisco, California Certified: USGBC - LEED Platinum

Project Challenge:

Project Frog is on a mission to revolutionize the way buildings are created.

Described as LEGOs[®] on steroids, the Project Frog approach applies new technology to overcome the inefficiencies of traditional construction.

The result is measurably greener and significantly smarter spaces such as the new 7500 square foor Crissy Field Center located on San Francisco's waterfront adjacent to the picturesque Presidio and the Golden Gate Bridge.

The Crissy Field Center consists of environmental education classrooms, a science lab, a community gathering room and popular Beach Hut Café.

Designed with durability in mind, high performance features to note include the sleek storefront with aluminum exterior and environmentally friendly glazing and signature clerestory.

Architectural Solution:

Critical to the success of the project was the smooth integration of jamb and trim details to accomplish the desired exterior appearance.

The creative JELD-WEN Architectural Consultant and Commercial Solutions Team worked in concert with a local JELD-WEN distribution partner team to create designs of mulled, high performance window units which complimented the look of anodized aluminum and fit into a value conscious budget.

Intended as a model of sustainable development for both students and community, the project strived to reach its efficiency goals while minimizing its environmental footprint.

Incorporating JELD-WEN[®] Premium Siteline EX[™] Arctic Silver casement and awning windows with stainless steel hinging hardware, the project team successfully accomplished their goal.

Made with durable AuraLast[®] Wood, the windows feature efficient glazing with low U-Factors and 20-year warranties.















Premium Siteline EX[™] Clad Wood Windows with AuraLast[®] Wood

- » ENERGY STAR[®] qualified windows and doors featuring Low-E glazing
- » Prefinished Arctic Silver aluminum clad exterior for ease of maintenance
- » Reliable 20-year warranted AuraLast® Wood for durability

Architect:	MKThink - San Francisco, CA
Builder:	Fisher Development - San Francisco, CA
Dealer:	Associated Building Supply - Burlingame, CA

Comments:

Partnering since 1998, JELD-WEN® ENERGY STAR qualified windows with Low-E glazing maximized daylight in the buildings and aided the project in achieving LEED Platinum designation (pending) from the U.S. Green Building Council.



Lincoln Hall Renovation: Portland State University – Portland, Oregon Certified: USGBC - LEED

Project Challenge:

The first building occupied by Portland State University when it relocated in 1953, campus icon Lincoln Hall completed \$30 million worth of efficiency renovations and seismic upgrades in 2010.

A downtown concert hall and classroom, Lincoln Hall is home to the school's nationally award-winning opera program.

Among the primary concerns of the project's design team were to significantly improve the energy efficiency of this three-story 1912 landmark, as well enhancing the use of natural light.

Key to their project strategy was the replacement and upgrading of the original 11-foot tall, drafty, single pane double-hung windows.

Tasked with pursuing LEED project certification, the team turned to JELD-WEN for assistance in designing highly efficient and historically accurate windows.

Architectural Solution:

The project team partnered with JELD-WEN for solutions such as ENERGY STAR[®] qualified doors and wood windows, which aid in reduction of energy costs and protect interior furnishings.

Made with JELD-WEN's proprietary AuraLast[®] Wood, these windows provide assurances against termites and fungal decay, and are made with materials treated in an environmentally friendly manner.

"When it came to selecting the right windows & doors, our top priority was quality that would also help us achieve a certain look and profile," said Keith Bailey, Partner at RBDR Architects. "That led us to JELD-WEN.

The experts at JELD-WEN worked with us to solve design challenges that helped us meet all of our goals.

In addition to beautiful, high quality products, this project benefitted greatly from their support and expertise. It's why we've used JELD-WEN products for our other commercial projects as well."















Custom Wood Epic® Double-Hung Windows with AuraLast® Wood

- » Locally produced, reducing transportation impact on the environment
- » Historically accurate simulated divided light for beauty
- $\pmb{\gg}$ ENERGY STAR $^{\circ}$ qualified with Low-E glazing for efficiency and comfort
- » Prefinished 20-year aluminum clad exterior for ease of maintenance
- » Reliable 20-year warranted AuraLast Wood for durability
- Architect: Boora Architects Portland, OR
- Builder:Howard S. Wright Construction Portland, ORInstaller:Culver Glass Portland, OR



Riverview Hall, St. Cloud State University: St. Cloud, Minnesota

Project Challenge:

The oldest Minnesota State University structure, the Riverview classroom building was originally constructed in 1913 at St. Cloud State University.

