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RESIDENTIAL DESIGN

FOR ARCHITECTS AND BUILDERS
OF DISTINCTIVE HOMES

VOL. 2, 2023

The Edge of Tomorrow





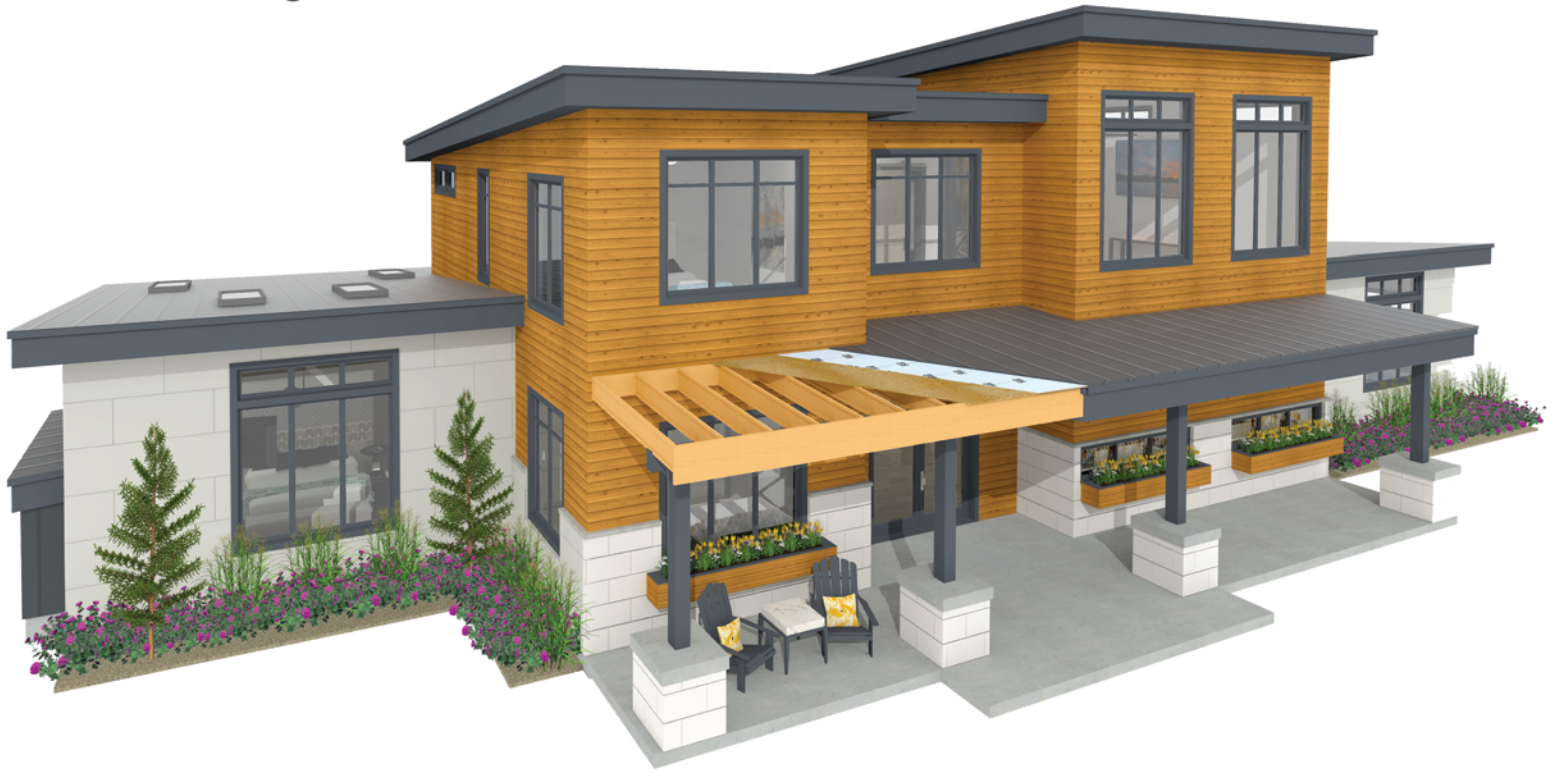
"The key to the design was openness. We wanted to bring the outdoors in, especially on the main level, and allow for outdoor areas on different levels of the home." **Adam Steiner, Cornerstone Architects**

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Welcome to Volume 2, 2023, of *Residential Design* magazine. We are the only national professional publication devoted to residential architects and custom builders. We're dedicated to providing you with expert insight and substantive information on high-end residential design and construction.

Our print edition is published every other month. And our newsletter is published twice a month. If you are not already a subscriber and would like to be, please go online to: ResidentialDesignMagazine.com/subscribe.

If you have an exceptional single-family residential project you'd like us to write about, or an interesting and instructive business story you'd like to share with other professionals, please email Claire@SOLAbRANDS.com.

We look forward to having you join our *Residential Design* community.

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RESIDENTIAL DESIGN

PUBLISHED BY

SOLA GROUP

SOLA Group, Inc.
223 West Erie, Suite 3SW
Chicago, IL 60654
847.920.9513

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and address changes, write to:

Residential Design,
Circulation Dept.,
P.O. Box 3007,
Northbrook, IL 60065-3007, or call 866.932.5904,
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Chasing STEM



As a former college English major, I've been alarmed by recent newspaper and magazine articles about the dwindling number of undergraduate students following that path—or any other humanities discipline—to a degree. Everyone, it seems, is chasing STEM in the hopes of lucrative employment in our tech-driven future. Maybe they're right and I'm wrong, but I've always believed that a degree in English, History, and the like, prepared you as a critical thinker and a lifelong learner—skills that help you keep your abilities fresh and marketable through a lifetime of career gyrations and reinventions.

I've believed similarly about architecture degrees—that they forge a unique bridge between left brain and right brain, preparing you to approach every undertaking with the problem-solving superpower of design thinking. You might not ultimately apply those skills to buildings, but nearly everything in our world could benefit from improved aesthetics and function—or complete reinvention from top to bottom.

I understand that, given the expense of secondary and beyond education these days, there's enormous pressure to secure a return on the investment as quickly as possible upon graduation. This is especially true for immigrants to the U.S. or first-generation college attendees. But locking in specific career trajectories so early on and divorcing them from any true passion for the subject matter seems like a recipe for lasting job dissatisfaction and perhaps even middling performance in those careers. Passion is the engine that drives innovation and achievement.

Yes, we all need to find a way to reliably feed and house ourselves, but I'd argue that trained creative thinkers are more likely to adapt to changes in what the world needs from us. Today's highly specific STEM major might prove to be a moribund field in 10 years, as we veer off in another more promising direction. Dead ends happen all the time. Maybe a chatbot really could write this column now or in a couple of years.

But can a chatbot tap into a flow state that synthesizes a lifetime of learning, observation, and practice into something cogent and transformative? Or is that a uniquely human ability facilitated by education in the arts and humanities? How often have you tapped that flow while you were drawing or absorbing other work by inspiring architects?

Inspiration may in fact be our greatest quality as human beings, along with the potential to act on it and invent something new, valuable, beautiful. I admire architects not just for their own sensibilities and what they can generate from them, but also their talent for eliciting creativity, skills, and problem solving from other collaborating disciplines—the metalworker, the finish carpenter, the structural engineer.

Nothing is more powerful than the capacity to be inspired and to inspire others, helping us all to reach heights we thought were beyond us. In fact, it's unquantifiable.

A handwritten signature in black ink, reading "S. Claire Conroy". The signature is fluid and cursive.

S. Claire Conroy
Editor-in-Chief
claire@SOLAbands.com



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Another Country Heard From

BY STUART COHEN, FAIA



Stuart Cohen, FAIA

Photos: Courtesy Cohen & Hacker

For many AIA CRAN members, Residential Design magazine is an aspirational publication. In 45 years as a residential architect, Cohen & Hacker Architects has done only a dozen new houses. The bulk of our work has been house additions and remodeling. I suspect that doing mostly additions is typical for small residential firms and sole practitioners. After a decade of doing this work, the conceit that our practice is “idea driven” led me to write an article, “On Adding On” (Thresholds, Rizzoli, 1985, pp. 75-90), that tried to categorize addition strategies. While I discussed primarily commercial and institutional buildings, I felt that what I wanted to say applied to residential additions as well.

I felt that there were two main categories of additions, those that were dependent on the original structure and those that were independent—the latter primarily additions that were linked pavilions. The planning strategies I identified were lateral, concentric, and vertical extensions. These were illustrated with historic examples: Charles Bulfinch’s Massachusetts State House of 1828 was extended laterally by no less than three additions to the back.

And then in 1917, symmetrical additions were built on either side of the front of the domed original State House. Concentric extensions—additions that wrap the original building—were illustrated by Andrea Palladio’s Basilica in Vicenza, a Gothic building surrounded by new Classical arcades, and by Frank Gehry’s house in Santa Monica, where two sides of the house are wrapped by an addition that creates space between an outer wall and the existing house. In both examples the original structures were radically transformed.

Lastly, the Classical Boston Custom House of 1847 had its dome removed in 1913 and replaced by a 30-story office tower, turning the original structure into the tower’s base.

The question of the style of an addition in relation to the original building wasn’t discussed in my article, except tangentially, in the examples that transformed the elements of the original building, as

commentary or criticism. One attitude toward this question was the Secretary of the Interior’s Standards (1976) for additions to historic structures. It required that additions be clearly different to retain the primacy of the historic building. I believe the question is more complex. The Secretary of the Interior’s Standards correctly identified the problem. It is how we understand the relative importance of an addition to the original building. I agree that this should be a determining factor in the choice of architectural language.

Should the style, visual elements, and compositional ideas of a building be extended when making an addition? When is it OK in terms of perceived meaning to build an addition in a radically different style, and what does this signify other than to distinguish new from old? Early 20th century Modernism made the distinction between new and old a rejection of the societal values represented by historic buildings. Do additions that are differentiated from the original building still suggest that they are somehow superior and more appropriate to our time?

To visually differentiate a building addition gives it equal or more importance than the original building. Small additions when done as pavilions can force the original building to act as background, giving the addition more importance.

For public buildings, it is easy to imagine additions that might deserve this attention: auditoria added to school buildings; council chambers added to city halls; rare collection rooms added to museums or libraries. But what about kitchens, family rooms, or bedroom additions to houses? Why should these be articulated as elements of great importance, except as a function of an architect’s ego and the need to announce their presence?

Years ago, in his groundbreaking book, “Design of Cities,” Edmund Bacon suggested the concept of “the second architect” to describe the ethical responsibilities of an architect asked to add a new building to an existing ensemble of significant urban buildings. Surely the idea should apply to building additions as well?

What if the building you are altering isn't very good? Because of where we practice, we've been fortunate over the years to work on many architecturally distinguished houses. But what if you're asked to add to a poorly designed builder house?

Since these houses were never done in a cultural vacuum, we begin by asking, what was the misunderstood or corrupted model for the house? The builder "ranch house" of the 1950s and '60s were perhaps the illegitimate descendants of Frank Lloyd Wright Usonian houses. Perhaps the McMansions of the 1980s and '90s were aspiring to be colonial mansions reimagined as overweight picturesque cottages.

Find a starting point and remember "you can't make a silk purse out of a sow's ear" (unless you have an unlimited budget). However, lots of beautiful products can be made from pigskin. This is not the same as "putting lipstick on a pig."

In our practice we almost always build additions as seamless extensions of the original house or transformations when the opportunity arises. Illustrated in this article are three examples from our practice over the years. The mindset described above allowed us to do additions to houses many architects were trained to look down upon. Perhaps the most dramatic example would be our addition and remodeling of a one-story 1950s

Photos: Courtesy Cohen & Hacker



A Cohen & Hacker remodel of an undistinguished 1950s ranch house tries to "get it right" or, perhaps, Wright?

