Celebrating Excellence in Wood Structures

2008-09 NORTH AMERICAN WOOD DESIGN AWARD WINNERS

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Canadian Wood Council
99 Bank Street, Suite 400, Ottawa, Ontario K1P 6B9
Tel: (613) 747-5544 Fax: (613) 747-6264
www.cwc.ca

Celebrating Excellence in Wood Structures
2008-09 North American Wood Design Award Winners

Editor: Bernadette Johnson, Dovetail Communications Inc.
Design: Sharon MacIntosh, Dovetail Communications Inc.

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individuals who contributed to the book including:
Jennifer Duthie, Sarah Hicks, Lorna Malone, Maureen McLaughlin,
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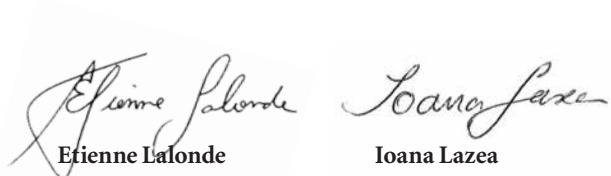
Cover: Cathedral of Christ the Light, Skidmore, Owings and Merrill (SOM) Photo: Cesar Rubio, San Francisco, CA

The Best of Wood Architecture and Design

In addition to highlighting the winners of the North American 2008 Wood Design & Building Awards, this year's annual awards book also features the frontrunners from the Canadian Wood *WORKS!* Awards (including British Columbia and Ontario), and the U.S. WoodWorks Wood Design Awards (including California, the Southeast and the North-central).

All together, we have amassed the cream of the crop in wood architecture and design in North America. These projects show a wide range of wood product applications and demonstrate a thorough understanding of – and passion for – the various special qualities of this renewable building material: strength, durability, beauty, cost-effectiveness, and many that have not yet been fully explored, particularly as environmental and health and safety issues take on greater importance. These projects also run the gamut when it comes to building type and scale, demonstrating that wood can indeed meet all the challenges of modern building.

We applaud the winners featured on the following pages. Also, a note of thanks to every firm that submitted projects to the awards programs and a thank you to the programs' sponsors. Congratulations and thank you for embracing wood as your material of choice, and for heightening the awareness of and the importance of wood architecture and design. We know these inspiring projects will encourage the continued use of wood among readers.



Etienne Lalonde
Publisher,
Wood Design & Building

Ioana Lazea
Publishing Manager,
Wood Design & Building

Wood Design & Building Awards

North America

Canadian Wood *WORKS!* Awards

British Columbia

Canadian Wood *WORKS!* Awards

Ontario

U.S. WoodWorks Wood Design Awards

California

Southeast
(Georgia, North Carolina, South Carolina)

North-central
(Minnesota, Wisconsin, Illinois)

WOOD DESIGN & BUILDING AWARDS

JURY

TYE FARROW
Senior Partner
FARROW PARTNERSHIP ARCHITECTS
Toronto, ON

ALLEN WASHATKO
Principal and Co-founder
THE KUBALA WASHATKO ARCHITECTS
Cedarburg, WI

JENNIFER YOOS
Principal
VINCENT JAMES
ASSOCIATES ARCHITECTS
Minneapolis, MN

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North American Wood Design & Building Awards Program

The winners of the 2008 Wood Design & Building Awards demonstrate cutting-edge innovation from across North America – all the while offering a diverse representation of building types and scale, including: residential, institutional, commercial and even installation and student projects.

Twelve projects were selected from the 205 total entries to the 2008 Awards program, as well as two special awards given by the Canadian Wood Council and the Western Red Cedar Lumber Association. The Wood Design & Building Awards program is the only annual North American-wide program that inspires wood building innovation and technologies by recognizing achievements in wood architecture.

"These projects show the potential of wood and design; some are playful and whimsical while others are monumental and awe-inspiring. The winners challenge the architectural community to exploit and explore wood's fabulous characteristics. It's wonderful to see the envelope pushed. These projects are an inspiration to the profession," said the jury.

For more information about the Wood Design & Building Awards, and to enter a project please visit www.wooddesignawards.com.

Jennifer Duthie
Coordinator,
The Wood Design & Building Awards

Bernadette Johnson
Editor,
Wood Design & Building

HONOR **Awards**

U.S. WoodWorks Wood Design Awards LANDMARK WOOD DESIGN AWARD

Cathedral of Christ the Light

Skidmore, Owings & Merrill LLP

ARCHITECT
Skidmore, Owings & Merrill LLP
San Francisco, CA

CLIENT
Catholic Cathedral Corporation of the East Bay
Oakland, CA

GENERAL CONTRACTOR
Webcor Builders
San Mateo, CA

STRUCTURAL ENGINEER
Skidmore, Owings & Merrill LLP
San Francisco, CA

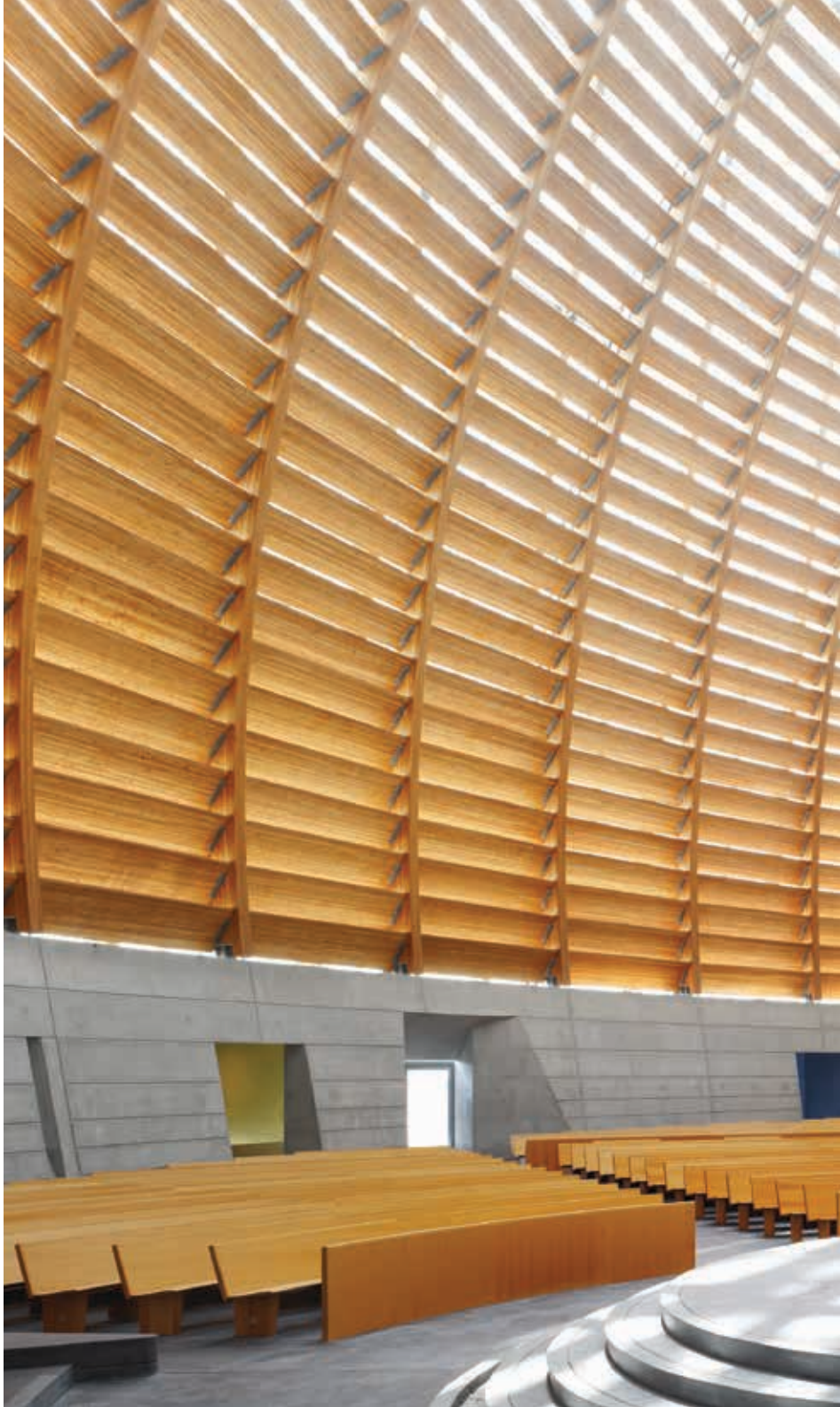
PHOTOGRAPHY
Timothy Hursley
Little Rock, AR

Cesar Rubio Photography
San Francisco, CA

John Blaustein Photography
Berkeley, CA

"This project is extraordinary because of the light that filters through this fine skeleton of timber. The structure acts as the skin of the building which also functions as the sun shading device. It's highly innovative, and beautiful. This takes wood and pushes it forward, from a structural point of view, further than probably any building has been taken. We wish we had ten more of these projects that showed the ability to use wood like this on a huge, institutional, almost iconic scale."

– Jury



The Cathedral of Christ the Light provides a sanctuary in the broadest sense of the word. Located in downtown Oakland on the edge of Lake Merritt, this house of worship offers a sense of solace, spiritual renewal, and respite from the secular world.

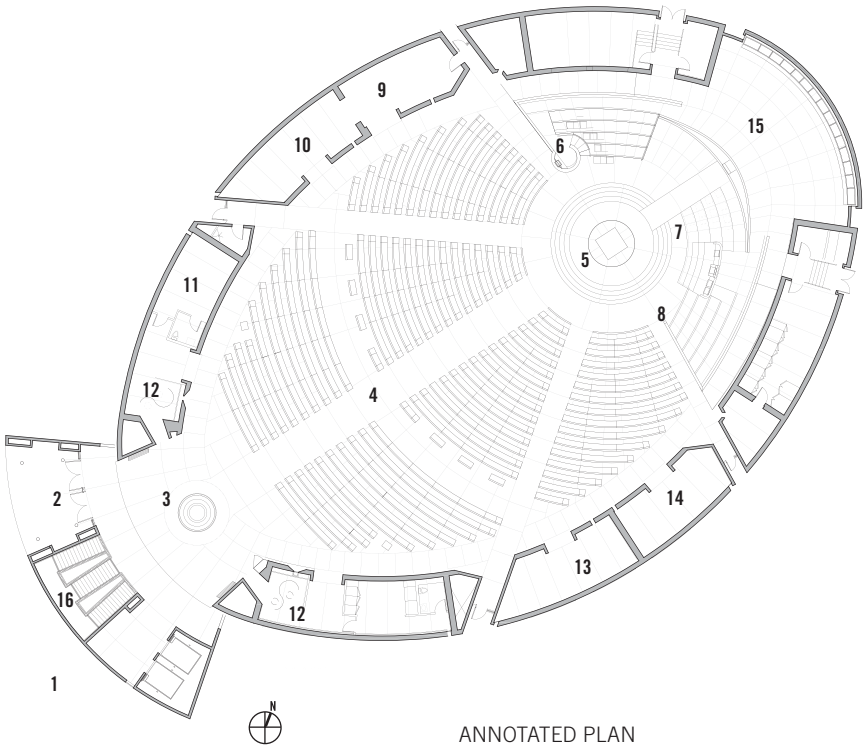
The 1,500-seat sanctuary, with its side chapels, baptistery, health clinic, and dependencies, honors its religious and civic obligations to both the Catholic Diocese and the city. Over 500,000 Catholic parishioners now have a central cathedral, something they have been without since the loss of the historic St. Francis de Sales Cathedral to the Loma Prieta earthquake. An overarching goal of the project was to create a space that resonates with the cathedral's specific temporal, physical, and cultural place. In consideration of the traditions of Bay Area architecture, the most elemental qualities of material, light, and form were used to create a sacred space within an ethos of sustainability.

Douglas fir, obtained through sustainable harvesting processes, was used throughout the complex. An appropriate choice because of its production availability on the West

Coast, it has proven to be aesthetically pleasing, economically sound, and structurally forgiving.

The wood's surfaces add warmth while its natural strength characteristics, when laced with the high-strength steel tension rods and timber compression struts, allow for the structure to efficiently resist gravity, wind, and seismic loads. Through the use of advanced seismic techniques, including base isolation, the structure has been designed to withstand a 1,000-year earthquake.

Twenty-six, 110-ft. glulam Douglas fir ribs curve to the roof to form the framework for the sanctuary superstructure. A total of 724 closely spaced glulam timber "louver" members interconnect and provide lateral bracing for inner rib members. Green ceramic fritted glass panels jacket the Cathedral's outer shell to insulate the building, reduce glare, and change the quality of light throughout the day and seasons. With a building form based on an inner wooden vessel contained within a veil of glass – both of which are anchored on an architectural concrete base – the design conveys an inclusive statement of welcome while recalling the narrative of Noah and his ark. The natural warmth of wood in both color and texture is well suited to capture the intuitive feeling of shelter in the main sanctuary space.



ANNOTATED PLAN

1. plaza
2. entryway
3. baptistry
4. center aisle
5. altar
6. ambo
7. cathedral
8. Mary – mother of the church of Oakland
9. chapel of the seasons
10. chapel of all saints
11. community room
12. reconciliation chapels
13. chapel of the holy family
14. chapel of the suffering Christ
15. blessed sacrament chapel
16. stairs to the mausoleum

"Such movement – literally – in how it's assembled. It wraps around you. It's wonderful because it reconfigures everything – like how you hold wood together, and how wood moves. It also combines an old, more primitive, way of building – leaving the bark on moves it away from the polished, finished representation of wood – with digital tools and the cable system. That blending of the new and the old is compelling."

– Jury

Lost Pines Chapel

LZT Architects Inc.

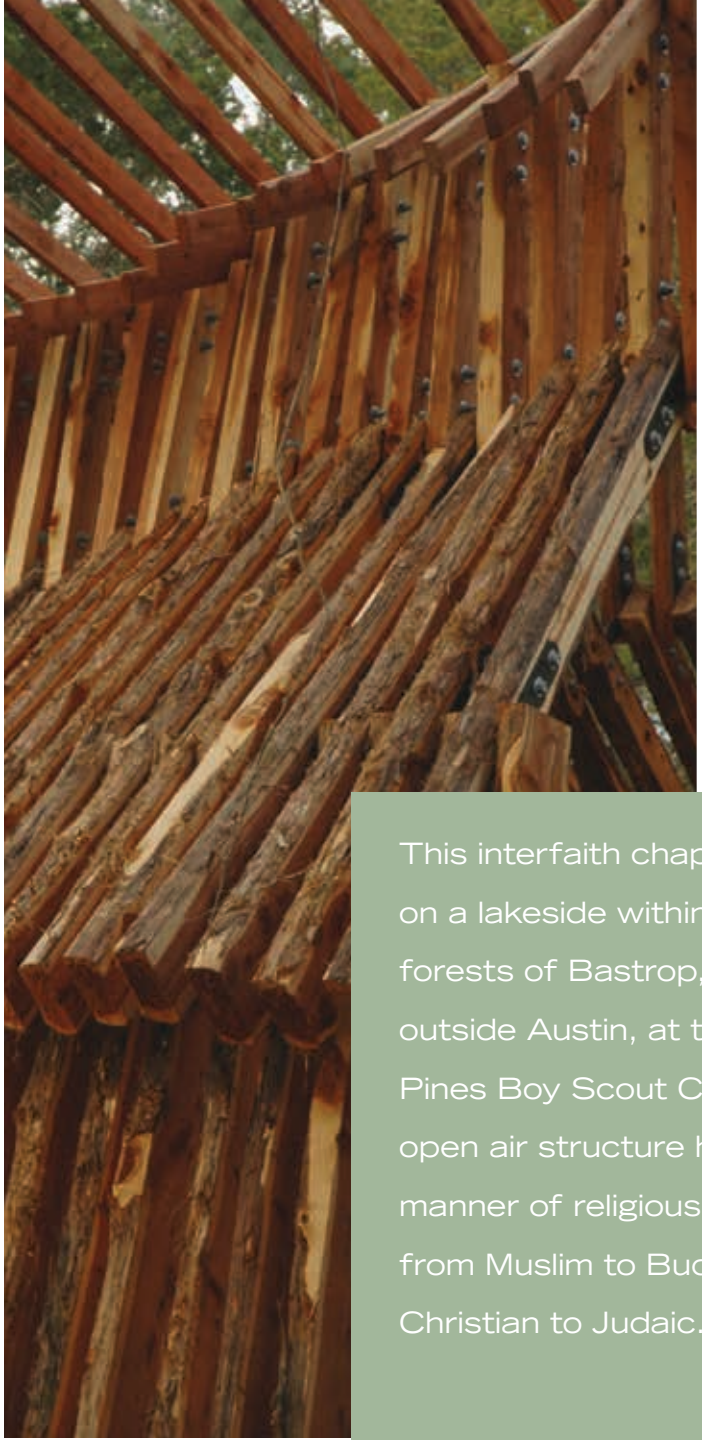
ARCHITECT
Murray Legge, AIA,
LZT Architects Inc.
Austin, TX

CLIENT
Boy Scouts of America
Capitol Area Council
Austin, TX

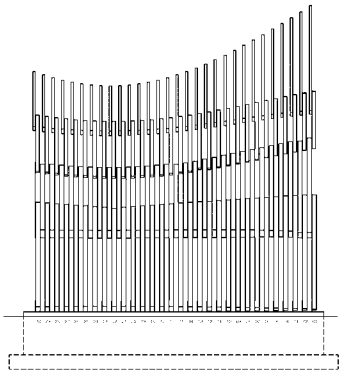
GENERAL CONTRACTOR
David Moore
Austin, TX

STRUCTURAL ENGINEER
PE Structural Consultants
Austin, TX

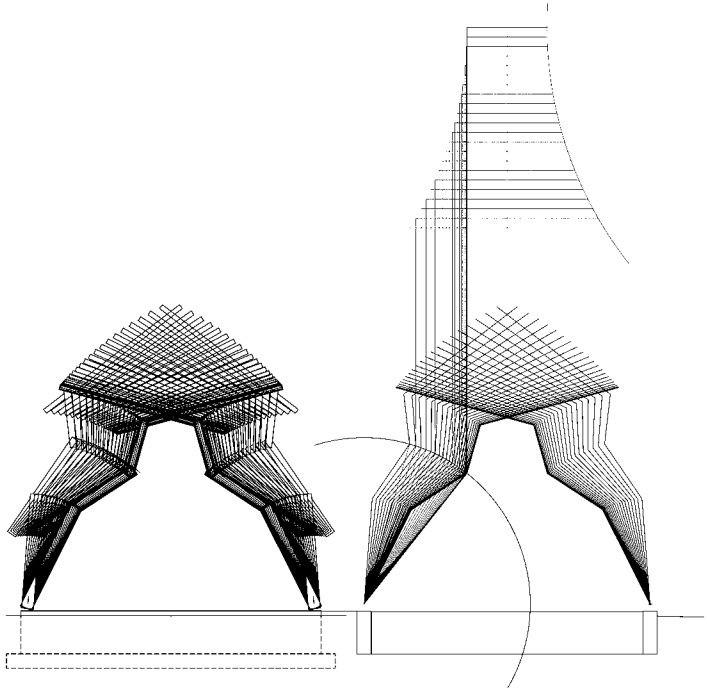
PHOTOGRAPHY
Murray Legge, AIA
Austin, TX



This interfaith chapel is built on a lakeside within the piney forests of Bastrop, Texas just outside Austin, at the Lost Pines Boy Scout Camp. The open air structure hosts all manner of religious gatherings from Muslim to Buddhist, Christian to Judaic.



ELEVATION SHOWING ONE
SIDE OF FRAMES ONLY



ELEVATION SHOWING ALL
FRAME ELEVATIONS

Open and accessible, the chapel inspires meditation and reflection. Oriented east to west, the gate-like structure frames a view across the lake of the setting sun, which sets aglow each wooden member. Working closely with a local saw mill, standard-sawn cedar members were chosen during the design of the building. The chapel is composed of repeated wood members that vary in their rustication from the lower members increasing in their refinement upward. The precision and simplicity of the frame geometry plays off the rustic quality of the sawn lumber.

The design process combined both high and low technologies. The building design grew out of a computer modeling exercise conducted for architecture students in an advanced design studio. The exercise demonstrated how – by repeating a simple combination of basic computer model parts – very complex forms could occur. As the design developed, the computer model became a tool to identify the exact number, size and cost of all wood members.

Each of the 22 frames is composed of eight members interconnected with steel plates and bolts creating rigid moment connections between elements. There are a total of 22 identical frames that rotate incrementally. The rotation of the frames creates an arcing in plan. The frames are bundled together horizontally by two cables in tension. Two horizontal structural arches are then created through the rotational arcing and the tension cable. The friction connection is created between the frames. Since the lower members are wider and become narrower toward the top, the upper members do not touch and are free to move and sway in the wind. This movement is unexpected and when it occurs, a sudden connection to the surrounding forest is made. The frame rotation gives the building a fluid quality linking it to the movement of water in the lake beyond. The playful rotation also gives the building the feeling that it could change or is changing like an opening fan or hinged toy. This implied mutability links and strengthens the building's form to its program, that of an interfaith chapel.

Sustainable Prototype

Studio 804 Inc.

"If you consider where the wood came from, and look at what it is now, that re-use speaks to the inherent, natural ability of a material to sustain itself over a long period of time. It was the first permanent community building rebuilt in Greensburg following the tornado, so it provided a beacon of hope in a symbolic way – to put the first permanent building and have it be a building constructed in that way and in that spirit."

– Jury

ARCHITECT
Dan Rockhill, Studio 804 Inc.
Lawrence, KS

CLIENT
5•4•7 Arts Center
Greensburg, KS

GENERAL CONTRACTOR
Studio 804 Inc.
Lawrence, KS

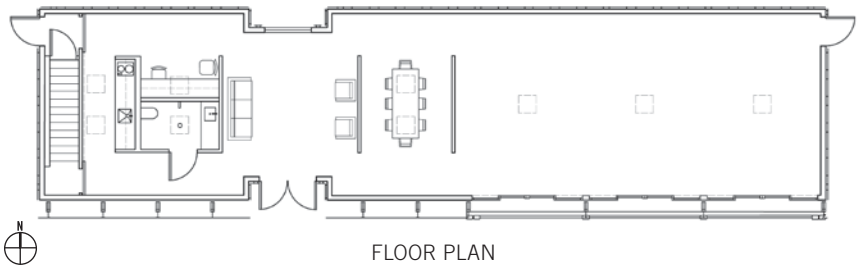
LANDSCAPE ARCHITECT
Studio 804 Inc.
Lawrence, KS

STRUCTURAL ENGINEER
Norton & Schmidt
N. Kansas City, MO

PHOTOGRAPHY
Studio 804 Inc.
Lawrence, KS

The Sustainable Prototype is constructed of seven prefabricated modular units for the 5•4•7 Arts Center and serves as an example of sustainable building methodology for the city of Greensburg, Kansas. Completed on the one-year anniversary of the tornado that devastated Greensburg, the building was the first completed public facility, and serves as a beacon for the community and its ambitious rebuilding efforts.

SOUTH ELEVATION



FLOOR PLAN

The project reclaimed wood from the Sunflower Army Ammunition Plant, formerly one of the world's largest powder and propellant plants. Now an excess federal property, it is being rehabilitated for public use, and is one of over one thousand (of the original five thousand) retired ammunition buildings, designated free of contaminants.

The harvested lumber from the plant was resurfaced, and installed as siding on the Arts Center, and then wrapped in glass to preserve the natural beauty of the reclaimed wood. In an effort to protect the 67-year-old Douglas fir, an intricate rain screen system was developed. The rain screen, made of 10-millimeter thick monolithic green Tintex glass, acts as a protective UV screen in an effort to preserve the natural beauty of the revived material. New life was given to the old, yet valuable resource during the creation of the Sustainable Prototype. The re-use of wood was pivotal in the overall vision.

In an attempt to bring the reclaimed Douglas fir inside the Arts Center, a beautifully crafted sculpture of the wood was placed above the lobby area. Doors and windows throughout the building also consisted of Douglas fir in an attempt to keep the material palette consistent.

As the first permanent community building rebuilt in the town, the Arts Center serves as a space for art classes, parties and lectures, a theater (weekend movies on the lawn), and now even a tourist destination. But perhaps more importantly the Sustainable Prototype is an example to the people of the community of how building green can be accomplished in their own homes.

"This project looks at wood in a different way – as a processed material that's more akin to folded paper. And you see it in that way. It is structural in a way where it's fine and thin and doesn't represent the inherent natural form of wood, which most other projects do. It allows light to come through it. It's fluid and it moves and bends. Simply gorgeous."

– Jury

Voussoir Cloud

IwamotoScott Architecture

ARCHITECT
IwamotoScott Architecture
San Francisco, CA

STRUCTURAL ENGINEER
Buro Happold Engineers
Culver City, CA

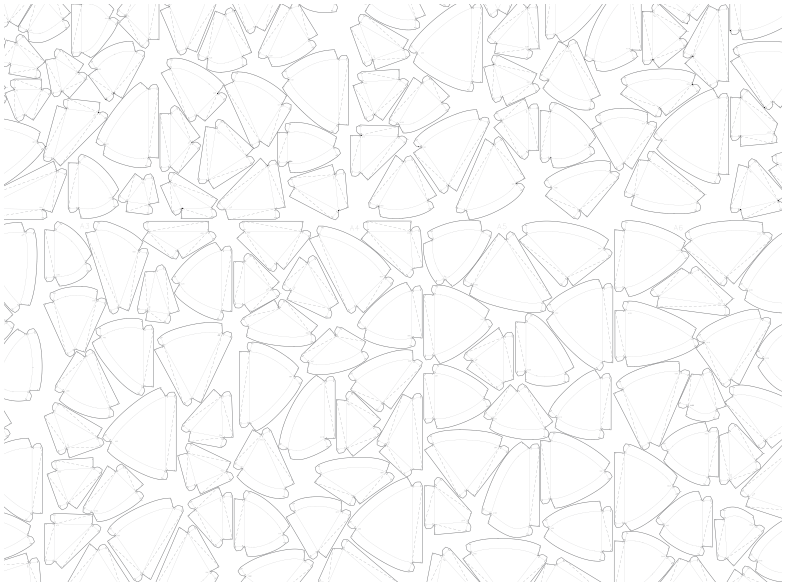
PHOTOGRAPHY
Judson Terry/IwamotoScott
San Francisco, CA

Voussoir Cloud explores the structural paradigm of pure compression coupled with an ultra-light material system. The design fills the gallery with a system of vaults to be experienced both from within and from above.