With designation on the National Register of Historic Places, the goal of the 2008-09 renovation project was to restore the original beauty, condition and character to this historic classroom building.

Faced with challenges ranging from removal of existing lead painted windows, to the matching of oversized windows and existing window details, JELD-WEN was up to the task.

As the project is located on the bank of the Mississippi River, the building is exposed to high winds and the extreme temperatures of harsh Minnesota winters.

A customized panning system was developed to not only match the original brickmould, but to meet or exceed the high level of air and water performance ratings demanded by the architectural design requirements.

Architectural Solution:

Working for three years in concert with the architect, the JELD-WEN Commercial Solutions Team assisted with design elements as well as writing of the specifications.

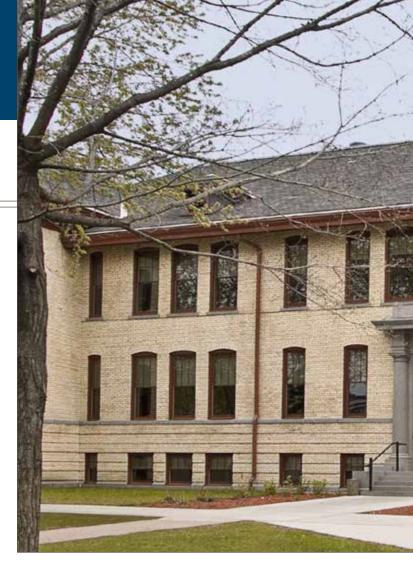
The project's scope included the renovation of 147 openings with JELD-WEN IWP® Custom Wood windows with custom window frames, featuring radius and transom windows.

Additionally, five complete door systems comprised of JELD-WEN IWP Aurora® Custom Fiberglass doors and Custom Clad door frames were installed.

Riverview Hall was the first project to utilize a marriage of JELD-WEN Custom aluminum double-door frame and IWP Aurora Custom Fiberglass door capabilities.













Custom Clad Wood Double-Hung Windows with AuraLast[®] Wood

- » ENERGY STAR® Qualified for energy efficiency
- » Custom Clad Radius Windows
- » Unique 5/8" SDL Bar Detail to match original design

IWP[®]Aurora[®] Custom Fiberglass Doors

- » Custom Clad door frames
- » Authentic Wood appearance with durability of fiberglass
- » ADA-compliant panic hardware, closers and thresholds

Architect:Ellen Luken Architects - Minneapolis, MNBuilder:Boser Construction - Sauk Rapids, MN

Dealer: J and B Window Installation - Becker, MN

Comments:

Upon completion of the renovations, the St. Cloud Heritage Preservation Commission presented St. Cloud State with an Historic Preservation Building Rehabilitation/Restoration Award in June, 2010.

37





Sykes Business Learning Center, Queens University of Charlotte: Charlotte, North Carolina

Project Details

Architect: Jenkins-Peer Architects

Contractor: Rodgers Builders, Inc.

Products: Custom Wood radius and geometric windows and Epic[®] series swinging patio doors with sidelights

Comments:

The architecture's dramatic elegance was enhanced with a wall of windows comprised of geometric and radius windows and Epic series swinging patio doors. Their architectural authenticity also helps uphold the heritage of the building, which is a permanent landmark.

Note: See pages 2-3 for more photos from this project.

Product Details / Benefits

- » Windows: Custom Wood geometric windows, Brilliant White cladding, SDL, Low-E insulated glass
- » Additional elements: Additional elements: Omega special panels (decorative panels shown here between the top and bottom rows of geometric windows)
- » Windows: Custom Wood radius windows, Brilliant White cladding, simulated divided lites (SDL), Low-E insulated glass
- » Patio doors: Custom Wood Epic series swinging patio doors with sidelights, Brilliant White cladding, Low-E insulated glass





Boston Condominiums Historic Renovation: Boston, Massachusetts

Project Details:

Architect: Grassi Design Group, Guy Grassi

Developer: GTI Properties, Inc.

Products: Premium Wood Tradition Plus™ clad fixed spandrel units and awnings, double-hung and radius and geometric windows, French View swinging patio doors and transoms

Comments:

As part of South Boston's revitalization, this historic warehouse was transformed into condominiums, with penthouses on the upper floors.