Photos: Courtesy Cohen & Hacker



ranch house, reconfiguring it to reflect its lineage and trying to get it right.

Many of our early additions, such as a screened porch add-on to a 1960s Midcentury Modern house by Chicago architect George Fred Keck, were modest and entailed very simple extensions of the forms and visual language of the original structure.

For an English-style country house project with a nicely designed attached garage addition from the 1990s, we had to move the garage forward because the house backed up to a ravine. That allowed us to enlarge the kitchen, create a new breakfast area, and add a family room and a larger mudroom. We rebuilt the garage and extended the full-height second floor over the kitchen to create closets, a dressing area, and a new bathroom for the principal bedroom suite.

Perhaps these projects will help to clarify the strategies discussed and our attitude toward doing house additions, and will encourage those who feel their work is somehow less because they are not designing new multi-million-dollar houses.

Stuart Cohen, FAIA, is co-chair of the Chicago Chapter of AIA CRAN. He is the recipient of The Chicago Chapter AIA's 2021 Lifetime Achievement Award. He and his partner, Julie Hacker, FAIA, are currently at work on an office monograph, to be called "First Additions," devoted to their house additions.

A notable Midcentury home receives a simple extension of its forms and language.

Photos: Before, Kathryn Quinn; after, Dave Burk, Hedrich-Blessing



Shifting the '90s garage addition to this English-style home liberated the interiors.

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Photos: Jill Hardy



Chad Rollins (far left) and Scott Edwards set Dovetail on a new path when they bought the then-20-year-old company from their former boss in 2011.

Joint Venture

DOVETAIL GENERAL CONTRACTORS
SEATTLE

In 1998, Scott Edwards took a job as a project manager for a small Seattle builder named Dovetail. He left after a few years to work for a large framing company but returned in 2005. In his absence, Chad Rollins had joined the staff, which numbered about 18. With an architecture degree, Chad had previously worked for the Miller Hull Partnership on public projects, and then briefly as a contractor. The men teamed up as general managers at Dovetail until 2011, when the owner had to step away. Then they bought the 20-year-old business, opening a bottle of prosecco to celebrate.

Dovetail is a dynamic company that has translated its original name into a well-honed working philosophy. “The wood shop was a component of the previous inception and is part of where the company name came from,” Scott says. “But we have a different connotation for it now: being that strengthful joint that unites the design and execution and management of work and can lock it all together. We expanded it to how we see ourselves in the building scene.”

The past decade has been a transformative period at Dovetail. With about



Photo: Kevin Scott

100 employees working in an adaptive reuse waterfront building in Seattle’s Ballard neighborhood, the company has built a robust regional presence. The partners attribute that to three

Dovetail’s concrete shop, Fieldworks Custom Concrete, fabricated the board-formed concrete walls, patio pavers, courtyard water feature, and driveway at Homecoming Beach House, designed by Seattle-based Heliotrope Architects.

Photos: Kevin Scott



At the Perch, overlooking the Salish Sea, the company used CNC equipment to fabricate elements such as a Corian sofa base, metal staircase rods and walnut treads that can be dismantled for maintenance, and the serpentine portions of concrete and aluminum formwork on the courtyard water feature.



concepts: a servant leadership approach to management, well-defined processes that are continually being assessed and improved, and attracting talented people by providing mentorship, a clear path for professional growth, and a competitive compensation package—the things people need to be successful outside of work.

To understand how they got here, one need only look at the partners' own turning points. When Scott was recruited away to the framing world in the early 2000s, it was an opportunity to learn how to run a larger construction firm of about 300 people. "It wasn't running well, and a consultant hired me to come and fix the problems," he says. After a time, however, "I had a question in my soul about what I was working on. Dovetail felt better from many standpoints."

One reason was that when Scott left Dovetail, they had been building Craftsman-style homes. While he was away, Chad had begun to nudge the umwelt in a different direction: Scott returned to a company that architects trusted with the complexities of modern design. "I wanted to be involved with a group performing at a higher level," Scott says.



“What I love about construction is that the skill set is handed to the next person very personally.”
—Chad Rollins

Chad had similar moments of clarity in his career path. Miller Hull’s public projects had three- to five-year timelines from concept to completion. His desire to be closer to the work and to precise craftsmanship led him away from architecture to general contracting.

Purchasing the business in the aftermath of the housing crash presented a sink-or-swim opportunity to examine what they did best and, as Chad says, “tweak all those dials going forward.” Seattle’s food culture was exploding, so they developed relationships with restaurateurs and others in the commercial industry. “We were working with architects trying to muscle their way through the downturn,” he says. “We found that our system transferred from residential to commercial work seamlessly. Carpenters in the field were able to bring something special on their own accord. And to have our work be more public was nice for morale.”

As the company began to produce larger projects, the wood shop grew, acquiring more sophisticated equipment such as a CNC machine. And by 2015, with Dovetail producing shop drawings



Reclaimed fir, milled from a 2,300-year-old slab, appears on the exterior and the kitchen island of City Cabin, designed by Olson Kundig Architects. Dovetail produced all the cabinetry and metalwork. The passive solar house also has a green roof and PV array.

for vast amounts of metalwork, it opened its own metal shop, followed by a concrete shop in 2018. Then, the partners began hiring in a more intentional way.

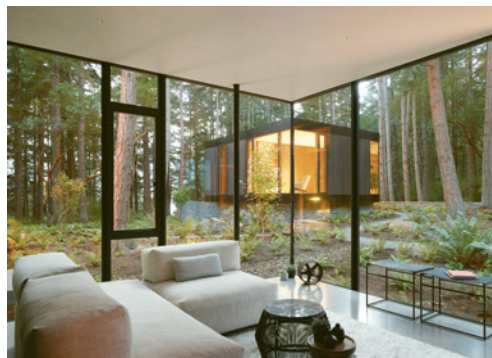
People and Process

Dovetail has grown methodically, expanding its staff by 7 or 8 percent each year. That pace gives it time to



test its systems. With 10 or more active projects at a time, each job has a project manager, dedicated superintendent, foreman, and lead carpenter—and most jobs are now large enough to require a project engineer. These well-defined job descriptions create a visible path for advancement. “By building a system and investing in our

Photos: Kevin Scott



Whidbey Island Farmhouse synthesizes Dovetail's flawless detailing of alder, teak, oak, steel, and stone.

people, not just financially but through our workforce, people can see how to get from laborer to carpenter 1, then to carpenter 2 and 3, then lead carpenter and foreman," Chad says.

"If they come in as a general carpenter and are interested in concrete, they learn to specialize in that trade. The more successive people there are on a path, the more stories they have to tell people coming in. Mentoring becomes this nice connection. What I love about construction is that the skill set is handed to the next person very personally."

Those skill sets plug into sophisticated processes that cross-pollinate the residential and commercial work. Ninety percent of Dovetail's projects come from architects, and the team forms as soon as schematics are approved to define scope, schedule, costs, and quality. Preconstruction involves using 3D digital modeling to vet the design team's drawings for constructability. Chad calls it the "conflict resolution process," and it's as important for houses as commercial projects.

"We have a heavy hand in orchestrating mechanical, electrical, and

plumbing systems," he says. "Engineers might not be in sync with the architecture, so we're working closely with the architects to preserve design intention, and with our subcontractors, looking at potential conflicts that will hold up construction and getting it resolved beforehand."

The 50-50 partners prefer staying close to the work. While Chad oversees process, systems, and technical building proficiencies, Scott heads up human resources and team building. They share tasks such as business development, management, and team leadership. Synergy is a catalyst for growth, and the partners like to stir the pot.

Dovetail's ideal project mix is 75 percent residential, 25 percent commercial, because with their longer timeline, houses offer more stability than commercial work. A \$7 million house might take 20 months to build, whereas a \$7 million restaurant goes up in seven months, Scott says. "Commercial work is fast and complex; we are successful in it because of the sophistication of what we're working

on residentially. Bringing our expertise of craft to commercial projects elevates those projects, maybe through an idea or a hand on the site that makes it better.” The benefits go both ways.

Commercial work has influenced how they manage residential projects by teaching them how to push scheduling and move shop drawings through quickly. The diversity keeps them learning and growing.

Dovetail’s scripted rigor sets the homeowners up for success, too. Year after year, the company refines its templates by keeping track of the things that put pressure on a project, such as not having budget conversations early enough; when people want to move too quickly and skip some of the process; or scope creep during construction. Although every project is a prototype,

when clients request changes mid-stream, previous experience allows the team to adjust quickly. “You can tweak a system when you’re consistent with it, make improvements, lean into it, see what’s working,” says Scott.

The biggest component—and client stressor—is the home’s price tag, of course. “It’s probably one of the most unsavory parts of the conversation,” Chad says. “If we can come together early and vet that design against our historical knowledge of what it takes to build these projects, it makes the team stronger and healthier, because everyone is informed and expectations are aligned. Everyone wants cool things, but they cost money. At any time, we’re building five to seven projects, and also pricing five to seven projects, so we have a pretty deep understanding of what it will take.”

As a bonus, many Dovetail employees come from architectural backgrounds and work hard to find economies while preserving the design intent. “Sometimes just changing the methodology of how something is built puts it at a price point that’s achievable,” he adds.

Locked In

During the pandemic, many businesses were forced to work smarter on the fly. For Dovetail it was a chance to test how well its systems and values held up to adversity. One change the partners made was to procure materials earlier, asking clients to provide temporary storage if necessary and building that cost into the project budget. “The sanity of knowing the material was in our hands was a way to mitigate some of the



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At Homecoming Beach House, the exterior's stained, clear vertical-grain cedar continues inside, framing the Dovetail custom kitchen and statuary marble island.

supply chain issues,” Chad says. They’re also more cognizant now of protecting the health of the group. That means encouraging people to stay home when they’re sick, or Zooming instead of meeting in person.

Challenges notwithstanding, Dovetail is on the move. Not for the first time, they have outgrown a building. The wood shop will soon expand into an adaptive reuse building at Interbay, just across the ship channel from the office, where it will share a former car storage facility with a brewing company. Historically, moves have occurred every five or six years as the enterprise evolved. “The concrete shop is managed inside our building, and I envision a day when concrete will need its own space,” Chad says.

Looking ahead, Dovetail is positioned to compete as modernist houses become increasingly complicated to build. And as with residential projects, the partners will continue to look for commercial brands that share their values and vision, and for whom design and craft matter to the success of their clients’ businesses. An example is Filson, maker of durable outdoor wear. Dovetail has built Filson projects in Seattle

and New York City. Both designed by Seattle-based Heliotrope Architects, the stores’ rustic-refined casework, exposed timber, and metal and brick wood-burning fireplaces create a clear perception of the brand. Dovetail likes working with clients who share their

“I love the hierarchy of a restaurant in terms of dishwasher, prepper, sous chef—people can move through the same way as we can in our system.”

—Scott Edwards

preference for reusing historic buildings—such as the Fremont Collective project—and environmental focus, such as the Klotski Building, with its water collection and recycling systems. Restaurateurs who provide creative food will always be an appealing clientele, too.

“I love the hierarchy of a restaurant in terms of dishwasher, prepper, sous chef—people can move through the

same way as we can in our system,” Scott says. “A high-caliber chef is like a high-caliber lead carpenter. That duality is always interesting to us.”

