

VOL.
28

NO.
1

This Old House

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IMPROVE
LIFE AT HOME

SPRING
2023

INDUCTION RANGES / WET ROOMS / LASER LEVELS / COBBLESTONE EDGING / POTTING BENCH

Kitchen & Bath

- INSPIRING DESIGN IDEAS
- PROBLEM-SOLVING LAYOUTS
- BEST NEW PRODUCTS

The Atlanta
project house
kitchen revealed!
See more,
page 9

PLUS

Comfort and charm
in Newburyport

Move-in time at the
Mountain Modern Idea House

FIRST LOOK: the Ipswich
1700s project house



CONTENTS

SPRING 2023 / Vol.28, No.1



43

FROM THE TOH JOB SITE: TAKING ON A 1700s HOUSE

Charlie Silva and
the team start
work on the
latest *TOH*
project, a timber-
framed house in
Ipswich, MA,
once owned by a
Revolutionary
War soldier

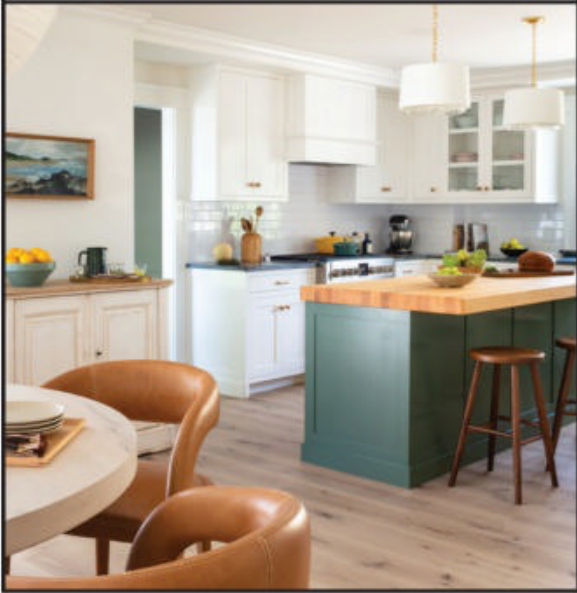


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COVER Photograph by Cameron Reynolds | Styled by Theresa Ory

IDEA/FILE



9 From the TOH Job Site: Old House, New Vision

Reimagined as a contemporary family home, the renovated 1890s project house in South Atlanta still pays homage to its original owner, a local civil rights advocate

16 Idea House Mountain Modern: Stunning Views, Custom Spaces

Two years in the making, the newest Idea House showcases dramatic architectural lines, natural wood and stone finishes, and smart, energy-efficient home tech

22 Kitchen Solutions: Free the Cook!

A trio of kitchens plagued by poor circulation get a new lease on life thanks to sanity-saving floor-plan fixes

28 Timeless Baths: Vintage Charmers

Little layout changes and all new finishes turn three small-footprint bathrooms into inviting retreats

34 From the TOH Job Site: Good to Be Home

At the 1902 project house in Newburyport, MA, a rear addition and reworked floor plan deliver the extra space and comfortable flow the homeowners needed

nuts&bolts



43 From the TOH Job Site: Taking on a 1700s House

(See opposite page.)

48 All About: Induction Ranges

Considering a range upgrade? Now's a good time to make the switch to an induction model. The newest versions deliver loads of features—and look great doing it. We've got the lowdown on what to look for, and plan for, before you buy

56 Kitchen and Bath Products: Style Meets Substance

Get a jump on updating a worn kitchen or dated bath: Check out some of our favorite new products to bring enhanced function and a fresh look to your hardest-working rooms

60 Reno Planner: Building a Wet-Room Bath

A bath with no interior walls, save for an optional glass partition that helps contain the shower spray, can give even a small space a luxurious open feeling. Planning and building one does involve special considerations, however. Here's what you need to know

WORKSHOP



69 Build It: Book-Sharing Cabinet

TOH general contractor Tom Silva and TOH host Kevin O'Connor craft a school bus-shaped Little Free Library for a local elementary school

74 Tool Lab: Laser Levels

TOH carpenter Nathan Gilbert offers insights on choosing and using these indispensable tools

78 What's New

The latest home-improvement products to help you tackle your to-do list

81 Easy DIY: Cedar Potting Bench

TOH DIY expert Jenn Largesse shows how to build a workstation for potting plants that can also corral the needed materials

84 Spring Upkeep

Maintenance tasks to pay attention to this season

86 Ask This Old House

How to repair chimney bricks, fix woodpecker damage, install kitchen-cabinet hardware, set up a compost pile, edge a driveway with cobblestones, shore up holes in wood framing, rewire a doorbell, and more



COUNTDOWN TO SPRING

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The island life

Corn husks and poker chips—that's what I think about when I think about a kitchen island.

My first (and only) one came with the last of my childhood homes, a summerhouse that became our parents' year-round home. The island was nothing fancy, just two laminate counters, three stools on each side, with a thick butcher block spanning the middle. It allowed a bunch of us to prep meals together (shucking the pile of fresh corn that my mother, a proud Iowan, insisted on daily during the season), and with a few more seats it hosted family poker nights (\$1 to the kitty got you a nice, big stack of chips). Placed in the center of a U-shaped layout in a simple, comfortable, well-planned space, that island became the family hangout so familiar to homeowners nowadays.

For years, a big island with meal-prep and dining space has been the top wish-list item in a kitchen renovation. Just ask around: Those without room for one crave one, and often those who have one would love it to be larger. Our *TOH* project house owners seem to agree. "The island is the heart of our home," says Newburyport's Palen Schwab, pointing out that daughter Alice does her homework at the renovated cook space's centerpiece (page 34). It helps make fixing meals easier and gathering with family and friends possible in ways that may have eluded us before. Today's kitchen island is a spot to park a laptop, a central area for homework, a serving station for parties, a casual place for coffee and conversation, and even a place for quiet contemplation. "I like that people can sit at the island and see outside to the backyard," says South Atlanta's Kysha Hehn of our cover kitchen, where stools face a wall of windows with views of the trees (page 9). For the Idea House's Kyle Grunwald and James Korzekwa, an 11-foot-long island defines the kitchen area in their open-plan mountain home, with four seats that allow guests to kibitz with the cook (page 16).

Comfort, ease, connection—that's really what I'm thinking about when I think about that island of my youth. Worthwhile goals for any renovation, with or without that wish-list kitchen hub.

KATHRYN KELLER,
EDITOR-IN-CHIEF

kathryn@thisoldhouse.com



Five things I learned from this issue:

- 1 >** How an induction range can get pasta to the table in record time (*page 50*).
- 2 >** How a single standout fixture can breathe new life into an old bath (*page 28*).
- 3 >** How faux-marble panels can make over a tub-shower in an afternoon (*page 59*).
- 4 >** Why creating a wet room starts from the ground up—with the drain (*page 62*).
- 5 >** How a clever \$7 tool can keep the stink away from your kitchen sink (*page 85*).



Around The House

What's happening in the world of **This Old House**



AN AMAZING RACE

Rolling along in Newburyport

KNOWN FOR ITS OLD-TIME CHARM and vibrant downtown, Newburyport, MA, holds another draw: an annual Bed Race, run by the local Lions Club. Hearing that it happens on a quarter-mile stretch of Federal Street—a few blocks from our project house—team *TOH* was psyched to sign up. Charlie Silva built the cart-like “bed” with a gabled top, clapboard sides, and a headboard he got from his grandmother. Tom Silva took the driver’s seat (and megaphone). Homeowner Melissa Schwab rode up front with daughter Alice, while husband Palen, Jenn Nawada, Charlie, Kevin O’Connor, Mauro Henrique, Heath Eastman, and construction manager Brian Bilo hit the ground running. “It was great fun,” said Kevin at the finish line. “But I am so glad it was downhill!”



INSIDE IPSWICH

Talking timbers

When Tom Silva spotted the faded marriage marks on the timber frame at *TOH*’s newest project house—a 1720 Cape Ann Gambrel in Ipswich, MA—he recognized it as a code: Matching shapes on the timbers, like a half circle with a single line (inset), are meant to be installed in a set orientation. “The sections of a timber frame are first assembled on the ground, then raised into place,” Tom explains. “The marks indicate the location of each piece.” Expert Arron Sturgis was called in to rework a second timber frame, found in a derelict addition, in a dramatic new kitchen space. Get a glimpse of his handiwork, starting on page 43.



What lies beneath

It was no message in a bottle, but the cistern uncovered in the basement of the Ipswich project house tells a story of its own. “The household was growing when they built the cistern, in the late 1700s to mid-1800s, judging by the bricks, and they needed more water for chores, animals, and growing food,” says archaeologist Suzanne Cherau, who visited the house. Before excavation began, the cistern’s domed top, skim-coated with cement to make it more water-tight, was a prominent presence in the basement and under the porch. Excavation revealed its brick base. “It held thousands of gallons of water, indicating a thriving household,” says Richard Trethewey, sizing up the 6-foot-tall, 50-inch-wide behemoth. Now the plan is to keep the cistern on view near the patio and in the basement to honor the house’s history.

NEWBURYPORT: JOHN TOMLIN; SILVA, TRETHEWEY: ANTHONY TIEULI



DOING GOOD IN DORCHESTER

Lending a hand

UNABLE TO USE the back deck of her 1880s house in Dorchester, MA, for fear of putting a foot through the rotting floor or falling on the unstable stairs, homeowner Roz Pendleton needed help. So she applied to Rebuilding Together Boston (RTB), the local arm of a national nonprofit that focuses on home repairs and community revitalization for older adults, veterans, and families in need. To Roz's delight, the crew from *AskTOH*, members of the *TOH* extended family, and a group of RTB volunteers appeared on her doorstep. Tom Silva, Nathan Gilbert, and local builder Deliandro Dias (the general contractor on *TOH*'s West Roxbury project) led the charge to replace the run-down deck and stairway. Jenn Nawada came up with a bonus for Roz: a landscape plan with a new paver patio and privacy plantings to enhance the underused double lot. With nearly 40 people on-site for the finale of the four-day build, the team accomplished it all: a new back deck with a sturdy stairway, a 12-by-16-foot brick-paver patio, new plantings, and low-voltage lighting to brighten it all at night. "Everyone brought their expertise to this project, and it couldn't have worked out better," says Janice Walker, RTB's executive director. Urged outside for the big reveal, a teary Roz managed to capture what everyone was feeling that day: "Awesome job!"



All in it together: (1) Jenn Nawada and Mark McCullough get a squeeze from homeowner Roz Pendleton. (2) *TOH* associate producer Kathryn Fulton learns a thing or two from Tom Silva about cutting deck balusters. (3) Mauro Henrique smooths polymeric sand in between the patio's brick pavers. (4) *AskTOH* associate producer Aleese Gooden stays upbeat despite the rain. (5) Volunteers from Rebuilding Together Boston and the *TOH* family celebrate a job well done on Roz's deck.



You did it!

Reader projects, tips,
and triumphs



All-in built-in

TOH Readers: Andrea Kartley and Kevin Coonan, Chicago

To fill a longtime need for a dining room buffet and storage, we designed this wall of cabinetry using rustic oak that suits the character of our old Chicago workers' cottage. It was by far the most difficult and detailed project we've done; it took my husband, Kevin, four months to build. We're pretty proud of the result!



A better letter box

TOH Reader: E. Troy Washington, Beltsville, MD

My old mailbox had seen better days. When it finally cracked, I knew it was time for an upgrade. I bought a new one and built a platform for it out of $\frac{3}{4}$ -inch lumber. For aesthetics, I added a stand and solar LEDs to backlight the house numbers. I'm a self-taught DIYer, and this was a simple, fun project—and I think it looks great!

Staining power

TOH Reader: Lynn Schiffman, Asheville, NC

Looking for a simple living room side table that also had some personality, I bought an unfinished Shaker-style table, then added interest with stencils and self-sealing water-based stains. I masked off areas with painter's tape to create clear outlines and used foam brushes to apply the stain. My second project involved adding various colors and some detail to a narrow chest of drawers. I usually have a design in mind, but might adjust it along the way. Furniture staining is a great way to add pop to pieces that have clean lines. It's addictive. I can't wait to start something new.



READER TIP



If you're renovating an old house, it's a good idea to work from the top down—and don't forget to lay a plywood path over attic joists. I learned this the hard way: After falling through my attic floor due to rot, I wound up having to patch and repaint the ceiling below it.

TOH Insider: Justin Stubler, West Greenwich, RI

First in glass

TOH Reader: Andrew Ledet, Arlington Heights, IL

Flipping through the newspaper, I saw a coffee table unlike any I'd seen before and optimistically told my wife, "I could make that." Tips from *TOH* helped me select the red oak and provided the know-how. Using a cardboard template, I cut out the legs' rough curves with a band saw. I used belt and oscillating sanders to smooth the shapes and a router to soften the edges before applying three coats of clear varnish. The 32-by-18-inch legs are connected via a metal pin that allows them to pivot. I found the glass top online for \$25, and I have Bob at the local senior center to thank for guidance on working with the tools, which I was able to use at their woodshop. I love looking at the table and knowing I could, in fact, make it, with just a bit of help.



Deer-proof beds

TOH Readers: Christopher and Jennifer Pernice (shown with Bennett, 3, and Everett, 5), Kingston, RI

When we moved to our new home, one of the first projects we talked about was a deer-proof garden. My husband, Chris, built this 8-by-12-by-7-foot enclosed garden with pressure-treated copper-capped 4x4 posts, 2x10 bed walls, and 2x6 lateral top supports. Our boys pick cherry tomatoes, string beans, and green peppers throughout the day, often eating them right off the plants. We're faithful *TOH* viewers and readers of your magazine. You are all truly a part of our family, life, and home—thank you!

READER TIP



To fix a dent in wood, place a damp cloth over the depression and run the tip of a steam iron over it, applying pressure. If the cloth dries and the dent is still apparent, repeat. The moist heat should plump up the wood fibers, releasing the dent.

TOH Reader: James Brown, Mamaroneck, NY



Screen star

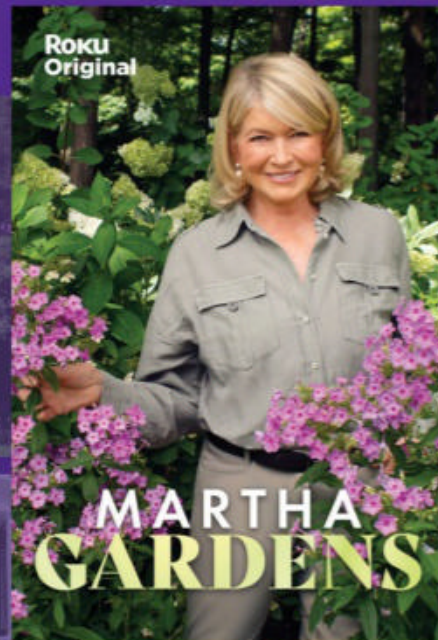
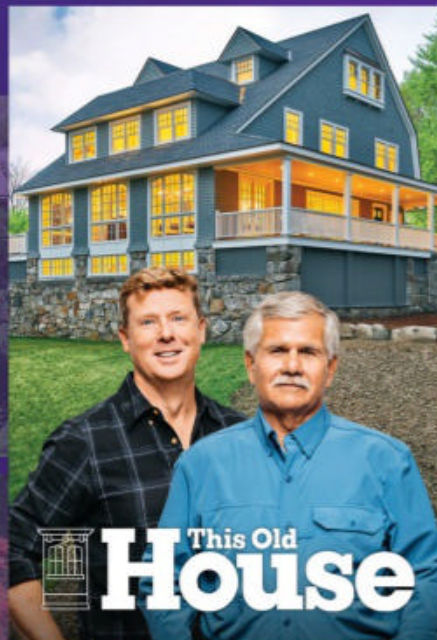
TOH Readers: Bryan Sieling and Nanci Edwards, Alexandria, VA

The back wall of our house frames one side of our patio. It is also where the gas and electric meters and the cable box are located—unsightly, to say the least. We found instructions for a privacy planter box on the *TOH* website—the perfect solution! We modified the plans to accommodate our spigot and hose and made a few adjustments based on cedar availability and what we had on hand. We love it! Thank you for the idea and instructions.

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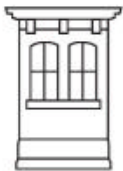
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INSPIRING SPACES, DESIGN DETAILS, AND FINISHING TOUCHES



The kitchen and family room occupy space in the house's rebuilt rear addition. Floating salvaged-wood shelves turn an awkward structural post into a decorative and useful feature.

From the T0H Job Site

Old house, new vision

A young family creates spaces for the way they want to live now, while honoring the legacy of the 1890s house's original owner, a civil rights leader in the community of South Atlanta



BY NEDRA RHONE | PHOTOGRAPHY BY CAMERON REYNOLDS



Some say you don't choose a house; the house chooses you. That sense of connection, and destiny, is very real for Jonathan and Kysha Hehn, proud stewards of the house built by voting-rights advocate Luther Judson Price more than a century ago. On their very first walk-through, Kysha saw past the peeling paint, rotting wood, and collapsed ceilings and had a strong intuition that the house was special, though she had yet to learn why. Once the Price history came to light, she and Jonathan knew they wanted their family to be part of preserving the house's legacy.

For the Hehns, and their children, Alivia Sage and Joia, the eight-month renovation of the 1890s house is now complete. The project brought with it treasured moments of learning about Price's history intertwined with some challenging decisions about the construction, which *This Old House* documented as part of its 44th television season.

"There were so many jigsaw pieces," says Kysha of figuring out what spaces to keep and what to reimagine. "We were able to look at all the pieces and ask ourselves, What do we actually want? It was really beautiful the way the process unfolded."

Above all the Hehns were inspired by Price's life: Born into slavery on a Georgia farm, then emancipated, he left home in his teens to attend college in Atlanta, opened a general store, and in 1889 became South Atlanta's first postmaster. He and his wife, Minnie, raised their five children in the house. Luther Judson Price died in 1936, and in the decades that followed the house became a multi-unit dwelling no longer owned by the Price family and was eventually abandoned. When the Hehns bought it, the derelict 3,000-square-foot



THESE PAGES
 GRANITE COUNTERS:
 Walker Zanger
 FAUCET: Kohler
 PAVERS: Cherokee Brick
 ROOF: GAF



FAR LEFT: The renovated two-story house has a fresh coat of gray paint protecting its pine clapboards, which were scraped by hand. The brick walkway was laid with bricks salvaged from a chimney that came down. Nearly all the original windows were able to be restored.

LEFT: Jonathan and Kysha Hehn gather with Joia, 10, and Alivia Sage, 12, at the granite-topped kitchen island in the rear addition.

ABOVE: The family room is open to the main stairway, where salvaged 2x4s create a modern balustrade.



house had tacked-on rear additions, a rotting rear exterior stairway, and few original details.

The Hehns' vision was to keep the house's history on display while rebuilding what couldn't be saved. Today, the front half of the house retains the footprint and surviving features of the Price home, but builder Jerry Davis had to rebuild the rear after he found that one of the existing additions had sunk 6 inches due to wood rot. Davis, who also lives in South Atlanta, saw past the challenges: "We have done a lot of old houses, but this one was completely different because everybody knows who the house belonged to and the significance. Because of the Price legacy, the project meant that much more to me."

With the path cleared for reimagining the space in the new addition—built with two separate foundations to address site issues, including soil erosion—the Hehns could carve out the kind of family space they really wanted: an open-plan kitchen and family room with backyard-facing windows and doors. "I like that people seated at the island can look out at the backyard," Kysha



says, referring to the kitchen centerpiece. Maple base cabinets and open shelves, honed-granite countertops, and open produce bins that hark back to Price's general store echo other natural and organic elements in the house. A pair of copper-and-brass pendant lights salvaged from a ship, brass bin pulls, and a granite shelf with a brass gallery rail along the windows add a period feel.

The Hehns pay homage to the Prices in the front rooms of the house—now a dining room and a parlor—which retain their original footprint. Price-family memorabilia, including the postmaster's scale presented to them by Price's grandson, fill the walls and built-ins. With the damaged plaster repaired, Kysha approached local designers Monet Masters and Tavia Forbes to create a custom wall covering incorporating two meaningful elements: a blue-green background that echoes the color of wallpaper remnants revealed when the drop ceilings were removed, and an African motif, the *sankofa* bird, that represents learning from the past. The finished wallpaper now brightens the front entry and adjoining

ABOVE: An original front parlor serves as the dining room; the homeowners kept the ceiling joists exposed as a nod to the house's history. The wallpaper features the *sankofa* bird, which symbolizes learning from the past.

OPPOSITE: A front parlor honors Luther Price's legacy. His original postal scale, gifted by his grandson, is now displayed on the bookshelf. Portraits of Price and his wife adorn the wall.

THESE PAGES
 INTERIOR DOOR HARDWARE:
Baldwin Hardware
 WALLPAPER DESIGN:
Forbes Masters
 WALLPAPER MANUFACTURER:
Mitchell Black

“To step into a place where we are preserving a legacy and keeping the spirit of the Price family alive has so much meaning for us.”

—KYSHA HEHN, homeowner

rooms, which also feature original fireplaces and exposed ceiling joists, serving as a reminder of the house's age and history.

The decision to preserve some imperfect elements as a connection to the past is evident upstairs as well, where a wall near the stairs showcases a swath of plaster with layers of old paint, hallway floorboards kept their gaps and cracks, and one of Joia's bedroom walls displays the opening where an old stovepipe once functioned. “We purposely didn't fix everything,” says Jonathan. “We love those bits of history peeking through.”

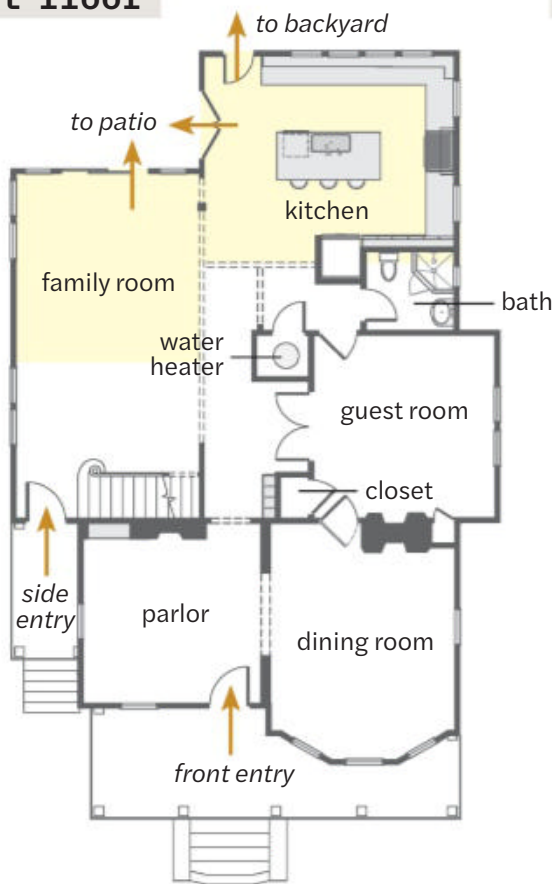
A necessary improvement for comfort and energy efficiency is the new two-zone forced-air



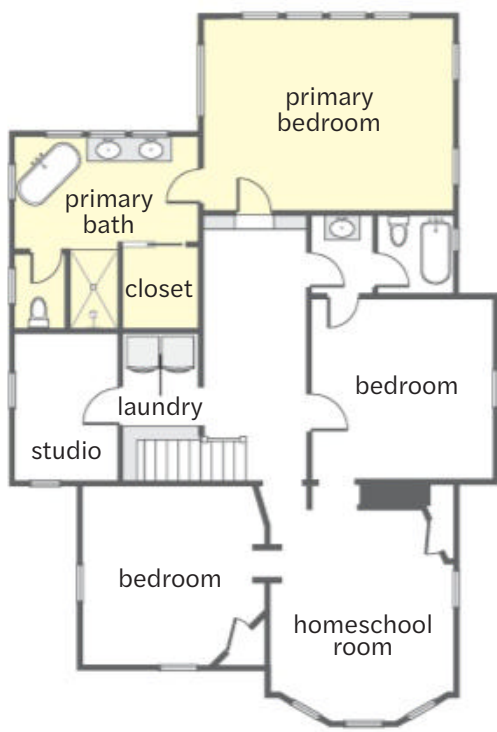
FLOOR PLANS

The front rooms of the 3,000-square-foot house retain their original footprint, with a dining room, parlor, and future guest room downstairs and two bedrooms, a homeschool room, and a studio upstairs. The rear addition replaced two previous additions that had to come down. It holds a family room and kitchen on the first floor. Three sets of doors leading out from the kitchen-family room establish a strong connection to the outdoors. The primary suite, with views of the backyard, fills out the second floor. The upstairs hallway doubles as a gathering space for the kids; an alcove off the hall has base cabinets with a washer/dryer.

first floor



second floor



scale 5' addition



The primary bedroom has a tree house feeling, with a pine ceiling that rises 17 feet high, a chandelier made from a sun-bleached root system, and a reclaimed-maple platform bed.



GO ONLINE See the project from start to finish at thisoldhouse.com/Atlanta-postmasters-house

“The outdoor space is a great learning environment, with everything from a drum circle and a chicken coop to an edible garden.”

—JENN NAWADA, *TOH landscape contractor*

HVAC system, which brought air-conditioning to the house for the first time. Two 3-ton heat pumps provide heating and cooling in a system that Jonathan helped install by running the flexible ductwork in the attic and basement. “The house feels generous, but there is not much mechanical space in it,” says *TOH* plumbing and heating expert Richard Trethewey, referencing the basement crawl space.

