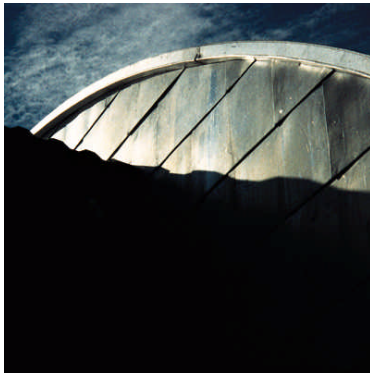
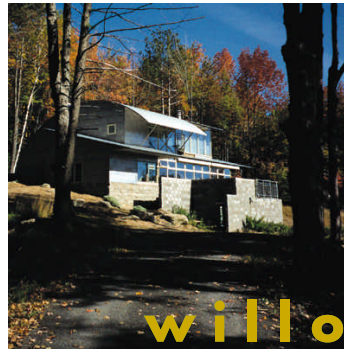




from south



siding detail



willow house



from west

Built for a book maker, a poet and their son in a clearing in the Catskill forests, this house provides spaces in which each family member can work or play, alone or together. Writing, music listening, homework, film developing, conversation, and printing can occur simultaneously in each of many "far corners" in this house.

In addition to meeting the program needs of this family, the design takes advantage of its site, burried into the corner of a south facing slope, the house opens onto views of a nearby meadow with a mountain valley in the distance.

During the winter the house is protected from northerly winds by twelve feet of earth and a highly insulated curving metal roof, and opens to the passive solar heat of the sun through a window wall facing south. Flagstone floors provide constant heat from embedded warm water tubing, and a ducted heat recovery system recycles the heat. Furthermore, great internal mass keeps the house warm on winter nights but cool on summer days when fabric awnings, roof overhangs, and a "Trombe" wall block the heat of the summer sun. Thirty-three window sashes can be opened to the mountain breezes.

Simple, low maintenance materials were used throughout, including super insulated windows, thermally broken split face insulated concrete block, insulated structural panels, terne coated stainless steel siding, and industrial corrugated roofing. This design conserves resources in another important way. Excluding site work, the house was contracted for sixty-eight dollars per square foot.