In that way, the project types have a direct influence on the company culture, and vice versa. The goal, Scott and Chad say, is to build a strong philosophy that people can identify with, whether they are potential clients or prospective employees. Although the labor market is tight, they haven’t struggled to find talented people. “Because we have these different facets, it puts us in touch with a wide network of people. Our people have made us successful, and they become a magnetic force.”

Women make up about 18 percent of that force. They are performing at all levels, from carpenter to project manager to human resources director. Last fall, Dovetail’s wood shop hosted a workshop by women for women, in collaboration with Patagonia Seattle and Sawhorse Revolution. The latter, a nonprofit that teaches carpentry to youth, received the proceeds from ticket sales. With outreach activities like that, it’s easy to see why Chad says they consistently find young people who love this work. “Don’t give up on the younger generation,” he says. “They want to work too.”

In the simplest terms, the servant leadership model that Dovetail espouses means that the team leader’s job is to set up good days for their team, making sure they have the resources to be successful. Management fills in with people who check the boxes: who are passionate about the work, committed to personal and professional growth, and positive in the face of setbacks. “You have to be able to tell some jokes, too, have fun,” Chad quips.

Self-assured and possessed with talent, the contractors can see a clear path forward. “We are lucky to be doing amazing work that attracts amazing people,” Scott says.—Cheryl Weber

Advancing the *Art* of Timber Construction





Natatorium

EASTERN VERMONT
SMITH & VANSANT ARCHITECTS

Small and single-purpose, a pool house is that quintessential object that can be precisely designed down to the smallest of details. And in this case, the spectacular New England setting was an invitation to elevate that concept—literally, too, since the natatorium sits at the tallest point of a 152-acre site that includes a main house, log cabin guest house, and caretaker’s house. It is so meticulously designed that despite its 2,250 square feet—fairly large for a pool house—it feels like a cozy hideaway.

This effect is achieved any number of ways, from the proportional relationships between walls, windows, and ceiling, to the cohesive use of materials and color.

Even more striking than the assemblage of these elements is the relationship between the natatorium and its surroundings. Its orientation is due south, on axis with Mount Ascutney, a volcanic mountain that rises from the Connecticut River Valley in southeastern Vermont.

The emphasis on the outdoors reflects the priorities of the owner, who, perhaps impractically, envisioned a solarium type of building with an infinity pool. “The client’s basic request was for an indoor swimming place that would be a separate destination from the house and used year-round,” says Smith & Vansant Architects principal Pi Smith, AIA. “She wanted it

to have great views, and the exterior needed to match the language of the original house. It was meant to be a draw for her two children who are in their 20s and on the cusp of having families of their own.”

Designed around a 40-by-14-foot pool, the gabled, timber frame building is clad in shingles that reference the style of the main house. The long bar-shaped footprint contains the pool, where a 24-foot-wide-by-11-foot-high bifold glass door system brings in the mountain view to the south. A smaller wing on the north houses the supporting spaces—kitchenette, bath and sauna, changing room, laundry, and mechanical access, with an octagonal inglenook at its center. The inglenook’s small custom table and built-in upholstered seating gaze across the pool—through the expansive glass doors to a stone terrace and the mountain beyond. On the east side of the house, a gable-roof front porch frames this view on approach.



On the property’s highest point, a 40-foot-long pool organizes the main gabled volume, while the perpendicular roofline houses a kitchenette, bath and sauna, and changing room.

High Handed

Before they began sketching, the architects had spent some time looking at

precedents. “What we mostly learned was what not to do,” Pi says. “You have to think about the proportions of the

space. We knew the pool had to be 40 feet long and have space around it for the pool deck. That’s almost a barn shape, long and narrow, and if the walls aren’t tall enough, the space can look squat and underlit. The other thing that struck us was that discontinuities between wall and ceiling finishes reinforced those proportional issues.”

The result of these studies is a tall volume that relates to the length of the pool, with continuous fir wrapping the walls and exposed truss ceiling under a SIP roof. Rather than having a flat ceiling plane implied by the bottom of the trusses, they were designed to lift in the center. Their lines reflect the flat deck around the pool; the trusses go up where the pool goes down. The windows look normally sized in this context, but in fact are quite large—3 feet, 6 inches wide by 8 feet, 3 inches tall. Window and door heads are about



A foldaway window wall frames a perfectly centered view of Mount Ascutney.



Handmade mosaics decorate the cozy inglenook at the intersection of the two volumes. HVAC grilles were incorporated into the pool room transoms, whose yellow, gold, and green Youghiogheny art glass echoes the landscape colors. The benches double as storage.

Natatorium

Eastern Vermont

ARCHITECT: Pi Smith, AIA, principal, Smith & Vasant Architects, White River Junction, Vermont

BUILDER: O'Hara & Gercke, White River Junction, Vermont

SWIMMING POOL: Northeast Pools & Spas, Sharon, Vermont

POST AND BEAM FRAME AND SIPs: Davis Frame Co., Claremont, New Hampshire

MASONRY: Olde World Masonry, West Burke, Vermont

CUSTOM CASEWORK AND FURNITURE: Hitchcock Woodworking, Hartford, Vermont

CUSTOM UPHOLSTERY: Zimman's

INTERIOR LIGHTING FABRICATOR: High Beams Lighting, Sutton, Vermont

PROJECT SIZE: 2,250 square feet

SITE SIZE: 152 acres

PHOTOGRAPHY: Rob Karosis

KEY PRODUCTS

ART GLASS: Youghiogheny Glass

BEVERAGE REFRIGERATOR: Sub-Zero

CABINET HARDWARE: Rejuvenation

CLADDING: Maibec cedar shingles, Olde World Masonry

COUNTERTOPS: Vermont Soapstone Co.

DISHWASHER: Bosch

DOOR HARDWARE: Rocky Mountain Hardware, Ashley Norton

ENTRY DOORS: Custom salvage fir

EXTERIOR STEEL DOOR SYSTEM: Optimum Window Manufacturing

FLOORING: Best Tile Udaipur Quartzite

ICEMAKER: XO Appliance

INTERIOR DOORS: BROSCO

INTERIOR AND EXTERIOR LIGHTING: Arroyo Craftsman

MOSAICS: Custom from Mozaico

PAINTS: Benjamin Moore

PLUMBING FIXTURES: House of Rohl

ROOFING: Drexel

SOAPSTONE SINK AND STAINED GLASS WINDOW: Vermont Salvage Exchange

SAUNA HEATER: HUUM

SHOWER TILE: Fireclay

TOILET: American Standard

WALLPAPER: William Morris

WINDOWS: Marvin

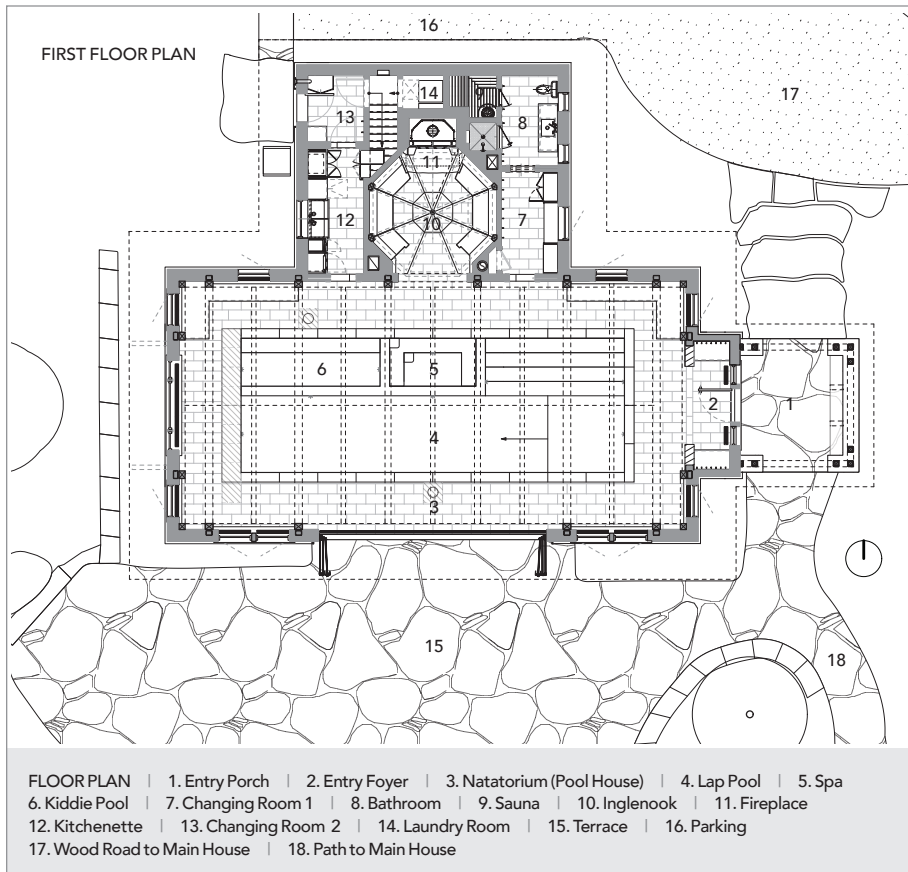
11 feet high, and 8-by-8-inch columns sit inboard of the foot-thick wall.

"The client didn't want to see structural brackets, so we introduced a steel moment frame," says project architect Stephen Blanchflower, AIA. "The timber frame roof is truly carrying the load, but the walls are supplemented with steel for lateral and vertical stability."

This is a relatively unusual building type for northern New England, and it was not without challenges, such as keeping the indoors warm in the winter while avoiding condensation build-up. "She didn't want to see any of the heating elements required to keep windows like this from fogging up in the winter," Stephen says.

Warm air washes the triple-pane glass window wall through custom wood grilles, while return-air grilles are incorporated into stained glass panels above some of the doors, keeping the mechanical trappings out of sight.

HVAC equipment is housed in the basement of the north wing, and ductwork runs beneath the pool deck and behind the walls. Stone floors have radiant heat, and a copper ion system



sanitizes the pool water, reducing the need for chlorine, along with its smell.

Handmade

The owner's preference for salvaged and locally fabricated fixtures is evident inside and out. Custom fir storage benches and a fir bath vanity support the timber theme, while shimmering art glass, a locally made weathervane depicting her daughter swimming, and the cupola's undulating green shingles are nautical motifs. The exterior trim colors—Benjamin Moore Essex Green and Tarrytown Green—echo those on the main house.

Similar jungle-green hues on the kitchen cabinetry and custom furniture weave the interiors together. The client was consistent in her rejection of visible modern technology, such as recessed lights. All the light fixtures are decorative Arts and Crafts style in a variety of patinated finishes, including mother-of-pearl push-button light switches.

William Morris wallpaper wraps the bath and changing room, where a salvaged, intricately patterned stained glass window adds an artisanal touch. Local craftspeople built the fireplace and made the copper kitchen counters and inglenook tabletop. With its deep trough, angled front, and built-in soap niche, the 100-year-old kitchen sink imparts its own rich character.



Patinaed finishes and found treasures add material richness, including the kitchenette's copper countertop and the changing room's salvaged stained glass window.

Only a few items were imported, like the inglenook's custom mosaics from Beirut, Lebanon. "We sketched out many ideas with the client," Stephen says. "She wanted the mosaics to pick up some of the wildflowers she is cultivating on the site. Working with the lighting designer, we also incorporated some of those elements into the light fixtures." The quartzite flooring from India is another anomaly. "It's perfect for this kind of environment because it transfers radiant heat to your feet," Stephen says, "and it's got some clefs and bumps that make it a good nonslip surface for wet areas."

