



# THE CEDAR BOOK

*Inspiration for the use of Western Red Cedar*

WESTERN RED CEDAR LUMBER ASSOCIATION | WESTERN RED CEDAR EXPORT ASSOCIATION

volume 4



# THE CEDAR BOOK - volume 4

Inspiration for the use of Western Red Cedar

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Jim Taggart

**DESIGN:**

Hunter Consulting International Inc.

**COVER:**

Canadian Pavilion, Shanghai Expo 2010

**PHOTO CREDIT:**

Patrick Alleyn for ABCP Architecture and SNC-Lavalin

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## Western Red Cedar – Sustainable by Nature

Western Red Cedar is one of nature's truly remarkable materials. Not only does it have distinctive beauty, natural durability and centuries of proven performance, it is the ultimate sustainable building product. It produces fewer greenhouse gases, generates less water and air pollution, requires less energy to produce than alternatives and comes from a renewable and sustainable resource. Today more than ever before, we must find ways to reduce the pressure on our planet's environment and finite resources. By choosing products with a light carbon footprint and by reducing waste, we can have a real impact on climate change now, and into the future.

Centuries ago, native peoples of the Pacific Northwest recognized the value of using sustainable materials. Western Red Cedar's natural durability, performance characteristics and versatility made it the preferred choice for building ocean-going canoes, post-and-beam houses and lodges. Today, discerning architects and builders around the world enhance their projects with this beautiful and sustainable material. Nature still knows best for, despite all efforts at imitation, no man-made product can match the beauty, performance and longevity of Western Red Cedar.

The 4th version of the Cedar Book profiles stunning and award winning architecture from around the world; ranging in scale from the unique Canadian Pavilion at Expo 2010 held in Shanghai to the simple, functional InfoWash building in Mississippi, each project illustrates a wonderful integration of the beauty and performance of Western Red Cedar with sustainable architecture.

We hope this book will inspire you to consider Western Red Cedar for your next project. If you already have and are interested in submitting your project for consideration for the next edition of the book, we invite you to send your project details including photo, description and a profile of your firm to the Western Red Cedar Export Association via email to [info@wrcea.org](mailto:info@wrcea.org).

Thank you for your interest in Western Red Cedar. ■



LOCATION:  
Brownsea Island, UK

PROJECT TYPE:  
INSTITUTIONAL

# Baden Powell Outdoor Centre

The Baden Powell Outdoor Centre was commissioned by The National Trust and the Brownsea Island Scout and Guide Committee to celebrate the centenary of the first scout camp on the island. Located in Poole Harbour on England's south coast, Brownsea Island is a Site of Special Scientific Interest, a designation that brings with it stringent requirements for environmental conservation.

## PROJECT CREDITS

### Clients:

The National Trust/The Brownsea Island Scout and Guide Management Committee

### Architect:

Wilkinson King Architects

### Structural Engineer:

Packman Lucas

### Contractor:

Spetisbury Construction Ltd (Phase 1)  
Framework CDM (Phase 2)

### Photography:

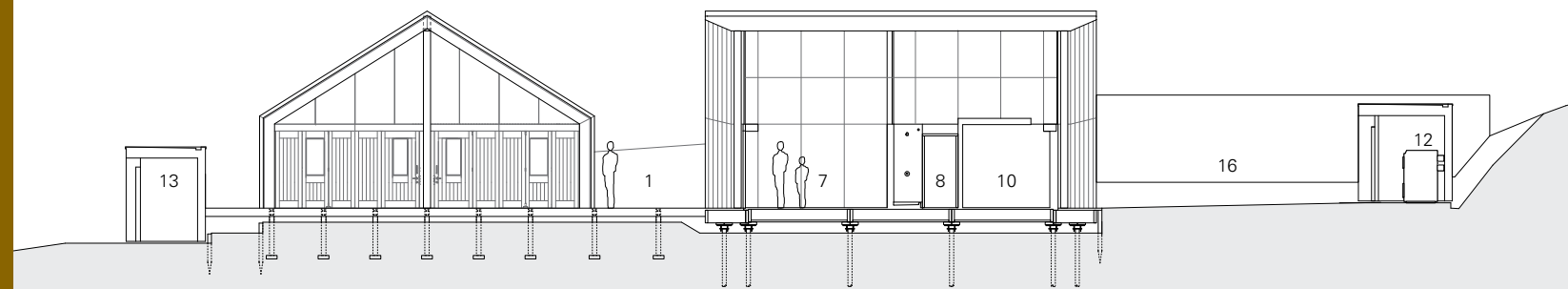
Wilkinson King Architects

The buildings accommodate a heritage centre, teaching space, showers, washroom facilities, staff accommodation and storage. The site was extremely challenging as it had no electricity, gas or sanitary sewer connection. The design intention was to create an encampment of simple but poetic buildings clustered around an external activity space overlooking the site of the original scout camp.

True to the traditions of scouting, the buildings touch the ground lightly, their forms inspired by the original ridge pole tents used in the first encampment. The orientation of the buildings was carefully considered to maximize daylight penetration for passive solar heating and hence minimize electrical loads.



- 1. External Activity/Meeting Space
- 7. Teaching/Multi-purpose Space
- 8. Male WCs & Showers (expandable)
- 10. Disabled WC & Shower
- 12. Wood Burning Boiler
- 13. Washing Up Area
- 16. Yard



SECTION A

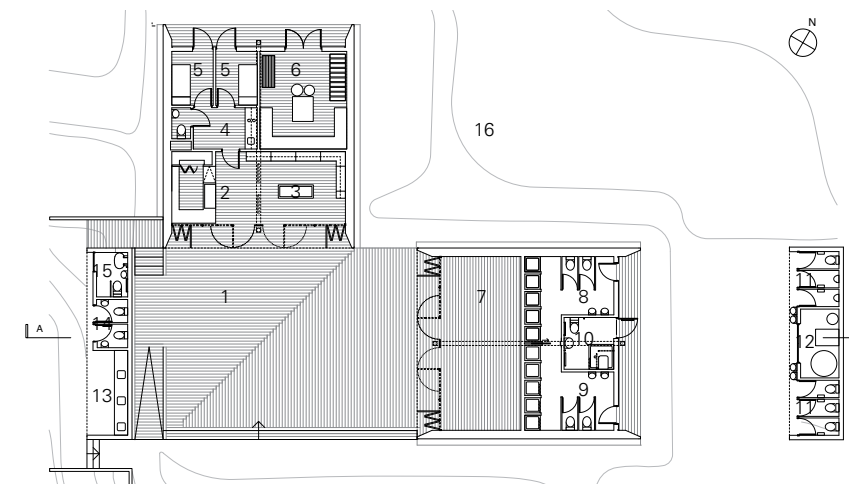


The building envelope was carefully designed with openings placed only within the sheltered gable ends. Sliding folding doors open up fully in summer to provide sheltered spaces with level access from the external decked area, while frameless double glazing above maximizes natural light year round.

The superstructure consists of prefabricated insulated wood framed panels held within a glue laminated timber frame resting on steel screw pile foundations. The main buildings are lifted above ground level, to allow for natural ventilation of the timber floor panels.

The interior of the building is lined with birch plywood, while the exterior is clad entirely in Western Red Cedar shingles, with Western Red Cedar boards used for soffits, trim and decking. The cedar is left untreated to eliminate the risk of ground contamination from preservatives or stains. Penetrations through the shingle canopy were avoided to eliminate the risk of water damage in this exposed coastal site. ■

**GROUND FLOOR PLAN**



- |                                    |                                      |
|------------------------------------|--------------------------------------|
| 1. External Activity/Meeting Space | 9. Female WCs & Showers (expandable) |
| 2. Scout Shop                      | 10. Disabled WC & Shower             |
| 3. Baden Powell Museum             | 11. Public WCs                       |
| 4. Mess Area                       | 12. Wood Burning Boiler              |
| 5. Staff Accommodation             | 13. Washing Up Area                  |
| 6. Store                           | 14. WCs for Campers                  |
| 7. Teaching/Multi-purpose Space    | 15. Disabled WC for Campers          |
| 8. Male WCs & Showers (expandable) | 16. Yard                             |



**WRC SPECIFICATIONS**

**SHINGLES**

- Grade:** No.1 Grade Blue Label Certigrade
- Profile:** Standard tapered
- Size:** 16" (400mm) long with a range of widths
- Fastening Method:** Each shingle fixed with 2 no. annular ring shank silicon bronze nails
- Applied Finish:** None

**BOARDS**

- Grade:** Clear kiln dried
- Profile:** Tongue and groove
- Size:** 1x6 (18 x 135mm) surfaced four sides
- Fastening Method:** Finish nailing to treated softwood battens
- Applied Finish:** None



LOCATION:  
Sidney, BC, Canada

PROJECT TYPE:  
INSTITUTIONAL

# Beacon Park Pavilion

This small performing arts pavilion is located in a waterfront park in the town of Sidney, British Columbia. Each of the pavilion's overlapping shell forms consists of a plywood stressed skin on a set of computer cut structural wood ribs. The arched shells are slightly separated from one another to dissipate the uplifting force of the waterfront wind.

The interior surface of the shells is lined with Western Red Cedar tongue and groove boards that reflect sound waves, while the exterior surface is sheathed with interlocking patinated zinc shingles that diffract and reflect the changing light.

Cedar was selected for its proven durability in exterior applications and as an aesthetic compliment to the park and the adjacent rocky water's edge. It is also a renewable resource with low embodied energy and, in this application it is considered a locally available material with a low carbon footprint.