The family’s second-floor sanctuary includes a homeschool room: Kysha has taught the children at home for the last five years. Alivia Sage and Joia chose the bay-windowed room at the front of the house for its abundant natural light and claimed existing bedrooms adjacent to it for their own. Kysha envisions the hallway leading from their bedrooms to the primary suite as a gathering place for them to play games. The primary suite has a minimalist aesthetic. “The neutral color palette and natural materials create a calm and ethereal space,” says interior designer Theresa Ory.

Outdoors, Kysha created a learning area in the backyard, collaborating on the design with *TOH* landscape contractor Jenn Nawada. The space includes a greenhouse classroom, a shelter for chickens and rabbits, creative spaces for art and music, and a lectern carved from a tree trunk.

The house’s exterior showcases the team’s many efforts to reuse and improve, including hand scraping and patching the original pine clapboards, then painting them a soft gray that is similar to what is seen in old photographs. In front, Davis rebuilt the rotted porch, reorienting the boards front-to-back, to shed water.

While the heavy lifting of the renovation is done, Kysha says the process of restoring the home’s spirit is just beginning. She feels most at peace in the rooms that honor the Price family. “In the other portions of the house, I feel compelled to do what the space calls for. In the kitchen you prepare meals, in the bedroom you rest, but in the *sankofa* rooms, you reflect, you dream, and you are simply present.” 🏡

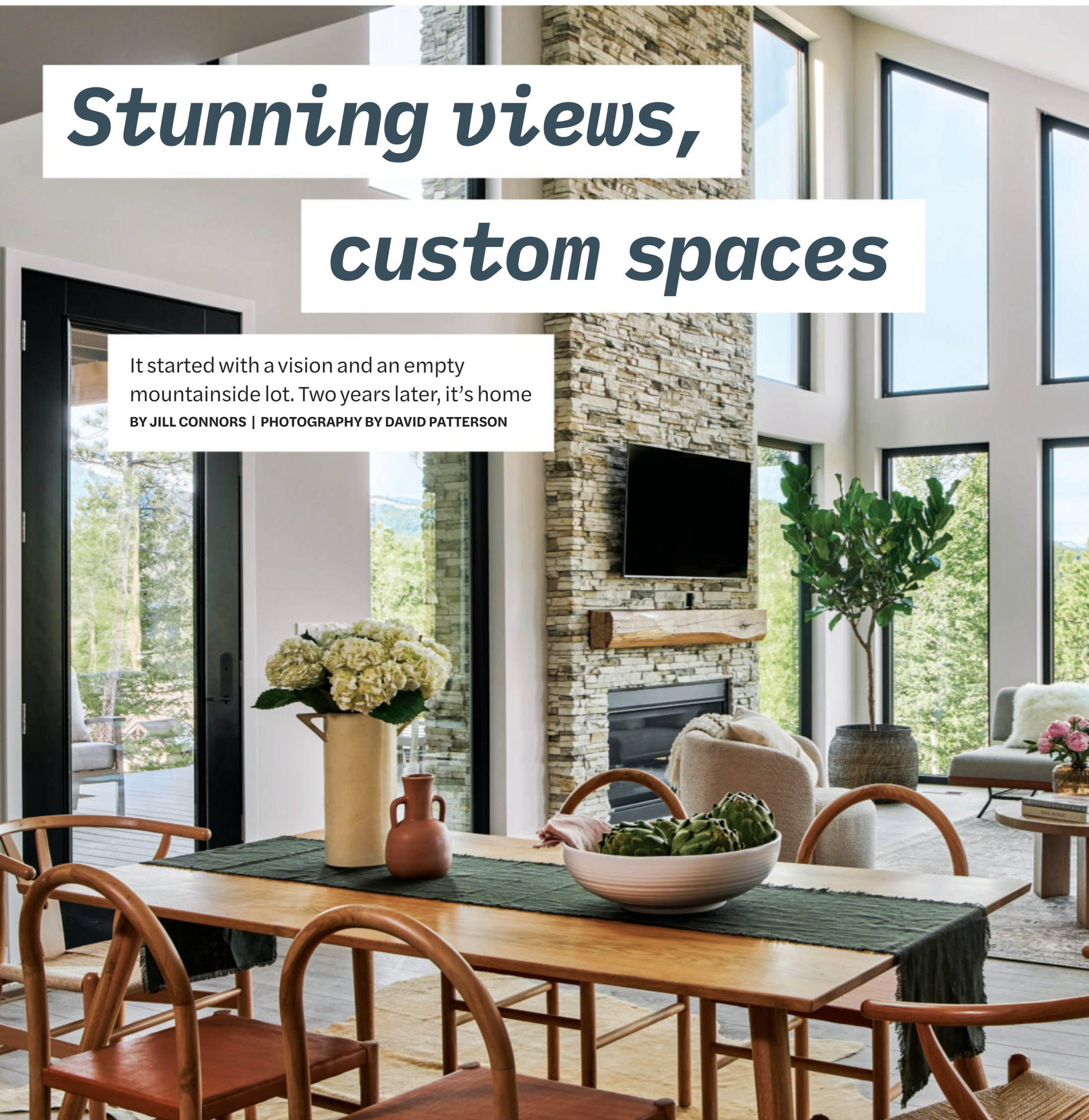
RIGHT: In the primary bath, the soaking tub sits at an angle to better take in views of the treetops. The vanity’s live-edge magnolia slab and woven-bamboo blinds echo the natural textures at play in the adjoining bedroom.

BELOW: The rear addition is clad in fiber-cement siding and reflects the homeowners’ desire for walls of windows and doors. The backyard serves as an outdoor classroom, which includes a music area with a drum circle and a fire pit.



Stunning views, custom spaces

It started with a vision and an empty mountainside lot. Two years later, it's home
BY JILL CONNORS | PHOTOGRAPHY BY DAVID PATTERSON





For James Korzekwa and Kyle Grunwald, the idea of building a custom house in the mountains held the promise of purpose-built spaces for work and play wrapped inside a stylish, energy-efficient home with expansive views. Having purchased a lot in Morrison, Colorado, just outside Denver, they sought out Revolve Design-Build's husband-and-wife team of Jared and Amber Phifer to create the house they envisioned. From design meetings to the final walk-through, that process stretched to 24 months and is captured in *Idea House: Mountain Modern*, a new television show from the producers of *This Old House*, now streaming on The Roku Channel.

"We went into this with the goal of building something that fit us and our lifestyle," says James. In addition to an open-plan kitchen-living-dining area, their wish list included separate home offices—both he and Kyle are software engineers who work remotely—bedrooms for guests, and hobby spaces, with a woodworking shop for James and a beer-making area for Kyle. Smart-home controls throughout were another must for the tech-savvy pair.

Challenges arose from the start. While the steep, pine-covered 2¾-acre hillside lot offered exhilarating views of Mount Evans, it also complicated construction, especially during Colorado's long, snowy winters. Global supply-chain issues made material and design choices a moving target. Labor shortages meant that at one point, there was no crew to frame the house.

Still, the 4,500-square-foot house slowly emerged, showcasing Revolve's signature mountain-modern aesthetic, with steeply pitched rooflines, dramatic expanses of glass, and rustic wood and stone accents, plus generous spaces for outdoor living. "We always want the homes we design to blend into the environment," says Jared. The design-build firm is also known for its emphasis on energy efficiency; here, that meant a high-performance heat-pump HVAC system and electricity-generating solar roof shingles, in addition to a tight building envelope.

In the end, the long wait paid off, says Kyle: "When we decided to build in the mountains, this is exactly what we wanted."

Lofty and light-filled

1. Climbing to 18 feet, the living-dining area's cathedral ceiling reflects the dramatic modern architecture of the house; floor-to-ceiling walls of glass invite in natural light and mountain views. Rustic features in the 23-by-17-foot space include the reclaimed walnut mantel and the dry-stack stone veneered fireplace chimney.

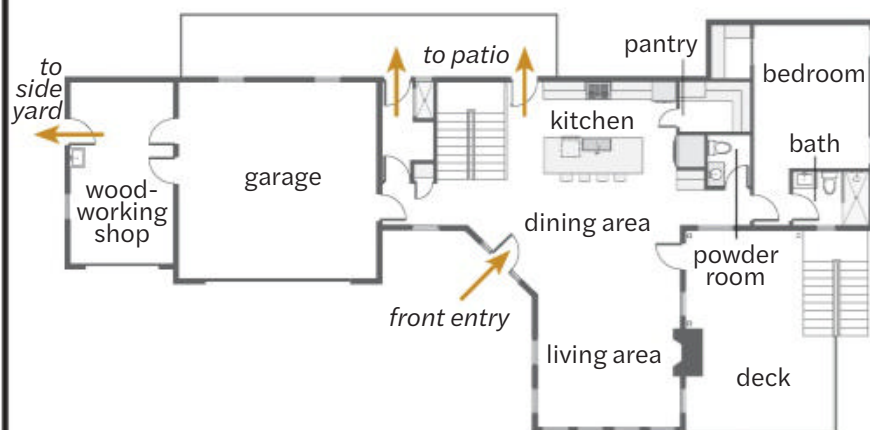
THESE PAGES

TELEVISION: **TCL**
HOME-SECURITY
SYSTEM: **Ring**
Both available at
Best Buy
WINDOWS: **Alpen**
High Performance
Products

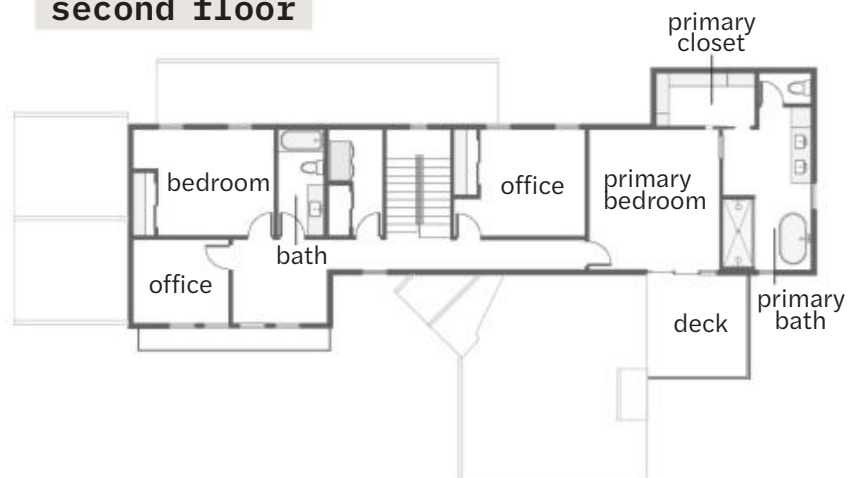
FLOOR PLANS

The 4,500 square feet of finished living space is spread across two stories and a walk-out basement. The layout makes the most of the hillside location, with three bedrooms, five baths, two offices, hobby and recreation spaces, and a deck or patio on every level.

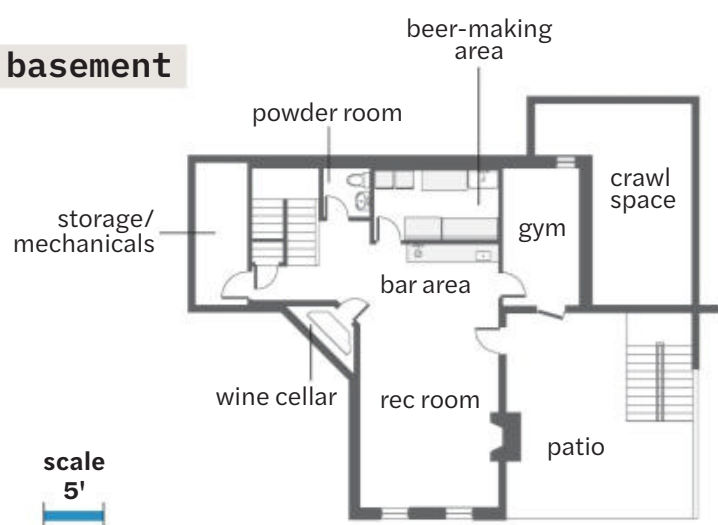
first floor



second floor



basement



Peak experience

2. The exterior rooflines echo the mountain setting; the building materials also needed to meet code for wildfire protection: fire-resistant vertical ash, noncombustible fiber-cement clapboards, and firesafe-finish enameled metal accent roofs.



Open invitation

3. The kitchen combines Kyle's modern sensibility with James's inclination toward farmhouse style; the latter is reflected in the apron-front sink, natural-walnut island base, and brick pantry walls. The streamlined galley layout, stainless steel appliances, and sleek, angular vent hood have a modern feel. Gray Shaker-style perimeter cabinets keep the clean-lined look going. The neutral color palette continues throughout the house.

4. A dedicated corner work surface provides a coffee bar with all the essentials close at hand, with plenty of space for supplies on the open shelves and in the base cabinet below.

5. From left to right: Homeowners Kyle and James share a well-deserved refreshment in the completed kitchen with builder Jared Phifer and interior designer Amber Phifer of Revolve Design-Build.

THIS PAGE

FRONT DOOR: **RealCraft**
SEALANT: **AeroBarrier**
WINDOWS: **Alpen High Performance Products**
ROOFING: **GAF**
SOLAR ROOFING SYSTEM: **GAF Energy**
HEATING AND COOLING: **Mitsubishi Electric Trane HVAC US LLC**

OPPOSITE PAGE

MAJOR APPLIANCES: **LG STUDIO**
COFFEE MAKER: **Ninja**
RANGE HOOD INSERT: **Zephyr**
All available at Best Buy

STYLING: NATALIE WARADY. FLOOR PLANS: IAN WORPOLE





6

Spaces for rest and desk duty

THIS PAGE

COMPUTING:
Microsoft Surface
 KEYBOARD: **Microsoft**
 MONITORS: **Dell**
 ADJUSTABLE-
 HEIGHT DESK,
 CHAIR: **Steelcase**
 BOOKCASES: **Walker**
Edison

*All available at
Best Buy*

6. The primary bedroom on the second floor is a relaxing retreat, with an airy vaulted ceiling and patio doors that open to a private west-facing deck covered by a bumpout above, so it can be used even in winter. Inside, gray-washed wood floors and a stone-gray feature wall create a soothing, natural look. “The finishes and colors throughout the house really speak to the mountain-modern aesthetic,” says Amber.

7. Clean, modern lines pair with natural wood in the primary bath. Double sinks set in a streamlined vanity and a tall storage cabinet alongside it have a spa-like simplicity. Matte-black faucets and cabinet hardware add subtle contrast.

8. Kyle’s upstairs home office features plenty of tech, including dual monitors, an adjustable-height desk, and unseen but all-important high-speed cable for Internet access. It is sited to take in mountain views through tall, floor-to-ceiling windows.



7



8



Downtime destinations

9. The basement rec room, which features a cozy gas-insert fireplace and a walk-out to an on-grade patio, provides the perfect spot for gaming, sampling Kyle’s latest brew, or just hanging out. The raised ceiling is covered in reclaimed wood for a rustic touch; the floor is tinted concrete. The smart lighting system produces synchronized hues to complement the colors of whatever’s on-screen for an immersive, movie-theater effect.

10. Since they log lots of hours at their computers, these admitted homebodies wanted a convenient, in-house gym for unwinding and staying in shape. The latest treadmill and exercise equipment easily fit in this 8-by-15-foot space near the rec room.

11. Completing the rec room’s party vibe is a handy built-in bar area—with a sink, an undercounter beverage fridge, a countertop ice-maker, and plenty of storage for glassware. Here, white tile, quartz countertops, and natural-wood open shelves get a color boost from blue base cabinets. ■

THIS PAGE
LIGHTING: **Philips Hue**
VIDEO GAME
CONSOLE: **Microsoft Xbox**
GAME TABLE:
Arcade1Up
ICE-MAKER:
GE Profile
TELEVISION: **TCL**
WINE REFRIGERATOR:
Insignia
*All available at
Best Buy*

STATIONARY
BIKE, TREADMILL,
KETTLEBELLS,
DUMBBELLS:
NordicTrack
EARBUDS: **Jabra**
EXERCISE MAT,
BENCH: **ProForm**
MASSAGER: **Theragun
by Therabody**
GYM FLOORING: **NEXT**
*All available at
Best Buy*



Kitchen Solutions

Free the cook!

No, we're not suggesting less time at the stove. We're highlighting smart layout fixes for circulation problems. A key strategy: the right island design

BY NINA MALKIN

Reworking the angles

Sometimes even a 282-square-foot kitchen can feel cramped. For Laurie MacNamara and Bill Hendrickson, who share a Craftsman-style home in Alexandria, VA, with their 16-year-old daughter, a “hook” formed by their kitchen’s peninsula left them trapped. “We could only use about two-thirds of the kitchen space,” Laurie recalls. “Especially with the corner sink in there—we were constantly running into each other.”

SETTING THINGS STRAIGHT Scrapping the angled sink cabinet, pushing out the partition wall, and removing the J-shaped peninsula allowed Lindsay Boudreaux, principal designer at Shotgun Double Interior Design, to create a straight run of cabinets along the back wall. Building a 4-by-7-foot island with 4 feet of clearance from the fridge/range/sink wall provided a generous meal-prep surface and an open aisle to the side door and pantry wall.

ACCESSIBLE STORAGE The former kitchen’s large, deep pantry closet was difficult to organize, so Boudreaux reimagined that wall with a three-tiered pantry cabinet flanked by a coffee station on one side and a drop zone/storage bench on the other. The island holds pots-and-pans drawers on the range side, where cabinets now climb to the ceiling.

LETTING THE OUTSIDE IN Forest-green walls, cherry cabinet doors, and stone countertops echo landscape views out the window wall in the eating area. “It’s a serene and natural, totally functional, and accessible space that gives us great joy,” Laurie says of the new kitchen. Adds Bill: “And it’s great not having to navigate an obstacle course when you realize you need a can of tomato paste!”



BEFORE A J-shaped peninsula and an angled corner sink cabinet hemmed in the work zone, while restricting access to the pantry closet. A freestanding pantry cabinet near the side door was even more inconvenient and crowded the frequently used entry.

▲ DREAM ISLAND

Accessible on all four sides, the island offers ample prep space with storage designed for bulky small appliances, including a cabinet with a raised rollout shelf for a heavy stand mixer. Its gray base and marble-look white-quartz countertop offer a subtle contrast to the cherry cabinets and honed black-granite counters on the perimeter.

AFTER: ANGELA NEWTON ROY; BEFORE: SHOTGUN DOUBLE INTERIOR DESIGN



WHAT THEY DID

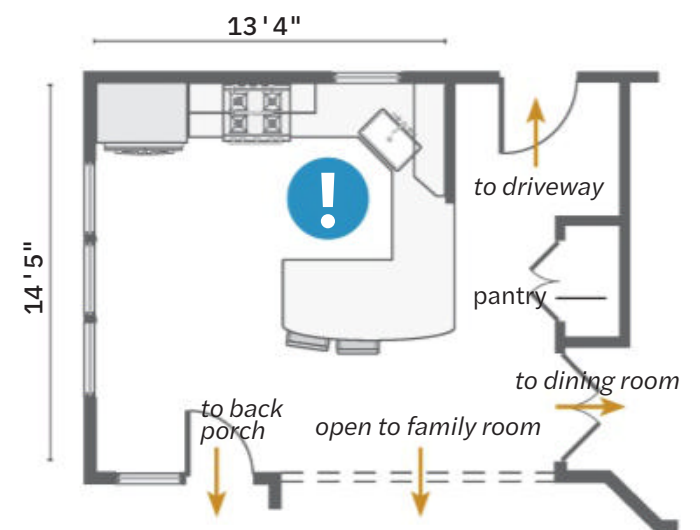
Losing the J-shaped peninsula and angled sink and reworking the partition wall created a wide aisle for the island and direct access to the side door and pantry.

1. Gutted the kitchen, rebuilding the partition wall 1 foot closer to the side door and 2 feet shorter; this allowed for a long, straight run of cabinets with the fridge and range in their same locations, and the sink relocated under the window, with the dishwasher to its right.

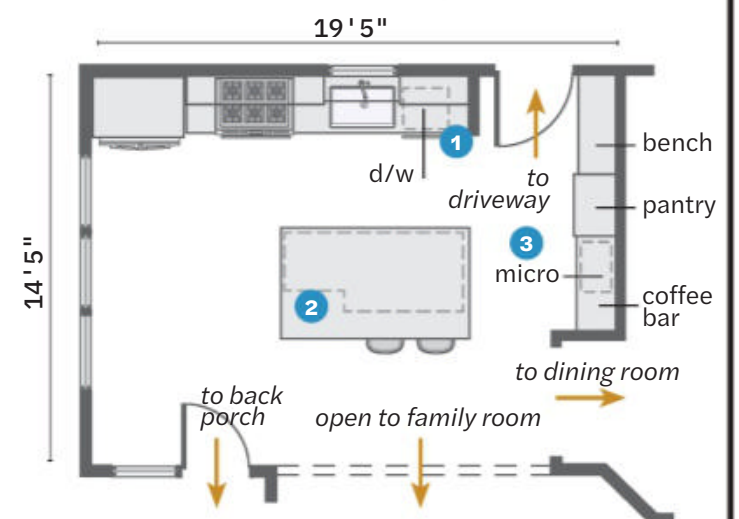
2. Built a 4-by-7-foot island with storage for pots and small appliances, two display shelves, and seating outside the work zone.

3. Put in a coffee bar and an undercounter microwave where the pantry closet had been; built a to-the-ceiling stack of pantry cabinets to its left and a storage bench beside the back door.

before



after



◀ DROP AND LOAD

Just inside the side door, which leads off the driveway, a built-in bench with drawer storage doubles as a convenient drop zone for groceries. Unloading is also a snap, thanks to a ceiling-high stack of pantry cabinets just to the right. Everyday staples go in the large bottom cupboard.



AFTER: ANGELA NEWTON ROY. FLOOR PLANS: IAN WORPOLE



Send in the crowds

For the Ramachandran family, four of whom love to cook, an angled kitchen island in their suburban Washington, D.C., home made practicing their passion a pain. The cooktop hogged prep space, lower cabinets were impractical, and the angled island blocked access to the pantry, which felt miles from the burners.

RELOCATE THE RANGE Moving the cooktop off the island was key to improving flow in the 242-square-foot space. So Kate Adams, designer/architectural specialist at Case Architects & Remodelers, created a feature wall for a new rangetop, moving the fridge to the wall with the double ovens. She put in deep drawers below the rangetop for pots and pans, with racks to house the family's extensive collection of cooking oils and spices on both sides.

BIGGER AND SO MUCH BETTER A new rectangular island, its top nearly 10 square feet larger, offers more than 12 linear feet of slicing-and-dicing space on two sides. It was placed to create a path between it and the rangetop that's a foot wider—key to avoiding traffic jams. "With a 4-foot-wide aisle, there's now enough room for two people to work back-to-back," says Adams.

LIGHTER, BRIGHTER LOOK Further fine-tuning included demolishing a desk in favor of a baking station/beverage bar and replacing a cavernous builder-grade pantry closet with custom cabinets calculated to fit specific items. Hints of gold, gray-veined quartz counters, and handmade zellige tile add unique character. "We now have a dream kitchen that meets all three requirements—form, flow, and function," Jo Ramachandran says. "It's also very pleasing to the eye."



BEFORE "So many cabinets, not enough storage!" is how homeowner Jo Ramachandran describes the former kitchen's unorganized, inaccessible boxes. The angled island created a "pinch point," impeding circulation, and its cooktop crowded anyone sitting there.

▲ CENTRAL STATION

With 35½ square feet of countertop and seating on two sides, the ample island lets four people tackle KP while chatting with guests. "The larger island provides enough prep space so all four of us can work at the same time without impeding flow in the kitchen," says Jo. "And the quartz top is so forgiving—it handles everything from red wine to coffee to turmeric without staining."

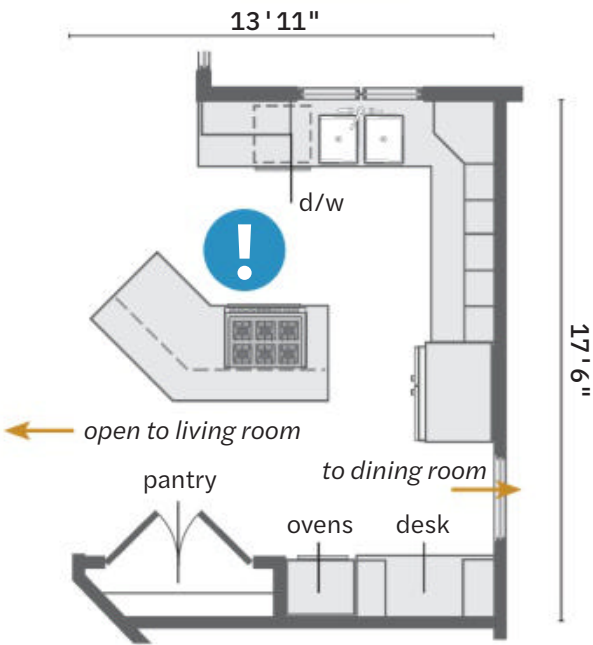
BEFORE: CASE ARCHITECTS & REMODELERS; AFTER: STACY ZARIN GOLDBERG

WHAT THEY DID

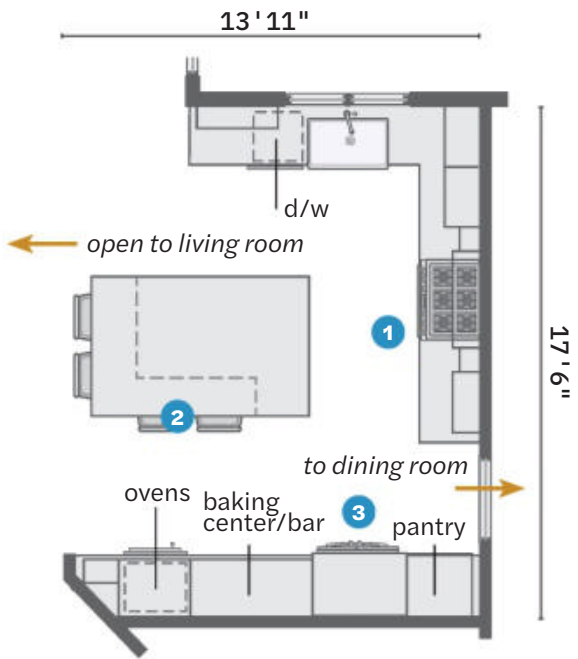
Ditching the angled island allowed for a larger rectangular one with a foot more clearance from the old fridge wall to ease circulation.

