

Western Red Cedar

Case Study



Josh Partee, AIA, LEED AP

WESTERN RED CEDAR LUMBER ASSOCIATION

REAL CEDAR



Architects, builders and homeowners are drawn to Western Red Cedar for reasons that include its beauty, character, function, affordability and light environmental footprint. But where can prospective users learn about Western Red Cedar’s attributes? And once inspired to proceed, where can they source the product and learn how best to install it? Explore these questions in the following six case-study examples:



CHS Field



The award winning St. Paul Saints’ baseball stadium – to which comedian Bill Murray is both co-owner and “Team Psychologist”– is designed to be the greenest ballpark in America.

1

Sandy High School



Sandy High School - a next generation education facility with demanding design guidelines including, Cascadian architecture, a strong environmental ethic, strict durability requirements and a tight budget.

2

Crate & Barrel



Crate & Barrel - a 170 strong (and growing) international chain of housewares and furniture stores—where no two stores are alike but all are designed with a casual, easy elegance, warehouse feel.

3

Telluride Resort Home



Building homes in the resort community of Telluride, Colorado comes with demanding design and product standards set out by the regional historical and architectural review committees

4

Shelter Island Lean-To



This summer home in this peaceful Long Island retreat blends in with its rustic surroundings but is also resilient enough to require fairly low maintenance.

5

Northwest Home



A Northwest contemporary home - owned by Paul Mackie or “Mr. Cedar” as he is known in the industry. Who better to explain best practices in a home than the expert who advises on it for a living!

6



Helping architects, builders and homeowners consider Western Red Cedar is the mandate of the Western Red Cedar Lumber Association (WRCLA). The decision to select Western Red Cedar involves an awareness of the product and some combination of:

- An appreciation of its attributes,
- An understanding of how to correctly use and/or specify the product, and
- Knowledge of where to source it.

CHS Field

Saint Paul Saints Stadium

Snow Kreilich Architects – Design Architects
Ryan Architecture + Engineering – Architect of Record
AECOM – Sports Architect
Saint Paul, Minnesota

The 7,210-seat CHS Field in the Lowertown district of Saint Paul, Minnesota, which opened in 2015 after three years of design and construction, is many things to many people.

For sports fans, it is the new home to the St. Paul Saints, with unique design elements that include a seating bowl built into the natural topography of the site. For local residents, it is a revitalized green space in an area where one of the ten most contaminated sites in the Twin Cities once sat. And from an environmental standpoint, CHS Field is designed to be the greenest ballpark in America, with a rainwater harvesting system, solar panels, and many other energy-savings features.

While a host of diverse elements attract people to CHS Field (about 450,000 guests are expected yearly), one element stands out as a universally pleasing eye-catcher: the ballpark's extensive use of Western Red Cedar.





Paul Crosby

Design Considerations

The \$63-million CHS Field was conceived primarily as a green space amidst 19th century warehouses (a region of widespread preservation initiatives and gentrification).

The design adheres to this concept, starting with concourse amenities pushed back into the hillside and the seating bowl and playing field depressed into the natural topography, thus preserving the visual connection to surrounding Lowertown (the concourse itself doubles as a 360 degree walkway, allowing patrons to navigate the entire field).

Ryan Architecture + Engineering, Snow Kreilich, and AECOM Architects collaborated to enhance the social experience endemic to baseball by providing open seating opportunities in the park. They also included an art courtyard behind home plate, outdoor terraces at the suite level, and a large terrace.

Sustainability was a major objective and would result in a 27,000 gallon rainwater harvesting system to provide 25 percent of the property's irrigation needs; a 100kWh solar array that would provide 15 percent of the ballpark's electrical needs; and many other features.

As is the case with the best ballparks, wood would be an important building and finishing material for CHS Field. Western Red Cedar was used by architect Julie Snow for many interior and exterior purposes, in keeping with a design motif of taking visual clues from the surrounding Lowertown warehouses.



Paul Crosby

The Real Cedar Solution

Early on, it was decided that cedar would be used as cladding on the underside of CHS Field's suites, club, and press box, which were designed to seemingly float above the concourse on a light steel frame. In this regard, the wood would be the central exterior visual feature.

Additionally, as fans enter the ballpark, they would be greeted by a Western Red Cedar soffit contrasted by black pillars – very similar in style to neighborhood commercial spaces (in fact, Western Red Cedar became the ballpark's primary 'rich' hue in a color palette that consisted mainly of dark grey and blackened steel).

The wood as a design element proved to be stunning, especially at night, when lots of indirect lighting gives the grandstand concourse a warm ambiance.

