



The Cedar Book

VOLUME 8

WESTERN RED CEDAR LUMBER ASSOCIATION

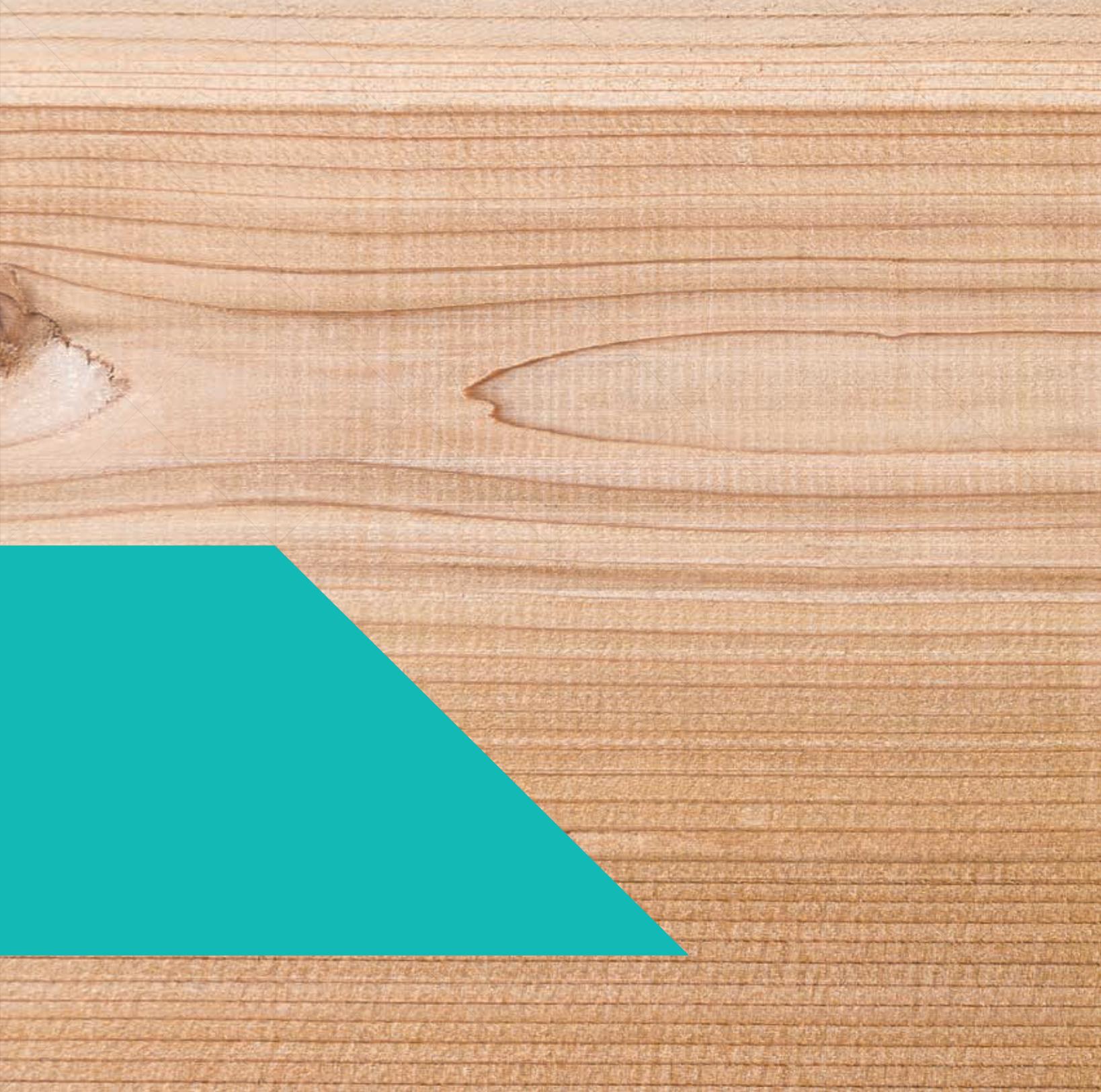


TABLE OF CONTENTS

KNOTTY BY NATURE

Red Rock House	4
Floating House	8
Brady Lane Residence	12
Case Inlet Retreat	18
Stealth Cabin	22
The Crow's Nest Residence	28
Rockhouse	32

TOUCH OF TEXTURE

Madison Park Tree House	36
Cycle House	40
North Lake Wenatchee	44

INSPIRATIONAL INSTITUTIONS

The Forum at Marvin Hall	48
Oranda-jima House	54
Wood Innovation Design Centre	58

The Cedar Book

VOLUME 8

NATURE'S MOST VERSATILE BUILDING MATERIAL

It's an exciting time in wood design! For years, this natural building material has been revered for its sustainable qualities and rustic charm, as well as its innate ability to warm up the more austere elements often associated with modern architecture. This is still very much the case – especially when it comes to Western Red Cedar – and rightfully so. Cedar's natural beauty and environmental record are unbeatable.

But what's new and worth celebrating are the innovative and varied ways in which leading-edge architects are maximizing this wood's endless potential. Both technically and aesthetically, cedar is now recognized as a high-performance material that inspires ingenuity in all forms of contemporary design. Which is why we carved Cedar Book 8 into three sections. The first is Knotty by Nature – this section explores the virtues of knotty grades.

Once relegated to rural applications, knotty wood is now going through a bit of an architectural awakening. As you'll see in these pages, knotty cedar can enhance streamlined structures with a depth and richness that is very modern in look and feel.

The second section focuses on the art of creating texture through various techniques such as charring. And the third section highlights some of the most progressive institutional projects, including the tallest timber structure built to date.

We can credit these diverse applications to the fact that cedar is free of pitch and resin, making it ideal for accepting and holding a wide range of aesthetically pleasing finishes and stains. As well as being versatile, Western Red Cedar is naturally resistant to rot, decay and insect attacks. Hence, the projects featured in this book will stand the test of time and require relatively low maintenance.

Furthermore, when architects choose this naturally beautiful species, they're ensuring a lighter carbon footprint than when using other building materials. That's because it's harvested from the most sustainably managed forests in the world. In fact, more than 85 percent of timberland in British Columbia – the primary source for Western Red Cedar – is certified by internationally recognized, independent, third-party forest certification agencies.

For the last seven editions, the photographs, plans and printed word published in these pages have inspired architects, designers, builders and developers, as well as their clients – and we hope this 8th edition is no different. For more information or if you have any questions about Western Red Cedar products, please visit RealCedar.com. ■

PROJECT

Red Rock House



ARCHITECT

Anmahian Winton Architects
Nick Winton, AIA; Alex Anmahian, AIA;
Makoto Abe, Project Architect,
Sydney Thiel, LEED AP; Mazen Sakr, Designer

CLIENT
ENGINEER

Married couple
RSE Associates, Inc.
Richmond So, Sofya Auren

PHOTOGRAPHER
GENERAL CONTRACTOR

Jane Messinger
Lou Boxer Builder, Inc.

LANDSCAPE
PROJECT TYPE
LOCATION

Reed Hilderbrand
One-bedroom main house, guest house and garage
Red Rock, New York, USA

Surrounded by dense forest, this beautiful property in rural New York was loaded with potential. But due to the steep topography, there wasn't any obvious building site per se. That's where Anmahian Winton Architects and the landscape architects from Reed Hilderbrand came in. Together, they developed a design strategy to create a tangible building site and a more sustainable forest.

"Reed Hilderbrand created a comprehensive plan for clearing, planting, and septic systems that breathed new life into the site," explains Nick Winton, partner at Anmahian Winton Architects.

This landscape strategy then became a strong starting point for the two new buildings to engage with the landscape in dramatic ways. "The guest house clings to a 200-foot-long concrete retaining wall, while the main house projects out from the land and opens up to the forest," says Winton.



THE KNOTTY WESTERN RED CEDAR PROVIDES A GRAIN OF RUSTICITY IN CONTRAST TO THE OTHER MATERIALS LIKE ALUMINUM AND ZINC.

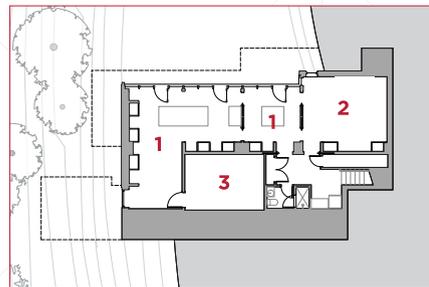
Nick Winton, AIA
architect



Connecting these two structures is a bluestone path, which also leads to a cantilevered balcony in the treetops. Since the new volumes are so simple in shape, the architects wanted to balance that with refined detailing and textured siding.

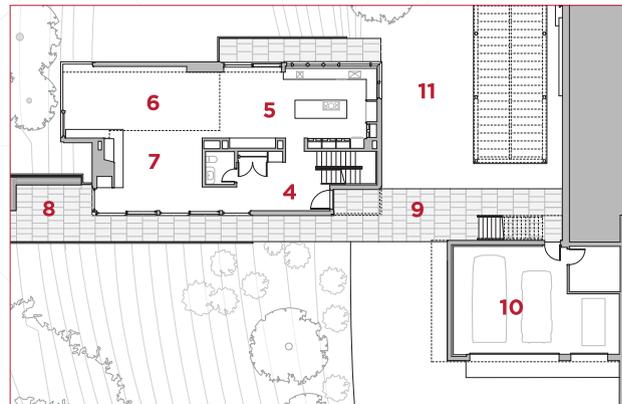
“Our approach to the envelope was to create a highly efficient rainscreen whose details balance precision and rusticity,” says Winton, whose firm has won many notable awards for projects with complex wood rainscreens. Which is where Western Red Cedar comes in. All exterior wood surfaces of the Red Rock House and guest house are clad in a blend of knotty Western Red Cedar.