- 1. Placed a rangetop and its vent hood in a feature wall of cabinets along the back of the U-shaped layout; sink and dishwasher locations stayed the same.
- 2. Built a 4¾-by-7½-foot island with uninterrupted prep space.
- 3. Replaced an underused desk area with a wall of ceiling-high cabinets that includes tall pantry units with the fridge alongside, and a 4-foot-long baking station/beverage bar; double wall ovens shifted 63 inches to make room.

before



after



◀ TEXTURAL CONTRAST

A dramatic range hood descends from the 10-foot ceiling to hold its own with the sizable island. Its matte finish sets off the glossy backsplash of hand-cut and hand-glazed off-white terra-cotta tile.

▼ HARDWORKING LINEUP

With the refrigerator moved to the pantry wall, the rangetop on the back wall, and a new larger sink in the old one's spot, a wider aisle at the range end of the island creates an unimpeded path for food prep and cleanup. Doubling the number of base cabinets—including the island's—and taking the pantry wall units to the ceiling netted the homeowners significantly more usable storage.





Fresh look and function

A galley kitchen can work—they function fine in restaurants. But not in a house where it hinders access to the kitchen table and a busy back door opens into the cooking zone. “I felt trapped and alone when making dinner—two people in the galley just wasn’t an option,” says Sara Kodsí, who shares a 1950s Colonial Revival in Bethesda, MD, with her husband, Nadim, and their two children.

RESHAPE THE SPACE To open things up, Stephen Gordon, president of InSite Builders & Remodeling, relocated backyard access to the eating area, adding sliding French doors where a trio of windows had been. He got rid of the cabinet run that held the fridge along with the peninsula that hemmed in the galley, moving the powder-room door to where the fridge had been. Then he widened the main area by taking 2 feet from the adjacent dining room. This transformed the 114-square-foot galley into 244 square feet of functional kitchen space.

REWORK THE WORK ZONE Moving the range to the new wall and putting the fridge to the right of the sink created a comfortable work triangle. It also made space for a 24-square-foot island with storage on three sides and stool seating. A beverage bar and fridge went in where the back entry had been.

EASY DOES IT White cabinets, some with glass fronts; clear globe pendants; and a sputnik chandelier help lend “a light, fresh, calming feel” to the new kitchen, says Sara. “Now everything is close together in a good way,” she says of the workstation situation. “Plus, the island is great for food prep and serving without being an obstacle to the table, so this has truly become our gathering space.”



before

BEFORE The space between the fridge and the range was tight, and any open door—on an appliance or to the backyard—created an impasse. Whoever was cooking was cut off and isolated—with no sight line to keep an eye on the kids.

▲ WAY WIDER

Saying good riddance to the peninsula and stealing space from the adjacent dining room opened up the kitchen to accommodate an island and integrate the existing eating area. This allowed for a setup that puts the range, fridge, and sink within steps of one another. Adds homeowner Sara Kodsí, “Thanks to the island, we’ve doubled our storage, too.”

BEFORE: INSITE BUILDERS & REMODELING; AFTER: STACY ZARIN GOLDBERG



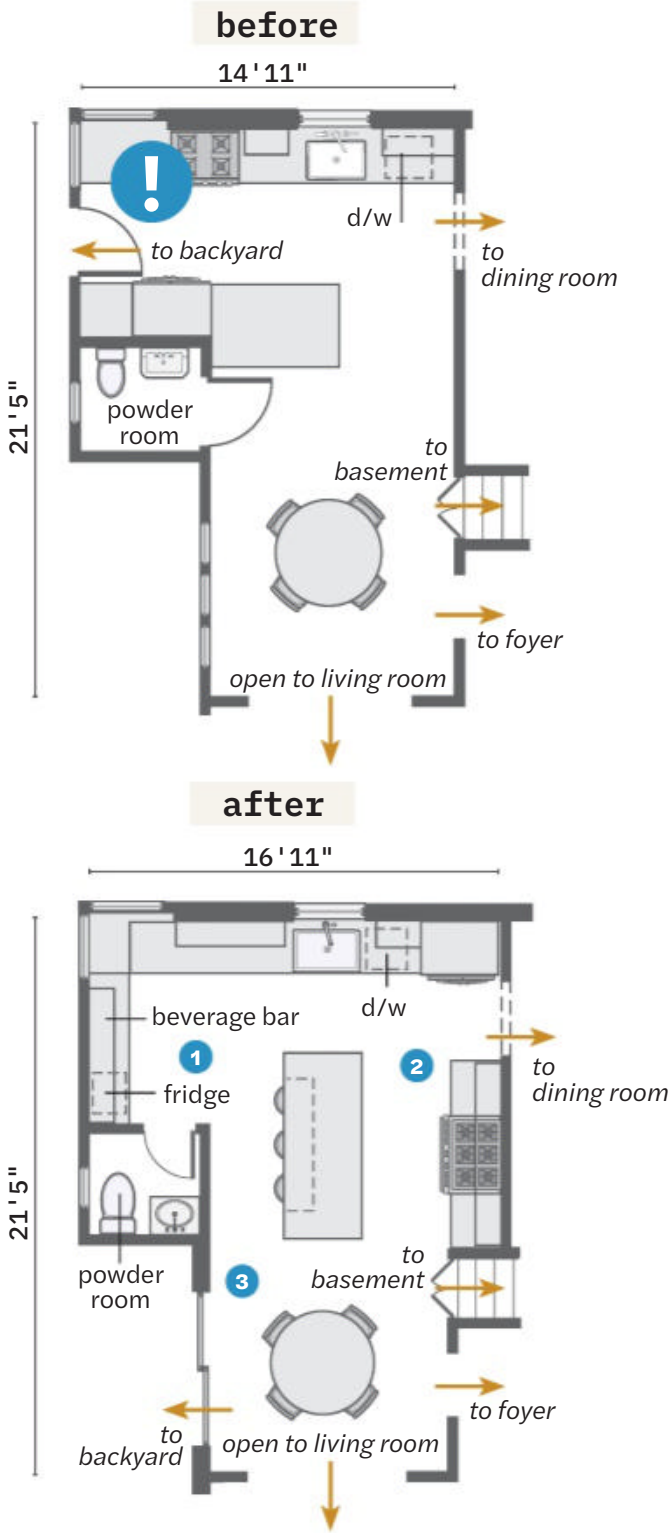
▲ MULTIPURPOSE ISLAND
“In addition to food prep, the island is our family’s creative space,” says Sara. “The two big cabinets hold all the children’s art supplies.” Its navy paint contrasts with the white cabinets and is echoed in the mosaic-tile backsplash.

◀ BOTTLE BANK
Closing up the back entry left an alcove just right for a beverage bar and fridge. “We like that the cocktail area is off to the side,” Sara says. “This way, guests can get a drink and hang out in the kitchen but not be in the work area.”

WHAT THEY DID

Removing a peninsula and widening the room by 2 feet turned a galley into an open kitchen with a center island.

1. Closed up the back entry, demoed the peninsula and the fridge wall’s cabinets, put the powder-room door where the fridge was, and built a drinks bar in the old entry spot.
2. Bumped into the dining room by 2 feet, centering a range on the new wall and placing the fridge near the sink.
3. Added an island about 3¼ feet wide and 7½ feet long with seats for three; moved backyard access near the table, which is now fully part of the kitchen.



Timeless Baths

Vintage charmers

We know you know: Old house often equals small baths. Up ahead, how three such snug spaces got improved function and flair, by giving one or two elements a starring role

BY NINA MALKIN

PERIOD-INSPIRED PIECE:

A shapely double sink

➔ Honoring the history of an old house and upgrading its comfort needn't be contradictory goals. Just ask Philadelphia homeowner Jenny Brown Baer, who pulled off both in the remodel of her third-floor guest bath. An unfinished DIY reno project, the existing space was seriously out of sync with the rest of the 1897 Dutch Colonial twin home—not to mention unappealing. “I wanted to evoke the simple, utilitarian style of the 1920s, but still make the bath attractive and practical for visits from my large extended family.”

To ensure that the cavalcade of cousins wouldn't have to settle for a single sink, local designer Nicole Cole devised a plan to steal space from a neighboring bedroom's closet, which jutted into the room just inside the bathroom door. That allowed her to position an eye-catching double sink on the long side wall, choosing a console model with curvy contours, a style rooted in the 1920s, around the time this home likely got indoor plumbing.

More vintage touches lend a sense of history, including beadboard wainscoting painted a sage green and marble basketweave floor tile—but none more pleasing than the original oval window, previously boxed in behind plexiglass. Updated elements include matte-black sconces with white-glass shades and high-shine shower tile with a wavy surface that suggests hand craftsmanship. “You want an old-meets-new balance, rather than a room that looks like it belongs in a museum,” says Cole.

The result? Jenny is delighted with her new-old bath, summing it up this way: “It's simple, serene, stylish—and it truly respects the house.”



BEFORE An adjacent bedroom closet narrowed the entry to the dated room, with its tiny 3-foot-long tub and drab linoleum floor.

▲ **ROOM FOR TWO** Wall-mounted lav sinks with legs were common when indoor plumbing was first adopted. This double-bowl beauty borrows from the past with a simple, curvaceous shape that isn't over the top. A pair of casually leaning wood-frame mirrors in different sizes—anchored, for safety, with L-brackets—stand in for medicine cabinets for a unique look.

BEFORE: VESTIGE HOME; SINK: REBECCA MCALPIN



“ In a small bath, choosing one standout fixture can create a strong focal point without overwhelming the space.”
—NICOLE COLE, principal designer, vestige HOME

◀ **GREEN SCENE** Beadboard painted a pale green coordinates with the shower tile. The oval window was uncovered behind a clear acrylic panel. The homeowner had it fitted with textured privacy glass, then custom-mixed linseed-oil exterior paint to color-match it to the tile and protect its wood frame. Below it, a deep marble sill is sloped to shed water.

WHAT THEY DID

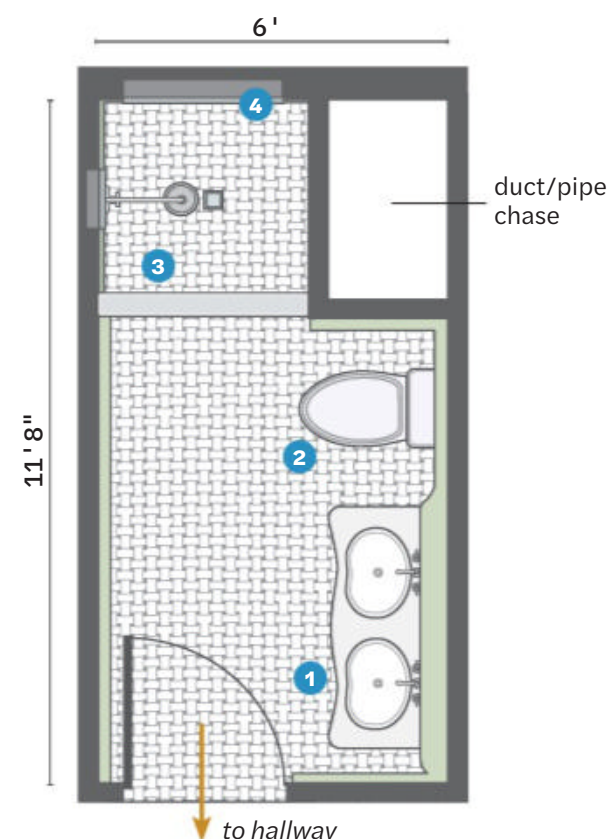
Annexing a bedroom closet that jutted into the room established a rectangular footprint of about 60 square feet.

1. Gained about 6 square feet to the right of the entry by grabbing space from the closet next door; this allowed for a double sink along the side wall.

2. Rotated the toilet, which had backed up to the HVAC/plumbing chase, 90 degrees to sit along the sink wall.

3. Gutted the tub/shower to create a nearly 10-square-foot shower.

4. Restored an original window; sloped the tile shelf under it to shed water.



◀ **SPACIOUS AND STYLISH** A curbed shower lined to the ceiling with celery-green 3×6 tile that’s textured for a handmade look went in where the tub had been. Says homeowner Jenny Brown Baer: “It has such lovely color variations when the light shines through at different times of day. It’s one of my favorite things about the room!”

PERIOD-INSPIRED PIECES:

Colored tile, floral wallpaper

➔ In a space-starved bath, practicality has to trump sentimentality. This primary bath, in a 1940s twin home in Ardmore, PA, still bore remnants of its past, namely Art Deco green tile with a black border, flower-flecked wallpaper, a fluted pedestal sink, and a built-in tub. While homeowner Nancy Gore appreciated the original finishes, including that tile, the overall design of the 56-square-foot space left much to be desired. “The shower was tiny, the tub was never used, and there was virtually no storage,” she says. “I wanted to re-create some vintage style while making the bath more functional.”

Agreeing to scrap the tub freed designer Sean Lewis to widen the shower alcove by an extra 16 inches. To add needed storage, he moved the sink to the opposite wall, setting it in an ample vanity. A shallow hutch where the sink had been provides a place for linens. With the space reworked to maximum advantage, Nancy and Lewis turned their attention to the fun stuff, choosing soothing blue subway tile for the lower part of the walls with a darker chair rail above, and colorful penny tile on the floor in a decorative pattern that also has a border—both updated takes on tilework that reflect the room’s roots. Add in a lively, modern floral paper on the upper walls that ties the color palette together, and you’ve got a hardworking room wrapped in uplifting color.

With more room to move and space for her stuff, Nancy can now truly enjoy time spent there: “It has the beautiful vintage look I wanted,” she says. “I love the cheerful colors, the freshness—and being able to shave my legs without hitting my head on the wall!”



▲ **COLORFUL CLADDING** The retooled bath pays homage to its original tile and wallpaper, but with an updated palette and patterns. Blue 3×6 tile with subtle variations in color is bordered in navy and echoed in a modern floral wall covering. “Visually, the new wallpaper is a lot, so keeping other elements like the vanity and lighting very simple works well,” says the homeowner. The 45-inch vanity offers the storage and counter space the former bath was sorely lacking.

BEFORE: AIRY KITCHENS;
AFTER: REBECCA MCALPIN

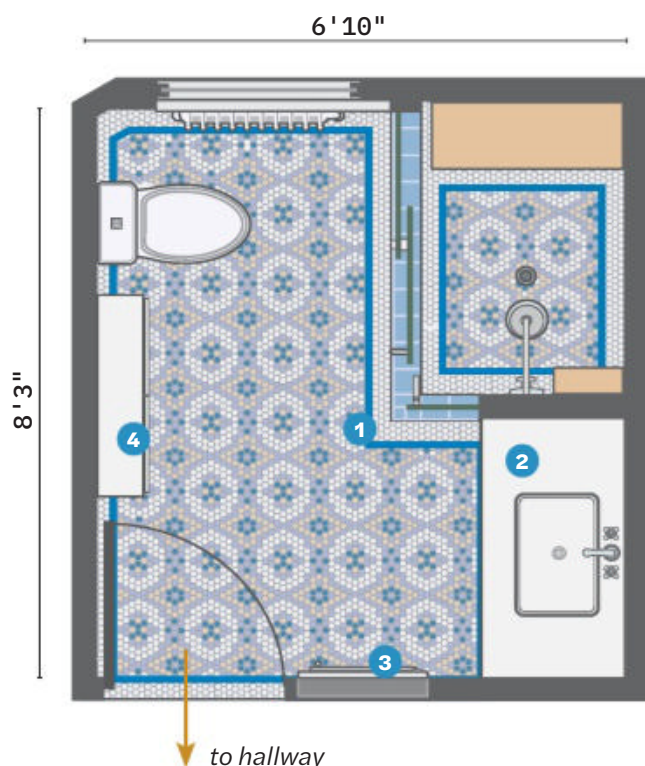
“For a functional bath with a period feel, keep the lines and layout modern and choose one or two finishes with a vintage look.”

—SEAN LEWIS, *creative director, Airy Kitchens*

WHAT THEY DID

Widening the shower and adding streamlined vanity storage helped the 56-square-foot space work harder.

1. Scrapped an alcove tub and extended the shower by about 16 inches, keeping the plumbing in the partition wall and adding a built-in bench and open shelves.
2. Moved the sink to where the tub had been, fitting in a 45-inch-long vanity with door and drawer storage.
3. Refinished an existing built-in wall cabinet to function as a medicine cabinet for the sink.
4. Kept the toilet in its location and added a shallow salvaged hutch to one side, in the sink's old spot, to hold linens and toiletries.



RETRO-STYLE TILE ▶

Patterned penny tile was a popular choice for early-20th-century floors, as was putting a frame around it. “The border is definitely something they would have done back in the day,” Sean Lewis says. “It provides a cleaner look than going wall-to-wall and interrupting the pattern.” Repeating it inside the shower—on view thanks to a frameless-glass enclosure with a space-saving sliding door—is the kind of detail that makes such a space extra special.



◀ SALVAGED STORAGE

A vintage hutch was refinished to hold towels and other bathing supplies. At a mere 12 inches deep, it fits just fine in the small bath. Brightening the ceiling with an uplifting swath of sky blue is an unexpected finishing touch.





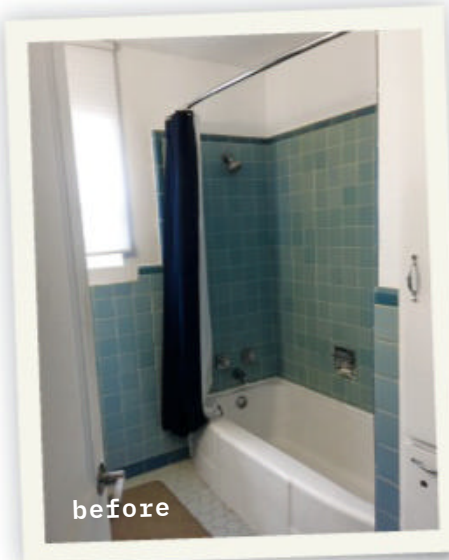
◀ **SHOWSTOPPING SOAKER** At nearly 5½ feet long and 3 feet wide across its arm-friendly rolled edges, with a supportive height of 32 inches at the back, this tub clearly holds court. Adding to its updated vibe: the metal’s hammered texture and stylized brass feet. The warmth of the copper marries well with the chrome in the room, and its living finish will continue to patina over time. “A larger tub does take a lot to fill, which is a consideration in these water-conscious times,” says Erin Williamson. “But the copper also retains heat really well.”

PERIOD-INSPIRED PIECE:

A copper claw-foot tub

➔ A vintage-style bath doesn’t have to reflect the era when the house was built. Take the guest bath in this 1950 ranch house in Austin, TX, where the original 4-by-4-inch tile and basic fixtures simply didn’t suit the homeowner’s taste. “I wanted higher-quality components with Victorian style, like a claw-foot tub,” says Austin Bolen, who took his inspiration from fond memories of his grandparents’ house, an American Foursquare, where the bath had one of those classic cast-iron soakers.

So designer Erin Williamson built Austin’s ideal bath around a fresh take on the claw-foot, a copper model that really amps up the drama with a textured finish and brass feet. To comfortably accommodate the longer, wider tub, she snagged 6 square feet by removing a built-in linen closet, and another 10 inches of floor space by replacing the toilet with a version that has a tank that recesses into the wall. “A minimum of contrasting elements is best in a small space,” says Williamson, so she kept the rest of the room fairly spare: white-subway-tile walls, a washstand-style sink on chrome legs, and an unfussy mirrored medicine cabinet. Painting the ceiling black was a bold move that actually amps up the feeling of coziness in the white-walled room. The result has more than met Austin’s expectations: “The space is a lot more open and looks great,” he says, adding, “Even though it’s the guest bath, I love to use that tub!”



BEFORE Though the original tile and generic fixtures were in decent shape, the homeowner wanted to make a stronger style statement. Built-in cabinets hogged space and were too deep to offer much organization.

ERIN WILLIAMSON (2)



▲SIMPLE FINISHES

Chrome fixtures and white subway tile keep quiet, allowing the tub to shine. The leggy console sink, glass shelves, and wall-hung toilet create an airy look. The black-and-white floor tile has a simple geometric pattern that evokes turn-of-the-century quilts.

STORAGE WITH STYLE ►

Loads of storage isn't a priority in a guest bath, where smart design at the sink area can suffice. A large black-rimmed medicine cabinet keeps grooming gear out of sight, while the sink stand doubles as a towel rack and a glass bottom shelf corrals extra necessities. ■



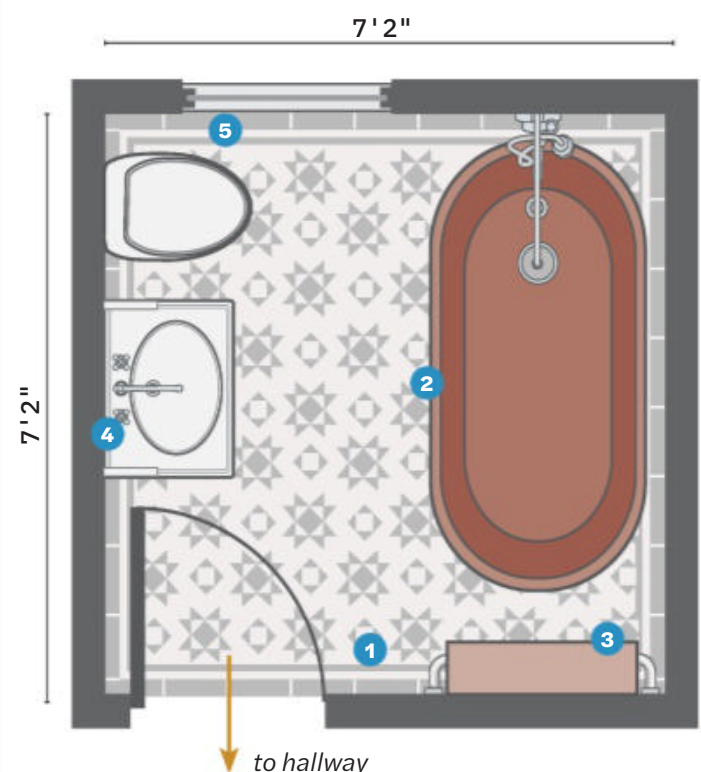
“If you're going big and shiny with one fixture in the bath, you definitely want the other elements to recede a bit.”

—ERIN WILLIAMSON, owner, *Erin Williamson Design*

WHAT THEY DID

Ditching a linen closet and a vanity made way for a larger tub and storage that suits a 51-square-foot guest bath.

1. Scrapped a built-in closet to access 6 square feet inside the doorway.
2. Swapped an alcove tub for a 65-inch-long claw-foot soaker, building in a 12-by-24-inch wall niche alongside; an exposed shower riser and tub filler went in on the already-plumbed wall.
3. Hung a Victorian-style wall-mounted radiator with a heated towel bar at the head of the tub with open shelves above.
4. Removed a vanity cabinet and installed a console sink with a shelf.
5. Replaced a standard toilet with a wall-hung model with the tank recessed into the wall, gaining about 10 inches in front for a total of 32 inches of clearance from the tub.



From the TOH Job Site

Good to be home

Seven months after inviting in the team from *This Old House*, the owners of this 1902 house are enjoying refreshed and expanded spaces that make everyday life easier, and gathering with family and friends a joy

BY GAIL RAVGIALA | PHOTOGRAPHY BY MIKE CASEY



When she was young, Melissa Schwab saw many *This Old House* renovations up close; her late father, Richard Bilo, was a plumbing subcontractor on the show for years. She never imagined that one day she would welcome the team to work their magic on her own old house. But that's exactly what transpired last spring, and today, the resulting renovation has exceeded even her expectations: "Everything is exactly what we dreamed of," Melissa says. "We never see ourselves leaving."

The snug 1902 house on a sloping lot in a tightly built neighborhood is a far cry from the previous home Melissa shared with her husband, Palen, and their young daughter, Alice. "We had a 3,000-square-foot house and a big lot in the suburbs," says Melissa, a graphic designer. "But the house had no character and felt isolated." Their search for a new home ended in Newburyport, Massachusetts, a historic seaport 35 miles northeast of



LEFT: Restored pine clapboards, new windows and shutters, a revamped entry, and a stone retaining wall put a fresh face on the 121-year-old house. **ABOVE:** A glossy-black door echoes the newel post and stair rail; the herringbone-marble-tile foyer floor adds contrast.



