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### The Wood Design Awards 2006

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Cover: Craven Road Studio, Shim – Sutcliffe Architects Photo: Bob Gundu, Toronto, ON

This year's winning projects push the boundaries of conventional wood building practices and highlight the special qualities, versatility and sheer beauty of wood as a building material.

For the 2006 awards program, fifteen projects were selected from the over 200 entries to the program. The selection of the fifteen winning projects was challenging for the judges, since all of the projects displayed innovative uses of wood as a building material. Thanks to everyone who submitted a project – your exceptional work with wood building methods and materials showcases excellence in architectural design.

The Wood Design Awards program is the only North American program that fosters growth in the quality of architectural practices by recognizing achievements in wood architecture annually. The judging was held at the National Gallery of Canada in October 2006.

The jury selected projects covering a wide range of categories, including civic, residential, academic, institutional, and recreational buildings. The esteemed panel of jurors included: Craig Curtis, AIA, LEED AP, AAM, The Miller Hull Partnership, LLP, Seattle; Brian MacKay-Lyons, Professor, NSAA, FRAIC, RCA, (HON) FAIA, MacKay-Lyons Sweetapple Architects Limited, Halifax; Mark McInturff, Professor, FAIA, McInturff Architects, Maryland. We thank them for the time and consideration they took in the selection of the winning projects.

We sincerely acknowledge the support of the Wood Design Awards sponsors and industry associations: The Hardwood Council, Minwax, Western Red Cedar Lumber Association and the Canadian Wood Council (CWC).

We hope the winning projects depicted in these pages will challenge, urge and encourage you to use wood in your next and subsequent building projects.

With thanks,

Jennifer Duthie Coordinator, The Wood Design Awards jduthie@cwc.ca Bernadette Johnson Editor, Wood Design & Building bjohnson@dytail.com

# The Wood Design Awards 2006



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Craig Curtis
AIA, LEED AP, AAM
The MillerlHull Partnership,
LLP, Seattle

Craig Curtis received his B. Arch. from Washington State University and is a partner of The MillerlHull Partnership in Seattle. The MillerlHull Partnership's design reputation is based on simple, innovative and authentic designs. Since its inception in 1977, the firm has pursued a rigorous logic in its design approach in the belief that architectural programs are best solved directly and efficiently. Throughout the firm's history MillerlHull has received over one hundred seventy design awards and has been published in numerous national and foreign design journals.

Brian MacKay-Lyons
Professor, NSAA, RAIC,
RCA, (HON) FAIA
Brian MacKay-Lyons Sweetapple
Architects Limited. Halifax

Brian MacKay-Lyons practices in Halifax, Nova Scotia where his firm focuses on houses, public buildings and urban design commissions. His renowned regionalist architectural language combines the use of archetypal forms with local building practices. His work has won local and international audiences, with publication in over 100 books and journals. His buildings have received some 67 awards including five Governor General's awards, four Canadian Architect awards, and three Wood Design awards. He has lectured at over 150 schools of architecture, and is a professor at Dalhousie University in Halifax.

Mark McInturff Professor, FAIA McInturff Architects, Maryland

Mark McInturff is a native of Washington. DC and received his B. Arch. from the University of Maryland School of Architecture. His architecture practice, a sevenperson firm based in Bethesda, Maryland, has a diversified client base which includes residential. commercial and small institutional projects. The firm has received more than two hundred design awards, including three national AIA Honor Awards. He has taught at the University of Maryland since 1980, since 1987 as an annual visiting critic, and was appointed as the University of Maryland Kea Professor for Spring 2003.

# **HONOR**AWARDS

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- $16\,\,$  Craven Road Studio I Toronto, ON
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# **HONOR**AWARDS

"A beautiful project, with refined detailing and surprising richness derived through the four means of finishing the same species of wood."

- JURY

# Ash 4 Ways

hanrahanMeyers architects (hMa)







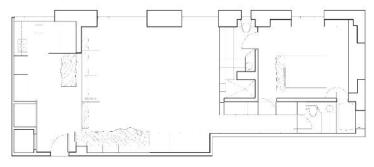
### THE

# Hardwood Council AWARD

Given by the Hardwood Council [www.hardwoodcouncil.com] for outstanding use of American hardwoods in sustainable design and building. Ash 4 Ways leverages one species of hardwood in four different and innovative ways. Ash is successfully used throughout the project in different states of finish and for a variety of architectural and design elements.

Ash 4 Ways is a Manhattan apartment where ash is used in four different states of finish within a minimalist white envelope. Ash is featured in four different states: white finished, sandblasted ash (wall panels); sand-blasted, acid washed and wire-brush scrubbed ash with high-gloss white finish (bedroom furniture); natural finish ash door panels; and natural hand-rubbed, wax finished 5-in.thick wood from ancient ash trees, are the primary materials in the space. The floor is 3 1/2-in. wide oak plank.





FLOOR PLAN

Ash throughout the space references nature in Central Park, which the apartment overlooks. Most of the ash has a white, shop-applied finish, to make the apartment envelope relatively silent. Throughout the project, pieces of old, ash planks with a hand-rubbed finish float within the neutral, white envelope. The white envelope is differentiated on inspection, however, by the varying degrees of wood grain. The painted ash is acid-dipped and wire-brushed, or sandblasted, so that the wood grain appears more or less prominently. Painted panels are juxtaposed to natural-finished ash door panels and free-form ash planks.

The ash gives a very subtle reading of wood in the sand-blasted panels; a more obvious registration of wood in the acid-washed and wire-brushed panels; and juxtaposes these finishes in the plain, solid core ash pivot doors; and the 'found' pieces of trees in the free-form ash planks. The free-form planks appear as: the dining room table; the step from the dining/entry area to the living room; the living room counter; and the bedroom bureau top.

The original space was an

apartment that was chopped into many spaces. We emptied the space to create a maximum infiltration of light and views of Central Park. The intention was to create a space that replicates the complex beauty of nature in Central Park. The views extend one's experience of this complex interplay of natural materials within the apartment into the park beyond.

The architects used ash to fabricate custom furniture for the apartment as well, including the living room coffee table, side tables, and the master bedroom bed, headboard and bureau.









# **Product Specs**

# INTERIOR

Oak plank floor (3 1/2-in.) bleached and stained white; dropped gypsum wall board ceiling with randomly placed rectangular cut outs (lights inserted); sandblasted ash wall panels with white enamel finish; stainless steel panels in entry area by Fountainhead Construction; wirebrushed, acid-dipped ash side and coffee tables designed by architects; ash dining table by Miya Shoji; chairs by Jean Michel-Frank from Pucci, fabric by Bergamo; aciddipped, wire-brushed ash bed with white Lacquer finish custom by architects, with Miya Shoji ash panel attached at top; clear finished ash bathroom doors; all other doors white enamel ash (to match surrounding cabinetry) or stainless steel (to match surrounding panels)





"This one hit a home run with all of us. It just makes you smile."

- Jury

# Craven Road Studio

Shim - Sutcliffe Architects



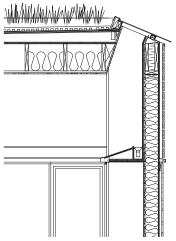
Craven Road Studio is located on a tightly defined urban lot: it sits immediately adjacent to an earlier award-winning house constructed ten years ago for the same client and serves as an adjunct space to the principal residence. For this space, the client required a detached, free-standing studio which could serve a variety of uses including exhibition and display, research and study space, archival storage, and library shelving.

An urban court with a grove of river birches was created between the existing principal and the new studio building. A new single car garage and 3-ft. wide walkway created for the adjacent neighbor forms the south side of the courtyard. The result is an urban ensemble of buildings flanking an outdoor open space that all buildings benefit from.

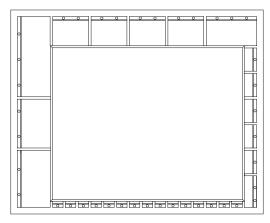
The principal residence and studio are both accessed through the urban court.

The client stipulated that the space be lit with diffused, indirect natural light (in order to provide adequate day lighting) yet avoid potential UV damage to books and collections of archival material. An innovative system of narrow light coffers

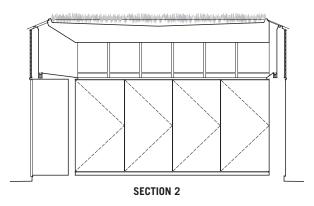
surround the entire perimeter of the studio, varying in both rhythm and depth depending on their orientation. The coffers were constructed of maple veneer plywood and divided by deep fins faced with solid maple trim. Incoming light washes across the face of the wood fins providing a warmth and glow only possible by using wood.







PLAN OF LIGHT WELLS



The studio structure consists of engineered wood products such as 2 x 10 paralam columns supporting a roof structure of 2 x 12 joists at 12-in. centers. This clear-span space is entirely column-free, and supports a sustainable green roof assembly consisting of a waterproof membrane designed to accommodate a lightweight soil mix with native grasses. The uninter-

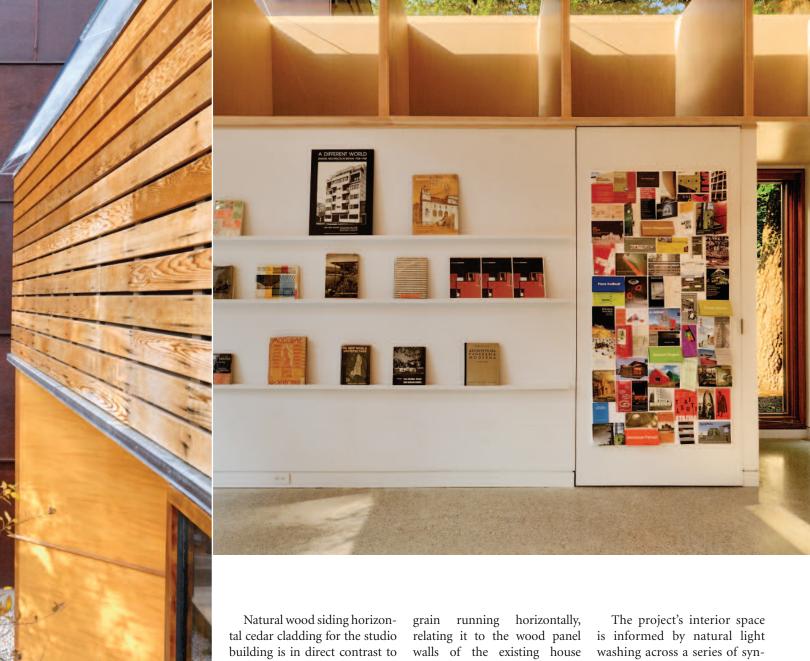
rupted plane of the ceiling floats nearly 12 ft. above the floor, and slopes upward at the edge on all four sides to meet the junction of the single-pane tempered glass skylight.