SITE PLAN  
1. Beacon Park  
2. Beacon Park Pavilion  
3. Beacon Wharf  
4. Fish Market  
5. Boat Launch



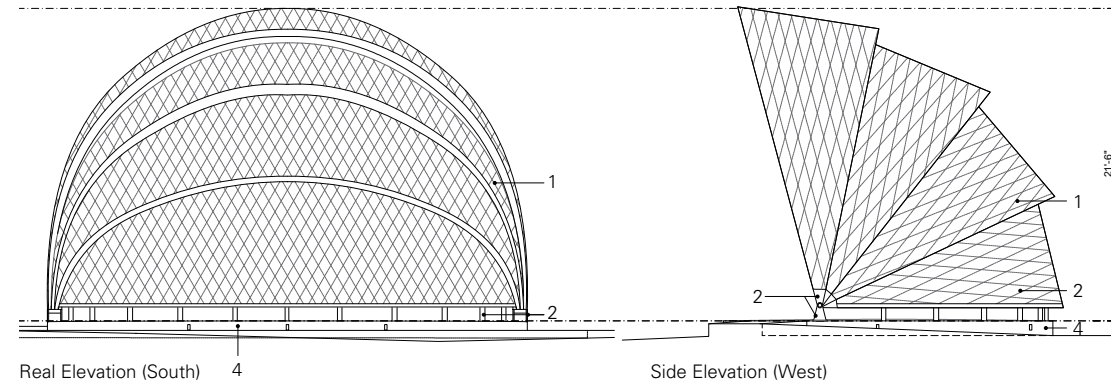
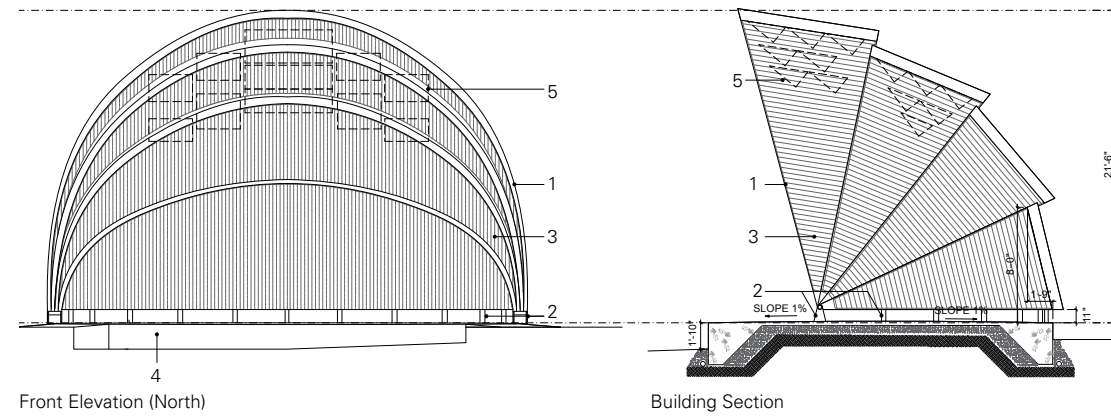
## PROJECT CREDITS

- Client:**  
Town of Sidney
- Architect:**  
D'Ambrosio Architecture + Urbanism
- Structural Engineer:**  
Fast + Epp
- Design/Build Fabricator:**  
StructureCraft Builders Inc.
- Photography:**  
D'Ambrosio Architecture + Urbanism

The roof shells were prefabricated off-site, then transported by truck, lifted into place by crane and secured to steel pin connectors cast into the concrete slab. Once installed, the shells were connected with plywood splice plates, and the cedar lining installed.

Viewed from the waterfront walkway, the new landmark with its nested arcs of wood seems dynamic, poised and ephemeral: like the seaside setting, and like live performance itself. ■

ROOF STRUCTURE SHOWN



Materials Key:

- |  |  |
|--|--|
| 1. Rheinzink diamond Roofing Tile & Flashing | 4. Cast-in-Place Concrete - Clear Sealed     |
| 2. Painted Steel - Mill Finish               | 5. Acoustic Reflection Forms - to match wood |
| 3. 3" WRC cladding to soffit                 | Soffit Cladding                              |



WRC SPECIFICATIONS

- Grade:** Clear kiln dried
- Profile:** Tongue and groove
- Size:** 1x4 surfaced 4 sides
- Fastening Method:** Finish nailing to WRC battens
- Applied Finish:** Site applied water borne clear finish



LOCATION:  
Shanghai, China

PROJECT TYPE:  
COMMERCIAL

# Canada Pavilion Expo 2010

## PROJECT CREDITS

### Client:

Canada Pavilion, Government of Canada Department of Heritage

### Conceptual Design:

Cirque du Soleil

### Architect:

ABCP Architecture

### Structural Engineer:

SNC Lavalin International Inc.

### Project Management and Construction Management:

SNC Lavalin International Inc.

### Photography:

Patrick Alleyn

Designed as a temporary structure, the Canada Pavilion occupies a 6,000m<sup>2</sup> site, adjacent to the America Plaza in Zone C of the 2010 World Expo in Shanghai. In keeping with the Expo theme, 'Better City – Better Life', the three-storey Canada Pavilion is designed to reflect the Canadian ideals of social and cultural inclusivity and environmental stewardship.

In plan the building forms a letter 'C', embracing a large public space designed to promote interaction between visitors, and to create a feeling of community. A large Living Wall of evergreen seedlings provides a backdrop to the courtyard. In addition to illustrating a universal desire for green space in urban centres, the green wall also operates as a natural bio air filter. An angled accessible ramp leads the anticipated 6 million visitors beyond the courtyard into the pavilion.

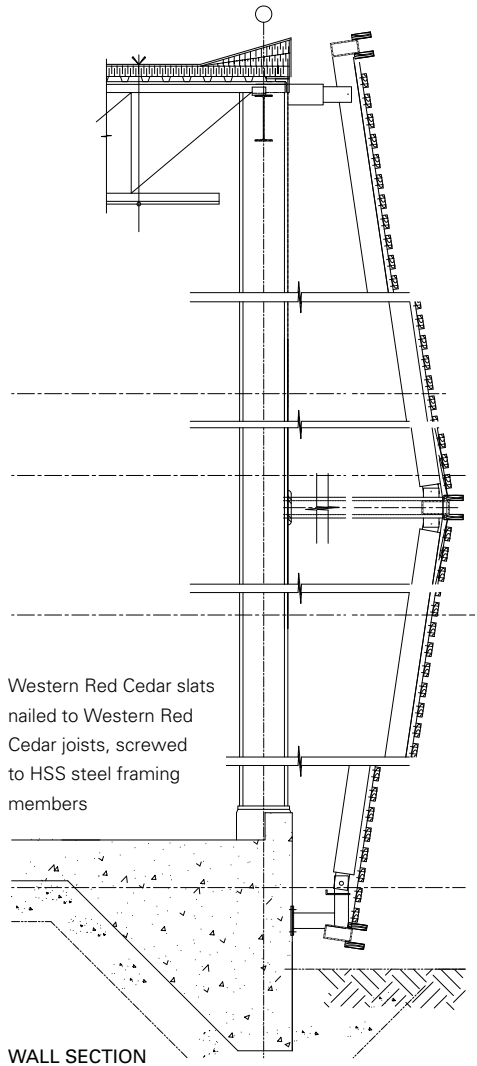






DETAIL OF STEEL SUPPORTING STRUCTURE FOR WRC CLADDING

While the outward appearance of the pavilion is organic, with an undulating skin of Western Red Cedar slats, the underlying structure is rectangular and clad in stainless steel sandwich panels. An exterior framework of steel tubes forms the supporting structure for WRC joists, to which the more than 4800m<sup>2</sup> of WRC slats are fastened. The cedar skin is divided into radiating triangular panels, in a geometric pattern reminiscent of maple leaves.



By day the Pavilion is opaque, impressive and imposing, but it undergoes a transformation at night. Lighting mounted on the steel structure behind the cedar skin, glows through the slats giving the pavilion a light, transparent, lantern-like quality.

The use of Western Red Cedar is an important sustainable aspect of the design. Each carefully selected board was site trimmed and individually fastened to the substructure so that it could be easily dismantled when the Expo is over, and reclaimed for use on future projects. ■



## WRC SPECIFICATIONS

**Grade:** Western Red Cedar #2CLEAR & BTR

**Profile:** Rectangular

**Size:** 38x89mm

**Fastening Method:** Joists secured to steel framing with self-tapping screws; slats secured to joists by side nailing

**Applied Finish:** Fire retardant plus one coat water based clear finish factory applied; two additional coats of clear finish site applied



LOCATION:  
Vancouver Island, BC, Canada

PROJECT TYPE:  
INSTITUTIONAL

# First Peoples House

This 1200m<sup>2</sup> multi-purpose educational facility is located on the University of Victoria Campus on Vancouver Island, British Columbia. The facility houses the Indigenous Graduate Student Union, Native Student Union, classrooms, faculty and counseling offices, Elders and student lounges, study space and a ceremonial hall. The main objective of the project was to develop a building design which would honour the identity and pride of the Native students on a local as well as national level.

The design celebrates First Nations Culture through the use of Western Red Cedar inside and outside the building, the form of which is inspired by the Coast Salish Longhouse. All the cedar for the interior and exterior siding as well as the house posts and carved doors, was sourced from beach comb salvaged and reclaimed material from the territory of the Dididat Nation along the North West Coast of Vancouver Island. The material was located and purchased one year ahead of construction to ensure adequate quantities and preparation time.

The design strategy focuses the experience whether inside or outside on the use of cedar as a cladding material inspired by the large planks and the grand post and beam structures traditionally used by the coastal First Nations. The building is split into three volumes with a large sloped roof covering the ceremonial hall and classrooms and the lower roof enclosing the administration block. Western Red Cedar cladding is used to identify these different functional components of the building, with ribbons of glass used to separate them visually from one another.