Western Red Cedar also became visual showcase in the prestigious Securian Club, where it lines the ceiling, continues without interruption along one wall (as a backsplash for the club's bar and display rack) and then along the side of the bar itself.

A tongue and groove installation was deemed to be the best strategy for the exterior, and on interior applications the cedar would be spaced to allow for acoustic control.

The architects selected clear cedar for resiliency and were careful in exterior applications to use it only as soffits or ceilings, thus minimizing UV exposure and ensuring its visual integrity for many years to come.

awards

Honors Award, American Institute of Architects, 2016. AIA's highest recognition of works that exemplify excellence in architecture, interior architecture and urban design.

Greenest New Stadium of 2015, GreenSportsBlog, 2015.

Assistance for Architects, Builders and Home Owners

Steve From, a now-retired Western Red Cedar Lumber Association field representative in Minnesota, noted that the genesis of WRCLA's influence on this project started long before there was any dream of a ball park in Lowertown St. Paul.

This is because it was 30-year industry veteran Mark Luby of Weekes Forest Products that "advocated for Western Red Cedar as an ideal solution for the ceiling applications of CHS Field" and From had the pleasure of introducing Luby to cedar back in the 1980's when they both worked for Canton Lumber. Although From and Luby may have become cedar experts through decades of practical experience, younger sales reps can learn about cedar grades, installing, finishing and proper application in a matter of days at WRCLA's Cedar School.

On the CHS Field project, Luby provided specific guidance on proper nailing installation, as well as using grain orientation in lay up in order to prevent a distorted post installation appearance.

CHS Field's owners initially considered Douglas Fir as the wood of choice, but consultation with WRCLA and Luby prompted them to conclude that the warmth of Western Red Cedar would be more appropriate than the hues of Douglas Fir; also, although not forested in Minnesota, cedar is common to the region and has a local feel the community can more easily relate to.

Like many WCR users, CHS Field's owners were inspired by other applications of Western Red Cedar, in this case nearby Ordway Center for Performing Arts, which has a clear red cedar exterior soffit that requires cleaning every few years and no other maintenance.

While Western Red Cedar is appropriate for virtually any kind of building project, the wood is curiously appropriate to baseball, with its natural qualities tying into the leather of the baseballs and gloves, the wood of the bats, and the red clay of the fields.

Not surprisingly, then, patrons to the new CHS Field cite the Western Red Cedar elements as the ballpark's most striking characteristic. It's one more win for a unique facility that exhibits 21st century environmental values and honors traditions of the past. For information on where to purchase Western Red Cedar products visit the Western Red Cedar Lumber Association.



Learn More

WRCLA Cedar School

Western Red Cedar Lumber Association
www.realcedar.com/cedarschool

WRCLA's Inspiration Gallery

Western Red Cedar Lumber Association
<http://inspiration.realcedar.com/>

Learn where to purchase Western Red Cedar

Western Red Cedar Lumber Association
www.realcedar.com

Sandy High School Big Building, Small Town

Dull Olson Weekes Architects (DOWA-IBI)
Portland, Oregon

Opened in the fall of 2012, Sandy High School has been described as a big building in a small town: 310,000 square feet for a community of just 8,000 people, halfway between Portland and the historic Timberline Lodge on Mount Hood, Oregon. The \$79-million Sandy High School—which accommodates 1,800 students—replaces an almost 90 year old structure half its size.

Organized as if it were an ancient Roman town, the school is comprised of two axes running north-south which serves as a corridor linking a gym, an auditorium, and a dining commons and a 600-foot-long east-west axis which leads to three classroom wings extending out to the south and to a double-height library to the north. Two 'cabins' are housed in each wing, with each cabin consisting of four or five classrooms clustered around an open learning area. Each wing ends with a large learning space for practical skills such as automobile repair or agriculture.





Josh Partee, AIAP, LEED AP

Design Considerations

The Sandy High School needed to exemplify the school district’s commitment to quality education and be a center of pride for all communities within the district. In addition, the city’s zoning code required that all new construction conform to the “Sandy Style”, a local design standard meant to celebrate their position as the Gateway to Mount Hood and characterized by Cascadian architecture (*English Arts & Crafts* combined with *Oregon Rustic*), popular between 1915 and 1940.

Sandy High’s owner, the Oregon Trail School District, was also adamant that the facility would impact the natural landscape minimally and be a model of environmental sustainability. This meant serious attention to building system performance but also building material performance, such as locally produced materials that would last the minimum 75-year life of the building.