completed 1996

Kiss + Cathcart, Architects

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willow house

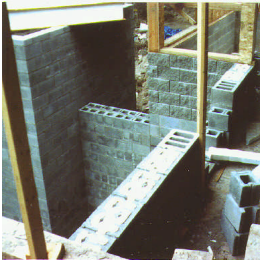


winter: overhang from southwest

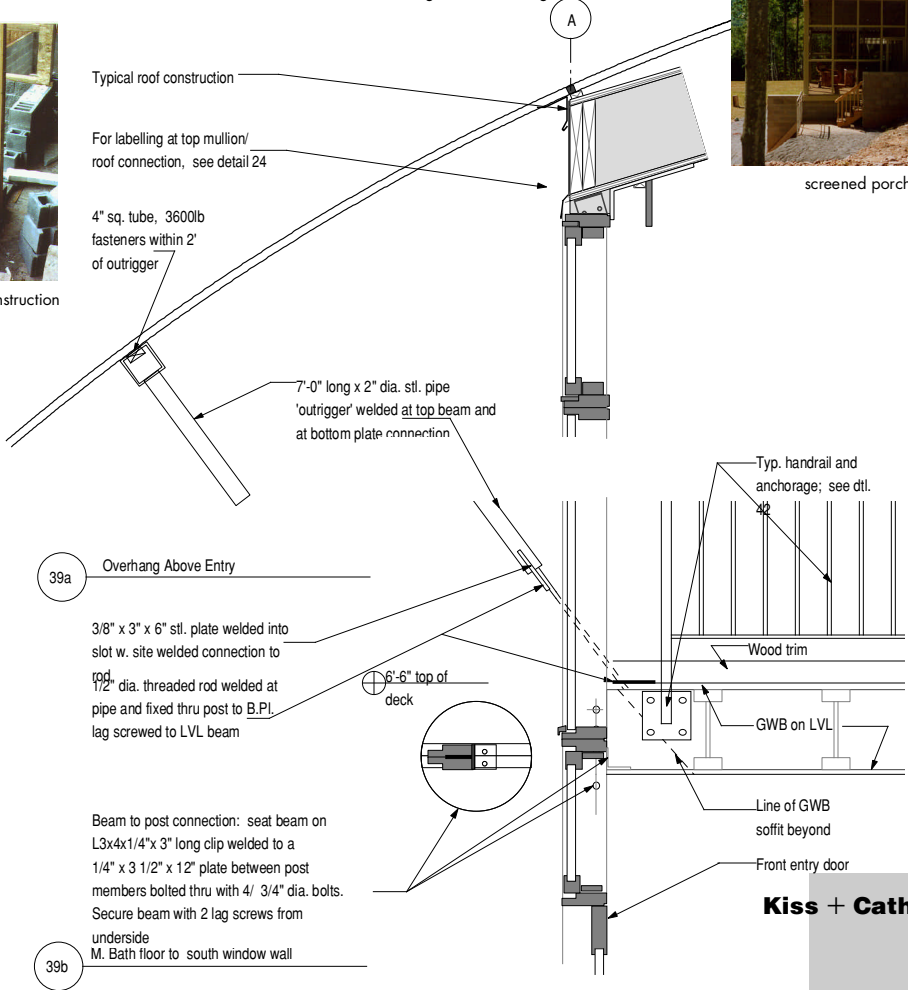


screened porch from north

deck, awnings, and overhang at south

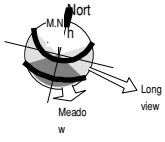


foundation construction

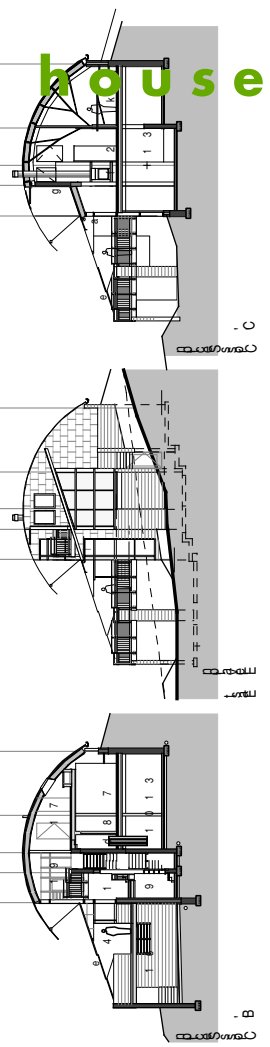
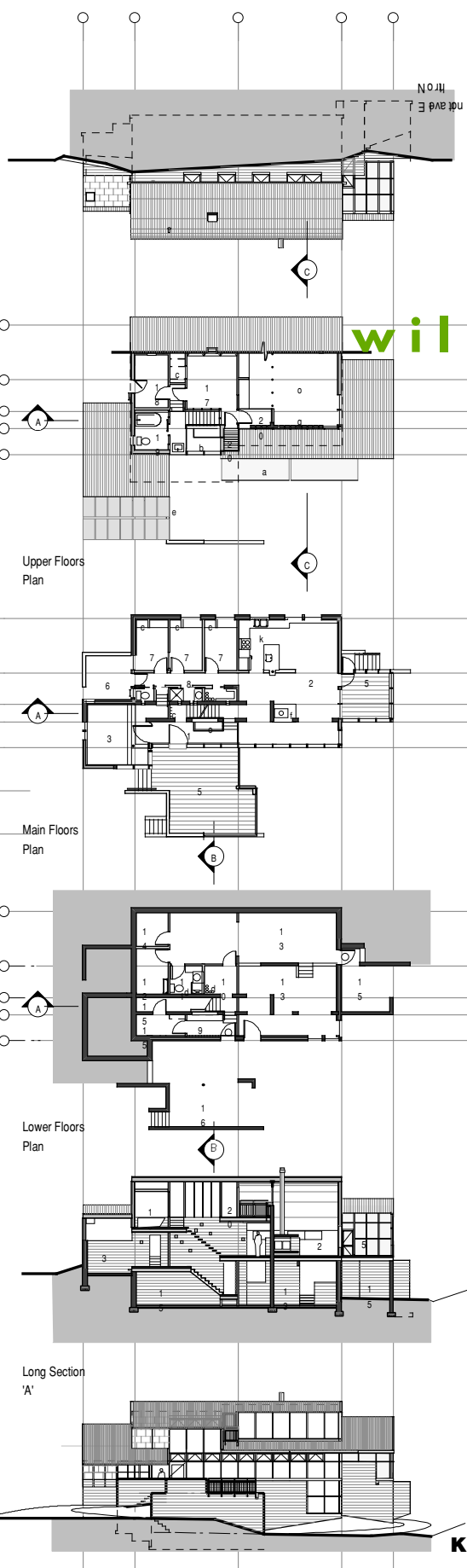