## PROJECT CREDITS

**Client:**  
Office of Indigenous Affairs

**Architect/Interior Designer:**  
Alfred Waugh Architect

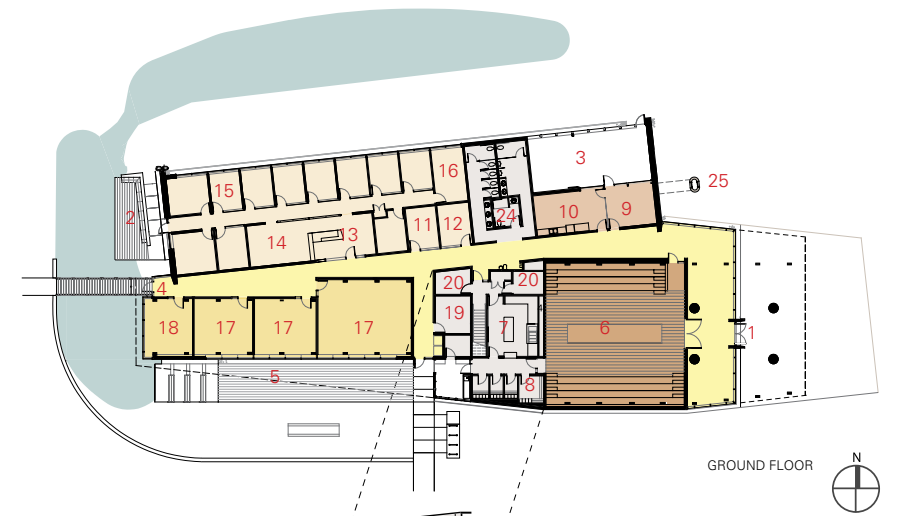
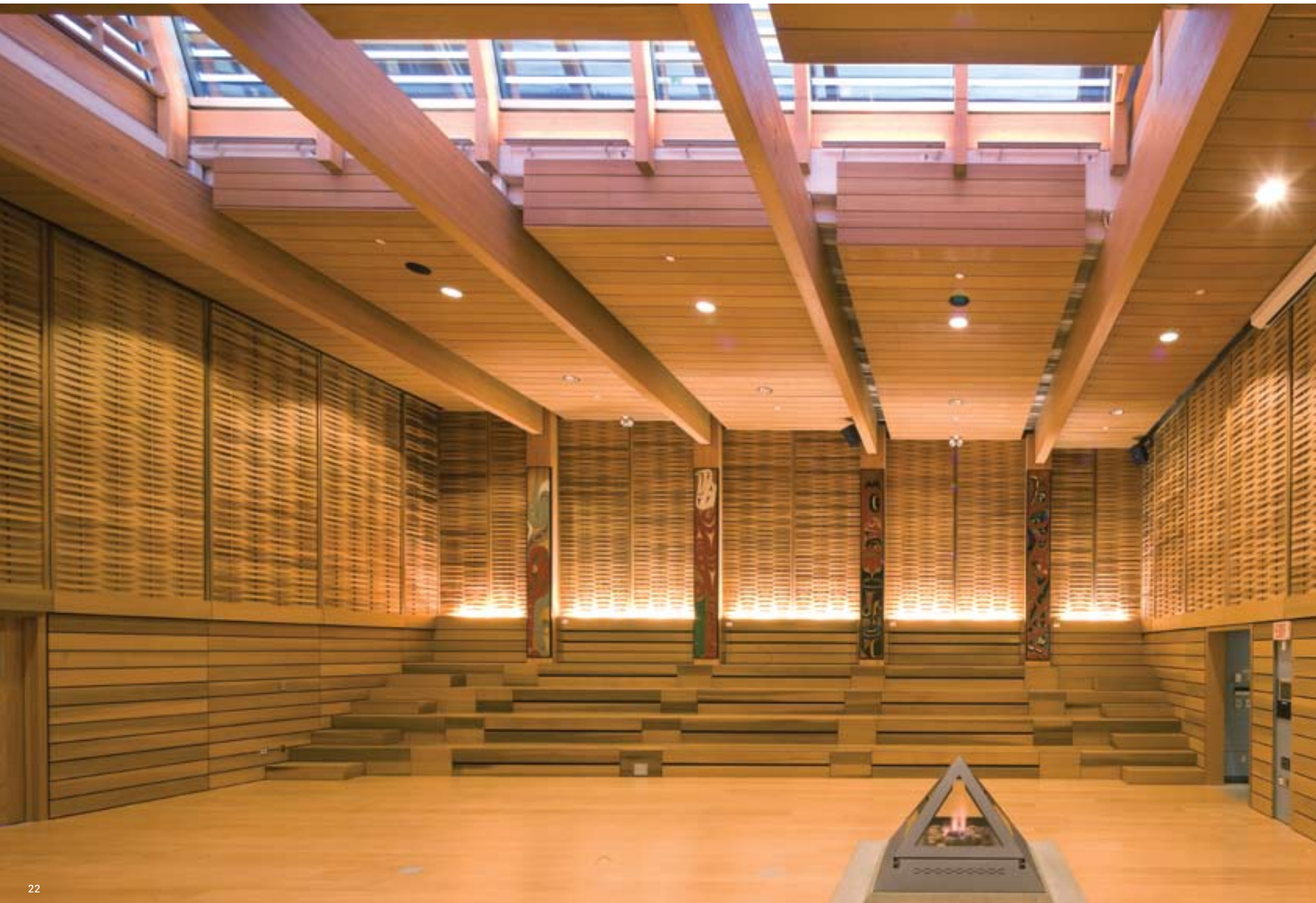
**Structural Engineer:**  
Equilibrium Consulting Inc.

**General Contractor:**  
Knappett Projects Inc.

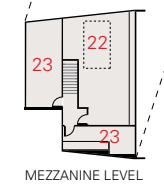
**WRC Supplier:**  
Coast Ecotimber Inc.

**Photography:**  
Nic Lehoux





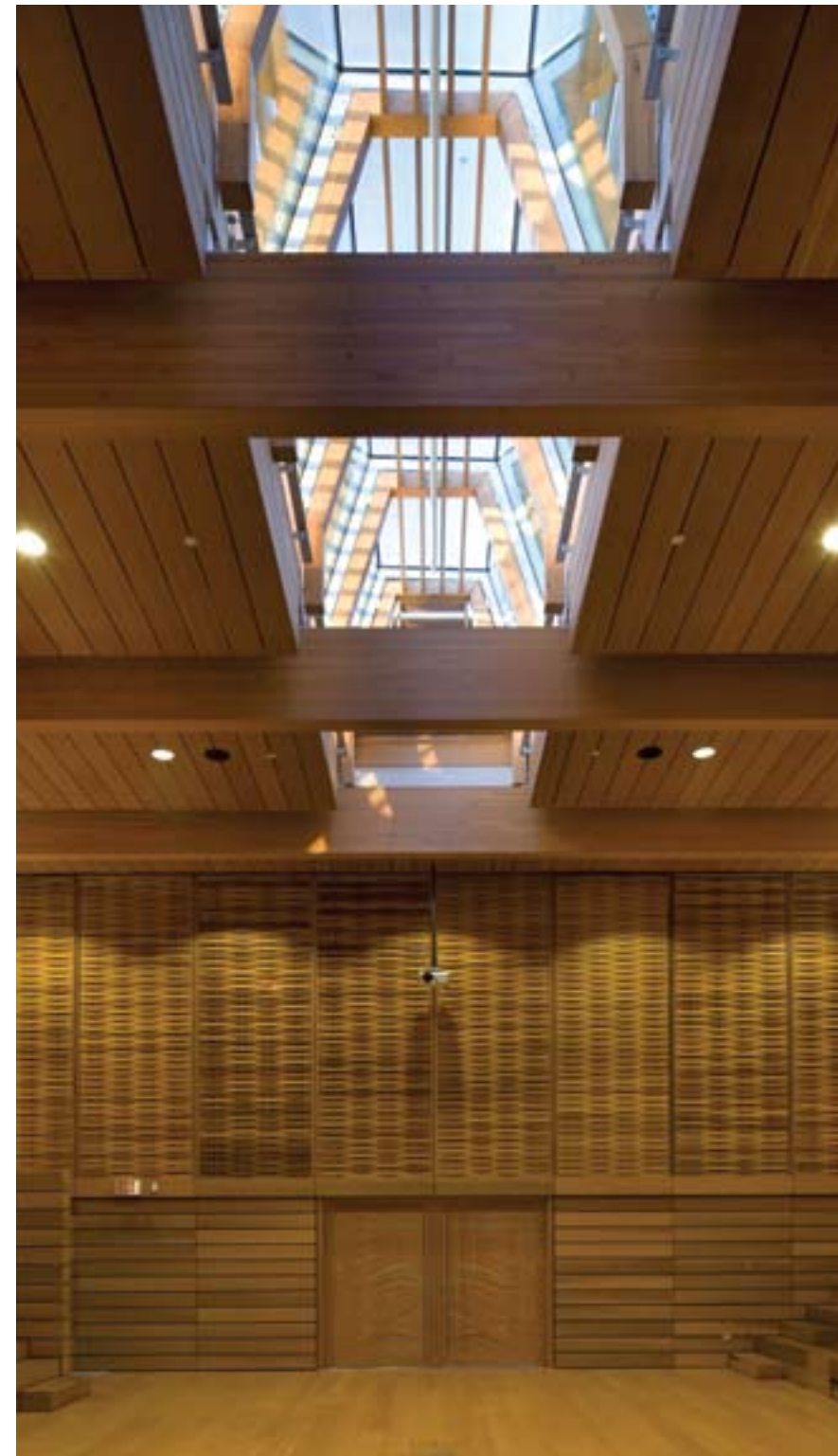
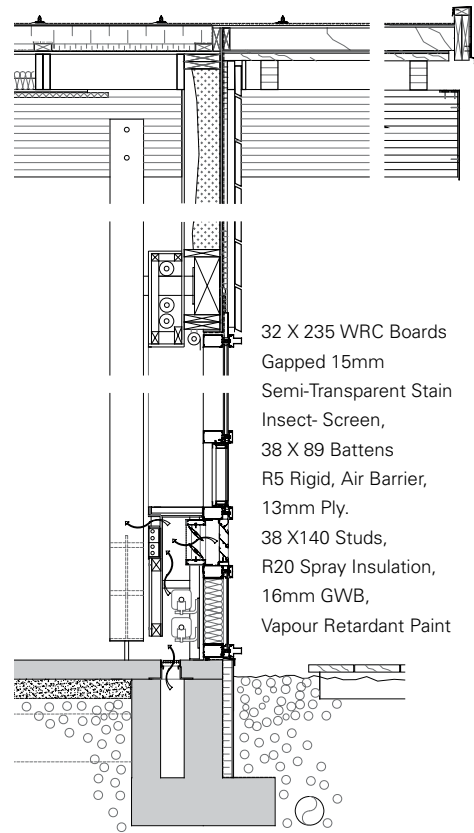
- |                                 |                                 |
|---------------------------------|---------------------------------|
| 1. Entrance Lobby               | 14. Open Workspace              |
| 2. Outdoor Counselling Deck     | 15. Faculty Office              |
| 3. Elders Courtyard             | 16. Meeting Room                |
| 4. West Entrance                | 17. Classroom                   |
| 5. South Deck And Barbecue Area | 18. Reading Room                |
| 6. Ceremonial Hall              | 19. Custodial                   |
| 7. Kitchen                      | 20. Electrical / Communications |
| 8. Dancer Change Rooms          | 21. Enclosed Bike Storage       |
| 9. Elders Lounge                | 22. Mechanical Room             |
| 10. Staff Lounge                | 23. Storage                     |
| 11. Student Native Union        | 24. Accessible WC / Shower      |
| 12. Student Graduate Society    | 25. Fresh Air Intake            |
| 13. Administration Reception    |                                 |