“The boards are custom milled from mixed grades and with several unique profiles to generate patterns and shadows that change with the sun’s movement,” he says, before explaining why he chose nature’s most versatile building material for this project. “Western Red Cedar is a great wood species for precise milling, excellent weathering, longevity and character.” ■



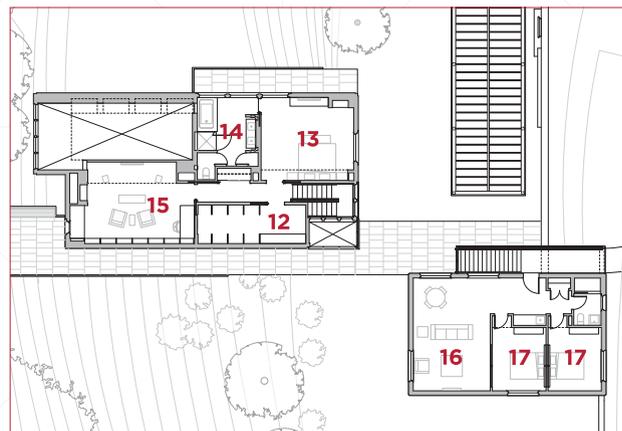
LOWER LEVEL PLAN

- 1. ART STUDIO
- 2. FITNESS STUDIO
- 3. MECHANICAL



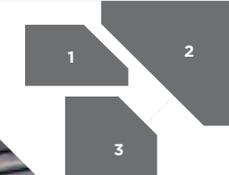
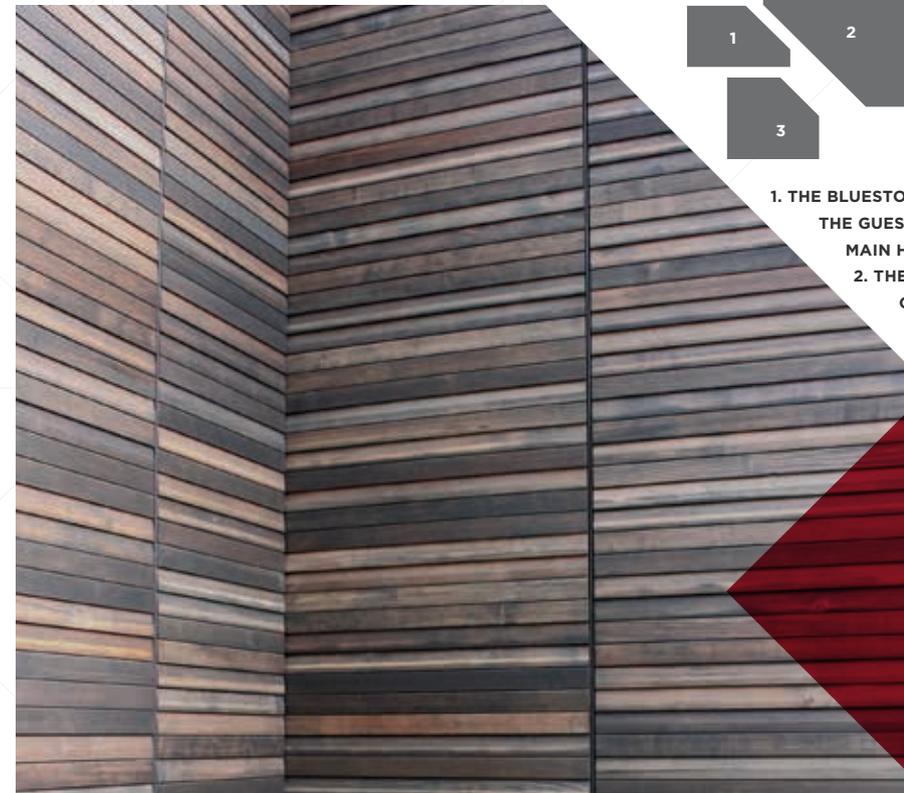
ENTRY LEVEL PLAN

- 4. ENTRY
- 5. KITCHEN/DINING
- 6. DOUBLE-HEIGHT LIVING
- 7. DEN
- 8. WEST BALCONY
- 9. BLUESTONE PATH
- 10. GARAGE
- 11. EAST GARDEN



UPPER LEVEL PLAN

- 12. CHANGING ROOM
- 13. MASTER BEDROOM
- 14. MASTER BATHROOM
- 15. MUSIC ROOM
- 16. GUEST LIVING
- 17. GUEST BEDROOMS



- 1. THE BLUESTONE PATH CONNECTS THE GUEST HOUSE TO THE MAIN HOUSE.
- 2. THE CANTILEVERED BALCONY OPENS UP TO THE FOREST AND OVERLOOKS THE CREEK BELOW.
- 3. BOTH STRUCTURES ARE DEFINED BY HIGHLY TEXTURED SIDING.

WRC SPECIFICATIONS

GRADE: Select knotty and D&Btr clear Western Red Cedar

SIZE: Three custom profile tongue and groove boards

FASTENING: Stainless steel fasteners

APPLIED FINISH: Penofin Verde Ebony

PROJECT

Floating House



“WE CHOSE TO USE WESTERN RED CEDAR BECAUSE IT IS AFFORDABLE, DURABLE AND COMMONLY USED IN THE AREA.”

Hilary Sample, AIA
architect

THE FLOATING HOUSE CAN BE ACCESSED DIRECTLY VIA BOAT OR THROUGH TWO BRIDGES THAT ARE GENTLY RESTING ON TWO SHORES THAT FACE EACH OTHER.

ARCHITECT

MOS Architects

Michael Meredith, AIA; Hilary Sample, AIA

CLIENT

Young family

ENGINEER

David Bowick, Blackwell Engineering

PHOTOGRAPHER

Raimund Koch

GENERAL CONTRACTOR

Kropf Industries, Penfold Construction

PROJECT TYPE

Family vacation home

LOCATION

Lake Huron, Pointe Au Baril, Ontario, Canada

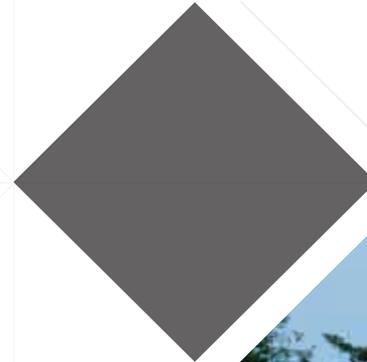
Building a home on a rocky remote island in the middle of one of the unpredictable Great Lakes is just as challenging as it sounds. That’s why it didn’t take the MOS team long to start “listing” toward the idea of a floating house. Once everybody was on board with this concept, their primary concern turned to addressing the fluctuating levels of Lake Huron.

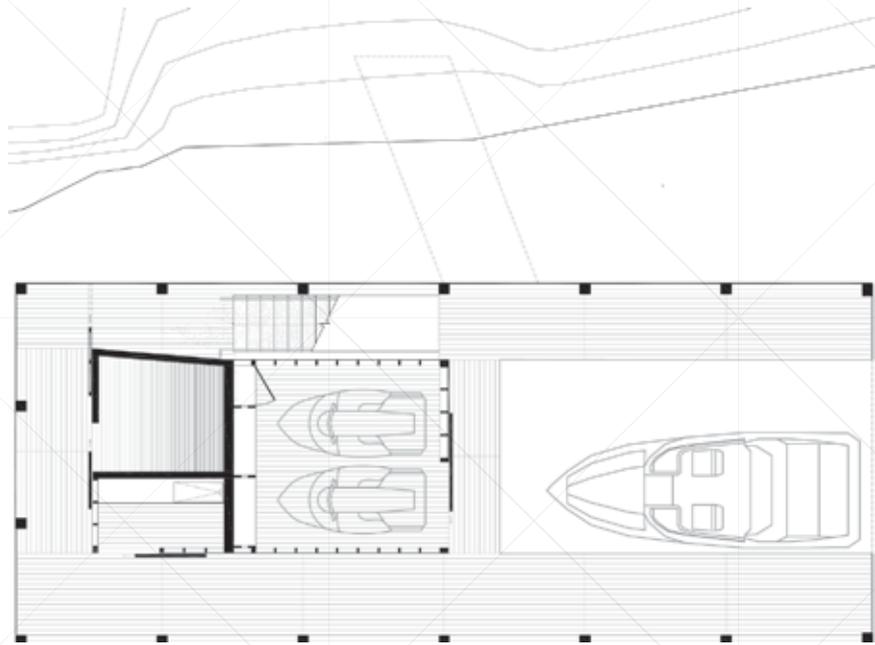
“As a response to this constant and dynamic change, the house floats atop a structure of steel pontoons that allows for it to fluctuate along with the lake,” says MOS architect Michael Meredith.

They also had to contend with building costs and constraints. After all, traditional construction methods would have been far too expensive and taxing on the environment. So they devised a prefabrication and construction strategy with the contractor.

“The fabricators constructed the house on the frozen lake, near the shore,” explains Meredith. “The structure was subsequently towed to the site and finally anchored. Between the various stages of construction, the house traveled a total distance of approximately 50 miles along Lake Huron.”

Floating aspect aside, the most defining characteristic of this beautiful family retreat is the detailed design of the Western Red Cedar cladding.





FIRST FLOOR PLAN

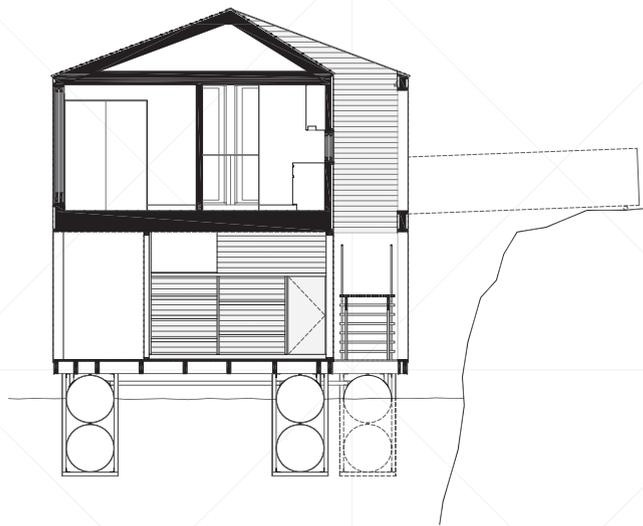
WRC SPECIFICATIONS

- GRADE:** Select knotty
- SIZE:** 1 x 4 battens
- FASTENING:** Stainless steel fasteners
- APPLIED FINISH:** None

"The envelope of the house experiments with cedar siding, which not only encloses the interior living space, but playfully wraps around the exterior spaces as well," says Meredith. "This rainscreen envelope of cedar strips either becomes denser to shelter private interior spaces or becomes less dense to filter and modulate light and views outwards. The rainscreen also performs pragmatically in reducing wind load and head gain."