The edges of the vaults are delimited by the entry soffit and the two long gallery walls. Spatially, they migrate to form greater density at these edges. Structurally, the vaults rely on each other and the three walls to retain their pure compressive form. The fourteen segmented pieces also resolve to make a series of five columns that support the interior and back edge.

Each vault is comprised of a Delaunay tessellation that both capitalizes on and confounds the structural logics – greater cell density of smaller more connective modules, or petals, gang together at the column bases and at the vault edges to form strengthened ribs, while the upper vault shell loosens and gains porosity. At the same time, the petals – reconstituted "voussoirs", typically defined as the wedge-shaped masonry blocks that make up an arch – are reconsidered here using paper thin wood.

The three-dimensional petals are formed by folding thin wood laminate along curved seams. The curve produces an inflected and dished form that relies on the internal surface tension of the wood and folded geometry of the flanges to hold its shape. At the same time, materially, the flanges want to bulge out along the curved edge. This

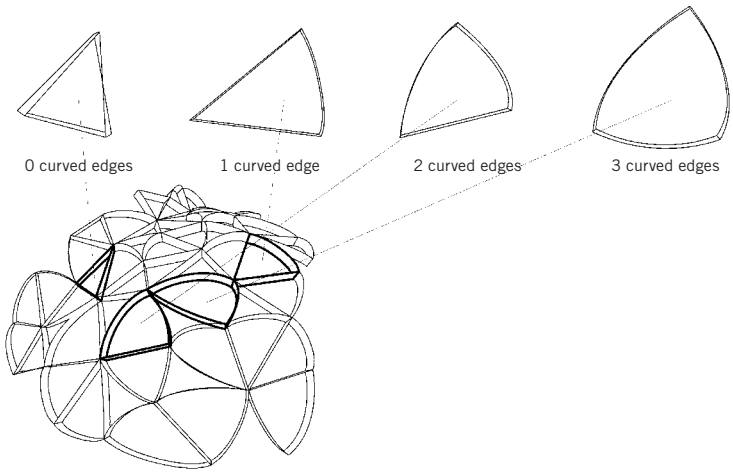


MODULE TEMPLATES

SINGLE MODULE

is what allows for the structural porosity within the constraints of the sheet material. The flanges of the resulting dimpled, concave petals pack together as compressive elements and press upon each other. This attribute naturally creates vaulted forms and led initially to the overall design.

In the end, Voussoir Cloud attempts to defamiliarize both structure and the wood material to create conflicted readings of normative architectural typologies. It is a light, porous surface made of compressive elements that creates atmosphere with these luminous wood pieces, and uses this to gain sensorial effects.



PETAL GEOMETRIES

MERIT **Awards**

Lily Lake Residence

Bohlin Cywinski Jackson

ARCHITECT
Bohlin Cywinski Jackson
Wilkes-Barre, PA

GENERAL CONTRACTOR
Breig Bros. Inc.
Dalton, PA

LANDSCAPE ARCHITECT
Michael Vergason Landscape Architects
Alexandria, VA

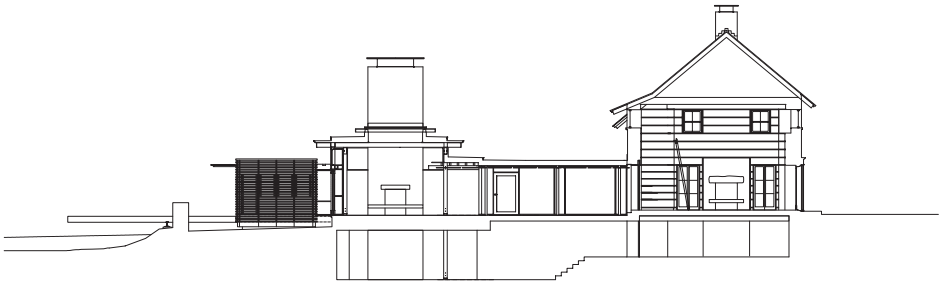
STRUCTURAL ENGINEER
CVM Engineers
Wayne, PA

PHOTOGRAPHY
Nic Lehoux
Vancouver, BC

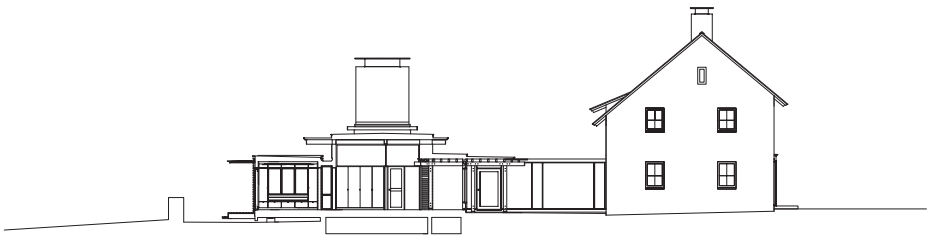
"There is an elegance in this project's straightforward manner. It is compelling how it fits the site, and the way the wood defines this exterior space. The use of wood allows the original stone house to stand on its own. It's a nice balance."

– Jury

Situated in the Northeastern Pennsylvania agrarian landscape, this residence is rooted in its circumstance of rolling fields, high grass, dry laid stone walls, farm structures and lakes, and sited on an estate dating from the early 1900s.



LONGITUDINAL SECTION



LONGITUDINAL SECTION

The goal of this residence was to sensitively relate to the surrounding landscape and incorporate an existing stone cottage, which sits prominent toward the upper corner of one field.

The new linear wood structure was situated between the stone cottage and a pond; parallel to an existing stone wall that borders the water. The structure does not impose on the stone cottage; rather it is pulled free and linked by a delicate glass passage. The stone cottage contains a library and small loft, while the garage, living and sleeping areas are contained within the new wooden building.

The path and entry to the new structure is along a mahogany framed glass wall, reinforcing the linearity of the design. The linear wooden building's Douglas fir timber structure was rigorously organized and detailed. The structure is enveloped by shiplap western red cedar siding and mahogany windows. Two cedar wood box volumes clad with wood battens, evocative of corn crib structures, cantilever from the rear of the house to limit the impact on significant maple trees nearby. An exterior wood deck extends from the face of one battened box out over the pond.

The estate's original modest stone cottage was preserved but modified into a library. All partitions and the upper floor were removed to reveal a two story volume, into which a shell of clear vertical grain Douglas fir book cases were inserted.

The Lily Lake Residence is a thoughtful modernist intervention into an evocative agrarian landscape that is both sensitive to the site and rigorous in its design.

Quai des Cageux

Daoust Lestage Inc.

ARCHITECT
Daoust Lestage Inc.
Montréal, QC

CLIENT
Commission de la capitale nationale du Québec
Québec City, QC

GENERAL CONTRACTOR
Pomerleau
Québec City, QC

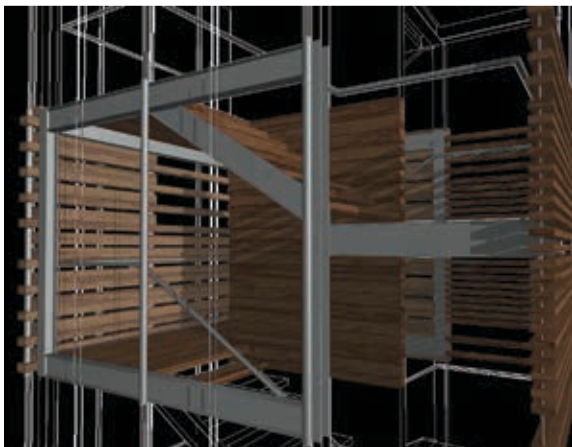
LANDSCAPE ARCHITECT
Le consortium Daoust Lestage – Williams Asselin Ackaoui – Option aménagement
Montréal, QC

STRUCTURAL ENGINEER
Genivar
Québec City, QC

PHOTOGRAPHY
Marc Cramer
Montréal, QC

"This project has a very strong composition. The boards are allowed to turn on their sides giving them more space and rhythm. This cladding treatment also refers to the stacked wood of the historic timber yard. You could be there any time of the day or night and it would be a compelling place to be."

– Jury



The location of Quai des Cageux makes it an important entry to the site and conjures up images of a river pier and its intrinsic structures – ultimately turning it into a local visual anchor and light beacon. It is a welcome addition to the collection of industrial relics dominating the local landscape and shoreline.

Quai des Cageux Visitor Centre is composed of a singular belvedere, a multi-functional pavilion and a deck. All three elements are strongly linked. The belvedere's public timber deck space is articulated by two new structures: a lower, lengthy Quai des Cageux visitor pavilion and its observation tower. The Pavillon des Cageux is a large multi-functional hall with a carefully orchestrated set of covered outdoor spaces – all directly overlooking the river. Sitting on the belvedere's river edge to the south, the observation tower brings visitors 25 meters above the river, creating a stunning panoramic window onto the water, the bridges and the new linear park. This structure is clad entirely of wood – both the inside and the outside skin of the building. The tower, with its latticed timber flanks, refers both to historic pier towers and to the lumber pilings characteristic of the 19th century port lumberyards.

The architectural language of this structure is inspired by the character of the site, the harbor vernacular and by 19th century images of lumber exploitation and shipbuilding. The very name – Quai des Cageux – refers to the fearless lumberjacks' restless dance on an endless sea of wood logs.

Quai des Cageux Visitor Centre is part of the Promenade Samuel-De Champlain development, commissioned by the Québec government to celebrate Québec City's 400th anniversary in 2008. The overall project included a restoration of the waterfront in an effort to reactivate Québec City's access to the St. Lawrence River and revitalize the coastal landscape.

"It's refreshing to see a 70's building that has been brought back and moved forward. This project speaks to the nature of wood, more specifically, the quality of aged wood and what it can bring to a piece of architecture. A very successful, seamless makeover."

– Jury

Re-cover

Bates Masi Architects

ARCHITECT
Bates Masi Architects
Sag Harbor, NY

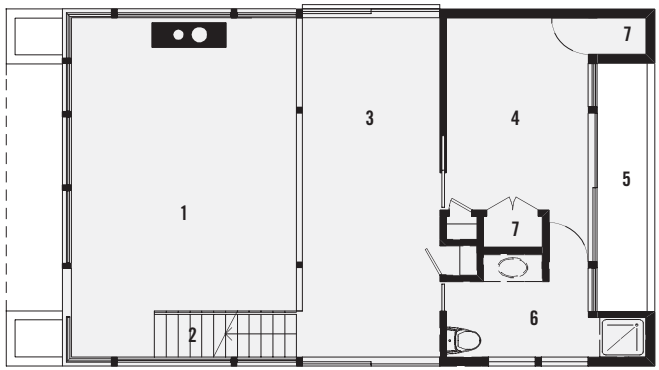
CLIENT
Jonathan Burnham & Joe Dolce
East Hampton, NY

GENERAL CONTRACTOR
Paul Cassidy
Westhampton, NY

STRUCTURAL ENGINEER
Steven L. Maresca, Consulting Engineer
Hampton Bays, NY

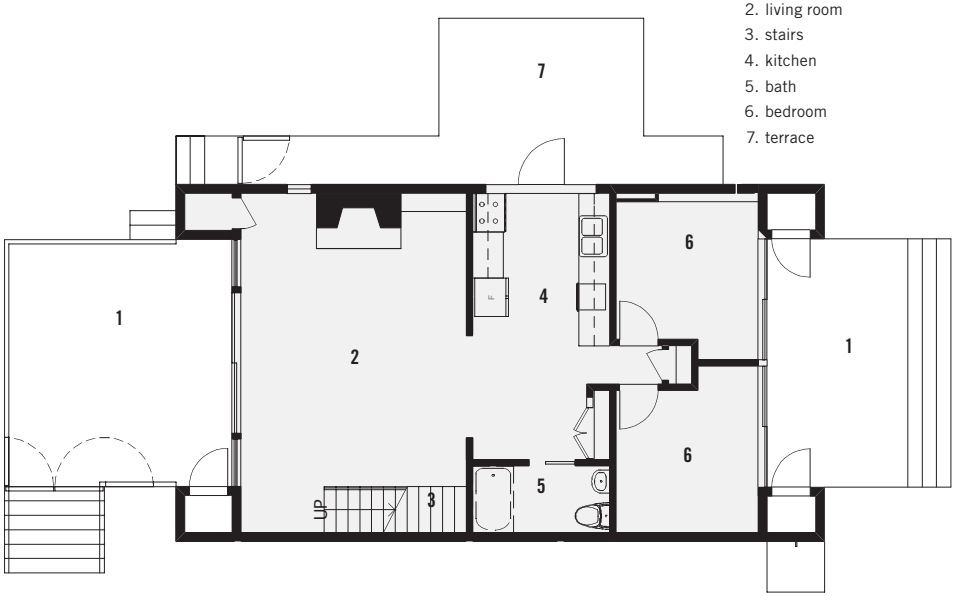
PHOTOGRAPHY
Christopher Wesnofske, Wesnofske Photography
New York, NY

1. living room
2. stairs
3. mezzanine
4. bedroom
5. balcony
6. bath
7. closet



SECOND FLOOR PLAN

1. deck
2. living room
3. stairs
4. kitchen
5. bath
6. bedroom
7. terrace



FIRST FLOOR PLAN

Thirty-five years after the firm originally designed this vacation residence, its new owners sought to rejuvenate the house while preserving its spaces, seasoned tones, and texture. Clad inside and out almost entirely in 12 inch wide cypress boards, the original house exuded a straightforward simplicity the owners wished to maintain.

By constraining the palette of materials and reusing salvaged parts of the existing house, the line between new and old becomes nearly imperceptible, limited only to minimal inflections in finish.

Little of the material seen in the addition is in fact new. As the south wall and deck of the house were dismantled to make room for the new construction, the cypress boards and cedar decking were carefully salvaged and machined into new siding, fine scrim material, stair treads and risers. Reused, this cladding bears precisely the same patina as the other surfaces in the house – an effect truly impossible to achieve with new construction materials. Only on close inspection is new texture and color revealed at the boards' freshly cut edges.

In enhancing the simplicity of the original design, a subtle complexity has emerged. Splices, cuts, and finishing techniques inflect upon otherwise homogenous materials, recording the methods of craft and workmanship. Over the next thirty-five years the patina that naturally accrues over time will continue to refine the delicacy of these inflections.

CITATION **Awards**

Edwards Residence

Cutler Anderson Architects

ARCHITECT
Cutler Anderson Architects
Bainbridge Island, WA

CLIENT
Karen & Jeff Edwards
Kirkland, WA

GENERAL CONTRACTOR
Pete Crocker,
Crocker Construction Company
Seattle, WA

STRUCTURAL ENGINEER
Jerome Madden,
Madden Baughman Engineering Inc.
Portland, OR

PHOTOGRAPHY
Art Grice, Art Grice Photography
Bainbridge Island, WA

"Pavilion-like, this project is especially thorough in its execution of detail."

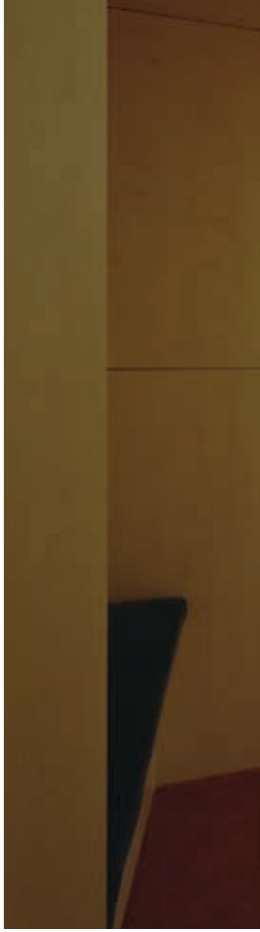
– Jury

The program for this project required working within a modest budget to provide a residence for a family of four on a relatively tight, wooded suburban lot – which fortunately, was adjacent to a small suburban park.

In order to reduce costs, the building was designed to both fit on the land as a single object with a minimal footprint, and to orient all of the living spaces toward the adjacent park.

After resolving the plan issue related to the nature of family, the architects endeavored to reveal the order and structure of the wooden building by developing a set of details that displayed both the skin and bones of the light frame building.

Special features of this residence include large open spaces, meticulous detailing of structural wood framing member connections and exterior cedar cladding.



House of Prayer

Cuningham Group Architecture

ARCHITECT
Cuningham Group Architecture
Minneapolis, MN

CLIENT
Episcopal Diocese of Arkansas
Little Rock, AR

GENERAL CONTRACTOR
East-Harding
Little Rock, AR

LANDSCAPE ARCHITECT
P. Allen Smith
Little Rock, AR

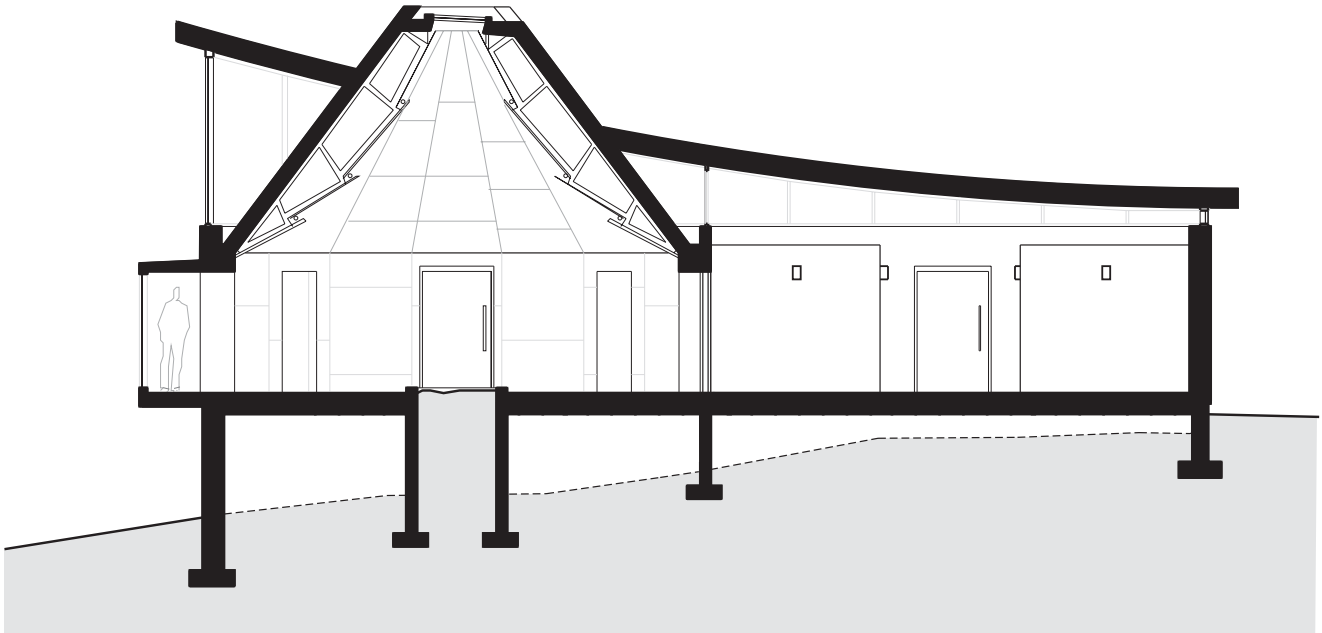
STRUCTURAL ENGINEER
Lindau
Companies Inc.
Hudson, WI

PHOTOGRAPHY
Tim Hursley Photography
Little Rock, AR

"This project truly expresses the nature of wood – it allows it to bend and move."

– Jury

The wish to create a place of silence, reflective meditation, quiet prayer, and peaceful warmth was the calling of this Episcopal Diocese. Led by the spiritual leaders of a local church, their efforts resulted in the design of an intimate ecumenical chapel west of Little Rock, Arkansas.



LONGITUDINAL BUILDING SECTION

The House of Prayer unites with its context as if the building were meant to exist there. The materials that compose this building, including the Arkansas bluestone, copper panels, richly colored Cyprus wood detailing, clerestory glazing and dynamic metal roof, all make reference to the site.

Upon entry, the sweeping birch wood ceiling, birch wood trim, and porcelain floor are naturally day lit, giving the Pre-Meditation area a look of simplicity. The 16-sided birch paneled Meditation Space is the heart and soul of the chapel: like ancient Bedouin structures, this cone shaped room draws each visitor to contemplate the central earthen ring [the earth], the wood paneled diaphragm [the enclosure] and the skylight [the divine]. Wood detailing is incorporated throughout as part of the aesthetic and allows the eye to calm itself. Finally, the Meditation Garden – elevated 14 ft. from the forest floor – contains a delicate reflecting pool surrounded by a handsome wood deck. This open-air garden views the tracery of the tree canopy, where visitors can experience the seasons and begin the transition back to daily life.

"Wood is used here to very good effect – colored and stained. It transforms this very simple shape, allowing you to discover this project as you move through it."

– Jury

Sheldon Gatehouse

Bohlin Cywinski Jackson

ARCHITECT
Bohlin Cywinski Jackson
Seattle, WA

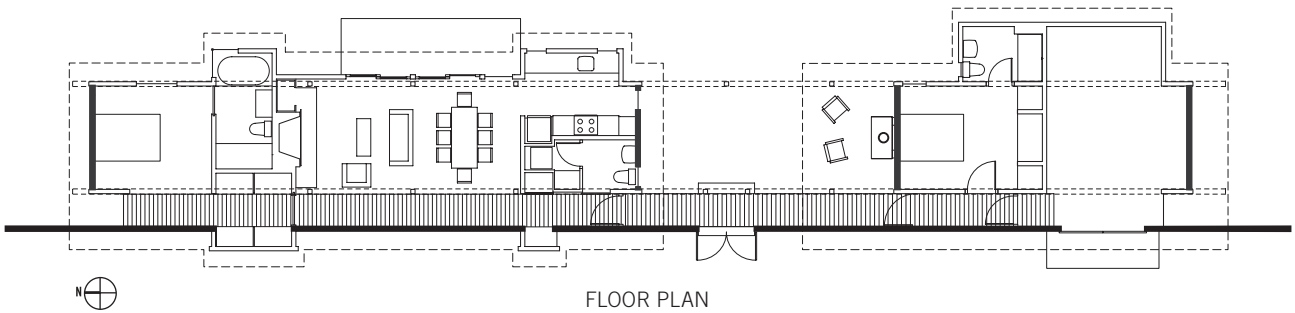
GENERAL CONTRACTOR
Norm Gove, Cambridge Custom Homes
Redmond, WA

LANDSCAPE ARCHITECT
Allworth Nussbaum
Seattle, WA

STRUCTURAL ENGINEER
PCS Structural Solutions
Seattle, WA

PHOTOGRAPHY
Nic Lehoux
Vancouver, BC

The long low wall of the building extends through the forest as a foil to the vertical trunks of the pine trees. As one passes through its cedar plank front gate the house yields to the forest and opens to the meadow beyond. This gesture marks the symbolic transition from the trappings of urban life to the essential nature of the site.



FLOOR PLAN

Just inside the wall, a wood boardwalk runs the length of the project connecting two major living spaces, one interior and one exterior. The two spaces mirror one another, each with a fireplace and one wall that is open to the view of the forest meadow. Each living space accommodates the subtle differences between day and evening needs. In winter the interior living room becomes primary. During the milder months, the courtyard living space serves as the center of the home.

Because the site is remote and wooded with a wide range of weather, and is not constantly occupied, exterior finishes are resilient and fire-resistant, and the roof is steeply sloped to shed snow. Sliding cedar plank shutters protect the windows and improve the home's energy efficiency while unoccupied.

A delight of this house is that it does so much with so little. It is modestly proportioned but generous in volume so that it is comfortable whether it has a single visitor or welcomes a gathering.

Thin Plywood Acoustical Shell System

Gray Organschi Architecture

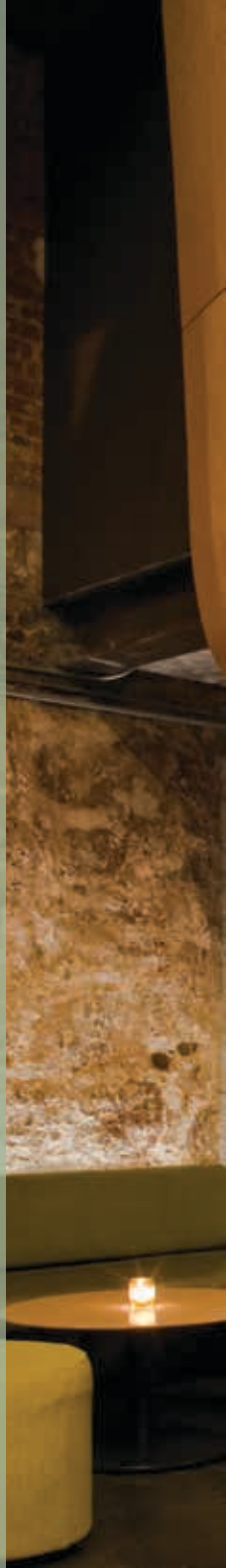
ARCHITECT
Gray Organschi Architecture
New Haven, CT

CLIENT
Firehouse 12
New Haven, CT

GENERAL CONTRACTOR
Lowe Company Inc.
Branford, CT

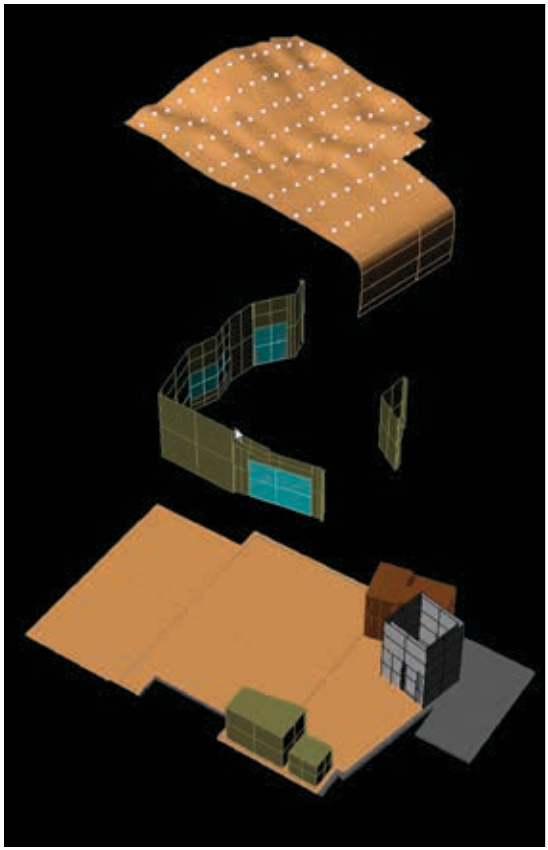
STRUCTURAL ENGINEER
Edward Stanley Engineers
Guilford, CT

PHOTOGRAPHY
Victoria Sambunaris/Robert Benson/ Gray Organschi Architecture
New Haven, CT



"This is a beautiful use of inexpensive materials. It's interesting how the plywood was organized – its ability to be moulded and shaped was truly leveraged here. The project, the detailing, is very well done."