Finally, the design needed to be economical to build and cost effective to maintain. Long term operational and maintenance costs are often the largest burden that public school districts face once their capital construction bond is spent.

awards Special Design Citation, National School Board Association
Exhibition of School Architecture, 2013

Design Excellence Award, American Institute of Architecture
Committee on Architecture in Education, 2013

Council of Educational Facility Planners International, National
Project of Distinction, 2013



The Real Cedar Solution

In meeting the design requirements, the DOWA-IBI team knew early on they would need wood that was not only indigenous to the region but had superior durability and was suitable for diverse applications. And in considering all the different types of wood that could fulfill their needs, DOWA-IBI principal John Weekes says that “the **natural characteristics of Western Red Cedar** came to the top very quickly”.

The modern Cascadian interpretation pointed to a **design concept of heavy-timber frames**, pitched rooflines and uncoated WRC board siding, complementing the rural, rustic ethos of the surrounding farm communities. Cedar was also used as roof decking (in three-to four-inch thicknesses) with exposed facing; as 8x8 quad posts, and for siding.

A whole-building sustainability plan was developed, ensuring the building included a long list of green building strategies. The goal was to “**reduce the school’s carbon footprint**” and in the process achieve a LEED Gold certification. In this regard, Sandy High was equipped with passive and active solar panels, green roofs, geothermal piping and an air displacement system. The school’s distinctive sawtooth roof brings sunlight into the gym, and skylights perform the same function in other locations. Where shading was needed, deep overhangs and a combination of vertical and horizontal cedar louvers were installed.

Much attention was placed on selecting materials that would last the minimum 75-year life of the building, patina over time and not tire, and require few resources to maintain. Western Red Cedar met those requirements with its natural resistant to moisture, decay and insect damage and because it can be installed, left alone yet look great over time. A key decision in this regard was to treat the cedar with bleaching oil to accelerate the aging process and give the timber the grey, weathered appearance that has become associated with the Cascadian style.

With such a large building, cost issues were magnified by the scale and quantity of material needed. DOWI-IBI staff pointed to the first-time cost effectiveness of cedar siding, the favorable natural weathering for long term maintenance and avoiding the high cost and high embodied and recurring energies of paint and coatings (an additional sustainability feature).

Assistance for Architects, Builders and Home Owners

DOWA-IBI principal John Weekes had high praise for WRCLA's technical field staff, particularly in providing information about treating the wood with bleaching oil and setting up the operation for their construction project. The bleaching oil treatment was applied by Northwest Coating Systems, in Woodburn, Oregon. "It was also an easy wood to work with, absolutely no issues during the installation process," says Weekes.

Weekes summarizes his opinion of Western Red Cedar thusly: "We've used it as siding, as structural components and for interior finishes, and we'll continue to use it whenever the opportunity presents itself. Cedar fits right in with our Pacific Northwest aesthetic, but its value extends far beyond the confines of the west."

The Western Red Cedar elements at Sandy High proved to be so successful that DOWA-IBI is using it in another institutional project: the \$32-million Howard Elementary School, for the Eugene School Board. Weekes says at one point the owner opted for an all-metal educational facility to save costs, "but cedar's affordability compared to other woods combined with its visual appeal compelled him to change his mind."



Josh Partee, AIAP, LEED AP



Learn More

The natural characteristics of cedar

Western Red Cedar Lumber Association
www.realcedar.com/why-real-cedar/natural-characteristics

Designing with heavy timber construction

American Wood Council
www.awc.org/pdf/wcd5.pdf

Reducing a building's carbon footprint

Western Red Cedar Lumber Association
<http://www.realcedar.com/resources/north-american-publications/>

Crate & Barrel A Global Success

Specialty Wood Products (Supplier)
Aurora, Colorado

First opened for business in 1962 by Gordon and Carole Segal, the Northbrook, Illinois-based Crate & Barrel has evolved into an international chain of over 170 retail stores specializing in housewares, indoor/outdoor furniture, and home accessories. The first Canadian franchise store (in Toronto's Yorkdale Shopping Centre) opened in 2008; the first overseas outlets (two in Dubai) followed in 2010; and the first Asian venue (Singapore) opened in 2013.

Crate and Barrel's high focus on visual merchandising relies on the store as reinforcement, and although the size and architecture of each store can be dramatically different, one unifying element is its extensive use of Western Red Cedar.



Peter Brentlinger

Design Considerations

Crate & Barrel's approach to interior design is based on the concept of turning over the crates and barrels that merchandise is packed in and stacking the wares on top. Essentially the stockroom is the showroom, with spotlights and bold Helvetica lettering drawing attention to products.

Exterior design is informed by the existing buildings Crate & Barrel acquires, or by the area in which the company undertakes new-build construction. Architectural elements differ wildly. For example: the Chicago store on Michigan Avenue is clad in white aluminum tiles with large expanses of glass, while the Madison Avenue storefront in New York City is fittingly traditional/corporate. Shopping mall locations rely mainly on clean-line entrances and the brand logo to lure customers.