The alchemy effect of all these elements surprised even the architects. "One aspect of the design that we really only understood after we spent a day there on a photo shoot was how dramatic the reflections in the water would be," Pi says. "During the day they track the sun, amplify the landscape, and scatter rippling patterns on the ceiling. At night the lights are reflected in both the surface of the pool and in the windows. The boundaries of floor and walls, and inside and outside, are blurred. The space feels weightless and transparent, and the pool seems infinitely deep." What more could you ask of a pool house?—

Cheryl Weber

The Edge of Tomorrow

A visionary design firm delivers a tranquil waterside retreat that cloaks its cutting-edge chops in a beguiling all-wood skin.

BY S. CLAIRE CONROY

ARCHITECT: OPAL ARCHITECTURE

BUILDER: COUNTRY HOMES CONSTRUCTION

LOCATION: RURAL CONNECTICUT

For Matthew O'Malia and his firm OPAL Architecture, each design opportunity is not just a creative exercise, it's also a potential manifesto. The question of where to build is answered by the custom client, but what remains in play is what to build and how to build it. Indeed, how *should* we build is a conundrum that's dogged and excited Matt for years, ever since he partnered with builder Alan Gibson to found the Passive House design-build company GO Logic.

For this lakeside vacation home in rural Connecticut, the central argument and the answer to all the questions is wood—the ultimate renewable, recyclable material. That it happens to be intrinsically beautiful and durable is a lovely benefit, of course, but more critically, it also stores carbon—helping anything built with it to attain net-zero goals. When OPAL decided to construct this house almost entirely of wood products and name it “All-Wood, All the Time,” it was a siren song and a battle cry at the same time.

Matt has been fighting the good fight for sustainable design for years now, but his ambitions have always been bigger than the one-off building. At GO Logic, he and Alan built the first Passive House in Maine. Called the GO Home, it was completed in 2010 and formed the basis of a business in prefab, energy-efficient homes. While researching







Replacing a 1920s decaying structure meant following its idiosyncratic footprint and volumes—a task well suited to prefabricated cross-laminated timber construction.



high-performance materials for their offerings, Matt became enamored of a wood fiber-based insulation made in Europe. With material scientist Joshua Henry, he founded GO LAB to pursue a means of making a similar product in Maine for distribution in North America. Just the bud of a compelling idea five years ago, this enterprise is now on the verge of full flower.

“Joshua is a Ph.D. scientist and I am an architect, so we were an unusual group to think about starting a mass production facility,” Matt recalls. “But we looked at the conditions in Maine, where mills were closing down and parts being shipped off to China—we’ve lost \$1.6 billion of wood mill production here and everyone was hurting. So we went to



On the interiors, the structure is also the finish material, treated with a coating of oil. Triple-pane lift-slide doors open the great room directly to outdoor entertaining areas along the water.



Part of the sustainability strategy was to keep the house as compact and efficient as possible. A guest room flexes as a study, with a sliding CLT door providing vault-like privacy as needed.

Europe and educated ourselves. One company took an interest and gave us their operating model—a suite of softwood insulation products made from residuals in the lumber industry. The materials are cost competitive, and they’re vapor permeable, robust, not itchy to install, all while storing carbon—it’s a great residential fit.”

With the science and business model nailed, and the apostles’ passion tapping funding sources, the newly renamed TimberHP by GO LAB company is, well, a go. Expected to be up and running this year, it will manufacture loose fill insulation, batts, and insulation boards from wood fiber with performance values of up to R-4 per inch—all made by former sawmill workers in a salvaged and refitted mill in Madison, Maine.

The Water’s Edge

Passionate people often draw passion projects to them, and such was the case with “All-Wood.” The clients approached Matt because of his experience in Passive House construction, but they were open to multiple means of innovation—as long as it meant building a high-performance house that was also easy on the environment. “Our clients were very interested in sustainability, and demonstrating how innovation can happen and what it looks like. They were interested in alternative construction and wanted every detail thought through.”

Another siren song for sure, but there was a catch: “They were replacing an existing, non-conforming building. And it had to be rebuilt to the exact same footprint and volume,” says Matt. “They wanted something contemporary and clean, but we had a crazy shape to deal with. So we thought, let’s make it all wood and use cross-laminated timber (CLT) construction—let’s take CLT to the extreme for its ability to be precut and manufactured in these specific, crazy shapes and intersecting roof planes. That’s not typically how CLT is used.”

The high-design, high-end project was a sweet spot for experimentation not only for its peculiar shape requirements but also because of its compact size and program. The clients wanted a rural retreat focused on wellness and connection to nature, with just one primary bedroom and a study that could flex as a guest bedroom. They also requested a small garage and a cabana structure close to the water. The total square footage for all buildings is well under 2,000 square feet. “The design intent was for the house to be as open as possible when they are there,” Matt explains.

The buildings are a sandwich of prefabricated, solid wood panels for the structural walls, ceilings, and the roofs. They’re left exposed on the interior with an oil

finish. Because there are no wall cavities, utility runs are affixed to the CLT panels on the exterior-facing sides. Then comes the insulating boards, with cut-outs for the utilities. The final layer is an exterior façade system of Thermory cladding. All wood, all the time, indeed. The little compound is a collection of solid boxes, with high-tech, triple-glazed window systems from Europe that open wide to the water views.

A portion of the project's power comes from a Tesla roof system that benefits from the different exposures of roof planes. "It was the first Tesla roof system on the East Coast that was not for one of Elon Musk's cronies," Matt quips. "The panels allowed us to get to net-zero, including charging the car. When you aggregate multiple roof directions, there's much more solar gain. A system of Tesla batteries in the garage store the power as back-up in lieu of a generator, because there are decibel constraints for the site."

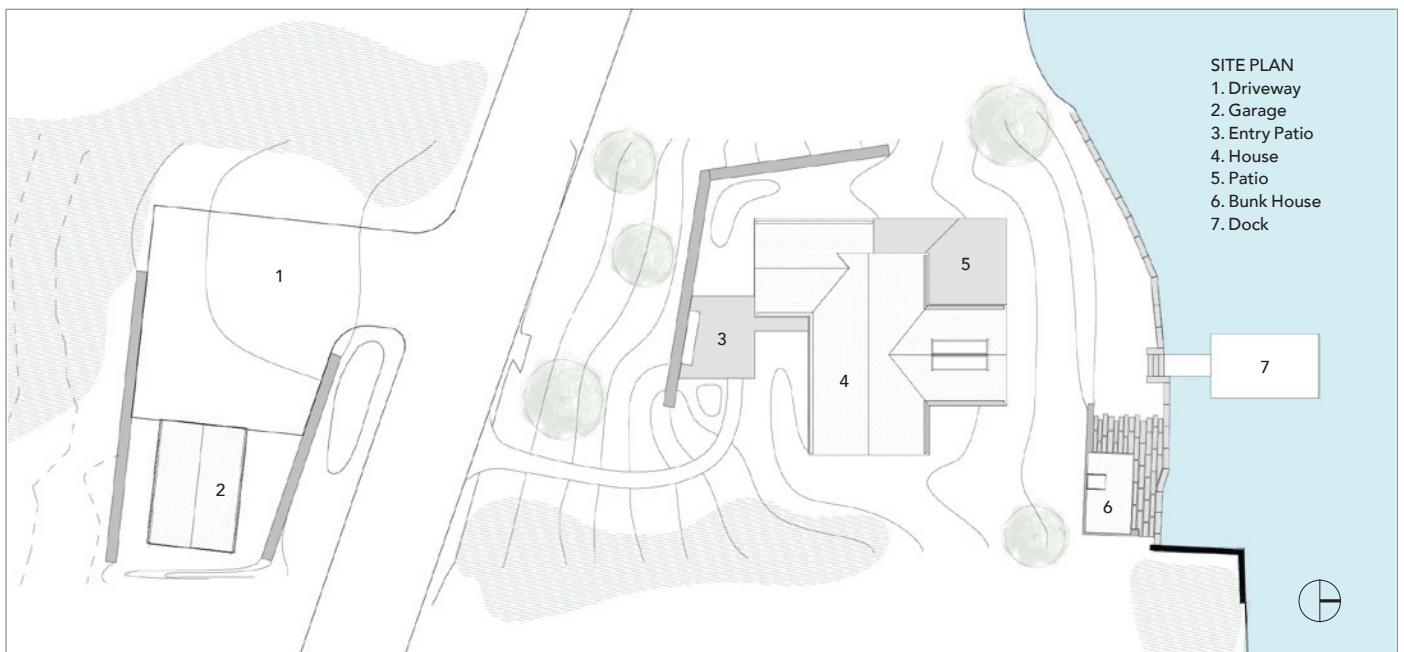
Heat pumps handle the heating, cooling, and hot water, including the hydronic slab. Cooking in the Italian-made kitchen is induction. While obviously not a budget-pinched project, the owners were not mere hands-off check writers. "We had to work very hard to justify the products we used," says Matt. "Everything was analyzed. And there were times when they said, we don't want to spend that much. But, when there are constraints, and someone is saying no, you do improve design. It's never a bad thing to have decisions challenged."

"The simplicity of the result is visible, but how we achieved it through construction is very complicated."

—Matt O'Malia



Keeping the walls and ceilings the same material and finish makes the interiors feel like a soothing embrace.





A small cabana building steps down the sloped site for a closer connection to the water's edge.



When every aspect and detail of design and construction is considered, reconsidered, and even reinvented, it takes a top-notch builder to execute those decisions. And that was Chris Pierzga of Country Homes Construction. “Chris is so talented—an absolute perfectionist,” Matt recalls. “He never rushed, never jumped to a conclusion. We had a great time working with him.”

All-Wood, All the Time

Rural Connecticut

ARCHITECT: Matthew O’Malia, principal; Gunther Kragler; Michelle Bezik; Georgia Switzer, project architects, OPAL Architecture, Belfast, Maine

BUILDER: Christopher Pierzga, Country Homes Construction, Cornwall Bridge, Connecticut

INTERIOR DESIGNER: Stedila Design, New York, New York; OPAL

LANDSCAPE ARCHITECT: Ground, Somerville, Massachusetts

STRUCTURAL ENGINEER: Thornton Tomasetti, New York, New York

PROJECT SIZE: 1,300 square feet, main house; 108 square feet, cabana; 328 square feet, garage

SITE SIZE: 0.93 acre

CONSTRUCTION COST: Withheld

PHOTOGRAPHY: Trent Bell

KEY PRODUCTS

CABINETRY: Canova

CLADDING: Thermory

COUNTERS: Quartzite

ENGINEERED LUMBER: KLH

ENTRY DOORS: UniLux; FSB

FAUCETS: MGS Taps, VOLA

FLOOR TILE: Artistic Tile

HVAC: SpacePak

KITCHEN APPLIANCES: Miele

LIGHTING: Viabizzuno

LIGHTING CONTROL/WINDOW SHADING SYSTEMS: Lutron

ROOFING/PHOTOVOLTAICS: Tesla

SINKS: Blanco (kitchen); baths (Canova)

TOILETS: Villeroy & Boch

VENTILATION: Zehnder ERV

WASHER/DRYER: Miele

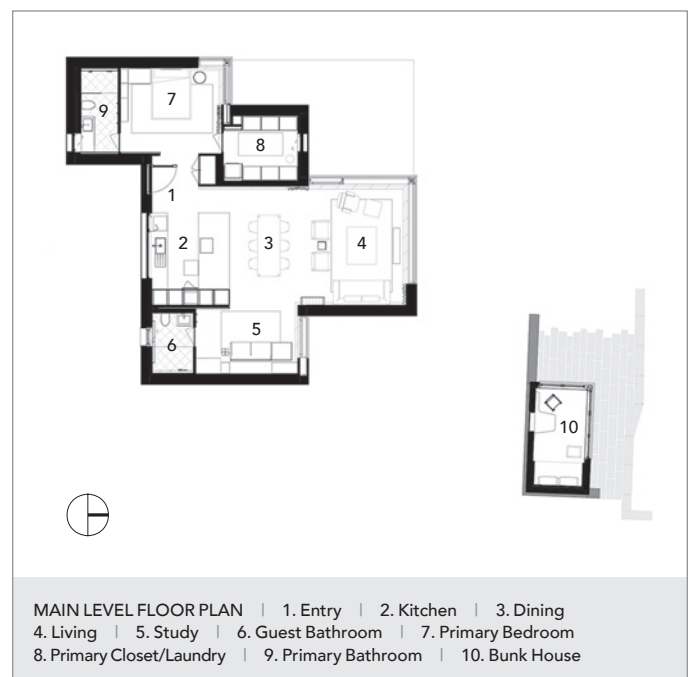
WINDOWS/WINDOW WALL SYSTEMS: UniLux



Although the CLT panels were successfully modeled in advance, cut to order in Austria, and shipped to the site, there were hiccups in the larger process. “What I learned from this project today, is that’s an amazing opportunity for labor savings,” Matt concludes. “What wasn’t so efficient was applying insulation on-site. Pushing next-gen wood construction does spawn a whole bunch of different headaches. The simplicity of the result is visible, but how we achieved it through construction is very complicated. Still, we could see the possibility for so many other building types.”