– Jury



ISOMETRIC RENDERING

Working within the abandoned shell of an early 20th century fire station in New Haven's historic 9th square district, the project is a combined commercial musical recording studio and public performance space.

After carefully stabilizing the building structure, an 85-seat proscenium performance hall was developed that could double as an acoustically isolated soundstage and liveroom, with a full technical infrastructure of sound isolation booths and cabinets, production control room. Despite the building's small footprint, a series of public and private spaces are woven throughout the building and around the new central sound stage, providing a public lobby at the street which opens down into a public cafe and bar amid the firehouse's stone foundations, a "back of house" area for performers and office for the studio manager.

On the second floor of the building, under the 6-ft. deep southern pine structural trusses that were carefully restored, a two-bedroom apartment and roof terrace was created. A series of curving birch plywood shells, functioning alternately as light and sound reflectors and room dividers give the interior a lightness and warmth within the once dark brick spaces of the firehouse.

The conflicting acoustical requirements of a small multi-use musical

performance space drove the development of a system of acoustic plywood panels that can be adjusted to optimize their acoustical performance and achieve both the sound deadening criteria of a recording studio and the reverberant character of a music hall.

Using prototypes of material and assembly systems, a thin continuous plywood shell was produced that transforms along its surface to create the necessary acoustic conditions and characteristics in different areas of the room. At its center, where the primary recording activity takes place, the shell acts as a low frequency sound absorber, eliminating the flutter often created in small rooms by loud low tones. At the front of the room where a proscenium stage is formed, the plywood shell splits into narrow twisted filaments, which serve to diffuse and diffract any and all acoustic reflections that might clutter the auditory experience of performing musicians.

"This feels like a chiseled chunk of wood, ancient and new at the same time. It has timelessness to it, as well as a mystical quality, like a shadow in the woods."

– Jury

Writer's Studio

Wendy Evans Joseph Architecture

ARCHITECT
Wendy Evans Joseph Architecture
New York, NY

CLIENT
Dr. Jeffery Ravetch
New York, NY

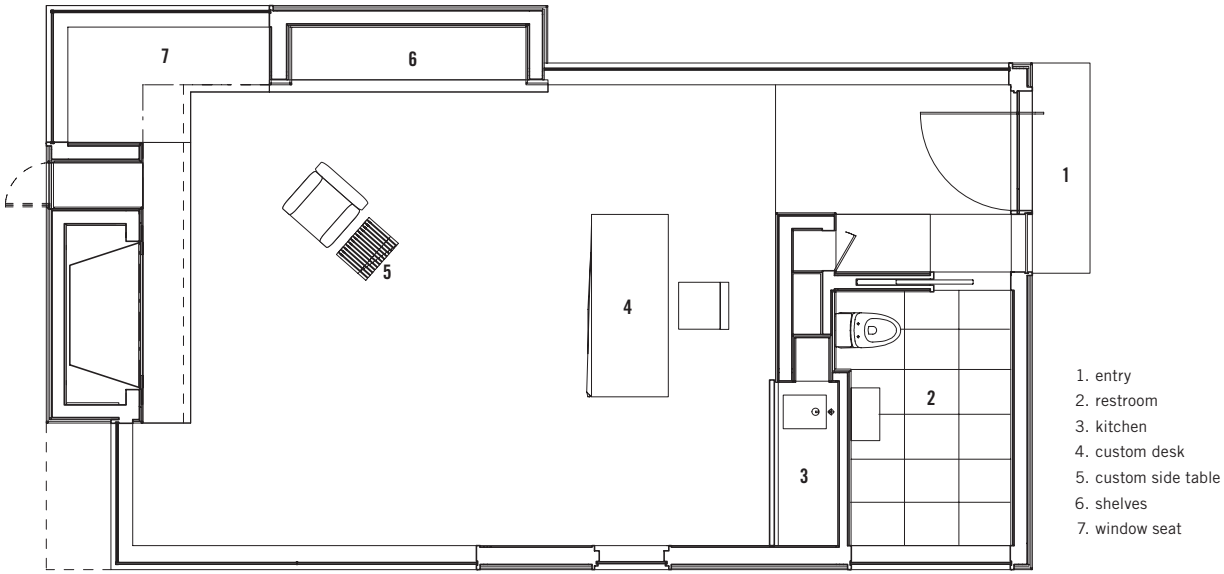
GENERAL CONTRACTOR
Jim Romanchuk
Hudson, NY

LANDSCAPE ARCHITECT
Peter Rolland
Rye, NY

STRUCTURAL ENGINEER
Nat Oppenheimer, Robert Silman
New York, NY

PHOTOGRAPHY
Elliott Kaufman Photography
New York, NY

Immersed in deep woods, the writer's studio is the owner's place of solitude away from the main house on the same property. The simple form of the structure is punctured by distinct apertures, which reveal open vistas to a pond and field. Feeling uncluttered and elegant, the use of wood unifies the experience with warmth and consistency.



FLOOR PLAN

The studio volume is a small, rectilinear, and restrained single-room space in the woods. Juxtaposed with the rigid orthogonal geometry of the walnut-clad room are the dynamic sculptural designs of a pair of object tables and two black leather armchairs as the sole items of furniture. Minimalist detailing, open glazed corners and transparency running the length of the structure challenge the simplicity of the typical box form.

Using wood for both the structure and the surfaces was essential – due to the remote location of the structure, the best local contractor was a skilled carpenter. From a design point of view, this allowed the use of walnut on the interior in different sizes, finishes, and configurations in order to achieve a unified but rich effect.

On the exterior, cedar received a matte black stain. Each board was precisely laid and mitered at the corner, with only the copper trim and scuppers to set off the forms. The choice of using only wood framing was pragmatic, but it worked very well for even the large cantilevered roof sections over corner glass-to-glass windows at the north side of the building.

SPECIAL **Awards**

The design of the library and service center structure draws on Ballard's Scandinavian and maritime roots while looking to the neighborhood's future – projected to be composed of a young, diverse population.

CANADIAN WOOD COUNCIL EXCELLENCE Award

Ballard Library & Neighborhood Service Center

Bohlin Cywinski Jackson

ARCHITECT
Bohlin Cywinski Jackson
Seattle, WA

CLIENT
Seattle Public Library
Seattle, WA

GENERAL CONTRACTOR
PCL Construction Services Inc.
Bellevue, WA

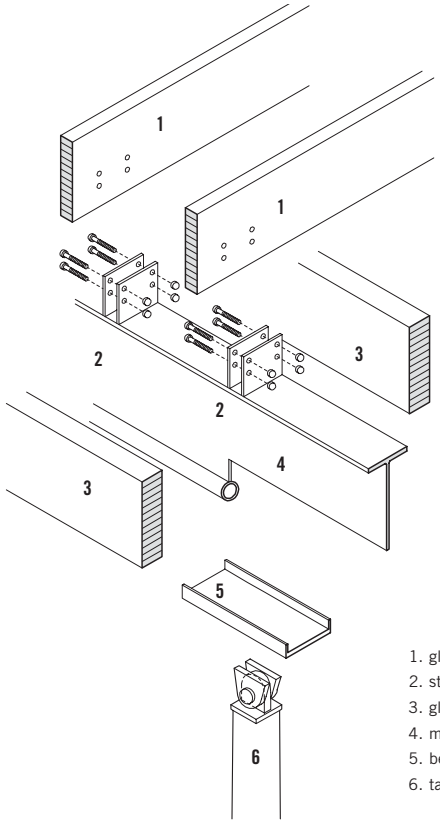
LANDSCAPE ARCHITECT
Swift Company
Seattle, WA

STRUCTURAL ENGINEER
PCS Structural Solutions
Seattle, WA

PHOTOGRAPHY
Nic Lehoux
Vancouver, BC

The building forms a powerful civic face along a pedestrian corridor. Tapered metal columns support a gently curving plane of laminated wood beams and planted roof. The pattern of plantings on the roof mimics the natural spread of seeds by prevailing breezes. The roof turns upward at the north and south edges allowing light into the building. Wood purlins extend beyond the roof perimeter, visually softening the edge. The building's entry is pulled back from the street to make a deep "front porch" tying together the library and neighborhood service center under the western edge of the roof.

Inside, glazed walls provide transparency deep into the public areas of the 15,000-sq.ft. library and 3,600-sq.ft. neighborhood service center. The skin bends around the corners marking the children's area and service center lobby as special spaces. Rectangular, color-stained cedar clad boxes containing support spaces are aligned on east west axes. A periscope integrated into a wall adjacent to the circulation desk offers the children views to the green roof.



1. glulam purlins
2. steel connector
3. glulam beam
4. metal gusset plate
5. beam seat
6. tapered metal column

AXONOMETRIC VIEW

The interior furniture – designed by the architect – was made from nested panels allowing the maximum use of 4 x 8 sheets of plywood. The furniture was shipped as flat pieces, minimizing shipping costs. The assembly of the pieces utilizes a series of notches and tabs requiring no mechanical fasteners.

Anemometers, monitoring wind speed and direction, are integrated on the roof. This information is coupled with information about light, energy usage, rainfall, and other data and transmitted to LED display panels along the building spines as artwork making microclimatic conditions created by the building visible.

The library's mission and use offer the perfect opportunity to educate the community in the richness and benefits of integrating green design with extraordinary architecture. The careful consideration of building systems and components, and creatively seeking multiple functions in each of the program elements enabled the project to be built within the overall budget of $7,200,000. This demonstrates that green building can be economically feasible within a modest budget.

REAL CEDAR
EXCELLENCE Award

Whistler Public Library

Hughes Condon Marler Architects

ARCHITECT
Hughes Condon Marler Architects
Vancouver, BC

CLIENT
Resort Municipality of Whistler
Whistler, BC

GENERAL CONTRACTOR
Whistler Construction
Whistler, BC

STRUCTURAL ENGINEER
Fast+Epp Consulting Engineers
Vancouver, BC

PHOTOGRAPHY
Martin Tessler
Vancouver, BC


EXIT

Sited atop a carved-out landscape berm between the largest park in Whistler Village and a vital pedestrian promenade called the Village Stroll, the Whistler Public Library is a project that celebrates a community's passion for both extreme outdoor adventure and the creative and intellectual pursuits of locals and visitors alike.

From the project's beginning, the 15,000-sq.ft. library aspired to connect the sense of imagination, contemplation and community found in the world of books with the grand-scale views of the surrounding mountain tops and adjacent forest glades. The form of the building picks up on the drama of the jagged mountaintops circling Whistler but also uses notions of sustainability to inform the design.

The two elevations on the north and west provide an expansive curtain wall glazing system that optimizes views to Sprott Mountain in the distance and to Village Park in the foreground. To emphasize this relationship, the vertical window mullions are staggered randomly to pick up the rhythm of the tree trunks in the adjacent park and to draw the eyes upward toward the views.

In juxtaposition to the park elevations, the south and east elevations on Main Street use pedestrian arcades, long overhangs, rhythms of doubled up glulam posts punctuated with wood windows and infill wood panels to connect to the meandering and intimate architecture of the Whistler Village. To enhance these connections to the social life and outdoor activities of Whistler, the building is raised up on a berm with a parking level below to create a civic plaza that links the building to the Village Stroll on the south and provides a sense of prospect over the park to the north.

In recognition of the importance of the outdoor environment on the preservation of the cultural life of Whistler a strong emphasis was placed on innovative sustainable building strategies in which the use of wood played a dominant role. During the schematic design phase, the project team was approached by the British Columbia Coast Forest Lumber Association which wanted to showcase the use of sustainable hemlock in the project.

Hemlock is a highly accessible and readily available wood species with both durability and strength characteristics – making it a suitable choice in this application. The challenge was that hemlock does not perform as well as SPF lumber structurally and is prone

to warping under some conditions. To address these concerns the design team developed a panel system of staggered and laminated 4-in. x 12-in.'s that were fabricated into 4-ft. wide panels and cut to length as required. The panels were modeled in 3D software and then prefabricated in a shop to reduce construction schedule. The laminations are staggered three inches which increases the effective depth of the beam to span long distances under heavy roof loading from a green roof and very high snow loads. In between the panels a 12-in. space has been left to run services such as sprinklers and lighting conduit creating the impression of a clean blanket of wood overhead. Architecturally, the panels also become an elegant yet robust ceiling expression that reduces acoustic reverberation and reinforces the idea of inside/outside connection by extending out over the glazing and wall systems to become continuous soffits and overhangs.

In response to the extremely high snow loads found in Whistler, the vernacular architecture is characterized by the extensive use of heavy timber construction. This project draws upon this tradition but also applies a more contemporary design intent by utilizing stainless steel pin connections, hidden knifeplate connections and 19mm reveals between glulam column and beam connections to create a sense of lightness in the support of the laminated wood roof.

CANADIAN WOOD *WORKS!* AWARDS

Canadian Wood *WORKS!* Awards

The Canadian Wood *WORKS!* Awards honor excellence in wood design and building within Canada.

Every year, the architects, engineers and project teams who submit nominations to the Wood *WORKS!* provincial awards programs inspire us with their design achievements and innovative approaches to using wood. The record number of nominations received in the 2008-2009 cycle is evidence that Canada's design professionals are embracing the use of wood and exploring new and exciting ways to incorporate this extremely versatile and beautiful material into non-traditional building applications.

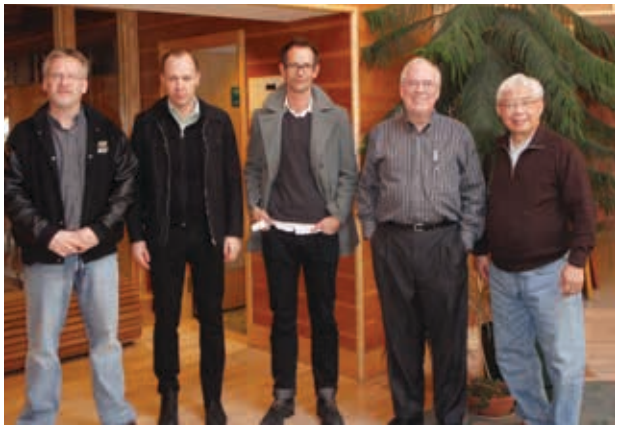
As stand-alone projects, the winners featured here are all wood champions. As a collection, these beautiful and innovative projects are much more – they are part of a vital and growing Canadian wood culture that is expanding opportunities for wood design and highlighting the important role that wood plays in contemporary Canadian architecture.

For more information, please visit www.wood-works.org.

Mary Tracey
Executive Director,
Wood WORKS!
British Columbia

Marianne Berube
Executive Director,
Wood WORKS!
Ontario

JURY



(photo – from left to right) Bill Downing, Oliver Neuman, Dr. Robert Kozak, Barry Downs and Cy Loh

BILL DOWNING
President
STRUCTURLAM
Penticton, BC

OLIVER NEUMAN
Assistant Professor
SCHOOL OF ARCHITECTURE AND LANDSCAPE ARCHITECTURE, UNIVERSITY OF BRITISH COLUMBIA
Vancouver, BC

DR. ROBERT KOZAK
Professor
FORESTRY FACULTY, UNIVERSITY OF BRITISH COLUMBIA
Vancouver, BC

BARRY DOWNS
Architect
MAIBC, DOWNS STUDIO
West Vancouver, BC

CY LOH
P. Eng.
Vancouver, BC

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BC WOOD

Coast Forest PRODUCTS ASSOCIATION

BROADLEAF

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CANFOR

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Weyerhaeuser *The future is growing™*

SILVER

SUSTAINABLE FORESTRY INITIATIVE *Good for you. Good for our forests.℠*

BRONZE

Mill & Timber Products Ltd.

BRITISH COLUMBIA

COMMERCIAL Award

Tobiano Clubhouse & Turf Care Facility

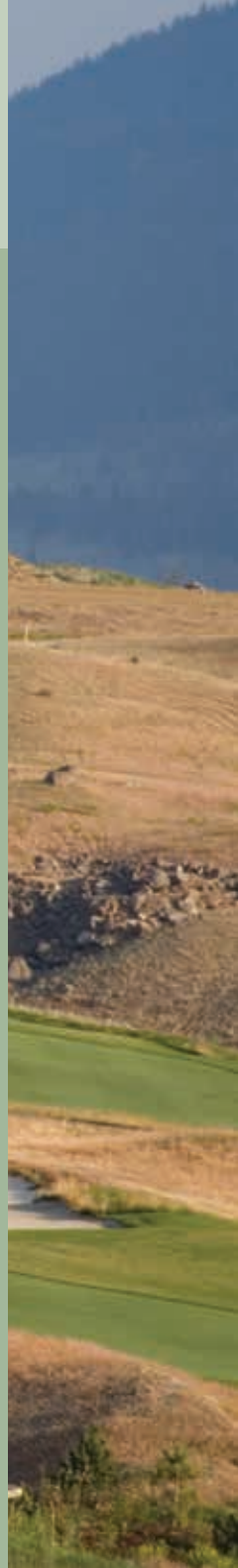
a|k|a architecture + design Inc.

ARCHITECT
a|k|a architecture + design Inc.
Squamish, BC

CLIENT
Pagebrook Inc.
Kamloops, BC

STRUCTURAL ENGINEER
TRL & Associates
Kamloops, BC

GENERAL CONTRACTOR
A&T Project Developments Inc.
Kamloops, BC



At the heart of the manicured green fairways of the Tobiano Golf Resort, the clubhouse building is the first public intervention between the built environment and its vast arid site in the BC Interior.

A refuge from the elements, the clubhouse establishes an architectural identity that resonates throughout the rest of the development. The approach is carried over to the turf care facility at the edge of the golf course, creating a cohesiveness to the emerging architectural context. Harmonizing with their environment, the two buildings express themselves through the textured use of wood.

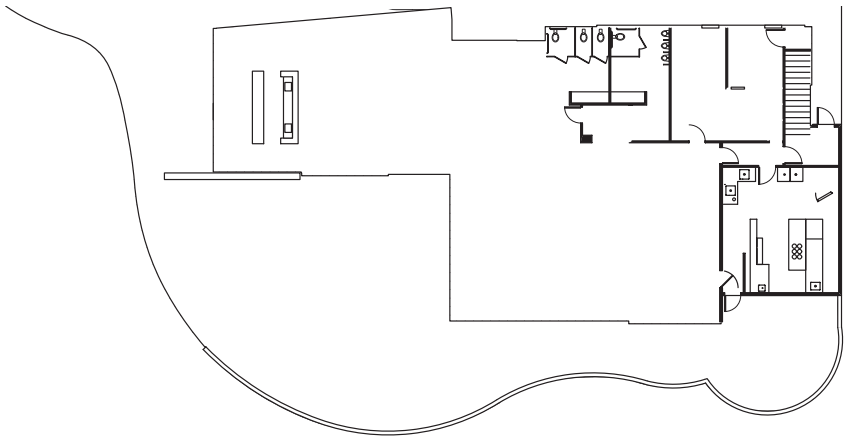
Completed in 2008, the 11,000-sq.ft. Tobiano Golf Clubhouse and the 9,200-sq.ft. Tobiano Turf Care Facility are situated in a semi-desert landscape, with panoramic views of Kamloops Lake and the surrounding mountains. The clubhouse provides service, retail, dining and social opportunities for its international golfing clientele. Its discreet parkade level stores 75 golf carts and connects to the outdoor service yard. The turf care facility is an industrial building

providing warehouse and workshop space as well as administrative offices for maintenance staff.

A landmark object placed both strikingly and humbly within the landscape, the clubhouse interjects a contemporary architectural language to the area while remaining considerate to the local sensibility. Its design focuses on an understated and honest use of materials and the strong integration of indoor and outdoor elements. The building acts both as an extension of the outdoors as well as a viewing platform towards it.

Continuity between interior and exterior is continually reinforced by the use of Douglas fir structural and design elements. The large heights and spans of the wood posts and beams emulate the openness of the outdoors while providing warmth and intimacy to the spaces below. Generous panes of glass and a row of glazed overhead doors are located at the threshold to the outdoor patio, visually and physically linking the building to its site. Resting on fir rafters which extend from inside to out, the thin roof appears to sit lightly on the building below. The angled roof edges allow the views to extend dynamically into the landscape and provide a canopy for outdoor dining. A thick masonry wall acts as the building's spine and a counterpoint to the wood structure and roof above. It extends through the length of the interior and continues into the exterior, dividing public social spaces from private and administrative spaces.

Partially buried into the hillside, the turf care facility is situated directly adjacent to the Trans-Canada Highway and is highly visible from both the highway and the clubhouse. Its design relies on the simple and balanced composition of wood, glass, steel and concrete elements in order to provide warmth and elegance to this industrial building type. The massive green roof rests first on a concrete retaining wall, lifts from the earth, tilts upwards and finally perches on Douglas fir knee braces. Horizontal wood slats articulate the building's exterior while visually referencing the architectural language established by the clubhouse.



CLUBHOUSE FLOOR PLAN

GREEN BUILDING Award

Okanagan Mountain Fire Pavilion

Renaissance Architecture Planning Inc.

ARCHITECT
Renaissance Architecture Planning Inc.
Kelowna, BC

CLIENT
Regional District of the Central Okanagan
Kelowna, BC

STRUCTURAL ENGINEER
StructureCraft Builders Inc. (Fast + Epp)
Delta, BC

Wildfires burning out of control in 2003 affected many communities in British Columbia. The firestorm in the Okanagan Mountain Park in August of that year affected not only the city of Kelowna, but also the valley that extends the full 70-mile length of Okanagan Lake.

The fire – which began as a lightning strike near Summerland, BC – swept the valley both north and south forcing the evacuation of 45,000 residents and ultimately consuming 239 homes. The final size of the firestorm was over 250 square kilometers (61,776 acres). The crews from 60 fire departments, 1,400 armed forces troops and 1,000 forest fire fighters took part in controlling the fire, but were largely helpless in stopping the disaster. Most of the trees in Okanagan Mountain Park were burned, and the park was closed to the public and residents.

A project that came up from the ashes of the fire was the Okanagan Mountain Fire Pavilion. Situated in Bertram Creek Park in Kelowna, BC, the Okanagan Mountain Fire Pavilion is an open-air structure located on the shore of Lake Okanagan. It was designed and constructed in conjunction with the Regional District of the Central Okanagan. Local businesses and community organizations donated time, money and material to ensure that this project would be a success. The pavilion is approximately 7,000 sq.ft. and was completed in April 2007, within the allocated budget of $350,000.

The pavilion illustrates the devastation of the 2003 Okanagan Mountain fire and serves a dual purpose. The structure acts as a gathering place for public and private events. It also serves as a public education center to raise awareness of the impact of the fire, the Mountain Pine Beetle and the fragile nature of the woodland setting in which it is situated.

The original design concept was conceived as a journey through the Okanagan Mountain Park and created a path representing the forest's lifecycle, naturally occurring environmental impacts and the resulting rejuvenation of the forest. The pavilion functions in unison with nature and the structure is fully engaged with the landscape.

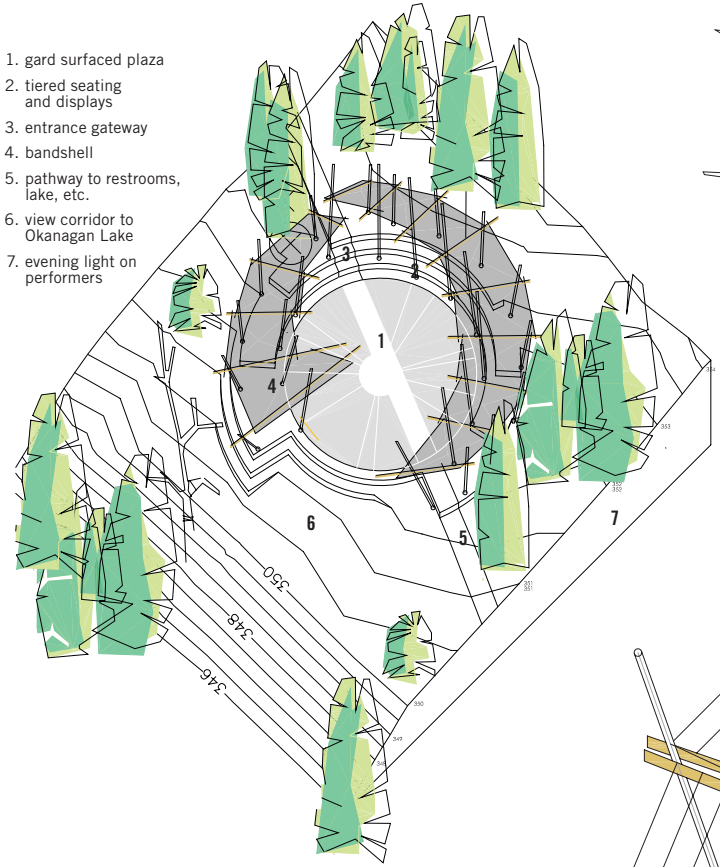
Visitors approach the pavilion from the northwest and are drawn through a narrow opening in the canopy, towards the center of the structure. Their attention is then drawn toward the structure itself as a circular colonnade of lodgepole pine logs and galvalum roof sections envelops them. Lodgepole pine logs were debarked and used as the primary structure to support a multi-tiered canopy comprised of 11 individual roof sections. The pine logs were erected off plumb to reflect the organic nature of the surrounding forest.