Perimeter walls consist of load-bearing 2 x 6 studs on 16-in. centers, finished on the interior with gypsum board. An efficient radiant heating system was created using hot water dis-

tributed in tubing cast into the new studio floor slab.

Floor-to-ceiling wood frame windows, with operable wood casement sash and louver panels, permit air circulation and crossventilation throughout the year as required. A simple arrangement of wood panel doors open on the east side of the studio to reveal deep library storage areas composed of 1-in. MDF shelves.





Natural wood siding horizontal cedar cladding for the studio building is in direct contrast to the stained plywood used for the existing residence. Together they create a layered ensemble of buildings that use exterior wood in different ways. Exterior cladding of stained marine plywood was installed with the

grain running horizontally, relating it to the wood panel walls of the existing house immediately adjacent. Upper walls are faced with 1 x 4 cedar slats left untreated and allowed to weather naturally, echoing the same motif used in the adjacent garage and the new cedar fence surrounding the property.

The project's interior space is informed by natural light washing across a series of syncopated wooden fins while the project's exterior cladding responds to its adjacent existing building in addition to a new natural horizontal cedar cladding, which will weather naturally over time.



# **Product Specs**

# FRAME

Slab on grade/hydronic floor heating, wood frame; 2 x 6 wood frame walls, 2 x 12 roof frame

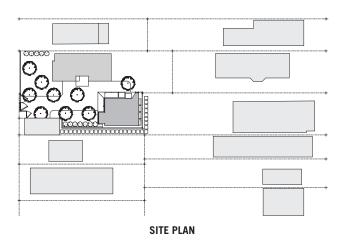
# EXTERIOR

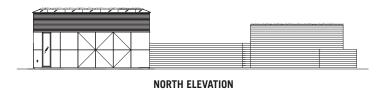
Cedar 1 x 4 siding, mahogany marine plywood; "Green Roof" by Suprema – modified bitumen 2 ply roofing; Custom wood windows by TWP manufactures; Cedar fence; Cabot Clear 3000 finish

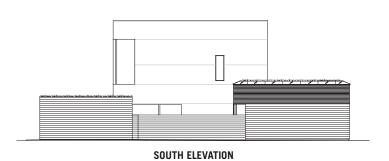
# INTERIOR

Light valances in walls – maple veneer panels with solid maple trim; shelves/cupboards – ptd wood











"Beautiful, modern interpretation of vernacular forms. One of the best examples of multiple structures and forms coming together in a refined package."

Jury

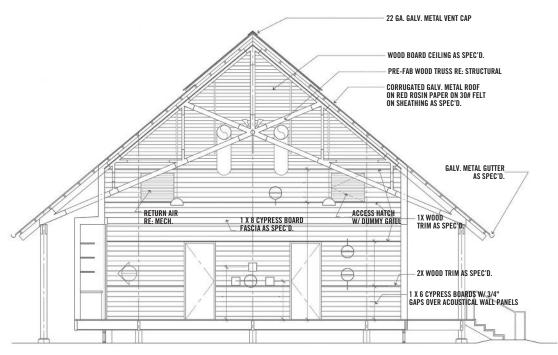
# Hilltop Arboretum

Lake | Flato Architects



STRUCTURAL ENGINEER Stephens Engineering, Baton Rouge, LA PHOTOGRAPHER Neil Alexander, Baton Rouge, LA





INTERIOR ELEVATION - LARGE CONFERENCE ROOM

The Hilltop Arboretum is located at the convergence of three ecosystems indigenous to the Baton Rouge area: boggy wetlands, scrubby highlands, and open meadows. The site connects the three ecosystems through a series of small but dramatic ravines. Seasonal heavy rains flood the site, wash out the ravines, and destroy the vegetation and habitat within the ravines. The building has been sited and designed to frame the narrow natural site and highlight the existing ecosystems.





The program components – administration offices and gift shop, exhibit areas, storage and meeting space – are all housed in discrete architectural volumes and are captured under one long roof protecting the open walkways, which connect the enclosed spaces.

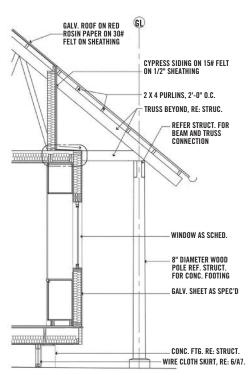
The long simple building takes cues from both the local architectural pole barns as well as the formal historical raised plantation homes. The building materials include pressure treated cypress poles, reclaimed cypress siding, translucent cellu-

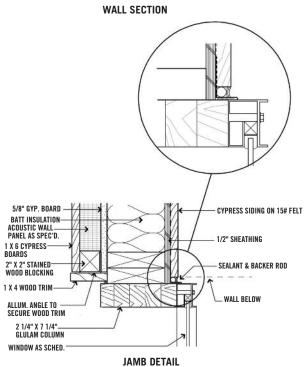
lar wall and roof panels, galvanized metal wall panels and galvanized corrugated metal and translucent cellular roofing. The cypress siding, lightweight framing and trusses echo the simple vernacular architecture of the Louisiana low country. The pole structure, corrugated roofing and wood decking and are reminiscent of fishing shacks that dot the bayous of the area.

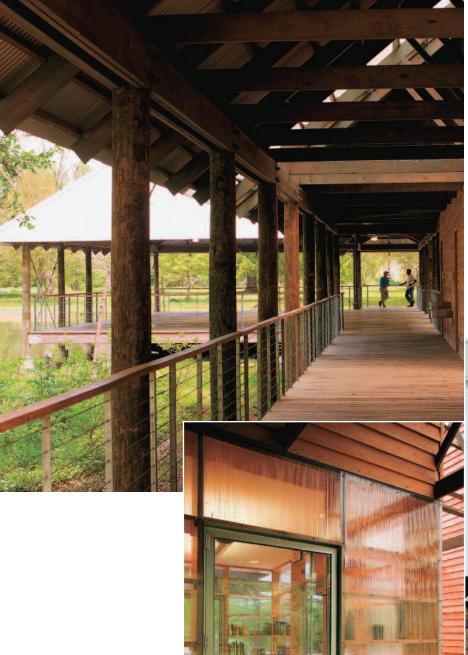
The pole structure is raised off the ground to allow the natural drainage patterns of the site and surrounding areas to be maintained. A retention pond has been designed to mitigate the destructive effects of the seasonal rains by capturing the site run-off before entering the ravines and slowly releasing the water to nourish fragile habitat.

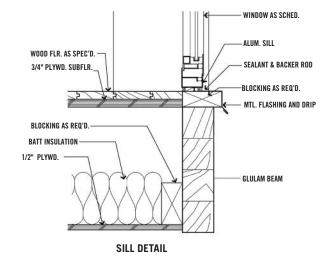
The open-air assembly pavilion extends out over the pond on piers and is used for Arboretum programs as well as cooking classes, weddings, and community meetings. The long building, with its dog trots, screens the parking and cars from the natural areas and creates a sense of arrival and entry to the gardens.

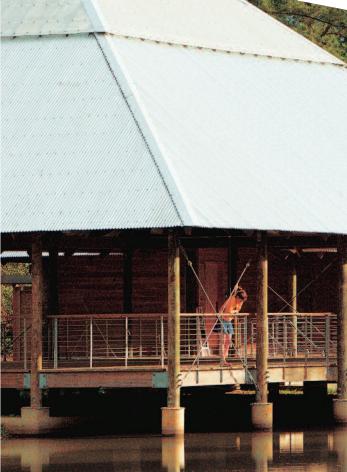


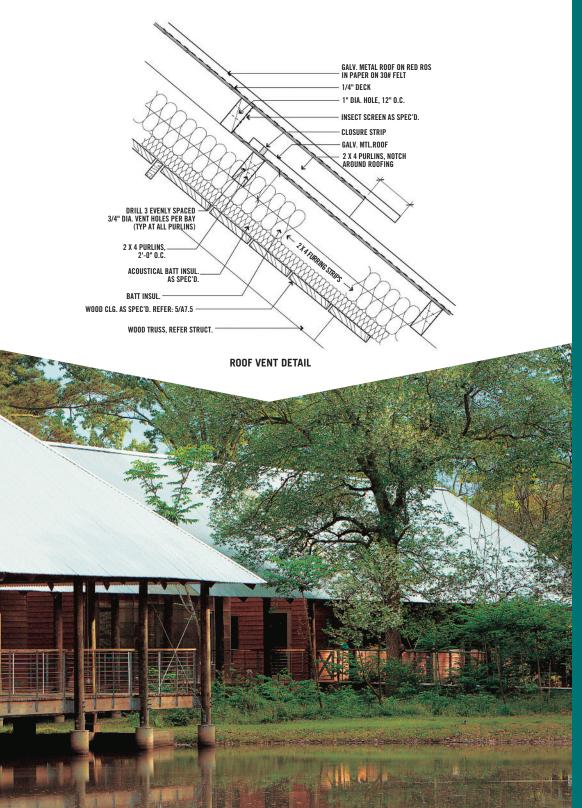












# **Product Specs**

### FRAME

Glulam vertical wall load frames – 2 x 6 stud framing; floor and roof systems – 2x framing, glulam beams; [prefabricated wood trusses]