Matt had an opportunity to spend the night in the cabana building about a year after completion of the project, and he remains pleased with the achievement of the firm’s prototype. “There’s an incredible quiet and solidity to this kind of construction, a sense of the massiveness of the material, but also a warmth and a Passive House-level of comfort—an absolute consistency of temperature.”

Most important of all, the clients remain pleased, too. 





Modernizing the Moderns

The promise and the peril of renovating
early contemporary houses.

BY CHERYL WEBER

Clauss Haus II

KNOXVILLE, TENNESSEE
SANDERS PACE ARCHITECTURE

Tennessee's Great Smoky Mountains are an unlikely location for the nation's first subdivision that mandated modernist design. So it's something of a surprise to discover Little Switzerland, a collection of homes built along the ridge of Brown Mountain, about eight miles outside Knoxville. The mini-master-planned community dates from 1939 and was the brainchild of architects Alfred and Jane West Clauss. Alfred, who hailed from Munich, Germany, worked in Mies van der Rohe's office in the early 1930s, and Jane, from Minneapolis, worked with Le Corbusier.

A few years after moving to the U.S. to escape Nazi Germany, the couple developed Little Switzerland and lived there with their three children from 1939 until 1945, when they left for Philadelphia to continue their careers. Although 10 houses were plotted, only five were built before the Clausses moved on.

"This enclave was founded in their experimentations and with their own money—building and paying for it themselves, which is critical to how you grow as an architect," says local architect John Sanders, FAIA, who has been purchasing and restoring the houses since 2013. Unusual in the South for its time, the community embodies the modern concepts of passive heating and

cooling, a spare material palette, and indoor-outdoor connections.

What's more, the houses were some of the first split foyers, which, for better or worse, would become a staple of postwar American suburbia. Here, though, they respond directly to the street section on the mountain ridge. "These homes illustrate the proper way to deal with a split-foyer condition,"



Little Switzerland's 1930s houses are some of the first split levels, a response to the mountain ridge. Entered at mid-level, the house has two stories of panoramic windows that face south for views and passive heating.



pursuit of a preservation effort that can bring recognition to this rare example of deed-restricted International Style architecture in the South,” he says. “It’s arguably one of the best early examples of regional modernism.”

Tweaks and Tucks

John is pursuing National Register designation for the district, which requires exterior updates to mirror the original. That meant removing the sloped roof added by the previous owner and replacing it with a membrane flat roof. Diplomatically, he doesn’t fault the owner for the decision. “A non-fan of architecture created that pragmatic solution to solve a recurring problem of leaf and debris accumulation on the roof in this wooded area,” he says. “But I’d rather stand on a flat roof than a sloped roof any day.”

Every part of the house needed attention. John and a hired worker spent 18 months stripping paint from the redwood siding, an eight-step process that preserved the original aesthetic. They replaced boards that were too far gone with dimensionally correct redwood, shaped to match the old “Dolly Varden” profile of beveled and rabbeted horizontal lap siding. And they restored the redwood one-car garage doors and hardware.

Acting as general contractor, the architect also mocked up more energy-efficient redwood-framed windows, which



John Sanders preserved the flow and room locations but updated the interior with white oak floors and walls. The second-story living room looks through the office to the primary bedroom, where a curtain can be drawn across.

John says. “You enter at grade and can go up or down. Each elevation expresses the rear view because the house is positioned high on a hill and daylights out the back. The lower-floor view is as panoramic as the upper view.”

Built in 1941, the 1,600-square-foot Clauss Haus II was the second house Alfred and Jane lived in at Little

Switzerland. Their philosophy was that the main bedroom and living room should be on the upper floor, and the kitchen, dining room, and secondary bedrooms on the ground floor. All five houses followed this plan, and John had no intention of changing it.

“My specific needs were not a priority in the renovation, but rather the



Top left: A bank of operable windows brings light and air to the split-foyer stairwells. Top right and left: Light reaches into the Clausses' flowing floor plan. John removed a pass-through wall atop the original angled countertop, now made of butcher block.

he and a local craftsman built to match the deteriorating originals. A change to more-stable mahogany frames at the back of the house allows the large bank of sliding windows to maintain operability on the harsher southern exposure. There, detachable asbestos louvers were replaced with fiber-reinforced concrete louvers in the same profile.

The interior renovations came with more creative freedom, but also more angst for an architect intent on doing the right thing. John felt free to tweak

“When we undressed the walls to do our work, you could see Alfred’s unique handwriting on just about every stud.”

—John Sanders, FAIA

a few room functions, if not their dimensions. “The bedroom windows step down so you can see the mountains

without lifting your head from the pillow, so the room locations had to stay where they are,” he says.

However, the bedroom count went from four to two: removing two of the secondary bedrooms allowed for an expanded lower-floor bedroom with an en-suite bath, dressing room, and sitting room/study. The upstairs primary bedroom was altered slightly to access the en-suite bath through a new dressing area. All original built-in cabinetry, access panels, niches, and



The first floor kitchen and dining room segue to a sitting room, bedroom, and bath. Black-painted walls and cabinetry echo the exterior's black accents. Alfred Claus designed the WWII poster while working for the Tennessee Valley Authority.



closets were re-established to reflect the Clausses' design.

John's biggest decisions respected the flow of the original house, which had few true partitions within the 20-by-40-foot floor plates. "I fretted most over the wall between the dining room and kitchen," he says. "The pass-through window above the countertop gave us heartburn to remove." The only interior wall that blocked the view of the Smoky Mountains and touched an exterior wall, it was likely inserted because resale value was based on room number, John says. For

those reasons, he took the liberty of removing the upper portion that obstructed the view, while retaining the lower part with the angled counter. "We templated the angled island countertop to reflect what was there; now the eat-in moment is on the dining room side," he says.

Modern Mission

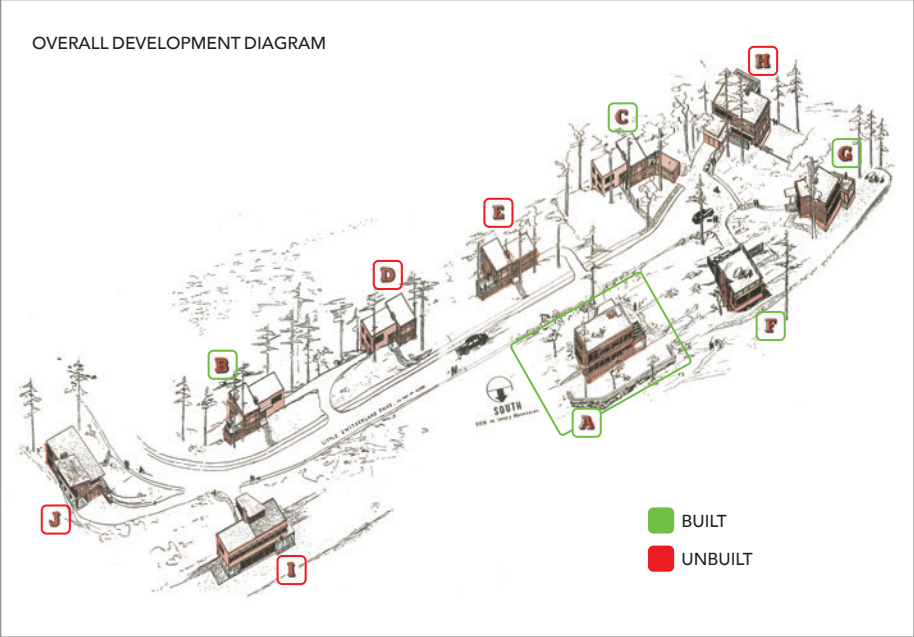
Poor-quality finish materials also begged for reinterpretation. Rift-cut white oak paneling replaced the variegated, cheaply made gumwood veneer paneling, which had turned burnt orange and sustained water damage. "We felt like Alfred used it because he worked with Mies on the Barcelona Pavilion, which had veiny marble walls that create the texture and visual aesthetics," John says. "The rift-cut oak is a finer-quality material, admittedly not as veiny as the original intent. But refined details are more fitting to the modern way of doing things. If he could have done this, I think he would have."

"Most of the surfaces that were wood are still wood, and those that were plaster are still plaster. The only difference is the color," he adds. For

example, the original black interior window trim and the exterior's black metal accents informed John's choice of matte black for the plaster walls and melamine kitchen cabinets, which complement the butcher block countertops and white oak floors.

John owns three houses in Little Switzerland, and the remaining two unrenovated houses are under agreement with the current owners. He has also purchased the unbuilt parcels so that the landscape can be preserved. The architect feels connected to the work on many levels, not least because it was personal to Alfred and Jane. "When we undressed the walls to do our work, you could see Alfred's unique handwriting on just about every stud," John says. "He built it himself with one other person."