Within the building, each enclosed room is defined by the post and beam structure, which reveals itself fully at the main entrance canopy and the entrance lobby. The glue laminated beams from the ceremonial hall and classrooms project beyond their enclosure to define the public corridors.

Art is an integral part of First Nations culture and this project incorporates 2 sets of carved cedar house posts, carved ceremonial doors and eight carved inset panels in the Ceremonial Hall. The upper walls of the Ceremonial Hall are woven cedar panels inspired by the bullrush matt that lined the interior longhouses of the past. ■

WALL SECTION



WRC SPECIFICATIONS

**Exterior Rain Screen Wall Cladding:**  
32x235 (2x10) Western Red Cedar, profiled A Clear  
First Nations Salvaged S1S+2E  
K.D. Boards, stained with a three coat water borne oil  
treatment with UV inhibitors

**Interior Wall Cladding:**  
19x235 (1x10) Western Red Cedar, A Clear First  
Nations Salvaged S1S+2E K.D. Boards

**Interior Woven Cedar Wall Panels:**  
38 x64 clear Western Red Cedar frame with 6x45  
clear woven cedar strips

**Clerestory Wood Sunshades:**  
38x140 profiled Clear A Western Red Cedar louvres  
screw fastened to aluminum frames



LOCATION:  
Langport, Somerset, UK

PROJECT TYPE:  
RESIDENTIAL

## Great Bow Yard

This project was the result of a limited competition for the design of 12 speculative sustainable houses and an associated public space on a riverside site in the market town of Langport, in Somerset, southwest England. The client wanted the project to be educational; demonstrating to potential purchasers and the general public alike that green design could be both inspiring and commercially viable.

The south-facing orientation, rigorously adopted by most green developments was not possible given the site constraints, so two terraces or wings, north and east, were proposed. This presented the opportunity to explore two different prototypes; one a south-facing passive solar design with high thermal mass, the other a west-facing super insulated lightweight wood frame solution.

Each terrace has been designed to present maximum area to the south. This is achieved in the north wing by a shed roof and on the east wing by introducing a series of repeated gables, which consequently expose a south-facing roof for each unit. In the north wing solar thermal panels have been mounted in galvanised frames on this façade and timber louvres control sun penetration into the sun rooms that are integral to the passive solar design.

### PROJECT CREDITS

**Client:**

South West Eco Homes Ltd

**Architect:**

Stride Treglown

**Structural Engineer:**

Ellis & Moore

**Quantity Surveyor:**

Westlea

**Contractor:**

Russell Construction

**Timber supplier & subcontractor:**

Framewise

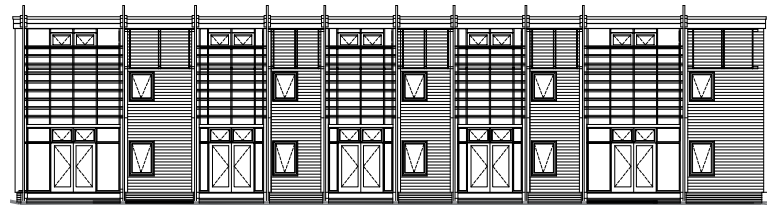
**Photography:**

Steve Townsend





EAST WING ELEVATION

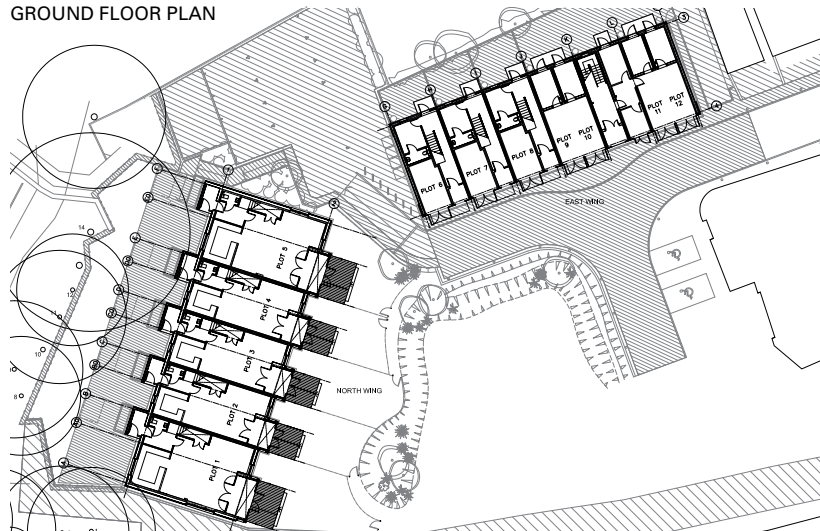


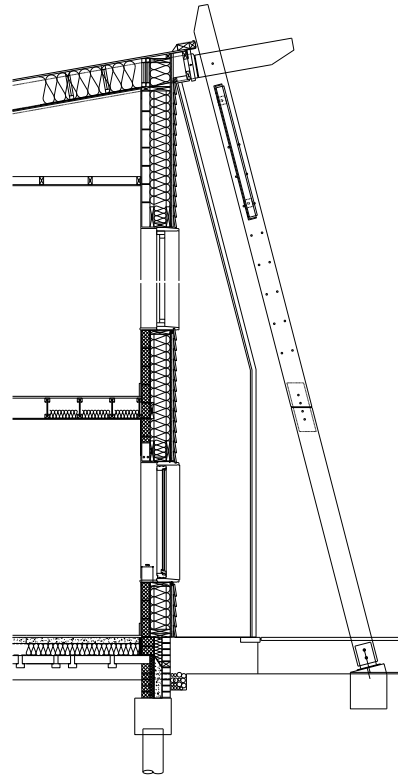
NORTH WING ELEVATION



The two wings overlook a new central ecological garden and the river beyond and instead of the small windows used in many green homes, the design incorporates high levels of glazing to maximise daylight and views to the exterior. Externally the terraces are predominantly clad in certified, square edged lapped Western Red Cedar boarding. Cedar was chosen to meet the environmental aspirations of the project and to help the buildings fit within their semi-natural context.

GROUND FLOOR PLAN





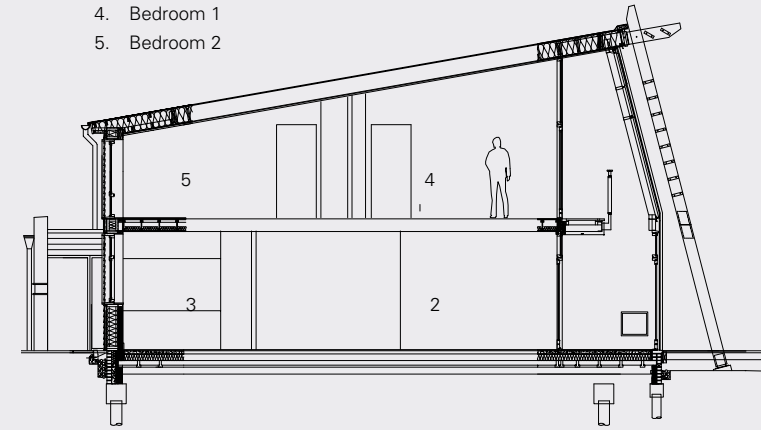
Other exterior materials included reclaimed brick with lime mortar which was used adjacent to the neighbouring heritage warehouse and Mill House so that the new development would fit comfortably into its context. Although the houses have private gardens, the central ecological garden allows the riverside to be used and enjoyed by residents and public alike. ■