The products used helped support not only the upscale look of this project, but also the balance between old and new.

For example, both traditional double-hung windows and streamlined, contemporary patio doors were used.









- >> Windows: Premium Wood Tradition Plus™ awning, double-hung and geometric windows, Chestnut Bronze cladding (on awning and geometric windows) and Desert Sand cladding (on double-hung windows), Low-E glass
- » Windows: Premium Wood Tradition Plus transoms, painted pine interiors, Low-E glass
- » Patio Doors: Premium Wood Tradition Plus French View swinging patio doors, painted pine interiors, Low-E glass
- » Window: Premium Wood Tradition Plus radius window, Chestnut Bronze cladding, simulated divided lites, Low-E glass



Sunset Magazine Idea House: San Francisco, California Certified: USGBC -LEED

Project Details:

Architect: John Lum Architecture

Developer: Meridian Builders & Developers, Inc.

Products: Custom Wood casement and geometric windows and swinging patio doors, IPW®Aurora® Custom Fiberglass folding door system

Comments:

JELD-WEN was proud to be part of this project—one of the first LEED-certified residential remodeling projects in the United States.

One of the ways JELD-WEN meets LEED certifications is by creating windows and patio doors with solid pine AuraLast® Wood, which offers environmentally friendly protection from wood decay, water saturation and termites.









- **»** Windows: Custom Wood casement windows and transoms, painted pine interiors, Low-E glass
- » Patio Doors: Custom Wood French Swinging patio doors, chestnut bronze cladding, Low-E glass.
- » Doors: IWP®Aurora® Custom Fiberglass Folding Door System, A5001 paintable doors, Low-E glass
- » Patio Doors: Custom Wood French swinging patio doors, painted pine interiors, Low-E glass



W | 43





Show Home-Home & Remodeling Magazine: San Francisco, California

Project Details

Architect: Mark English Architects

Developer: RBR Development

Products: Custom Wood casement and geometric windows, swinging patio doors and folding door system, Carved interior doors.

Comments:

JELD-WEN caught architect Mike English's attention for many reasons. He liked the wide variety of design options, the ability to get a complete window and door package from one manufacturer, and the fact that JELD-WEN offered an intriguing folding door system.

JELD-WEN also added energy efficiency for this "green house" with ENERGY STAR $\ensuremath{^\circ}$ qualified windows and doors.





Product Details / Benefits

- » Windows: Custom Wood transoms, primed wood exteriors with custom paint finish, simulated divided lites with 1/8" bead, Low-E glass
- » Doors: Custom Wood swinging patio doors, primed wood exteriors with custom paint finish, Low-E glass; Custom Wood folding door system, 5037 paintable doors, Low-E glass
- **»** Doors: Carved 2020 interior doors, 110/112 raised moulding



W 45



Show Home-Coastal Living Magazine: Oriental, North Carolina

Project Details

Architect: Historical Concepts

Builder: Watermark Custom Homes

Products: Premium Wood Tradition Plus™ casement and double-hung windows, Custom Wood exterior doors, IWP®Aurora® Custom Fiberglass exterior doors.

Comments:

This home features classic Colonial architecture, perfectly appropriate for a coastal home in the Southeastern United States—and the JELD-WEN[®] windows and doors that were used add to the home's architectural authenticity.











- » Windows: Premium Wood Tradition Plus™ double-hung windows, French Vanilla cladding, SDL, Low-E glass
- » Windows: Custom Wood transom and Premium Wood Tradition Plus double-hung windows, French Vanilla cladding, SDL, Low-E glass
- » Doors: Custom Fiberglass A5506 Mahogany wood grain door, Honey finish, Clear IG glass
- » Windows: Custom Wood transom, French Vanilla cladding, SDL, Low-E glass
- » Doors: Custom Wood 102 paintable door, Eggshell paint



Residence: Greensboro, Georgia

Project Details:

Architect: William Taylor Custom Homes, Inc.