For this high-performance feature, they opted for a knotty grade of Western Red Cedar and they let it go au naturel.

"We like its roughness and the natural quality of the knots," Hilary Sample says. "And we left it untreated so it would age to that beautiful silver-gray color that complements the color of the granite outcroppings." ■



CROSS-SECTION THROUGH STAIR



PROJECT

Brady Lane Residence



ARCHITECT

Webber + Studio Architects

CLIENT

Young family

ENGINEER

Way Consulting Engineers

PHOTOGRAPHER

Andrea Calo Photography,
ArcherShot Photography,
Paul Bardagjy Photography
w + inc.

GENERAL CONTRACTOR

Single-family home

PROJECT TYPE

LOCATION

West Lake Hills, Texas, USA

At heart, the Brady Lane Residence is an ode to SoCal mid-century modernism. So David Webber's mission was to honor that aesthetic while opening up the floor plan and creating more multifunctional spaces for the client and her three daughters. Of course, the award-winning architect couldn't exactly tack on another floor and call it a day. Otherwise, the low-sloping home would lose too much of its original charm.

Thus, we have an A-frame addition. This steeply angled structure houses two extra bedrooms, a playroom, a bathroom and a laundry room. But it also gives the home a much-needed contemporary edge without betraying the neighborhood's retro vibe.





WRC SPECIFICATIONS

GRADE: Kiln-dried, select knotty, interior and exterior

SIZE: Exterior - 1 x 8 vertical shiplap; interior - vertical 1 x 6 shiplap and 2 x 4 vertical shading fins

FASTENING: Hot-dipped galvanized siding nails for exterior

APPLIED FINISH: Cabot Semi-Transparent Fieldstone

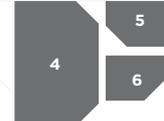
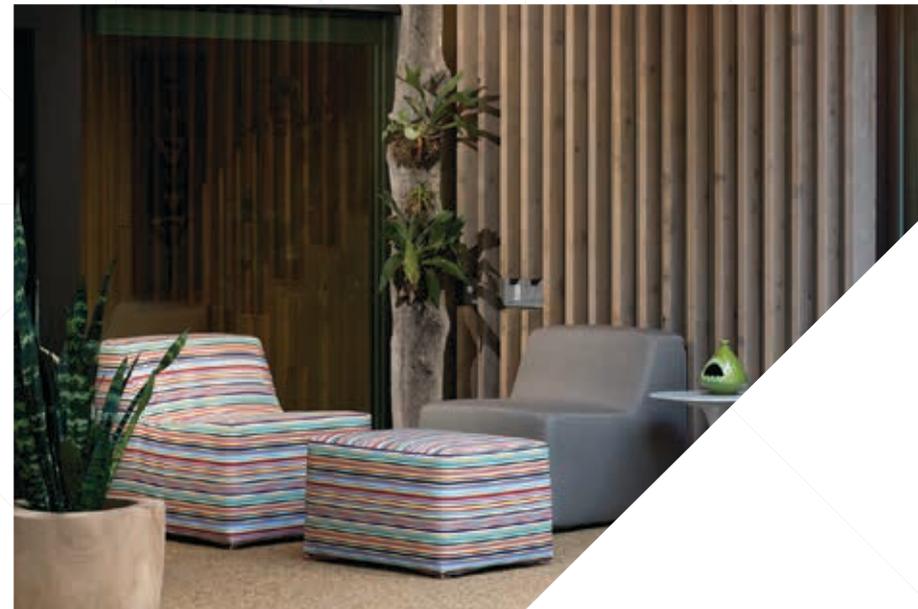
“THE WOOD IS REMARKABLY RICH IN SPITE OF ITS IMPERFECT APPEARANCE AND KNOTTINESS. IT REMAINS ELEGANT, BUT VERY RELAXED.”

David Webber
architect

- 1
- 2
- 3

1. THE SUNKEN MASTER BEDROOM PAYS HOMAGE TO ORIGINAL HOME'S AGE.
2. ORANGE COUNTERTOPS ADD A TOUCH OF RETRO FUNK TO THE PROCEEDINGS.
3. KNOTTY CEDAR IS THE PERFECT BACKDROP FOR THE WHIMSY OF THIS PLAYROOM.





- 4. THE A-FRAME ADDITION CREATES A VERTICAL CONTRAST TO THE ORIGINAL HOME'S HORIZONTAL FORM.**
- 5. THE NEW CEDAR SIDING IS STAINED TO SHOW OFF THE WOOD'S NATURAL BEAUTY.**
- 6. CEDAR BATTENS ACT AS A SUN-SHADING DEVICE.**

"The resulting contrast of the vertical A-frame seems to stand on its own," says Webber, "but also reinforces the importance of the original home's horizontality. They are a true yin-yang."

Other attention-grabbing features of this funky family home include the '60s-inspired orange laminate countertops, the pebble-resin flooring, the sunken master bedroom and, of course, all that beautiful use of wood in the interior as well as on the exterior. For this, Webber and his team opted for nature's most versatile building material.

"Western Red Cedar was selected for its quality, its appearance and its color," explains Webber. "We also needed something that was rot- and insect-resistant, and a wood that would age beautifully so it would require less maintenance."

When it came to choosing the grade of the wood, he wanted to honor the home's laid-back feel as well as the client's budget.

"Knotty cedar was chosen for its informal character and for its value," says Webber, adding, "The very casual design for the house and its new addition and the modest scale of the house did not invite perfect wood features, but rather, approachable finishes."

While the original Western Red Cedar siding was painted, the new cedar siding is more about celebrating (rather than concealing) the wood's natural aging process.

"The stain was selected to mimic the color of weathered cedar after it has silvered," says Webber, "and the interior wood color matches that and sets the palette for the rest of the interior." ■

PROJECT

Case Inlet Retreat



ARCHITECT

MW|Works

CLIENT

Young family

ENGINEER

PCS Structural Solutions

PHOTOGRAPHER

Jeremy Bittermann

GENERAL CONTRACTOR

Alford Homes

PROJECT TYPE

Vacation retreat

LOCATION

Lakebay, Washington, USA

Tucked in a heavily forested slope with stunning vistas of Puget Sound and the Olympic Mountains, this Case Inlet project is all about connecting with nature. For architects Eric Walter and Steve Mongillo of MW|Works, that meant blurring the boundaries between the indoors and the outdoors – which they did masterfully with a bold concrete cantilever that projects the living and dining areas into the dense woods and out toward the peninsula.

“With no visible neighbors, one feels as if they are alone with the sun, mountains, forest, and water views,” explains Walter.

Anchoring that structure is a master bedroom that opens up to a truly inspired treetop bathroom – according to Walter, this ensuite tub is a nature-loving soaker’s delight! In terms of choosing just the right siding for this bedroom, Walter admits they had a fairly tall order to fill.

“The goal for the exterior materials for the project was to find something that was beautiful and naturally weathering, and something that didn’t require significant maintenance and refinishing,” says the award-winning architect.





WRC SPECIFICATIONS

GRADE: Select knotty Western Red Cedar siding

SIZE: 1 x 6 tongue and groove

FASTENING: Stainless steel fasteners blind nailed at tongue

APPLIED FINISH: None

With that in mind, the architect chose to clad the entire exterior as well as the master bathroom interior walls in gorgeous, long-lasting Western Red Cedar. As for the grade of this wood, Walter wanted to stay true to the rural character of the site.

“For this project, the more casual, rustic appearance of knotty cedar was appealing,” he says, adding, “It feels more honest and humble – and more appropriate to the feeling of a cabin in the woods.” ■



“WESTERN RED CEDAR WAS SELECTED FOR THE COLOR, NATURAL DURABILITY, EASE OF AVAILABILITY AND REASONABLE COST.

Eric Walter
architect



- 1
- 2
- 3

1. VERTICAL WESTERN RED CEDAR SIDING BLURS THE LINES BETWEEN THE INDOORS AND OUTDOORS.
2. BATHERS CAN SOAK UP THE NATURAL BEAUTY OF KNOTTY WESTERN RED CEDAR PANELING.
3. A ROOM WITH A VIEW ALLOWS OCCUPANTS TO CONNECT WITH THE SITE'S NATURALLY BEAUTIFUL SURROUNDINGS.

PROJECT

Stealth Cabin



ARCHITECT

superkül
Meg Graham (Principal),
Andre D'Elia (Principal),
Anya Moryoussef,
Aaron Letki

CLIENT

Professional couple

ENGINEER

Halcrow Yolles

PHOTOGRAPHER

Shai Gil Photography

GENERAL CONTRACTOR

Wilson Project Management

PROJECT TYPE

Family cottage

LOCATION

Near Bracebridge, Ontario, Canada

Wood doesn't serve a single purpose for this project – it serves many! It is, among other things, the structural strength, the artistic medium and the environmental harmonizer. That's because at the heart of this surprisingly compact and sculptural program by superkül is the desire for material continuity.

Designed to disappear into the heavily treed landscape surrounding Bigwind Lake, the Stealth Cabin features untreated wood that will weather naturally to a beautiful gray patina and aid in maximizing indoor air quality. And there's only one species that can fill such a tall order.

"Western Red Cedar cladding traces the form of the building from outside in, up the walls and into the origami-like angular folds of the roof, which rise and fall to create a dramatic, light-filled space," explains superkül principal Meg Graham, before elaborating on the detail items. "Custom millwork and mechanical grills, shelves and storage benches reinforce the building's primary material choice to create a consistent look."