◀ DETAIL SECTION NORTH WING

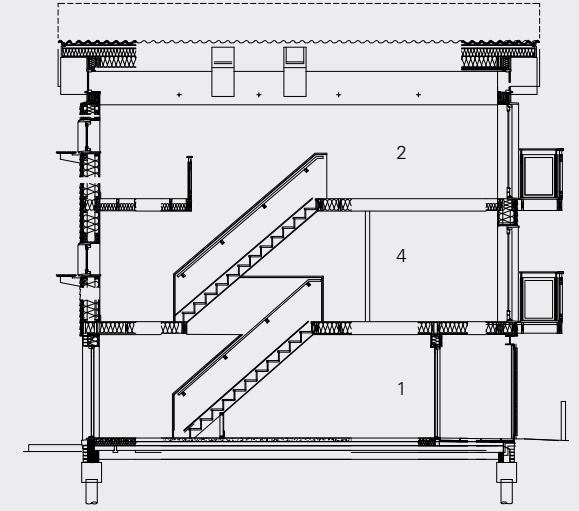
- Inclined Wood Poles
- Wood Louvres
- WRC Square Edge Lap Siding
- Prefabricated, Wood Frame Wall Panels
- Insulation

Legend

- 1. Entrance
- 2. Living Room
- 3. Kitchen / Dining
- 4. Bedroom 1
- 5. Bedroom 2



NORTH WING SECTION



EAST WING SECTION



WRC SPECIFICATIONS

- Grade:** Class 2 to British Standard 1186-3
- Profile:** Square edge lapped
- Size:** 19mm x 150mm finished size with 25mm lap
- Fastening Method:** Secret fixed with round head annular ring shank, stainless steel nails
- Applied Finish:** Untreated





LOCATION:  
IJsselstein, Netherlands

PROJECT TYPE:  
COMMERCIAL

## IJsselstein Tram Station

This mixed use project in the historic town of IJsselstein, near Utrecht in the Netherlands includes a tram station and retail space on the ground floor, with two storeys of apartments above. Since the 19th century, train station construction in Europe has been dominated by steel, with glazed vaults typically springing from masonry walls and piers. Breaking with this tradition, the IJsselstein Tram Station is constructed primarily in wood.

The plan takes the form of a simple rectangle, broken at the upper levels by the introduction of a courtyard around which the apartments are arranged. A shallow vaulted roof supported on glulam arches covers the courtyard, and extends beyond the building to create a dramatic canopy over the tram tracks. The open ended vault, together with the depth of the glulam beams creates a clerestory around three sides of the courtyard ensuring that daylight penetrates the space. The courtyard is traversed by glulam bridges suspended on steel cables from the arches above.

To either side of the vaulted roof are lower flat roofs, also extending to cover the tram tracks. Supported on slender steel columns, these roofs feature dropped ceilings made up of tongue and groove Western Red Cedar boards fixed to a sub-frame of 2x4 timbers. The framing is set back at the edges creating the illusion that the ceiling is floating in mid-air.



### PROJECT CREDITS

**Client:**

Ahold Vastgoed bv

**Architect:**

Kraaijvanger • Urbis

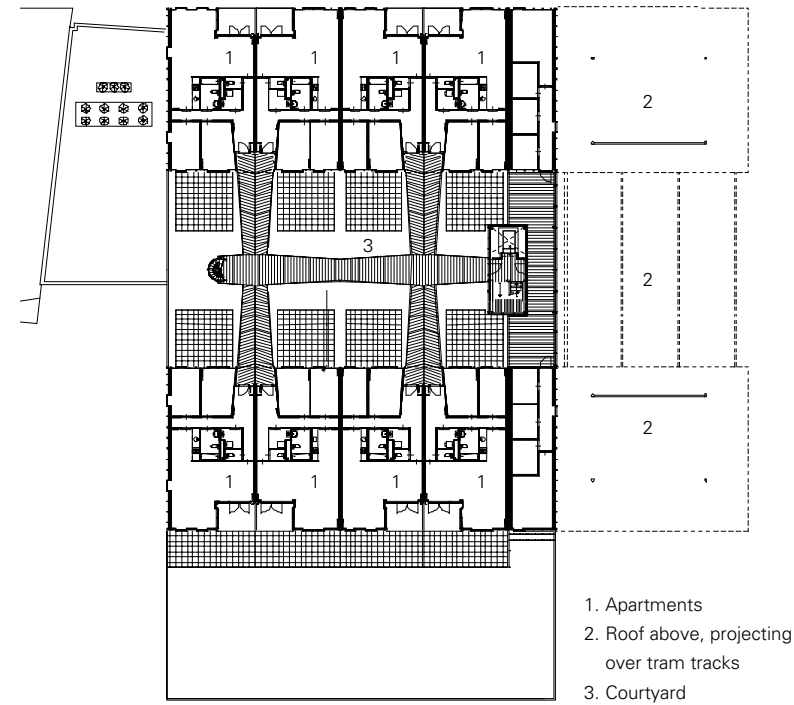
**Structural Engineer:**

De Bindt Raadgevend Ingeneurs

**Photography:**

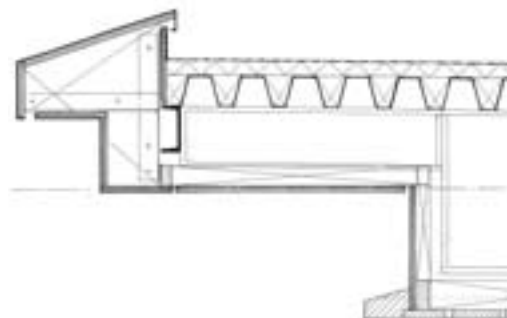
Jan Derwig

APARTMENT LEVEL PLAN

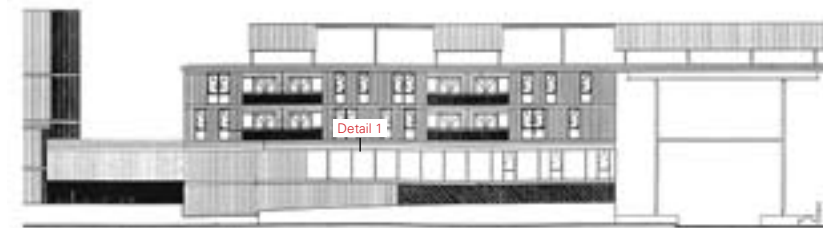


DETAIL 1 ROOF EDGE

- Waterproof Membrane
- Insulation
- Profiled Metal Deck
- Profiled Metal Parapet
- Plywood Fascia and Soffit
- Steel Structure
- Light Wood Framing
- WRC Dropped Ceiling
- WRC Edge Trim



ELEVATION



The project is located adjacent to a new community centre that is clad almost entirely of glass. This material has been carried through to the tram station, wrapping the ground level shops and creating a light and transparent podium above which the two storey apartments appear to float. Maximizing the contrast in the material palette, the apartments are clad primarily in crisply detailed vertical tongue and groove Western Red Cedar boards. Western Red Cedar was chosen for this project for its environmental attributes, its proven durability in exterior applications and its visual warmth. ■



WRC SPECIFICATIONS

**SOFFITS**

- Grade:** B (NEN 5471 (Netherlands Standards Institute))
- Profile:** Rectangular
- Size:** 1x6 surfaced
- Fastening Method:** Stainless steel finish nails to treated softwood sub-frame
- Applied Finish:** Fire retardant, pressure treated

**CLADDING**

- Grade:** B (NEN 5471 (Netherlands Standards Institute))
- Profile:** Tongue and groove V-joint
- Size:** 1x8 surfaced
- Fastening Method:** Stainless steel finish nails to treated battens
- Applied Finish:** Fire retardant, pressure treated



LOCATION:  
DeLisle, Mississippi, USA

PROJECT TYPE:  
INSTITUTIONAL

## 39571 InfoWash

During the Spring and Summer of 2006, thirteen students from the School of Constructed Environments at Parsons, designed and built a new information center and laundromat for the town of DeLisle Mississippi, a town that had been hit directly by hurricane Katrina.

SHoP Architects were already working in DeLisle with local resident Martha Murphy on post-disaster reconstruction projects and provided critical input and support for the project. Combining elements that address the short-term and long-term needs of the community, 39571 attempts to offer residents a return to normalcy and provide much needed services once taken for granted.

### PROJECT CREDITS

#### Client:

Mississippi Katrina Fund, with special thanks to Martha Murphy, Kathi Heinzl, Bill Heinzl, and Loretta Lizana

#### Design/Build Project Team:

The Design Workshop,  
Parsons The New School for Design

#### Architect of Record:

ShoP Architects

#### Structural Engineer:

Dunne & Markis Consulting Structural Engineers

#### Engineer of Record:

Geoffrey Clemens, Compton Engineering

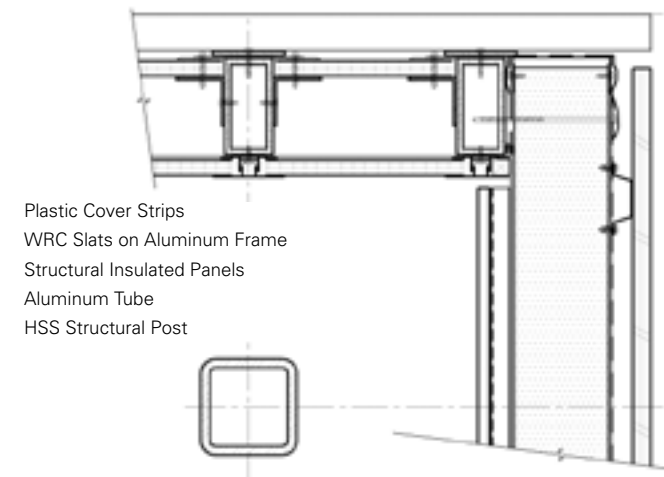
In the spring semester, students worked with David J. Lewis, the Director of the M.Arch program to research and design the project, travelling twice to Mississippi to meet with the client and members of the community. They then executed a complete set of construction documents and assembled material orders for the project.

The group spent the summer in DeLisle, during which time they erected the steel structure by hand, installed structural panels and waterproofing, built and insulated the roof, clad the building in aluminum mesh and stained cedar, and outfitted the interior spaces with custom built interior furniture and wall systems.