### EXTERIOR

Local cypress wood siding; galvanized sheet metal; Polygal cellular sheeting; corrugated galvanized roofing; Polygal cellular sheet; aluminum windows and doors; indigenous landscaping; natural finishes

### INTERIOR

Plywood walls; drywall ceilings; White oak at bookstore floors and carpet in other areas; wheat board millwork; natural, sealed finishes



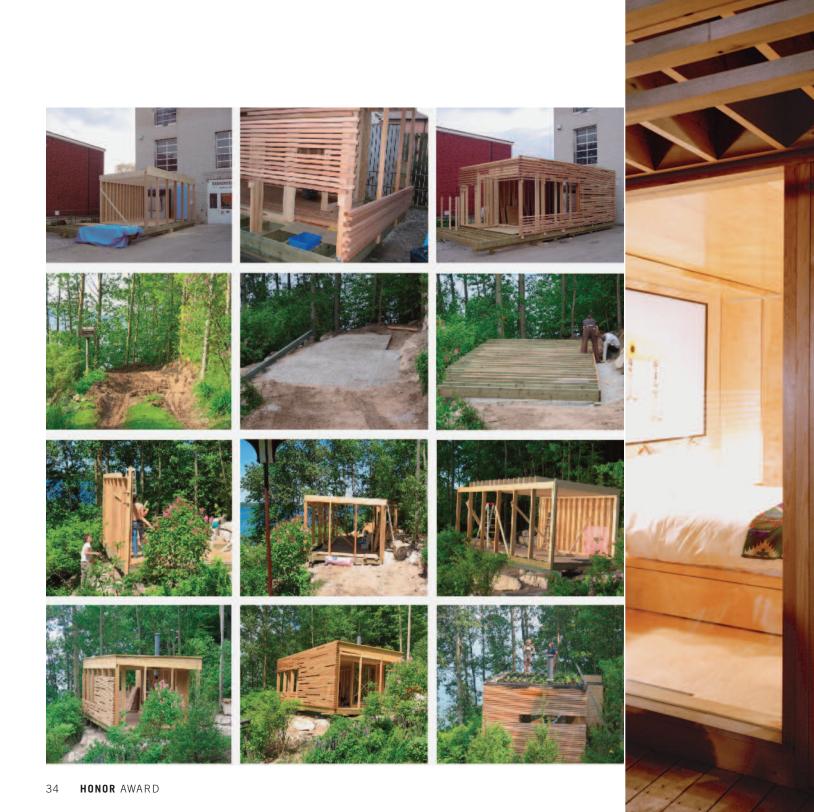


"A real gem. There were many small structures but this one has it all: sensitive siting, a solid plan, straightforward detailing."

- Jury

# **Sunset Cabin**

**Taylor Smyth Architects** 









The project consists of a single 275 sq.ft. room. The cabin is used year-round, heated with a wood-burning stove augmented by an electric heater. All components are built in, including the bed and pull-out drawers below and continuous full-height cabinets on either side of the bed along one solid wall. The floor of the cabin

extends outside toward the lake to become a deck with access to an outdoor shower enclosed by a cedar screen.

All materials inside and out are wood, except for glass and two steel beams resting on concrete caissons, supporting the floor joists. This allows the cabin to rest lightly on the site with minimal disruption to

vegetation during construction.

The cabin is fabricated of clear cedar for window frames, doors and cladding. The cedar is untreated, gradually turning silver and blending the structure into the landscape. All interior surfaces are birch veneer plywood panels floors, back wall and ceiling and storage.



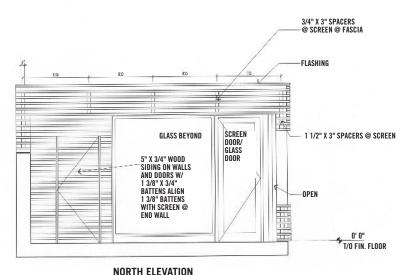
Three walls of the cabin are floor-to-ceiling glass, wrapped by an exterior horizontal cedar screen on two sides for privacy and sun shading. The cedar screen also acts as a brace to the structure against twisting. A large cut-out in the screen is carefully located to provide spectacular views of the setting sun from the bed. Gaps between individual members of the screen increase arbitrarily as the sun gets closer to the lake. The views through these gaps abstract the perception of the

landscape into individual compositions of water and sky. As the sun sets, the varied openings within the screen filter the light into random patterns on the interior surfaces. At night, the effect is reversed and the cabin glows like a lantern.

The cabin was first constructed in a parking lot in Toronto. It was fabricated over a period of four weeks by a group of craftsmen who usually built furniture. This allowed for details to be worked out precisely and all the components to be pre-fabricated.

These were numbered, disassembled and reconstructed on site in 10 days. This reduced costs by decreasing construction time and the difficulties of working at a remote, sloping site.

The cabin is located on an existing level piece of ground, chosen both for its views and to avoid the requirement to remove any trees. A green roof, planted with sedums and herbs, allows the cabin to blend into the landscape due to the visibility of the roof from the main cottage at the top of the hill.



NUKIH ELEVAIIUN



## **Product Specs**

## FRAME

Spruce lumber frame on steel beams and caissons;  $2 \times 10$  at 12-in. on center floor and  $2 \times 2$  on center roof joist

#### EXTERIOR

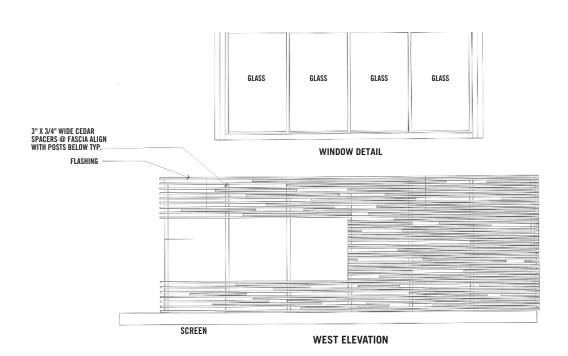
2 1/2 x 1 3/8 clear cedar screen, and 5 x 3/4 clear cedar siding; green roof on 2-ply modified bitumen membrane and river stone drainage; custom clear cedar windows and doors insulated glass

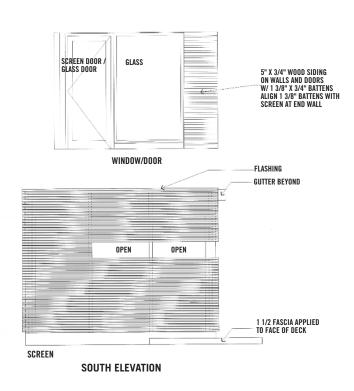
## INTERIOR

3/4-in. birch veneer plywood ceiling panels, floor panels and panels at back wall; 3/4-in. birch veneer plywood millwork; clear catalytic lacquer finish











# **MERIT**AWARDS

"This required an experienced hand to be able to pull this off with the right balance of kitsch and sophistication."

- Jury

# Avis Ranch Headquarters

Fernau & Hartman Architects



ARCHITECT/FIRM Fernau & Hartman Architects Inc., Berkeley, CA
CLIENTS Greg and Anne Avis, Clyde Park, MT
GENERAL CONTRACTOR Bud Anzick, Anzick Construction, Livingston, MT
STRUCTURAL ENGINEER Ed Matos and Brad Ebel, Bridger Engineering, Bozeman, MT
LANDSCAPE ARCHITECT Sandy Blake, Blake Nursery, Big Timber, MT
PHOTOGRAPHERS Judy K. Lawrence, Bozeman, MT, Timothy Hursley, Little Rock, AR





The headquarters/bunkhouse is part of a compound that forms the entry to a 17,000-acre cattle ranch near Clyde Park in South Central Montana. The compound includes existing horse and car barns and a renovated gatehouse and privy. The headquarters and a new hay barn were added to the complex.

The headquarters is a renovation of a small 100-year-old abandoned granary that was one of the original homestead buildings on the ranch. Abandoned for fifty years and nearly forgotten, the granary was in a state of near collapse. The roof and the foundation were unsalvageable. However, on close inspection the log walls (which were milled flush with solid wood chinking on the

interior) were found to be sound and quite compelling.

The decision was made to abandon initial plans for a new headquarters building and renovate the granary. Programmatically, it was deceptively simple: the brief called for an office with temporary living accommodations. In addition, there was the desire for light, ventilation, and outdoor living space. Moreover, while not a

"preservation project," the character and quality of the old building and its materials were to be maintained.

Although the old building was greatly admired, the best strategy to reveal its qualities was to adopt an unsentimental approach – rather than "preserve," the architects chose to repurpose. What was new would be new and what was old would remain old.



most part be in the character of the original structure but where they departed would provide contrast. The original roofline was maintained but extended to capture two porches; a small metal-clad washroom attached to the basic log form. By the same token, one of the dormers was reconstructed and the other modified for airflow. Color and material choices were made to bring out and enhance

and the properties of the wood members.

The granary was seen as the foil, not the container for the intervention. To that end, architects proceeded in a sense backward and forward in architectural time, seeking to re-establish the character of the original log building on one hand while repurposing it for work and habitation on the other. In the end the greatest

modation of the new program but the resolution of a number of details where old met new. This required an interweaving onsite of new and salvaged wood products, which were alternately tinted, stained, or sealed to meet the specific situation. The original logs were left natural. Blasting the internal walls with walnut shells helped reveal the grain and bring out their color.