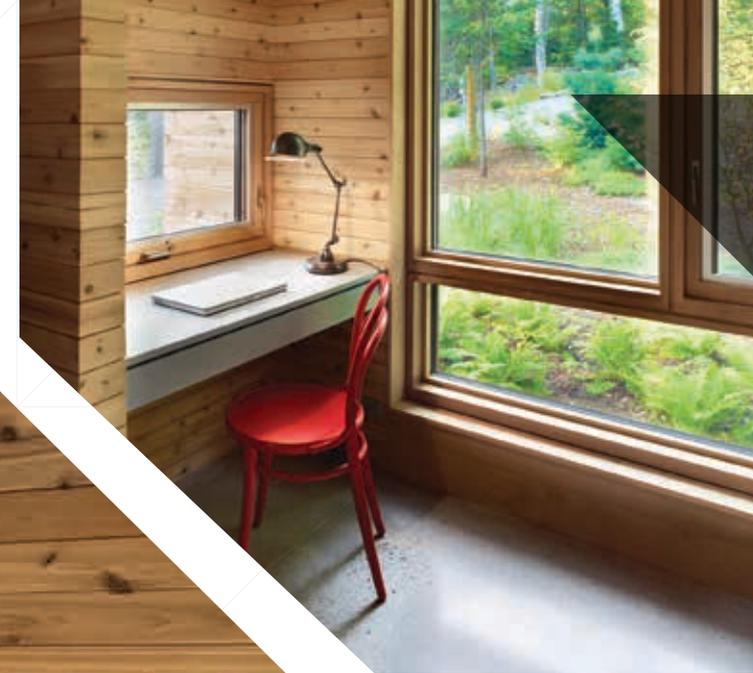


THE BUILDING TAKES ITS SHAPE FROM AN OVERTURNED BOAT FOUND ON THE PROPERTY, WITH THE FACETING OF THE CABIN'S WALLS ECHOING THE RISE AND FALL OF THE SITE'S TOPOGRAPHY.

“

AESTHETICALLY, FUNCTIONALLY AND ECONOMICALLY, CEDAR ACHIEVED WHAT WE WERE LOOKING FOR – IT WAS THE ONLY PRODUCT WE CONSIDERED.

Meg Graham
architect



1
2

1. THE USE OF KNOTTY CEDAR ON THE INTERIOR CREATES A REFINED RUSTIC APPEARANCE.
2. A COZY NOOK OFFICE MAKES THE MOST OF A COMPACT FLOOR PLAN.

And there's more innovative cohesion where that came from. "Horizontal cedar slats are used to mitigate light from the west," continues Graham, "while large wood-framed windows curate views to the lake, and provide access to the south-facing cedar deck."

In addition to exterior siding, interior paneling and the main deck, Graham and her team also opted for a beautiful character grade of Western Red Cedar on the ceiling, soffits and screened porch.

"Knotty cedar gives the project the texture and warmth that we were looking for," says Graham, adding, "and it better ties the house to its environment."

It also creates tonal and textural depth juxtaposed against the shingles, which were also – you guessed it – Western Red Cedar. "Cedar," according to Graham, "in all of its shapes and sizes, is the aesthetic of the cottage. Without it, this would have been a very different project." ■

WRC SPECIFICATIONS

ROOF: #1 Perfection Western Red Cedar shingles, Blue Label, unfinished, 140 mm exposed face

INTERIOR WALLS/CEILING: Select knotty, unfinished smooth tongue and groove

EXTERIOR CLADDING: Select knotty, unfinished smooth tongue and groove

SOFFITS: Select knotty, unfinished boards

SCREENED PORCH & MAIN DECK FLOOR: Architect knotty cedar decking

MASTER BEDROOM & HALL DECK: Architect knotty cedar decking

FASTENING: Stainless steel fasteners

APPLIED FINISH: None



- | | |
|---------------|-----------------------|
| 1. ENTRY | 9. PRINCIPAL BEDROOM |
| 2. LOG STORE | 10. KITCHEN |
| 3. MUDROOM | 11. DINING |
| 4. DESK | 12. LIVING |
| 5. LAUNDRY | 13. SCREENED-IN PORCH |
| 6. WASHROOM | 14. DECK |
| 7. BEDROOM | 15. SLIDING DOOR |
| 8. MECHANICAL | |



PROJECT

The Crow's Nest Residence



ARCHITECT

BCV Architects

CLIENT

Young family

ENGINEER

Nishkian Monks (structural);

TLA Engineering & Planning (civil)

PHOTOGRAPHER

Bruce Damonte Photography

GENERAL CONTRACTOR

Mt. Lincoln Construction

PROJECT TYPE

Vacation retreat

LOCATION

Sugar Bowl Resort, California, USA

Considering Sugar Bowl is home to some of the highest snowfall in California, a double-warped sloping butterfly roof may seem like a somewhat unlikely choice for this stunning ski-in/ski-out chalet. In fact, more than a few local residents have expressed concern about its ability to withstand huge powder dumps. But according to BCV architect Jennifer Smith, they needn't worry.

"What the general public cannot see," says Smith, "is that the roof sits on a series of radiating glulam beams designed to take the massive snow load of 400 lbs/sf. So yes, the roof can hold several feet of snow... or several fire trucks if you are so inclined!"

The rest of the home, including the Euro-style concrete base that anchors the structure to the mountainside, is also very well equipped for winter conditions. In terms of appearance, the show-stopping aspect of this project is all that beautiful use of Western Red Cedar.

"Cedar is inherently moisture and bug resistant, so using this on the exterior of the house was a natural choice," she says. "The patina that cedar takes on over time is something the house will very much embrace."





THE SKI-IN/SKI-OUT ENTRY, SAUNA, SKI ROOM, LAUNDRY AND MOVIE SCREENING AREA ARE ALL SPACES DESIGNED TO BE NEARLY OR COMPLETELY BURIED IN SNOW, WITH PATHS DUG TO THE ACCESS POINTS, AS IS THE TRADITION IN SUGAR BOWL. THE CANTILEVERED DECK AT THE SECOND LEVEL, WHICH IS SHELTERED BY THE PROJECTING ROOF STRUCTURE, IS AN EXTENSION OF THE LIVING SPACE AND INCLUDES GATES THAT CAN BE OPENED UP TO ALLOW EASE OF ENTRY FROM HIGH SNOW LEVELS.



“THE CROW’S NEST IS DESIGNED TO EXPRESS THE MATERIALS OF WHICH IT IS CONSTRUCTED WITH AN EMPHASIS ON NATURAL FINISHES.

Jennifer Smith, AIA
architect

While they used a pristine clear grade for the sauna and decking columns, they chose a knotty grade for the exterior siding.

“The client liked the more rustic feel of knotty cedar,” says Smith, adding, “While the house has very modern lines, it calls on the craft and materiality of traditional Tyrolean homes.” ■

WRC SPECIFICATIONS

- GRADE:** Select knotty
- SIZE:** 1 x 6 tongue and groove, v-joint siding with a saw textured face; 2 x 6 tongue and groove, v-joint roof decking with a smooth face
- FASTENING:** Stainless steel screws
- APPLIED FINISH:** Clear stain



PROJECT

Rockhouse



ARCHITECT

Sandrin Leung Design

CLIENT

Architect-owned

ENGINEER

John Enevoldson

PHOTOGRAPHER

Ana Sandrin

GENERAL CONTRACTOR

Aaron Andronyk Contracting

PROJECT TYPE

Single-family residence

LOCATION

Sechelt, British Columbia, Canada

There's just something about a giant exposed rock wall in one's living room that attracts a lot of attention. Ana Sandrin and Howard Leung probably know this better than anyone else. Not only did they design the aptly titled Rockhouse – they bought it!

"Almost everyone, upon entering the house for the first time, has stopped in their tracks for a moment and exclaimed, 'Now, how on earth did you do that?'" says Sandrin.

It's a good question. After all, the Sandrin Leung Design team managed to build this beautiful home around a rugged cliff without actually blasting any of the omnipresent bluff.

Sandrin explains: "We applied conventional techniques used in basement and commercial construction in unconventional ways. A concrete frame was built up against the rock face. A bentonite rope was inserted within it to act as a flexible seal. A full commercial-type gutter system with flashing and overlapping membranes was constructed overhead to drain water away and to the side."

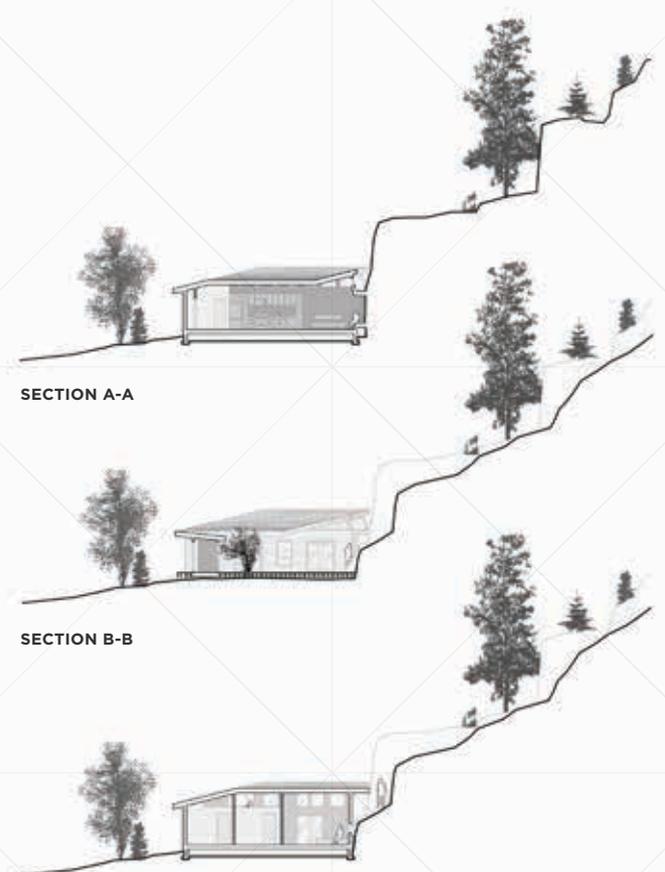
“

KNOTTY WESTERN RED CEDAR WAS THE PERFECT CHOICE TO HIGHLIGHT THE IDEA OF A BENEFICIAL MARRIAGE BETWEEN THE NATURAL AND MAN-MADE.