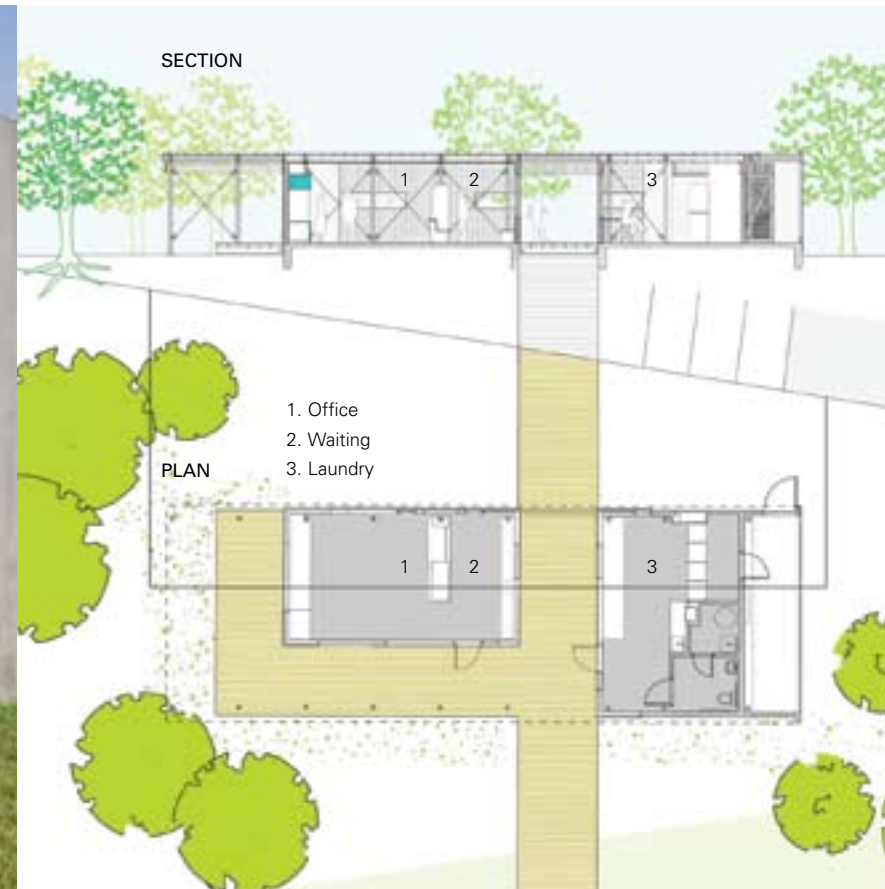


Composed of two volumes connected by a covered breezeway, the southern side of the building is sheltered by a deep overhanging roof, while a translucent polycarbonate northern wall provides ample daylight to interior spaces and allows the building to glow at night. A panelized wood slat screen attached to aluminum straps wraps both the opaque and translucent walls tying together the program elements while adding a degree of warmth and familiarity to the facades.

Western Red Cedar was chosen as the primary exterior material because of its resistance to insects, its workability, and its natural weathering characteristics. By early fall, the building was operational, serving the community with a much-needed washing facility and a single point for collecting and disseminating the complex information needed to facilitate the rebuilding efforts of the area. ■



PLAN DETAIL AT CORNER



## WRC SPECIFICATIONS

**Grade:** Clear

**Profile:** Rectangular

**Size:** 2x2, and 1x4

**Fastening Method:** Blind fastened with stainless steel screws to aluminum strips to form prefabricated panels

**Applied Finish:** Transparent stain



LOCATION:  
Hoofddorp, Netherlands

PROJECT TYPE:  
COMMERCIAL

## Irdeto Head Office

### PROJECT CREDITS

**Owner:**

Fortress

**Main Tenant:**

Irdeto Hoofddorp

**Architect:**

MIII architecten

**Structural Engineer:**

Van Rossum Raadgevende Ingenieurs

**General Contractor:**

Slavenburg

**Photography:**

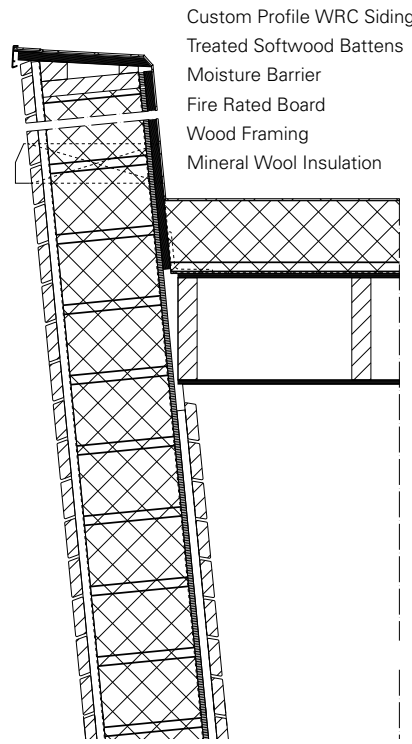
MIII architecten

This 10,000m<sup>2</sup> office building was completed in 2010 for Irdeto, a leading international high technology company specializing in content security for digital, widescreen and mobile television systems. The project is strategically located in a business park in Hoofddorp Netherlands, close to the country's main international airport.

The program comprises two main elements, a two storey podium containing a parking garage for 128 cars, upon which sits a six storey office building. While the parking podium is a simple rectilinear volume clad in charcoal colored brick, the office building above it, which is accessed via a gently sloping ramp, is sculpted into three wings, which are arranged in an irregular fashion around a centrally located atrium.



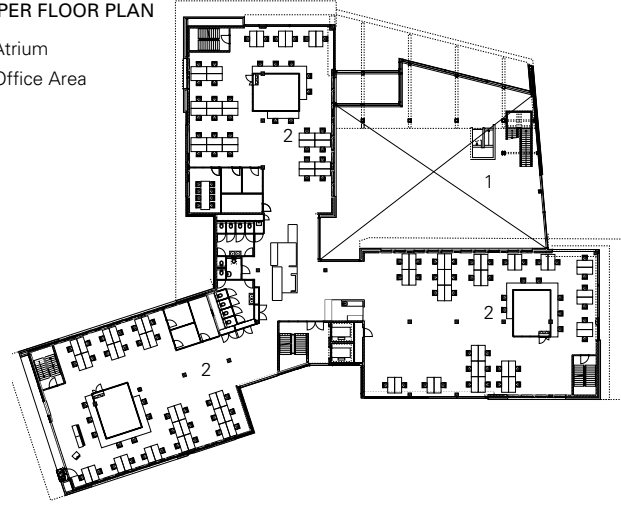
DETAIL SECTION AT SLOPING EXTERIOR WALL



The Western Red Cedar carries through into the atrium space clearly articulating the three building volumes. The large interior spaces are mostly open plan and defined by the many internal corners that are a product of the irregular plan geometry. A cooperative work environment and future flexibility are keys to a socially sustainable design approach. Acoustically and visually separated spaces are kept to a minimum, and floor-to-ceiling windows provide sweeping views of the surrounding terrain.

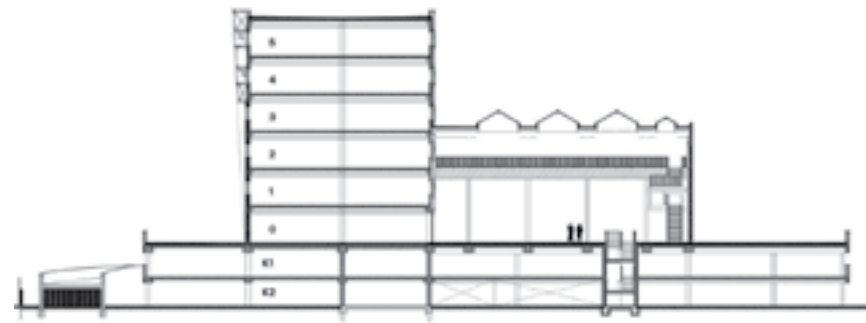
UPPER FLOOR PLAN

- 1. Atrium
- 2. Office Area

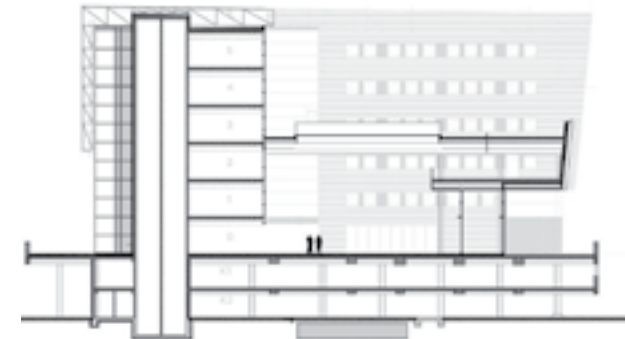




Architecturally, there is a deliberate interplay between the wood, steel and glass elements of the building – between natural and industrial materials. This interplay can also be read as a metaphor for the operations of the Irdeto Company itself, whose high-tech products depend on the creativity of its human resources. ■



EAST-WEST SECTION



NORTH-SOUTH SECTION



## WRC SPECIFICATIONS

**Grade:** B (NEN 5471 (Netherlands Standards Institute))

**Profile:** Chamfered and rounded

**Size:** Custom milled profiles typically 28 x 89mm

**Fastening Method:** Finish nails

**Applied Finish:** Fire retardant and 3 coats Sansin Enviro Stain SDF



LOCATION:  
Shizuoka Prefecture, Japan

PROJECT TYPE:  
INSTITUTIONAL

## Sun-Pu Church

This Protestant church in Shizuoka Prefecture, Japan is located on a corner site adjacent to railroad tracks and mediates between flanking commercial and residential districts. The church complex has two primary components, a worship space in the form of a cube that reflects the shape of its commercial neighbours; and a minister's house with a pitched roof that connects visually with the adjacent houses.