All of Crate & Barrel's retail outlets are developed with the assistance of John Moebes, director of construction for Euromarket Designs (the corporate name for Crate & Barrel) and in-house architects Jimmy Turner and Peter Wehrli.

The Real Cedar Solution

Western Red Cedar has traditionally been used by Crate & Barrel to give each store a casual, easy elegance. For the past decade, their answer to **where to source Western Red Cedar?** has been Aurora, Colorado-based Specialty Wood Products (SWP). But it is widely available throughout North America.

Formed in 1989, SWP is a wholly owned subsidiary of Tumac Lumber Company and specializes in supplying cedar and redwood as raw stock, as well as custom-milled and pre-stained products (clear and knotty decking, paneling, siding and trim). "Crate & Barrel retained us because they needed consistency of quality and volume, which we provide due to being owned by Tumac and having Disdero Lumber Company as our sister," says SWP president Josh DeGuire.

With respect to **technical support for Western Red Cedar**, SWP relied heavily on WRCLA. "We actually had a WRCLA representative fly to Chicago to give the project managers and architects a product knowledge course on cedar," says DeGuire. "Today we still use the WRCLA website on a regular basis, and we direct people to the site for pictures, grades, install information, etc."

Just as no two Crate & Barrels are exactly alike, no two orders are alike either. SWP has supplied cedar for over 50 new stores to date, with anywhere from 10 to 40 crates of the wood being shipped to each construction site (or, between 3,000 and 15,000 square feet of cedar per project, with an average value of about \$90,000). Annually, Crate & Barrel uses between 100,000 and 150,000 square feet of cedar.

How the cedar is used fluctuates significantly depending on the store. "It's used for exterior siding, interior paneling, as flooring, on the ceilings, and it's stained and painted," says DeGuire. Although Crate & Barrel uses clear cedar predominantly, a wire-brushed **knotty cedar** is increasingly used to mimic barn wood for interior accents (one outlet in Georgia and two in Florida).

The constant and extensive use of cedar by a company that enjoys such vigorous global growth as Crate & Barrel has reinforced SWP's promotion of cedar as an ideal construction material. "We've shipped to places like Russia, Singapore and Turkey, and this year alone we're shipping to Taiwan, Peru, Chile and Columbia, just to name a few countries," says DeGuire. "No matter the country or climate, cedar always proves itself to be extremely stable and durable. There's no other wood like it."



Peter Brenninger

Stealth Cabin by superkult photo by Shari Gill Photography



Me&MyGirls

Crate&Barrel

Assistance for Architects, Builders and Home Owners

Western red cedar has become an indispensable building material for Crate & Barrel. In mall settings, the wood is a showcase for store entrances and extends inward along the ceilings, thus subliminally drawing shoppers into the stores.

Stand-alone locations enable Turner and Wehrli to experiment with different stains and finishes for the exterior, and even in stores where it's used only as an interior accent, cedar is a major contributor to the warm and modern ambiance that every Crate & Barrel aspires to.

DeGuire concludes, "As a cedar supplier, we couldn't ask for a more enthusiastic customer than Crate & Barrel. We meet with their people yearly to go over numbers and schedules, and then they build their stores – finding new ways to use the wood in the process."

There's no end in sight to Crate & Barrel's growth, and that means more and more people in different parts of the world will be able to appreciate the beauty and versatility of cedar for a long time to come.



Learn More

Where to purchase cedar

Western Red Cedar Lumber Association
www.realcedar.com/about/certified-distributors