Ana Sandrin
architect

FROM THE STREET, THE BLANK CEDAR SIDING WALLS WITH CLERESTORY WINDOWS PROVIDE A SPARK OF CURIOSITY, RATHER THAN FULL EXPOSURE OF THE INTERIOR.





SECTION A-A

SECTION B-B

SECTION C-C

WRC SPECIFICATIONS

GRADE: Select knotty Western Red Cedar

SIZE: Various widths of tongue and groove

FASTENING: Stainless steel siding nails

APPLIED FINISH: Clear coat



The other attention-grabbing aspect of their home is the outdoor sanctuary Sandrin Leung Design created with Western Red Cedar.

“We wanted the house to have a natural, warm and welcoming feel,” says Sandrin. “The presence of wood in the courtyard, as cedar siding and as cedar deck, surrounds the space with warmth, as if one were being held in the privacy of a womb.”

In keeping with the boulder’s perfectly imperfect beauty, they chose a knotty grade of cedar for both interior and exterior applications. “We wanted the house to have a bit of a rustic and natural feel to complement the ruggedness of the rock face, rather than being clad in a more ‘pristine’ material such as clear cedar,” she says. “We also appreciate the texture variation that it creates on what would otherwise be a ‘flat-looking’ façade. Knotty is beautiful!” ■



THE ROCKHOUSE IS ORGANIZED AROUND A CENTRAL COURTYARD SPACE, WHICH MEDIATES THE PUBLIC AND THE PRIVATE WINGS OF THE HOUSE. THIS ORGANIZATION EMERGES PRIMARILY FROM THE INFLUENCES OF THE SITE.



PROJECT

Madison Park Tree House



ARCHITECT

First Lamp Architecture and Construction

CLIENT

Married couple

ENGINEER

Année Structural Engineering

PHOTOGRAPHER

Tim Bies Photography

GENERAL CONTRACTOR

First Lamp Architecture
and Construction

LANDSCAPE

Clayton Morgan, CEM Design, Inc.

PROJECT TYPE

Residential family home

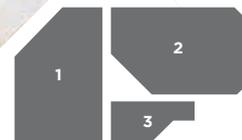
LOCATION

Seattle, Washington, USA

Going into this project, the First Lamp design team set some pretty lofty goals for itself. The Seattle-based architecture and construction firm wanted this gorgeous four-story, four-bedroom hillside home to mindfully integrate with the landscape. They also wanted to stabilize the sloping site with a deep-root foundation system as well as reduce storm-water impact on the structure and surrounding forest. For inspiration, they didn't need to look very far.

"We used the metaphor of a tree to achieve our design goals," explains Kevin Witt, project lead for the Madison Park Tree House. "Fifty-four pin piles, 5 helical anchors and 110 yards of concrete support the structure and retain the hillside. These are consolidated to the smallest feasible footprint, allowing the topography to surround and envelop the trunk of the house. The main living space is cantilevered from this base, much the same way the branches of a tree reach for the sun."





- 1. CEDAR ON THE STREET FAÇADE MAKES THIS TREE HOUSE FEEL WARM AND INVITING.
- 2. OPEN FLOOR PLAN AND LARGE WINDOWS ALLOW FOR NATURAL LIGHTING IN THE MAIN LIVING SPACES.
- 3. CHARRED CEDAR FIREPLACE CONNECTS THE INTERIOR TO THE EXTERIOR SIDING.

WRC SPECIFICATIONS

GRADE: A&Btr clear Western Red Cedar

SIZE: 1 x 4 and 2 x 2

FASTENING: Stainless steel fasteners

APPLIED FINISH: Shou Sugi Ban Treatment (charred siding) and Penofin Clear

To further connect the structure to its naturally blessed northwest environment, the home boasts expansive windows and Western Red Cedar siding, which Witt also used on the fireplace surround in the living room.

“We used cedar for many reasons,” says the architect. “One was to add an element of warmth to the project and help soften the contemporary design of the home. Another was because of the versatility and performance of wood when installed properly over a rainscreen siding system – cedar is one of the few natural woods that performs well in an exterior application. And because it is a renewable resource.”

As for the wood’s finish, First Lamp decided to ramp up the ambient factor on this already beautiful design with an ancient Japanese charring technique. The result is nothing short of stunning.

“The dark color of the charred cedar siding both complements the darker bark of the mature trees on-site and contrasts the expansive glass and clear cedar soffits,” says Witt, adding that this burnt style serves an interesting functional purpose as well. “In many ways, the charred siding pre-ages the house, so there won’t be major color changes as the cedar is exposed to the elements.” ■

“THE CLEAR CEDAR WAS A GREAT PRODUCT FOR CHARRING DUE TO ITS CONSISTENT GRAIN AND TEXTURE, WHICH ALLOWED FOR A MORE PREDICTABLE AND BEAUTIFUL FINISHED LOOK.

Kevin Witt, AIA
architect

PROJECT

Cycle House



ARCHITECT

chadbourne + doss architects

CLIENT

Martin and Shelley Criminale

ENGINEER

Swenson Say Fagét

PHOTOGRAPHER

Benjamin Benschneider/OTTO

GENERAL CONTRACTOR

Fackler Construction

PROJECT TYPE

View home for two active adults

LOCATION

Mount Baker, Washington, USA

As the name suggests, the Cycle House was designed for a couple with a passion for pedaling. In fact, the owners wanted storage and maintenance space for 18 bicycles. But they also wanted to include fun, spacious living areas that capitalized on the surrounding natural beauty. The challenge for the chadbourne + doss team was to deliver all that on a somewhat modest-sized lot.

Here's how they did it:

"We constrained the footprint to allow for a vertical home in order to capture the higher panoramic views, with the master bedroom on the top floor," says lead architect Daren Doss. "The roof decks, wraparound fenestration, and open space orientation are meant to connect occupants to the site and make the house seem larger than it is."

Another design feature that connects the occupants to the site is the Western Red Cedar ceiling. This gorgeous paneling continues through to the exterior, with stunning results.





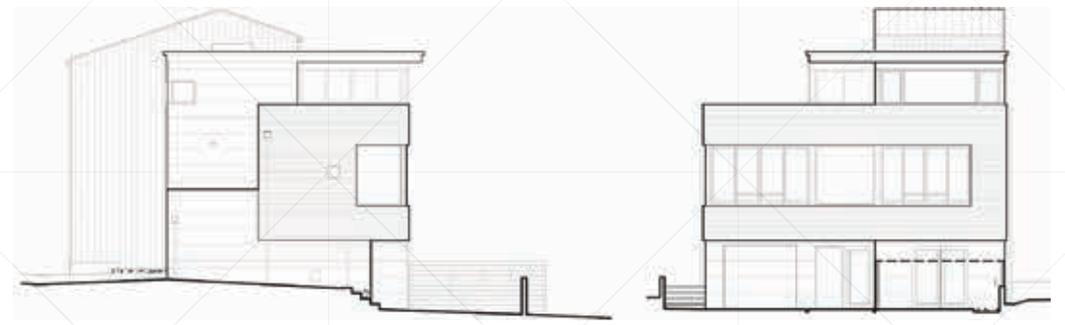
“THE WESTERN RED CEDAR SIDING AND CEILING HAS PROVIDED A PREMIUM WARMTH AND NATURAL TEXTURE IN CONTRAST TO ADJACENT MATERIALS ON THIS PROJECT.

Daren Doss, AIA
architect

“The cedar ceiling on the upper floor has dramatically impacted the residence’s interior feel and roof deck space,” he says, adding, “The owners have remarked how nice it is to look up at the ceiling while lying in bed.”

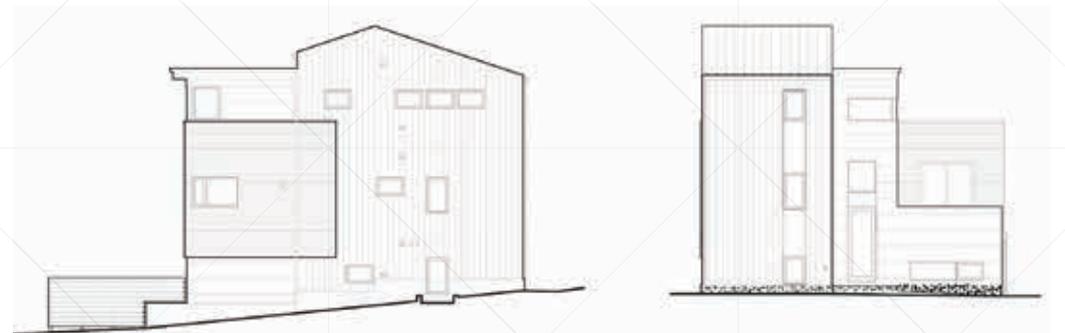
The only other feature that rivals the ceiling in terms of defining the character of this remarkably beautiful yet casual house is the Western Red Cedar façade.

“It is warm and light in contrast to the dark cement board siding,” says Doss. “Contrasting smooth and textured, vertical and horizontal, natural and painted siding surfaces has allowed us to sculpturally compose each elevation with different proportions, depending on the program of the spaces inside.” ■



SOUTH ELEVATION

EAST ELEVATION



NORTH ELEVATION

WEST ELEVATION

WRC SPECIFICATIONS

- GRADE:** A&Btr clear Western Red Cedar
- SIZE:** 1 x 4 tongue and groove siding, 1/2 x 4 tongue and groove ceiling
- FASTENING:** Stainless steel fasteners
- APPLIED FINISH:** Miracle Cover

PROJECT

North Lake Wenatchee



ARCHITECT

DeForest Architects
John DeForest, Rosie Donovan,
Brett Smith

CLIENT

An active family of five

ENGINEER

Evergreen Design Company

PHOTOGRAPHER

Benjamin Benschneider/OTTO

GENERAL CONTRACTOR

M&M Quality Construction

INTERIORS

Theresa Benny Interior Design

LANDSCAPE

Richard Pulkrabek, Landscape Architect

PROJECT TYPE

A four-season retreat

LOCATION

Lake Wenatchee, Washington, USA

Mountainous surroundings. Lakeside views. Modern ingenuity. This gorgeous all-season Lake Wenatchee residence really does have it all. It even has a secret bookcase that opens up to a recreation room and bonus sleeping quarters!