The primary objective was to create a worship space conducive to the most fundamental aspect of Protestant worship, reading aloud from the Bible. Hence architecturally the focus was on maximizing daylight within the sanctuary, and creating the best environment for speech by controlling external noise and internal acoustics.

The exterior of the building is clad in unfinished Western Red Cedar boards of varying thickness, creating an uneven surface that dissolves into light and shadow when the sun strikes it. In time, as the cedar weathers to silver grey, the facades of the worship space will take on the appearance of an etching and form the ideal background for the cross mounted at the corner of the building.

### PROJECT CREDITS

**Clients:**

United Church of Christ in Japan, Sun-Pu Church

**Architect:**

Taira Nishizawa Architects

**Structural Engineer:**

Kanebako Structural Engineering

**Photography:**

Hiroshi Ueda

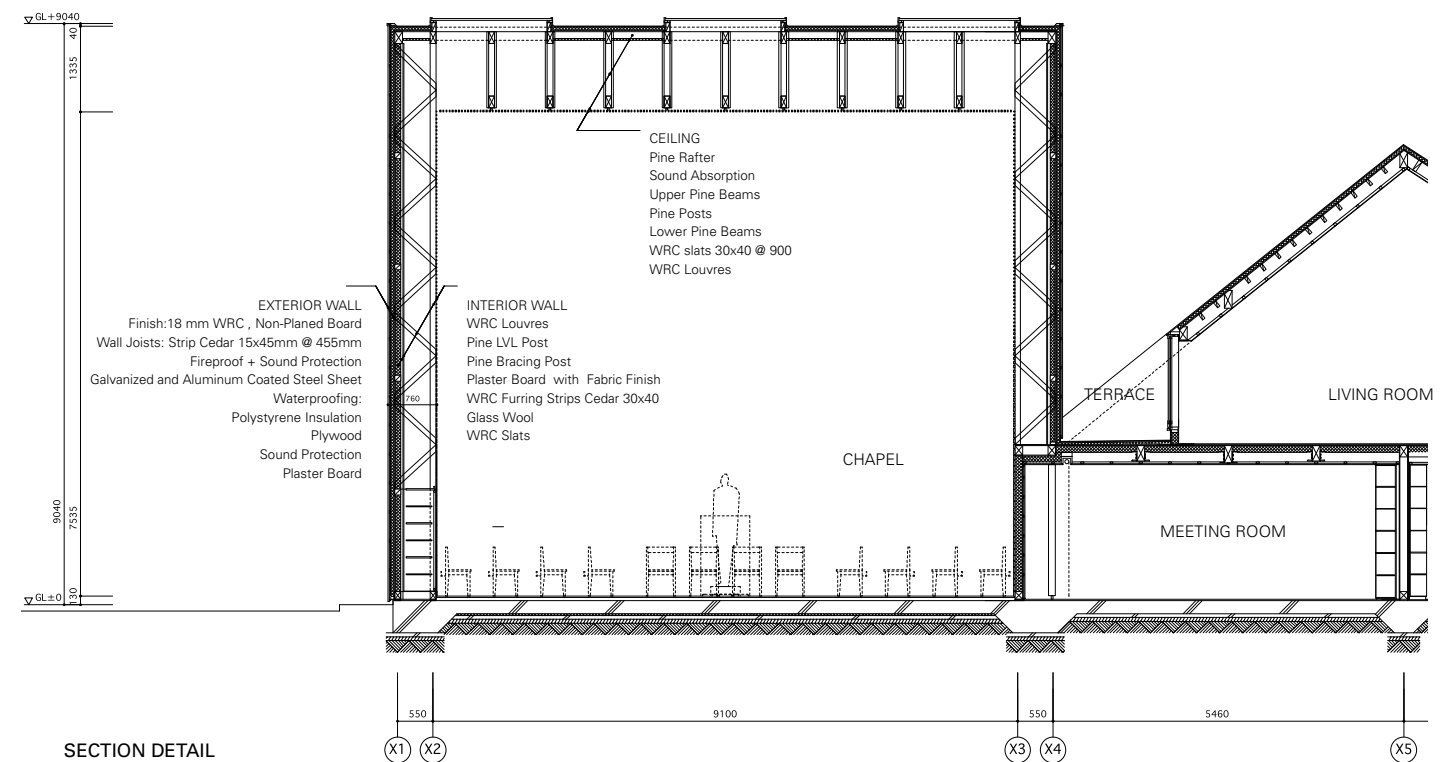


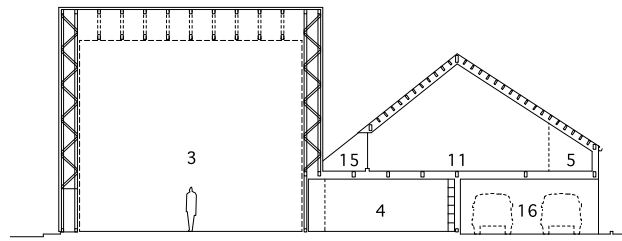




The interior walls of the sanctuary are lined in horizontal Western Red Cedar boards, laid with a gap between them that gradually increases from floor to ceiling. The ceiling is also lined with narrow cedar slats that create a diaphanous effect beneath the large skylights, softening the incoming daylight. As the angle of the sun changes throughout the day, its light alternately conceals and reveals the structural skeleton of the building that lies behind the cedar slats. It is almost as if the building itself is breathing.

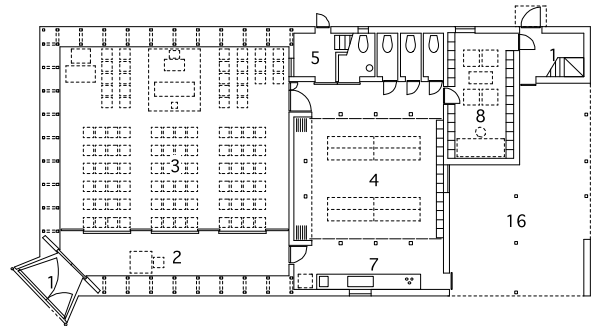
The deep wall and roof cavities are partially filled with acoustic insulation, that together with the gaps between the cedar slats help to control reverberation time, and create conditions that are ideal for the unamplified human voice. Thus light and sound come together to connect heaven and Earth, and create an inspiring and functional environment for worship. ■



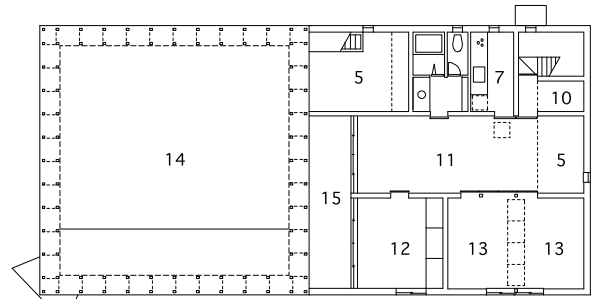


SECTION

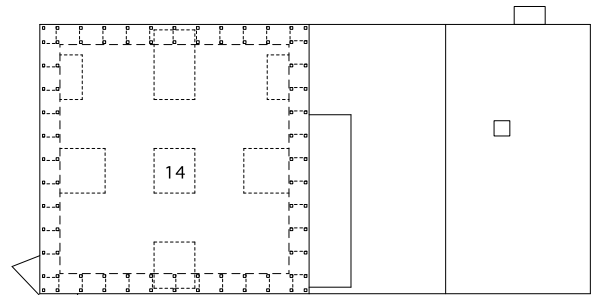
- |                   |                   |
|-------------------|-------------------|
| 1. Entrance       | 9. Lavatory       |
| 2. Entrance Aisle | 10. Stock         |
| 3. Chapel         | 11. Living Dining |
| 4. Meeting Room   | 12. Bedroom       |
| 5. Spare Room     | 13. Children Room |
| 6. Toilet         | 14. Void          |
| 7. Kitchen        | 15. Terrace       |
| 8. Study          | 16. Parking       |



1ST FLOOR PLAN



2ND FLOOR PLAN



ROOF FLOOR



## WRC SPECIFICATIONS

**Grade:** Custom

**Profile:** Rectangular

**Size:** 18mm thick, random width and length

**Fastening Method:** Finish nailing to WRC battens

**Applied Finish:** None



LOCATION:  
Scarsdale, NY, USA

PROJECT TYPE:  
INSTITUTIONAL

# Westchester Reform Temple

The master plan for Westchester Reform Temple in Scarsdale, NY includes a new sanctuary complex, with a new religious school and study center within renovated existing structures on a suburban site. The plan includes extensive re-organization of the site to create a cohesive campus connected by pedestrian paths within extensive landscaping.

The design for the new sanctuary uses economic building materials and natural light to create a worship space that is at once grand and intimate. A visual connection to an exterior garden to the East, behind the Bimah, is a thematic component of the plan. The architects worked closely with the temple clergy to design the sanctuary seating and Bimah to compliment their liturgical style and accommodate different services and religious events.

The east wall is a window to the spiritual garden comprised of glass louvres with mirrored undersides. The wall offers three contrasting views: a subtle view directly to the Garden, revealing the world around us; a reflected, idealized view of the Garden reminding us that we are part of a larger world with many views; and a quiet reflection of the Congregation, helping us see the community in which we worship. All of these views collectively hold the Ark: symbol of our people, in this place.