## **Product Specs**

## FRAME

Log walls; wood frame partitioning; wood frame bathroom addition; timber frame roof, raised wood floor – 1 x 6 Douglas fir

## EXTERIOR

Log walls; Cor-ten roofing; copper bathroom addition; Northwest Doors & Sash windows/doors; Chevron Proch & Shingle Oil finish on logs and Cabots stain on wood siding

## INTERIOR

Duraseal floor finish; Watco Sealer on logs; W.P. Fuller wall paint



Avis Headquarters before



Avis Headquarters after

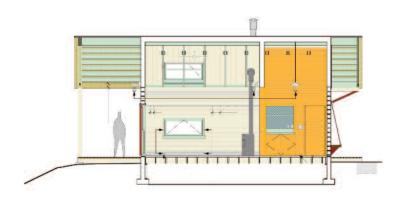








## **ELEVATIONS**





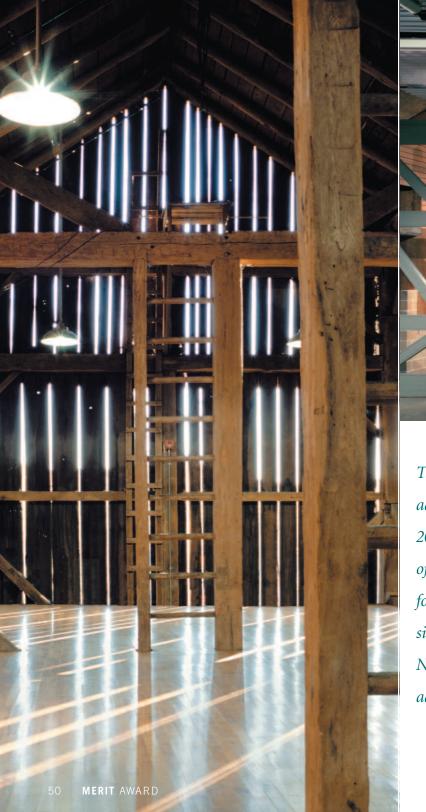


"The night shot does it. The decision to leave off the battens and create this pattern of light, leaving one to wonder what lies within this historic shell, is inspiring."

- Jury

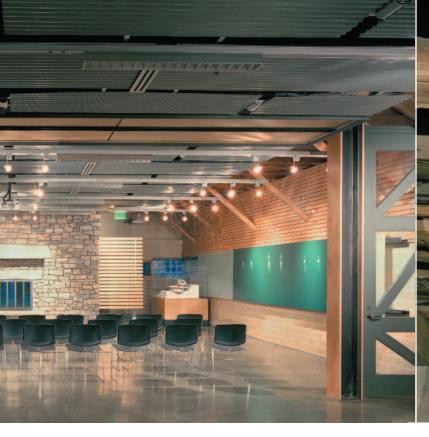
# The Barn at Fallingwater

Bohlin Cywinski Jackson





The project is a 12,000 sq.ft. renovation and adaptive reuse of a 19th century bank barn and its 20th century dairy addition. It forms the first phase of a welcome, interpretive and conferencing center for a non-profit conservation organization. It is situated on the organization's 5,000-acre Bear Run Nature Reserve in Southwestern Pennsylvania, adjacent to the world-famous Fallingwater site.



the old barn is supported with modern engineered parallel strand lumber. As with old barns, the foundation was on grade and deteriorating. The new structure is comparative in scale but is clearly offset from the historical heavy timber construction.

Because occupied space is situated below, the floor of the loft had to be part of the thermal and

because occupied space is situated below, the floor of the loft had to be part of the thermal and moisture barrier system for these spaces. The floor needed to be restructured for the demands of assembly occupancy, and leveled to create a safe walking surface. The visible portion of this new floor structure is a salvaged maple gymnasium floor that is tough, level and "green."

The functional program for this project included a multi-purpose assembly and exhibit space, administrative offices, retail support storage, and a place that could serve the surrounding community for public meetings and events. Dedicated to conserving the natural and cultural resources. of the region, the owner sought a design that would highlight sustainable materials and technologies. The rehabilitation and restoration of the barn preserves those materials and features that convey its cultural heritage while adapting the structure to new functions.

Preserving the upper barn as

unconditioned loft space allowed the heavy timber, mortise and tenon frame to be completely exposed at the roof and throughout the space. The evocative quality of natural light filtering in through the gaps between vertical siding boards could also be retained because the wall wouldn't need to be a thermal or moisture barrier. Functional needs for toilets and a catering kitchen in the loft are satisfied by "boxes" inserted into the larger space, constructed of straw bale panels - at once recalling the historic function of the loft and sounding another note of sustainability.

The heavy timber structure of

A new cedar and mountain laurel trellis added to the front of the complex not only helps to define the outdoor terrace and entry, but also communicates the new, more public and recreational nature of the buildings. The design of this trellis deliberately symbolizes a "return to nature" in consonance with the owner's reforestation of land farmed for over a hundred years.

An operable (for window cleaning) screen of horizontal wood slats provides protection form the glare and heat of the sun for the office windows. It also importantly mutes the visual impact of the new window openings on the otherwise monolithic wood volume of the barn

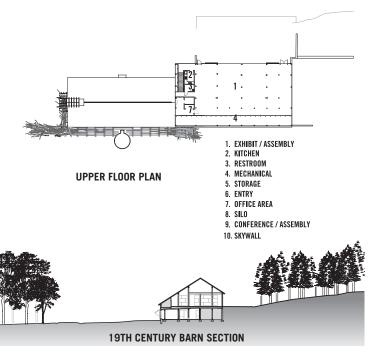
Making the loft suitable for even the modest demands of unconditioned human occupancy posed challenges and became an intriguing design problem in its own right. The loft had been home to a colony of brown bats for many years. As good stewards, a new "bat habitat" made of cedar plywood was designed and constructed adjacent to the barn for the displaced bats.

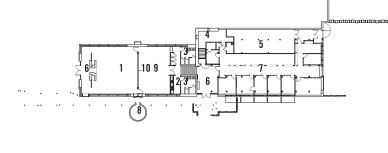
Environmentally sound materials, including many salvaged and recycled, are employed

throughout the project, adding texture, color, and underscoring the importance of good environmental stewardship. Various wood reuse applications and innovative new cellulose materials such as the straw panels and the Sunflower seed wall panels are composed in a way that both express the new elements and highlight the existing.

The resulting design solution is organized around preserving a strong sense of the barn as a barn, a distinctive artifact forming a tangible link with the history of this place, and a key component in the local cultural landscape.

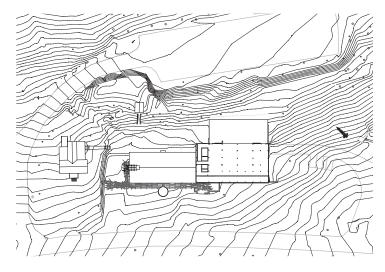




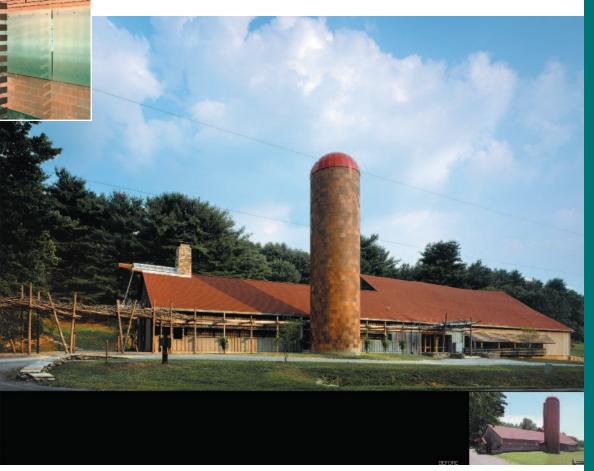


**GROUND FLOOR PLAN** 





SITE PLAN



## Product specs

#### FRAME

Heavy timber frame (barn); dimensional lumber trusses on masonry walls (addition); parallel strand lumber – columns and beams; exposed heavy timber (barn), exposed wood trusses (addition), shingle roof; upper barn floor – salvaged maple gym floor boards, framed over dimensional wood lumber, icynene insulation and Advantech subflooring

#### EXTERIOR

Rough sawn poplar 5/4-in. board and batten siding to match existing asphalt shingle roof over existing heavy timber and dimensional lumber trusses; Marvin wood windows and door with PPG semi-transparent stain; sliding barn doors – rough sawn poplar; natural finish and PPG 'REZ' semi-transparent stain and paint

#### INTERIOR

Salvaged barn siding and planking, sunflower seed composite panels (Phenix Biocomposites), straw panels (BioFab); salvaged wood ceiling as wall finish; reuse of salvaged maple gym floor; exposed existing timbers and truss members with acoustic straw panel infill; rough sawn poplar planking ramp; build-up maple veneer plywood window and door frames (office area)

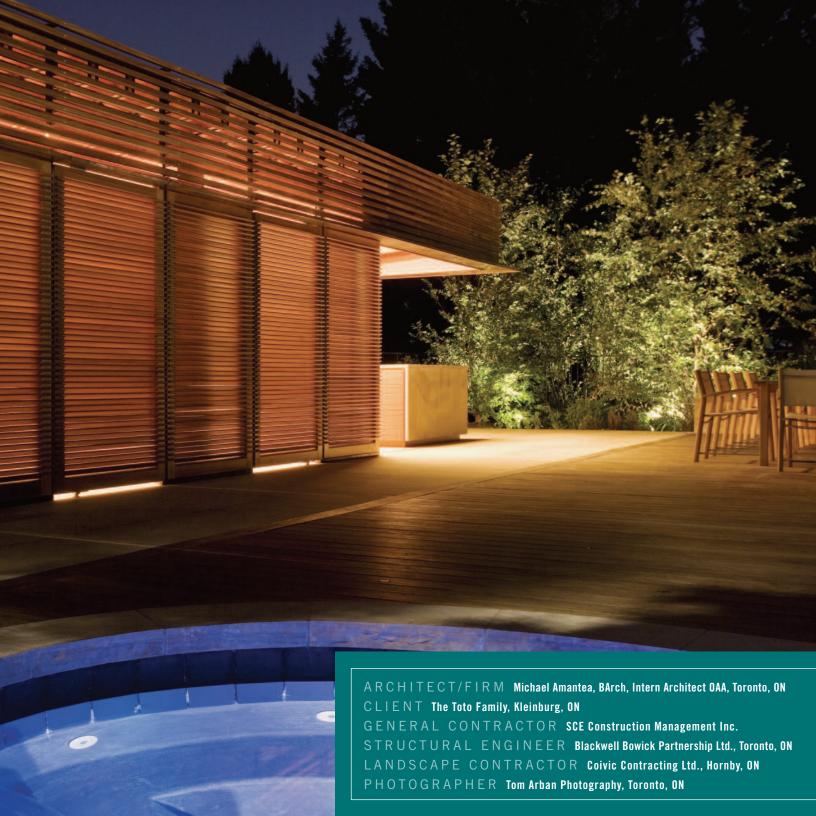
"The beauty of this project is its restraint. The simple idea of sliding screens provides flexibility of use, ventilation, interesting evening lighting patterns and just the right level of privacy...all in one move."