“The owners asked for a retreat that was cozy for two and comfortable for a crowd,” says John DeForest, principal at DeForest Architects. “The natural wood finishes, heated floors, reading alcoves and loft give it a quintessentially cabin feel. At the same time, large expanses of glass and high ceilings open the house to light, views and the surrounding landscape.”

To connect the interior with the rich and varied beauty of the site, DeForest selected Western Red Cedar for the ceiling, wall paneling, exterior cladding and trim. The result is a ‘rustic modern’ home that makes the most of its setting with natural ease.



BUILT INTO A STEEP HILLSIDE IN THE CASCADE MOUNTAINS, THIS STRIKING LAKESIDE RESIDENCE IS COMPOSED OF TWO WEDGE-SHAPED BARS INSPIRED BY LOCAL ROCK FORMATIONS.



“USING THE SAME WOOD FOR THE INTERIOR AND EXTERIOR HELPS TO BLUR THE LINE BETWEEN INSIDE AND OUT.”

John DeForest, AIA
architect

WRC SPECIFICATIONS

GRADE: A&Btr clear Western Red Cedar

SIZE: 1 x 4 tongue and groove

FASTENING: Blind nailed

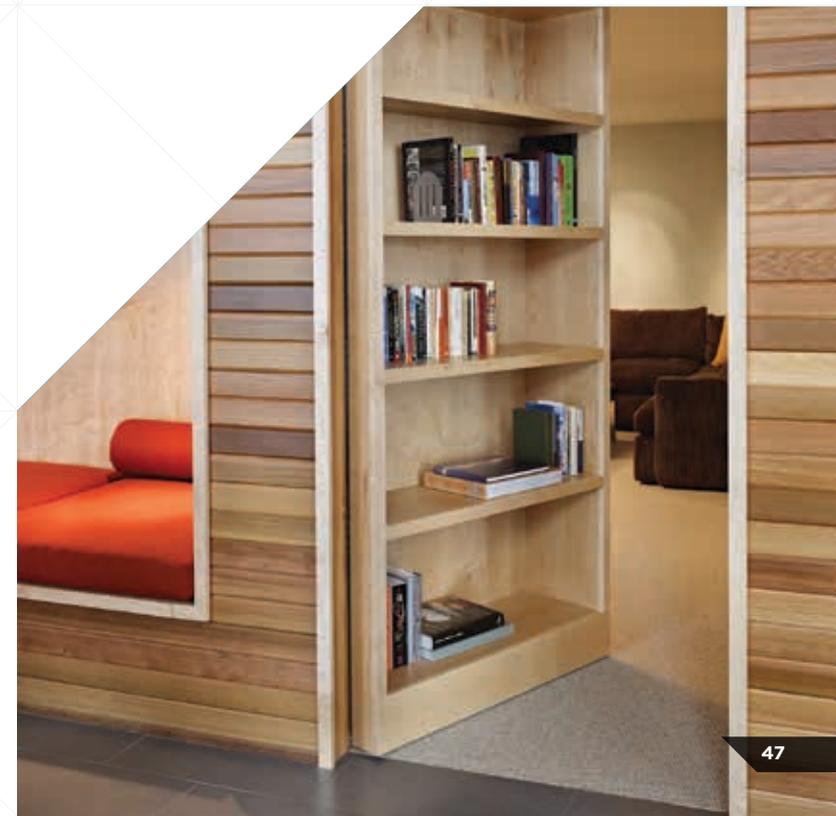
APPLIED FINISH: Clear matte



“We chose Western Red Cedar to complement the other materials in the palette and to stand up to mountain weather,” explains DeForest.

Suffice it to say that cedar’s durability and beautiful spectrum of varying tones did not disappoint.

“Cedar’s warmth and texture enhance the simplicity and clean lines of the design,” he says, adding, “and it helps make the house a natural fit for its surroundings.” ■



PROJECT

The Forum at Marvin Hall



ARCHITECT

Studio 804

CLIENT

University of Kansas

ENGINEER

Consultants Bartlett & West,
Henderson Engineers, Transsolar

PHOTOGRAPHER

James Ewing Photography

GENERAL CONTRACTOR

Studio 804

PROJECT TYPE

University lecture hall

LOCATION

Lawrence, Kansas, USA

A functional but uninspired lecture hall might pass muster in a math department, but it certainly wouldn't fly in an architecture school. So when the University of Kansas needed a new 121-seat auditorium for its School of Architecture, Design & Planning, it commissioned the most innovative designer-builders in town: Studio 804 (a.k.a. the school's own graduate students). Of course, there's nothing new about that.

Every year, professor Dan Rockhill and his Masters of Architecture students produce an inventive, sustainable building. This time they really outdid themselves with The Forum – a light-filled, glass-encased addition to the school's historical Marvin Hall. Unbelievably, they completed this project, which is built to LEED Platinum standards, in under a year.

As Rockhill explains, the most impressive – not to mention ambitious – aspect of this design is the ventilated double-walled façade system. In-between the inner and outer glass panes, they installed sun-shading louvers as needed to temper the sunlight.



“THE WESTERN RED CEDAR PURCHASED FOR THE PROJECT IS ABOUT THE BEST THAT MONEY CAN BUY, AND IT IS GORGEOUS.”

Dan Rockhill
Professor of Architecture,
University of Kansas



WRC SPECIFICATIONS

GRADE: A&Btr clear, vertical grain, kiln-dried

SIZE: Varies

FASTENING: The louvers used a captured system and the ceiling used a 4" pre-painted, self-tapping multi-use screw

APPLIED FINISH: Penofin Red Label

TO CARRY THE SIGNATURE LOOK AND FEEL OF THE LOUVERS INTO THE INTERIOR, THE AUDITORIUM AND A BREAKOUT SPACE HAVE WESTERN RED CEDAR CEILINGS.

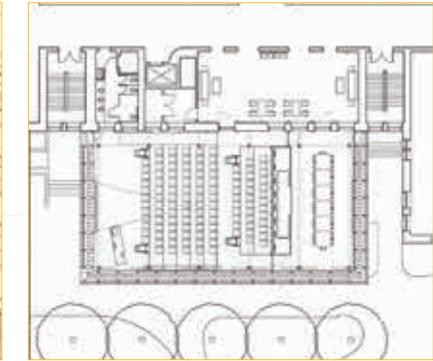




SOUTH ELEVATION



LONG SECTION



FLOOR PLAN

“NOTHING IS MORE IMPORTANT TO THE AESTHETICS OF THIS BUILDING THAN THE CEDAR.”

Dan Rockhill
Professor of Architecture,
University of Kansas

“To track the sun, the louvers are mounted on motorized actuators that were imported from Germany,” he says. “The actuators are controlled by a weather station on the roof.”

In terms of materials, the Studio 804 students chose Western Red Cedar. “Nothing is more important to the aesthetics of this building than the cedar,” says Rockhill. “An alternative type of louvers in metal would have made this room cold, dark and ugly. This is an architecture school, after all, and people would have hated it.”

For the interior, the students wanted to provide a visual connection to the look and feel of the louvers, so they paneled the ceiling with Western Red Cedar – and the daylight that results is nothing short of amazing. “What the Western Red Cedar does to this building is enhance and temper that light, giving it a warm glow that is just breathtaking. It is a beautiful environment for learning, and a real showpiece for our school and university.” ■



PROJECT

Oranda-jima House



I WANTED TO USE A MATERIAL WITH A PATTERN AND COLOR THAT WILL ONLY BECOME MORE BEAUTIFUL OVER TIME.

Martin van der Linden
architect

ARCHITECT

Martin van der Linden

CLIENT

Oranda-jima Foundation

ENGINEER

Structured Environments

PHOTOGRAPHER

Josh Lieberman

GENERAL CONTRACTOR

Sasaki Gumi

PROJECT TYPE

Facility and community center

LOCATION

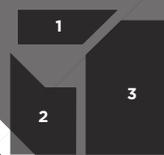
Yamada-machi, Iwate, Japan

When the 2011 tsunami ripped through Yamada-machi, it left in its wake (among many other things) a decimated after-school facility. Consequently, the traumatized children of this small fishing town in northern Japan needed a gathering place – one that gave them a sense of security.