The individual roof sections are constructed of galvalum sheathing and Englemann spruce beams and purlins. The roof panels were installed at varying heights to blend in with the surrounding canopy of trees and provide a light and airy cover. The canopy provides shelter for the casual seating below, but does not isolate one from the natural elements.

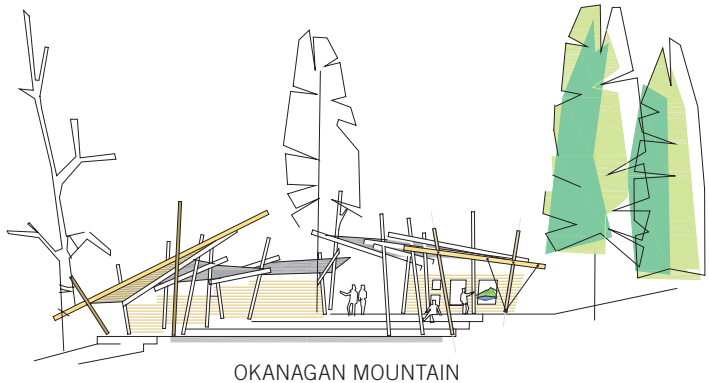
The thin larch slats were used to

create the façade of the structure and the transparency of the façade allows visual access through the pavilion to the surrounding environment. The larch slats also serve as educational display boards, wind screens and help stabilize the superstructure.

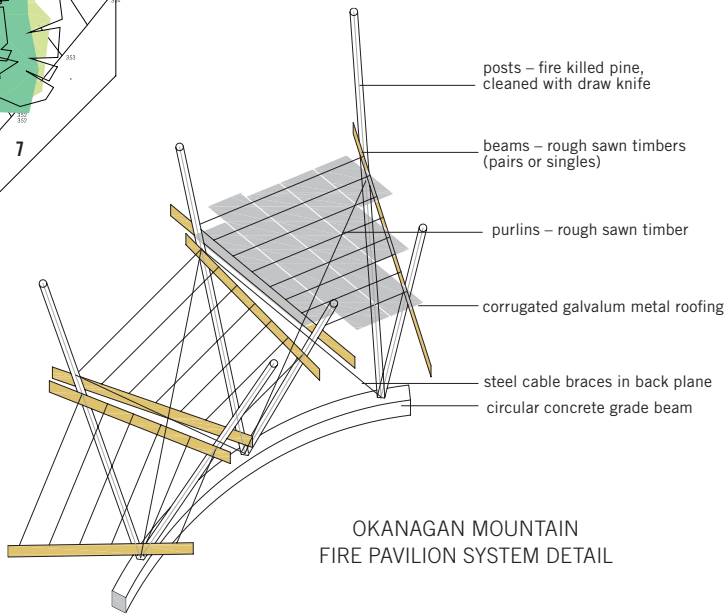
The path of travel leads visitors from the heart of the structure towards a large opening facing Lake Okanagan. As visitors continue along the path, their focus shifts from the reclaimed timber of the pavilion to the lake. Drawn by the views, visitors continue down a path that presents visual cues to an area devastated by the Okanagan Mountain fire. Fireweed, charred deadfall and tree trunks provide evidence of the destruction. The path culminates in an area designated for forest regrowth, thus complet-



OKANAGAN MOUNTAIN
FIRE PAVILION AXONOMETRIC VIEW



OKANAGAN MOUNTAIN
FIRE PAVILION SECTION



OKANAGAN MOUNTAIN
FIRE PAVILION SYSTEM DETAIL

ing the lifecycle of the surrounding environment.

The Okanagan Mountain Fire Pavilion pays homage to the vernacular architecture of the region while remaining true to its educational mission. The expressive use of reclaimed timber allows the structure to complement the aesthetic qualities of the surrounding environment, promote sustainability and reflect upon vernacular architecture and traditional building techniques.

Wood claimed by the pine beetle infestation, site harvested wood and locally produced products were used in the construction of this structure. Timber was reclaimed, salvaged and milled locally. This project and associated land restoration efforts reflect the community's commitment to locally sourced materials and sustainable initiatives. To control the quality of construction and achieve a high level of craftsmanship structural elements were assembled off-site and then installed on-site.

INSTITUTIONAL Award

Richmond Olympic Oval

Cannon Design

ARCHITECT
Cannon Design
Vancouver, BC

STRUCTURAL ENGINEER
Fast & Epp Structural Engineers
Vancouver, BC

GLULAM SUPPLIER
Structurlam Products Ltd.
Penticton, BC

WOOD-WAVE PANEL CONTRACTOR
Structurecraft Builders
Delta, BC


ROW
SKATE
MOVE
FLEX
FLOW

The Richmond Oval is the largest structure built for the 2010 Winter Games, to be co-hosted by Metro Vancouver and Whistler, British Columbia, Canada. Designed to accommodate the long-track speed-skating events before an audience of more than 6000 spectators, the building features a six-acre (2.5 hectare) free-spanning roof that is a precedent-setting example of British Columbia and Canada's advanced wood engineering and prefabrication capabilities.

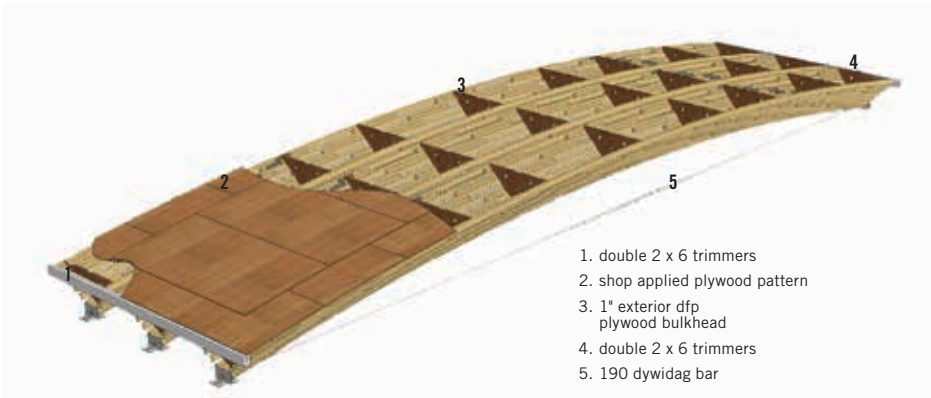
The building is located a short distance from Vancouver's International Airport in the city of Richmond, where after the 2010 Winter Games, it will be transformed into a multi-sports training and recreation facility at the center of a new residential and commercial neighborhood. Construction of the project began in 2005, and the building was opened on time and on budget in December 2008.

With a plan area of 270,000 sq.ft. (25,000 sq.m) and a total floor area of more than 500,000 sq.ft. (47,000 sq.m) the complexities and scale of this building, and the need to reconcile them with the client's requirement to achieve Leadership in Energy and Environmental Design (LEED) Silver certification, meant that a truly integrated approach to design was essential from the outset. The project is also being assessed using the Green Globes rating system which includes a Life Cycle Assessment tool in its approach.

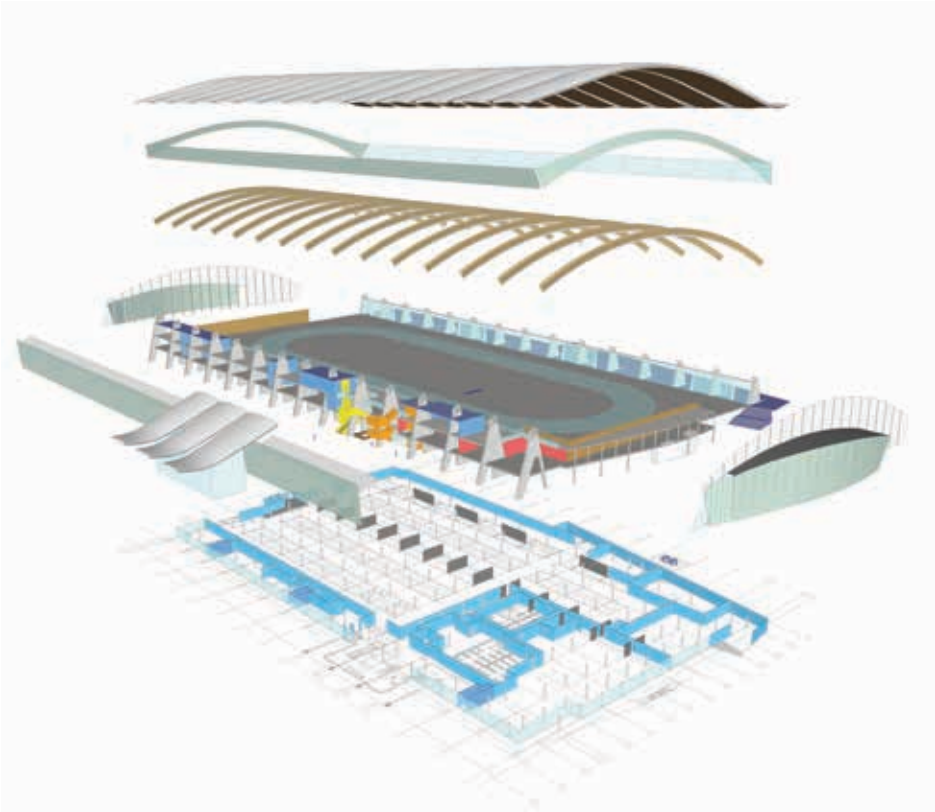
The process began with goal-setting meetings that continued at regular intervals throughout the project, at times bringing together a team of more than 25 design and building consultants. From the start, the Richmond Oval was designed for adaptive reuse. Following the 2010 Winter Games, the speed skating rink will be reprogrammed, and the entire building converted to a multi-purpose health and well-being facility, which is expected to attract both national and international athletes of many disciplines. The main sport hall, which measures 660 ft. x 330 ft. (200 m x 100 m) will accommodate two 80 ft. x 160 ft. (24.4 m x 48.8 m) ice rinks, six basketball courts, and a 660-ft. (200 m) running track, with other areas holding an indoor rowing tank, movement studios, athlete training support, and sport medicine facilities.

The building is arranged on three levels; a basement parking garage, a ground-oriented entry, circulation, service and amenity level, and above them the breathtaking vaulted sports hall with its unique wood roof and expansive views north to the Fraser River and Coast Mountains.

The city wanted an iconic building to draw people and development to the site overlooking the river and the mountains beyond, while providing much-needed community and sport



TYPICAL WAVE PANEL PERSPECTIVE VIEW
(plywood removed, except as shown)



EXPLODED AXONOMETRIC PLAN

services to its residents and others long after the conclusion of the 2010 Winter Games. Accordingly, the design strategy not only accommodated the games and legacy programs, but also the culture and history of the area, protecting the very sensitive riparian environment, creating urban sites and new development context and establishing a visible point of reference for one of the most prominent sites in Richmond.

The design concept of flow, flight and fusion was inspired by the water of the nearby Fraser River, the wild birds that inhabit its estuary and the careful meshing of forms – curved and linear where city and nature meet.

The architectural design of the Richmond Oval emanates from several poetic images based in the cultural history of the site and the surrounding geography. For example, the articulation of the Richmond Oval roof evolved from the image of the heron, being a native bird in that community. The roof has a gentle curve which peels off on the north side of the facility emulating the wing of a heron, with its individual feather tips extending beyond the base arched wood structure. This allows for the opening of the facility's interior to a view of the North Shore mountains and the Fraser River at the North Plaza.

INTERIOR BEAUTY OF WOOD – COMMERCIAL Award

Vancouver Conference Centre Expansion Project

Musson Cattell MacKay Partnership

ARCHITECTS
Musson Cattell MacKay Partnership
Vancouver, BC
Downs/Archambault + Planners
Vancouver, BC and
LMN Architects
Seattle, WA

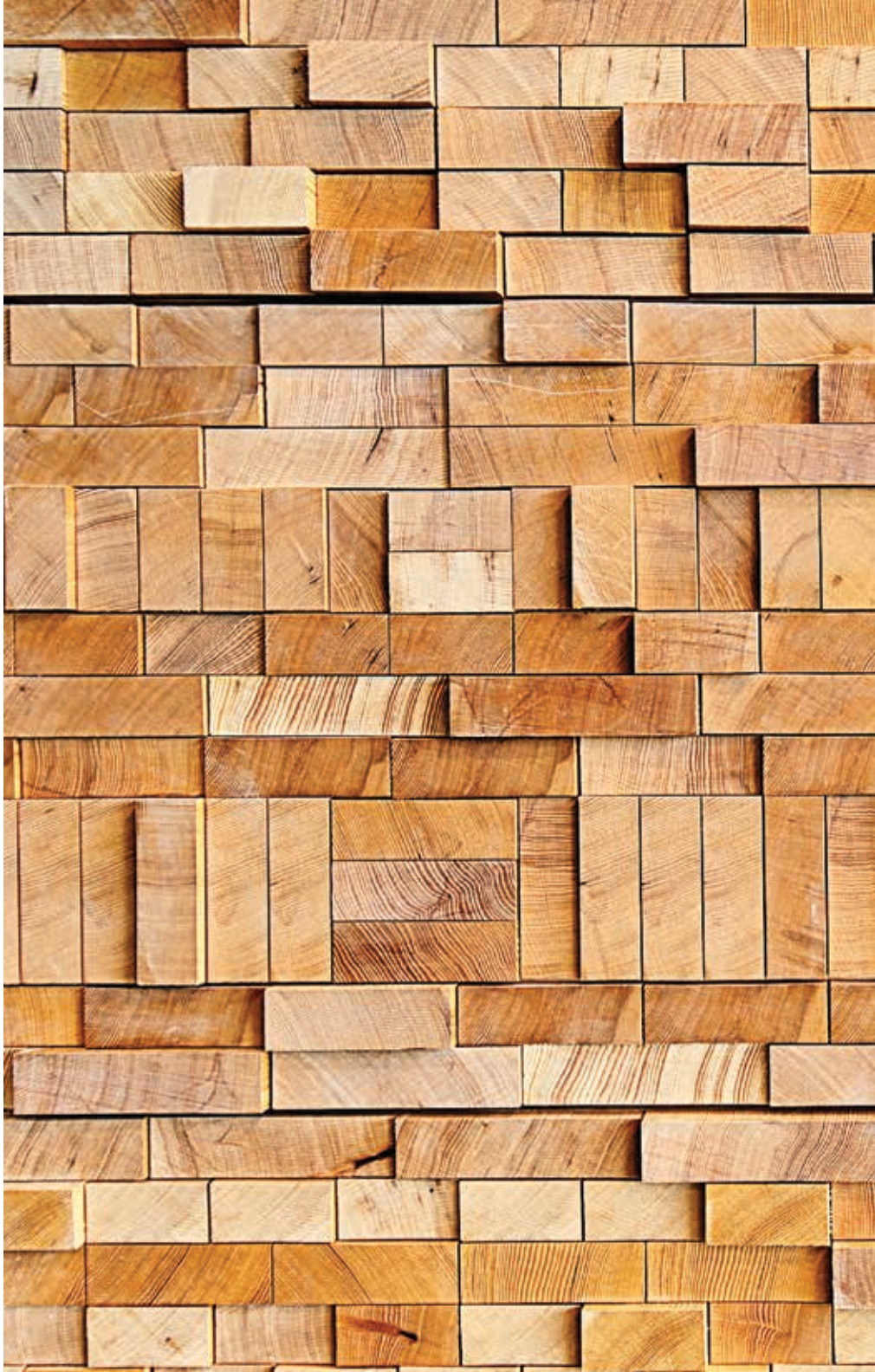
GENERAL CONTRACTOR
PCL Constructors Westcoast Inc.
Vancouver, BC

PANEL MANUFACTURER
Island Precision Manufacturing Ltd.
Victoria, BC

GLULAM MANUFACTURER
Structurlam Products Ltd.
Penticton, BC

The vision was to create the illusion of the world's largest stack of lumber, reflecting one of the industries that built British Columbia. Visitors are as awed by the beauty and scale of the wood, as they are by the natural vista beyond.

The conference centre's east and west walls feature over 860,000 individual end-grain wood blocks, affixed in a complex but seemingly random pattern, to 3000 panels which interlock to create a seamless expanse of wood. The north and south walls, the sides of the lumber stack, feature wood in strips of varying widths, again panelized and interlocked for a seamless appearance. Outside corner modules are cut from solid stock, such that the illusion of stacked lumber is maintained in the transitions where it is most noticeable.



The hemlock was sustainably harvested on Vancouver Island and the Sunshine Coast, and milled and processed into panels all within a 200km radius of the job site.

The water-based finish of beeswax, carnauba wax and shellac which was applied to the wall panels is environmentally impeccable, and can be retouched on site if necessary.

The ceilings were much more difficult to execute. Nine thousand laminated Douglas fir beams are suspended from a metal grid, on adjustable hardware that allows for some adjustment to ensure even reveals, straight lines and plumb sides.

INTERIOR BEAUTY OF WOOD – RESIDENTIAL Award

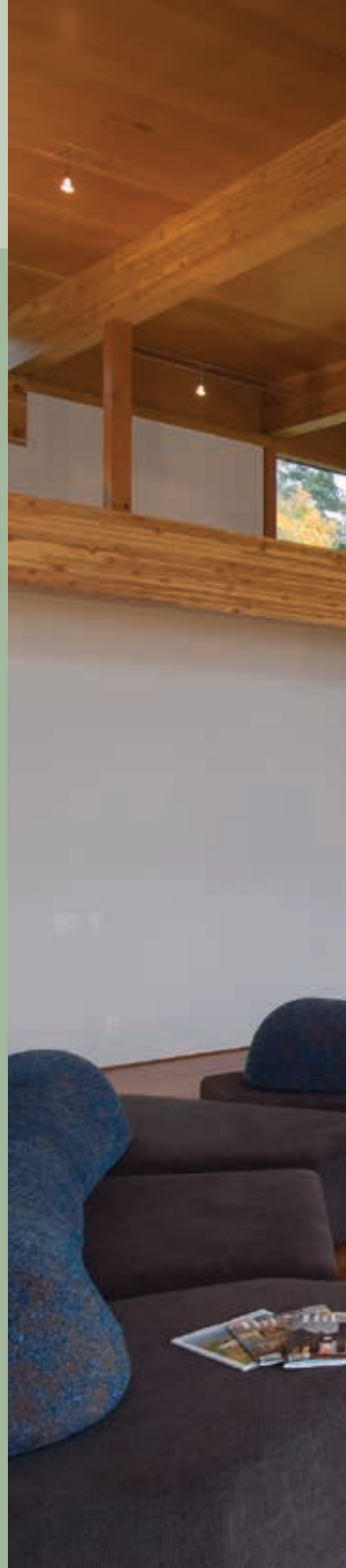
Elma Bay House

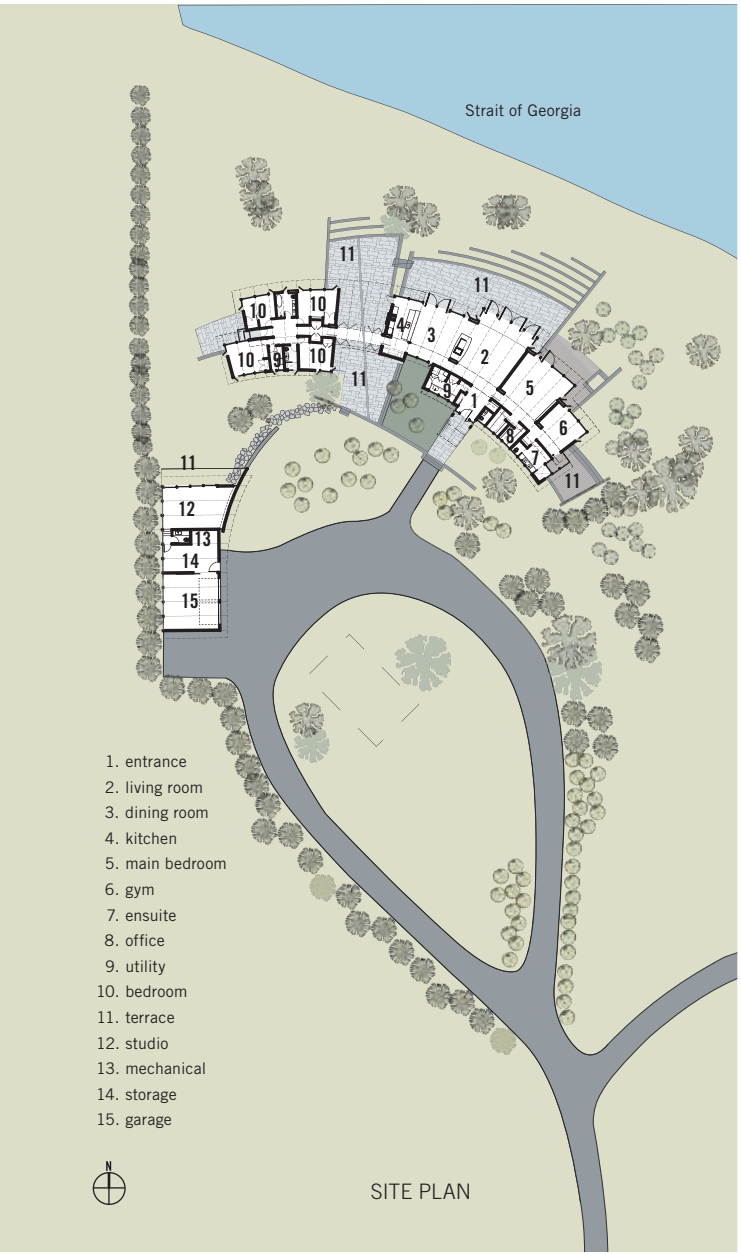
Helliwell + Smith • Blue Sky Architecture Inc.

ARCHITECT
Helliwell + Smith • Blue Sky Architecture Inc.
North Vancouver, BC

STRUCTURAL ENGINEER
Chiu Hippmann Engineering Inc.
Vancouver, BC

GENERAL CONTRACTOR
Alan Fletcher Consulting
Courtenay, BC





SITE PLAN

Planned as a grand sweeping crescent opening to spectacular vistas over a pebble beach, north across Georgia Strait to the Coast Mountains, this complex of house, studio and garage forms a curve along the ocean shore. The forest side is a garden courtyard embracing the southern sun. The studio/garage completes the entrance court.

The house was designed as a gathering place for an extended family. A transparent hallway creates the illusion of two homes, one for the four teenaged boys and one for the parents. Main social spaces are in the center under the highest curve of the roof. The main bedroom suite is on the east end of the plan. The west wing houses the children and a guest suite. It is separated from the rest of the house by a covered outdoor room that provides shelter for all-season outdoor living. This protected area opens to the garden and forest to the south and the ocean on the north. A corridor of folding glass doors runs across it and a series of 9-in. x 6-in. pivot doors in the main space open to the seaside dissolving the interior-exterior boundaries.

The sculptural timber roof of 2-ft. x 8-ft. clear fir tongue and groove decking floats above walls of glass and cedar. Exposed Douglas fir glulam beams and rafters curve through space, highlighting the circulation gallery, piquing your curiosity as to what lies beyond. All the shear forces are resolved into 4-ft. x 11-ft. architectural concrete columns, exposed on the interior and clad in large bluestone slabs on the exterior. The arcs continue outside as formalized and unifying landscape elements. The adjacent forest wetlands are used as a heat sink for the innovative geothermal heating and cooling system.

Exterior walls are a combination of red cedar cladding, glazing, bluestone and brightly colored glass tiles. The interior is sparse; American cherry and bluestone floors, architectural concrete with bluestone details and simple gyproc wall planes.

All flat roofs are landscaped and the curving roof is clad in zinc. The structure is simply expressed with a Douglas fir post and beam system. A fir door and window system is integral with the timber-frame structure. Great attention has been paid to details and craftsmanship resulting in a beautiful home balanced sensitively between the forest and sea.

MULTI-UNIT
RESIDENTIAL
WOOD DESIGN Award

Canvas Kitsilano

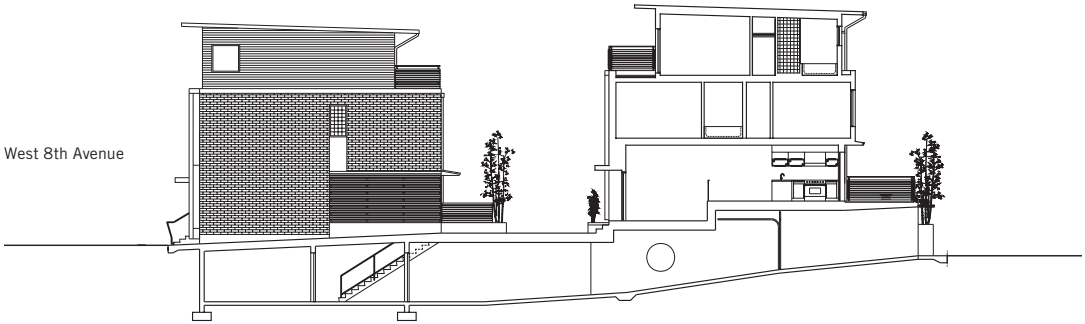
B Squared Architecture Inc.