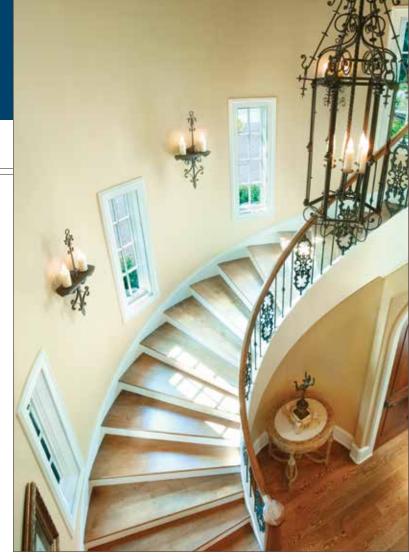
Contractor: William Taylor Custom Homes, Inc.

Products: Custom Wood casement and geometric windows, swinging patio doors, transoms and interior doors

Comments:

This home features plenty of Old World architectural appeal and JELD-WEN[®] windows and doors helped create its charming character.

Custom Wood windows set in the tower appear especially intriguing with copper cladding. And inside the home, historically inspired radius top doors serve as more than functional passageways-they're design elements in their own right.









- » Windows: Custom Wood casement windows, painted pine interiors, SDL, Low-E glass
- » Windows: Custom Wood casement and geometric windows, copper cladding (on sash) and Chestnut Bronze cladding (on frames), SDL, Low-E glass
- » Doors: Custom Wood transoms, painted pine interiors, SDL, Low-E glass Patio Doors: Custom Wood swinging patio doors, copper cladding (on panel) and Chestnut Bronze cladding (on frames), painted pine interiors, SDL, Low-E glass
- » Windows: Custom Wood casement window, copper cladding (on panel) and Chestnut Bronze cladding (on frames), simulated divided lites (SDL), Low-E glass





Country Home Magazine Idea Home: Oregon City, OR

Project Details:

Architect: Alan Mascord Design Associates

Contractor: Blazer Development, Inc.

Products: Custom Wood casement and radius and geometric windows, swinging and sliding patio doors, sidelights, transoms and exterior and interior doors

Comments:

The design options—and even the price—of JELD-WEN[®] products is what led architect Eric Schnell to select them for this project. He liked that certain options, such as the clad color he chose, were available from no one but JELD-WEN.

This also wasn't his first project with JELD-WEN products. Schnell says he's been using them "almost since I started hearing about them."





Product Details / Benefits

- » Windows: Custom Wood casement and radius & geometric windows, Black Licorice cladding (second floor casement windows also include copper cladding), SDL, Low-E glass and painted pine interiors
- **» Doors:** Custom Wood 1260 Alder flat top door, sidelights and transom, Chappo finish
- » Patio Doors: Custom Wood swinging patio door with sidelights and transoms, Black Licorice cladding, SDL, Low-E glass
- » Doors: Custom Wood 1202 Alder Dutch interior door, custom finish

Continued on following pages...







- » Patio Doors: Custom Wood swinging patio door with roll screen, sidelights and transoms, Black Licorice cladding, simulated divided lites (SDL), Low-E glass
- » Windows: Custom Wood geometric windows and transoms, Black Licorice cladding, SDL (on transoms), Low-E glass
- » Patio Doors: Custom Wood swinging patio door and sliding patio doors, Black Licorice cladding, Low-E glass
- » Doors: IWP*Aurora* Custom Fiberglass A5506 paintable door, custom finish







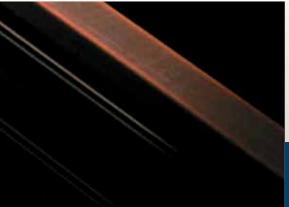
ARCHITECTURAL SERVICES GROUP

Easy to do business with

The JELD-WEN[®] Architectural Services Group is here to assist in providing the tools necessary for you to succeed. Comprised of Customer Service associates, Technical Services staff and Installation Services specialists, our mission is to provide solutions to our customers for all JELD-WEN products.

From project inception through project management to project construction and occupancy, we're here to help.





Here for you

JELD-WEN's Architectural Services Group is well versed in servicing the needs of industry design professionals. For help, simply call us at (800) 441-9013, or visit us at: www.jeld-wen.com.

JELD-WEN Architectural Consultants are strategically located across the country. Armed with CDT Accreditation from the Construction Specification Institute (CSI), and knowledgeable of your specific market, they are here to assist with your project objectives.