Technical support for cedar

Western Red Cedar Lumber Association
www.realcedar.com/contact

Knotty cedar

Western Red Cedar Lumber Association
www.realcedar.com/timbers/products

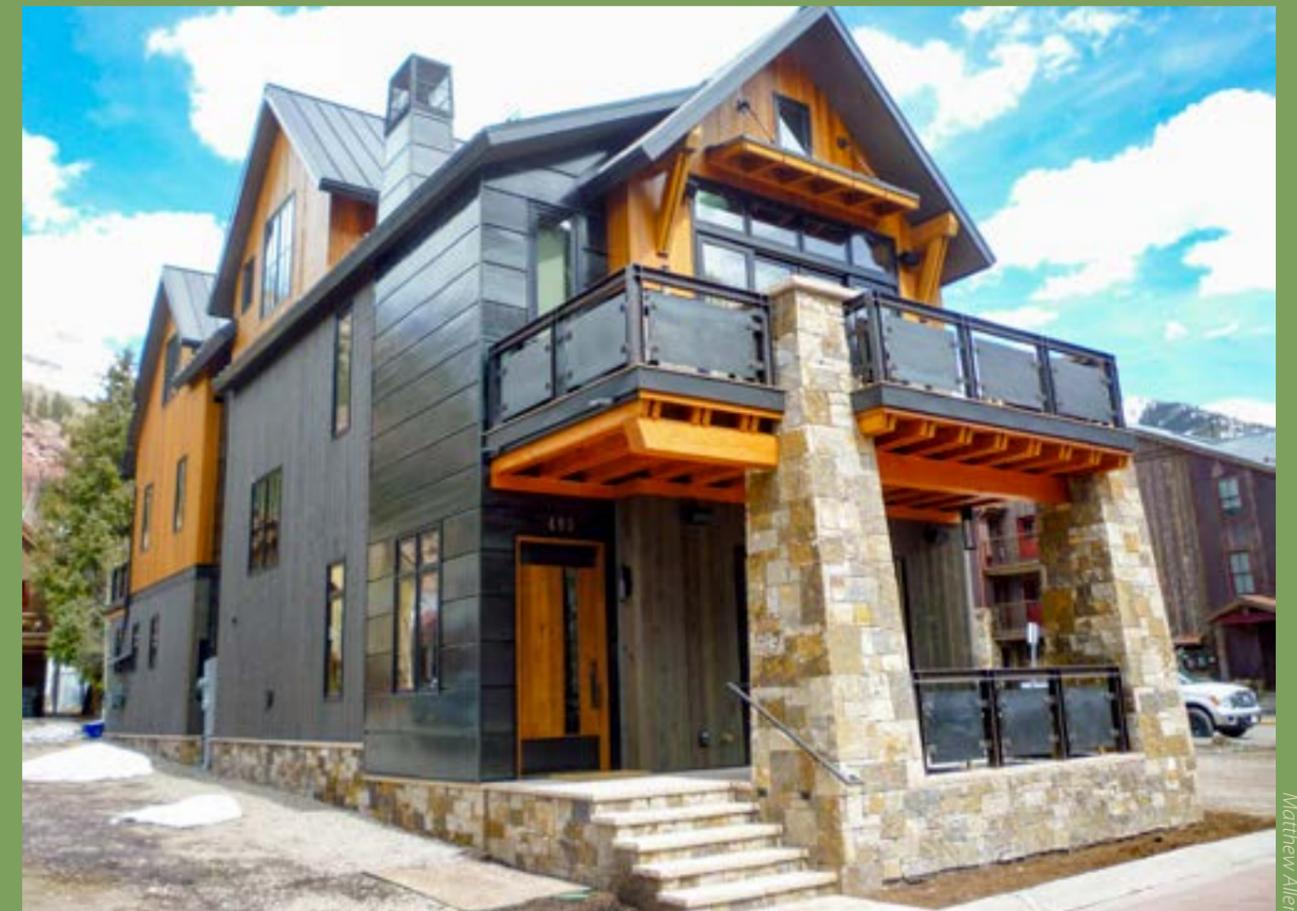
awards Crate and Barrel Atlanta received the Silver Award in Retail Store Design from The International Council of Shopping Centers U.S. Design and Development Awards in 2014. The store has a façade of white brick and Western Red Cedar that exudes light and color alongside a projecting canopy that folds into a landscape planter. Natural light and wood planks, give warmth to the modern interior space.

Telluride Home Upscale Rustic Resort

Matthew Allen - Architect
Telluride, Colorado

Building homes in the resort community of Telluride, Colorado requires extensive effort on the part of developers to ensure that everything from design to materials meet the standards of regional historical and architectural review committees – and a three-story, 3,500 square foot home recently completed by builder and former co-owner Eric Trommer was no exception.

Fortunately for Trommer and his architect Matthew Allen, their decision early on to use Western Red Cedar extensively in the construction process ensured that the resulting home not only achieved regulatory approval, its visual appeal also blended perfectly with Telluride's rustic and distinctly upscale ambiance.



Matthew Allen



Josh Powe

Design Considerations

In order to capitalize on Telluride’s re-emergence as a place to which affluent people converge in order to purchase second homes, Trommer wanted his \$4.5 million development to stand out in what will eventually be a new neighborhood of fairly narrow lots.

With Trommer’s lot only 30 feet wide, Allen in early 2014 designed a residence of five bedrooms and five bathrooms to be spread throughout three levels. “This was a re-thinking of an earlier design that just didn’t work in these narrow confines, and while Eric and I were pleased with the re-design, I still wanted to minimize the feeling of mass and also incorporate some of the best visual elements evident in nearby residences,” he says.