## PROJECT CREDITS

**Client:**  
Westchester Reform Temple

**Architect:**  
Rogers Marvel Architects

**Structural Engineer:**  
Robert Silman Associates, PC

**General Contractors:**  
E.W. Howell Company Inc and Kane Contracting

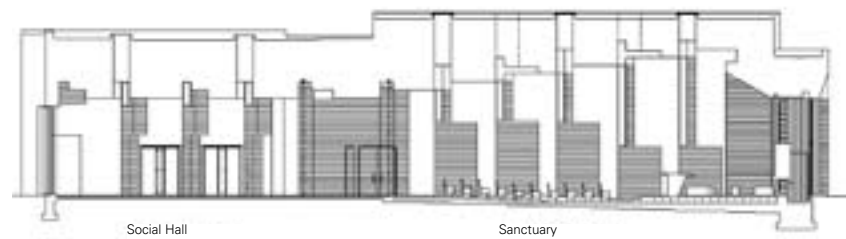
**Photography:**  
Paul Warchol Photography



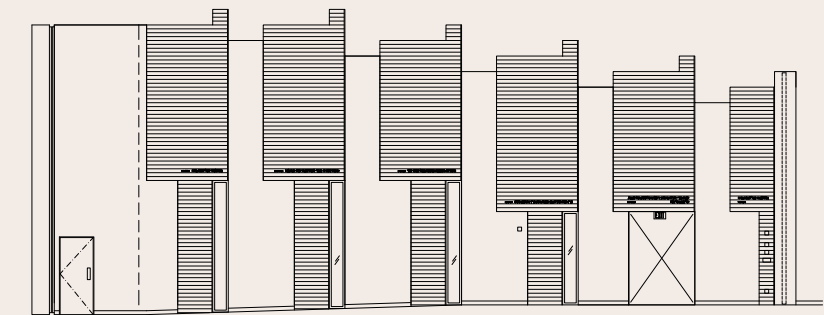


SITE PLAN

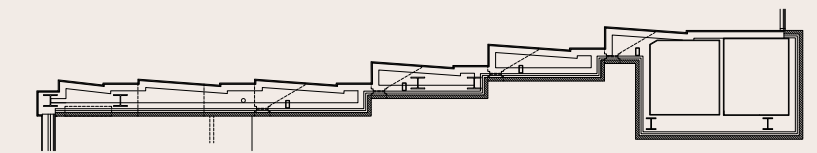
The sanctuary is comprised of seven lateral bands, acknowledging that every day is for prayer and learning, yet remembering that the seventh day is special, Shabbat. The seventh band is special as well. It is the most nearly complete band; it frames the Bimah, and holds the Ark. When the Sanctuary and Social Hall are combined into one worship space, there are twelve bands, symbolic of the original twelve tribes of Israel.



SECTION AT HALLWAY FLANKING SANCTUARY



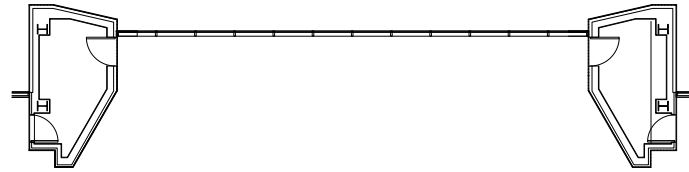
SANCTUARY SOUTH WALL DETAIL ELEVATION OF WRC PANELING



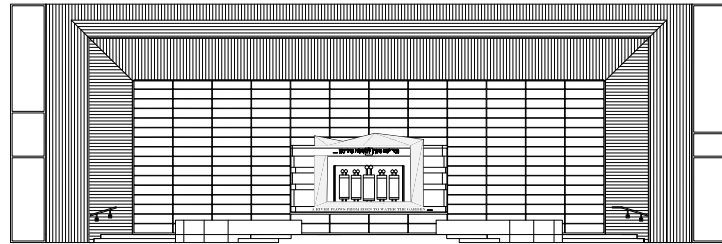
PLAN DETAIL OF WRC PANELING AT SANCTUARY SOUTH WALL

Western Red Cedar was used to accentuate the architectural banding while creating warmth throughout the space. Each band of cedar, symbolic of the 7 days to the Sabbath, is engraved with quotations, heightening the contrast with the plain plaster surfaces and giving architectural expression to the ideas inherent in Judaism. ■

SANCTUARY PLAN: 7th Band



SANCTUARY ELEVATION - East



## WRC SPECIFICATIONS

**Grade:** Kiln dried Grade A

**Profile:** Tongue and groove

**Size:** 1x4 flush planks

**Fastening Method:** Blind nailing with recessed brads at extreme corners

**Applied Finish:** Low VOC stain to mimic weathered cedar



LOCATION:  
Shelter Island, NY, USA

PROJECT TYPE:  
RESIDENTIAL

## YN-13 House

YN-13 House is located near the northern tip of Shelter Island, a small island that lies off the eastern end of Long Island in New York State. The house is organized on its site as three independent structures: the main house, a guest house, and a garage which, in concert with the wooded surrounds, enclose a rear courtyard- space with a swimming pool at its centre.

The angular pitched metal roof and protruding corners of the main house reinforce primary views of the landscape and ocean beyond. The design of the Western Red Cedar cladding was inspired by historic Japanese residential structures in Kyoto and Kanazawa. The vertical battens and beveled horizontal siding merge with the standing seams of the stainless steel roofing to visually unify the ensemble.

The Western Red Cedar surfaces are designed to emphasize the architectural sequence, becoming increasingly smoother as one moves from exterior to interior spaces. Tongue-and-groove cedar siding defines the outdoor rooms around the pool and articulates the transitional spaces from exterior to interior at the eaves and terraces.

### PROJECT CREDITS

**Architect:**  
Morris Sato Studio LLP

**Structural Engineer:**  
Severud Associates

**General Contractor:**  
Legacy Homes, Inc.

**Photography:**  
Mathew Carbone, Chris Foster, and  
Morris Sato Studio

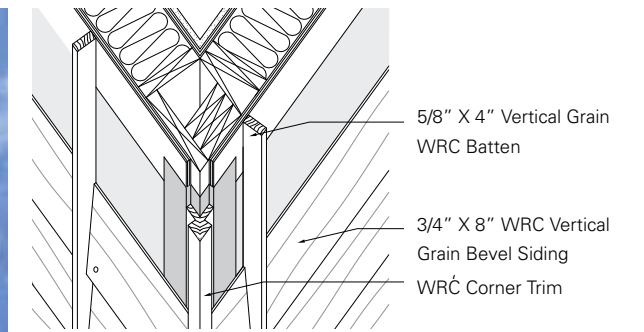
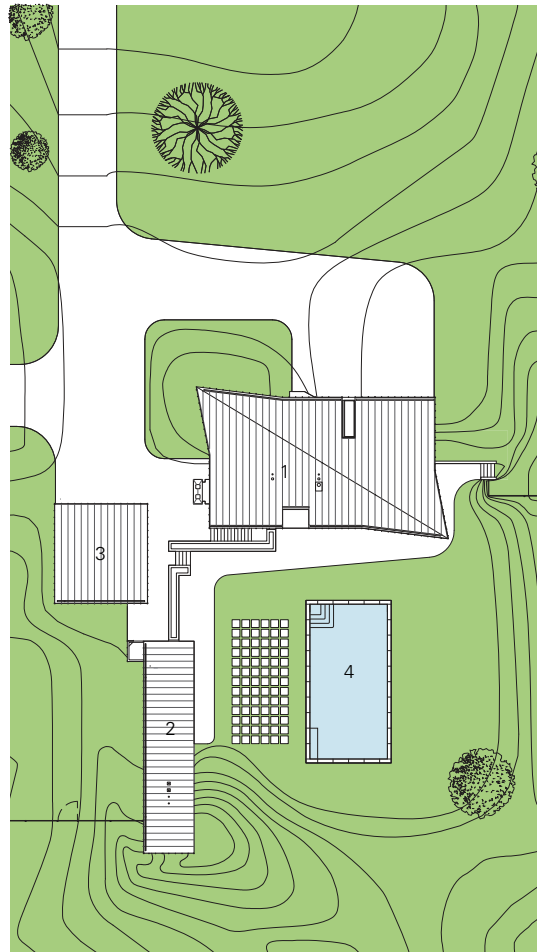


On the interior, the open, loft-like first level allows for an uninterrupted diagonal flow of space, and the expansive glazing at the corners connect indoor and outdoor activities. The second level bedrooms are punctured by a series of openings and terraces providing light and views and, together with recessed blinds, passively shading the interior. A large interior void joins the first and second floors with light and air, ventilating the house and reducing the dependence on air conditioning.

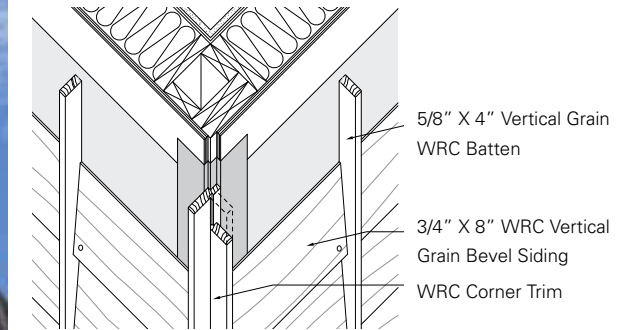
The visual and tactile qualities of the siding blend the structure into its wooded surroundings, and over the course of a day the sun animates the form as it oscillates from opaque to transparent, from movement to repose, and provides it with an aura between permanence and temporality. ■

**SITE PLAN**

- 1. Main House
- 2. Guest House
- 3. 2 Car Garage
- 4. Pool



DETAIL AT 72° CORNER



DETAIL AT 90° CORNER

**WRC SPECIFICATIONS**

**BOARD AND BATTEN SIDING**

- Grade:** Clear vertical grain
- Profile:** Tongue and groove
- Size:** Custom 3/4 x 8" boards; 4x4" surfaced four sides (battens)
- Fastening Method:** Stainless steel ring shank nails
- Applied Finish:** Bleaching oil

**VERTICAL SIDING AND SOFFITS**

- Grade:** Clear vertical grain centre matched
- Profile:** Bevel (boards); rectangular (battens)
- Size:** 1x6"
- Fastening Method:** Stainless steel ring shank nails
- Applied Finish:** Bleaching oil