He also feels a kinship to Little Switzerland's mission. "I love it because of its uniqueness. Alfred and Jane were trying to embody lots of different things through practicing different techniques, which is what we do in our work," John says. "Lots of things they tried to accomplish, we're still trying to do today. The Clausses built these modern homes

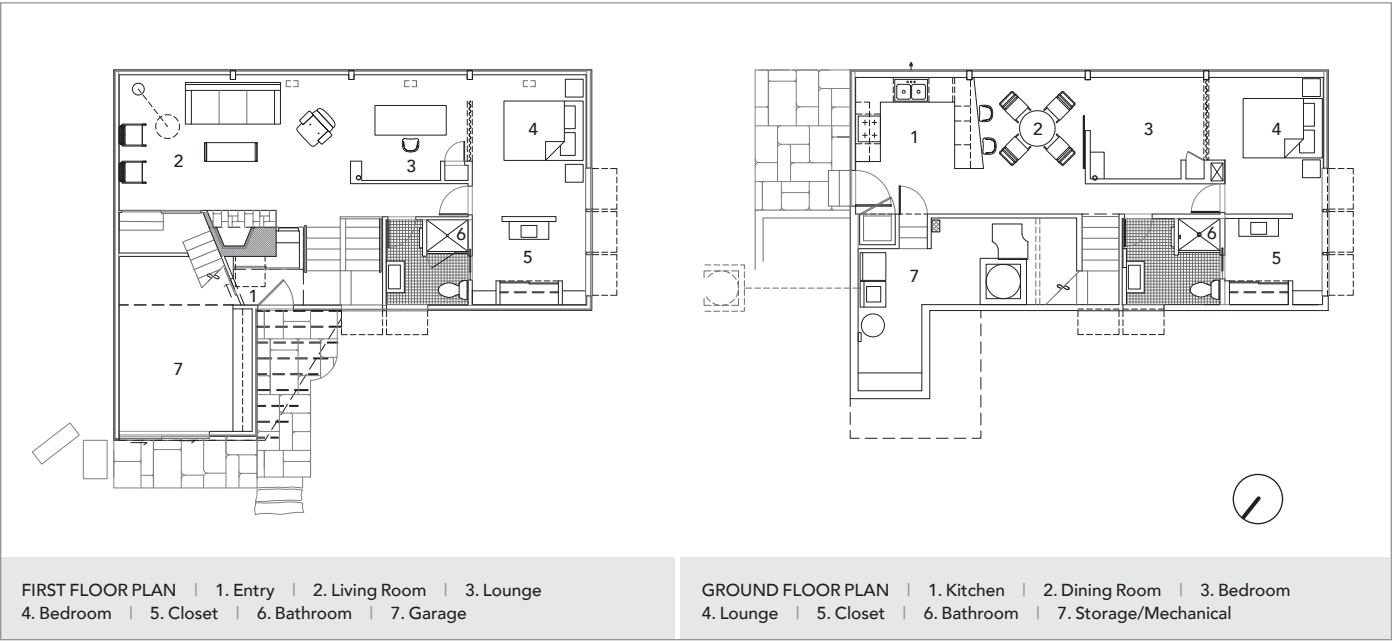


not as a dream house but as proof of how well they function for passive heating and cooling through orientation and cross-ventilation. There is still pushback on modern design, especially in the South.”

But the impulse is deeper than that. John, who lives in the district, is interested in telling an untold story. “It’s

like finding a Ford Mustang in a barn, covered with dust, that no one knew about. It’s fascinating that the Clausses continued the lineage of those two architects they worked for by building the first deed-restricted modern subdivision in this country. My work is about preserving and creating this memory of a place.”

The renovation preserved the taut volumes and spare composition of the house and one-car garage. Above: Removing the sloped roof added by a previous owner restored the Clausses’ design to its former glory.





Claus Haus II

Knoxville, Tennessee

ARCHITECT: John L. Sanders, FAIA, principal in charge; Michael Aktalay, Assoc. AIA; Madison Butler, Sanders Pace Architecture, Knoxville, Tennessee

BUILDER: John L. Sanders, FAIA, Sanders Pace Architecture; Robert Fuhrig, Fuhrig Design + Construction, Knoxville, Tennessee

PROJECT SIZE: 1,600 square feet

SITE SIZE: 0.36 acre

CONSTRUCTION COST: \$181 per square foot

PHOTOGRAPHY: Bruce Cole;

construction photos by John L. Sanders, FAIA; historic photos by Billy Glenn

KEY PRODUCTS

ACOUSTIC: Mineral wool

CABINETRY: IKEA

CABINETRY HARDWARE: Blum

CLADDING: Redwood

COOKTOP: Whirlpool

DISHWASHER: GE

DOOR HARDWARE: Kwikset

DRYWALL: USG

FAUCETS: Delta

GARAGE DOORS: Pella

HVAC SYSTEM: Amana

LIGHTING: E-conolight, PATH

LIGHTING CONTROL SYSTEMS: Leviton

OVEN: Whirlpool

PAINTS, STAINS COATINGS: Sansin (exterior), Sherwin-Williams (interior)

PIPING: PEX

REFRIGERATOR: Kenmore

SINKS: IKEA, Delta

VANITIES: IKEA

VENTILATION: Broan

WASHER/DRYER: Whirlpool

WINDOWS: Custom by DeVol Millwork and Fuhrig Design + Construction



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Corner Residence

LEAWOOD, KANSAS
FORWARD DESIGN | ARCHITECTURE



Architects are nothing if not problem solvers, and this home in a Kansas City suburb had plenty of issues to overcome. So many, in fact, that the clients bought the house intending to eventually tear it down. The tiny two-bedroom had been the cheapest house in a good neighborhood and was on a large lot. The couple lived there for six years with their son and daughter, now ages 13 and 9, before contacting Chris Fein, AIA. Even then, they wanted to buy time by simply adding a primary bedroom because their growing kids needed separate bedrooms. They hoped to demolish the house and build from scratch in a few years.

Chris offered a different idea. “The house was not architecture with a capital A, but it had some nice details that would cost money to re-create,” he says. “I kept pushing to solve the problems without tearing the house down.” Little by little, the clients came along. After sketching their requested addition at the back of the house, Chris addressed the dysfunctional main level and cramped entryway, working in phases until all the clients’ complaints were resolved.

In some cases, that meant “embracing the weirdness,” as Chris says. However, the result is a mix of cozy and flowing zones that work equally



Clockwise from top left: The owners designed and manufactured the Midcentury-sympathetic front door. A new stairway behind the living room connected the basement and main floor for the first time. In the kitchen, a slatted walnut enclosure partially screens it from the living room while supporting the beamed ceiling where a wall was removed.

well for a small family and for the large groups they like to entertain. The original house still contains the public rooms and two bedrooms, but now the kitchen, living room, and dining room can operate as one space or separately. The deft interplay of old and new reflects the couple's desire not just for room to spread out, but for intimate spaces that

will serve them long-term, when the kids are gone.

Along with two large additions on the south-facing rear—a screened porch and a main-level primary suite with a walk-out family room below—Chris bumped out a front section to create a welcoming vestibule. The other footprint change was behind the garage, where an exterior wall was pushed out under an existing roofline, making way for a mudroom. “East to west the house sat on its setback lines, so we couldn’t expand in those directions,” he says.

Open Sesame

Inside, the renovation touched every surface except the hardwood tongue-in-groove ceilings. Their exposed beams were a feature the team wanted to preserve. However, they rested on an interior wall, requiring a clever work-around to create the airiness the clients wanted in the public spaces. For example, part of the bearing wall between the kitchen and dining and living rooms was removed and steel was added to support



the spans. To avoid having to rebuild the 8½-foot ceiling along that line, Chris treated the kitchen as a semi-transparent, walnut-clad box. A deep, 7-foot-tall cased opening under the beam incorporates the kitchen island, where vertical louvers partially screen it from view of the living room. On the other side of the kitchen, a similar walnut-encased doorway allows easy access to the foyer and bedroom wing. “We didn’t want people to walk into the kitchen from the front door,” Chris says. “Framing the wood corner where the refrigerator is located provided a visual screen that brings you into the living room, and then it opens up to the kitchen.”

Chris’ design for an ample foyer ticked another box on the couple’s wish list. Bumping out the vestibule revitalized the bland exterior, too, by mirroring the existing garage’s hipped roof. On the east, the vestibule wall was extended to screen an original bathroom window from the street. A white-brick planter balances the proportions of the new volume and turns the corner to enclose a small private garden outside the bath-



room. Panels of glass meet at a 90-degree angle at the entryway, flooding it with light. While these moves are clearly new, the front door looks like it could be original to this mid-1950s house. In fact, it reflects the owners’ hands-on creativity: the wife, a graphic designer and minister, drew the three-dimensional wood pattern, and the husband, who runs an

Removing a kitchen wall opened a dialogue with the living and dining rooms, while deep cased openings help to define its boundaries. A screened porch addition outside the dining room flows out to a porch with a hot tub, and down to the pool garden.



“The house was not architecture with a capital A, but it had some nice details that would cost money to re-create.”

—Chris Fein, AIA

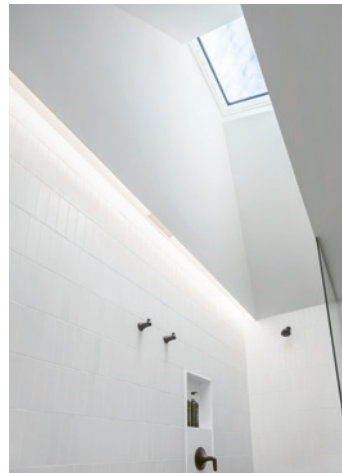
the original basement level, which has 7½-foot ceilings, and that stair continues down to the family room, which we dug out to give it volume.” A laundry, bath, and guest room occupy part of the original basement.

Well-Connected

While the floor plan changes vastly improved the exterior impression, it’s the interior experience that matters the most to a household at work, play, and rest. The primary suite addition includes a vestibule-cum-office that links the bedrooms; doors on either side allow the option for connection or closure.

“They both work from home quite a bit but didn’t want a dedicated office, just a place to put a computer and a backdrop that felt good,” Chris says. The built-in desk and storage drawers provide some separation and privacy. This in-between zone is also a transition from the lower ceilings to the vaulted primary bedroom, enhancing its sense of space. Chris borrowed the gesture from Midcentury Modernist architect Ralph Fournier, who designed hundreds of homes in nearby St. Louis.

Abundant natural light and a minimal material palette underscore the house’s origins. A sculpted skylight in the primary bath draws unexpected sunlight into the shower, while black hexagonal floor tile and white wall tile keep the



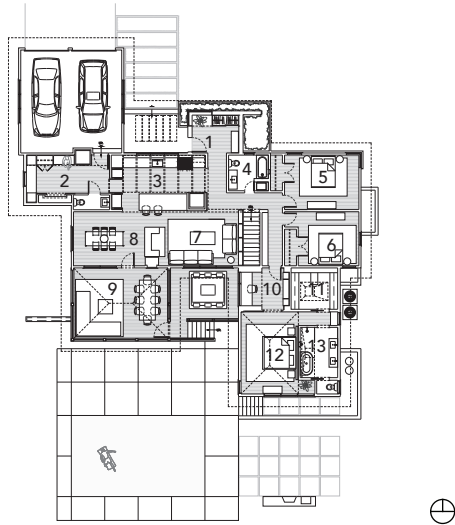
In the primary suite addition, large windows and a vaulted ceiling create the feeling of an aerie. The wet room skylight brings in leafy views, while contrasting tiles keep the look bright and fresh.

industrial design business, milled it at the company’s shop.

The back of the house received equal attention. With access through the dining and living rooms, a new screened porch and hot tub overlook the swimming pool. In good weather, the view entices mingling party guests down into the garden. Chris created a continuous loop between the entertaining zones:

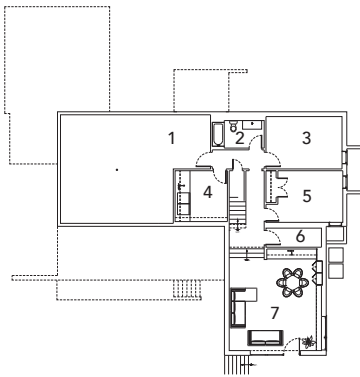
Equipped with a kitchenette and plenty of storage for board games, the family room sits beneath the main bedroom addition and opens to the backyard via stairs along a retaining wall. Inside, a new stairway comes up behind the living room, establishing a connection between the two spaces. “Originally there was no internal stair to the basement,” Chris says. “Now you land at

LEVEL 1



- 1. Entry | 2. Mudroom | 3. Kitchen | 4. Bathroom | 5. Bedroom
- 6. Bedroom | 7. Living Room | 8. Dining Room | 9. Screened Patio
- 10. Study | 11. Closet | 12. Primary Bedroom | 13. Primary Bathroom

BASEMENT



- 1. Storage | 2. Bathroom | 3. Bedroom | 4. Laundry | 5. Bedroom
- 6. Mechanical | 7. Living Room



Digging the basement a few feet deeper made space for a family room equipped with a kitchenette, game storage, and access to the backyard.