Matthew Allen

The Real Cedar Solution

The partners were impressed by the clear cedar exterior elements of many homes in the region, and Allen was inspired to go a step further by designing the upper exterior portion of his project to be clad in clear cedar siding and the bottom portion to be clad in knotty cedar stained black. Additional information on knotty cedar grades is available on the WRCLA website. [WRCLA website](#)

Allen, who has incorporated cedar into his building designs for the past three decades and loves the material so much that his own home as well as his office is 100 percent clad in the wood, also decided to use Western Red Cedar for accents, angle braces, soffits under the decks, and window trim.

As the design progressed, so too did the specifics of the siding: horizontally installed 1x10 tongue and groove clear smooth face cedar would comprise the upper portion of the house, while vertically installed 1x10 tongue and groove, textured, dry, select knotty cedar (appropriately stained) would dominate the bottom portion.

Allen says, “This did several things: it established a beautiful visual contrast, and it also lessened the appearance of mass. Additionally, black stained cedar on the bottom would hide moisture stains caused by the nine-foot snow drifts that typically pile up against homes in this neck of the woods during winter.”

Trommer adds that because the project is in a sunny location at 9,000 feet altitude, he chose a siding profile that is a full 1” thick with a 1/8” fineline square edge detail.

Karl Wagner



Assistance for Architects, Builders and Home Owners

Trommer ordered his cedar through his local supplier, Alpine Lumber, who sourced the material via Capital Lumber of Denver, who in turn located a BC-based mill – PowerWood Corporation of Surrey – that could provide the goods. PowerWood’s Co-owner Jake Power is also President of the Board of Directors of the WRCLA, the voice of the cedar industry representing both manufacturers and distributors.

Both the mill and the supplier are a member and a Certified Cedar Distributor respectively of the Western Red Cedar Lumber Association. “The wood, which took 60 days to deliver, was stained in Denver as opposed to stained on site, for superior quality,” says Trommer. “It was a most efficient process overall, and the only mistake we made was ordering too little – so we had to wait another 60 days for a second supply of wood.” Information on where to purchase Western Red Cedar for residential projects is available from the WRCLA.

As for installation, Trommer calls working with Western Red Cedar “downright fun. It was lightweight and easy to cut, no effort at all putting up; we used colored fasteners which were less visible and fastened the facing into the building.” Construction was completed in December of 2015 and the home was soon purchased by full-time Telluride residents.

Trommer’s experience with Western Red Cedar is such that he wants to use the wood again in future projects; as for long-time cedar lover Allen, he says;

“I’m passionate about using cedar in all my projects, for its dimensional stability, its longevity and the special, beautiful glow it imparts that is unique amongst all woods. The suppliers on this project really came through and helped us create a residence that stands out in Telluride – which is no easy feat.”



Learn More

More on Knotty Cedar grades

Western Red Cedar Lumber Association
www.realcedar.com/timbers/products

One-stop resource for Western Red Cedar

Western Red Cedar Lumber Association
www.realcedar.com

Where to Purchase WRC for Residential Projects

Western Red Cedar Lumber Association
www.realcedar.com/find-a-retailer/

Feingold Retreat Modernist Lean-To

Jeff Feingold - Architect
Shelter Island, New York

Ten years ago, New York-based residential architect Jeff Feingold and his wife purchased property on Shelter Island with the intent of building a summer home in this peaceful Long Island retreat.

The couple had a half-acre to develop, and considering the home had been a long-standing dream, they wanted something special: a structure that would blend with its rustic surroundings but also be resilient enough to require fairly low maintenance.

Design Considerations

For the next decade as time permitted, Feingold applied his 40-plus years’ worth of architectural skills to create what he describes as a “modernist lean-to,” a building whose design contains visual echoes of the lean-tos he enjoyed so much as a boy scout.

The overall shape was relatively simple: three closed sides and an open face that would be floor to ceiling glazing, looking onto an expansive garden.

It was also a fairly compact design: 1,500 square feet of living space spread over a single level, with three bedrooms and two bathrooms. Wood frame construction was chosen in order to be in keeping with the cottages and historic storefronts dotting Shelter Island

