



359 DAY ROAD, SAINT CROIX FALLS, WISCONSIN

On a site of **stones, trees and ruins**, the house becomes an interpretation of these features expressed through material, structure and space. The project began with an “unbuildable” steep lot in a residential neighborhood of Saint Croix Falls, Wisconsin. This small main street town is located on the bluffs above the Saint Croix River and is surrounded by state parks and rural farms. The sloped, rocky and densely wooded site includes the ruins of a stone barn foundation from an 1800s farmstead. The designer/builder spent 3 years studying the area, refining the design, researching the products and details, and building this speculative house on weekends.

The design of the house is integrated into the site to **reveal the beauty of the natural landscape and history of the place**. Concrete foundation walls are seen as an abstraction of the rocky site and old stone barn foundation. They rise from the ground to support a lattice of cedar posts and beams. The dense trees inspired the choice of timber construction, the tectonics and patterns of the members, and the qualities of the breezy and shaded outdoor walkways and decks. The history of the lost farmstead also influenced the design. Not unlike a typical farmyard organization, the architectural elements respond to the sun and wind orientation, and they surround and extend to the garden area, the trees and the old stone foundation. The vocabulary of the architecture such as the post and beam structure, cedar screen walls and galvanized metal sheathing recall local farm structures such as corncribs.

Other challenges for this house were to create a design that was small, well-planned, **well-crafted and sustainable**. The size of the house is compact yet planned to have flexible multi-purpose spaces. The structure is built into the slope, reconciling the elevation change from the street level to the lower forested level. The upper level of the house has large windows with a southern orientation. Large overhangs and deciduous trees shade the windows in the summer, yet allow the sunlight to deeply penetrate the spaces in winter. The covered walkways that wrap the upper level of the house offer an intermediate zone that is protected from the elements and allow a seamless transition between indoor and outdoor living. These walks have a birdseye view of the courtyard garden and they end at a shaded porch that hovers in the tree leaves. The lower level, constructed of exposed poured concrete that is partially submerged into the earth, stays very cool in warm weather. With the use of an air exchanger, cross ventilation and super insulated roof panels, the upper level also remains a pleasant temperature without a need for high energy air conditioning in the summer. In-floor heating in the concrete and wood floors as well as a wood-burning fireplace keep the house warm in winter. The materials selected for the house are very high quality and durable--concrete, galvanized metal siding and roofing, cedar posts and plywood, custom cedar windows and wood flooring. Salvaged and recycled materials were used extensively in the house including old laboratory countertops and heavy timber Douglas Fir beams from a demolished 1800s warehouse.