- Jury

# Kleinburg Pool Pavilion

Michael Amantea





Built for a kitchen manufacturer and his family, this 460 sq.ft. 'light box' is situated along the edge of a four-and-a-half-acre residential property in Kleinburg, Ontario. Governed by an existing organic-shaped pool, this intervention defines the eastern edge of a nested retreat resting between the residence to the north and a forested landscape to the south.

In the spirit of celebrating the summer season, the family wanted to transform their use of the existing pool area into a place for swimming and gathering. Interior service spaces, including change rooms and a kitchen became necessary program elements that would support day

and evening pool activity as well as exterior dining.

The program combines an interior, and at times, private realm with an exterior, more public one. How might the inside service spaces, each with their different practical and spatial requirements, relate to the

outside environment? The solution was to create an envelope that would provide separation without containment. Five spaces are wrapped in a system of wood screening elements and opening devices allowing various relationships to exist between the interior and exterior.







The envelope, an assembly of solid sapele, marine grade sapele veneered ply, glass and copper, transforms as it wraps around each component of the program. A structure of rough sawn Douglas fir and steel is concealed within a finished sapele skin that is at once transparent and opaque — depending on what function lies beyond. Internally separated by a stone shower wall, two changing spaces are connected to the exterior pool environment through

a shared opening in the copper clad fir roof and through a wall of wood screens.

Louvered panels on the poolside elevation were carefully designed to provide natural light and air into the changing rooms and a small powder room while affording visual privacy. The envelope dissolves into an open corner of sliding glass at the south end of the pavilion. When retracted, the space of the kitchen extends beyond a cantilevered corner of structural fir into a larger landscape of manmade and natural elements. At night, the pavilion transforms from an edge into a nearly transparent lantern, casting a warm glow by the pool and dining area.

The natural character of the site inspired the extensive use of wood as the structure's primary building material. Beyond its function, the pavilion intensifies one's sense of the immediate and distant environments by playfully exploring the relationship between interior and exterior.



## **Product Specs**

#### FRAME

Rough sawn Douglas fir (D.Fir-L No.1) beams, HSS posts, 2 x 4 and 2 x 6 timber shear walls with 3/4-in. marine grade sapele veneered plywood on a floating (hydronic heated) concrete slab; exposed 2 x 6 tongue and groove fir roof decking on double 2 x 8 Douglas fir joists; Algonquin limestone floor with inlaid lpe decking; wood-framed partitions with a 3/4-in. marine grade Sapele veneered plywood surface

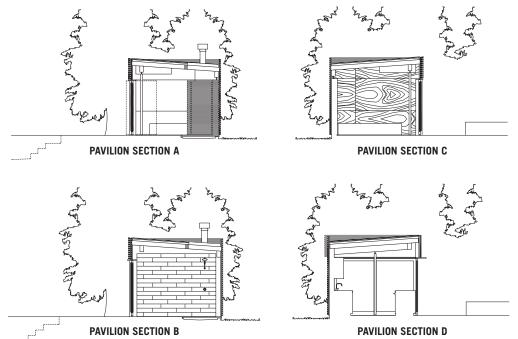
#### EXTERIOR

Profiled solid Sapele 2 x 2's horizontally riveted into vertical wood and steel posts on a 3/4-in. marine grade Sapele veneered ply surface; standing seam copper roof on 2 x 6 Douglas Fir T & G decking; lpe or 'Paulope' exterior decking (Brazilian hardwood); TufShield clear finish (polymer-based) for all solid Sapele (African Mahogany) surfaces; Sikkens Cetol finish for all marine grade Sapele veneered ply surfaces and exposed Douglas fir structural beams

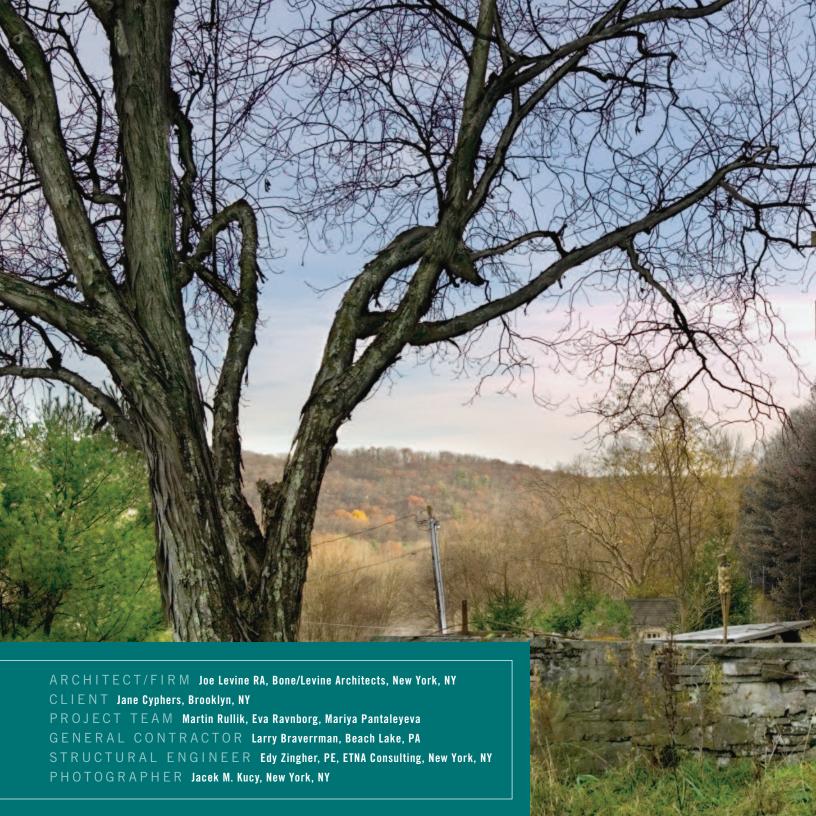
#### INTERIOR

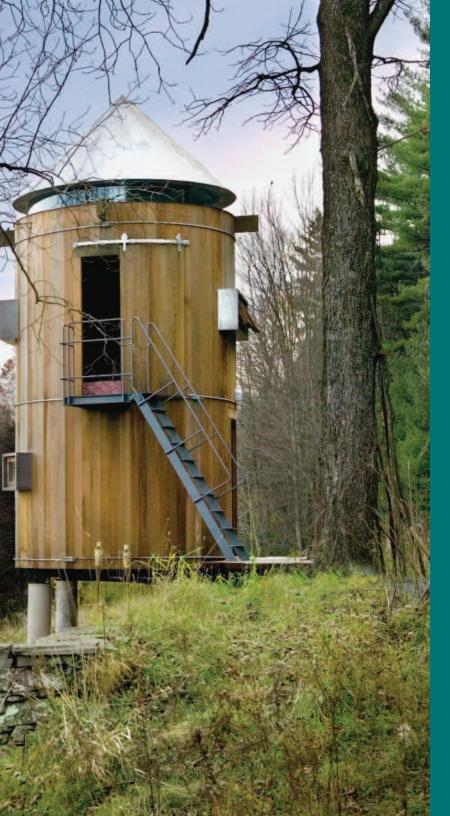
Exposed Douglas fir ceiling (u/s T & G decking); marine grade Sapele veneered plywood paneling; Beckers Acroma clear coat (interior millwork)











"Great re-use of material, and I like the metaphorical transformation from water tank to bathhouse."

- Jury

# Milanville Bath/Guest House

**Bone/Levine Architects** 

Located at the base of a mountain overlooking the Delaware River in northeastern Pennsylvania, the Milanville Bathhouse is an ancillary structure to an existing weekend house, which was originally an 1850's barn. The bathhouse is situated on the remains of a stone foundation wall from an original farm building.





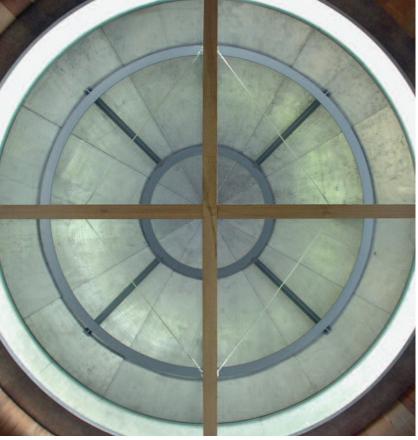


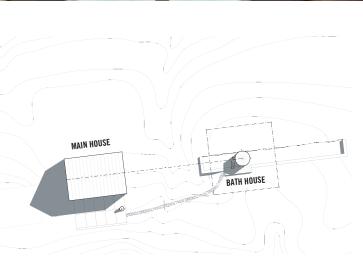


Placed on axis with the main house the structure responds to its agricultural origins by using the traditional cylindrical form of the grain storage silo that is often seen coupled with barns. The bathhouse has a sauna, bathing area and bathroom on the lower level and a studio/guest room on the upper level.