ARCHITECT
B Squared Architecture Inc.
Vancouver, BC

STRUCTURAL ENGINEER
Ennova Structural Engineers Inc.
Vancouver, BC

GENERAL CONTRACTOR
Trasolini Chetner Construction Corp.
Vancouver, BC

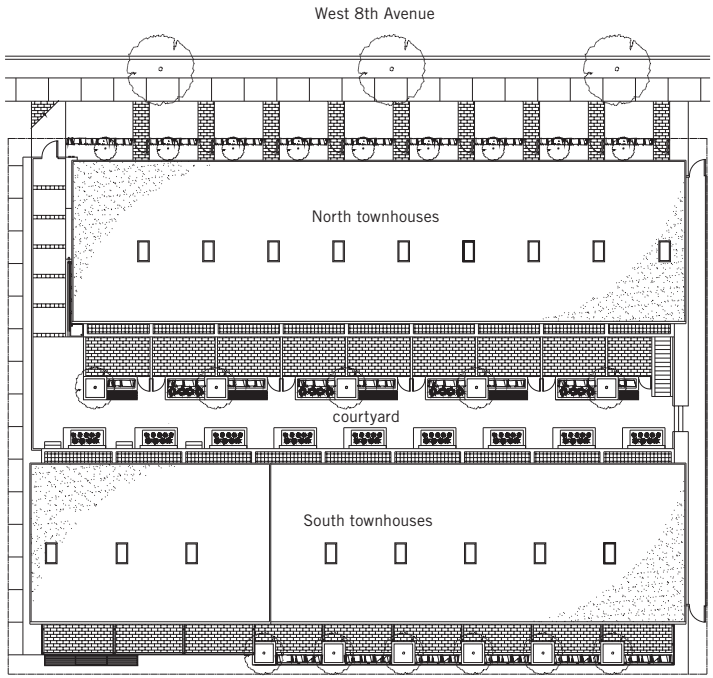
In the midst of a dense west side Vancouver neighborhood, these eighteen spacious courtyard-oriented townhouses offer contemporary, efficient living.



LONGITUDINAL CROSS SECTION

The shared courtyard provides informal gathering and circulation space with seating elements throughout. Half of the units provide direct access to private parking spaces in the underground parkade. Each three-story, three-bedroom unit provides private doors to both the street or lane and courtyard. Wood, brick, aluminum and concrete are contrasted throughout the project, from the cladding to the carefully detailed feature stair with glass guards in each unit.

Wood framing was chosen because it is economical and can be erected quickly. Numerous competitive bids from framing crews were sought. On the exterior, wood cladding with natural cedar stain at the third floor was chosen as a material change from the heavier brick base. A large soffit over-



SITE PLAN

hang is V-groove pine – also stained a natural cedar color. The stair enclosure connecting the parking structure to the above landscape consists of open slats affixed to a metal frame providing safety lighting at night and visibility in the day. The same wood slat expression is used along the lane elevation fencing and on privacy screens.In all, the wood products include stud framing, timber beams, laminated beams, plywood shear walls, cedar siding, pine V-groove soffits (stained), custom cedar benches in the landscape and wood slats in metal frames for fences.

The interiors use engineered wood flooring and dark wood veneer millwork in the kitchens and restroom.

Wood gives this multi-unit residential project a humanizing quality in an urban setting.

Deliberately – almost aggressively – simple, the Gulf Islands House explores the basic building blocks of architecture. The focus of the project was to derive maximum poetic effect from the pragmatic concerns of heating, cooling and lighting the building.

RESIDENTIAL Award

Gulf Islands House

Matthew Woodruff Architecture Inc.

ARCHITECT
Matthew Woodruff Architecture Inc.
Vancouver, BC

CLIENT AND GENERAL CONTRACTOR
Claudia Schulenburg and Matthew Woodruff
Vancouver, BC

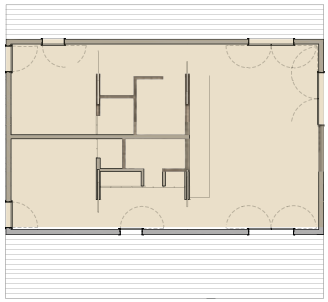
STRUCTURAL ENGINEER
Jones Kwong Kishi
North Vancouver, BC

The program was straightforward (a two bedroom house for a family of four), the budget modest and the size small (1,100 sq.ft.). The 1/3-acre site was unremarkable except for a good aspect (lots of sun, and shelter from winter storms) and the presence of four old apple trees. Given these parameters, the objective was to derive maximum benefit from the sun and the site, so orientation to the existing trees, to the sun, and to cool breezes from the adjacent valley was essential.

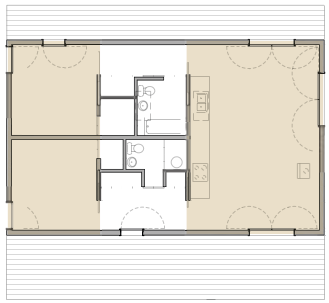
The house uses only a fraction of the energy of a conventional house of the same size. From sunrise to sunset the sky is a constant presence, making everyone aware of the character of the day. Electric lights are needed only at night, and the house can be heated even in the deepest winter using just the wood stove. In the winter the house is very social, with all of the action happening in the main room.

In the summertime, when the doors are open, it's as cool as sitting under a tree, and the light reflected off the dried grass outside is warm and even.

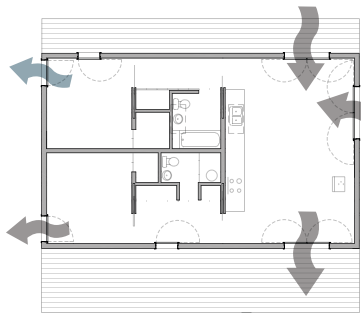
The use of wood was fundamental to the architectural concept. As a native material, it was an obvious choice, and all elements that reinforce the architectural ideas of the project are wooden. Only local species are used in order to create a direct connection between the building, material and land that bears both of them. The heavy timber structure organizes the plan into served and servant spaces. It also allows for a continuous band of clerestory windows, eliminating the need for artificial light during the day, and facilitating passive solar heating in winter. Ten clear, vertical grain Douglas fir French doors all open to provide passive cooling throughout the house, even in the height of summer. They are closest to the inhabitants in scale, and are touched whenever anyone enters or leaves the building. The black-stained cedar cladding absorbs the sun's heat on the coldest bright winter days. The roof and floor/deck create two planes that hover above the earth, providing environmental separation (including shading the clerestory glass in summertime) and marking the territory of the house. The color and life of the material complements the meadow grasses outdoors.



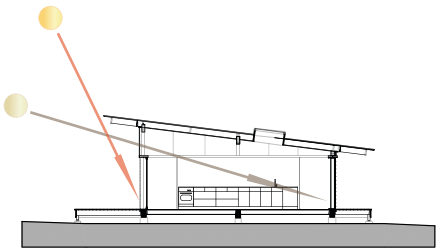
COMPACT PLAN: Compact building form for heating efficiency and conservation



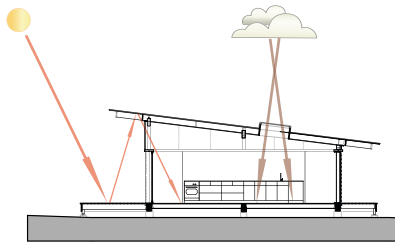
ZONED USES: Zoned plan takes maximum advantage of daylight, solar, and artificial heating sources



NATURAL VENTILATION: Large openings in the façade eliminate overheating



SHADING AND CLERESTORY: Roof overhang provides for ample external shading in summer, but allows for full sun penetration in winter



DAYLIGHTING: Clerestory window lets in lots of reflected light, and skylights provide supplemental daylight from overcast skies

PASSIVE DESIGN STRATEGIES

WESTERN RED CEDAR – RESIDENTIAL Award

Richmond Gate Residences

D'Ambrosio architecture + urbanism

ARCHITECT
D'Ambrosio architecture + urbanism
Victoria, BC

CLIENT
Richmond Gate Properties Inc.
Victoria, BC

STRUCTURAL ENGINEER
John Bryson and Partners
Vancouver, BC

GENERAL CONTRACTOR
Homewood Constructors Ltd.
Victoria, BC

Increasingly, the suburban fabric is rebuilt to create mid-density developments, particularly surrounding centers of services and shopping. The task of this project was to transform four single house lots, in the midst of offices and institutions, into a residential development with a sense of place.

The built context for this project is characterized by heterogeneity: the location is a confluence of streets which wind around adjacent hills, perched on the boundary between established single family residential neighborhoods and the more institutional scale of care homes, offices and strip malls. The geometry of the site and the blend of uses created a setting of varied scale, materials and building orientations.

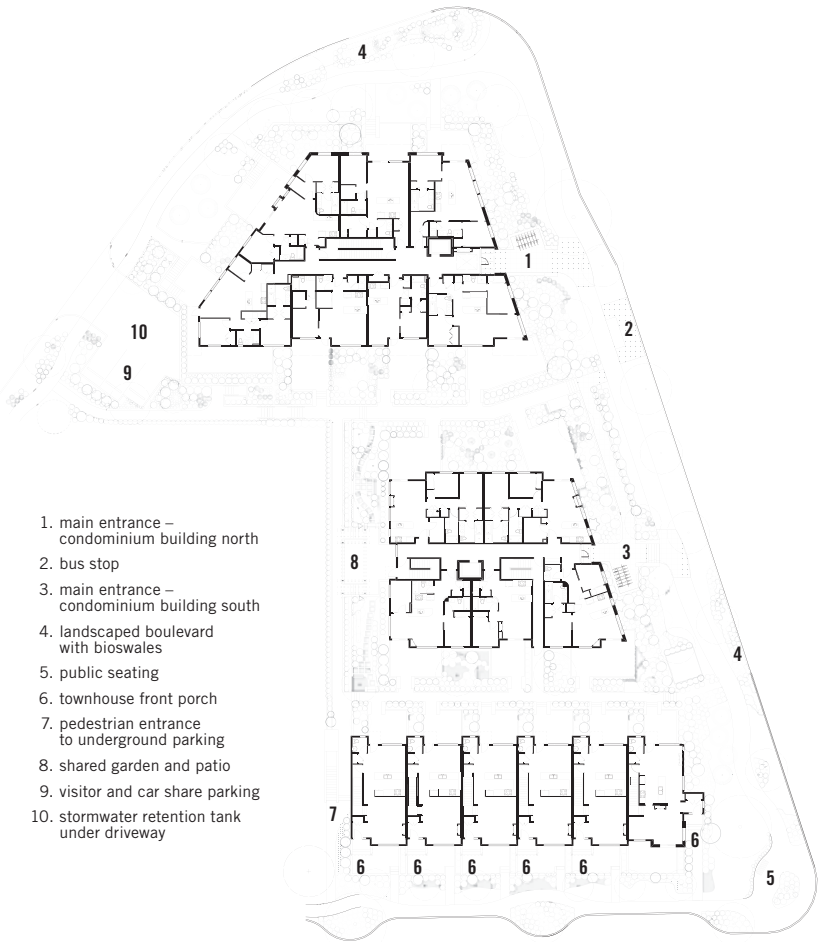
Richmond Gate is divided into three separate massings, comprised of two condominium buildings of four-stories and a row of two-story townhouses. These three buildings occupy the site while creating the transition from institutional to single family residential fabric. By shaping the three buildings to conform to the edges of the site, the project defines the street-fronts and presents more formal façades to the surrounding streets. Between the buildings, pedestrian alleys create semi-private garden areas for the living units and provide visual relief to the street.

Built on the western slope of Mount Tolmie, a foothill park with a distinctive Garry Oak and Arbutus woodland, the buildings are designed to resonate with the colors and textures of the natural context. The bases of the buildings

are clad in natural stone; stone retaining and garden walls extend into the landscape to define semi-private walkways and private gardens. The primary natural material of the project is cedar cladding and dimensional lumber, which picks up on the warm colors of Mount Tolmie in the evening and creates a cohesive visual identity for the development.

The use of wood in this project has both aesthetic and functional advantages. At the time, four-story wood frame construction was the most efficient choice for residential development. Wood products were selected as the most environmentally-friendly building material available: wood is a renewable resource, locally available, with low embodied energy and a reduced carbon footprint. The exterior wall is a rain-screen ventilated assembly clad in Western red cedar. The siding is a tight-joint detail using the milled reverse side of the boards. This detail produces a less articulated surface that presents a more refined and contemporary expression.

Through the careful selection and detailing of materials, the project has established itself as a residential precinct that is integrated with its mixed-use context. Named to recognize the location as the entrance to an established neighborhood, the Richmond Gate Residences have provided a mid-density development that is supportive of both its natural setting and the human experience of its neighbors.



SITE/FIRST FLOOR PLAN

WESTERN RED CEDAR – NON-RESIDENTIAL Award

Squamish Lil'wat Cultural Centre

Alfred Waugh Architect

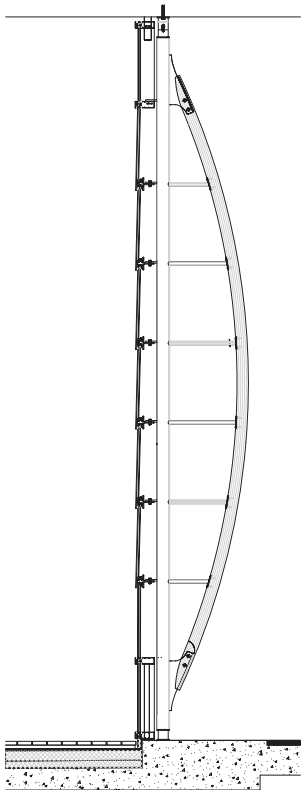
ARCHITECT
Alfred Waugh Architect
West Vancouver, BC

CLIENT
Squamish Nation and Lil'wat Nation
Whistler, BC

STRUCTURAL ENGINEER
Equilibrium Consulting Inc.
Vancouver, BC

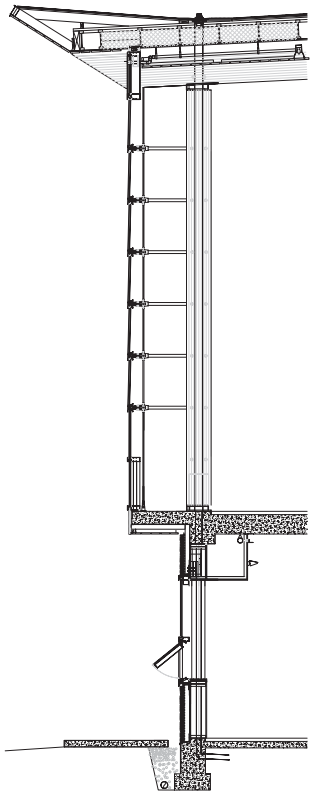
CONSTRUCTION ADMINISTRATION ARCHITECT
Toby Russell Buckwell + Architect
Vancouver, BC

CONSTRUCTION MANAGERS
Newhaven Construction
North Vancouver, BC



CURTAIN WALL SECTION

Wood helps to carry on the memory of the First Nation Peoples' traditional connection to the land and supports a locally renewable and energy efficient natural resource. The use of British Columbia Douglas fir, Western red cedar and regionally fabricated engineered wood products and assemblies serves to benefit these local economies.



CURTAIN WALL SECTION

The vision for this project was a contemporary interpretation of the traditional longhouse and pit house forms used by the Squamish and Lil'wat people since ancient times. Structurally, this vision translated into reinterpretations of post, beam and heavy timber roof elements, and the abstraction of the traditional lapped cedar plank cladding system into a glass façade.

The building is three stories in height and curved, and has the main entrance with its intricately carved cedar doors on the east side, leading directly into the great hall. This double height space with canoes and massive cedar spindle wheels suspended from its post and beam structure features a dramatic north facing window wall with panoramic views of the valley and mountains. This main exhibition level also contains a class A gallery space, restrooms and a Western red cedar-clad theater.

For lightness of appearance and efficiency in material use as well as concealing services such as rain water leaders and electrical services, the project employed paired glulam columns in place of the traditional solid wood posts. The columns are joined by steel connectors secured with glulam rivets, with the space between the members becoming the neutral axis of a composite system. Currently the Canadian code does not recognize composite action in paired columns, and so the engineers had to demonstrate performance through a buckling analysis and submit it under the Special Systems section of the code.

JURY

DAVID BOWICK
Partner
BLACKWELL BOWICK PARTNERSHIP LTD.
Toronto, ON

JULES GOSS
Chair
INDUSTRIAL DESIGN, ONTARIO COLLEGE OF ART & DESIGN
Toronto, ON

JAMIE LIM
President and CEO
ONTARIO FOREST INDUSTRIES ASSOCIATION
Toronto, ON

GARY McCLUSKIE
Principal
DIAMOND + SCHMITT ARCHITECTS INC.
Toronto, ON

BRIAN RUDY
Associate
MORIYAMA & TESHIMA ARCHITECTS
Toronto, ON

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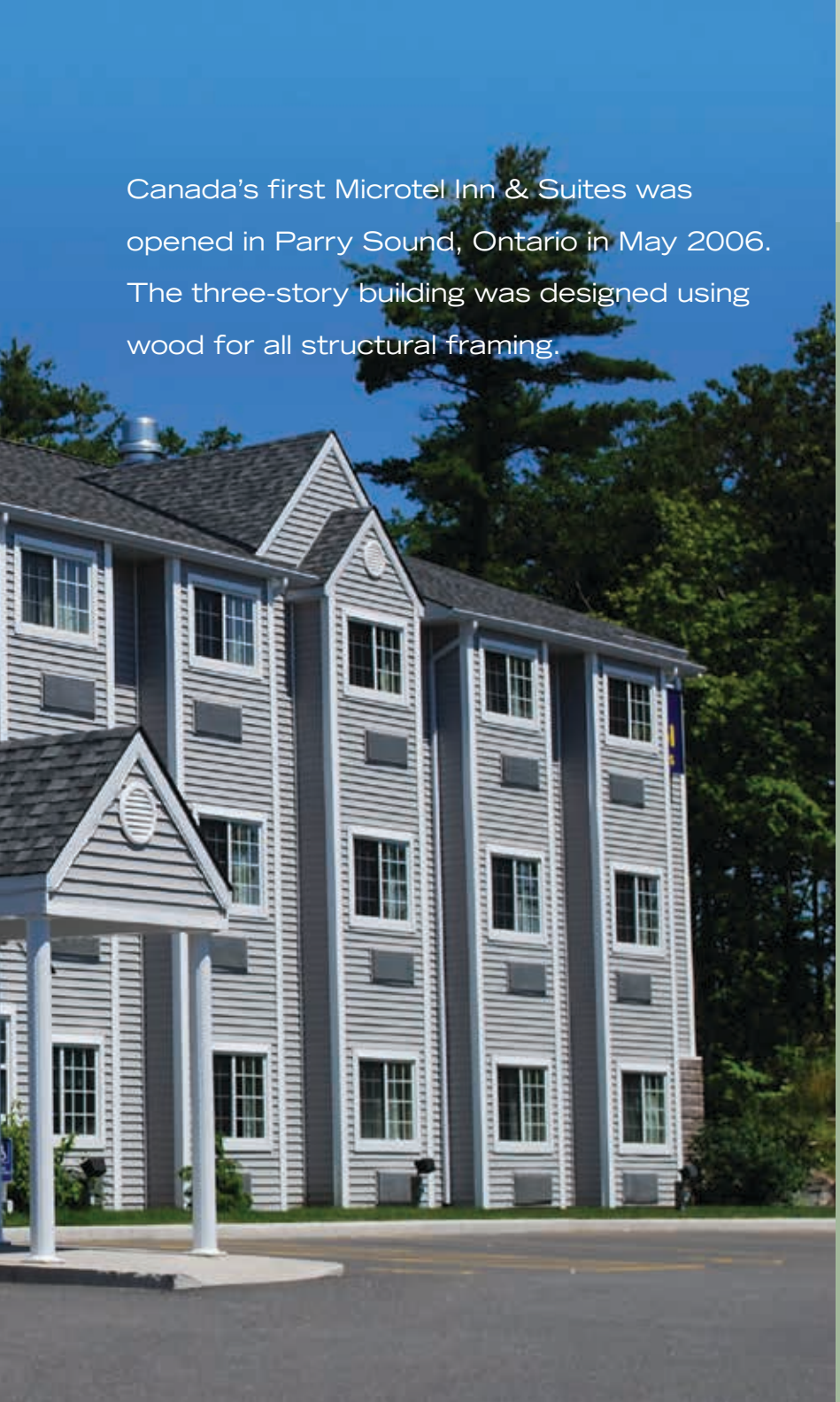


Canada's first Microtel Inn & Suites was opened in Parry Sound, Ontario in May 2006. The three-story building was designed using wood for all structural framing.

COMMERCIAL Award

Microtel Inn and Suites

Lowry Otto Erskine Williams Architects

ARCHITECT
Lowry Otto Erskine Williams Architects
Toronto, ON

CLIENT
Ontarinns Inc.
Toronto, ON

STRUCTURAL ENGINEER
Georgian Engineering
Parry Sound, ON

GENERAL CONTRACTOR
W.S. Morgan Construction
Parry Sound, ON

FRAMING CONTRACTOR
KD Claire Construction
Barrie, ON

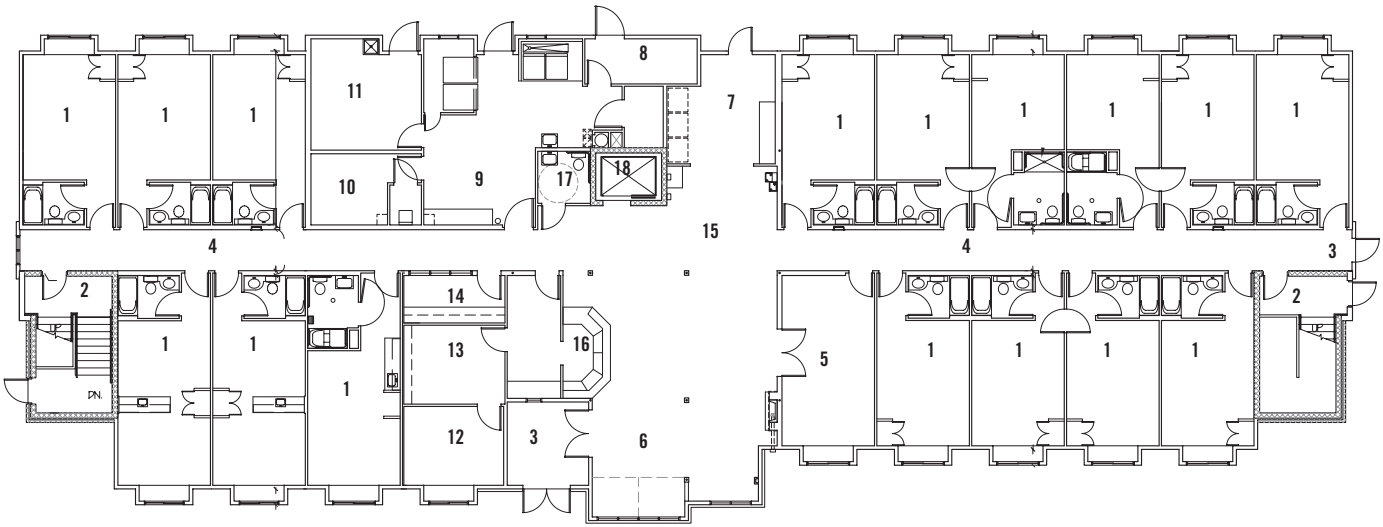
WOOD PRODUCTS SUPPLIER
Kent Building Solutions
Sundridge, ON

PHOTOGRAPHY
Henry B. Lowry
Toronto, ON

The choice of wood for this project met all the building science and client requirements at the lowest cost – approximately 30 per cent less expensive for the building than the steel option. In addition, the shorter construction schedule for the wood option relative to the alternative systems, low operating cost and ease of adaptation for future modifications encouraged the use of wood. Wood structures require less energy to build and to operate, which reduces reliance on fossil fuels.

The Microtel Inn & Suites building is an example of how wood can be used effectively in non-residential building types, reducing construction costs and lead times. The prefabricated, panelized wood-framed structure achieved an accelerated completion and opening

1. guest rooms
2. stairs
3. entry
4. corridor
5. meeting room
6. lobby
7. vending
8. electric room
9. laundry
10. linen storage
11. water heater room
12. office
13. bookkeeping
14. business center
15. elevator lobby
16. front desk
17. restroom
18. elevator



FIRST FLOOR PLAN

date, in addition to reduced operating costs, projected over the service life of the building, due to its superior thermal performance.

The volume of wood used in this building was over 92,000 board feet of lumber and almost 1600 sheets of plywood and OSB. This wood building captures about 216 metric tones of carbon dioxide – the equivalent of driving a passenger car for more than 38 years (about 92,810 liters of gasoline). Wood products sequester more carbon dioxide than the amount emitted during harvesting, transportation and manufacturing, which means they actually have a negative greenhouse gas footprint.

Part of the success of this wood-framed project is attributable to the fact that the plans are based on a 12 ft.-0 grid pattern. The repetitive pattern helped with panel planning and manufacturing, as well as with efficient use of finishing materials.

The integrated design and construction process for this wood frame building simplified the process to ensure the load paths were completed from the roof to the concrete foundation – the panel manufacturing company was responsible for the design of the roof, walls panels and floor. The wood truss roof was also factory built. Prefabricated trusses are erected quickly and simply. The open web configuration of the roof trusses allows for easy installation of insulation.