nearby farm structures

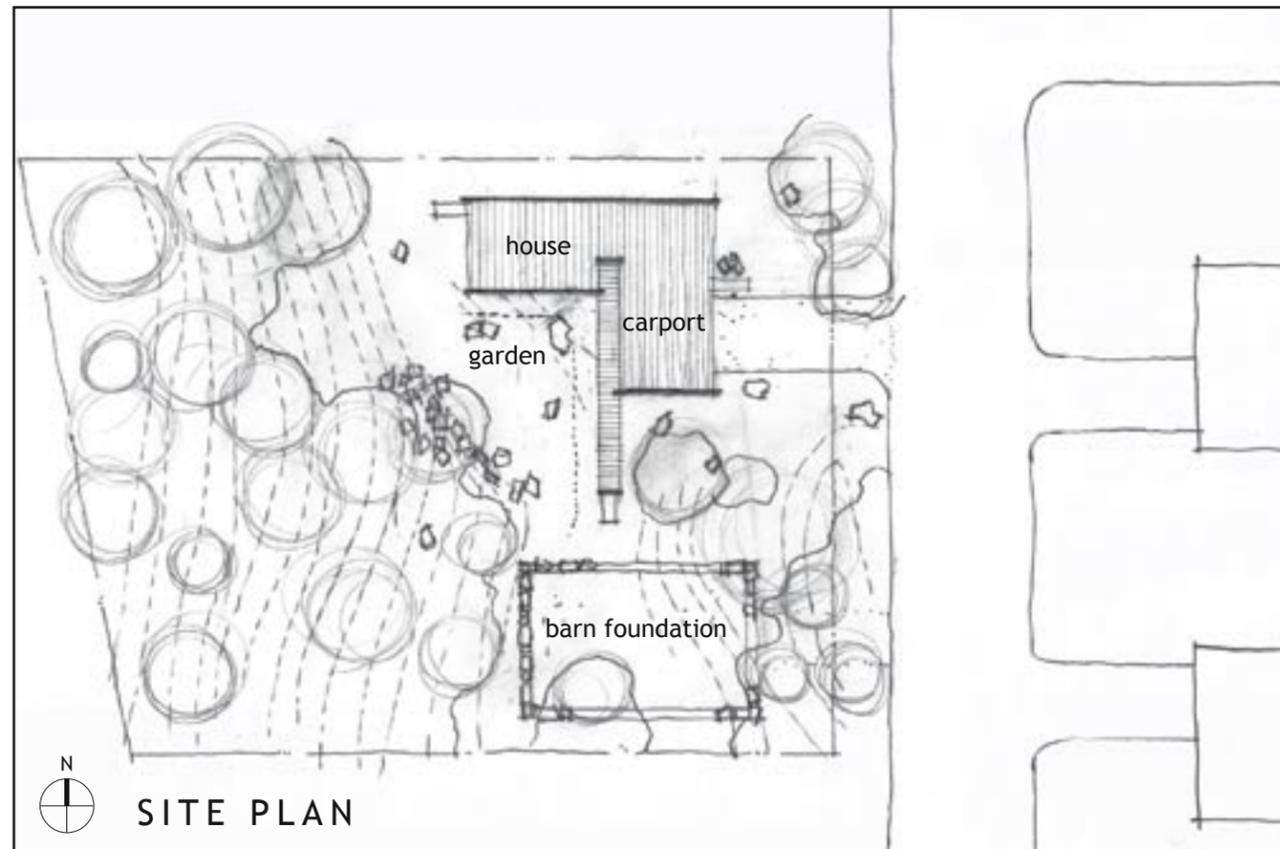


garden courtyard and “corncrib” screen wall



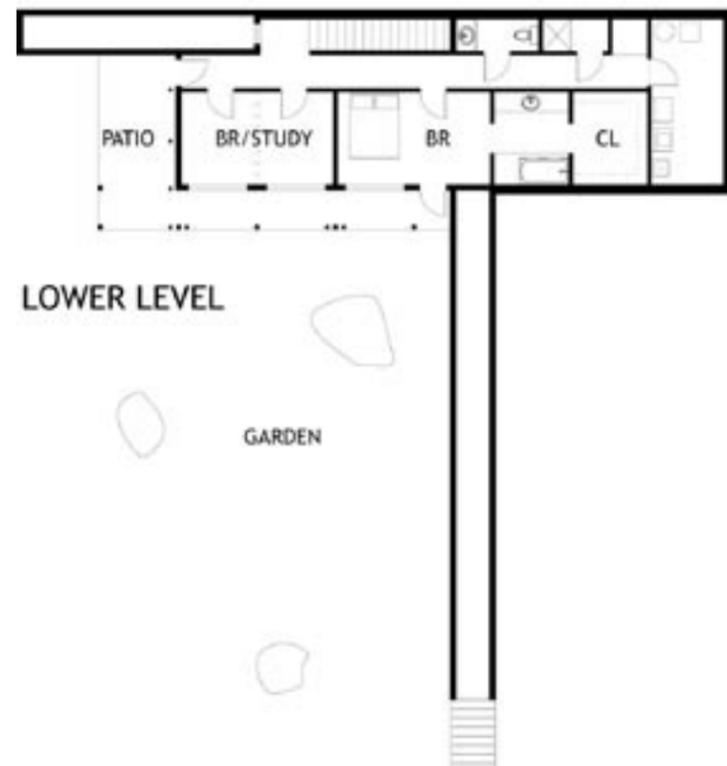
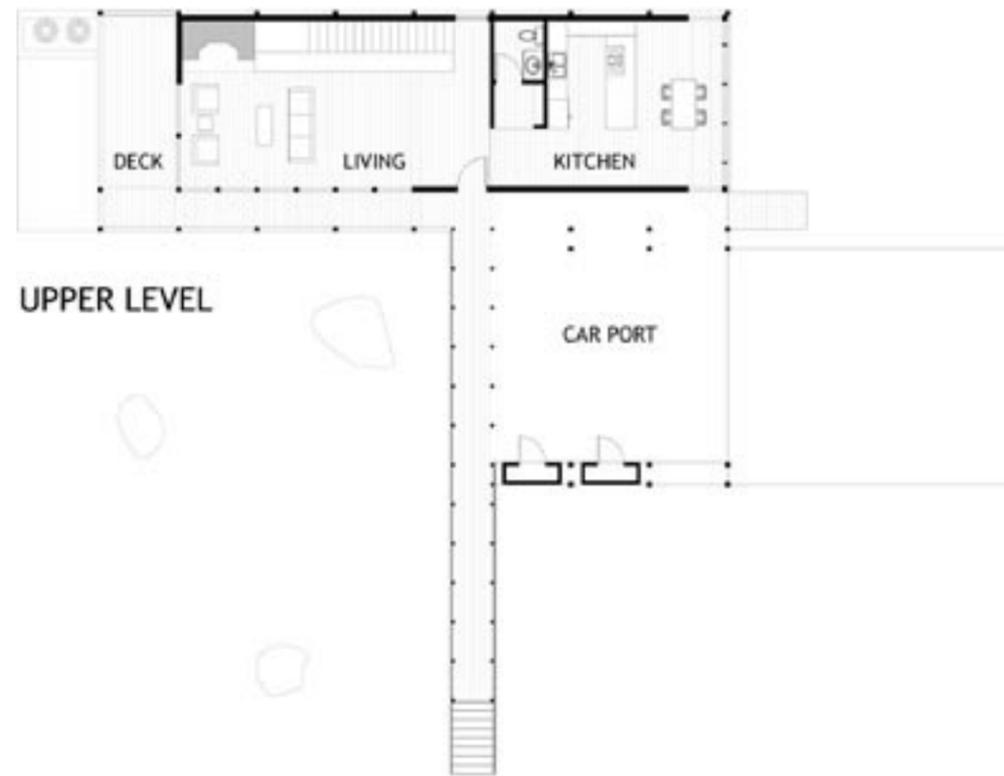
An open carport replaces the typical street facing garage to create a more welcoming entrance. This multi-purpose space may be used as an outdoor studio or work space, an entertaining space or car and storage space. Galvanized metal storage lockers enclose one side of the carport.

Cedar timbers and recycled Douglas Fir beams support the metal roof structure. The house is sheathed in cedar plywood panels with stainless steel joints. The concrete base of the house is flashed in galvanized metal.



The "corncrib" walkway separating the upper street level from the lower private courtyard garden leads down to an old stone barn foundation - a place for another garden, fire pit or outbuilding such as a studio or guest quarters.







The upper level of the house is an open multi-purpose room for living, dining and kitchen activities. Glass and screen doors also open to an outdoor porch area. A small powder room and coat room is enclosed with polycarbonate panels which provide privacy yet allow light to glow from the walls at night. Off-the-shelf industrial shelving units framed with wood and topped with stainless steel counters become display space and enclose the stairway opening. The kitchen has custom built steel and plywood casework with reused laboratory countertops. A dropped ceiling filters light through perforated steel panels.



The private lower level has an area that can be used as one large room or it can be partitioned off into two smaller rooms. A master bedroom, walk-in closet and spa are within one open space. A small european style toilet and shower room and a laundry/utility room are also on this level. The concrete walls and floors keep the rooms cool in the summer and in-floor heating creates a warm walking surface in winter.