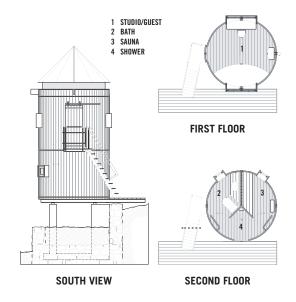
The bathhouse is constructed from 75 year-old salvaged redwood that had previously been used for the traditional wooden water tanks that silhouette the Manhattan skyline. The construction methods are also borrowed from the water tank vernacular and employed in the typical iron rings that hold the tank boards in compression.

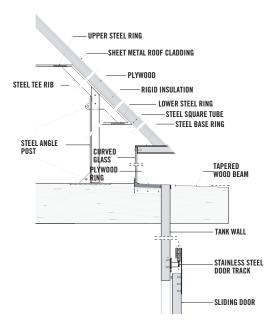
Prefabricated window units were placed through cut-outs in the cylinder wall at strategic locations. The conical roof is supported with a cable tensioned steel armature sitting on oak cross beams and elevated above the cylinder to create an uninterrupted curved glass clearstory.





SITE PLAN







## Product specs

#### FRAME

Redwood frame from reclaimed New York City watertank, anchored to foundation of steel "junior" beams and concrete piers; redwood floor from reclaimed New York City watertank; sheet metal wrapped ext. grade plywood suspended on structural steel roof; redwood portioning from reclaimed New York City watertank

#### EXTERIOR

Redwood (4-in) siding planks from reclaimed New York City watertank; flat seam sheet metal wrapped ext. grade plywood substrate roof; sheet metal wrapped ext. grade plywood insert, mahogany sash and frame, insulated double pane glazing for windows, bent 1/4-in. plate glass clearstory; redwood door from reclaimed New York City watertank on custom designed stainless steel track and carriage

#### INTERIOR

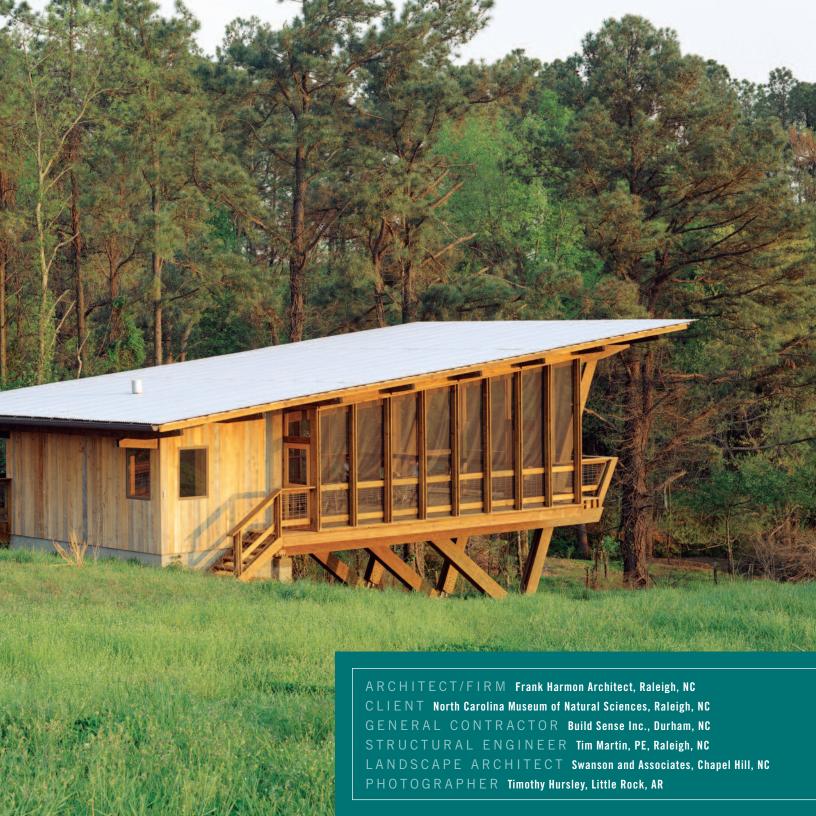
Walls, ceilings, floors – redwood from reclaimed New York City watertank; bathroom and sauna counter and bench of natural redwood; natural redwood – no applied finish "A very clear diagram. And I like the way it is pushed up to the edge of the clearing, embracing the forest."

- Jury

# Open-Air Classroom, Prairie Ridge Environmental Education Center

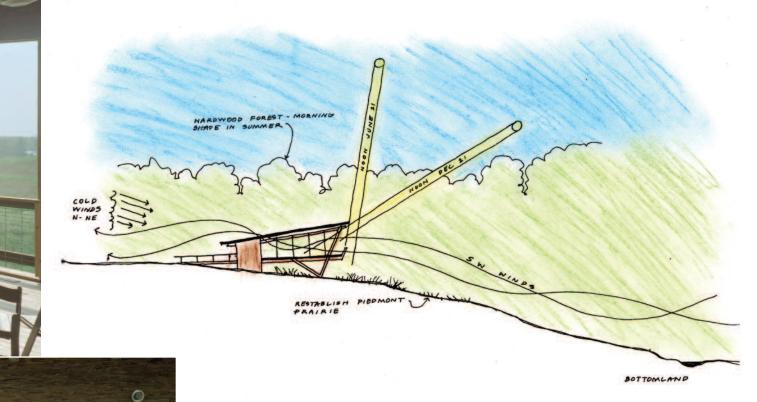
Frank Harmon Architect







The open-air classroom, which is used 10 months out of the year, is a rural learning center for a natural history museum, built on a prairie ridge overlooking a perennial stream. Field observations established six ecological zones on the 38-acre site, including meadow, woodland fringe, pine forest, hardwood forest, stream bank, and bottom land. The structure was sited so that it captures views of each ecological zone, thereby making the classroom a teaching and learning diorama.



To create an elevated view of the surroundings, we lifted the classroom off the ground. This also minimized site disturbance and poised the structure in nature like a refuge or bird blind. The elevated position also allows prevailing southwesterly breezes to blow through the classroom during warm months. The deep, southfacing overhang creates shade in the summer and maximizes sun exposure in the winter. Deep overhangs on all four sides shelter the openings and visually extend the structure into the natural landscape.

The outdoor classroom is also sited to create a sense of anticipation: Visitors approach it by walking down a hill, through a meadow, and across a bridge. Therefore, the building appears to be poised at a threshold to nature.

The classroom's interior is compressed and framed by a soaring roof. The primary materials - thick wood and thin screening – recall the contrast of strength and delicacy in the surrounding trees' strong, solid trunks and feathery leaves and needles. As the natural light changes from day to day, the interior is at times bright and airy or suffused with dappled light. As light changes from spring to autumn, so does the interior of the classroom, so that it becomes a diary of the seasons.

The center's purpose is to foster an appreciation of the state's

natural resources and demonstrate environmental stewardship. The open-air classroom is a tangible demonstration of this mission. The wood siding is Atlantic white cedar, harvested sustainably from coastal North Carolina forests. The structure is made from parallel strand lumber, reducing impact on old-growth forests. All framing lumber is southern vellow pine, harvested and milled in state. A cistern colrainwater from the lects classroom's roof for flushing toilets and minimizing the impact on local freshwater resources. The building is LEED certified, and its energy use is one tenth that of a standard classroom of the same size.



## Product specs

## FRAME

Parallel strand lumber; galvanized steel connections; southern yellow pine floor; southern yellow pine roof with plywood deck

## EXTERIOR

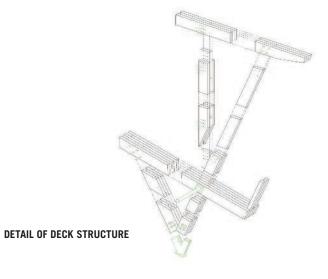
Rain screen composed of Atlantic white cedar siding on 2 x 4 battens, air space, building paper; corrugated metal galvalume roofing; Anderson wood clad windows

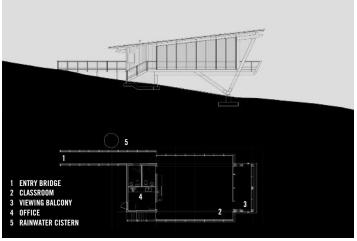
## INTERIOR

Southern yellow pine plywood and trim; southern yellow pine millwork; Cabot's finishes











## CITATIONAWARDS





"The window wall is striking...given the serene environment in which this structure is placed."

- Jury

# Environmental Education/Visitor Activity Center

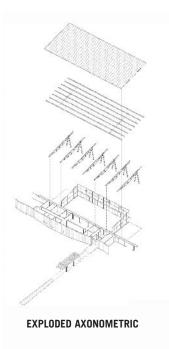
Bohlin Cywinski Jackson



The Visitor Activity Center was designed to function as a meeting space for dining, meetings, lectures and other environmental activities. The design is a layered solution in which visitors pass through the forest, cross a wetland, enter the building trough an opening in the dark north wall and cross through a bar of service spaces in to the bright, sunlit main room supported by a clear span glue-laminated timber structure.







The great south-facing shed was designed to take advantage of the warmth of the sun, cool mountain breezes, abundant natural light and views of the forest to the south. This gathering space was designed with a large sun-catching glass wall to maximize solar heat gain during the heating season. The tinted concrete floor slab collects solar energy during the day and radiates it back into the room during the evening. The south roof overhang has been fine-tuned to eliminate solar gain in peak summer conditions. The large porches on the east and west sides of the main room assist in screening the east and west glass during morning and afternoon hours, while offering opportunities for outdoor gatherings and dining.