Corner Residence

Leawood, Kansas

ARCHITECT: Christopher Fein, partner in charge; Bradley Gollwitzer, project lead; Forward Design | Architecture, Kansas City, Kansas

BUILDER: Ian Hurst, Hurst Construction, Kansas City, Kansas

LANDSCAPE ARCHITECT: Rick Howell, PLAID Collaborative, Kansas City, Missouri

PROJECT SIZE: 3,000 square feet

SITE SIZE: 0.25 acre

CONSTRUCTION COST: \$300 per square foot

PHOTOGRAPHY: Bob Greenspan Photography

KEY PRODUCTS

BATHROOM VANITIES: Room and Board

CLADDING: JamesHardie

COOKING VENT HOOD: Best

COUNTERTOPS: Corian

DOORS AND HARDWARE: Emtek

FAUCETS: Grohe, Kohler, Moen

INSULATION: ZIP System

PEDESTAL LAVS: IKEA

SINKS: Kohler, Ruvati

SKYLIGHTS: VELUX

TUBS: Kohler

VENTILATION: Fantech

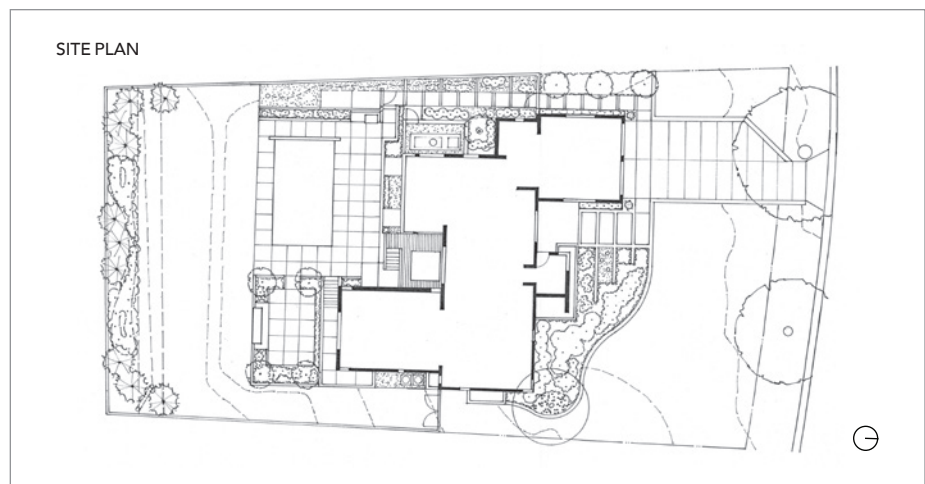
WINDOWS: Andersen Windows & Doors



Hip rooflines on the rear additions took their cues from the existing front-facing garage. Gray horizontal fencing and white board-and-batten cladding unify the old and new elements.

look simple and clean. Throughout, walnut cabinetry offers a tonal contrast to the existing red oak floors—lightened to remove the rosy tones.

“Everything feels like it’s supposed to be there, and everything has a home,” Chris says. The living room’s brick fireplace was painted dark gray and given a flush hearth and folded steel mantel. Fire-starting tasks are simplified: the fireplace wall incorporates a niche for log storage, cleverly accessed through a small door in the screened porch. And the interventions vastly improved the family’s experience of coming and going. Behind the garage, a new mudroom includes a powder room and pantry.



Balancing the original with the reinvented, the house now unfolds both deliberately and organically. Fresh and

family-specific, it is no longer a generic midcentury house but a modern dwelling that suits the people who live there.



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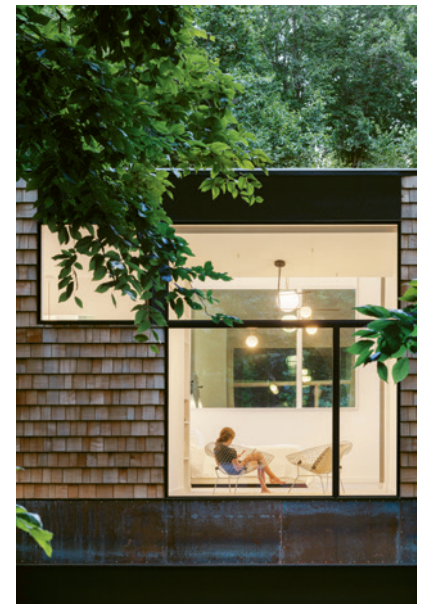


COR-TEN Tree House

BETHESDA, MARYLAND
COLLEEN HEALEY ARCHITECTURE

COR-TEN Tree House, named for its setting in a woody Washington, D.C., suburb, is almost unrecognizable from its original form. But that's not, as is often the case, because it's been commoditized for resale value. There were serious functional issues to overcome, and Colleen Healey, AIA, unleashed her problem-solving superpowers with artistry and restraint.

The most egregious condition of this 1970s house, on a cul de sac at the end of a gravel drive, was a detached two-car garage that sat directly in front of the house. Its placement not only swallowed the front yard and blocked views to the street, it also confused visitors trying to find the



Shingles and COR-TEN steel unify the garage and stairwell volumes along the front façade, while large windows and doors open the house from front to back.

front door. Then there was the overbearing ambiance. Think of the timber-heavy deck houses of that era, and you get the idea. “The whole back of the house is a massive three-story deck with X brace supports, a tour de force designed and built by an engineer,” Colleen says. “It was overdone, with interior exposed roof rafters that went up, dark and heavy. He had completely focused his view on the backyard, which is beautiful, but ignored the front of the house.”

She met the clients while serving on a preschool auction committee with the wife. The couple wasn’t yet ready to renovate, but the three worked on a design over a period of several years until the time was right. “Their kids were at





Now painted white, the formerly oppressive dark-wood ceiling grid defines the public spaces. Placing the stair to the new second story at the front kept the views open across the house.

an age where they could play outside on their own, but the front yard was a wall of cedar shingles,” Colleen says. “They needed to be able to keep an eye on the kids from inside the house.”

Step one, then, was to clear away the decrepit garage and attach a new one on the north end of the bar-shaped house. On top of the garage is a new primary suite, which previously had taken up too much of the choppy main floor. That move allowed Colleen to create flowing living spaces for the couple, who loves to entertain. Two existing lower levels contain the secondary bedrooms.

Physical and visual connections to the land were critical to the program. Previously, a wooden walkway ended at a split-level entryway, the front door



East- and west-facing windows in the dormers flood the main rooms with ever-changing light. The open kitchen's finishes blend into their surroundings, and appliances are hidden behind panels.

opened to a cramped landing midway between the main floor and the lower floor. With the garage out of the way, the front yard was regraded to raise the entrance to the main level, and a flat, sunken lawn was carved out for play and entertaining.

Along the mostly unchanged rear of the house, Colleen added a three-panel glass slider that pockets into the wall, dissolving the boundary between the living room and an expansive existing deck. "Guests can park on the cul de sac or in the driveway," she says. "You walk down a boardwalk through the front yard. When there are parties, you can see people coming and can set up for entertaining on the front lawn, throwing the house open from front to back."

Code Switch

The addition of a primary suite atop the garage resulted in major changes to the entire front façade. A 4-foot-deep bump-out was needed to slide in the new staircase. "We thought about

adding the primary suite stair on top of the existing lower-level staircase," near the center of the plan, "but we wanted to limit anything that would block the view from front to back," Colleen says. Two stepped dormers add volume above the stair, while a third smaller dormer brings light and height to the foyer.

The junction of old and new is most evident in the dining room. The old ceiling plane dives down at the center of the table, while the new form shoots up to the sky and opens to the front yard.

"We borrowed some of that new stair volume for the dining room," Colleen says. "The dormer windows face west, and both dormers have a roof skylight facing east, so there are dramatic light rays throughout the day." In a budget-conscious move, the barely-there stair pairs a custom metal handrail with a stock metal stringer and oak treads, which were refinished on site.

That grid of dark wood ceiling beams in the main part of the first floor contributed to the oppressive feeling. By



exposing more of it and painting it white, Colleen used it to define the kitchen and living room. Because the kitchen is in the public eye, she pared back the cabinetry and set the appliances behind flush panels so they disappear. Behind the kitchen, a robust pantry borrows space from the former primary suite and houses the small appliances that can



quickly clutter a kitchen. “On one wall is a 12-foot-high-by-15-foot-wide map of the community,” Colleen says. “When neighborhood friends come over, they can locate their house on the map.”

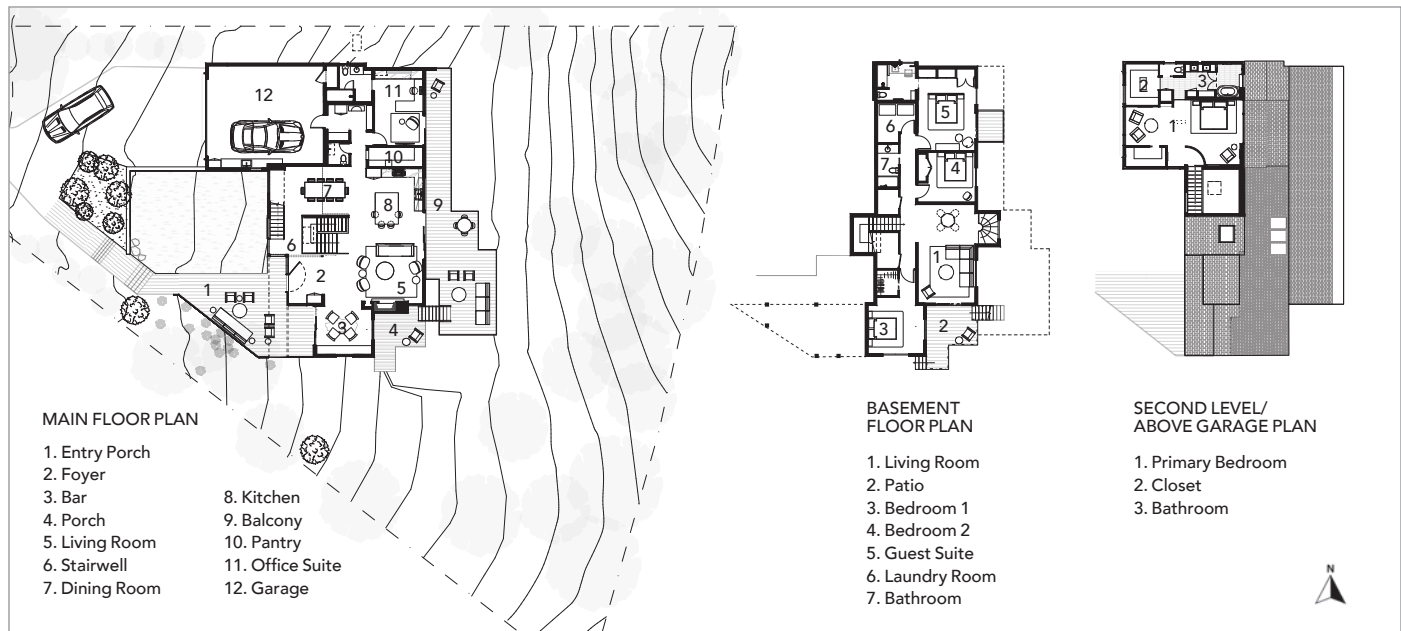
For ease of indoor-outdoor entertaining, a new glass slider opens the existing bar area, in a niche on the

house’s southwest corner, to a new covered porch and the front deck. And the old primary suite behind the kitchen was transformed into a mudroom, bath, and office opening to the back deck.