Boston, where they found a 1,400-square-foot side-hall Victorian with high ceilings, wide pine floors, and simple trim—and also cramped rooms, drafty windows, and just one bath. “The house needed a lot of work, but it had lots of potential and tons of character,” says Palen, who works in operations for a technology company. The couple felt right at home among the brick sidewalks and antique houses that line the neighborhood’s streets.

“The house’s small scale and seaport location make it really charming,” says *TOH* general contractor Tom Silva, who enjoyed reconnecting with a member of *TOH*’s extended family. Built to house factory workers at the turn of the last century, the house was in need of modern comforts—a perfect project for *TOH* to document as part of its 44th television season.

Guided by local architect Ken Savoie and *TOH* home builder Charlie Silva, the renovation

ABOVE: The living room’s new gas fireplace, built-ins, and seating area occupy space annexed from a side porch; the additional square footage also enabled a wider opening to the adjacent dining area.

THESE PAGES
FAUCETS, FIXTURES:
American Standard, F.W.
Webb Company, DXV
DUCTWORK: Unico

reworked the existing floor plan and added just enough square footage to get the Schwabs the new spaces they needed. The team removed walls, widened openings between rooms, and annexed a side porch to open up the first floor, demolishing a pair of unused chimneys to help enable changes there and upstairs, too. On the second floor, they rejiggered rooms to introduce a laundry closet and a primary bath, and relocated and rebuilt a steep attic staircase, carving out a third-floor home office for Palen and playroom for Alice. Savoie’s design for a 13-by-15-foot two-story rear addition fit in a mudroom and a powder room on the first floor with a primary bedroom above. Overall, the house grew to 2,000 square feet, with three bedrooms and two and a half baths.

To bring about these changes, Charlie’s crew stripped the house to the studs and tightened it up with closed-cell foam under the roof and

STYLING: MANDY LYNE



mineral-wool insulation in the walls. To upgrade the heating system and introduce air-conditioning for the first time, Melissa and Palen brought in—who else?—Bilo Plumbing & Heating, the business founded by Melissa’s father, now owned by her brother Kevin; her brother Brian acted as construction manager. “It was great to see the quality approach that Richie developed come through in everything Brian did here,” *TOH* plumbing and heating expert Richard Trethewey says. “Richie would have been pleased.”

The Bilo crew designed a three-zone hybrid system with an electric heat pump for air-conditioning and primary heat, and a gas boiler for backup heat when outdoor temperatures drop below 30 degrees; a small-duct high-velocity forced-air system delivers the heating and cooling. They also installed hydronic radiant floor heat in all the baths and in the addition’s basement.

ABOVE: Formerly bisected by a wall that stood midway between the current dining table and island locations, the new open layout gives the owners the sense of spaciousness they craved. The passageway opposite the island leads to the addition’s powder room, mudroom, and back entry. New white oak flooring unifies all the first-floor rooms.

RIGHT: In the mudroom, located just inside the new back entry, tall cupboards provide storage and a botanical-print wallpaper suggests the outdoors.



When Charlie and Tom went to work on the exterior, they found pine clapboards beneath the vinyl siding. Most were still in usable condition, as were clapboards they salvaged from a demolished rear bumpout and repurposed side porch. “Seeing those porch clapboards in good shape meant we had some extra to put to use elsewhere on the house,” says Tom. Any shortfalls were covered with new cedar clapboards.

At the front entry, Charlie replaced the narrow steps with wider stairs, an expanded landing for safety and comfort, and a proper entry porch, saving a pair of original brackets for reuse on the new rear entry. Per the owners’ wishes, the team added wood shutters on just the front of the house, and installed a stock front door that *TOH* painter Mauro Henrique customized with high-gloss black paint and new hardware.

Before the remodel, the house had ill-fitting replacement windows installed by previous owners. “The replacements were smaller than the original windows, typically by an inch and a quarter on each side,” says Charlie. He installed new vinyl-clad wood units sized to fit the original 1902 openings, finishing their exteriors with one-piece, four-sided PVC window trim, which cut labor time dramatically. Not only do the new windows look better and create a better weather seal, but they also let in more light.

New white oak flooring unites the first floor, concealing the layout alterations. Charlie salvaged the original wide pine boards to install upstairs in the new primary bedroom and to patch in elsewhere as needed. Stripped, sanded, and refinished with a clear coat, the old wood all blends together. In the one existing bathroom, the old linoleum floor was found to contain asbestos, which had to be abated as part of the room’s gut renovation.

Where the front yard used to slope down to the sidewalk, *TOH* landscape contractor Jenn Nawada recommended a stone retaining wall and a planting bed with hydrangea, hosta, boxwood, and bearberry. Along the side of the house, *TOH* mason Mark McCullough built a cast-concrete retaining wall bordering the parking area, with steps up to the now-level backyard, which gained an extra 6 feet of usable space. There, the ell formed by the addition created a natural spot for a paver patio. Perennial borders bring the yard’s perimeter to life, along with raised beds for growing vegetables, while the lawn is planted with a microclover sod that Jenn suggested for easy maintenance.

THESE PAGES

IN-FLOOR HEAT: **Viega**
BOILER: **Viessmann**
BATH FIXTURES, FITTINGS:
American Standard,
F.W. Webb, DXV

BELOW: The second floor’s new layout made way for a laundry closet near all three bedrooms. Behind the laundry and off the long hallway is the rebuilt stairway to the third floor. Existing and salvaged pine flooring create a unified look for the entire second floor. *TOH* general contractor Tom Silva extended the newel post and balusters in the upstairs stair railing (in the foreground) to raise the handrail to a safe and comfortable height.





LEFT: Four windows, a raised ceiling, and lots of white paint give the addition's primary bedroom an airy look.

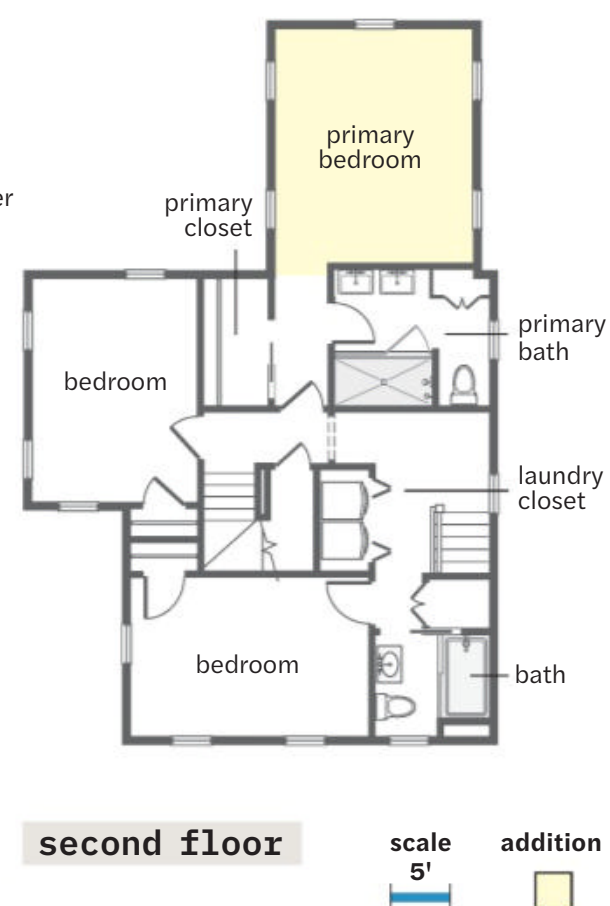
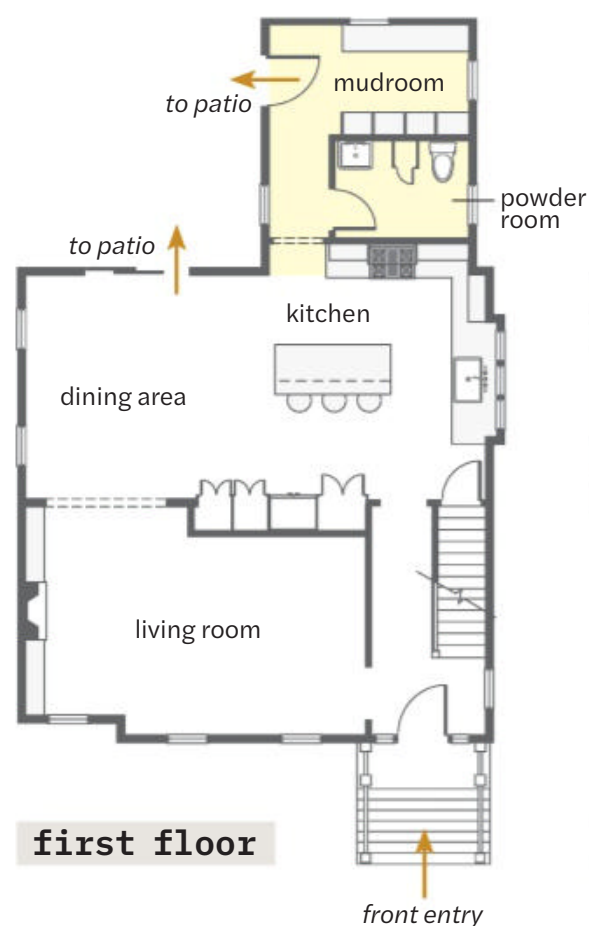
BELOW: The primary bath features console sinks and marble floor tile with radiant heat.



FLOOR PLANS



Melissa and Palen Schwab and their daughter, Alice, sit on the new front steps of the house, which grew from 1,400 to 2,000 square feet. Annexing a side porch enlarged the living room; removing a wall opened up the kitchen-dining area. A two-story addition made space for a mudroom, powder room, and primary bedroom, with most of the primary bath's space taken from a former bedroom. The third floor (not shown) holds an office and playroom.





TOP LEFT: The third-floor playroom gets plenty of natural light from a skylight and a circular window. Built-ins hold books, games, and toys.

TOP RIGHT: The new staircase winds up to the third floor, terminating under the center of the gable roof, where there is ample headroom.

RIGHT: Tom used stock butcher block to build an L-shaped desk for Palen's new office. The top floor features new pine flooring finished to match the old boards on the second floor.



THESE PAGES
 ROOF: **GAF**
 TRIM: **Trim Solutions**
 GRASS: **Sodco**
 RETAINING WALL: **Unilock**

GO ONLINE See the project from start to finish at thisoldhouse.com/Newburyport



“Before, it would take hours to do yard work,” says Palen. “Now it takes twenty minutes.”

A 6-foot board fence encloses the backyard on three sides to create separation from the street and neighboring properties, while a classic white picket fence outlines the top of the retaining wall. “It keeps it from feeling closed in while still creating a sense of privacy,” says Melissa.

The renovation has transformed everyday life for the Schwabs. Where the family formerly tossed coats and jackets in piles just inside the back door, the new mudroom features custom cabinets and drawers that keep clutter out of sight. Palen’s new third-floor office means he no longer has to work at the dining room table. Melissa considers the second-floor laundry a game changer, vastly more inviting than the dungeon-like basement laundry she used to contend with. The steam shower in the primary suite even earned raves from 9-year-old

ABOVE: The two-story addition (on the left) forms an ell at the back of the house—a natural spot for the patio. A small roof overhang helps define the space; the two brackets were salvaged from the old front entry. New French doors lead into the dining area. The low-maintenance microclover lawn offers a blanket of green; the flat-top picket fence follows the line of the retaining wall below.

Alice, who asks to use it after playing sports.

The family particularly appreciates the kitchen’s functionality. While the old space was a tight squeeze—Melissa couldn’t unload the dishwasher if someone was walking by—the new one offers room for guests to sit at the 7-foot island while Melissa and Palen work at the six-burner stove or the farmhouse sink under the new box bay window. Soapstone counters and a maple butcher-block island top offer over 20 linear feet of work surface—more than twice what they had before.

Still, Palen says, “at the end of the day, it’s more than a house. It’s a gathering place for friends and family, and now it allows us to bring people together in a way we never were able to before.”

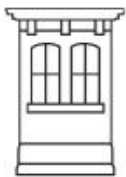
For Melissa, working with her *TOH* extended family to create her dream home has been especially sweet. “It almost felt like my dad was part of it,” she says. “It means everything.” 🏡



FROM INSPIRATION TO INSTALLATION

Design the kitchen of your dreams with help from The Home Depot®. Get started with free guides and tools on [homedepot.com](https://www.homedepot.com), and shop an unbeatable selection of materials and finishes in every style. Whether you work with our trusted experts for design and install services or DIY your kitchen remodel like a pro, The Home Depot can make it happen.





KNOW-HOW YOU NEED TO GET HOME UPGRADES DONE RIGHT



Sunlight brightens the gap where the old gambrel roof is opened up to meet the ceiling of the ell addition.

In an upstairs bedroom in the oldest part of the house, *TOH* host Kevin O'Connor and *TOH* general contractor Tom Silva inspect original timbers prior to work on the gambrel roof.

From the TOH Job Site

Taking on a 1700s house

Working with homeowners as passionate about historical buildings as they are, *This Old House's* team tackles the renovation of a timber-framed house that predates the American Revolution



BY JILL CONNORS | PHOTOGRAPHY BY ANTHONY TIEULI



For two people who love old houses, are inspired by water views, and consider walkability essential, the red-clapboard timber-framed house in Ipswich, Massachusetts, checked all the boxes. The 1½-acre property lies along a pastoral stretch of the Ipswich River, and it's a 10-minute stroll from the heart of the well-preserved town, founded in 1634, its streets lined with shops and restaurants. Spurred by the work-from-anywhere possibilities created by the pandemic, the house's new owners, Bill von Oehsen and Helen Moore von Oehsen, saw the property as a chance to return to Helen's native state from the Washington, D.C., area, where they both worked—Bill as an attorney, Helen as a scientist. History buffs, they loved that a Revolutionary War soldier once owned the house, which is today classified as First Period, meaning one of the country's oldest.

The original house dates to 1720 and offers a close-up look at how homes took shape back then: Exposed heavy oak and pine timbers form the framing, with pegs still holding the original mortise-and-tenon joinery in place. Two rooms make up the downstairs and two bedrooms the upstairs, topped with a space-expanding gambrel roof.

That 1,300 square feet of living space was still intact, but as is typical of homes that grew with their inhabitants' needs, the house also featured a two-story ell addition—with a timber-framed first floor built shortly after 1720 and a second floor tacked on in the 1870s—capped by a gabled roof. That extra 1,000 square feet held the kitchen, a quarter bath (toilet only), the dining room, two bedrooms, and the house's only full bath.

Having renovated old houses previously, Bill and Helen appreciated all the history the house held but were also clear-eyed about its faults: sagging floors, the dated full bath, low ceilings (6-foot-tall Bill couldn't stand up in the dining



room), a cramped kitchen, and noisy baseboard heaters. Still, they were undeterred. "We are dreamers," Bill says. "We could see the potential."

For the ell, the couple envisioned an open-plan layout with plenty of headroom in place of the individual, low-ceilinged rooms. They also hoped for a primary suite with a view of the river. They needed two offices to work remotely, and they wanted guest rooms for visits from their four adult children, friends, and extended family. At the same time, they hoped to keep as many of the house's

TOP: Tom and Charlie Silva install foam insulation panels over the gambrel roof's sheathing to accommodate plans for exposed ceilings inside.

BOTTOM: Tom helps the homeowners pull up the wide-plank pine floorboards in the attic of the old ell.



“

Reusing the old sheathing and floorboards to cover the new ell's cathedral ceiling shows just how committed Helen and Bill are to living with a sense of history all around them.”

—CHARLIE SILVA,
TOH home builder

historical features as possible. When engineers determined that the existing ell needed to come down due to its poor condition—inadequate support had led to floors sagging and joists twisting from the load—they were disappointed, but quickly allowed the possibilities to unfold.

To help turn their dreams into reality, the couple enlisted local architect Ben Nutter and *TOH* home builder Charlie Silva—and teamed up with *This Old House*, which is documenting the project as part of its 44th television season.

“From the beginning, Bill and Helen's intention was to preserve the house's history,” says Nutter, who was well aware of the architectural scrutiny the house would get. “The challenge was to create additional spaces that would meet setback restrictions from the river and also win design approval from the town's preservation commission.”

Even with so many other old houses in Ipswich, people know the house because of that gambrel roof, says town historian Gordon Harris. “There are dozens of surviving Cape Ann Gambrels from Gloucester to Rockport, but this house is one of only three gambrels in Ipswich,” Harris says, adding that despite its age and distinctive roofline, it should not be confused with a Dutch Colonial. “The Dutch influence didn't exist here at the time, and the interior timber-framing style practiced here by English colonial builders differed from the method used by the Dutch carpenters in the New York area,” one of the birthplaces of the Dutch Colonial style.

Nutter proposed building a new one-story ell in the same spot but with a slightly enlarged footprint, and having it serve as a connector to a two-story gabled addition that would feature a primary suite and home office upstairs and a sunroom downstairs, plus an attached garage. Because of its lowered roofline, the one-story ell would take a back seat to the original house.

To lend a feeling of history—and to add some drama—to the new ell, Nutter's design reuses elements salvaged from the previous ell: a new cathedral ceiling lined with reclaimed sheathing boards and rafters, antique pine floorboards, and portions of the old timber frame rebuilt to define the open-plan kitchen-dining-family-room area.

“Reusing antique timbers from the old ell is one of the keys to keeping the character of this house,” says *TOH* general contractor Tom Silva, who admired the original timber frame's elegant joinery, adding: “Those early builders really were



The original 1720 timber-framed house (TOP) with its distinctive gambrel roof, sits perpendicular to the road. The later two-story, timber-framed ell addition (MIDDLE) was in rough shape and is being rebuilt by owners Bill von Oehsen and Helen Moore von Oehsen (BOTTOM).

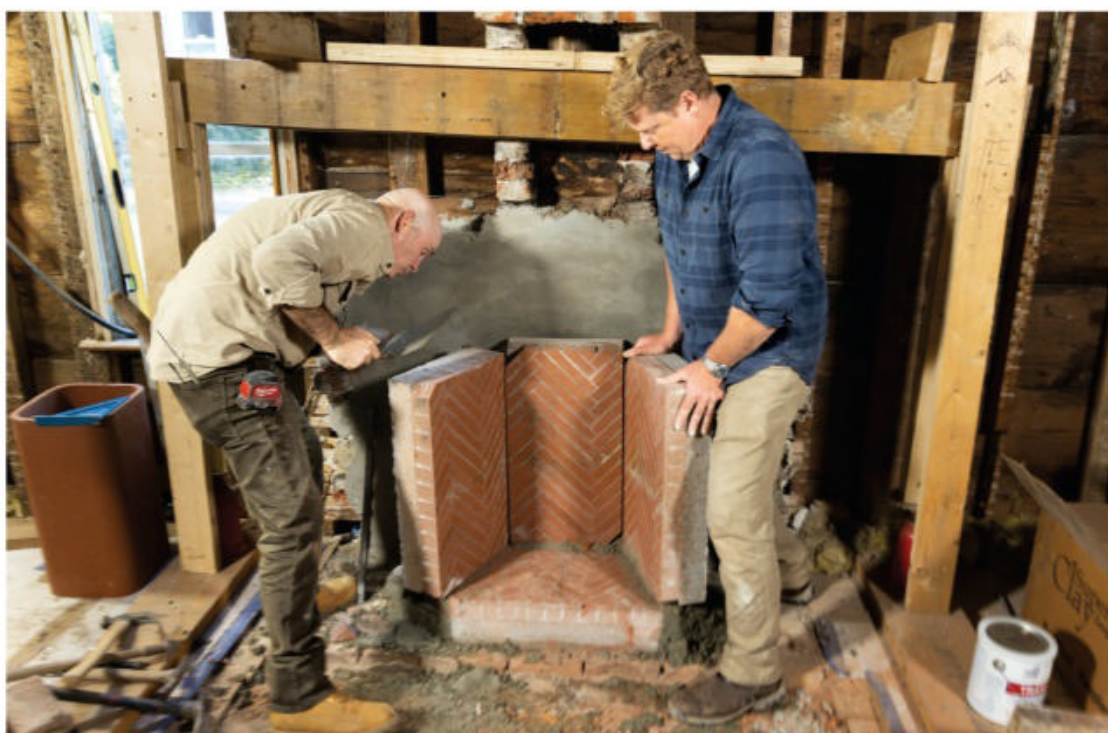
artisans.” To ensure that the reworked timbers would retain their authenticity, Charlie turned to timber-frame specialist Arron Sturgis, who liked what he saw on close inspection. “These oak timbers were built to last, and they have,” says Sturgis. He tagged all the pieces before the original ell was demolished, carefully removed them, and then resized them to provide comfortable headroom in the new open-plan kitchen area. Reinstalled, the timbers lend some support to the

“ The combination of the antique timbers and a new steel beam and posts makes the open-plan kitchen unique, not to mention ready for another 300 years.” —KEVIN O’CONNOR, *TOH* host



new ell, but a steel ridge beam, steel posts, and new framing bear the majority of the load.

In another example of marrying old and new, the fireplace in what will become Bill’s office, a downstairs room in the original house, will be rebuilt as a Rumford. This space-saving design, which dates to the late 18th century, features a shallow, widely angled firebox with a tall throat that reaches up the flue. “The old fireplace was a mishmash of a rebuilt firebox and hearth, with cabinetry that ate up a lot of floor space,” says *TOH* mason Mark McCullough, who suggested the change. “A Rumford burns more efficiently, throws off more heat, and, since it is shallower, won’t protrude as much into the room.”



The basement of the old house and the original ell, with its exposed rubblestone walls and tight proportions, was initially overlooked as usable space. Indeed, the part of the basement under the old house has limited headroom and will most likely hold mechanicals. The part of the basement under the new ell, however, evolved into living space. Once Charlie’s crew poured the foundation needed to support the new ell and added in-floor hydronic radiant heat there, the team realized the possibilities. Nutter adjusted the plan to include a 10-by-20-foot walk-out space, possibly a workshop, leading to a river-facing patio. He also added a below-grade bathroom, which required an ejector pump to send waste up to the sewer lines above. Working with plumbing contractor Brian Bilo, *TOH* plumbing and heating expert Richard Trethewey installed the ½ horsepower pump that makes the basement bath possible. “It’s a great way to make use of this lower level and get even more enjoyment from the house,” says Richard.



The property’s prized riverside location came with challenges of its own. “When I first saw it, the

Old meets new: Charlie and Tom salvage floorboards in a first-floor room in the old house, slated for use as a pantry (TOP). Kevin helps Mark McCullough rebuild a fireplace in the old house as a Rumford (MIDDLE). Richard Trethewey and plumbing contractor Brian Bilo install an ejector pump for a below-grade bath in the new ell (BOTTOM).



GO ONLINE See extra “before” photos of this project house and more at thisoldhouse.com/Ipswich



The river-facing side of the house shows the original 1720 section (far right) connected to a new one-story ell with a vaulted ceiling and a two-story addition that includes a garage.



The new vaulted-ceilinged, one-story ell connects the oldest part of the house (in the back of the space) to the two-story addition. The antique timbers salvaged from the old ell will be a dramatic interior element that also provides some support.

property had a wonderful park-like feeling, but a number of the large trees were invasive Norway maples in decline,” says landscape designer Rue Sherwood. The area near the water’s edge turned out to be overgrown with invasive species of various kinds as well, and conservation restrictions meant they couldn’t be removed. Sherwood’s plan includes wildflower plantings farther from the water’s edge and focuses on areas near the house. “With the beauty of the river, adding native plants around the house will enhance the setting even more,” says *TOH* landscape contractor Jenn Nawada, who is collaborating on the plant selections.

Throughout the process so far, homeowners Bill and Helen have put their commitment to preservation into action, even pitching in to pull up the old attic floorboards. As work continues—the ambitious project is expected to take nearly a year—they continue to keep one dominant image in their heads for reassurance. Says Bill: “We can’t wait to wake up to that river view.” ■

all about

Induction ranges

This latest generation of electric cookers is sleek, precise, and better for you (and the planet). Here's what to know before bringing one home

BY DEBORAH BALDWIN

Imagine a stovetop that cuts your cooking time in half, and maybe your cleaning time, too. One that doesn't retain heat after it's turned off, send out harmful fumes, or waste almost half the energy you pay for to power it.

Welcome to the world of induction.

Of course, the technology itself is not exactly new: Frigidaire enticed housewives in the 1950s with a prototype of a cool-to-the-touch induction cooktop made from marble. When Westinghouse launched a single-burner induction range in the early 1970s, it didn't get many takers. But energy-conscious Europeans have been all in on induction for decades, and now, after a slow but steady rise in induction cooktop sales, appliance-makers across the board are doubling down with a new lineup of induction ranges. Add in fresh tax incentives to go electric, growing concerns about indoor air quality associated with natural gas, and a general shift away from fossil fuels, and suddenly induction is looking pretty hot.

Ready to learn more? Read on for the pros, cons, and surprising payoffs of owning a state-of-the-art induction range.



HOW IT WORKS

The technology produces heat by inducing a rapidly alternating magnetic field: An electric current races through copper coils, passing through a sheet of ceramic glass to generate electrical currents in an iron-containing, or ferromagnetic, pan. The metal's resistance instantly generates heat; the pot gets hot but not the stovetop. Because heat can damage the internal components on any electric range, an induction stovetop also houses cooling fans.