Carefully positioned operable windows minimize the building's dependence on conventional energy sources by naturally ventilating the main space. By placing low intake windows on the east and west faces and high outlet windows on the south face, cooler outside air is drawn into the space while warmer stratified air is discharged through the high windows. All windows are operated manually to allow the users to learn about the principles of natural ventilation by controlling the flow of air in the space. Ceiling fans assist in moving air within the space when natural ventilation alone cannot provide comfort. The main space was designed to

maximize the use of natural daylight. The concrete floor slab includes a hydronic radiant heating system to conserve energy by more effectively providing heat at the user level of the dining/gathering room.

A cast-in-place concrete frame separates the main dining/gathering space from the entrance and support spaces, orients visitors and supports the combination glue-laminated timber and steel rod trusses. The concrete frame is infilled with ground face CMU blocks etched with animal tracks, leaf outlines and other images from nature drawn by the children who visit PEEC. The main dining/gathering space designed as a clear span structure of glue-laminate timbers

#### FRAME

Douglas fir glue-laminated timber beams and glue-laminated timber steel trusses (Wood Construction Systems Inc.), wood stud bearing wall, cast-in-place concrete frame; low roof – plywood roof deck on wood I-joists; high roof – stress-skin insulated plywood panels (Murus) with Douglas fir face.

#### EXTERIOR

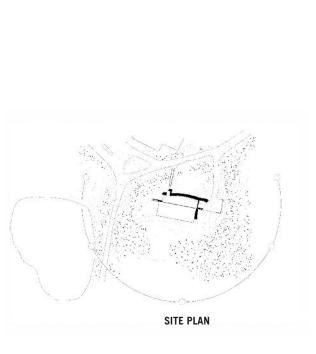
Rubber shingles fabricated from reclaimed tires, cement board siding (Hardie Panel/James Hardie); modified bituminous roofing (Johns Manville); thermally broken windows; curtain wall (Kawneer) with low-e-argon filled insulated glass with thermally broken spacer Azon 'Warm Light'; silicate-based mineral paint (Kiem)

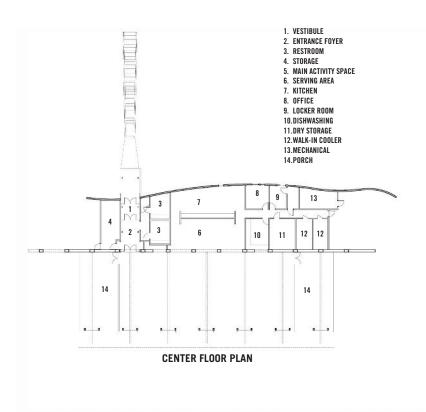
#### INTERIOR

Stain – glulams, plywood, stress-skin panels, latex paint; GWB walls; recycled rubber flooring (Ecosurfaces); recycled content porcelain tile (Crossville); integrally colored concrete slab; slate wall panels (Structured Slate Co); solid core select white maple doors (Osh Kosh); stile and rail glazed wood entrance doors (Harring Doors); Douglas fir framing – slate panel supports









and stress skin plywood panels to maximize it's flexibility. This glue-laminate roof structure is supported by an inverted 'v' glue-laminated columns at the north face. The same expression of an exposed wood roof structure is repeated in the lobby, vestibule and other public spaces in the building.

Materials were selected throughout the building that are durable, have a long life span, require little or no maintenance and have a low impact on the environment. Reused, recycled or recyclable materials have been selected wherever possible without compromising longevity or building performance.

For example the undulating curved north façade seen as one approaches the building is clad with shingles manufactured from old, discarded tires. These tires were reclaimed from the river, the park grounds and other local sources and converted into shingles by cutting them into strips and applying them into

an interlocking fashion to provide a waterproof skin that is long-lasting and maintenance free. This solution promotes the reuse of natural resources. removes material from the waste stream and directly challenges users to think about environmental responsible. The frame for this curved skin is a load bearing wood stud wall sheathed in plywood. The ease in which wood could be adapted to this special shape made it a natural choice for this element. Engineered wood products were selected over solid lumber wherever possible to avoid dependence on old growth forests.

The Center promotes the sponsor's commitment to preservation of the native forest environment in which they operate as well as the use of architecture as a teaching tool. Visitors to the building will learn the importance of sustainability and broaden entire understanding of our interdependency with the natural world.

"Refreshing to see off-the-shelf materials and detailing put together in such a way. It stacks up against similar projects with more money. This is about providing what's just right for the program and visitor experience, with no distractions."

- Jury

## Friends Meetinghouse

Lake | Flato Architects





Unlike most Christian faiths, the Religious Society of Friends does not have an organized hierarchical structure or formal liturgy. The Meetinghouse in San Antonio falls within the unprogrammed tradition, which is based on silence. Friends gather in "expectant waiting" for divine leadings; they strive to be quiet in body, mind and spirit. The main goal was to create a design that would embody that principal.







The site is located on a busy intersection just north of downtown San Antonio. It is surrounded by apartment buildings and a commercial strip mall. In order to achieve the goal of silence, the building needed to feel detached from the noise of its immediate context. Therefore, the meeting space is oriented to the back of

the site and surrounded by a multitude of trees. Parishioners leave their cars and walk up a winding path, which leads to a gate in a thick masonry wall. The gate opens onto a courtyard surrounded surrounded by porches.

The design was inspired by the early meeting houses, which were very functional, simple spaces for weekly Friends' meetings as well as gathering spaces for community groups. A gambrel roof structure encloses the 34 x 34 meeting space. The room, with its exposed wood trusses, is flooded with natural light. The walls and ceiling are plainly finished using wood slats with 1 1/2-in. gaps between them.

Acoustical panels are located behind these slats to baffle sound. The east wall is entirely glass and frames the serene trees and native landscape behind, further contributing to the tranquil atmosphere. Windows on the south and north, nestled beneath deep

overhangs, take advantage of the predominant breezes and allow for cross-ventilation.

This project, built to human scale and with honest and simple materials, is well suited to the land and in keeping with the practice of faith within this congregation of Friends.





#### FRAME

2 x 6 wood framing between 6 x 8 wood columns (8 x 8 at corners); 2 x 8 wood purlins over wood trusses (roof); glulam beams at perimeter and at 8'-0" o.c. from north to south (floor); 10-in. TJI joists; 2 x 6 wood framing (partitioning)

#### EXTERIOR

Fibre cement boards (siding); galvanized metal roofing; anodized aluminum curtain wall with fir wood door (clear finished) and painted wood windows; all other doors – fir wood (clear finished); finishes – painted wood, steel, and fibre cement boards

#### INTERIOR

Walls and ceiling – 1 x 6 wood slats (cedar) with 1 1/2-in. between them; white oak floors at meeting space and concrete at foyer and storage rooms; clear finished wood, painted steel and acoustical panels





"This house embraces it's natural setting very well."

- Jury

## House in Piedmont Region

Frank Harmon Architect

The site is an unusually steep, north-facing escarpment 80 ft. above Crabtree Creek, shaded by a 150-year-old beech and oak forest, the terminal growth pattern of the North Carolina's Piedmont region. The creek has carved this escarpment for millions of years, which immediately suggested a site of great ecological sensitivity — one that had to build upon it carefully. Living on the escarpment would be like dwelling in the trees.

The house is designed for a single artist who wants to work at home. To give her a shelter that treads lightly on the sensitive site, we perched the house on nine broad-shouldered wood trusses, which allowed the house to be sited without cutting a single major tree. The trusses also permit air and water to flow under the building, preserving the hydrology of the escarpment. A butterfly-shaped roof was created to open views northwards to the creek and to

funnel rainwater into a collection system on the south side.

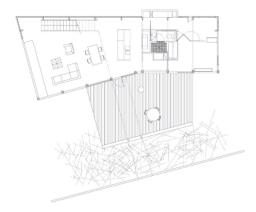
Entrance to the house is a progression from the top of the hill, across a bridge, and into a balcony foyer, at which point the drama of the scenery outside fills the interior through north-facing glass walls. From the balcony, a graceful stair descends past the glass (in essence, through the trees) to the main living floor, which, in turn, opens onto a sunny and partially secluded south-facing

terrace below the bridge.

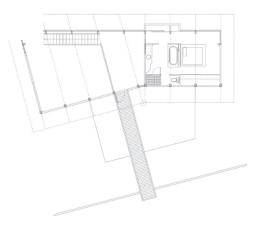
At all times of the day, the house is filled with a view of nature and, by day, dappled light. Deep roof overhangs extend a visual link to the outside. Laminated wood columns and beams, plainly bracketed together and reminiscent of a tree house, also strengthen the presence of nature. The wood imparts warmth to the interior and evokes the trees beyond, with roof beams reaching out to the sky like tree limbs.







FIRST FLOOR



SECOND FLOOR

The strength of the wood structure contrasts with the delicacy of the environment, framing the expanse of nature and contrasting it with the intimacy of the house. On summer nights, the owner can open windows to enjoy the breezes, scents, and sounds of the forest. From outside, the house appears as a fragile, luminous tent cradled by the forest.

Site disturbance was kept to a minimum and hydrological patterns were preserved. Rainwater is collected to replenish the forest floor and for irrigation. Deep overhangs shade the house and shelter the walls and openings below. The structure of the house is parallel strand lumber, conserving forest resources. All framing and trim is locally harvested, southern yellow pine. Openings are designed to capture prevailing southwesterly breezes and to embrace cool air from the creek valley on summer evenings.

#### FRAME

Micro lam post and beam with galvanized steel connections; floor – plywood web truss joists; roof – 2 x 4 and 2 x 10 southern yellow pine with plywood deck

#### EXTERIOR

Fiber cement panel rain screen on 1 x 4 battens, air space, building paper; standing seam galvalume roofing; aluminum storefront with custom wood doors; finishes – Cabot's

#### INTERIOR

Hardwood floors, plywood ceilings, plywood and gypsum board walls; southern yellow pine millwork; finishes – Cabot's





"The house has a wonderful presence on the street. I like the horizontal shoji expression that ties the forms together along the sloping roadway."