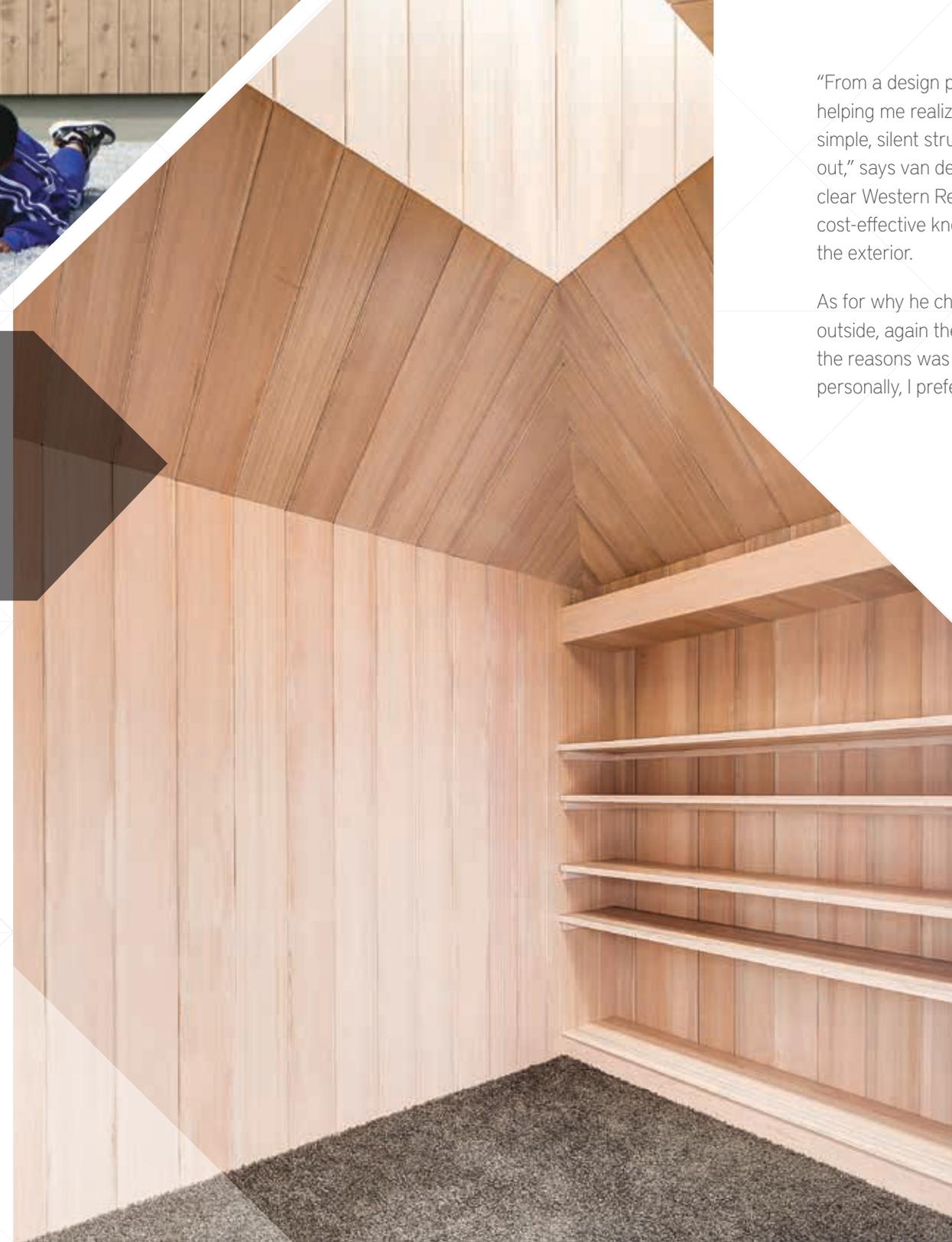
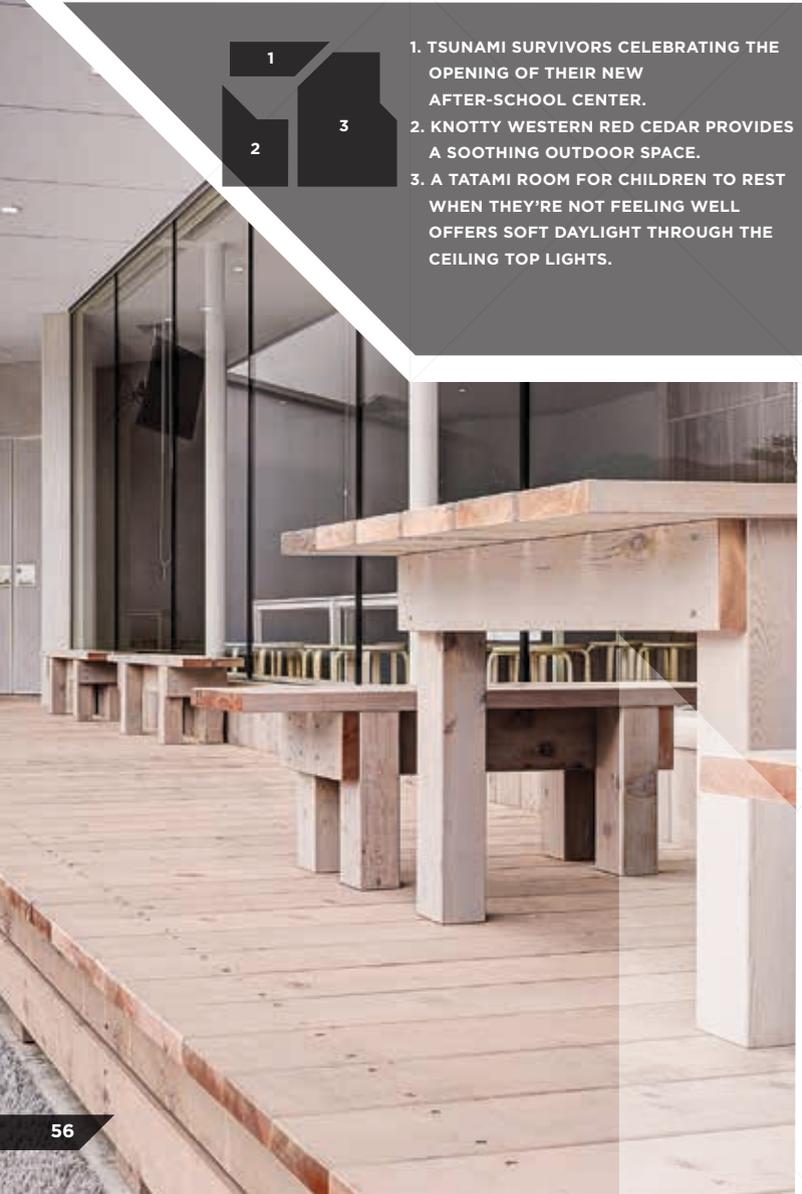
Enter architect Martin van der Linden. “The building follows the programmatic requirements in a linear way,” says van der Linden, the project’s lead architect. “However, instead of designing a long rectangular building, we decided to twist the building into itself, thus creating a space that feels safe and enclosing.”

For building materials, van der Linden opted for the soothing beauty of Western Red Cedar because he wanted to encourage as much community involvement as possible and, since many of the local carpenters were keen to help out, wood seemed like an obvious choice. On top of that, he needed a material that was versatile, yet warm enough to foster a healing environment.





- 1. TSUNAMI SURVIVORS CELEBRATING THE OPENING OF THEIR NEW AFTER-SCHOOL CENTER.
- 2. KNOTTY WESTERN RED CEDAR PROVIDES A SOOTHING OUTDOOR SPACE.
- 3. A TATAMI ROOM FOR CHILDREN TO REST WHEN THEY'RE NOT FEELING WELL OFFERS SOFT DAYLIGHT THROUGH THE CEILING TOP LIGHTS.



"From a design point of view, cedar was key in helping me realize my vision for this building: a simple, silent structure, designed from the inside out," says van der Linden, who used premium clear Western Red Cedar on the interior and cost-effective knotty Western Red Cedar on the exterior.

As for why he chose a character grade for the outside, again the decision was twofold: "One of the reasons was budget," he says, adding, "and personally, I prefer wood that looks like wood." ■

WRC SPECIFICATIONS

TONGUE & GROOVE SIDING:

Select knotty, gray coating, 18 mm x 128 mm

S4S DECKING:

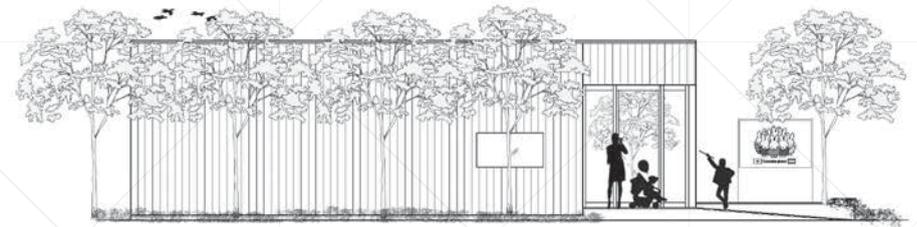
Architect knotty, gray coating, 40 mm x 141 mm

TONGUE & GROOVE PANELING:

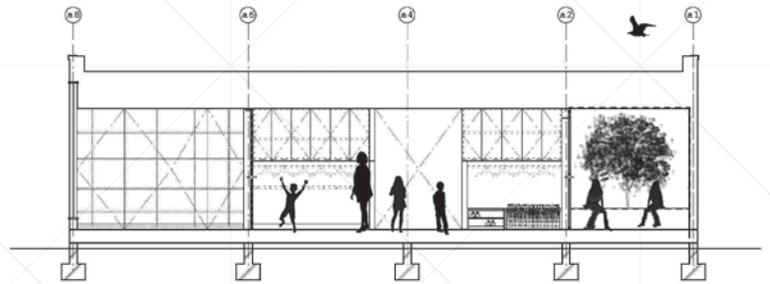
A&Btr clear, kiln-dried, gray coating, 11 mm x 133 mm

TRIM:

Rough green clear



ELEVATION



SECTION

PROJECT

Wood Innovation Design Centre



ARCHITECT

CLIENT

ENGINEER

PHOTOGRAPHER

GENERAL CONTRACTOR

PROJECT TYPE

LOCATION

MGA

Province of British Columbia
Ministry of Jobs, Tourism and Skills Training
Equilibrium Consulting Inc.
Ema Peter
PCL Constructors Westcoast Inc.
Academic and office building
Prince George, British Columbia, Canada

Considering that there are several tall timber projects currently in the works, the Wood Innovation Design Centre won't be holding the record for the tallest all-timber structure for too much longer. But at 97 feet tall, the eight-story research centre will still go down in history as a huge milestone in sustainable design. At the helm of this pioneering project is none other than world-renowned wood advocate and award-winning architect Michael Green.

"The form of the building is rational and restrained, allowing the beauty of wood to shine through, says Green of his modern masterpiece, which is awaiting LEED Gold certification. "The building exterior is inspired by bark peeling away from the trunk of a tree; bark on the north side, which is thick and protective from the cold and the other elements, thins away towards the south sunlight.

"Following the metaphor," continues Green, "the building is more opaque to the north and becomes increasingly transparent towards the south, welcoming passive solar heat gain. To the east and west, the wood columns supporting the curtain wall glazing cut the low angle of the rising and setting sun. The light from the summer sun is controlled with wood blinds."

“

CLADDING THE BUILDING IN WESTERN RED CEDAR WAS KEY TO TELLING THE STORY OF WOOD AS A DURABLE, VIABLE SOLUTION IN COMMERCIAL MID- TO HIGH-RISE CONSTRUCTION.