VITALS

What do they cost?

Slide-in and freestanding models typically range from 24 to 48 inches wide; expect to pay from \$2,500 for the former and upward of \$9,000 for the latter. The popular 30-inch category starts at under \$2,000; 36-inch models from about \$4,500; and rarer 40-inch ones from \$9,000. Once they are widely available, you will find them significantly discounted from the manufacturers' suggested retail prices listed here.

How long do they last?

Generally these workhorses last about 10 years with typical daily use. According to one trade analysis, power may start to sag after 2,500 hours of cooking time. Ceramic glass can scratch and will crack if hit with enough weight and force. Before you buy, read the fine print in the warranty, and ask if the manufacturer sells replacement parts.

What's the warranty?

Expect to find a one-year warranty for parts and labor; some high-end brands offer two-year warranties.

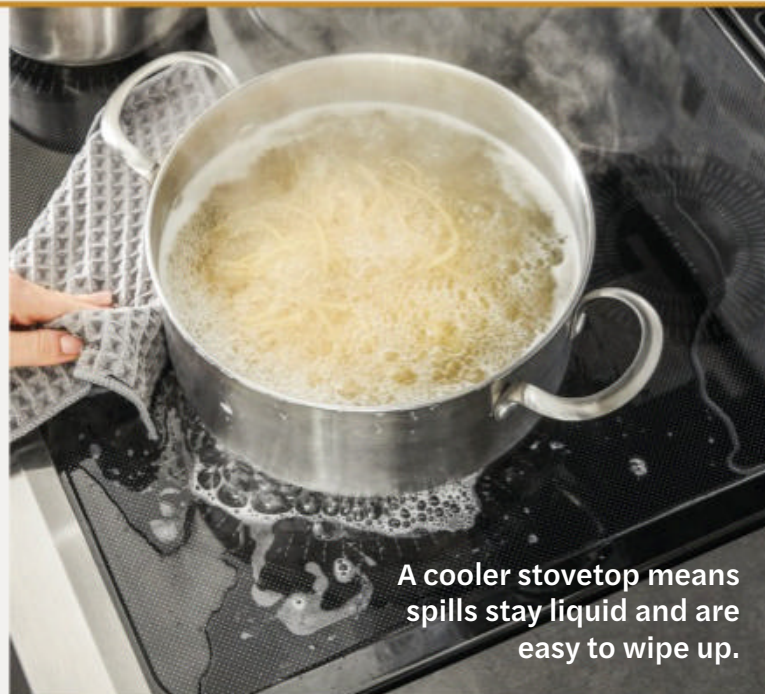
What about maintenance?

Unlike with a conventional electric range, the induction stovetop does not get very hot, so spills don't turn crusty fast and will clean up quickly with dish soap and water. Most ovens are self-cleaning. Some offer a steam-clean cycle: Water poured on the bottom of the oven and then heated loosens sticky residue, which can then be wiped away with paper towels.

Pro style meets pro performance with four induction cooking zones, a bridging function, and a dual convection oven. *SHOWN: Wolf Legacy Model 36" Transitional Induction Range*

Is an induction range right for you?

Weigh these pluses and minuses before you buy



A cooler stovetop means spills stay liquid and are easy to wipe up.

PROS

✚ **IT'S EFFICIENT—AND FAST.** Gas is 32 percent efficient, meaning only about a third of the energy used goes into cooking. Standard electric is 75 to 80 percent efficient. Induction is up to 90 percent efficient; that is why water boils so much faster. The pot becomes the burner. Less time warming up means less electricity used—and less need to crank the AC when the kitchen heats up.

✚ **IT'S INCREDIBLY RESPONSIVE.** On an induction range, food starts cooking the instant a current creates a magnetic field. And in virtually all cases, precision controls allow the food to be kept below a simmer.

✚ **IT'S SAFER.** With standard electric, it's easy to get burned by residual heat long after a burner has been shut off. But with induction, only the pot gets hot; no pot, no heat—though it can make the glass warm to the touch. Most cooking zones have heat sensors: If a pan gets too hot, the stovetop shuts down. Many controls have child-proof locks, and induction ranges with front controls are often ADA-compliant.

✚ **IT'S BETTER FOR YOU AND THE ENVIRONMENT.** Gas appliances produce lung irritants, including nitrogen dioxide (linked to asthma) and tiny particles called PM2.5. Gas ranges throw off climate-damaging methane by just sitting there, says the Natural Resources Defense Council, which equates the climate impact of gas cookers in the United States to tailpipe emissions from 500,000 cars.

CONS

✖ **YOU MAY NEED A SERVICE UPGRADE.** You will need a dedicated 220- or 240-volt circuit and 40 to 50 amps. If you already have an electric range, you may have the panel capacity, but if switching from natural gas, you might need to upgrade. Electricians are in short supply right now, and upgrading a panel from 60 to 100 amps costs \$800 to \$1,500 on average—and from 100 amps to a new 200-amp panel, \$1,300 to \$3,000.

✖ **YOU MAY NEED NEW POTS AND PANS.** Cast iron and enameled iron work well, and so does ferrite-containing stainless steel; the flatter the bottom of the pan is, the more efficient it will be. Ceramic, glass, copper, and aluminum pots and pans won't cut it, though you can try them on top of an "induction interface disk" or a cast-iron skillet, but with a noticeable loss of power.

✖ **IT TAKES GETTING USED TO.** If you've been cooking on a conventional electric cooktop, you may assume you can turn the heat on and walk away while the pot warms up. Not with induction, which acts fast. If you lift a pan off the cooking zone and move it to the counter to, say, check the steak for doneness, the power (and magnetic field) will likely cut off, so you will have to hit the controls again when you put the pan back down.

✖ **IT CAN BE NOISY.** Cooling fans are a necessity. At certain settings, all that magnetic activity can generate conspicuous clicks and buzzes.

Watts: the difference

While gas ranges talk in Btus, with induction it's all about watts, and the two are hard to compare: Watt-Btu equivalency claims vary enormously. While the number of watts a burner can draw does indicate power, when comparing ranges it makes more sense to ask how much time it takes to boil water: Frigidaire calculates that its induction range can boil a quart of tepid water in a 10-inch, 6-quart pot in half the time it takes a gas or electric stove.

TOH PRO TIP



ROSS TRETHEWEY
Home Technology Expert

"To encourage household systems that use electricity, the federal government is offering a tax credit of up to \$600 for panel upgrades. In addition, state energy offices may be awarding rebates of up to \$840 for induction ranges to those who qualify. Check with your local utility, too, to see if they are offering any rebates."



The ability to bridge two cooking zones—indicated on the left side here—allows for larger, longer cookware. *SHOWN: Café 30" Slide-In Front-Control Induction and Convection Double-Oven Range, \$4,599*

BURNER BASICS

Cooking surfaces on induction ranges have many similarities and a few differences. Here are some features to consider and compare

► COOKING ZONES

Most 30-inch induction ranges have four burners, typically sized for different pans and with one extra-large zone that can run from 8 to 11 inches. Some have a flex zone, or bridging option, which can heat an entire pan by straddling two cooking zones—helpful with griddles, oval pans, and gravy-inducing roasters.

► POWER BOOST

Cooking zones typically draw from 1,200 to 3,700 watts each, assuming the pot matches the size of the cooking zone; if it's smaller, it's not drawing full power. Often one or more zones can increase their wattage (and speed) by using "power boost," drawing power from another zone and reducing the watts available to it. This may suit your cooking style fine, but if you like to have lots of pots going at once, look for a range that allows you to either simmer on two burners while boosting power on a third, or to boost power on two burners at the same time, or to cook on all zones simultaneously.

► CONTROLS

Watch for where they are—at the rear, on the glass stovetop, or in the front—how easy they are to manipulate (tap, press, slide, turn?), and how finely calibrated. Knobs can feel nice, but some ranges bristle with so many of them it's hard to keep track of what they turn on.

► LED INDICATORS

Since cooking with induction comes with a learning curve, some manufacturers include signposts that remind you where the power's on. These include fake blue flames that grow bigger with higher heat settings (Samsung's Smart Slide-In Induction Range With Virtual Flame) and glowing red bars that get longer with higher settings (LG's Smart Wi-Fi-Enabled Induction Range).

► SOUS VIDE SETTING

This pro-style prep technique, which keeps ingredients at a set low temperature in a controlled hot-water bath, can be an option on some induction stovetops (and with some ovens, too).

Oven specialties

Some ovens share their capacity with a warming drawer or a second smaller oven. Here's what to look for inside

True convection > European, or "true," convection unites a fan (or fans) with a heating element on the oven's rear wall to generate hot, fast winds for more even baking, roasting, and, in some cases, air frying. Some luxury models rely on a high-powered fan with separate heating elements.

Air frying > The convection fans that come with some ranges blow enough hot air fast enough to make the oven into an air fryer, turning out bigger servings than you get with a countertop-hogging plug-in model.

Hidden baking element > This is a heater on the bottom of the oven that is sheathed in metal to make cleanup easier.

Wider-ranging temperature settings >

The ovens on some induction ranges can go as low as 80°F, for proofing dough, say, or as high as 550°F, for cooking pizza.

Self-cleaning > This prolonged, super-high-heat setting is an option with most ovens. Some ranges have the option of a shorter, gentler steam-clean cycle.



With true convection, the fan has its own heating element. *SHOWN: Fisher & Paykel Series 9 Classic 30" Induction Range, \$6,499 at recommended retailers*

A TAKE ON TWO MODELS

As this side-by-side comparison shows, some differences are obvious, but it's the similarities that may surprise you

Great budget basic

Frigidaire Gallery 30" Freestanding Induction Electric Range With Air Fry (GCRI3058AF), \$1,649 as shown

This range was designed with busy parents in mind. It forgoes some nice-to-haves for a power-boost option on all four cooking zones to get the pasta to the table faster and a true convection oven that can air fry potatoes for a crowd.

BASIC DESIGN > Just under 26 inches deep, this freestanding range has no pretense of looking built in. It comes in a black or stainless steel finish with black-painted steel sides. Touch controls are on a raised rear panel that doubles as a backsplash.

FOUR ZONES > The largest of the four cooking zones is 8.3 inches across and, when using power boost, draws up to 3,600 watts. There is no bridging feature.

OVEN OPTIONS > The oven has 5.4 cubic feet of interior space; the temperature can be set from 170°F to 550°F, and with the help of true convection it turns into an air fryer. Selecting “delay start” allows you to preset it and head out to school pickup; the oven shuts off automatically after 12 hours. A door lock keeps kids away from the oven interior and all the controls.

SELF- AND STEAM CLEANING > Along with 2- and 4-hour self-cleaning cycles, there is a 30-minute steam-clean option: Simply pour a cup of water onto the bottom of the oven, close the door, and set the oven.



Stovetop details



The portable, plug-in option

WANT TO START SMALL? Consider a single plug-in burner. It can lend a hand during holiday cooking binges or travel outside with the lobster pot. Keep in mind: It won't be as powerful as the big guys, there's no vent to whisk away smoke and steam, and the fan might drown out conversation. The **Duxtop 9600LS** (at left) draws only 1,800 watts and achieves low temperatures by cycling on and off. On the plus side, it has intuitive controls; settings from 100°F to 460°F; a quick-touch “boil” setting; and a 10-hour timer, so you can run errands while leaving your lamb to braise.

Luxe looker with extras

Electrolux 30" Induction Freestanding Range (ECFI3068AS), \$5,499 as shown

This range was designed with attention to detail, high-end materials and styling, and an emphasis on performance. All four cooking zones offer power boost; two can be bridged.

SLEEK GOOD LOOKS > Pin-striped glass, front controls with sturdy knobs, and solid stainless steel (on the sides, too) give this range pro-style polish. At just under 25 inches deep, it also comes close to a built-in look.

FOUR ZONES > An 8.3-inch cooking zone handles big pots and, when using power boost, pulls in 3,700 watts for a fast boil. Bridging two zones can evenly heat a large pan or griddle. Indicator lights remind you where the heat is on. The stovetop and oven controls can be locked to keep kids safe.

OVEN FEATURES > The oven's soft-close door has an extra-large viewing window and a substantial feel. Its 4.6-cubic-foot interior has three stainless steel racks; one is a sturdy glide rack that makes light of heavy roasts. A temperature probe lets you know when that roast is done to your liking. True convection helps ensure even baking. Temperatures dip down to 91°F and climb up to 550°F.

STEAM CLEANING > Turn on the setting and add 1.7 cups of water on the bottom steel plate for a 1-hour steam clean.



Stovetop details

Shop smarter

✓ Don't wait until your old range breaks down to start the process—it takes time to comparison shop, and shipping delays are still common. Some ranges may be back-ordered and require a wait of six months or more.

□ Look for local dealers that let you try before you buy. Some high-end showrooms and design centers regularly host pro chef demonstrations.

□ Check the latest consumer reviews, keeping in mind that not all reviews cover all brands, especially at the high end. For those you may have better luck trawling sites like Houzz (houzz.com), where consumers exchange tips.

□ Talk to friends, neighbors, and friends of friends; they will tell you if their induction range's cooling fans are noisier than a leaf blower.

□ Finally, remember that list prices tend to be higher than what you see online or at big-box stores, or what you can negotiate in a showroom. Appliance sales can bring down prices, too. Watch for holiday specials—Memorial Day, July Fourth—which could include free installation and removal of your old range, if not a price cut. Or wait until January, when dealers may be eager to move out last year's models.

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MORE OPTIONS

These induction ranges look as good as they cook

1. Finely tuned

At 8 inches across, the largest of this stainless steel range's four cooking zones offers a 3,700-kilowatt SpeedBoost setting for a faster boil time. The true-convection oven, with an ergonomic tilted display, goes as low as 85°F and reaches a high of 550°F. *Bosch 800 Series 30" Induction Freestanding Range*, \$4,399

2. Baker's delight

Advanced power sharing allows high settings on multiple cooking zones. The true-convection oven's Aero Bake roasts fast, dehydrates, and has a pastry/pizza setting that circulates hot air from below for crispy bottom crusts. In stainless steel, black, white, or red. *Fisher & Paykel Series 9 Classic 36" Induction Range*, from \$8,799 at recommended retailers

3. Style and smarts

Despite this range's built-in look, the oven accommodates commercial-size baking sheets. There is no bridging option, but a "heat accelerator" zooms to level 9 to boil water, say, then automatically kicks back to level 5—so pasta cooks without boiling over. In 15 stock colors, 190 custom colors, and 4 trim options. *Big Chill 30" Classic Induction Stove*, from \$6,495

4. Feature-packed

This range's cooking zones operate with precise, touch-and-glide front controls and offer bridging for big pans. Plus, there's built-in Wi-Fi, no-preheat air frying, an in-oven CookCam, a warming drawer, and a steam-clean option. *GE Profile 30" Smart Slide-In Front-Control Induction Range*, \$4,499



1



2



3



4

1. COURTESY BOSCH HOME APPLIANCES; 2. PATRICK BILLER; 3. COURTESY BIG CHILL; 4. COURTESY GE



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Kitchen and Bath Products

Style meets substance

From well-priced finds to splurge-worthy upgrades, our picks for the best of what's new bring function and flair to the most-used rooms in your house

BY NICOLE ESPOSITO-POLLY AND NIGEL F. MAYNARD

1] Slim Pick

This sleek, 24-inch-wide refrigerator and bottom freezer delivers a built-in look on a budget. Use it in an ADU or in-law suite—or put two together for half the cost of some 48-inch models. \$1,299; [shop.sharpusa.com](#)

2] Stylish Sink

One in a new line of lav sinks by designer Philippe Starck, this gently curved wall-mount, about 25½ inches across and 19 inches front to back, has a ceramic surface that is treated to stay smooth and easy to clean. *Soleil Sink*, \$240; [duravit.us](#)

3] Glow Getter

This goes-with-anything orb light pairs a matte-black base with an opaque white-glass shade. It's easy on the wallet, too, so you can use it in multiples. *Graceful Opal Bath Sconce*, \$66; [shadesoflight.com](#)

4] Cabinet Decision

Colorful kitchens are back! The Arlington Recessed cabinet door is an updated flat panel with graceful cove molding, and comes in this refreshing new shade, Pale Spring. *Price upon request*; [wood-mode.com](#)

5] Two for One Price

Retrofitting dishwasher drawers has never been easier or more affordable: This Café double-drawer

model fits a standard 24-inch cutout. Each drawer operates on its own, with separate control panels. In matte white, matte black, or stainless steel. *From \$1,399*; [cafeappliances.com](#)

6] Catch This Subway

The Stencil collection of glazed porcelain tiles combines an elongated 4-by-12-inch shape with a soft color palette. They come smooth or with a linear or raised half-moon texture in seven mix-or-match shades. \$12 per square foot; [daltile.com](#)

7] Easy-Bake Oven

This Profile convection wall oven has a soft-close door that swings open to the side—safer and more accessible when you're reaching in for a hot pot. It also features Wi-Fi-enabled remote control, a 7-inch touch screen, and an air-fry cooking mode. \$3,554; [geappliances.com](#)

8] Top Brass

Looking for a special touch to elevate your powder room? The Montecito series 8-inch widespread lav faucet is a beauty: Its burnished, uncoated brass will patina naturally over time. \$1,216; [calfaucets.com](#)

9] Soak It In

Inspired by Japanese bathing culture, the Elko tub offers a 27-inch depth

and a compact 55-by-31-inch size. Its smooth mineral composite comes in glossy or matte white, and with a matte gray, brown, or black exterior. \$4,290; [acquabella.us](#)

10] Rock-Solid

Pebble Collection knobs and pulls have an organic shape, subtle texture, and smooth hand feel. In four sizes (plus appliance pulls) and five finishes over zinc bodies—we especially like the black nickel shown. *From \$12 each*; [belwith-keeler.com](#)

11] Cool, Clean Water

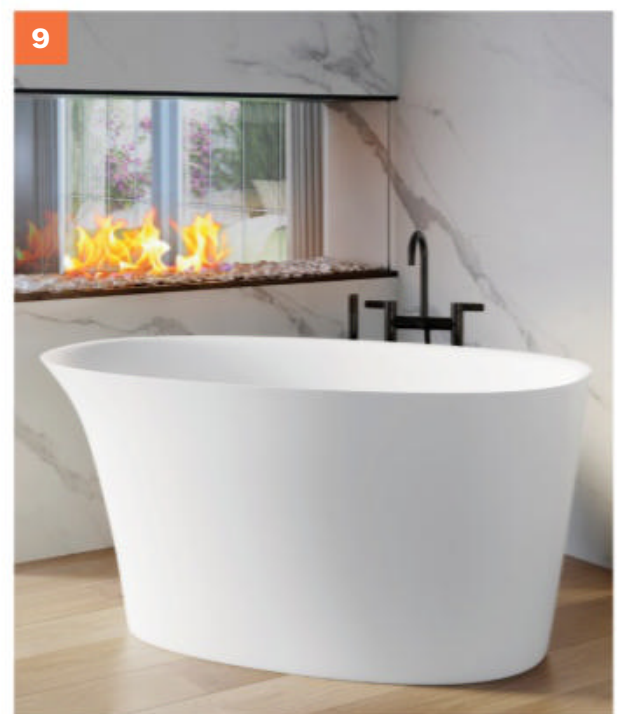
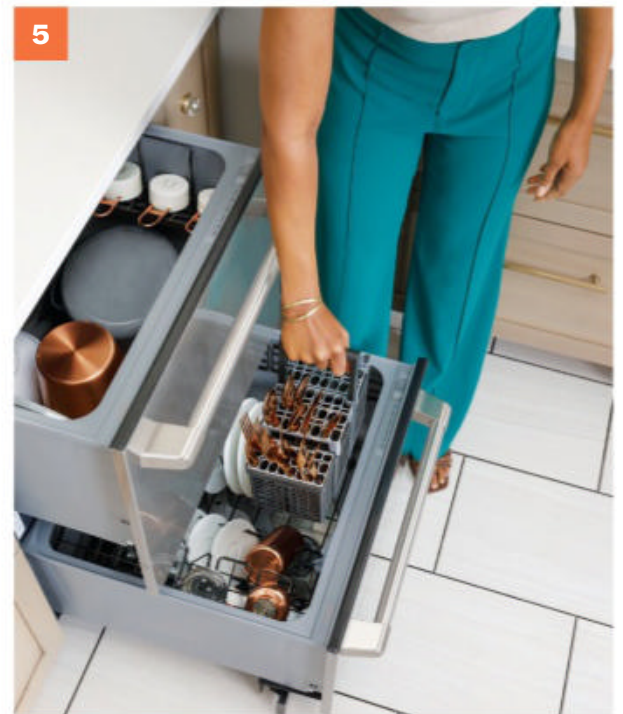
This addition to the Avado line of pull-down faucets offers filtered water on demand—just pull the handle forward 90°. An undersink filter uses spun polypropylene to capture large particles, then activated carbon to reduce lead, microorganisms, and chlorine taste and odor—for up to a year. In Chrome, Lustrous Steel, or Matte Black. *From \$523*; [elkay.com](#)

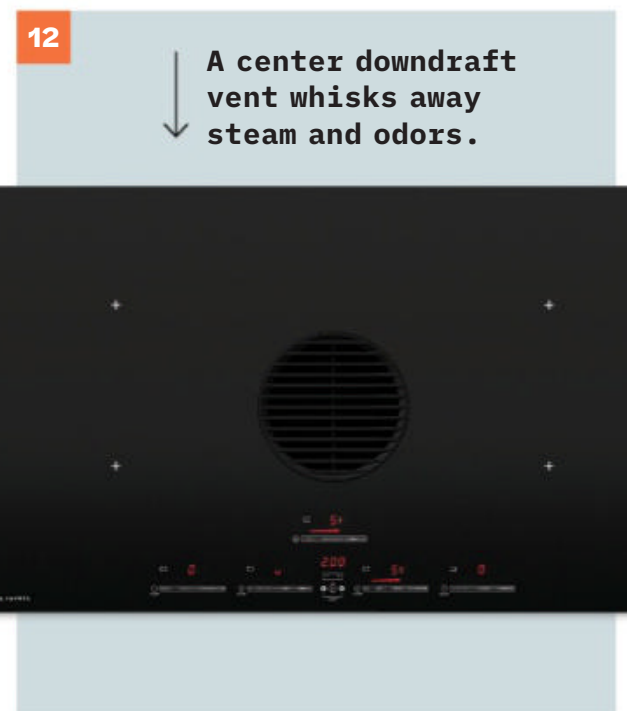
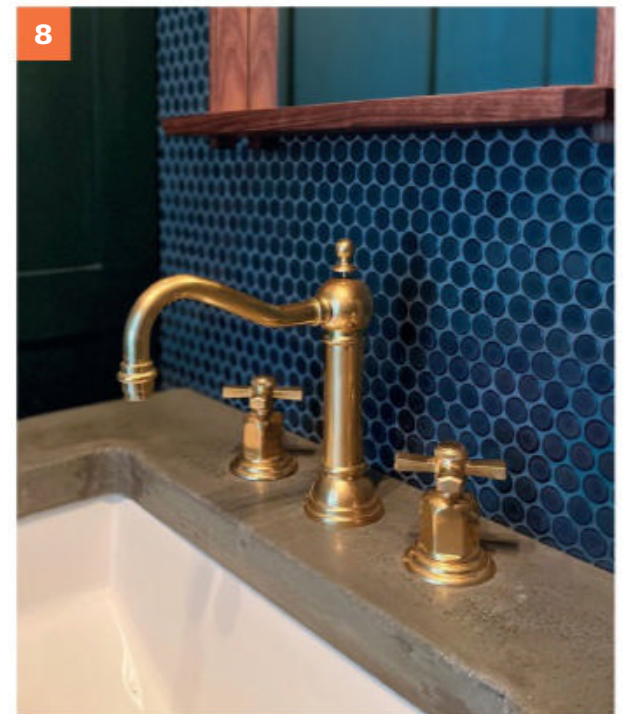
12] Innovative Vent

This 36-inch induction cooktop is equipped with an integrated center downdraft, eliminating the need for an overhead hood on an island. It has four cooking zones, touch-and-slide controls, nine fan speeds, and a removable grease filter. \$6,199; [fisherpaykel.com](#)



↑ A space-saving fridge-freezer at a nice price.







16



13] Hard Worker

An alternative to stainless steel, this granite-composite workstation sink integrates well with natural-stone counters. It's stain resistant and easy to clean, and it comes with the accessories shown. In white or black with drop-in or undermount options. *Everest 33" Workstation Sink*, from \$500; deltafaucet.com

14] Slab Happy

This DIY-friendly system of tongue-and-groove waterproof panels faced with laminate now comes with marble-look Augusta Calacatta veining. Color-matched sealant hides the seams. Cover an average tub/shower in 2½ hours, even over existing tile. Sold as a set of four panels, in three different heights and six widths. \$600 to \$1,100; wetwall.com

15] Combo Package

A new twist on the double wall oven: The Rise 30-Inch Microwave/Wall Oven comes with a 7-inch LCD touch screen for navigating settings and scrolling through a digital guide with hand-picked, step-by-step recipes. Wi-Fi connectivity allows remote control; two fans power its convection system. From \$6,549; jennair.com

16] Easy Does It

Quartz counters and backsplashes resist stains, scratches, and odors and are easy to clean. This seascape-inspired pattern's cool-white backdrop and soft-gray veining show just how beautiful they can be, too. *Southport Luxury Series*, price upon request; cambriausa.com

20



17] Chimney Style

This pro-performance stainless steel vent hood has three speeds, dishwasher-safe filters and baffles, and dual control panels that allow access from either side of an island. Plus, a delayed shutoff will keep clearing the air after cooking is complete. *Chef Series IS-500 Haven Range Hood*, from \$1,400; hauslane.com

18] Up to the Task

Simple, elegant, and made by hand, this Heirloom Task Light's wood backplate, brass arm, and glossy ceramic shade are inspired by Victorian gaslight fixtures. Projecting 22 inches from the wall with a 14⅞-inch-wide shade, it's meant to be installed up high to cast a wide pool of light over a large work area. \$740; devolkitchens.com

19] Go with the Grain

This single-sink vanity puts mid-century style on display with solid walnut construction, splayed feet, and soft-close doors with handholds in lieu of flashy hardware. *Topanga 30" vanity*, \$2,950; nativetrailshome.com

20] Blend Ambition

The company known for colorful 1950s-inspired large appliances is looking to populate your countertop. The Retro Blender features five speeds and a 1½-liter-capacity glass jar. Comes in five colors, including this vintage Jadite Green. \$275; bigchill.com

21] Walk This Way

With its tough factory finish, engineered wood flooring stands up to a kitchen's daily abuse.