GREEN BUILDING Award

Fifth Town Artisan Cheese Company

Lapointe Architects

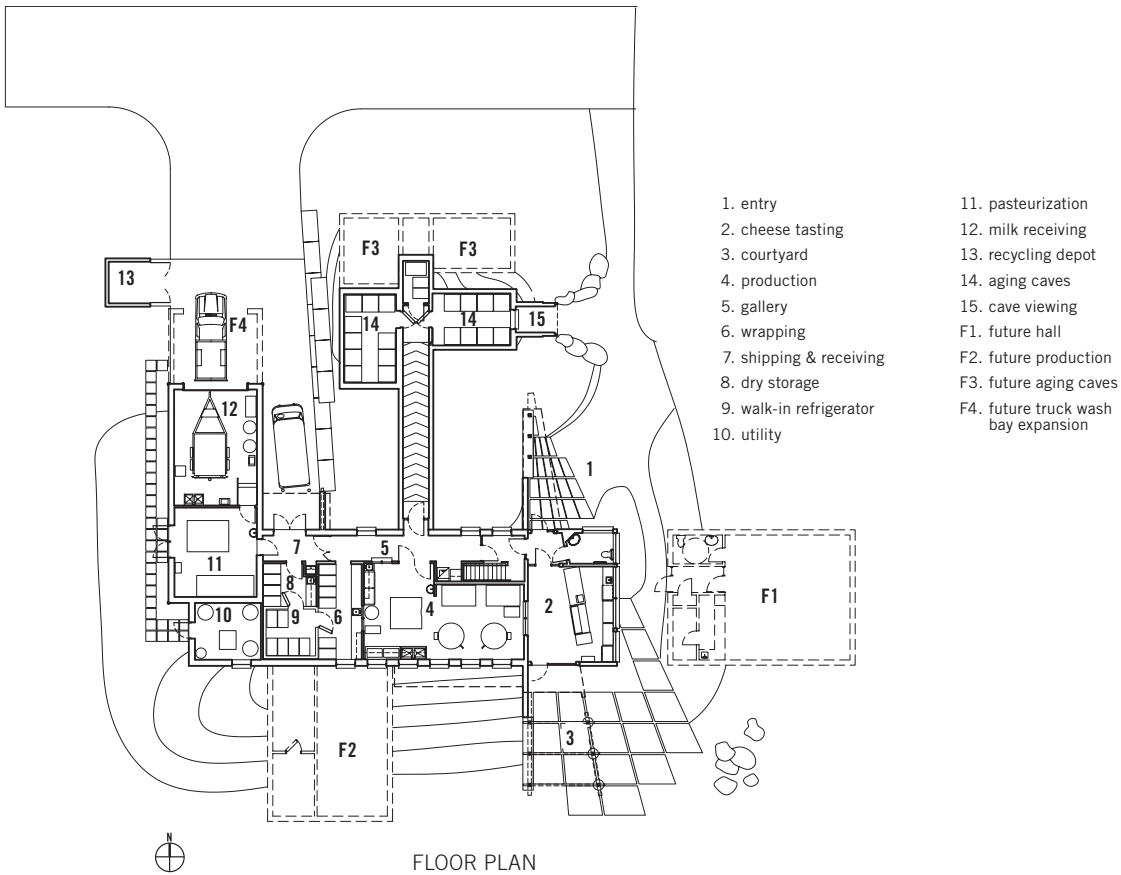
ARCHITECT
Lapointe Architects
Toronto, ON

CLIENT
Fifth Town Artisan Cheese Company
Prince Edward County, ON

STRUCTURAL ENGINEER
Blackwell Bowick Partnership Ltd.
Toronto, ON

GENERAL CONTRACTOR
K. Knudsen Construction Ltd.
Belleville, ON

Located in Prince Edward County, one of Ontario's fastest growing agri-tourism regions, the Fifth Town Artisan Cheese Company is a niche producer of fine hand-made goat and sheep milk cheeses.



FLOOR PLAN

This overwhelmingly green project is located on a 20-acre site on the shores of Lake Ontario and is built on a rise overlooking a small creek and pond. Developed through close collaboration between the company's founder and the architect, the building, like the product manufactured there, is characterized by quality and harmony with the environment. The building is North America's first LEED Platinum industrial building.

From the outset, the challenge was to make a significantly green building while experimenting with form and function to design a unique cheese factory. The decision to use wood from the ground up was made for a number of reasons.

As a structural system, Durisol (a stay-in-place wall form made of waste wood and concrete) was used for its extreme resistance to mold & mildew (a major concern in the moist

environment of a production area), its strength and durability, and its high R-value.

Engineered lumber and reclaimed barn beams were used for areas where the environmental concerns were less demanding. Wood was used to reinforce the vernacular architecture, as well as to add warmth to the building – something that is often lacking in a factory.

The use of all three states of wood was also very advantageous in achieving green certification – the recycled content of the Durisol blocks, the FSC content of the wood framing (totaling 55 per cent of all wood in the building), and the local barn beams, all added to the project's environmental sustainability. Finally the reduced cost of wood, the local tradespeople's familiarity with it, its flexibility and light weight, all combined to ensure that wood was the appropriate building materials for this sustainable project even in the hot and humid environment of a cheese factory.

INSTITUTIONAL
WOOD DESIGN
<$10 MILLION Award

Beechwood National Memorial Centre

Robertson Martin Architects Inc.

ARCHITECT
Robertson Martin Architects Inc.
Ottawa, ON

CLIENT
The Beechwood Cemetery Foundation
Ottawa, ON

CONSULTING ENGINEER
Genivar Consulting Group Ltd.
Ottawa, ON

STRUCTURAL ENGINEER
Cunliffe & Associates
Ottawa, ON

GENERAL CONTRACTOR
M.P. Lundy Construction Inc.
Ottawa, ON

In 2001, Beechwood became the home of the National Military Cemetery of the Canadian Forces. Designated as a National Historic Site by The Historic Sites and Monuments Board of Canada in 2002, Beechwood is one of only a few cemeteries in the nation to have received this honor. The National Memorial Centre was opened by the Governor General of Canada, Her Excellency the Right Honourable Michaëlle Jean, on April 7, 2008. In May 2009, it was designated Canada's National Cemetery by act of parliament.

The goal of the project was to create a multi-faith memorial center to serve the needs of all persons, recognizing Beechwood's rich history and storied past while looking forward to the future.

The program for the project included: a circular multi-faith Memorial Hall; reception rooms that open onto a central courtyard which lights the rooms; a Hall of Colours to display the laid-up colors of Canada's military regiments; support spaces, including arrangement rooms, a preparation area, offices and restrooms; and an entry forecourt bracketed by a reflecting pool on one side and an aromatic herb 'healing garden' on the other.

Within the context of Beechwood's 160 acres of stunning landscaping and picturesque rural cemetery roots, the design derives inspiration from the 'geometry of nature' and the 'nature of geometry's' meanings for different faiths.

The design attempts to respond to established traditions and symbolism, while not privileging one faith over another.

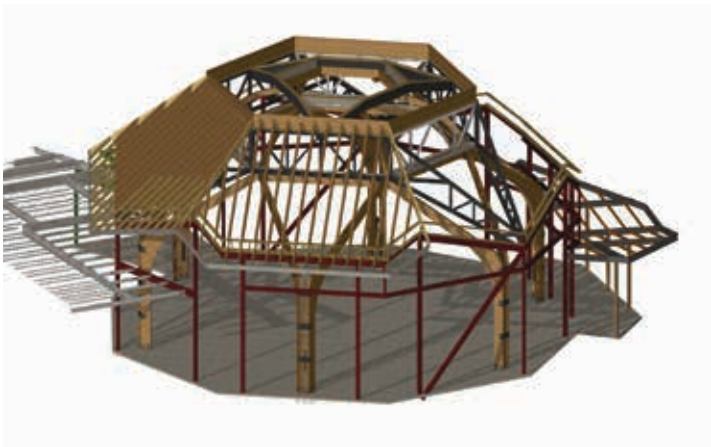
Wood was used throughout the design, both for structural as well as aesthetic purposes. For the circular, complex and expressive nine-sided

memorial hall space, six sets of glulam columns, expressions of branching trees and upswept arms, support a central arched dome and oculus. The light entering from above marks the passage of time in both smaller and longer time frames as it moves over the interior textures and finishes of stepped wood panels, skeletal framing and rough stone walls.

Wood materials were desirable for their strength, modest weight and cost-effective construction. As an expressive natural material, wood was used throughout to bring warmth and elegance to all areas of the facility. Due to the nine-sided circular shape of the sacred space, acoustic performance was of prime concern. After consultation with acoustics consultants, clear-finish birch veneer plywood layered profile panels were designed for the upper walls and stained plywood slats, with acoustic media above, were used for the ceiling areas to refract and absorb sound.

At the exterior, cedar v-joint and slat materials were used for the soffits and entrance canopies.

In the corridors and reception room paneling, black walnut, oak and pine wood harvested from the site was milled to provide various trim elements and was paired with solid oak and oak veneer plywood. The use of this material was important in that wood products from the site are embedded within the interior spaces and speak to the continuity and history of Ottawa's prominent lumber barons interred at Beechwood. Wood furniture items were also constructed, including built-in cabinets, mantles, meeting room tables and desks.



THREE-DIMENSIONAL VIEW

INSTITUTIONAL WOOD DESIGN > $10 MILLION Award

Cassie Campbell Community Centre

Shore Tilbe Irwin & Partners

ARCHITECT
Shore Tilbe Irwin & Partners
Toronto, ON

CLIENT
City of Brampton
Brampton, ON

STRUCTURAL ENGINEER
Halcrow Yolles
Toronto, ON

GENERAL CONTRACTOR
PCL Construction Limited
Mississauga, ON

The Cassie Campbell Community Centre offers a set of much-needed community and recreational program spaces to a rapidly expanding community north of Toronto. The main program elements include a natatorium, indoor running track, gymnasium, and a figure skating center of excellence twinned with a community hockey rink.

At the Cassie Campbell Community Center, wood structural, architectural and cladding components were use for a combination of technical and aesthetic reasons. The city of Brampton was looking for an architecture that was bold and modern but that would fit into a residential context and convey a warm and inviting atmosphere. The Fletcher's Meadow region of Brampton is home to many new immigrant families with a great deal of ethnic diversity. The goal was to develop an architectural language that would resonate as being uniquely Canadian and that would present a civic presence to this community of new Canadians. Heavy timber, wood composite cladding and natural Wiarton limestone are used to create an architecture with a regional materiality and character.

The architectural strategy began with the organization of the key interior volumes and exterior public spaces around a series of walls clad in indigenous Wiarton limestone. These walls form an architectural base and frame and organize the surrounding landscaped spaces and outdoor program areas which include a children's play area, splash pad, basketball court and entry plaza.

The key program volumes are expressed as a series of boldly cantilevered gull wing roofs that float above the masonry walls. Carefully articulated bands of interstitial glazing maintain the separation of stone base and floating timber roof and allow abundant natural light to enter the high volumes of the gym, pool and fitness center. A wood structure was the natural choice for this architectural strategy as it facilitated the continuous expression of cantilevered structural elements through the envelope glazing. The warmth of wood, the wood elements and the hierarchy of their assembly are used to bring a human scale to a very large building, most notably at the three main entries and at the timber pergola which frames the building's active fore court.

The building occupies the corners of a large flat site in a suburban residential context. The architectural and landscape team were confronted with the challenge of finding an articulation of material and scale that would allow this large public building (185,000 sq.ft.) to sit comfortably within the surrounding context. The end solution sees the building broken down into a series of discreet programmatic volumes, with the more transparent and articulated spaces wrapping the perimeter on three sides of the relatively opaque volumes of the ice rinks. Three discrete entries provide access from all parts of the

large site and are articulated with heavy timber canopies, and stone walls that emerge from the order of the surrounding landscape. A long timber trellis provides an interstitial space between outdoor and indoor programs and connects a pedestrian link between the two main entrances at the south and west sides of the building.

The Aquatics Centre is located at the corner of the site and is positioned as the landmark component of the facility. Here, a wood structure was a natural choice as it is the most durable material to employ in the highly humid and corrosive environment of a swimming pool. The articulation of the structure and the material properties of wood also contribute to the control of noise and reverberation in the Aquatics Centre environment – an important factor with regard to teaching and safety on the pool deck. The use of a wood allows for the expression of the structure of the building in a public building as heavy timber elements can be exposed without fire rated coverings or coatings. This contributes to an honesty and directness of expression that allows the design of the Cassie Campbell Community Centre to be rich in form and materiality.

Wood was also chosen for its inherent sustainability. Wood is a locally harvested product with low embodied energy cost that is inherently renewable. While external wood elements require ongoing maintenance, if properly cared for they present a highly durable and long-lasting solution. Within the pool environment a wood structure is by far the preferred solution as it requires virtually no maintenance and will resist the corrosive environment indefinitely.

INTERIOR Award

Eels Lake Cottage

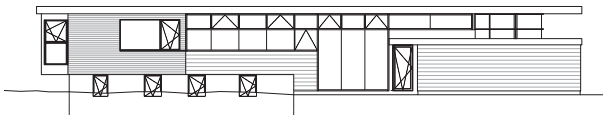
Altius Architecture Inc.

ARCHITECT
Altius Architecture Inc.
Toronto, ON

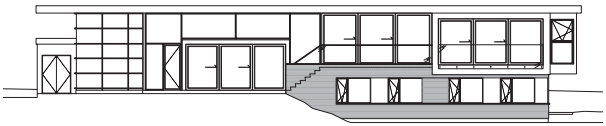
STRUCTURAL ENGINEER
Blackwell Bowick Partnership Ltd.
Toronto, ON

GENERAL CONTRACTOR
Neal Brinkman Construction + Carpentry
Apsley, ON

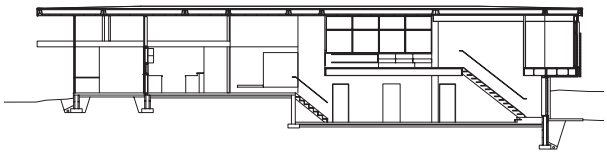
Douglas fir was used extensively for the interior and exterior of the modern, 3,000-sq.ft. Eels Lake cottage, completed in December 2007.



SOUTH ELEVATION

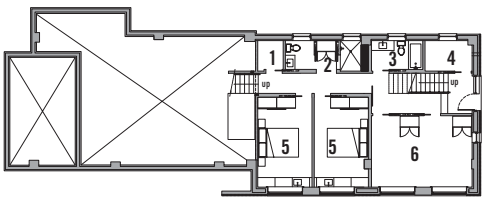


NORTH ELEVATION



LONGITUDINAL SECTION

1. mechanical
2. guest restroom
3. restroom
4. storage
5. guest bedroom
6. kids' bedroom



FLOOR PLAN

Engineered lumber was used in an innovative steel-wood hybrid construction for this building's structural design. This allowed long spans with uncluttered floor plans and dramatic cantilevers with notably delicate roof and floor planes. The effect of a roof floating over a glass volume was achieved in a very cost-effective way due to the role that wood played in the design.

As an exterior and interior finish, Douglas fir was used exclusively on walls, ceilings, soffits and millwork. By varying the texture of the wood finishes to respond to light and shadow, diverse spaces were achieved with a carefully restrained material palette. Generous openings with Douglas fir windows and doors tie the project together and make it a modern cottage.

JURY'S CHOICE Award

The Rock Community Church

C.Y. Lee Architect Inc.

ARCHITECT
C.Y. Lee Architect Inc.
Toronto, ON

CLIENT
The Rock Community Church
Woodbridge, ON

STRUCTURAL ENGINEER
Blackwell Bowick Partnership Ltd.
Toronto, ON

GENERAL CONTRACTOR
Datum Construction Ltd.
Toronto, ON

STRUCTURAL TIMBER SUPPLIER
Timber Systems Limited
Markham, ON

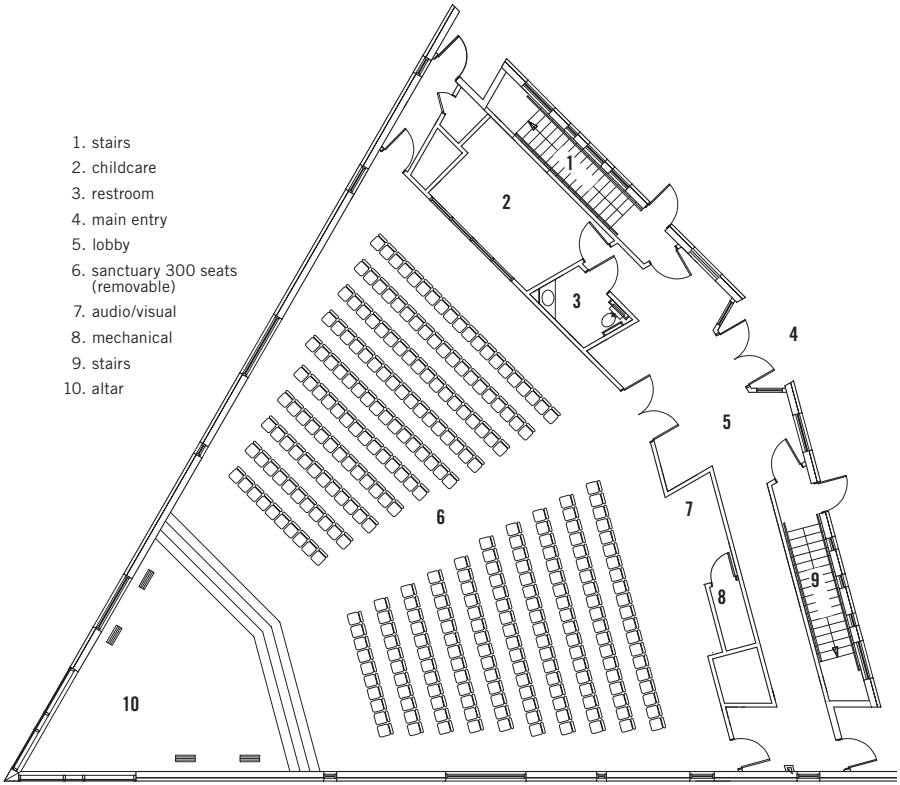
PHOTOGRAPHY
Shai Gil Photography
Toronto, ON

Located in Woodbridge, Ontario, the Rock Community Church was carefully designed to meet site and financial realities.

Several years ago, the congregation bought a large, wooded property and used an existing residence and outbuildings for their needs while funding was acquired and the design developed for a permanent facility. There are two particularly noteworthy features of this building. First is the way it was designed to suit the site and second is the modular design that will allow the building to expand as the size of the congregation grows.

The Rock Community Church design carefully uses structural and decorative wood products to blend with a beautiful natural setting and to provide architectural appeal and acoustical performance inside. The 2.2-hectare (5.4 acre) site falls within the Woodbridge conservation area. To respect the natural setting, the design focused on creating an environmentally-friendly building site that would harmonize with its surroundings. All site elements, including the building and the parking lot, were carefully located to save existing trees and fit the site topography. The neighboring deciduous trees provide shading from summer sun and allow the entry of winter solar heat through the floor-to-ceiling glazing in the altar area of the sanctuary.

The present building is comprised of two, pie-shaped segments, a layout that was intentionally selected to easily allow for future expansion of



FLOOR PLAN

the building up to a maximum of five segments.

Wood was used for the roof and floor over the basement to minimize cost and provide a superior architectural appearance due to the exposed glulam beams and wood deck ceiling. Structural and decorative wood products were used to give the Rock Community Church a warm welcoming interior and an exterior that blends with the wooded, rural site. A floor system incorporating wood I-joists, plywood subflooring and concrete topping provides a heavy-duty floor system over the basement area. Western red cedar was used for cladding the exterior. The cedar was coated with Cetol base coat and finish coat. This finish system was selected for its ultraviolet protection, water repellence and breathability. The western red cedar siding is attached to horizontal wood furring strips fastened to the plywood sheathing and wall studs, creating a rainscreen wall.

Wood was used extensively for the project because it is sustainable, natural, environmentally friendly, durable, strong but flexible, and most importantly, beautiful. The exposed wood structure makes the building a warm and inviting place. The cedar siding on the exterior walls blends beautifully into the densely-wooded site. The solid mahogany entrance doors and the hardwood flooring provide a welcoming and positive experience to church members and visitors.

The not-for-profit Ontario Mission of the Deaf Long Term Care Centre supports the client's mission of housing and serving underprivileged deaf seniors by providing them with a warm and accommodating home environment.

MULTI-UNIT Award

Ontario Mission of the Deaf Long Term Care Centre

Montgomery Sisam Architects Inc.

ARCHITECT
Montgomery Sisam Architects Inc.
Toronto, ON

CLIENT
Ontario Mission of the Deaf
Barrie, ON

STRUCTURAL ENGINEER
Blackwell Bowick Partnership Ltd.
Toronto, ON

Situated in a picturesque, park-like setting overlooking Lake Simcoe, the Ontario Mission of the Deaf Long Term Care Centre is home to 64 deaf seniors. Comprised of a collection of wood clad volumes, the center is reminiscent of the lake-side cottages that are characteristic of the area, and has a peaceful rapport with the surrounding landscape. The arrangement of the volumes on the site creates a series of residential garden courts, accessible to all residents.

In addition to the aesthetic created by the wood cladding, wood was used throughout because of its cost-efficiency when compared to other options such as brick and stone.

The innovative design of the Ontario Mission of the Deaf Long Term Care Centre is focused on facilitating communication. Taking advantage of the eight-acre lot, the home is developed over one level with a variety of double-height spaces. This design is conducive to seniors who depend on a visually oriented environment by providing diffuse light through clerestory windows and skylights to eliminate harsh shadows and silhouettes. The communal spaces such as the dining, lounge and activity areas are designed to be as open as possible to provide long sight lines for communication through signing as well as comfortable and spacious areas for residents to congregate. The centre also includes a multi-purpose room and a chapel for use by both residents and the larger deaf community. Throughout these spaces exposed wood columns minimize visual interference and add a warm, natural element to the interior.

Within the intimate setting of residential houses, each bedroom entry has

a built-in 'memory box' for personal mementos that also acts as a visual cue for seniors dealing with dementia. Unlike a typical long term care home, bedroom doors have been aligned such that residents have a visual connection with their neighbors across the hall to allow for communication and comfort for those confined to their beds. All bedrooms have views to either a landscaped courtyard or the surrounding wood and parkland. These views establish a strong connection to the outdoors that is further enhanced by rich interior wood finishes.

Wood is used within the community spaces and is combined with other natural materials to provide warmth and comfort and a residential feel. The careful application of wood finishes throughout the interior and exterior provide a familiar and uplifting environment for residents.

The centre is a unique and innovative place of care; one that preserves deaf culture, language and heritage and promotes the resident's right to self-determination and autonomy, ensuring that deaf seniors can thrive as part of a vibrant community.

1. entry
2. entry courtyard
3. home area courtyards
4. cafe
5. fireplace lounge
6. house dining/lounge/activity
7. houses
8. administration
9. kitchen/support services
10. chapel

N

SITE PLAN

NORTHERN ONTARIO EXCELLENCE Award

The Dryden Regional Training and Cultural Auditorium Centre

Habib Architects Inc.

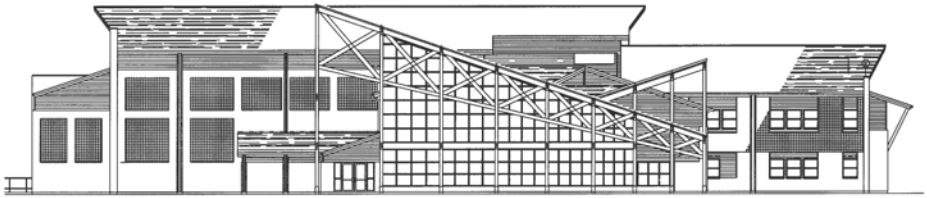
ARCHITECT
Habib Architects Inc.
Thunder Bay, ON

CLIENT
Keewatin-Patricia District School Board
Dryden, ON

STRUCTURAL ENGINEER
Peterson + Habib Consultants Inc.
Thunder Bay, ON

GENERAL CONTRACTOR
Dave McKay Contracting Ltd.
Dryden, ON

Dryden's main industry is pulp & paper, directly linked to the forest products industry. As practitioners of green building, the local school board took initiative to join municipal and other cultural organizations to build a multi-purpose center for the community.



EAST ELEVATION

NORTH ELEVATION

The centre provides a high-quality venue for cultural entertainment events and comprehensive training services including water and sewage treatment operator training. The Dryden Regional Training and Cultural Auditorium Centre totals 34,000 sq.ft. in a two story structure located on the site of the former Albert St. School in Dryden. Computer labs, training classrooms, a water operator training facility, meeting rooms, seminar spaces and a large 500-seat cultural/multi-use seminar space are key aspects of the design. Technology and multi-media features highlight the versatility of the centre. Kitchen facilities, offices, storage areas and a capacity for expansion are included in the project.

The opportunity was taken to celebrate one of the greatest natural resources by giving it renewed life outside the order of pulp & paper production. Wood was specified for architectural and structural elements to reflect its beauty, warmth, structural capabilities and green aspects. Large overhangs were designed to create a welcoming entrance, provide shelter, protect elements from weathering, and create an exhilarating sense of space that continues through to the interior.

RESIDENTIAL Award

Shift Cottage

superkül inc. | architect

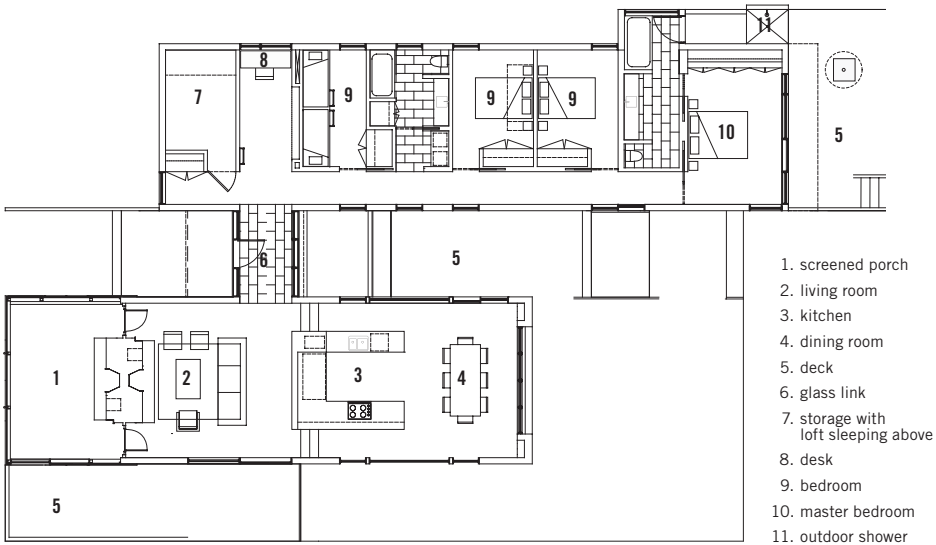
ARCHITECT
superkül inc. | architect
Toronto, ON

STRUCTURAL ENGINEER
Blackwell Bowick Partnership
Toronto, ON

GENERAL CONTRACTOR
Christenson Construction
Nobel, ON

PHOTOGRAPHY
Tom Arban Photography
Toronto, ON

On the edge of a Precambrian granite island, the site for this 2000-sq.ft. cottage was chosen for its topography and its orientation. Nestled into the rock and against a line of trees, the cottage is sheltered from the winds that whip across the island, with long views of the lake.