Michael Green, AIA
architect

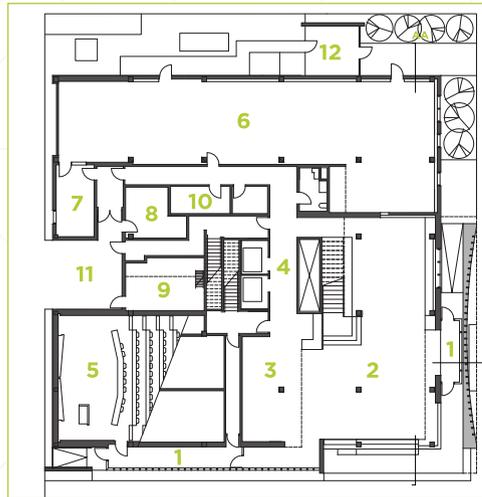


While Green integrated innovative applications of many different wood species in the overall design, for the exterior he opted for floor-to-ceiling panels in a random pattern of clear and charred Western Red Cedar. "It was the right choice for the exterior cladding due to its appearance and durability," says Green. "Western Red Cedar provides excellent weather and rot resistance. Furthermore, when the unique charring treatment is applied, it provides even more rot, bug and weather resistance." ■

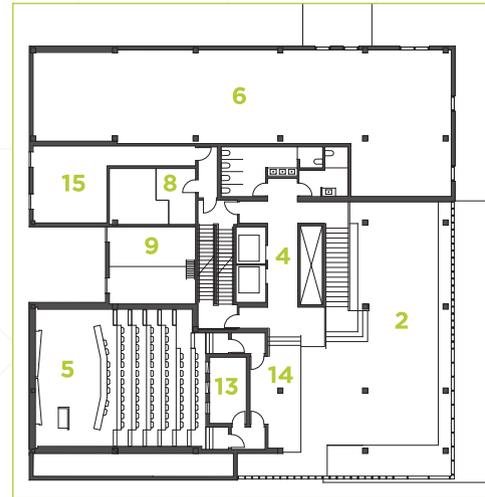
“WOOD IS THE ONLY BUILDING MATERIAL GROWN BY THE SUN WITH LOW ENERGY REQUIREMENTS TO EXTRACT AND PROCESS.

Michael Green
architect

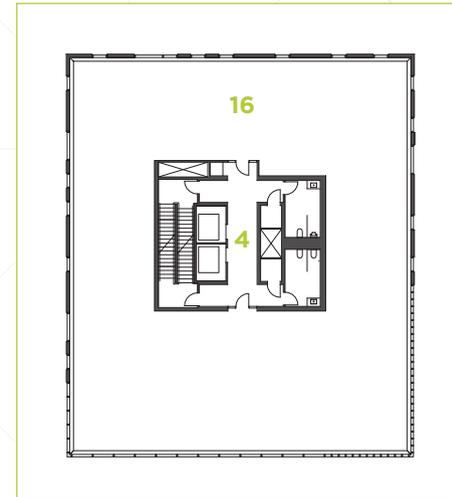
GROUND FLOOR



MEZZANINE



TYPICAL FLOOR PLAN (5TH FLOOR)



- 1. VESTIBULE
- 2. DEMONSTRATION AREA
- 3. FUTURE CAFE SPACE
- 4. ELEVATOR LOBBY
- 5. LECTURE THEATER
- 6. RESEARCH LAB
- 7. TECHNICIAN OFFICE
- 8. ELECTRICAL ROOM

- 9. MECHANICAL ROOM
- 10. GARBAGE & RECYCLING
- 11. LOADING SPACE
- 12. BIKE STORAGE
- 13. PROJECTION ROOM
- 14. MEZZANINE
- 15. STORAGE ROOM
- 16. TENANT SPACE

FAÇADES DETAILS SHOWCASE THE USE OF WESTERN RED CEDAR. THE BUILDING IS MORE OPAQUE TO THE NORTH AND BECOMES INCREASINGLY TRANSPARENT TOWARDS THE SOUTH, WELCOMING PASSIVE SOLAR HEAT GAIN.

WRC SPECIFICATIONS

GRADE: Clear and knotty

SIZE: Widths varied; lengths were full floor-to-floor height (4 m)

FASTENING: Proprietary information; rainscreen system

APPLIED FINISHES: Pressure-impregnated fire treatment; char & water-based sealant and just water-based sealant

ABOUT THE WESTERN RED CEDAR LUMBER ASSOCIATION (WRCLA)

The 8th volume of The Cedar Book profiles stunning and award-winning architecture from inspired architects around the world. These architects continue a trend that was started centuries ago when the native peoples of the Pacific Northwest recognized the value of using this unique wood species.

Western Red Cedar's natural durability, performance characteristics and versatility made it the preferred choice for building oceangoing canoes and post-and-beam houses and lodges. Today's discerning architects and builders enhance their projects with this beautiful, versatile and sustainable building material. Nature still knows best. Despite all efforts at imitation, no man-made product can match the beauty, performance and longevity of Western Red Cedar – something that this book as well as the RealCedar.com online gallery undoubtedly illustrates.

Western Red Cedar is one of nature's truly remarkable materials. It produces fewer greenhouse gases, generates less water and air pollution, requires less energy to produce than alternatives, and comes from a renewable and sustainable resource. More than ever before, we must find ways to reduce the pressure on our planet's environment and finite resources.

By choosing products with a light carbon footprint and by reducing waste, we can have a real impact on climate change now, and into the future. As part of their commitment to transparency, Western Red Cedar producers all have Environmental Product Declarations available for siding and decking products.

We hope this book will inspire you to consider Western Red Cedar for your next project. Need help selecting, specifying or sourcing the right Western Red Cedar product? Contact the Western Red Cedar Lumber Association via [RealCedar.com](https://www.RealCedar.com) and we will be glad to assist. ■

THANK YOU FOR YOUR INTEREST IN
WESTERN RED CEDAR.

Produced with the
generous support of:





**BARE ADVERTISING
& COMMUNICATIONS**

EDITOR

Sarah Rowland

DESIGNERS

Marga López CGD
Joey Poblador

PRINTED IN CANADA

WRCLA The Cedar Book Volume 8, 1st Edition

COVER

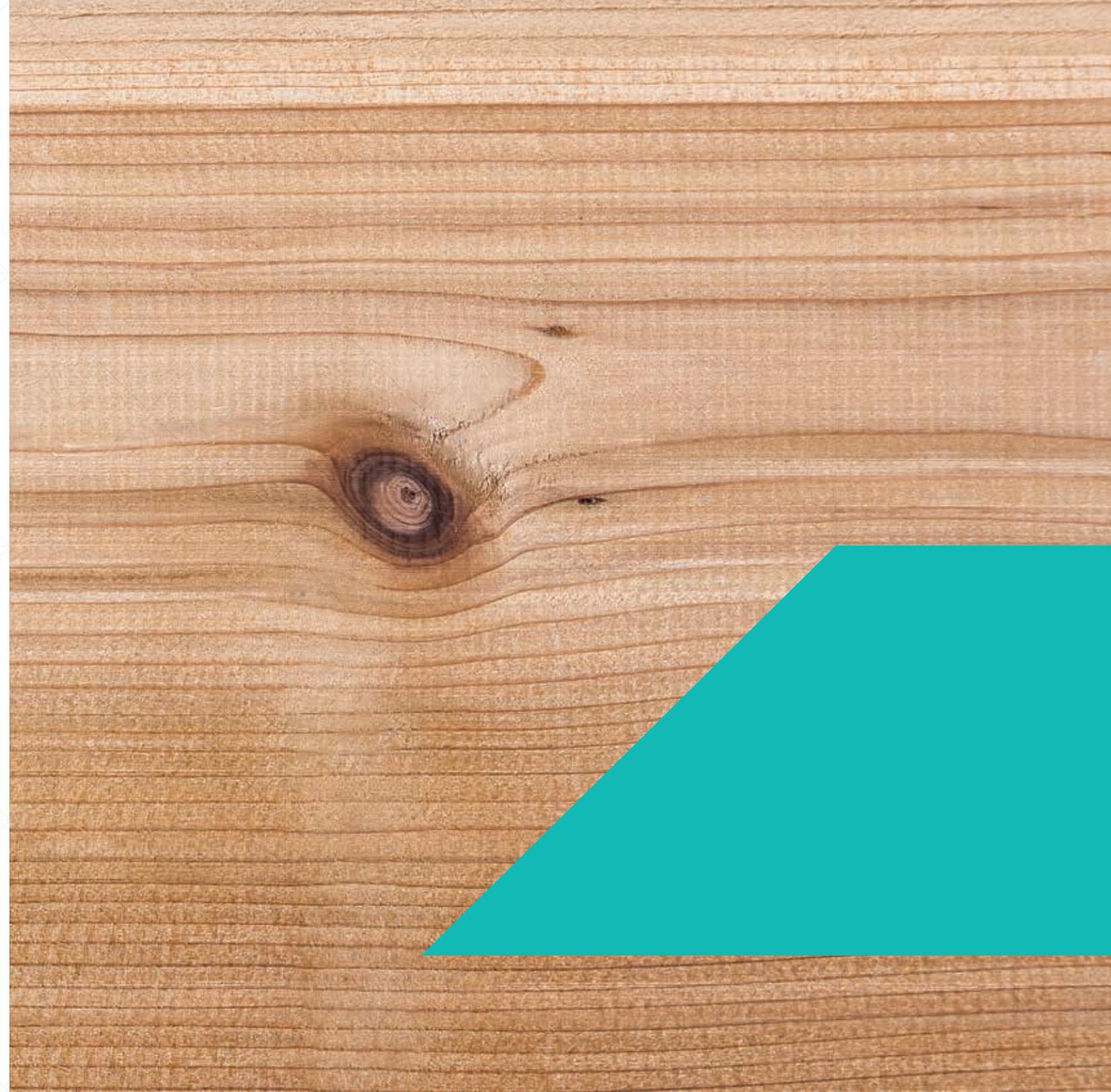
First Lamp Architecture and Construction

PHOTOGRAPHER

Tim Bies Photography

© 2015 Western Red Cedar Lumber Association

All rights reserved





WWW.REALCEDAR.COM