These 5-by-24-inch herringbone European white oak boards come with an ultra-matte UV-protective coating to preserve their natural look. *Terra Collection in Taiga Herringbone*, about \$16–\$19 per square foot; duchateau.com

22] Space Maker

Top-loading washers have no mold-prone gasket to contend with. This one has a removable agitator to make space for pillows, comforters, and other bulky stuff. An interior "faucet" aids in pretreating stains, and the dispenser holds enough detergent for 20 loads. *Smart Top Loader with 2 in 1 Removable Agitator*, \$1,299; whirlpool.com

23] Affordable Bidet

Cleansing toilets have long been a luxury. This more affordable option has plenty of bells and whistles—a heated seat, a warm-air dryer, oscillating and pulsating sprays, remote control—for much less than other models. It uses 1 gallon of water per flush and can be plugged into a 120-volt outlet on a 10-amp circuit. *2-Series Electronic Cleansing Toilet*, from \$1,442; moen.com

24] More for Less

Committed to cooking with gas? This gas range, with double ovens and many of the latest features, from air fry to air sous vide, delivers a lot of bang for the buck. Just knock on the door to see what's cooking. A special coating makes the stovetop and oven interior easier to clean. *InstaView Gas Double Oven Slide-In Range*, \$2,599; lg.com 🏠

24



Building a Wet-Room Bath

Make a small bathroom feel bigger, or just enjoy a sleek, open showering space. Here's what you need to know if you're considering the increasingly popular wet-room option

BY FRED ALBERT

Think of it as the equivalent of the open-plan kitchen: With walls removed to create one expansive sight line, a wet-room bath channels light and air for a luxurious feeling of space. It may combine the shower and tub in a waterproofed area with a glass partition or array all the fixtures in a fully watertight, barrier-free setup. With no walls separating the tub and shower, and no shower curtain or enclosure to contend with, taking the wet-room approach can make any space look larger. "It makes the showering experience so much nicer, because you're not stuck behind a glass box," says San Francisco architect John Lum, who has designed more than a dozen wet rooms for clients.

While easiest to design and build when starting from scratch, a wet room can be a good retrofit option, too. "If you have a tiny space and you want to add a bath, a wet room might make a lot of sense," says Matthew McHenry, a construction manager in Berkeley, CA. Long found in European homes, the traditional wet room is a fully waterproofed space shared by a shower, sink, and toilet, and, less often, a tub. It is typically small, with walls tiled to the ceiling and the drain in the center of the room, with the sink and toilet hung from the wall. More common these days is a wet room where the shower and tub share a wet area at the far end of the room, with the vanity and toilet shielded by a glass partition.

Coming up: a look at what it takes to plan and put in this type of open-plan bathroom.

In this wet-room setup, a floor-to-ceiling fixed glass screen keeps shower spray away from the white oak double vanity. Linens are stored in a cabinet at the other end of the space (not shown), alongside a pocket door to a toilet room.



FIRST THINGS FIRST

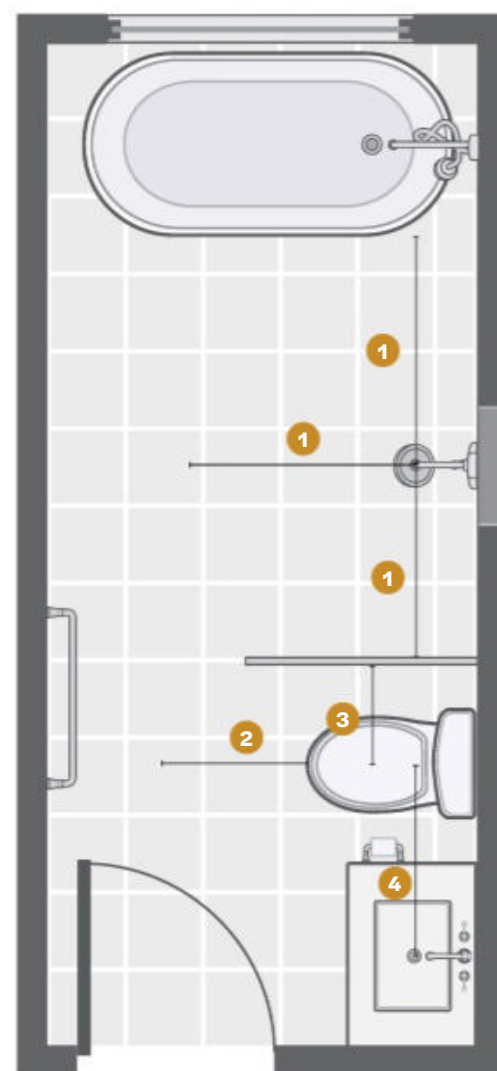
01 Figure out the layout

Start with the shower and the tub, if you're including one. To give a wet room a focal point, designers often place the tub against the back wall with the shower in front of it. Alternatively, the tub and shower might sit opposite each other on the side walls. Ideally, showers should have 36 inches of clearance on all sides, with a tub at least 3 feet away. If possible, place shower controls outside the splash zone, so you can run the water without getting soaked. Since a shower's spray pattern can extend up to 6 feet in diameter, a glass panel, or splash screen, is often used to shield the sink and toilet. It can be hinged or stationary but is usually flush with the floor, or the curb. In larger baths, the glass may run wall to wall with a door in the center—and up to the ceiling if there's a steam unit—or be two fixed panels with an open doorway. ➔



In a wet area with a center drain, the floor slopes toward it from all directions. If there's a tub, the fixture is installed level.

ANALICIA HERMANN/DESIGNED BY ALEXANDRA KILLION INTERIORS. FLOOR PLAN: IAN WORPOLE



CLEARANCES TO CONSIDER

- 1] 36" from the center of a shower accounts for its spray; less can work, especially with a glass screen
- 2] at least 24" in front of a toilet
- 3] at least 15" from center of toilet to wall or partition
- 4] at least 30" from center of toilet to center of another fixture, such as a sink

Figure out the layout (CONTINUED)

This can help contain the shower spray—and make a wide-open space feel cozier. Locate the sink on the same wall as the shower, so water is directed away from it. A splash screen allows for a vanity cabinet, which needs protection from direct shower spray. In a full wet room, a porcelain pedestal or wall-mounted sink better withstands moisture. No one likes a wet toilet seat, so consider placing the commode as far as possible from the showerhead, or in its own room if space allows. A wall-hung toilet makes cleaning easier, especially in a full wet-room bath. Store towels (and toilet tissue) on recessed shelves or in a cabinet far away from the shower. To have a bath towel close at hand, hang a hook beyond the reach of the shower spray or close to the entry to the wet area to keep it high and dry.



A wood vanity partitioned off from the tub and shower with a fixed glass screen keeps stacks of towels dry and at the ready on easy-to-access open shelves.



02 Set the drain location

Working with the orientation of the existing floor joists will avoid having to rebuild the shower floor or cut into it significantly to run plumbing. You want to fit the drain body between joists and, with a linear drain (see p. 64), allow space for it to run parallel to the joists. Space for a wall drain (p. 64) will have to be accounted for at the base of a shower wall. To start, the floor should be square and level to facilitate drainage and minimize settling, and have sufficient structural strength—a wet room can be significantly heavier than a traditional bath. “In an older home, you can sister undersized joists so they’re to code and also 16 inches on center, just to make sure your structure’s strong,” says veteran tile setter Joe Cannato. The wet-area floor needs to slope at least ¼ inch per foot to send water toward the drain; code also requires that the drain be at least 2 inches below the high point in the floor. If incorporating a wet room in an addition, the floor structure can be built to accommodate the plumbing plan from the beginning. Some contractors go the extra mile with more resilient lumber. “Whether we’re building from scratch or renovating, we like to use marine-grade lumber in every single location: floor joists, wall studs, and rafters,” says Seattle contractor Jim Dow. Any water that escapes the waterproofing will be less likely to rot the framing that way. “It just makes it completely bulletproof, and it’s not much more expensive,” Dow says.

03 Curb or no curb

Curbless wet areas transition seamlessly from the rest of the bath, creating a sleek open space that can be fully accessible for homeowners aging in place. In a wet-room bath with a partition, the floor beneath the sink, toilet, and tub is level and slopes in the shower zone toward the drain. In a full wet room with no tub and a center drain—again, these are usually on the small side—the floor slopes from all directions; another reason wall-hung sinks and toilets are a practical choice. Here's the rub: For a wet-area floor to meet flush with the rest of the room's, the subfloor has to be lowered to accommodate the slope toward the shower drain, whether you're adding a thin, presloped tray made of polyurethane foam or dense plastic or a custom mortar bed. If the joists in an older home are beefy enough, it may be possible to shave a few inches off the tops and then sister them to achieve the needed structural strength. Otherwise the wet-area floor may need to be reframed at a lower height.

An elevated curb at the entry to a wet area with a shower and tub helps contain the water collecting inside and prevent it from flowing into the surrounding space. A curbed wet area is easier and less expensive to retrofit, since you can build up the shower floor to slope in any direction for drainage and create room for plumbing, minimizing the need to alter the underlying floor structure. You can size the curb accordingly to ensure its top sits at least 2 inches above the drain. The downside? It can look clunky, and pose a challenge for those with mobility issues.



OPPOSITE, TOP: A newfangled wet-room bath can still display period style, with a claw-foot tub, an exposed shower riser, a marble-top console sink, and fixed glass screens that suggest divided lights.

ABOVE: To-the-ceiling marble tile protects the walls (and floor) in this curbless wet room, with herringbone subways on the upper walls and large squares below, where they form a storage ledge.

RIGHT: An arched wall meets the curb in this wet-room shower, adding architectural interest.



WATERPROOFING SYSTEMS

Since grouted tile is water permeable, a waterproof wet area needs a system underneath it that is completely watertight. Most contractors today use some combination of foam board, bonded sheet membrane, and liquid membrane to waterproof wet-area floors and walls, even when using a traditional mortar bed for the shower base and cement board for the walls. These products are often used together in various combinations, too.

FOAM BOARD is fast and easy to work with, but expensive. It serves as backer board and waterproofing in one. Most brands, including Schluter and Wedi, offer preformed shower pans that interlock with their wall panels, as well as sealant to cover the joints.

BONDED SHEET MEMBRANE is usually made of polyethylene with a bonding fleece on both sides to help it adhere. It goes down with thinset and is covered with more of the same to accept tile. Used with compatible corner pieces and seam tape, it is effective over everything from traditional cement backer board to a mud-bed shower pan and offers a high level of waterproofing, durability, and crack isolation to protect tile and grout.

LIQUID MEMBRANE is convenient to work with, as it can be brushed or rolled on in layers, and is relatively inexpensive. Many contractors use it liberally, even over seams and penetrations covered with sheet membrane, often considering it “cheap insurance” against water leaks.

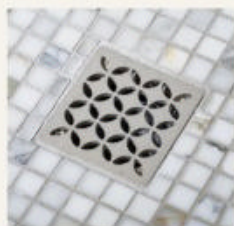


Sheets of Kerdi waterproof membrane (schluter.com) install over thinset mortar, then are covered with more thinset to receive tile. Strips applied at seams and floor and wall joints ensure a waterproof seal.

Drain types

The following options are most commonly found in wet-room baths

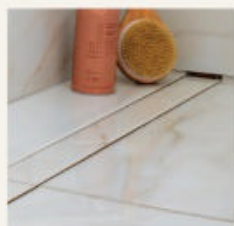
SQUARE DRAIN



Conventional drains are ideal for most wet rooms, and the most affordable option. The drain

is usually located near the center of the wet area, or full wet-room floor; it can also be shifted closer to the showerhead to catch the water better, or slightly off center, to avoid feeling it underfoot. Square drains simplify tile installation, requiring fewer cuts than circular ones. Some accept tile with only a perimeter opening visible, for a seamless look.

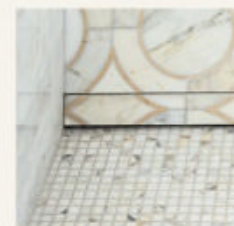
LINEAR DRAIN



These trough-style drains catch water and channel it to a round drain body at the center and can be tucked

discretely near a wall. They come in lengths from 24 to 60 inches; some offer extensions that allow for several to be joined together, so they can even go wall to wall. Because they require sloping the floor in only one direction, they also allow for large-format floor tile, as long as it's slip resistant. Covers may be metal, or made to hold tile to match the floor.

WALL DRAIN



A relative newcomer that's more expensive to buy and to install, this nearly invisible type of

linear drain sits at the base of a wet-area wall and flush with its face. It has a magnetic cover that accepts cut-to-fit wall tile for an uninterrupted look; the cover can easily be removed for cleaning or clearing the drain, if necessary. Only a narrow opening is visible along the bottom of the wall to allow water to enter and to flow toward the drain.



A built-in surround means less risk of shower spray puddling on the floor around the tub and more space to continue a tiled accent wall.

TOH PRO TIP



RICHARD TRETHEWEY
Plumbing and Heating Expert

“Caulk joints where horizontal and vertical tile surfaces meet, and seal grout at least once a year—if it changes color when wet, it’s time to reseal. Don’t wait to replace cracked tile and missing grout; both can allow water to pass through and potentially damage the substrates below.”



ABOVE: Colorful mid-century-inspired tile covers an accent wall and tub apron, providing a focal point in a modern wet-room bath with sleek finishes and fixtures.

LEFT: Blush-toned waterproof plaster wraps this minimalist wet room, even the ceiling. Decorative texture on the floor of the wet area provides extra slip resistance.

WALL AND FLOOR FINISHES

While tile is the go-to for wet-room walls, designers are incorporating other materials, too, including stone veneer, metal panels, and waterproof plaster. “Tadelakt is a limestone plaster that has a handmade feel,” says Los Angeles architect John Hamilton, who often fields requests for the material, which is finished with beeswax to repel water. Wood accent walls are another option; Dow cautions that they should be glued into place, not nailed or screwed, to keep from penetrating the waterproofing behind them.

For floors, “porcelain tile is probably the best product on the market,” says Cannato. It’s fired at high heat to be ultradense. “Just look for a textured or matte finish in a small mosaic that’s 2 or 3 inches across so there are enough grout lines to prevent slipping.” A DCOF product rating of 0.42 or higher ensures good slip resistance. If you have large tile elsewhere and want to continue the look on the floor, consider having the material cut into smaller pieces. Avoid stone floors that need sealing, as even sealed stone is vulnerable to etching from toiletries, Cannato says. “And when they start to show stains, it’s too late.”



What about windows?

Often discouraged in a conventional shower, windows are welcome in a wet room—especially if they can be located high on the wall and away from direct contact with the shower spray. You can even wrap the room in them to take advantage of a view if privacy isn't an issue, or add sliders to a deck with high walls and an outdoor shower for the ultimate indoor/outdoor bathing experience.

A sliding door and side panels provide an almost seamless connection to a terrace and its outdoor shower. Tall wood walls ensure privacy inside and out.

TOH PRO TIP



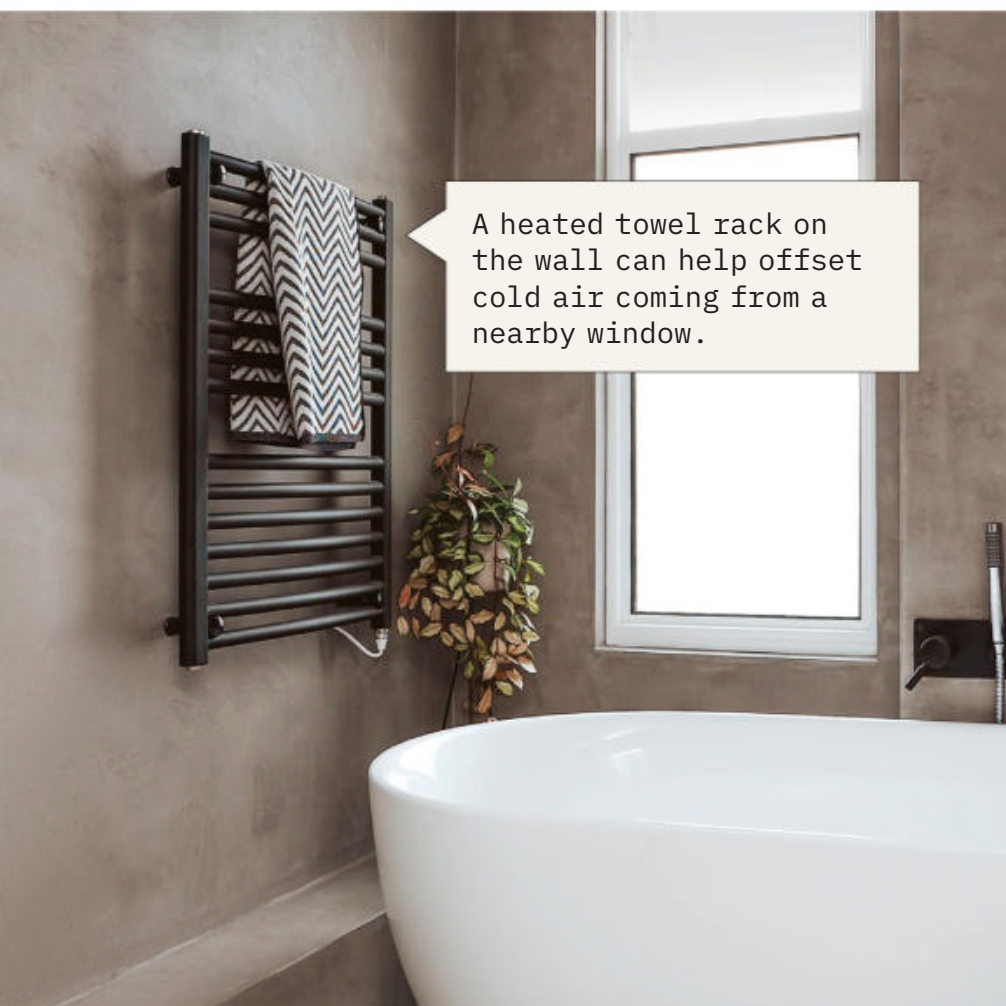
TOM SILVA
General Contractor

“In a wet area, stick to vinyl, fiberglass, or aluminum windows, and if there's an interior sill, slope it so water runs off. Use waterproofing membrane on all exposed wood framing. Finish the window with cellular PVC trim sealed with mold-resistant caulk, except along the bottom, so that any water that does intrude can escape.”

Clearing the air

Robust ventilation is important to discourage condensation on ceilings and walls, which can lead to mold and mildew. A vent fan in a wet area must be wet-rated and installed with GFCI protection; a sound level of 1 sone or less will keep the peace. Choose a fan that will move air at a rate of **1 cubic foot per minute (cfm)** for each square foot of floor space (so, 80 cfm for an 8-by-10-foot room); **add 20 percent** if your ceilings are over 8 feet. A single vent fan near the shower is usually sufficient, but if your wet room includes an enclosed steam shower, install a second one in the open area.

Be sure to run any vent fans for a **minimum of 20 minutes** after showering. To take the guesswork out of maintaining a bathroom's indoor air quality, choose a vent fan with a timer function that you can set and forget, or a model that comes equipped with a humidity sensor, which will turn on automatically when the moisture level in the air rises too high, usually **above 60 percent**. Another option, though more expensive, is to install a wall-mounted humidistat in the bathroom that is tied into your home's HVAC system to dehumidify the space.



A heated towel rack on the wall can help offset cold air coming from a nearby window.

A heated towel rack can supplement a home's primary heating system in a small space; placed alongside the tub, it puts a warm wrap within arm's reach after bathing.

BRING THE HEAT

When showering in an open space, the heat is not contained as readily, so a wet room can cool off quickly once you shut off the water, especially in a four-season climate. While the wet room should be tied into the home's HVAC system, an additional heat source can provide extra warmth when it's cold out. The options:

IN-FLOOR RADIANT HEAT An electric mat installed just beneath the finished tile surface provides comfortable, even heat underfoot. Some types of electric mats can be installed behind walls, too—especially handy to add comfort below windows. While hydronic systems are also an option where the house already has a boiler, it's generally costlier and more complicated to install unless it's a primary heat source elsewhere in the home.

VENT FAN HEATER You need a vent fan in the wet area, so why not add one that heats, too? These come with either a fan that blows warm air or an infrared bulb that radiates heat.

HEATED TOWEL BARS These ladder-like metal racks can be plug-in or hardwired, or warmed with hot water. Though some European models are integrated with a wall-mounted radiator, heated towel bars alone don't produce a lot of heat, so you will sense their presence more in a small space. Either way, wrapping up in a toasty towel when you're fresh from the tub or shower is a nice way to chase away the chill.

TOH PRO TIP



HEATH EASTMAN
Master Electrician

"If you're installing a vent fan that has a light built in, wire separate GFCI-protected switches for each function for added convenience."



Using outdoor-rated ceiling lights, such as these caged flush-mount fixtures, is a practical way to give a wet-room bath an additional style boost.

Light it right

➔ Designers typically plan for one or two recessed lights in the wet-area ceiling that are UL-rated for wet locations, and sealed to keep out moisture. Low-profile LED ceiling fixtures will last for years without needing a replacement. For a more decorative look, you can also use lights that are rated for outdoor use. Whatever the case, adding a dimmer switch can help ease you into the day or encourage you to decompress at night. 🏠

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CAMERAS



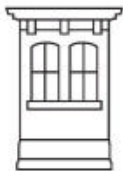
DOORBELLS



LIGHTS



PLUGS



NEW PRODUCTS, PRO ADVICE, AND HOW-TO PROJECTS



BOOKS DELIVERED BY BUS

Brought to life in colorful detail (below), the library cabinet was parked outside Brookside Elementary School in Milford, MA, for students and their families to enjoy.



[Build It]

Book-sharing cabinet

TOH general contractor Tom Silva and **TOH host Kevin O'Connor** craft a school bus-shaped Little Free Library to help an elementary school expand book access in the local community



INSTALLATION: SARAH CHASSE

BY ROB WOTZAK | PHOTOGRAPHY BY ANTHONY TIEULI

In the last 10 years, over 150,000 book-sharing cabinets have popped up in more than 100 countries. The one that started it all: a miniature schoolhouse-shaped library made by Todd Bol of Hudson, WI, built in memory of his late mother, a schoolteacher and book lover. Bol went on to cofound the nonprofit Little Free Library, which has inspired similar book kiosks all over the world. Tom and Kevin built this one after an elementary school class wrote to *This Old House* to ask for help setting up one of their own. The students suggested a simple box painted like a school bus, but Tom decided to take their basic plan up a notch, giving the cabinet a gently curved roof, clear window panels, wheels, and a front hood that evokes a vintage bus.

Tom made the Little Free Library using mostly medium-density overlay (MDO), a weather-resistant plywood with a resin-impregnated-paper surface. While paper-covered plywood may not sound rugged enough for outdoor use, it's commonly used for long-lasting exterior projects such as highway signs. It also offers a smooth substrate for paint, all of which made it perfect for this project.