- Jury

## Packard Komoriya Residence

Robert M. Gurney





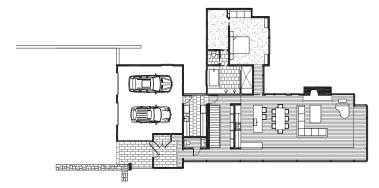


The 4000 sq.ft. house is comprised of three structures with simple shed roofs organized to fit unobtrusively into the landscape. These volumes are clad in cedar shingles and help to articulate the craft of building. Flat roofed, glass walled structures, intended to feel like bridges, connect the three volumes. These 'bridges' elements are composed of wood windows

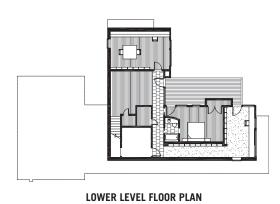
with black aluminum frames and cedar stained black. The under-side of the bridges is finished in 1 x 4 tongue and grove cedar with a clear finish. Dry stacked stone walls and board formed concrete walls are selected to fit with the rugged sock outcroppings found throughout the site. These elements are incredibly compatible with the cedar shingles.

This new house, located in Potomac, Maryland is designed and sited to preserve the natural features of a sloping, wooded landscape and to maximize views of horse fields and the rolling topography adjacent to the site. Significantly influenced by their ties to Japan and their exposure to the country's meticulously crafted wood structures, both owners share the Japanese reverence for wood, aesthetically and structurally.





**FIRST FLOOR PLAN** 

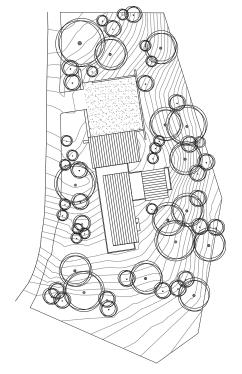


Materials used on the interior include bluestone in the entry area and Brazilian Cherry flooring throughout the remainder of the house. Maple cabinetry, millwork and paneling enrich the spaces. Materials and interior finishes are minimal and simply detailed.

The house is 'stick' built and employs standard platform

framing. Floors are constructed of pre-engineered wood I-joists, walls are wood 2 x 6's at 16-in. centers and the roofs are framed with 2 x 12's or engineered long span wood trusses.

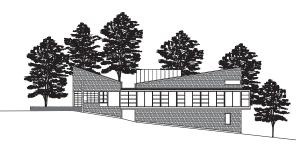
This environmentally friendly wood house is intended to intrude minimally into the landscape and open to the always changing outdoors.



SITE PLAN







NORTH ELEVATION



**SOUTH ELEVATION** 



EAST ELEVATION



WEST ELEVATION





#### FRAME

Wood 2 x 6 stud wall @ 16-in.
o.c.; pre-engineered wood I-joists,
3/4 T & G plywood; pre engineered
long span trusses/wood 2 x 12's
at 16-in. o.c./5/8' T & G plywood;
wood 2 x 6's @ 16-in. o.c.
(partitioning)

#### EXTERIOR

Western red cedar shingles; 1 x 4 T&G cedar, 1 x 8 cedar trim, cedar stained black; EPDM roofing; Weathersheild wood windows and exterior door with obsidian aluminium cladding; IPE wood decking; Sikkens (finish)

#### INTERIOR

Drywall and maple plywood walls; Brazilian Cherry floors; millwork – maple with clear sealer and mahogany panels and doors at entry hall; Finishes – stainless steel, maple, mahogany, painted steel, blue pearl granite





"To me this is the best example of 'northwest design' that we've seen. It's all here."

- Jury

## The Retreat

**Osburn Clarke Productions** 

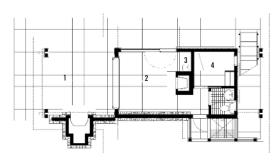
Real Cedar EXCELLENCE AWARD



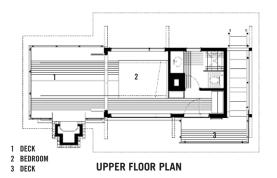
## Real Cedar

Given by the Western Red Cedar Lumber Association [www.wrcla.org] for exceptional and inventive use of Western Red Cedar. The use of natural materials including Western Red Cedar bevel siding allow The Retreat to fit harmoniously with its environment. The Retreat positively reinforces the fact that wood, and Western Red Cedar specifically, is the world's ultimate "green" building material.

The Retreat is one of a group of buildings commissioned by the same client for a private island located off the southwest coast of British Columbia. The island is completely unserviced. All power is solar generated. The only source of water is collected rain. Heat for the retreat is generated from wood burning fireplaces.



- MAIN FLOOR PLAN 1 TERRACE
- 2 LIVING ROOM 3 KITCHEN
- 4 BUNKROOM



Programmatically the building is intended as a place where one or two people can retreat from the other occupants and circumstances of the island. Local land use bylaws dictated that there could be no more than 500 sq.ft. of floor space.

All the requirements of daily

living are provided for within the interior. Large covered outdoor spaces on both levels provide the opportunity to extend the experience of the site while remaining protected from often inhospitable weather.

A series of sliding shutters and walls allows for the build-

ing to be completely shut down when unoccupied. In terms of siting, materials – how and where they are used, and form the building – is a continuation and extension of lessons taught and learned during a long history of local coastal building.



NORTH ELEVATION



**EAST ELEVATION** 



**SOUTH ELEVATION** 



WEST ELEVATION





#### FRAME

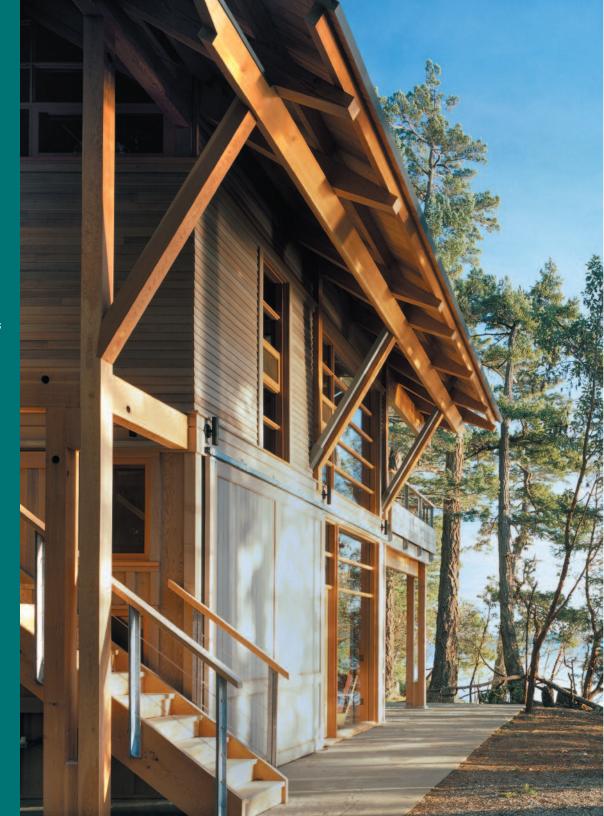
 $6 \times 6$  fir posts to carry continuous  $5 \times 18$  fir glulams; east and west walls and roof dimensional stud infill; roof  $-2 \times 8$  T&G fir decking on  $4 \times 6$  fir purlins on  $6 \times 10$  rafters; upper floor  $-1 \times 4$  fir boards on plywood on  $2 \times 10$  floor joists; interior Partitioning – edge grain fir veneer plywood on dimensional stud framing

#### EXTERIOR

Bevelled cedar siding (3 1/2-in. to weather); cedar board and batten (1 x 8 boards with 1 x 4 battens); standing seam metal roofing; windows/doors – solid stock edge grain fir; water-based clear u/v retardant sealer

#### INTERIOR

Edge grain fir veneer plywood walls; 1 x 6 edge grain solid stock fir boards on floor ceiling; 2 x 8 fir decking on upper ceiling; 1 x 4 fir boards for upper floor; edge grain fir – solid stock and veneered plywood millwork; clear lacquer finish







"Another fine house by a recognizable architect.
Exquisite interior detailing is what does it for me on this project."

- Jury

## Wong Eckles Residence

**Cutler Anderson Architects** 





ARCHITECT/FIRM Cutler Anderson Architects, Bainbridge Island, WA
CLIENTS Allene Wong and David Eckles, Piedmont, CA
GENERAL CONTRACTOR Clayton Turnbull, Kamuela, HI
STRUCTURAL ENGINEER Jerome Madden III, PE, SE,
Madden Engineers, Portland, OR
PHOTOGRAPHER Art Grice Photography, Bainbridge Island, WA

The plan and shape of this Hawaiian hilltop residence in Haui, North Kohala, was driven by the circumstances of sun, wind and topography.

The shape, structure and position of the plan elements were framed to protect the owners from the constant 10-40 knotper-hour tradewinds while still providing views of the ocean and wind-free access to warm sunlight.

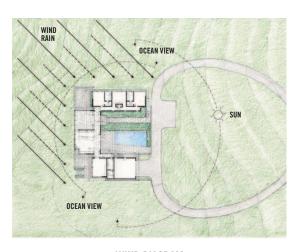
The roofs are pitched to

match the angel of the hill on which the residence sits, sheltering the courtyard from the elements. The building is anchored to the land on a rock base through steel tie downs that are visually laced into the rafters and pinned into the stone foundation.









WIND DIAGRAM







#### FRAME

Fir frame, floor and roof systems

#### EXTERIOR

Cedar siding; Taylor Metal Roofing; custom windows/doors of teak and fir

#### INTERIOR

Lyptus walls and floors, fir ceilings, Lyptus millwork

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