



A stone wall encloses the home's base, keeping the elevated first floor from appearing too high off the ground. An east-facing, ipé-floored porch provides a space for entertaining groups and watching the sun rise.

On Site

Nerves of Steel



Anyone involved in the building business knows the truth of the old aphorism: Appearances can deceive. The sturdiest-looking old row house could be crumbling to dust inside. And the simplest detail in a contemporary dwelling may have taken months of trial and error to perfect.

At this waterfront house for an empty-nester couple in Riverside, Conn., architectural sleight of hand conceals the typical trappings of a Modern residence—a mostly steel frame, an open floor plan, and lots of glass—within the guise of a traditional, Arts and Crafts-influenced design. The need for steel stemmed from the project's wind-pounded location on a cove that flows into Long Island Sound: The owners wanted an open first floor without visible posts

or supports, and the steel frame satisfied that request while still meeting local wind load requirements. Architect Duo Dickinson worked with builder Bill Manderville and structural engineer Ed Stanley to plan the frame's exact dimensions. Luckily, Manderville had some past experience working with steel on commercial projects. "There's zero margin of error for steel construction," says Dickinson. "You can always

By Meghan Drueding

A brawny frame underlies the effortless charm of a coastal Connecticut home.



The home's many rounded features—including the windowed living room wall, the corner fireplace and chimney, and the gently turning staircase—recall the curvilinear lines of a boat.

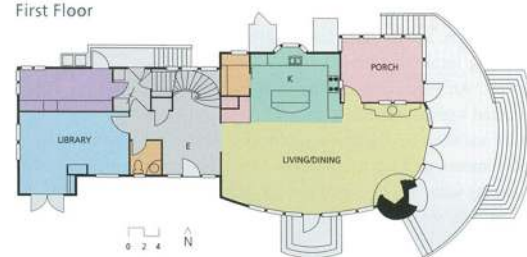
cut and adjust wood in the field very easily, but you have to cut and fit and prepare connections for the steel off site."

The lot measures a quarter of an acre, and local siting restrictions considerably reduced the buildable envelope. So Dickinson, the author of two books on

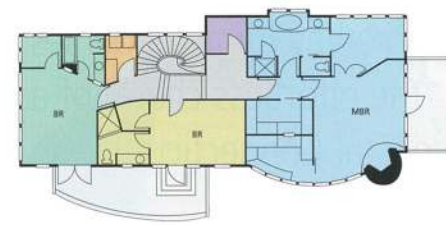
small house design, finessed the owners' program into a relatively modest 3,100 square feet. A combination kitchen, living room, and screened-in dining porch takes up over half of the first floor, but somehow it feels comfortably spacious, never overwhelming. Dickinson carefully man-

aged the proportions, giving the ceilings 11 feet of height to counter the room's 38-foot length. Five-inch-wide white oak floorboards also suit the space's oversized scale. "That was as wide as you could go, with the moisture in the air," says Manderville. "Wider boards get more movement

First Floor



Second Floor



across the grain." And Dickinson paid particular attention to the width and height of the room's entries and exits. "What makes it different is the scale of the room openings," he says. "They come close to the ceilings and get low to the floor. It gives you a sense of release."

In another gesture more typical of contemporary-style houses than traditional ones, he designed long rows of windows, one series stretching 26 feet across the south side of the house. Each individual window

is set into its own steel frame and laid in a pre-existing steel grid for extra strength and rigidity. After all, the site features water views in three directions, and Dickinson, Manderville, and the owners weren't about to let those go to waste. The home's roofs consist of pressure-treated cedar shingles on the second floor and standing-seam lead-coated copper on the first; both levels feature deep overhangs that protect the windows without descending low enough to mar the views. All the fenestration, plus the waterfront location, adds up to a golden opportunity for passive cooling. "[The idea was to] have the air conditioning on as little as possible," says Dickinson. "The

combination of large openings and small openings creates airflow." To encourage cross-ventilation even more, he designed hooks that hold open each interior door.

With cool breezes blowing through the rooms three seasons out of four, the house starts to feel a little like a sailboat. The effect is entirely intentional; the husband, an avid sailor, asked Dickinson and interior designer Ray Forehand to incorporate nautical elements into the project. A cherry-paneled first-floor library,



The Builder: Long-Term Values

In his 23 years at Tallman Building Co., Bill Manderville has developed strong views on the right way to build a custom home. He keeps his books open to the architects and clients he works with, so they know exactly what each step of the building process

will cost them. Architect Duo Dickinson appreciates it. "Our process with builders like this is to milk them for all the possible options and costs, so the owners aren't wishing they went with a different option later," he says. Manderville also encourages clients to invest in items that will prolong the life and quality of the house, such as the flood-control systems in the Riverside house's garage/basement. "We spent the money in the places you don't see," he says. "It will end up costing the owners less—there's a lower cycle cost and enormous value." And he believes in having skilled carpenters on his staff, rather than using carpenter subs. "The way it's going around this area is to sub out because of insurance," he says. "We don't do it that way. We feel it's too disconnected to have all subs. It's one thing if you're building condos, but on this kind of house you need to know who's going to be there." The company usually employs anywhere from 16 to 22 in-house carpenters, most of them hired from within. "All our guys start from the beginning and work their way up," he says. —M.D.