Find the Architectural Consultant in your area at: http://www.jeld-wen.com/professional/tools-education/ architectural-consultants

Commercial Solutions

- » Project management support
- » Product recommendation and review
- » Specification review
- » Product drawings and details
- » Shop drawings
- » Installation review for new construction and renovation projects





▲ INSET PHOTO: IWP[®] Custom Wood - Door model 252 in Mahogany with Merlot finish

55

RESPONSIBLE FORESTRY

Green building means good business

At JELD-WEN, we've been in the wood product business for over 50 years. Our legacy has been to make windows, doors and components in a manner consistent with efficient use of what nature provides. In effect, we've always strived to make stiles and sash, not sawdust.

In 1960, efficient resource use such as recycling and material reuse made sense because it was good business. We began the use of finger-joint and engineered wood components because it produced a better product. Today, these manufacturing methods are considered fundamental green building practices.

The most sustainably-sound building product is one which is reused. JELD-WEN offers wood windows and doors featuring salvaged wood components obtained from reclaimed barn and fence wood. Planed and finished, revealing the unique characteristics of each piece of lumber, these products are each truly one of a kind.





The JELD-WEN belief in responsible forest product material sourcing has a long history. Wood is a durable, versatile and beautiful material that has been used in construction for centuries. It is recyclable, and its growth and replanting removes carbon dioxide from the environment. Among building materials, it is one of the few fully sustainable resources.

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At JELD-WEN, we recognize that our future success as a wood products manufacturer is dependent upon responsible and sustainable forestland management. With that in mind, we proudly offer Ponderosa Pine wood windows



and doors that are either SFI° or FSC° certified. Our dual-certification is testament to a desire to offer products you can feel good about specifying in your next project.

Our wood story gets even better

Only JELD-WEN makes window and door products with natural pine AuraLast[®]—The Wood That Does Not Rot.

AuraLast Wood releases 96% fewer volatile organic compounds (VOCs) during the manufacturing process than traditional submersion treatment methods and it uses a water-based solution that is safer to handle than harsh, solvent-based treatments.

♥AuraLast[™]

Best of all, it comes with our reliable Lifetime Limited warranty against termites, wood rot and water saturation.





Supporting Sustainability

JELD-WEN offers beneficial products and services that meet many local green building provisions and which may contribute to a project's certification to nationally recognized programs. JELD-WEN products can be integrated into commercial projects pursuing certification by the U.S. Green Building Council's LEED or the Green Building Initiative's Green Globes standard, as well as residential single or multi-family projects certified to the National Green Building Standard.

- » ENERGY STAR® partner since 1998
- » USGBC National Member
- » GBI Board Member
- » SmartWay Transport Partner Our transportation fleet meets the requirements as set forth by the Environmental Protection Agency



Trust JELD-WEN to assist you in meeting your sustainable construction objectives.

- » GREENdoc[™] online tool to assist with your project certification submittals.
- » CARB-Compliant products
- » No Added Formaldehyde (NAF) Interior Doors
- Products recognized by the NAHB
 Research Center for acceptance by the
 National Green Building Standard
- » Interior Doors Made with Recycled Content
- » FSC® or SFI® Certified Wood Windows and Doors



For questions or comments about JELD-WEN's sustainability platform, contact us at **envinquiry@jeld-wen.com**



JW 57







LEARN MORE

For more information about the windows and doors used in these projects, visit jeld-wen.com. For custom options not shown online, or to learn how JELD-WEN[®] products can enhance your project, contact your JELD-WEN Architectural Consultant.

Find the Architectural Consultant in your area at: http://www.jeld-wen.com/professional/tools-education/ architectural-consultants

ABOUT JELD-WEN

Since 1960, when JELD-WEN began with one Oregon millwork plant, we've been dedicated to crafting windows and doors that enhance the beauty and functionality of your home.

Today we continue that tradition with products that are durable, energy efficient, and worry-free. Our extensive product offering is available globally through multiple distribution channels, including retail home centers, wholesale distributors and building products dealers.

We strive to conduct our business with the highest ethical standards. That includes providing our customers with superior products, establishing solid relationships in the communities where we live and work, and conserving valuable resources.

JELD-WEN's goal is to be the industry leader in environmentally responsible practices and to conduct our business in a manner that demonstrates environmental stewardship. At JELD-WEN, we believe that a healthy environment and healthy business practices go hand in hand.

W 59



The JELD-WEN website is your ultimate resource for learning about our reliable windows and doors. It has all the product information and design advice you need. Visit us at **jeld-wen.com** today.





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15-548 11/16