“In some ways, I think of the house as almost a series of train cars with their doors flung open,” Colleen says. “You

get this porosity throughout. From certain views you can see right through it, bringing in the community.”

But it’s the lofted primary bedroom that commands the best views. Within the footprint of the two-car garage below, the architect designed a double-height bedroom and sitting



area, a bath, and his-and-hers closets. A curving wall with a pocket door at the top of the stairs directs you to a sitting area, creating privacy for the bed and eliminating the need for a hallway. Large windows overlook the front and back yards. Three more bedrooms are located one story below the living level, and the ground floor houses a gym, fifth bedroom, and play space that spill out to backyard.

Character Study

“This is a fairly rural area, and parts of the house reflect the funky neighborhood, sort of campy,” Colleen says. “The owners wanted to retain some of that but with a modern touch.”

Throughout, industrial accents nudge the rustic-leaning themes—such as the antlers in the bar, the wood-burning fireplace, and the dark iron dining table and chairs—into modern territory. Punches of black from the light fixtures, bar shelving, range hood, kitchen cabinets, fireplace surround, and stair rails tie into modern touches such as the sleek porcelain floor and wall tile. The firm also designed the living room coffee table, whose COR-TEN frame, made by a local fabricator, matches the façade’s COR-TEN cladding, reinforcing the industrial vibe.

“The COR-TEN was a decision that ended up being very economical,” Colleen says. “We wanted something to contrast texturally with the cedar and ground the building, especially since the panels are more sunken into the ground. As the two materials weather, one will get darker and one will get lighter.”

However, because the project coincided with the end of the pandemic, the COR-TEN budget was complicated by supply issues. “In essence it’s a commodity product and not overly expensive, but it weighs a ton; trying to navigate all the materials on time and within budget was one of the unique challenges,” says builder Josh Rosenthal. “On a jobsite



Opposite page: Dappled light fills the primary suite. Above: A sunken lawn, boardwalk, and seating area are part of the inviting entry walk. Abstract glazing lends a sense of lightness.

COR-TEN Tree House

Bethesda, Maryland

ARCHITECT: Colleen Healey, AIA, Colleen Healey Architecture, Washington, D.C.

BUILDER: Josh and Neal Rosenthal, Cabin John Builders, Cabin John, Maryland

STRUCTURAL ENGINEER: Norton Engineering Consultants, Fairfield, New Jersey

PROJECT SIZE: 3,600 square feet

SITE SIZE: 17,000 square feet

CONSTRUCTION COST: Withheld

PHOTOGRAPHY: Jennifer Hughes Photography

KEY PRODUCTS

CABINETRY: Stuart Kitchens

CABINETRY HARDWARE: Top Knobs

CLADDING: COR-TEN steel, cedar shakes, JamesHardie panels

COOKTOP: Miele

COOKING VENT HOOD: Miele

COUNTERTOP: Caesarstone

ENTRY DOORS: Western Window Systems

FASTENERS: Simpson Strong-Tie

GARAGE DOORS: Clopay

HVAC: Carrier heat pump

SKYLIGHTS: VELUX

THERMAL AND MOISTURE BARRIERS: Henry Blueskin

UNDERLAYMENT, SHEATHING: ZIP System

VANITIES: Stuart Kitchens

VENTILATION: Panasonic

WINDOWS: Pella Windows & Doors

WINDOW WALL SYSTEMS: Western Window Systems

that’s basically a steep hill, we couldn’t get things in advance and stack them up. But it was our favorite kind of highly customized project with a lot of solutions to reinvent.”

Balancing old and new, the design has transformed daily household routines

while honoring parts of the house’s past. The usable front yard is just one of those feel-good spaces. “They’ve talked about dropping a projector to show movies in that area,” Colleen says. Open from front to back, the house reflects the family’s vision for a good home life. 

No Boundaries



1



2



3



4

1. STARCK TRUTHS

The sun has not set on the creative collaboration between Philippe Starck and Duravit, as evidenced by the new Soleil collection of bath products. Designed to suggest the effect of wind and waves upon the dunes, the fixtures underscore the idea of bathing as a transcendent experience. Us.duravit.com

2. BAN ULTRA

The family-owned Nakamoto Forestry company of Japan introduces a trio of shou sugi ban charred Japanese cypress woods. Clockwise from the top right are the thickly sooted Suyaki finish for interiors, and the Gendai and Pika-Pika finishes in various shades for interior or exterior application. Nakamotoforestry.com

3. GOLD RUSH

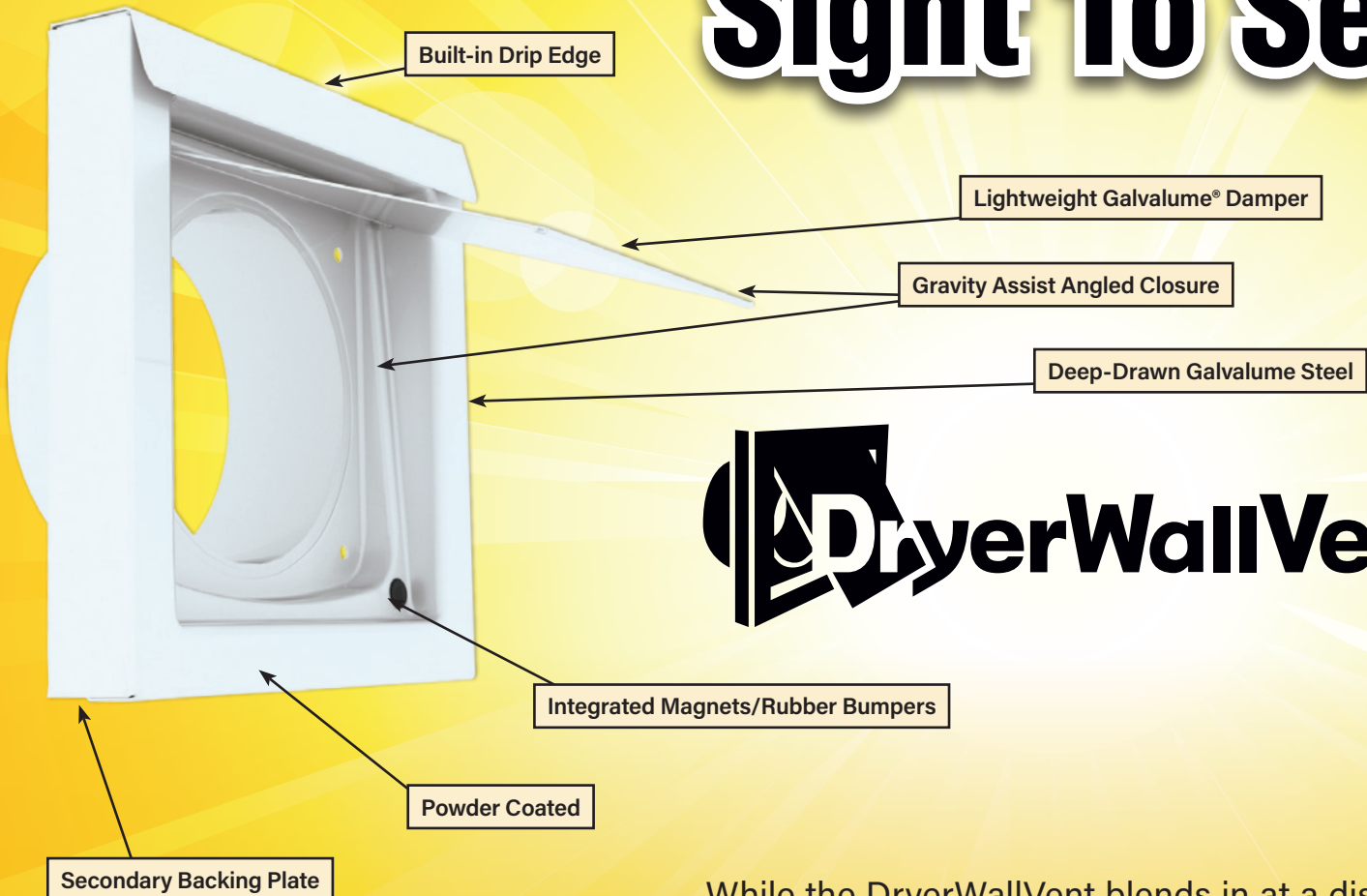
From Kallista, Kohler's luxury division, comes an elegant new finish called Brushed French Gold. The layered application of colored lacquer results in warm gold tones, plus a subtle texture and depth as well. The technique, "physical vapor deposition" (PVD), is a first for the brand. Kallista.com

4. NARY STILES

There are very few excuses remaining for blocking critical views with chunky structural elements. Western Window Systems is doing its part to unite indoors and out with its new Series 300 Minimalist Multi-Slide Door, which reduces the intrusion of stiles between panels of glass. Pgtinnovations.com

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Residential Design (USPS 022-860, ISSN No. 1934-7553 print, ISSN No. 2150-7694 online), Volume 2 – March/April 2023 Issue, is published bimonthly by SOLA Group, Inc., 223 West Erie, Suite 3SW, Chicago, Illinois 60654; 847.920.9513. Copyright ©2023 by **Residential Design**. No part of this publication may be reproduced without written permission from the publisher. **Residential Design** is published bimonthly. All statements, including product claims, are those of the organizations making the statements or claims. The publisher does not adopt any such statement or claim as his own, and any such statement or claim does not necessarily reflect the opinion of the publisher. One-year subscription to non-qualified individuals: \$50.00 payable in USA funds; print or digital copy within USA; digital copy only outside USA; valid email address required for digital copy. Single issues available to USA only (prepayment required), \$10.00 each. For subscription information and address changes, write to: **Residential Design**, Circulation Dept., P.O. Box 3007, Northbrook, IL 60065-3007, or call 866.932.5904, or email attn. circ. at rd@omeda.com. Postmaster: Send address changes to Residential Design, Circulation Dept., P.O. Box 3007, Northbrook, IL 60065-3007. Periodicals Postage paid at Chicago, IL and additional mailing offices. Printed in USA.

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Bite of the Apple

TIDEWATER HOUSE
 OXFORD, MARYLAND
 ROBERT M. GURNEY, FAIA

When you're a residential architect, you're in the business of delivering dream houses. But what happens when your clients' dream is of a traditional Tidewater house mixed with an Apple Store glass cube? One of the few architects in the greater Washington, D.C., area who can deliver such an unlikely combination is Robert M. Gurney, FAIA.

"There is lots to draw from on this large rural property for what the house could be," says Bob. "There's an existing Georgian Manor house, another farmhouse, and a number of agrarian buildings, including stables and barns." And the material palette is diverse as well—wood, stone, metal, and glass. Although, perhaps not Apple cube-level glass.

The program here is also unusual: a house built not to entertain. It's a retreat for the owners, who have other houses in Connecticut, Florida, and Palo Alto, California. They're committed to fitness, healthy eating (there's a separate kitchen



for the private chef), and their dogs. The 5,000-square-foot plan has a small dining room and only one guest room.

"Our approach was to take these program elements and break them into different volumes and reinforce the volumes with materials you would find on a farm," Bob explains. The front façade makes the greatest effort to evoke Tidewater antecedents, while the glassy rear elevation takes the biggest bite of the Apple inspiration—capturing the peninsula's sweeping water views in the process.—*S. Claire Conroy*

Project: Tidewater House; project size: 5,000 square feet; site size: 396 acres; architect: Robert Gurney, principal; Matt Stephens, project architect, Robert M. Gurney, FAIA, Washington, D.C.; drawings: Robert M. Gurney, FAIA

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