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willow house



- Key:
- 1 Front Entry Hall
 - 2 Great Room
 - 3 TV Room
 - 4 Front Deck
 - 5 Screen Porch
 - 6 Courtyard
 - 7 Bedroom
 - 8 Back Hall
 - 9 Mud Room
 - 10 Recycling Room
 - 11 Laundry Room
 - 12 Dark Room
 - 13 Printing Studio
 - 14 Mechanical Room
 - 15 Storage
 - 16 Carport
 - 17 Master Bedroom
 - 18 Writing Room
 - 19 Master Bathroom
 - 20 Balcony

- a awnings
 b open to below
 c closets
 d chutes
 e pv panels
 f fireplace
 g trombe wall



roof construction

South Elevation

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Design Team:

Colin M. Cathcart, Luis Estrada, Kiss + Cathcart, Architects
John Whelan, Goldstein Assoc., Structural
Drew Gillett, Mechanical



Great Room



Sunspace



Fireplace

Materials:

Foundations: 12" concrete block with waterproof membrane, 2" extruded polystyrene insulation and drainage fabric.

Masonry Exterior Walls: 12" split face "webless" 25R integrally insulated Thermalock concrete masonry units.

Panel Exterior Walls: flat seam terne coated stainless steel sheet metal siding on 8" structural 30R insulated AFM R-Control prefabricated building panels.

Roof: Galvalume finish 22 gage corrugated steel roofing on 12" structural 50R insulated AFM R-Control prefabricated building panels spanning east-west between bearing walls and over steel 'tree truss' in Great Room.

Floors: Bluestone or VCT on gypsum concrete and hydronic tubing on engineered wood decks and framing or concrete slabs.

Ceilings: Tin finished pressed steel or gypsum wall board

Glass: R8 (center of glass) 'superglass' on north, west and east; R4 'low E' glass on south elevation

Mechanical Systems: Propane fired sealed combustion direct vent boiler; zoned hydronic radiant floor heating; ducted air to air heat recovery ventilator, gray water heat reclaimer; propane fired appliances; prefabricated fireplace with ducted combustion air supply.

Electrical Systems: All fluorescent and HID lighting; 1 Kw utility interactive amorphous silicon photovoltaic array with battery backup.

willow house

One approaches the house from the southwest, up a long drive through the woods from a mountain road near Woodstock, New York. The narrow view of the house nestled into the forest soon widens to reveal a sloping meadow to the south of the house, ringed by mountains, with a pond far below. Guests may park in front of the wide stairs leading up to the front deck; the driveway then descends as it skirts south of the house to allow access to the carport below. Sheltered by a deep, curving overhang, the front door leads into the triple height entry hall.

This entry hall is part of a passive solar 'sun space' which runs the length of the south elevation of the house. Thermal mass is provided by interior concrete block walls and fireplace, together with the stone floors and hearth. The Great Room, which contains kitchen, living and dining areas, is up a half flight of stairs to the right, while the TV Room is down a half flight to the left.

Entered from behind the massive fireplace, the Great Room has a high curved ceiling clad in pressed steel, with its central beam supported by a tree-like steel column. Bluestone floors are warm underfoot. Small northern windows give a view into the understorey of forest above the house. The fireplace is set between two stone slabs cantilevered from concrete block supports. A high 'trombe wall' made with concrete block shields the room from harsh southern light in winter, and radiates warm air at night. The Kitchen is made with dyed birchwood, with a 'diner edge' countertop. The back hall leads to bedrooms and bathrooms behind the concrete walls of the stairhall, to the west courtyard, and via a narrow back stair, to the TV Room.

Upstairs, the Master Bedroom is tight under the curving roof, and has access to a small high balcony with a view of the meadow, pond and mountains, as well as access to a balcony overlooking the Great Room. The Writing Room catches the evening light with a small western balcony.

Downstairs, the printing studio is below grade on the north, but has generous windows facing southeast. Recycling chutes from the main floor empty into bins beside the mud room, which has direct access to carport below the front deck.

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