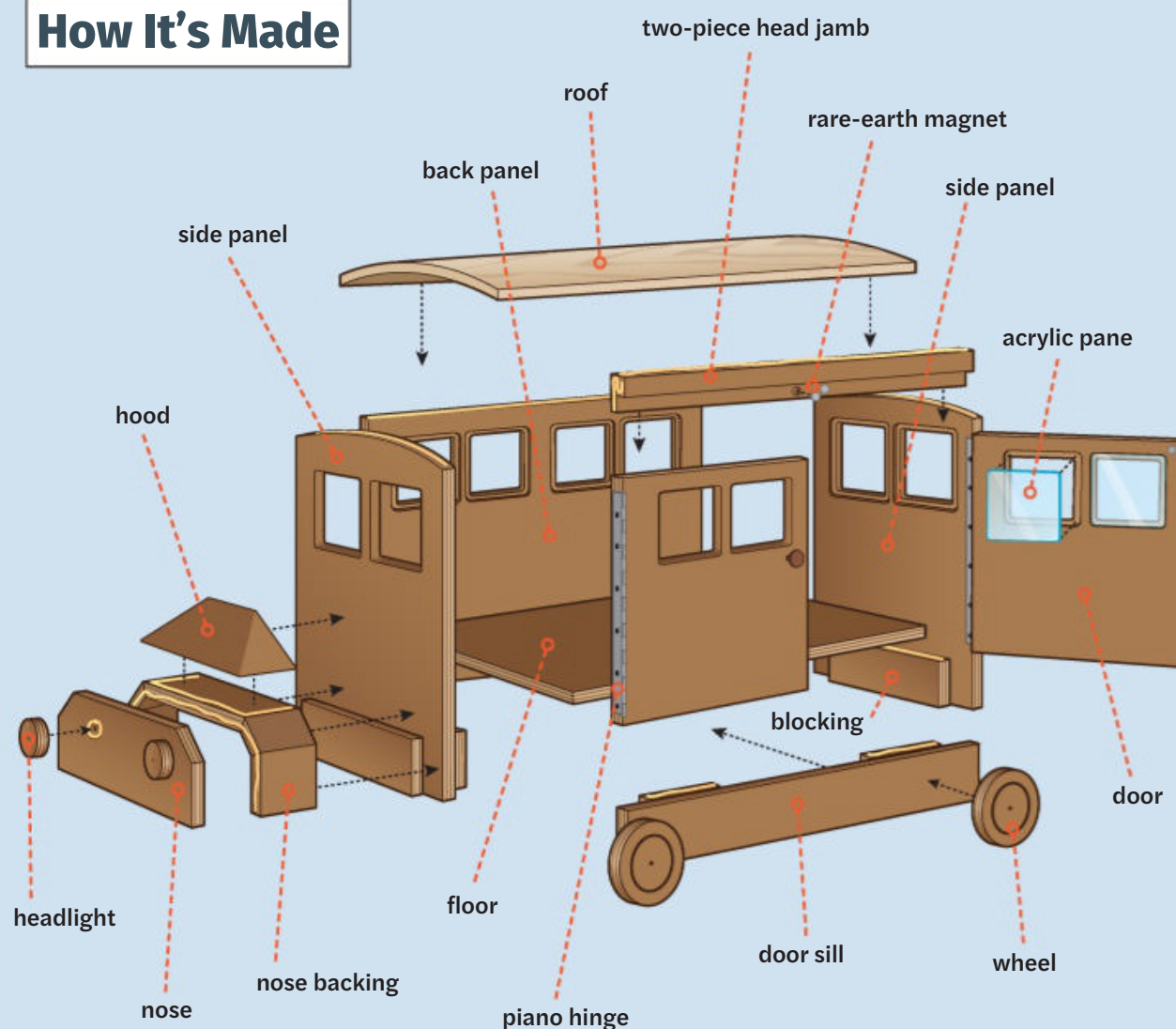
MATERIALS

- ❑ 2×4 sheet of ½" MDF
- ❑ 4×8 sheet of ½" MDO plywood
- ❑ 2×4 sheet of ⅜" exterior plywood
- ❑ 18×24×⅛" clear acrylic sheet
- ❑ 8' pressure-treated 4×4
- ❑ 18-gauge 1½" stainless steel brads
- ❑ 1¼", 1½", and 3" stainless steel screws
- ❑ two 12" stainless steel piano hinges with screws
- ❑ two sets of round ¾" rare-earth magnets
- ❑ knobs
- ❑ silicone caulk
- ❑ glazier's push points
- ❑ exterior wood glue

TOOLS

- ❑ table saw (with blades for wood and plastic)
- ❑ jigsaw
- ❑ plunge router with ¼" spiral-cutting router bit; ¾" router template guide; ½" top-bearing straight-cutting router bit; ⅜" rabbeting bit
- ❑ miter saw
- ❑ belt or disk sander
- ❑ 4½" and 1½" hole saws
- ❑ cordless drill/driver with assorted bits, including ½" Forstner bit and #8 countersink bit
- ❑ wood rasps and files
- ❑ sanding block and sandpaper
- ❑ woodworking clamps
- ❑ brad nailer

How It's Made



Finished dimensions
30"W × 14½"D × 19"H



WATCH See Tom and Kevin build this project at thisoldhouse.com/little-free-library

STEP-BY-STEP

1] Prep the parts. Following the cut list at thisoldhouse.com, cut the pieces for the sides, back, doors, and templates. Using the smaller MDF template (see Tip), lay out the arched top and cut it with a jigsaw. Stack the two sizes of panels under their respective templates, and clamp them to the bench.

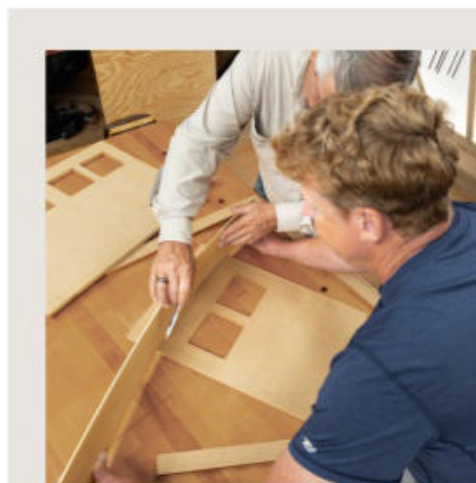
2] Rout out the window openings. Position a router equipped with a 1/4-inch spiral bit and template guide inside one of the template window openings and plunge it 1/8 inch into the MDO, running it clockwise around the opening. Repeat for each window opening. Set the router bit 1/8 inch deeper, and repeat the process until you have cut all the way through the MDO. Repeat on the other panels.

3] Clean up the cuts. Install a 1/2-inch top-bearing bit, and set it so the bearing rides against the edge of the template. Run the router inside every window opening and across the side panels' arched tops. Clamp each of the MDO panels to the bench, and use a rabbeting bit to rout a 3/8-inch-wide-by-3/16-inch-deep rabbet around the inside of each window for the acrylic windowpanes.

4] Make the windowpanes. Cut the acrylic sheet into three 4 5/8-inch-wide strips, then crosscut the strips into eight 4 5/8-inch square panes and four 5 1/8-by-4 5/8-inch panes. Stack and tape together several panes, and use a belt sander to round off the corners until the panes fit easily into the window openings' rabbets.

5] Cut out the doors. Rip a 7/8-inch-wide strip from the top of one of the larger panels and a 3-inch-wide strip from the bottom of that same panel and set them aside. Then, cut this 12 1/8-inch-wide panel in half to make two identical doors. From the outer edge of each door, rip off the thickness of a closed piano hinge—typically 1/8 to 3/16 inch.

6] Add the floor blocking. Cut pieces of 3 1/2-inch-wide MDO a couple of inches narrower than each panel to support the floor. Align them with the panel bottoms; glue and nail them in place with brads. Glue and nail the floor to one panel's blocking. ➔



TIP

MAKE ROUTER TEMPLATES FOR THE BUS WALLS

Go to thisoldhouse.com to find downloadable scale drawings of the MDF patterns. A flexible strip of wood makes a good guide for drawing the arched top on the smaller side-panel template. After cutting the templates to size, drill the radiused corners of each window opening with a 1/2-inch Forstner bit and cut out the windows with a jigsaw. Finally, use a rasp, file, and sanding block to smooth out and straighten all the edges.



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11



12

STEP-BY-STEP (CONTINUED)

7] Join the three panels. Glue and nail the floor to the remaining panels' blocking; glue and nail the corners where the panel edges meet.

8] Add the two-piece header and sill for the doors. Glue and nail the $\frac{7}{8}$ -inch-wide strip to the $\frac{1}{8}$ -inch strip, so they're flush along the top, and then nail the assembly between the side panels at the top. Nail the 3-inch-wide strip between the side panels' bottom edges.

9] Hang the doors. With the hinge barrel facing out, drill $\frac{1}{16}$ -inch pilot holes and screw a hinge onto the edge of one door. Align the free hinge leaf with the inside face of the matching panel so the door is flush with the opening and has equal space at its top and bottom; attach the hinge to the panel. Repeat on the remaining door.

10] Add the roof. Mark the centers of the roof and arched panel tops. Apply glue to the top edges, and center the roof with $\frac{1}{2}$ inch hanging off the back and both sides. Working from the center of each arch, drill evenly spaced pilot holes through the roof into the panels with a #8 countersink bit. Follow each hole with a $1\frac{1}{4}$ -inch screw to fasten the roof.

11] Add decorative features. Apply glue to the side and top edges of the five mitered MDO pieces and the backing for the nose, and use painter's tape to join them as shown. When the glue is dry, remove the tape and attach the nose piece onto the bus with $1\frac{1}{2}$ -inch screws from the inside. Drill $\frac{1}{16}$ -inch pilot holes through the wheels and headlights, and attach them all with $1\frac{1}{4}$ -inch screws.

12] Build and install the post. Attach the mounting plate to the post with 3-inch screws, then fasten two mitered braces between the post and the mounting plate. To install the library, dig a 2-foot-deep hole; insert the post, making sure that it's plumb; and fill the hole with concrete. The next day, mount the bus on the plate—and it's ready for books. ■

TIP

EXTERIOR FINISH FOR A SCHOOL BUS

Tom enlisted his art director daughter, Kate, to give the bus its signature details. They removed, sanded, and painted the wheels, then sealed the outside with three coats of school-bus-yellow exterior enamel. When the paint was dry, Kate applied custom vinyl lettering from a local print shop, and used vinyl tape and stickers to fashion the stripes, headlights, and emergency flashers. Tom bedded the plexi-glass panes in a thin bead of silicone caulk along the back of each window opening, and secured them with glazier's points. Knobs and closure magnets finished the doors.





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[Tool Lab]

Laser levels

TOH carpenter Nathan Gilbert shines a light on these indispensable layout tools

BY CHRIS ERMIDES

Whether you're hanging cabinets or just a few picture frames, you need a level line. These days, instead of getting out a spirit level, pros and DIYers alike use a laser level, a compact tool that can establish a constant level or plumb reference with a dot or line across an entire room. Virtually all of these are self-leveling, meaning the laser diode is suspended on a pendulum, so the tool will still cast a level line even when it is not level. Visibility is a big factor; red laser lines work well indoors but are harder to see in bright sunlight, where green lasers are more visible. While pricier laser levels that are accurate over great distances are used for site work or large-scale commercial projects, the laser levels here and on the following pages have enough accuracy and range to be valuable around the house.



HANDS-FREE HELP Nathan demonstrates a laser level's ability to project a level line over many feet and around an inside corner, as well as an intersecting plumb line (RIGHT).

WHAT TO LOOK FOR



COMMON FEATURES

- 1 | Laser exit windows**
Internal self-leveling diode compensates for up to +/- 4° out of level
- 2 | Battery indicator**
Shows remaining charge
- 3 | Power switch**
Locks pendulum when off
- 4 | Mode selector**
To choose horizontal or vertical lines or dots

SHOWN:

Bosch Green-Beam Self-Leveling Cross-Line Laser with Plumb Points (GCL100-40G)

LINE MODE: Horizontal/vertical lines; vertical dots

RANGE: 100 feet (lines); 50 feet (dots)

PULSE/RECEIVER RANGE: 165 feet

ACCURACY: +/- 1/8 inch at 30 feet (lines); +/- 9/32 inch at 30 feet for dots

PRICE: \$329 (includes hard case and rotating bracket); homedepot.com



VALUABLE USES FOR A LASER LEVEL

- > Establishing square corners
- > Framing plumb and straight walls
- > Tile installation
- > Setting deck ledgers
- > Installing kitchen cabinets
- > Mapping plumbing and electrical layouts
- > Installing siding

GILBERT (2): BOB O'CONNOR; LEVEL: COURTESY BOSCH

GUIDE TO LASER LEVELS

Three-spot laser

THE DETAILS: The most basic of the group, dot lasers project two, three, or five dots, depending upon the model. DeWalt’s highly visible green-laser three-dot model sends plumb dots up and down, and one dot out horizontally. This is the tool for placing recessed lights on the ceiling or for making sure walls are plumb. Lightweight and easy to set up, the laser can be mounted on its magnetic bracket or on a tripod. It also features a tough housing and a locking pendulum.



DEWALT DW08302CG

LINE MODE: Horizontal and vertical dots
RANGE: 120 feet
ACCURACY: +/- 1/8 inch at 30 feet
PRICE: \$139 (includes case, bracket, and two AA batteries); homedepot.com

Cross-line laser

THE DETAILS: Makita’s red-line laser is configured to project a level or a plumb line, or both together to create a square reference, perfect for interior layout work. The diode’s design projects the lines beyond the face of the tool to reach 180° at level and 160° at plumb. The Makita also features a pulse mode that, when used with a dedicated receiver, more than triples its range. It is powered by a rechargeable lithium-ion 12V battery, a convenience that does add weight and cost.



MAKITA SK105DNAX

LINE MODE: Horizontal and vertical lines
RANGE: 82 feet
PULSE/RECEIVER RANGE: 262 feet
ACCURACY: +/- 1/8 inch at 33 feet
PRICE: \$334 (includes case, magnetic bracket and target, and 12V lithium-ion battery and charger); acmetools.com

Rotary laser

THE DETAILS: Rotary lasers use a spinning diode to cast a continuous horizontal line. Having a longer range than dot or line levels, they’re used for setting grade for foundations or driveways, but they’re also indispensable for installing a chair rail, exterior siding, or a drop ceiling. This Johnson laser’s self-leveling mode has an alarm that sounds when it’s beyond leveling range; it also can be manually leveled on its side to cast a spinning vertical line.



JOHNSON LEVEL 40-6517

LINE MODE: Rotating line and vertical dot
RANGE: 200 feet
PULSE/RECEIVER RANGE: 800 feet
ACCURACY: +/- 1/8 inch at 50 feet
PRICE: \$450 (includes case, receiver, alkaline 9V and AA batteries, bracket, tripod, and glasses); homedepot.com

Safety tip

Often laser levels include a pair of glasses with lenses the same color as the diode’s beam (red or green). These glasses are meant to enhance the beam’s visibility in bright conditions. But these are not safety glasses. Under no circumstances should you look directly into the laser diode when it’s on; doing so risks serious eye damage.

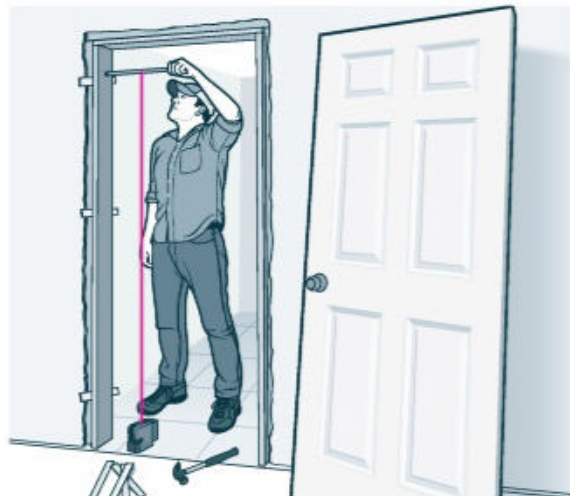
DEWALT LEVEL: DANA SCHIFFMAN; MAKITA LEVEL: COURTESY MAKITA; JOHNSON LEVEL: COURTESY JOHNSON LEVEL

Technique basics

Like spirit levels and plumb bobs, laser levels provide reference lines for a variety of layout and installation tasks. Unlike pencil marks or chalk lines, laser lines are easy to reposition and can't be covered up by thinset or mastic.



INSTALL CEILING PANELS Set one laser line a tile away from the wall and the perpendicular line to check the corner for square. Relying on the lasers instead of the wavy walls will ensure that the tiles or planks fit together without gaps or staggered edges.



HANG A DOOR To check for plumb, set the laser level a few inches from the jamb and measure out from each hinge location, checking where the laser lands on the tape. Shim between the jamb and wall stud until the jamb-to-laser measurements match.



SET WALL TILES Set the laser to match your desired layout. Working in one quadrant at a time, set tiles alongside the vertical laser line, and then work up to the horizontal line. A horizontal laser line is also handy for aligning picture frames.

Helpful accessories

These products keep your laser steady, focused, and visible

1. BRACKET: An adjustable platform positions the laser where a tripod won't work; may come with magnets to adhere to steel surfaces. *SHOWN: Makita Wall/Ceiling Mount Bracket, \$87; amazon.com*

2. RECEIVER: Used with levels that have a pulse mode, receivers detect laser light in outdoor conditions and can triple the laser's range. *SHOWN: Bosch Laser Level Receiver, \$97; homedepot.com*

3. TRIPOD: It's the easiest way to securely set a laser level at a specific height. Nearly all lasers come with standard 1/4"-20 or 5/8"-11 tripod mounts. *SHOWN: DeWalt Construction Tripod, \$65; homedepot.com*

4. TARGET: Used as an alignment reference, targets are incrementally marked and can be handheld or fastened to a wall. *SHOWN: Milwaukee Tool Responsive Laser Alignment Target, \$15; acmetools.com*

5. GLASSES: Color-matched lenses enhance the ability to see a laser in bright daylight. *SHOWN: Huepar Green Laser Enhancement Glasses, \$11; amazon.com* ■



ILLUSTRATIONS: PETER SUCHESKI



WATCH See Nathan demonstrate some uses for laser levels at thisoldhouse.com/laser-levels



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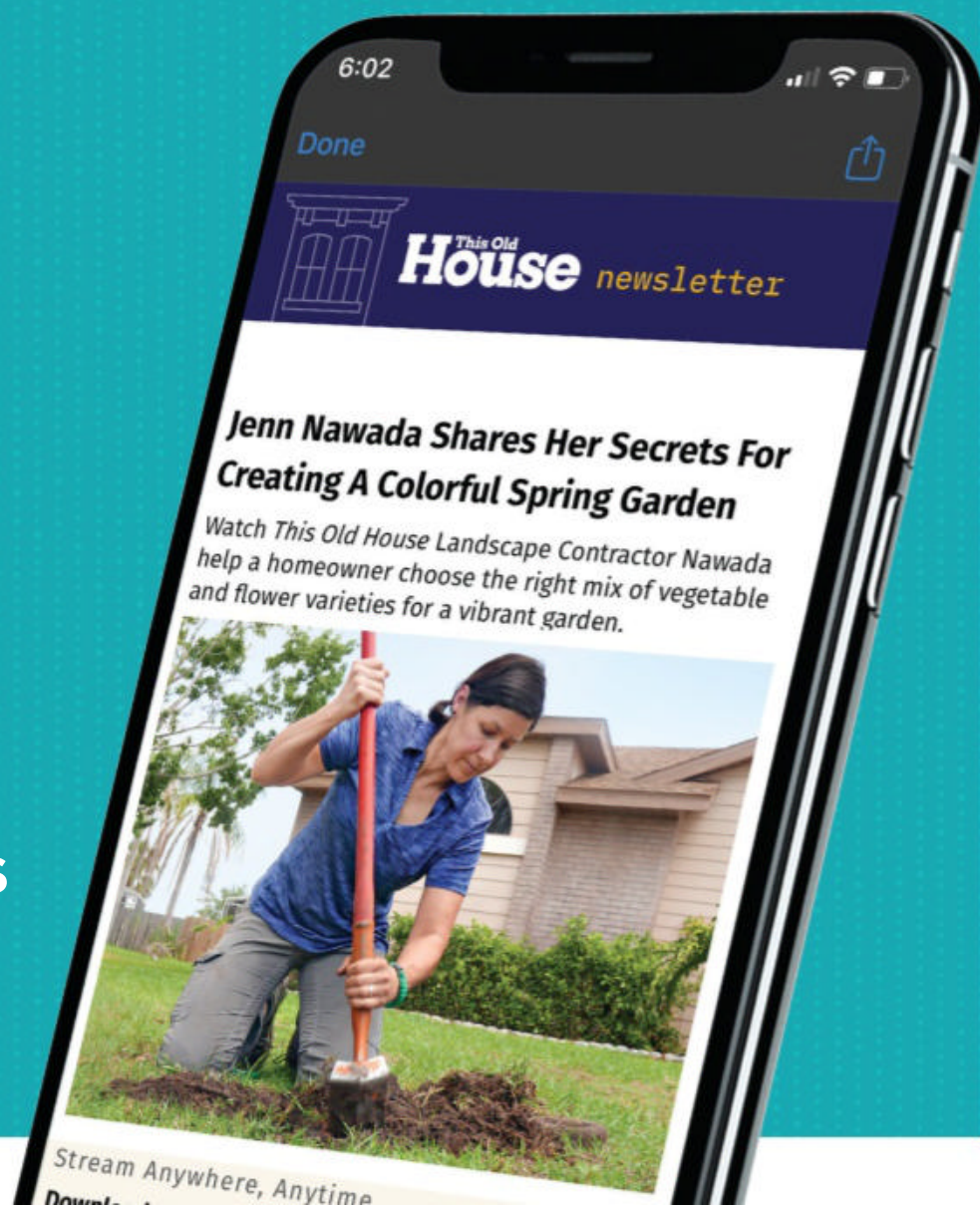
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What's New

The latest tools and home-improvement products to help you tackle your to-do list

BY CHARLES BICKFORD AND SAL VAGLICA

1. Won't let go Duck Max Strength Nano-Grab Gel Tape

This double-sided clear tape adheres to a variety of surfaces—including wood, glass, drywall, brick, and stone—and holds up to 4 pounds per linear foot. It's also reusable: Just peel it off; wash it with warm, soapy water; and stick it back on. About \$7 per 5-foot roll; duckbrand.com

2. Cut better-looking corners Kreg Corner Routing Guide Set

To get the most out of a router, you need a guide or a template. Pick a profile from this collection of guides, slip it into the jig, follow its outside edge with a router fitted with a templating bit (\$16 and up), and turn square corners into something more decorative. \$40; kregtool.com

3. Indispensable demo helper Crescent Tool 24-Inch Adjustable Pry Bar

This demolition essential has an adjustable clamp on

the end, so it grips more easily onto 2× stock. Nail pullers on both ends have flattened strike surfaces for hammering into the material. \$39; crescenttool.com

4. Leave no trace Ryobi 40V HP Brushless Jet Fan Blower/Vacuum Kit

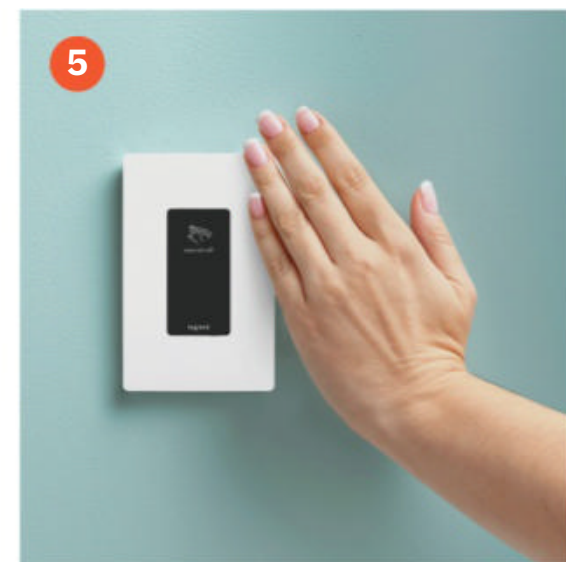
Spring signals new growth, but that doesn't mean there isn't old yard debris that needs clearing. This 40-volt blower/vacuum sucks up dead leaves and other spent plant material and breaks it down into mulch for the growing season. The 600-cubic-feet-per-minute blower pushes air out at up to 100 mph to quickly clear patios, walkways, and lawns. \$469; ryobitools.com

5. Touchless lighting tech Legrand radiant Wave Switch

Unlike motion or occupancy sensors that automatically turn on lights when you walk into the room,



← Eight different router template profiles allow you to create eased or chamfered edges on tabletops or wood panels.



→
This all-weather steel kit can be assembled in a day using hand tools and be ready for the grill by dinnertime.



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←
Small angled pots are arranged to drain from the top down and snap in and out for maximum design flexibility.

this switch gives you the control of a manual switch, but without the contact: Just wave your hand in front of it. It's available in both 15- and 20-amp versions; the latter can handle heavier loads such as multiple lights, fans, and even small appliances. *From \$55; legrand.us*

6. Gimme shelter Rockport Grill Gazebo

Get your grill on without sweating in the sun or wilting in the rain with this galvanized steel structure. Bolted to a concrete pad or patio with the included powder-coated hardware, the kit's frame will stay strong against wind shear and never need painting. Comes with 12-inch-deep counters, shade panels, and a three-outlet power strip with three USB ports. In two sizes: 8½ by 5½ feet and 12 by 6½ feet. *From \$1,699; backyarddiscovery.com*

7. Nook-and-cranny coater Wagner Control Spray QX2 Sprayer

Designed to apply stain or water-based lacquer, this sprayer shines when it comes to small projects and detail work. It can cover an 8-by-8-foot area in under 2 minutes. The plug-in sprayer is simple to use and offers excellent control: Simply rotate the nozzle to select horizontal, vertical, or round spray patterns. *\$90; lowes.com*

8. Monitor a key entry point LiftMaster Secure View Smart Opener

The night-vision camera on this garage-door opener will live stream video to your smartphone 24/7. Using it in conjunction with the myQ app, you can check to see if you left the door open, close it—or allow entry to family and friends. *\$386; liftmaster.com*

9. Hanging garden AgroSci GardenWall Kit

Creating a custom wall garden is a snap with this click-together system of containers: Each module consists of five small pots held in place by a 6½-by-31½-inch vertical frame. Made of recycled high-density polyethylene plastic, the modules can be fastened to any vertical surface, and the pots clip in and out for easy maintenance. *From \$50 for a five-pot planter; agroscigardenproducts.com*

10. Clever cutter Milwaukee Tool M18 FUEL Hatchet 8-inch Pruning Saw

From splitting wood for a fire pit to pruning dead branches, this small battery-powered chainsaw has a host of uses. The 18-volt battery and 8-inch cut capacity will slice through the densest hardwood by reaching full speed in about a second, faster than a 25cc gas-powered model. *\$279; milwaukeetool.com*



10



THIS OLD HOUSE MAKERS CHANNEL



From woodworking to design and engineering to welding, **This Old House Makers Channel** features master creators at home in their workshops.