FLOOR PLAN

In form and material the cottage is married to its landscape of water, rock and sky. The graphic lines of the cottage contrast and highlight the forms of the wind-shaped trees and the granite; the massing of the cottage and the use of elemental materials – wood and stone – knit it in.

From the initial concept stage, the cottage was conceived of as a wood building, inside and out; the structural possibilities, constructability and aesthetic value of wood were primary drivers throughout the development of the design.

A glass walkway links the cottage's two principal volumes. The living spaces are in the wing closest to the shore; bedrooms are contained in the wing against the treeline. Window openings are aligned to allow through views to the trees behind and the open water in front. A cedar deck around the cottage terraces down to meet the rock; it hosts outdoor living spaces including a contained children's play area and a private outdoor shower.

The textured modernist vocabulary of the exterior is continued on the interior, where cedar and painted pine board, glulam beams and cedar deck are the primary finishes, composed to create an elegant and warm home away from home.

In keeping with the family's intergenerational stewardship of the island, the cottage was designed to tread lightly on the land; the design was based on locally available construction materials and equipment that were in both size and weight easily barged in, managed and moved by one pair of hands. Sited in a natural clearing, no vegetation was destroyed to make the site. Pier foundations both obviated any blasting of the rock, and allow for passive under-croft cooling. The cottage is passively lit during the day. The use of local and natural materials left largely in their unfinished states leaves a small footprint.

U.S. WoodWorks Wood Design Awards

Recognizing design and building professionals who use wood in exceptional ways is an important part of the U.S. WoodWorks Wood Design Awards. There is nothing more powerful than innovative structures to showcase wood's versatility, communicate its benefits, and encourage others to expand their use of wood in both traditional and new applications.

Our program's awards are hosted annually in each of the three U.S. WoodWorks Wood Design Awards regions – including California, the Southeast (Georgia, North Carolina, South Carolina) and the North-central U.S. (Minnesota, Illinois, Wisconsin) – where teams of technical advisors are also available to provide education and support related to the use of wood in non-residential buildings. Awards are presented in conjunction with Wood Solutions Fairs in categories that range from green building and institutional wood design to interior beauty, multi-family wood design and "wood behind the walls."

These award-winning structures from 2009 collectively demonstrate the diversity of wood products as well as their tremendous capabilities. Some pay tribute to wood's beauty, design flexibility or the strength of timber-frame construction, others to its environmental attributes or advances that continue to be made in engineered wood design. All are inspirational because they represent the vastness of wood's possibilities.

For more information, please visit www.woodworks.org.

Dwight Yochim, RPF
National Director
WoodWorks

U.S. WOODWORKS WOOD DESIGN AWARDS

CALIFORNIA

COMMERCIAL Award

TBWA\Chiat\Day Offices

Marmol Radziner and Associates

ARCHITECT
Marmol Radziner and Associates
Los Angeles, CA

CLIENT
TBWA\Chiat\Day
San Francisco, CA

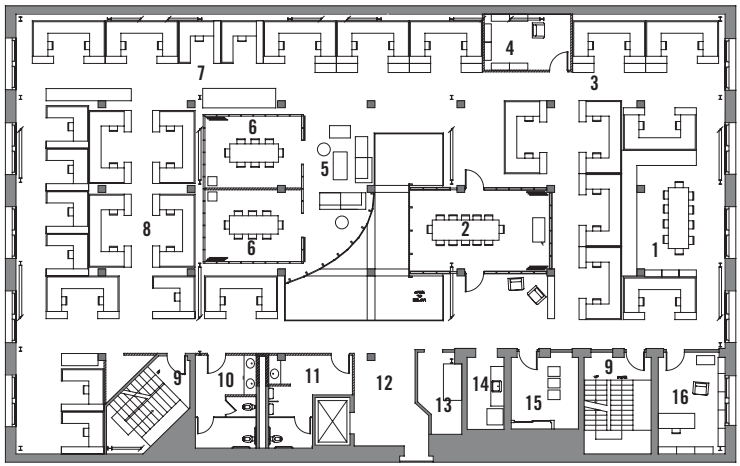
STRUCTURAL ENGINEER
Tipping Mar and Associates
Berkeley, CA

Located in San Francisco's Embarcadero district in a multi-story brick warehouse, the 27,000-sq.ft. space houses the offices for advertising agency TBWA\Chiat\Day.

Rooted in the narrative of the extant building and the layers below street level, the design concept takes the site's history as a point of departure. Remains of ships were found underneath the old warehouse complex and harbor, which provided added visual allusion.

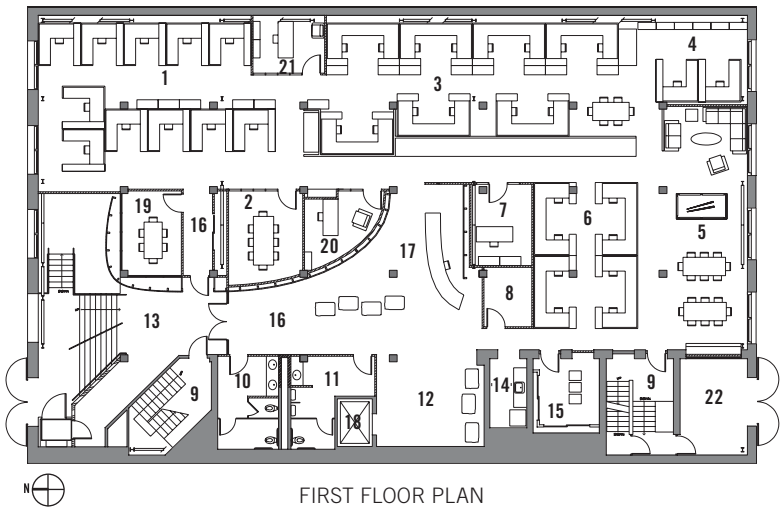
The architectural forms and materials reference the ships buried beneath the building as well as the cargo crates stored in the former warehouse. The selection of finishes and flooring materials – including sea grass mats, cork, Douglas fir planking, plywood wall panels and workstations, tackable burlap wall panels, and steel cable-railing systems – were informed by metaphors of ships and industrial shipping canisters. What were once crates for cargo have become translucent containers in the form of workstations, project rooms, and private offices. Low, box-like sofas allude to containment, as they are modular, moveable, and informal, and the custom furniture was designed to encourage people to sit in a relaxed manner, conducive for the flow of ideas.

1. broadcast
2. conference room
3. business traffic workstations
4. director's library
5. living room
6. project room
7. traffic workstations
8. brand team workstations
9. stairs
10. women's restroom
11. men's restroom
12. elevator lobby
13. copy room
14. kitchen
15. telephone/data
16. broadcast office



SECOND FLOOR PLAN

1. sport buying workstations
2. conference room
3. finance workstations
4. art buying
5. play area
6. print production workstations
7. print production office
8. viewing room
9. stairs
10. women's restroom
11. men's restroom
12. elevator lobby
13. entry vestibule
14. kitchen
15. telephone/data
16. hallway
17. reception
18. elevator
19. meeting room
20. human resources office
21. finance office
22. rear entry



FIRST FLOOR PLAN

Portola Valley Town Center is a 22,000-sq.ft. complex of three main town center buildings arranged around a new town plaza.

GREEN BUILDING Award

Portola Valley Town Center

Siegel & Strain Architects and Goring & Straja Architects

ARCHITECT
Siegel & Strain Architects
Emeryville, CA
and
Goring & Straja Architects
Emeryville, CA

CLIENT
Portola Valley Town Center
Portola Valley, CA

STRUCTURAL ENGINEER
Forell/Elsesser Engineers
San Francisco, CA

CONSTRUCTION
TBI Construction & Construction Management
San Jose, CA

The library contains reading rooms, a children's area, staff office and the Town Heritage room. The town hall houses the administrative offices, building, planning and engineering departments and the town's emergency operations center. The community hall contains a large multi-purpose room, two activity rooms, storage and a catering kitchen.

The old town center inhabited a 1950's school that was built directly on top of the San Andreas Fault. The new center occupies the same 11-acre site but locates the buildings out of the fault zone. The old, much loved school buildings were deconstructed and the wood was re-milled into wall paneling, ceilings and countertops for the new buildings.

Building exteriors are clad in reclaimed vertical redwood boards, linking the buildings to the two redwood groves on site and to the site's history, which served as a wood-lot for redwood logging operations in the 1880s. Roughly 30,000 bd.ft. of lumber came from salvaged sources.

The floor of the large community room in the community hall is Eucalyptus, felled nearby in a fire management effort, and dried and milled locally. Eucalyptus is an invasive species, and this project represents one of its first commercial uses. The south and west windows are shaded by fixed 2 x 6 sunscreens.

All framing lumber and plywood is certified except for the wood I joists. Glulam beams are 70 per cent certified lumber. Solid core doors, clad in Douglas fir, have certified cores and large double-hung, metal-clad wood windows are also made from certified Douglas fir. Fifty per cent of all the wood products are certified.

SITE PLAN

The goal was to create, simple, low-energy, climate-responsive buildings, with a significant portion of their power supplied by site-generated solar electricity. In addition to efficient heating, cooling and lighting systems, and a 76 kW photovoltaic system, the buildings incorporate a number of passive strategies, including: buildings are wood framed and insulated with dense-pack cellulose insulation; double-hung, metal-clad wood windows are glazed with a high-performance glass; and the south and west windows are shaded with fixed wooden sunscreens.


LLCRAFT

INSTITUTIONAL Award

Oxnard Water Campus Visitors Center

Mainstreet Architects + Planners

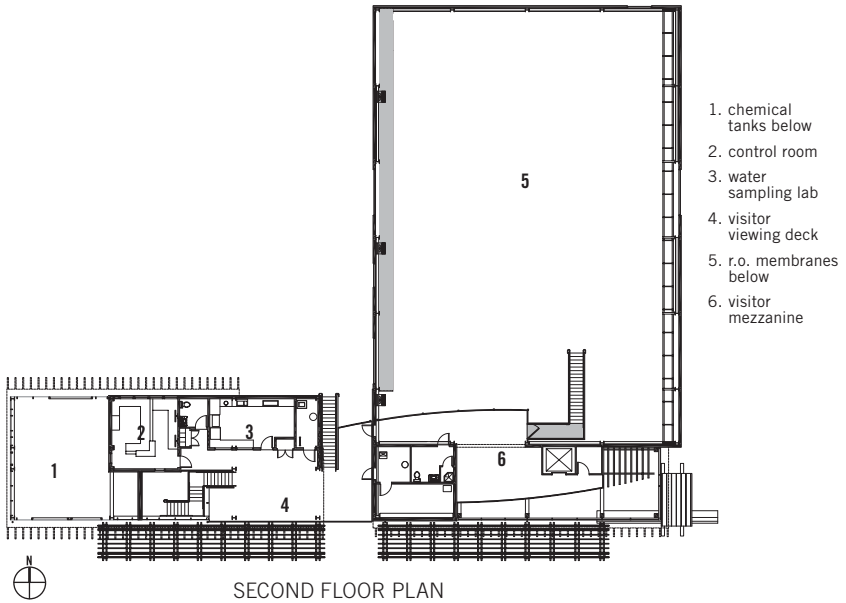
ARCHITECT
Mainstreet Architects + Planners
Ventura, CA

CLIENT
Oxnard Water Campus Visitors Center
Oxnard, CA

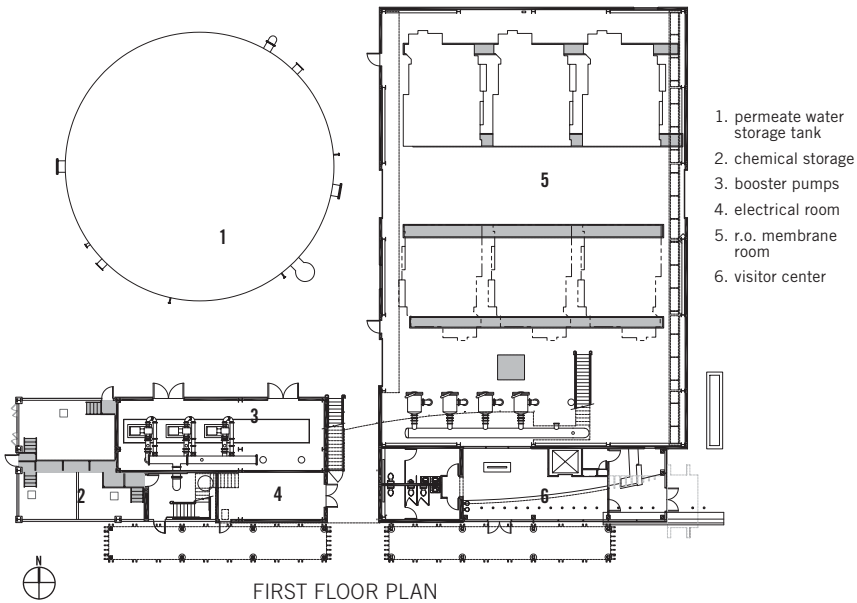
STRUCTURAL ENGINEER
Kennedy/Jenks Consultants
Ventura, CA

PHOTOGRAPHY
Schaf Photo
Ventura, CA

The Oxnard Water Campus Visitors Center is situated on an eight-acre site near downtown Oxnard, California. A new two-story wood-frame reception and elevator lobby has become a new entryway for visitors to the water yard.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

The north yard of the Oxnard Water Campus Visitors Center incorporates visitor-friendly educational facilities that provide a public visitor center for community outreach and water resource learning environments. Visitors have access to three new buildings that total approximately 25,000 sq.ft.

The Oxnard Water Campus is an industrial-use site with buildings designed with an industrial aesthetic of steel, concrete, metal and brick. In the areas designed for public visitor functions, the use of heavy timber wood framing and interior mill work provides a visual counterpoint that injects an element of warm color and texture to an otherwise industrial building type. Careful placement and detailing of a glulam supported window wall system provides abundant natural daylight for visitor spaces. Wood finishes in the visitors' facilities create an overall harmonizing environment in which visitors can learn about the importance of water conservation and resource recycling. FSC-certified wood products were the appropriate design choice given that the Desalter facility has now earned the distinction of being Oxnard's first construction project to achieve a green building certification rating.

The use of architectural Douglas fir glulam materials creates an unforgettable interior space within the lobby of the Ahmanson Theater at the Music Center in Los Angeles.

INTERIOR BEAUTY
OF WOOD Award

Ahmanson Founders Room

Belzberg Architects

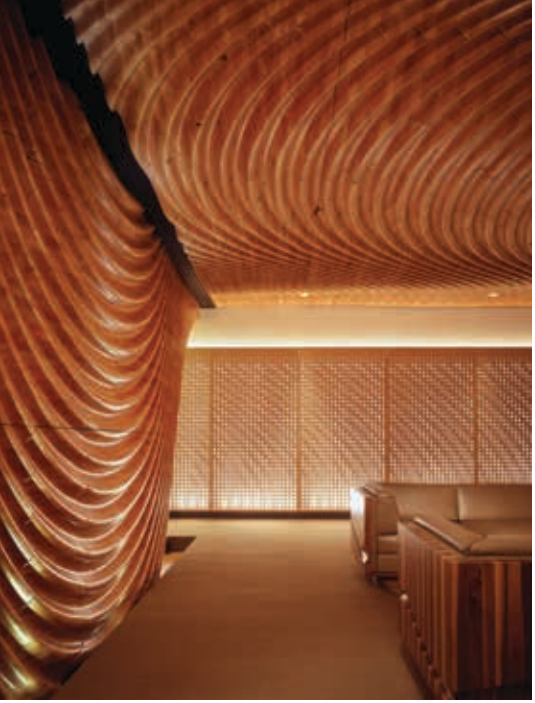
ARCHITECT
Belzberg Architects
Santa Monica, CA

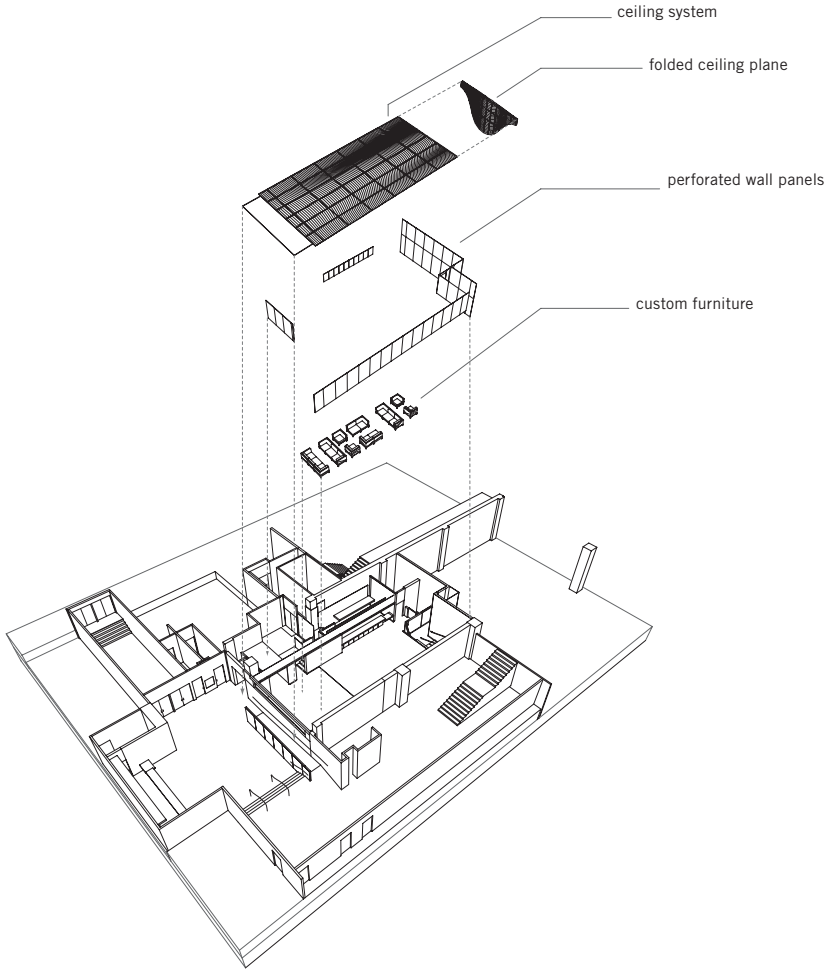
CLIENT
Ahmanson Founders Room
Los Angeles, CA

STRUCTURAL ENGINEER
Gordon L. Polon Consulting Engineers
Los Angeles, CA

GENERAL CONTRACTOR
SAS Construction
Los Angeles, CA

PHOTOGRAPHY
Benny Chan, Fotoworks
Los Angeles, CA



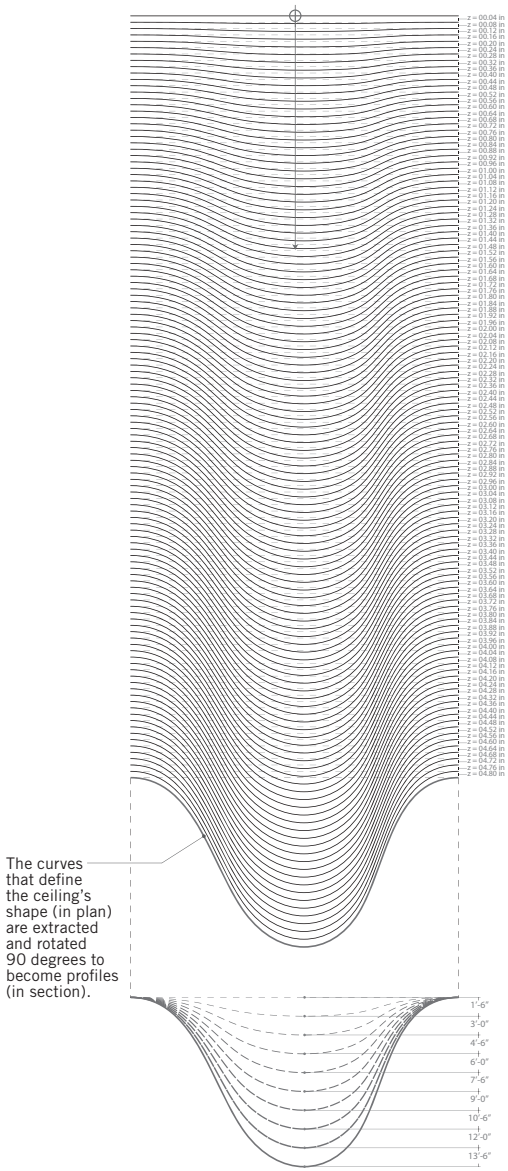


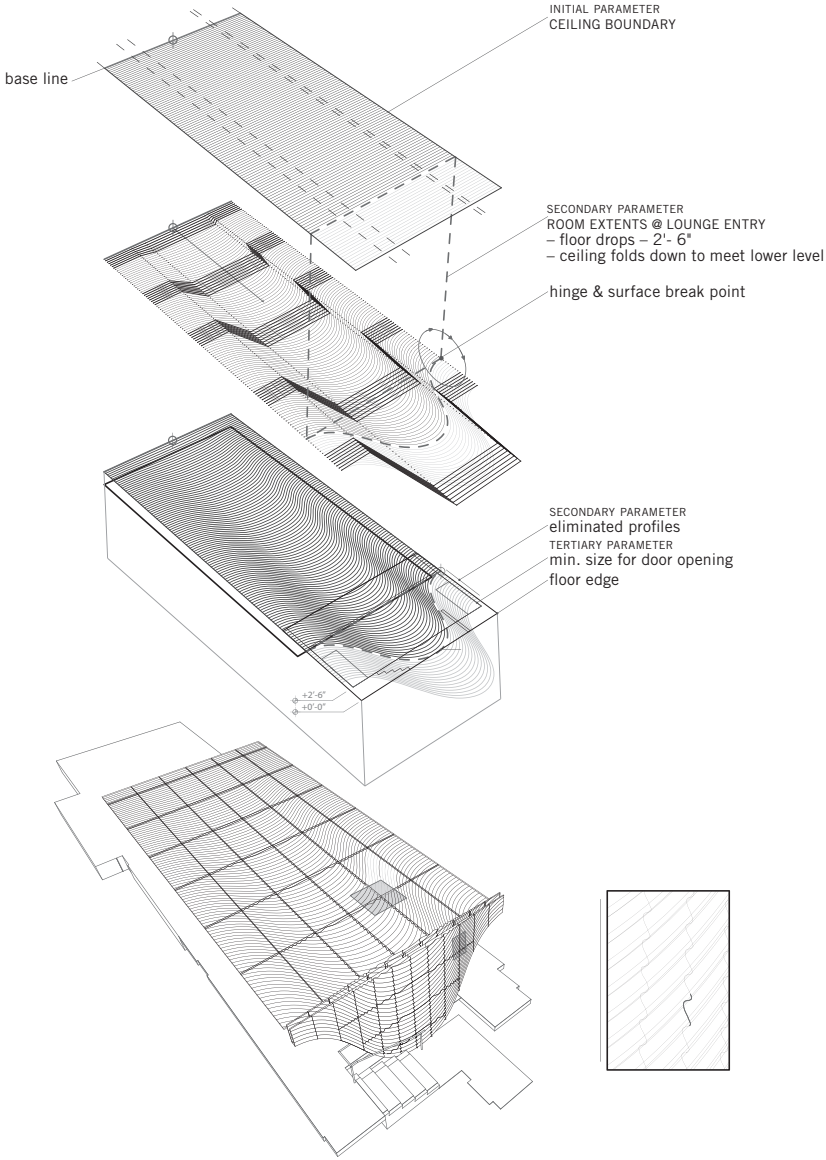
AXONOMETRIC VIEW

Wood was used to offer warmth and texture to a space that was initially relegated as storage within the confines of an existing subterranean concrete parking garage. The project demonstrates the unlimited workability and beauty of wood when used by imaginative and skilled designers and woodworkers.

The technique of CNC-routing provided the beauty and warmth of wood and its grain with the plasticity of contemporary forms. As a ceiling element, the architectural-grade glulam beams lift the space and allow light to bounce. As a wall element, Medium Density Fiberboard (MDF) offered texture and a novel approach to lighting a room from ambient sources as opposed to conventional 'canned' solutions. Lounge chairs were designed to be flexible in their arrangement and routed out of American walnut so the pattern would be continuous regardless of the arrangement from section to section without having to specifically match each individual piece. They were designed to act as a heavy, blocky foil to the floating ceiling.

The 2,500-sq.ft. Ahmanson Founders Room explored various attributes such as texture, materiality, the inclusion of accessory components, the division of single surfaces into workable panels, prefabrication protocol and installation constraints.





BASE OPERATOR DIAGRAM

MULTI-UNIT Award

The Westin Verasa Resort

Oz Architects

ARCHITECT
Oz Architects
Ventura, CA

CLIENT
The Westin Verasa Resort
Napa Valley, CA

STRUCTURAL ENGINEER
Read Jones Christoffersen Ltd.
Vancouver, BC

GENERAL CONTRACTOR
Ledcor Construction
San Diego, CA

DESIGN ARCHITECT
Raymond Letkeman Architects Inc.
Vancouver, BC

The Westin Verasa Resort incorporates 159 units and encompasses 330,000 sq.ft. of luxury condos, hotel, conference center and restaurant.

Several factors were taken into consideration when selecting wood as the design solution for the Westin Verasa Resort. These factors included: cost consciousness (wood significantly reduced building and construction costs); height limit (Napa Valley's code height limit allow a maximum of a three-stories, which is ideal for wood framing); flexible and fast construction (the use of wood allowed for a local workforce to maintain a tight schedule – the project was completed in only 21 months from start to finish); and design.