Varnished cherry gleams in the library and kitchen, while simple painted wood lends a sense of calm to the master bedroom (opposite below).

conceived as the equivalent of a captain's quarters, received several coats of Epifanes boat varnish for an extra-glossy finish. In the kitchen, cherry cabinetry got the same treatment, and an old porthole salvaged from a 1930s ship forms a pass-through to the screened-in dining porch. Manderville

used leftover scraps to make a sumptuous cherry veneer for the porthole's jamb.

The main living area features a set of nautical instruments built into the wall, telling the barometric pressure, wind speed, wind direction, and outdoor temperature at any given moment. And a compass-shaped

granite mosaic set into the limestone entry floor helps visiting sailors get their bearings. The winding, site-built central staircase exemplifies the home's precise detailing, another hallmark of boat design.

The house is well equipped to handle rainstorms and flooding. During excavation,

Project Credits: Builder: The Tallman Building Co., Westport, Conn.; Architect: Duo Dickinson Architect, Madison, Conn.; Landscape architect: Rutherford Associates, Old Greenwich, Conn.; Interior designer: Raymond Forehand Associates, Fairfield, Conn.; Structural engineer: Edward Stanley Engineers, Guilford, Conn.; Site engineer: Joseph Risoli, Riverside, Conn.; Living space: 3,100 square feet; Site: .25 acre; Construction cost: Withheld; Photography: Durston Saylor. ■ Resources: Bathroom plumbing fittings: Perrin & Rowe, Circle 400; Bathroom plumbing fixtures: Toto, Circle 401; Dishwasher: Asko, Circle 402; Hardware: Baldwin, Circle 403, Highline, Circle 404, and Merritt, Circle 405; HVAC equipment: Burnham, Circle 406 and Trane, Circle 407; Kitchen plumbing fittings: Bates & Bates, Circle 408 and Kindred, Circle 409; Kitchen plumbing fixtures: KWC, Circle 410 and Rohl, Circle 411; Lighting control: LiteTouch, Circle 412; Lighting fixtures: Bega, Circle 413, Iris, Circle 414, and Q-Tran, Circle 415; Motorized shades: Lutron, Circle 416; Oven: Wolf, Circle 417; Paint: Benjamin Moore, Circle 418, Epifanes, Circle 419, and Sikkens, Circle 420; Patio doors/windows: Pella, Circle 421; Refrigerator: Sub-Zero, Circle 422; Skylights: Velux, Circle 423; Stand-by generator: Kohler, Circle 424; Structural lumber: Boise Cascade, Circle 425.



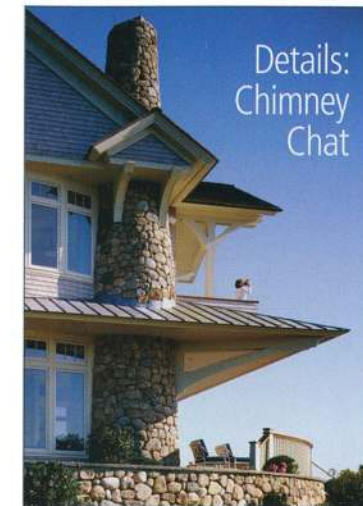
Manderville's crew employed pumps to de-water the site, and dug the foundation three feet below the mean high tide level. They drove 125 timber piles 12 to 35 feet through the ground to reach bedrock, giving the foundation some extra support. A waterproofing membrane of bentonite, a volcanic ash and clay mixture, tops the piles. And the crew poured a 3-foot-thick, 220-cubic-yard concrete slab over the membrane. "The slab is used as a weight to counteract buoyancy, so the house doesn't pop out of the ground when the water table comes up," says Manderville. Dickinson tucked the combination garage and basement into that foundation level, specifying a dual-pump system, gravity drain, and flood vents to keep water out. The wisdom of all this preparation became evident early in the construction process, when a simultaneous nor'easter and a full moon tide filled the excavation hole with about 8 feet of water. Similar conditions have occurred since the house was built, but the lower level has stayed completely dry.

The comprehensive flood-control strategy matches the complexity of discreetly located items like lighting control panels, a whole-house

audiovisual scheme, radiant-heat floors, and variable-speed HVAC. Once again, this seemingly simple project gives no hint of the intricate systems within its walls. "You don't notice them," says Manderville. "It's a sophisticated house, but it feels very subtle." The clients' true appreciation for their home, however, is no secret at all. "I wanted to live in beauty because beauty speaks to your soul," says the husband. "I feel like I live in a piece of art." ■



When Duo Dickinson began drawing the home's chimney, he realized it would have to work with the curved walls he'd designed. "There are almost no hard edges to the house—it's very soft," he says. So he gave the chimney a slightly conical shape,



similar to a tall, tapered candle. In keeping with traditional masonry techniques, the largest stones—the hardest to lift—cover the lowest parts of the chimney, and the lighter, smaller ones are used at the top. Deep-raked joints render the mortar nearly invisible. ■ As builder Bill Manderville points out, the distinctive detail enriches the experience of approaching the house. "It's revealed as you come around the driveway ... like an explosive exclamation point." Evidently, others have noticed it too: The owners report that scullers rowing on Long Island Sound use the chimney as a sight to help keep them on their course.—M.D.