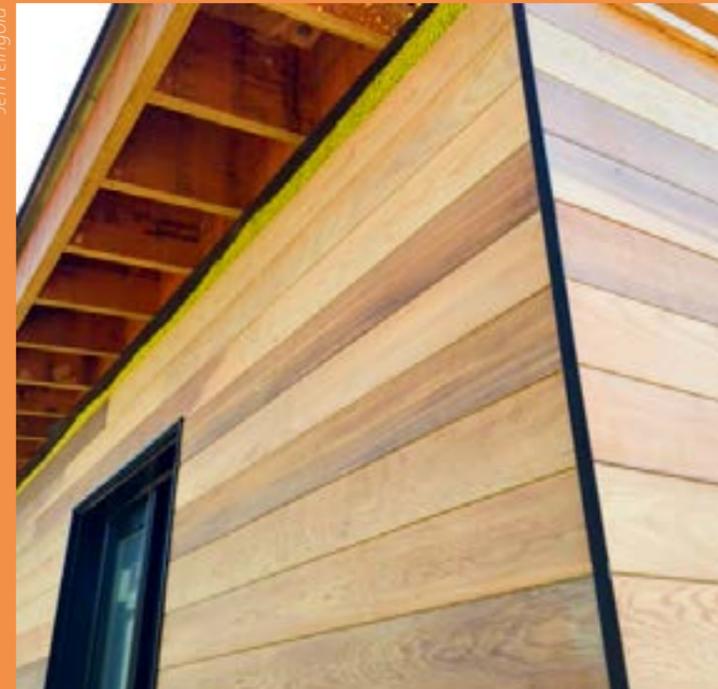


Jeff Feingold

The Real Cedar Solution

Early in the lengthy design process, Feingold knew that a careful selection of building materials would be required not only to enhance the unique appearance of his retreat but provide the low maintenance attributes he was looking for.

Fortunately, Feingold had a keen appreciation of the benefits of Western Red Cedar in residential construction, even though he had not actually worked with the material before. "Cedar is a beautiful and common wood here on the east coast and appropriate for maritime climates, but Western Red Cedar is by far the best type of cedar in terms of visual appeal and durability," he says.



Jeff Feingold

Initially, Feingold envisioned using cedar shingles for the roof but decided this would make his home appear a bit too rustic. "In the end I felt that cedar siding and matching doors would reflect our rural setting and also fit with my modern design," he says, adding that he wanted a special profile for the siding that would create a shadow line between the boards, to accentuate the linearity of the boards and the gaps between them.

How to achieve this profile as well as procure the cedar was unclear to Feingold until 2014, when he performed a casual Internet search, learned about the Western Red Cedar Lumber Association, and got in touch with its western area manager, Paul Mackie.



Learn More

Western Red Cedar Sample Kit

Western Red Cedar Lumber Association

www.realcedar.com/architects/order-architect-sample-box/

Siding Preparation and Installation Video

Western Red Cedar Lumber Association You Tube Channel

www.youtube.com/watch?v=QvRyNOFYDJY

Technical Support for Cedar

Western Red Cedar Lumber Association

www.realcedar.com/contact

Paul Mackie (West) Toll Free: 1-877-316-8845 | mackie@realcedar.com

Jay Poppe (East) Toll Free: 1-866-778-9096 | poppe@realcedar.com

Assistance for Architects, Builders and Home Owners

Feingold used the WRCLA's Architect Advisory Services to study literature and soon became attracted to a rectangular shadow line he could obtain with lap siding; but he preferred not to nail through the face of the siding as had been demonstrated in some examples.

Mackie promptly sent Feingold a variety of samples, including the same tongue and groove in Select Knotty, in order for him to assess the difference between the clear and knotty material. Other samples included 1X4, KD, A Clear & better (allowing up to 10-15% 'B' Clear), T&G, smooth face, and Haida Finesline (3/16" groove at the face-1/8" at the tongue), the latter pattern designed for either horizontal or vertical applications.

Feingold ultimately selected the Haida Finesline pattern with a 3/8" shadow line, and he requested that bleaching oil to be used to treat the wood. "This would bring out the beauty of the cedar and allow it to patina naturally as well as provide protection against the elements," he explains.

Despite Feingold's long-held appreciation of Western Red Cedar, he relied heavily on the WRCLA and Paul Mackie for guidance. "Paul facilitated everything for me, including how I could source the cedar," he says. Feingold eventually chose WRCLA member Haida Forest Products Ltd. of Burnaby, BC, which has made significant contributions to the development and demand for Western Red Cedar over the decades and was one of the first companies to kiln dry knotty grades of cedar siding over 50 years ago; the cedar was shipped to Russin Lumber Corp. of Montgomery, New York for finishing.

Construction of the Feingold retreat is very much a work in progress: as of January 2016 the interior was in various stages of completion, the siding was up, but the doors and glazing had yet to be installed. "The siding looks absolutely gorgeous, exactly what I'd hoped for," says Feingold, adding that his home will be ready for occupancy by the fall.

Feingold calls Western Red Cedar "an ideal building material for North America, which is essentially 'timber country'. It really is unique, and fortunately for me an entire industry has been developed around getting it from the west to the east. The WRCLA is to be commended for helping people make important design decisions and procure the material with a minimum of headaches."