The use of wood allowed the design

team to integrate Napa's natural beauty by using timbered elements, shingle siding, wood railing and wood detailing to reflect a craftsman style. It also allowed the structure to fit within the context of the surrounding buildings.

SOUTHEAST (Georgia, North Carolina, South Carolina)

This 9,200-sq.ft. pavilion includes a main hall with fireplace, kitchen, restroom and storage facilities and is wrapped with large covered porches. The pavilion is used for community activities and is available to the public for special events.

COMMERCIAL Award

The Pepper Plantation Pavilion

SGA Architecture

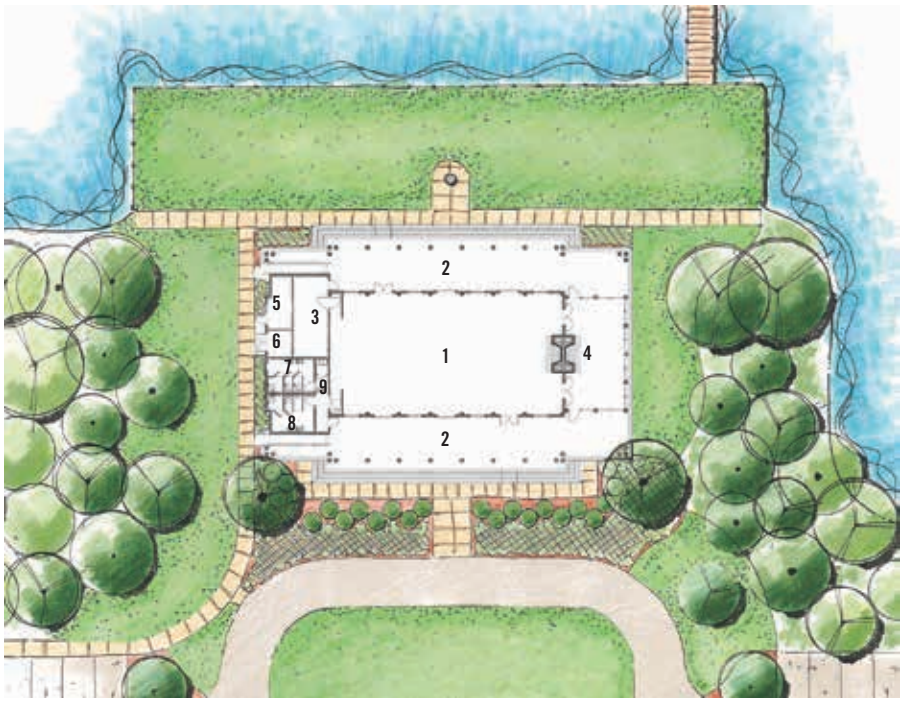
ARCHITECT
SGA Architecture
Charleston, SC

CLIENT
The Pepper Plantation Pavilion
Awendaw, SC

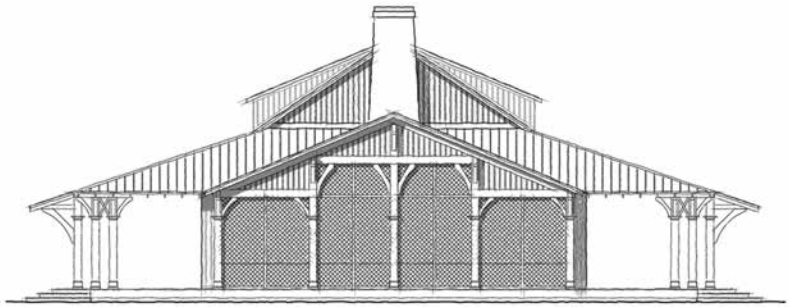
STRUCTURAL ENGINEER
Hunter Structural (Gene Hunter)/Timber-Fab
Charlotte, NC

GENERAL CONTRACTOR
4SE Inc.
Charleston, SC

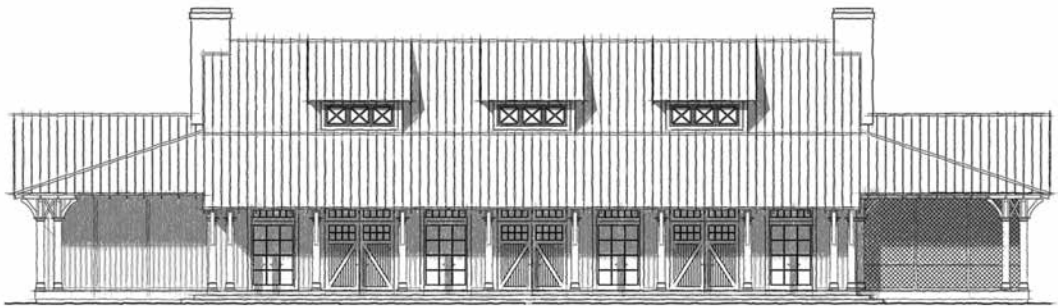
1. main hall
2. open porch
3. kitchen
4. screen porch
5. storage
6. mechanical/electrical
7. women's restroom
8. men's restroom
9. hall



FLOOR PLAN



SIDE ELEVATION



FRONT ELEVATION

Setting the tone for a 50-acre residential equestrian community, Pepper Plantation's Pavilion reflects the character of the original 20th century plantation and traditional low-country style. The use of natural wood throughout lends itself to the equestrian theme.

The interior wall and exterior cladding features dressed and rough-sawn cypress board-and-batten. The large exposed roof of the interior hall is formed from solid heavy timber trusses of Douglas fir, assembled on site with hammers and pegs. The roof decking is of salvaged heart pine and job-built barn-like wooden sliding doors have exposed wrought iron hardware.

GREEN BUILDING Award

Ocean Science Teaching Center

Frank Harmon Architect

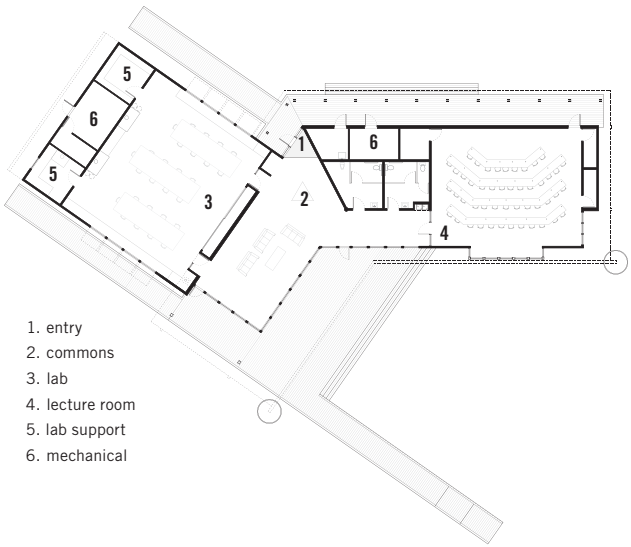
ARCHITECT
Frank Harmon Architect
Raleigh, NC

CLIENT
Ocean Science Teaching Center
Beaufort, NC

STRUCTURAL ENGINEER
Richard Kaydos-Daniels
Raleigh, NC

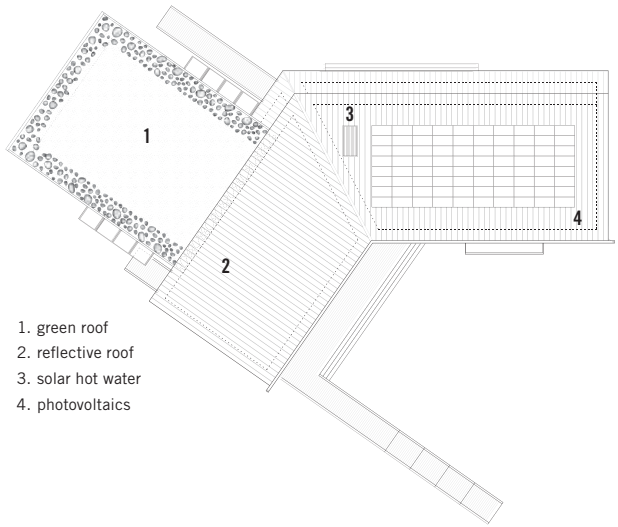
GENERAL CONTRACTOR
Joyce & Associates Construction Inc. (Patrick Joyce)
Raleigh, NC


The Ocean Science Teaching Center
incorporates ideas and forms indigenous
to the North Carolina coast.



1. entry
2. commons
3. lab
4. lecture room
5. lab support
6. mechanical

FLOOR PLAN



1. green roof
2. reflective roof
3. solar hot water
4. photovoltaics

ROOF PLAN

Wood was used throughout the project for its strength and corrosion resistance: carefully detailed wood buildings – built of Atlantic white cedar and pine – have lasted over 200 years in the North Carolina coastal environment.

Cross ventilation, deep overhangs, and porches echo the town's historic structures and are as environmentally appropriate today as they were 200 years ago. The building is at ease in its setting, deferring to prevailing winds and allowing daylight to serve as primary task lighting in every interior space. The center is both contextually sensitive and technologically innovative, coupling native materials and landscape elements with high-efficiency building systems.

The building features photovoltaic cells, geothermal heating and cooling, and a rain garden for collecting water. Recycled and local materials were used wherever possible. The structure includes a solar hot water system and high-efficiency ground-coupled heat pumps in addition to other sustainable features.

INSTITUTIONAL Award

Twin Creeks Science and Education Center

Lord, Aeck & Sargent Architecture

ARCHITECT
Lord, Aeck & Sargent Architecture
Atlanta, GA and Chapel Hill, NC

CLIENT
Twin Creeks Science and Education Center
Gatlinburg, TN

STRUCTURAL ENGINEER
Palmer Engineering Company
Atlanta, GA

GENERAL CONTRACTOR
Hedges Construction
Atlanta, GA

The Twin Creeks Science and Education Center is located near and above Gatlinburg, Tennessee. Sited on a relatively flat spur along a scenic mountain trail, the building speaks to a mountain cabin aesthetic.

Featuring five gabled dormers that introduce natural light through clerestory windows, it is clad in regional river stone around the base, with cedar wood and generous amounts of glass above. Covered porches at each of the two entryways serve as an extra gathering and work spaces.

Wood was consistent with the lodge design aesthetic of the 15,000-sq. ft. project. The facility makes use of salvaged and natural building materials. For example, boulders disturbed on the site were utilized for slope stabilization around the banks of the three-pond natural storm water treatment system and around the building's pervious parking lot. Instead of going to a landfill, downed trees were ground and used on site for mulch, erosion control and habitat creation. Twelve salvaged cedar columns run down the structure's central space on two sides of the building.

Other wood products include glulam heavy timber vaulted trusses, rough-sawn cedar siding and trim, long-span wood roof joists and conventional wood framing.

Located in a heavily residential area of Marietta, Georgia, adjacent to the Kennesaw Mountain National Battlefield Park, the CDH Partners offices use wood extensively on the interior.

INTERIOR BEAUTY
OF WOOD Award

CDH Partners Offices

CDH Partners Inc.

ARCHITECT
CDH Partners Inc.
Marietta, GA

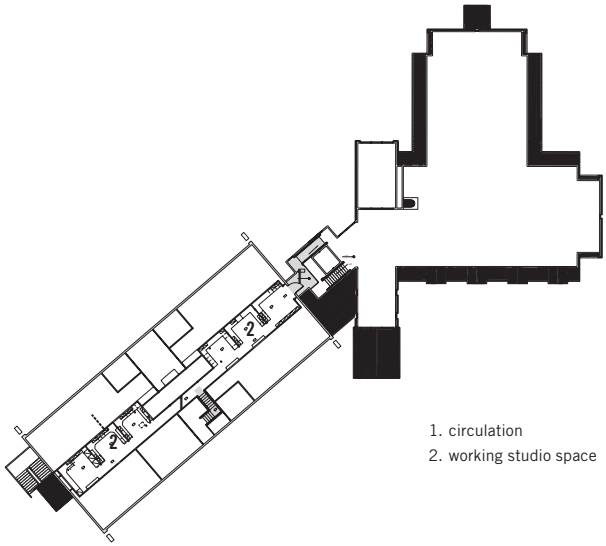
CLIENT
CDH Partners Inc. Offices
Marietta, GA

GENERAL CONTRACTOR
Potts Construction Company
Marietta, GA

The design team felt that the warm look of wood would assist in creating spaces that were inviting to both clients and employees. The heavily-wooded areas surrounding the site are brought inside through the use of elements such as custom maple doors, a maple reception desk and maple wall paneling at the building's entrance. Maple was used in areas, such as the lobby and library, where a more refined look was desired – often in places where people would come into close contact with the surfaces.

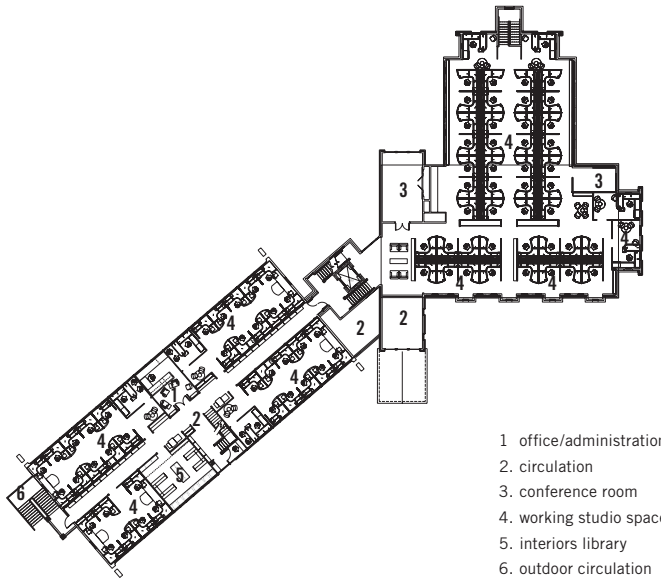
Further into the structure, the various design studios use pine tongue-and-groove ceilings, heavy timber pine columns and beams, pine trim elements and pine trusses to create a more casual environment in which it is comfortable to work. Pine, being a softer wood, was used exclusively on the studio ceilings. Due to its affordability, pine was also used liberally in areas where a highly-refined look was not needed or desired.

The maple floor and ceiling treatments employed throughout the building's many conference rooms serve to create comfortable environments for client interaction. The main conference room features a custom maple table and a maple trellis at the ceiling to create a slightly more formal meeting space.



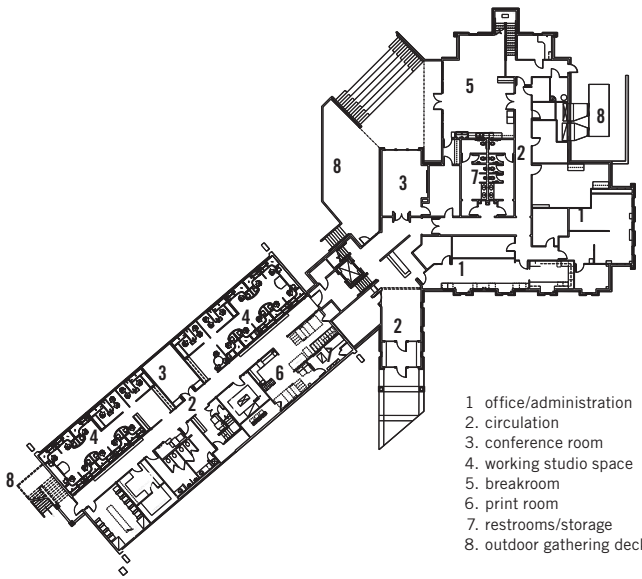
1. circulation
2. working studio space

THIRD FLOOR PLAN – LOFT



1 office/administration
2. circulation
3. conference room
4. working studio space
5. interiors library
6. outdoor circulation

SECOND FLOOR PLAN



1 office/administration
2. circulation
3. conference room
4. working studio space
5. breakroom
6. print room
7. restrooms/storage
8. outdoor gathering deck/circulation

FIRST FLOOR PLAN

NORTH-CENTRAL (Minnesota, Wisconsin, Illinois)

Tracing the sinuous terraced contours of Wisconsin farmland and pastures, Epic System Corporation's 700,000-sq.ft. Corporate Learning Center's form and expression are directly derivative of its contextual landscape and the programmatic functions it serves.

COMMERCIAL Award

Epic Systems Corporation Learning Center

Cuningham Group Architecture

ARCHITECT
Cuningham Group Architecture
Minneapolis, MN

CLIENT
Epic Systems Corporation
Verona, WI

STRUCTURAL ENGINEER
Reigstad & Associates Inc.
St. Paul, MN

GENERAL CONTRACTOR
JP Cullen & Sons Inc.
Janesville, WI

Wood is featured throughout this state-of-the-art center accommodating classrooms, conference and seminar areas, breakrooms, vendor display area, stair pavilions, pre-function spaces and a 5,000-seat auditorium. The Learning Center serves the customers and employees of this creative and fast-growing healthcare software company.

Functional spaces are organized diametrically along a central circulation spine, which traces the land's contour. The west side is defined by the preserved view of farmland. The east side is characterized by courtyards and a formal affinity to the adjacent corporate campus of buildings. Wood beams along the spine animate progressive rhythms.

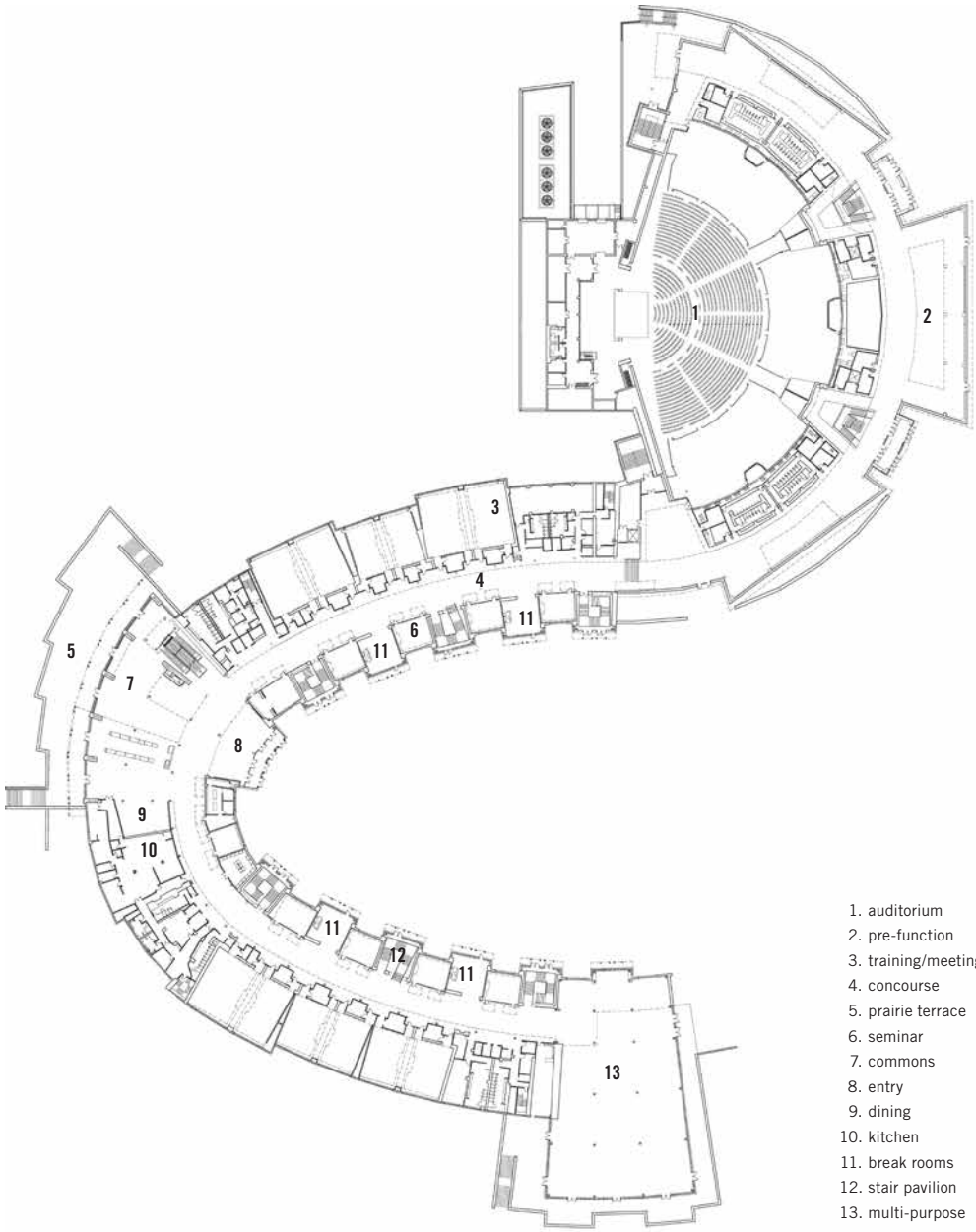
Wood detailing and the selection of wood reinforces the characteristics of each side. To the west, large wood structural timbers dramatically frame the dominant farmland views; wood details in the tradition of vernacular barns are exposed, connecting materials clearly and directly. Complementing the west side's architectural expression, the east courtyard side responds to the shift in scale. Wood is more refined and includes glulam decking, hardwood floors, cork flooring, and an exposed wood ceiling.

Timber-frame barns on the site provided inspiration for the design and tectonic of the exposed wood members. Local Kasota stone and zinc-coated copper complement the wood and are reminiscent of their use in the barns, translated in a purely contemporary and elegant orchestration of materials.

Wood characteristically imbues the spaces with an expression of warmth. A counterpoint to the high-tech nature of software design, it is resonant with the high-touch nature of healthcare and emphasizes the humanity of the practice.

Sustainable goals were in place from the outset of the design process. The architectural design balances the function and operations of Epic with a healthy ecology and long-term value by balancing costs, incorporating wood as a renewable resource, working with nature and investing in appropriate technology. Sustainable features and green initiatives integrated into the design of the building include: harvested daylight maximized in all meeting rooms, operable windows providing ventilation cooling, utilization of low-energy-use lamps, occupancy sensors and daylight responsive lighting control, and an efficient building envelope with high R-value, high-performance windows and glazing. Reduction of light pollution was achieved by minimizing interior light exiting the building. The management of construction waste, via recycling, diverted thousands of tons of waste.

In essence the project is in harmony with its environment, remains true to its purpose, context and materials, and contributes to the life of the Epic community.



1. auditorium
2. pre-function
3. training/meeting
4. concourse
5. prairie terrace
6. seminar
7. commons
8. entry
9. dining
10. kitchen
11. break rooms
12. stair pavilion
13. multi-purpose

FLOOR PLAN

ENGINEERING Award

Captain Swift Timber Covered Bridge

Willett, Hofmann & Associates Inc.

ENGINEER
Brian Converse, P.E., S.E.
Willett, Hofmann & Associates Inc.
Dixon, IL

CLIENT
Bureau County Highway Department
Princeton Township, IL

GENERAL CONTRACTOR
Stark Excavating
Tonica, IL

PHOTOGRAPHY
Brian Thomas Photography
Rockford, IL

Well known for its existing Red Covered Bridge, built in 1863 and on the National Register of Historic Places, Princeton is now also home to the Captain Swift Timber Covered Bridge. Intended to complement the vintage bridge, the all-wood Captain Swift Timber Covered Bridge brings additional tourism dollars to the region and, more importantly, paves the way for other area townships to choose wood as they consider bridge replacements.

Completed in October 2007, the bridge was built entirely out of wood using 1800's concepts, yet it has two traffic lanes, is HS-20 rated, has a 16-ft.-3-in. vertical clearance, a 28-ft. minimum roadway width and is the only two-lane covered bridge in Illinois.

Although it has the look and feel of a 19th century covered bridge, the Captain Swift Timber Covered Bridge was designed to 21st century safety and traffic standards with a unique blending of modern materials, historical accuracy, and innovative design. It is not merely an old-fashioned method of crossing the creek, but a modern engineering marvel.

The seed for a wood structure was planted when Larry Vetter, the Princeton Township Road Commissioner, attended a presentation by Wheeler Consolidated Lumber regarding timber bridges. It was time to replace the deteriorating 90-year-old steel pratt through truss bridge over Big Bureau Creek, and the presentation sparked the idea that replacing the steel structure with a wood bridge would complement the bridge's location in a picturesque rural area.

The greatest challenge was the use of wood itself. Covered wood bridges of the past were designed for limited use of horse-and-buggy traffic, yet the township wanted an all-wood structure that was built to modern highway standards. The key to the bridge is its unique combination of 19th century design with 21st century materials. The strength of the bridge comes from its Burr arch design, an idea patented by Theodore Burr of New York in 1804. Engineers used the traditional design but replaced cut lumber with glulam. While Burr and his fellow 19th century bridge builders were limited in lumber size by the height of available trees, glulam allowed engineers to use

lumber that is longer and stronger than any tree, making the two-lane bridge possible. Built to modern safety and traffic standards, semi trucks and even farm combines can now safely travel the all-wood bridge.

Another challenge was funding. New bridges are typically built with funds from the motor fuel tax (MFT). Because these are public funds, developers are required to be as fiscally responsible as possible. There was no denying that a wood bridge would initially cost more to build than a steel structure. However, a wood bridge will not deteriorate from winter salt and the roof will protect the structure and extend its life, reducing the maintenance costs that are typically associated with steel bridges. With proper care, a timber covered bridge may last 150 years or more, resulting in a cost savings for many generations of tax payers. MFT funds were approved for the project.

Douglas fir was used for the siding. It will naturally age to a warm chocolate brown, and the attractive color will save maintenance costs by eliminating the expense of regular painting. Douglas fir was also used as a 2-in. sacrificial surface on the bridge floor. The floor will require maintenance and occasional replacement, but will protect the load supporting members extending the life of the bridge.

An additional challenge was fire safety – would an all-wood bridge in a sparsely populated rural area be susceptible to fire? The Captain Swift Timber Covered Bridge was built with heat detectors installed and linked to the sheriff department and fire station, and a spray-on fire protection was used. A camera system allows 24-hour observation in the fire department and the police station. The bridge has lights both inside and outside the structure, intended to aesthetically illuminate the structure and also increase security.

ALSO BY CANADIAN WOOD COUNCIL:

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