Sandy McKellar



Residential Home Northwest Contemporary

Paul Mackie – “Mr. Cedar”
Whidbey Island, Washington

Paul Mackie, the western area manager of the Western Red Cedar Lumber Association, spent so many years observing the myriad architectural uses of cedar that when it came time for he and his wife Roberta to build a new home for themselves, there was no question what material would be used predominantly.

But even though Mackie promotes the durability and environmental benefits of Western Red Cedar, he says he chose cedar “primarily for its beauty. As anyone who is remotely acquainted with the wood will attest, its visual appearance is striking.”

The Mackies’ 2,450 square foot, two-story residence is located in a beachfront community of about 60 houses on Whidbey Island, Washington State. The building sits on a narrow lot and is only 29 feet wide, which influenced the open concept layout of the interior. The overall style is northwest contemporary – with cedar providing a rustic yet sophisticated appearance.



Design Considerations

The Mackies hired AIA architect Todd Soli to design the home, Soli having extensive experience with island county permitting and the subtle blend of styles associated with Pacific Northwest residences. Having used Western Red Cedar on projects many times in the past, Soli also appreciated its resiliency to Washington's wet, windswept winters.

Mackie was adamant that the cedar be used as cladding, roofing and trim. "I wanted all cladding to be A-clear and better (5-10 percent B-clear), vertical grain", he says, explaining that "this is the best grade of cedar available and I wanted my house to be a real showcase." Todd Soli suggested, based on an application he had undertaken in past projects to great aesthetic effect, that the second floor exterior have a dramatically different cladding pattern than that of the ground level. Additionally, a cedar deck on the second level was incorporated into the design.

Siding for the ground floor consisted of 1x6 textured-face tongue and groove fine line square edge cedar, vertically installed. Second story siding was 1x6 textured-face, tongue and groove flush joint cedar, horizontally installed, with 1x2 battens on the outside spaced to 12 inches on center. All trim and fascia is two inch textured face, and the soffits are 1x4 smooth-face fine line tongue and groove cedar.

Mackie noted that "LS Cedar on Vashon Island was the Western Red Cedar supplier selected. They, in turn purchased the material from Hall Forest Products in Puyallup".



Paul Mackie

The Real Cedar Solution

Given space limitations, "a significant challenge during construction was job site storage, so we erected a tent-like structure in the backyard and loosely stacked the cedar inside," says Mackie. Best practices with regards to construction were followed, right down to the fasteners used: marine grade stainless steel siding nails.

Other best practices included factory staining (including staining of raw end cuts); installing all of the siding over Tyvek DrainWrap; and installing horizontal blocking between the studs to provide a recommended nailing framework into which the vertical siding could be fastened. Construction was completed within the timeline specified without any undue challenges.

While the Mackies have a home worthy of **WRCLA's Inspiration Gallery**,  Paul Mackie emphasizes that it was most important to him that it be an example of how to achieve best results. The general contractor relied on several **WRCLA publications**,  notably four that address how to specify, finish, store on site, and install Western Red Cedar, respectively. "Anyone intent on using Western Red Cedar for a building project can, by following these guidelines, ensure that the completed structure is not only beautiful but able to withstand the elements – and the test of time". So says **Mr. Cedar, Paul Mackie**. 



Learn More

WRCLA's Inspiration Gallery

Western Red Cedar Lumber Association

www.realcedar.com/inspiration-gallery

Best practices for best results

Western Red Cedar Lumber Association

www.realcedar.com/resources/brochures-literature

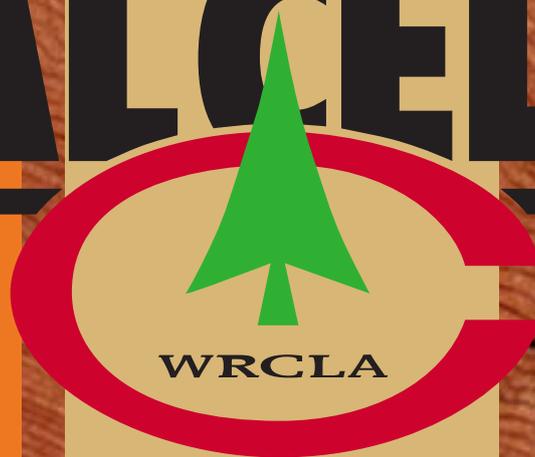
Contact Paul Mackie

Western Red Cedar Lumber Association

Toll Free: 1-877-316-8845 | email: mackie@realcedar.com

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1 866 778 9096

realcedar.com