Makers Channel is a community of skilled artisans who share their expertise—and mishaps—and inspire us along the way.

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[Easy DIY]

Cedar potting bench

TOH DIY expert **Jenn Largesse** shows how to build a potting station made from naturally weather-resistant wood

For as long as I can remember, I have not had what is commonly referred to as a “green thumb.” Even as recently as a few years ago, my mother-in-law was known to bring me a plant as a gift whenever she came by, only to exchange it for the now-shriveled-up specimen from her previous visit. It really wasn’t until I became a homeowner that I finally felt ready to expand my gardening skills.

With this newfound interest in planting came tools, pots, and bags of soil that quickly piled up. To give them a designated home, I built a potting bench made from cedar that could withstand the elements—and my mess—while providing a convenient work surface and storage with some decorative X-bracing for style. Joining almost all the parts with pocket-hole screws made the bench strong, sturdy, and easy to assemble.

And while I can’t promise this project will turn your thumb green, a little organizational help never hurts.



PREP STEPS Jenn started by cutting to length the 2×4 legs, 2×2 framing, 1×6 shelf, and bench pieces with a miter saw. As an alternative, you could use a circular saw and combination square for this task.



Skill: Moderate
Cost: About \$160
(not including glue and screws)
Time: About 3 hours



GETTING STARTED

When choosing the material for this bench, I opted for rot-resistant cedar. Even as it weathers to gray over time, I know it will hold up outdoors and in constant contact with damp soil and water. Finding 2×2 cedar boards may require a trip to a specialty lumberyard; you can also rip them from a 2×4. Alternatively, you could use less-expensive kiln-dried Douglas fir 2×2s, readily available at home centers. Protected with an exterior-grade finish, they should hold up to the elements just fine.

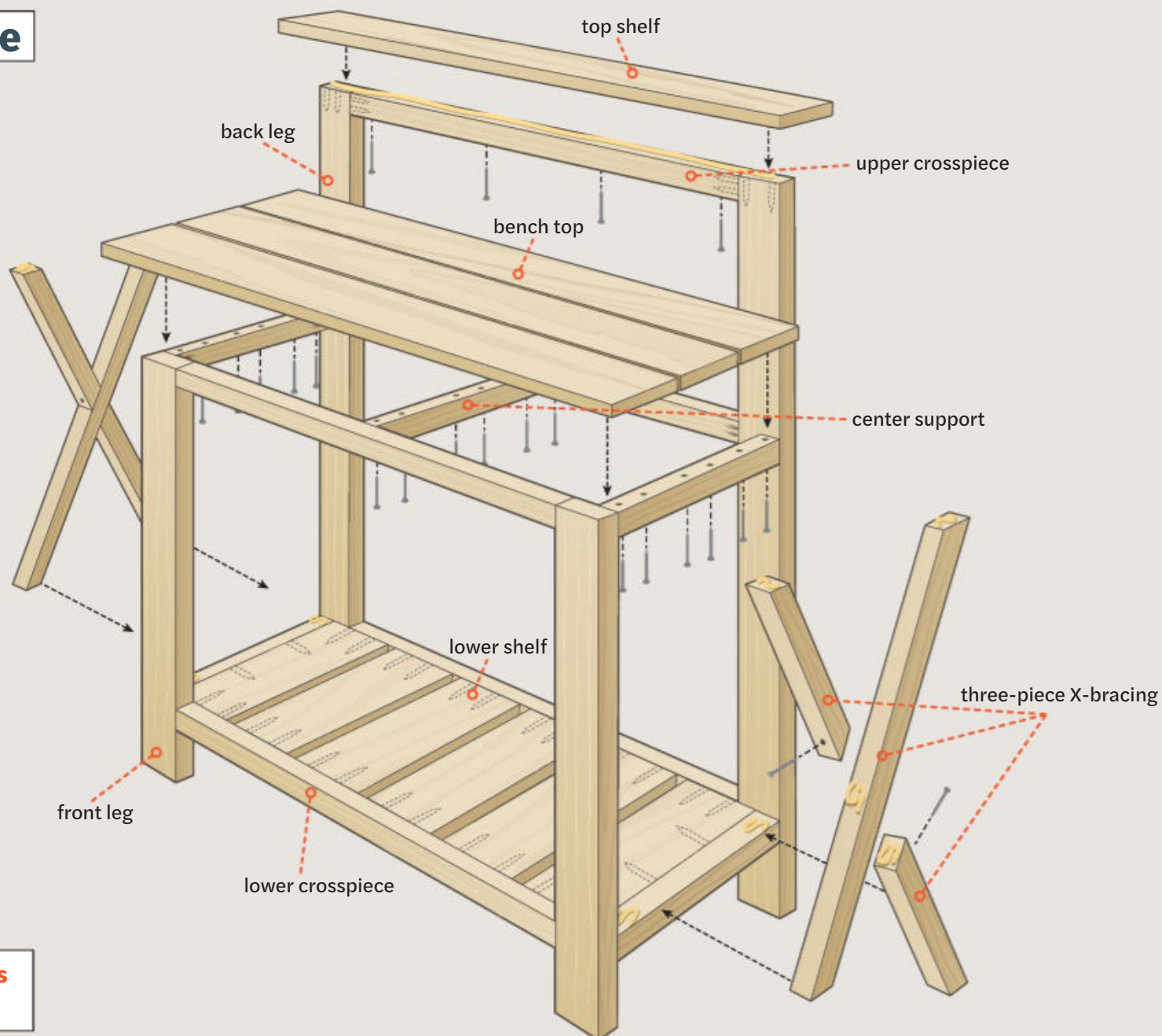
TOOLS

- measuring tape
- pencil
- miter saw
- drill/driver
- 5/64" pilot drill bit
- pocket-hole jig
- orbital sander (as needed)

MATERIALS

- two 2×4×8' boards
- three 2×2×8' boards
- three 1×6×8' boards
- 2½" exterior pocket-hole screws
- 1¼" exterior pocket-hole screws
- 2¼" stainless steel wood screws
- exterior wood glue

How It's Made



Finished dimensions
44"W × 17"D × 54"H



WATCH See Jenn build this project at thisoldhouse.com/house-one/potting-bench

STEP-BY-STEP

1] Prep the parts and drill the pocket holes.

With the pieces prepared following the cut list at thisoldhouse.com, use a pocket-hole jig to drill two holes at the ends of all the 2×2 crosspieces and shelf slats. Drill two more holes at the top of the tall 2×4 legs and along one edge of the two slats that will become the ends of the bottom shelf.

2] Build the sides. Mark the height of the 2×4 front legs on one side of the taller back legs; mark the height of the bottom shelf on each leg, 6 inches up from the ends. Using wood glue and long pocket-hole screws, attach two 2×2 crosspieces to each set of front and back legs below the marks and flush with the legs' outside edges.

3] Join the sides. Set the sides on their back legs so the pocket holes on the crosspieces face inward. Using glue and long pocket-hole screws, attach two crosspieces between the front legs, and two between the back legs at the same height as the sides' crosspieces. Center and install the final 14-inch-long support between the upper front and back crosspieces.

4] Install the bottom shelf. Glue and screw the shelf slats flush with the tops of the front and back crosspieces, using four short pocket-hole screws and leaving a $\frac{7}{8}$ -inch gap between them. Screw the slats at either end to the side crosspieces as well.

5] Add the bench top. Center the bench-top boards lengthwise on the upper crosspieces; drill pilot holes through the side crosspieces and partially into the board ends. Drive the wood screws up through the crosspieces to secure the boards.

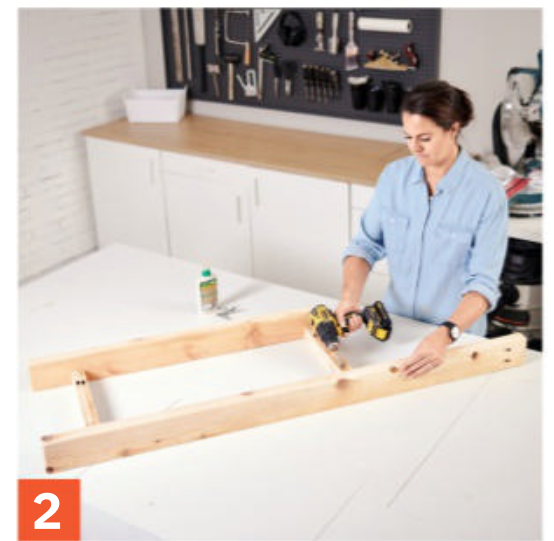
6] Install the top shelf. Using glue and long pocket-hole screws, add the top crosspiece between the back legs, flush with their tops. Center the top shelf on the crosspiece so it overhangs the back edge by $\frac{7}{8}$ inch. Drive long pocket-hole screws through the back legs and into the top shelf. Drill four pilot holes up through the crosspieces and into the shelf, then drive the screws.

7] Cut the X-braces. Hold a 2×2 diagonally against the side of the bench; mark and cut the top and bottom at the inside corners. Dry-fit the leg and overlay the second 2×2 going in the opposite direction, and mark the top and bottom at the inside corners as well as at two points where the legs overlap. Cut that leg into two pieces at the marks. Repeat.

8] Add the X-braces. Place the three pieces of one "X" flat on a work surface. Drill pilot holes through each half leg into the long leg. Apply glue to the half-leg ends and reposition, then drive wood screws into the pilot holes. Apply glue to the four ends of the brace, and fit into one side of the bench. Repeat. ■



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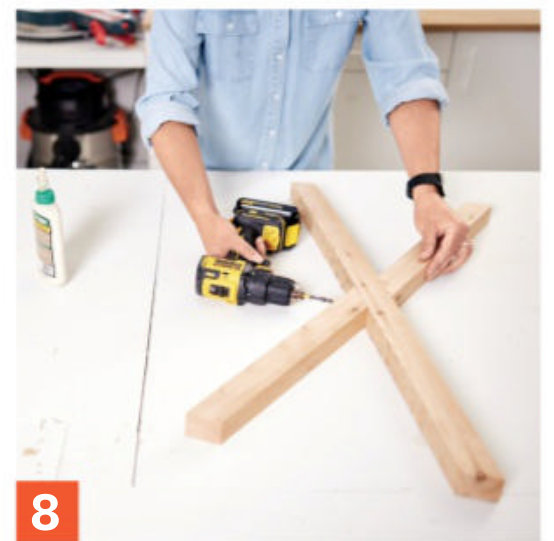
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Upkeep

Maintenance tasks to pay attention to
this season **BY JAMES FITZGERALD**



DO RIGHT BY YOUR DECK

Cleaning and recoating your deck will improve its appearance and protect your investment. First, clean off debris and inspect the finish. Stained boards—look for a color change in high-traffic areas—call for a deck stripper. If the deck was simply treated with a sealer, start instead with a deck cleaner to remove dirt and algae. Before you begin, douse surrounding plants with water, then cover them with plastic sheeting. Wet the deck, apply stripper, scrub with a stiff nylon brush, and then rinse. Deck cleaners can be sprayed on wet boards with a pump sprayer, brushed in, and rinsed off. In both cases, work in one small area at a time so that the liquid doesn't dry before you can scrub. Let the deck dry for a few days before restaining or sealing.

Gas-grill safety check

Cracked hoses and clogged tubes can keep your grill from lighting, produce uneven heat, or even cause a gas leak. First, scrub off grease and rust and replace damaged parts. Then test for leaks with a 1-to-1 mixture of dish soap and water in a spray bottle. With the controls turned to OFF, open the tank valve and spray the liquid onto the valve, regulator, and hose connection to the grill. See bubbles? Turn off the tank, replace the affected fitting or hose, and retest. Last, remove and clean the burners, then push a large pipe cleaner into the ends of the tubes that connect to the control valve to clear out spiderwebs.

TLC FOR PRUNING TOOLS



Dirty, dull pruners that gnaw at branches leave plants open to disease and insects. To renew them, follow these steps.

- > **Clean.** Scrub cutting blades with diluted dish soap and a nylon pad. Use a light alcohol solution on stubborn sap.
- > **Remove rust.** A damp rag and a mild abrasive, such as Bar Keepers Friend, should get rid of minor corrosion. Rinse and wipe dry.
- > **Sharpen.** Hone the blade with a file, like this 6-inch diamond-coated one (Blade Sharpener, \$11; [fiskars.com](https://www.fiskars.com)). Place it flat against the edge's bevel, and run it from the inside edge up to the tip. Repeat until you've got a clean, nick-free edge. Then run the file over the flat side of the blade to remove any burrs. (Test for sharpness by slicing a piece of paper.) Finish the blade with a thin coat of 3-in-1 oil.

TOH PRO TIP



TOM SILVA
General Contractor

"When switching to a finer grit on a power sander, vacuum both the project and the sanding pad to catch any coarse loose grit that could cause swirl marks."

DEODORIZE YOUR DISPOSAL

Got a stink in your sink? Your garbage disposal may be to blame. Clean it weekly with one of these methods to rid it of icky odors:

OPTION 1 | With the disposal turned off, pour in ½ cup baking soda, then 1 cup vinegar. Let it bubble for 15 minutes before flushing with hot water, then running the disposal with cold water for a few seconds more.

OPTION 2 | Add a large cup of ice, turn on the disposal, and then add ½ cup kosher salt and/or a few lemon wedges. When the grinding sound stops, flush with cold water.

OPTION 3 | Scrub away buildup with a brush designed for the job, like this one (Mr. Scrappy Disposer Brush, \$6.74; lowes.com). If the splash guard pops out, place it in the dishwasher.

To ensure that food waste flows past the p-trap, always run cold water before turning on the disposal, while grinding, and for a few seconds afterward. Avoid adding grease, oil, or fibrous waste, like onion skins or corn husks, that can clog the unit and the drain.



TOH PRO TIP



JENN NAWADA
Landscape Contractor

“Now is a good time to clean up shrubs by pruning off dead branches. If you are unsure if a branch is alive, carefully scrape away the thin bark with hand pruners or your fingernail. The second, or cambium, layer will be brown if the branch is dead and green if it’s alive.”

Rejuvenate your lawn

A thin layer of thatch—the accumulation of decaying organic material that forms between the soil and turf grass—is beneficial. But as it thickens, it can prevent air, water, and nutrients from reaching the soil, causing brown patches and promoting fungal disease. To see if your thatch layer is excessive, remove a small section of turf with a garden trowel. If thatch is more than ½ inch thick, use a manual thatch rake or rent a mechanical dethatcher or power rake to separate the thatch from the soil. Rake it up, then aerate the lawn with a garden fork or mechanical core aerator and rake up the soil plugs. Overseed the lawn with a broadcast spreader with the appropriate seed, then follow by broadcasting a starter fertilizer high in phosphorus to promote germination and root development. Water well.



GARAGE-DOOR TUNE-UP

A squeaky overhead door isn’t just bothersome; it may pose a safety risk. This annual maintenance routine will transform it into a silent and smooth operator.

- 1)** Unplug the automatic opener so it can’t be activated while you’re working. Inspect and tighten all nuts and bolts (manufacturers suggest doing this monthly).
- 2)** Inspect rollers for wear; if needed, remove the bracket to pop in a replacement. One caveat: Since the bottom roller attaches to the lift cable, leave it to a pro.
- 3)** Check the lift cables for broken strands. Pay close attention to where they’re looped to the bottom roller brackets.
- 4)** Lubricate the rollers, hinges, tracks, and springs with a drying-type lubricant that won’t attract dirt and is made for garage-door parts.
- 5)** Plug the opener in to test the auto-reverse feature with 2×4 scrap. The door should get no closer than 1½ inches to the ground before reversing direction.
- 6)** Inspect and replace extension springs that run parallel with roller tracks as needed. Because torsion springs (seen here) can be adjusted only when the door’s down and the spring fully loaded, leave those to a pro, too. 🏠

ask This Old House

Chimney repairs

We just closed on a house built in 1991, and the chimney's exterior obviously needs repair. What do we need to know?

—IRENE RICH, AUBURN, ME

TOH mason Mark McCullough: All chimneys



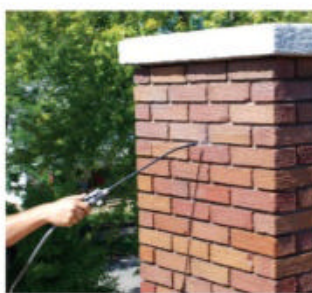
need small repairs from time to time, to avoid major damage down the road that is more expensive to fix. If you have a masonry chimney, it's important for you or a

professional to give the chimney's exterior a thorough going-over once a year. You can do this yourself if you can access the chimney safely and use adequate protection, but if you have any doubts about safety, hire a professional mason.

Starting from the top, a mason will check the crown of the chimney for cracks, missing mortar, and gaps between the mortar and the flue liner, or liners, which extend through the crown. Unless the crown is badly damaged, it's usually possible to fill small cracks and gaps with a flexible masonry sealant containing silicone to keep out water. Many chimneys are fitted with a metal cap that helps to limit water intrusion, while also preventing birds and other wildlife from entering the flue. The cap should be checked to make sure



TIP



Protect the bricks

After any chimney repairs are done, the bricks should be washed with a masonry detergent and, once dry, sprayed with a penetrating masonry sealer containing siloxane.

it's attached securely, and replaced if it's damaged. It's smart to seal around all the fasteners that hold it in place; replace any that are rusty or loose.

The body of the chimney should be checked for cracked bricks and mortar that's crumbling or missing. Repairing this kind of damage by repointing the brick is messy and hazardous, so it's best done by a professional. After donning protective gear, the mason will use an angle grinder fitted with an abrasive wheel to remove loose mortar. Damaged bricks can also be replaced once the mortar surrounding the brick is removed by chiseling out the broken bricks, inserting new bricks, and then adding fresh mortar. Since your brick isn't very old, you may be able to find a good color match at a local masonry supply; owners of older houses might need to try an architectural salvage yard to find suitable replacements.

MCCULLOUGH AND O'CONNOR: KATHARINE BUCKLEY; MASONRY SEALER: CHIMNEYRX



GETTING SOME POINTERS

Halfway through revitalizing an old chimney, Mark gets a helping hand from *TOH* host Kevin O'Connor as Mark vacuums out crumbling mortar and cleans the gaps in preparation for adding new mortar.

TIP



Get the nails out

When you need to replace a damaged roof or wall shingle without harming the good shingles that surround it, use a shingle ripper, a specialized pry bar designed to reach under a shingle and pull out nails that hold it in place. You can find one at most home centers or online.

Woodpecker damage

We have woodpeckers making a mess of our cedar shingles. How do we keep them off and repair the siding?

—JULIE BARR, MEREDITH, NH

TOH general contractor Tom Silva:

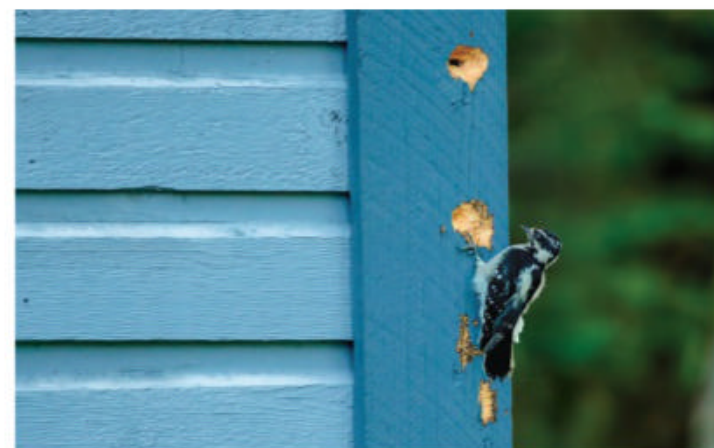


Unfortunately, damage from woodpeckers is a common problem with wood siding. Cedar shingles are a favorite target, because the wood is soft and easy to dig into. But wood-

peckers can also damage soffits, corner boards, shutters, and other exterior wood. A deep hole usually indicates that a bird is trying to build a nest. Shallower holes can be made for a couple of reasons. In the spring, during mating season, males will peck loudly to attract a mate, often making a series of holes. At other times of the year, the birds may be pecking to begin excavating to find insects like ants, termites, or bee larvae.

To repair a shallow hole—one that doesn't extend into the undercourse of shingles—you can simply fill the hole with some exterior wood filler. When the hole is large or deep, the best strategy is to replace the damaged shingle with one or more new shingles. You'll need to pry up the course above the damage, split up the bad shingle if necessary, pull it out, and then slide in a new shingle. If you have a number of repairs to make, a shingle ripper will speed up the work (see Tip).

To discourage future woodpecker damage, your best strategy is to mount shiny pinwheels or foil-faced streamers in susceptible areas. Woodpeckers tend to stay away from highly reflective objects that move with the breeze.



DISTRACT THEM FROM DOING DAMAGE

To keep woodpeckers from making holes in siding or corner boards, lure them away from the house with a suet feeder in the yard or allow a dead or dying tree to remain on the property, as long as it isn't a threat to your safety.

The final step should be to assess the flashing that surrounds the base of the chimney. To provide proper drainage and protect against leaks, overlapping step flashing should extend up the sides of the chimney, tucking into mortar joints along the way. The flashing may be lead, which is malleable and can last 30 to 40 years, or copper, which is more expensive but can last up to twice as long. The head flashing, on the roof slope above the chimney, and base pan, which wraps around the lower portion, should be checked as well. Gaps between metal and masonry, along with flashing that has worked loose, are common problems. An experienced mason will be able to determine whether such problems can be repaired with sealant, or if replacing some of the flashing is needed.

SHINGLE RIPPER: COURTESY BON TOOL; WOODPECKER: ALAMY



WATCH See Mark's techniques for repairing a chimney at thisoldhouse.com/chimney-repairs

DIY Smarts



Installing kitchen-cabinet hardware

We've decided to upgrade the kitchen. Since I've never bothered to install pulls on my kitchen cabinets, can you tell me how to do it?

—PAT MCGRATH, SEASIDE, FL

TOH carpenter Nathan Gilbert:

Adding some stylish hardware can be an important element in a kitchen makeover. Pulls are typically centered on cabinet drawer fronts (or slightly above center on very deep ones). On paneled doors, which are most common, knobs or handles are positioned on the vertical stile opposite the hinge side, up about 2½ to 3 inches from the bottom on wall cabinets or down from the top corner on base cabinets. A jig will consistently position knobs or pulls so you don't have to measure each time you install one.

To install the first door handle, carefully measure the distance between the handle's screw holes, center to center. Mark the lower installation hole, centered along the width of the stile and aligned with the top edge of the bottom rail. Then measure and mark the location of the upper hole. Hold the handle over the two holes to

HOLDING POWER

After checking the screw holes on the door-handle jig (inset), Nathan holds it in place while drilling. As an alternative, a spring clamp can hold the jig in place while you steady the door with one hand and drill with the other.



check the screw locations. Drill the holes with a bit just large enough for the screw to slide through. Clamp a piece of scrap wood on the exit side of each hole to limit tear-out when the drill exits the wood.

Use pine or plywood to make a three-piece drilling jig like the one shown above (inset). In use, the jig's drilling guide rests flat against the door stile; the two edge pieces register the guide on the corner of the doorframe. After you've assembled the jig, hold it against the back of the first door and drill through the two holes into the jig to transfer their location on the guide. The same jig will work for installing doorknobs or handles with different hole spacings; you'll just need to drill the new holes and label them.

To install handles on drawer fronts, you can also use an inexpensive off-the-shelf drilling jig such as Kreg's Cabinet Hardware Jig (kregtool.com). With this jig, mark only the center of each drawer front, then position the jig over your mark to drill holes for the hardware. Because many drawer boxes are made with finished false fronts, you may need extra-long breakaway truss-head screws to install your handles.

BROUGHT TO YOU BY

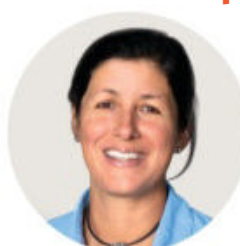


Soil testing

My perennial beds seemed to struggle last year—a neighbor says I should test the soil. What's the best way to do that?

—FRANCINE GOULD, THURMONT, MD

TOH landscape contractor Jenn Nawada:



In addition to sunlight and water, all plants need the right amount of the nutrients nitrogen, phosphorus, and potassium, as well as a beneficial pH level in the soil. The pH is measured from 14 (alkaline) to 1 (acidic); plants can absorb the most nutrients when the soil pH is around 5.5 to 7.5. For a small area, under 100 square feet, you can use a home testing kit; these come with four vials and either paper indicator strips or reactive tablets to test for pH, nitrogen, phosphorus, and potassium. It's best to take soil samples from several areas and mix them together for testing. Alternatively, you can use an electronic testing probe like the Rapitest 4-Way Analyzer (\$30; lusterleaf.com). For larger areas, I'd send soil samples to a local university extension program. Take 5 to 10 samples and mix them together for the most accurate reading—in a 100-foot-long area, dig up 1 cup every 10 feet, mix all 10 samples in a bucket, and send in 1 cup for testing. For a nominal fee, they will send you a report detailing which nutrients are present and which are lacking, and provide a recipe for what to add.

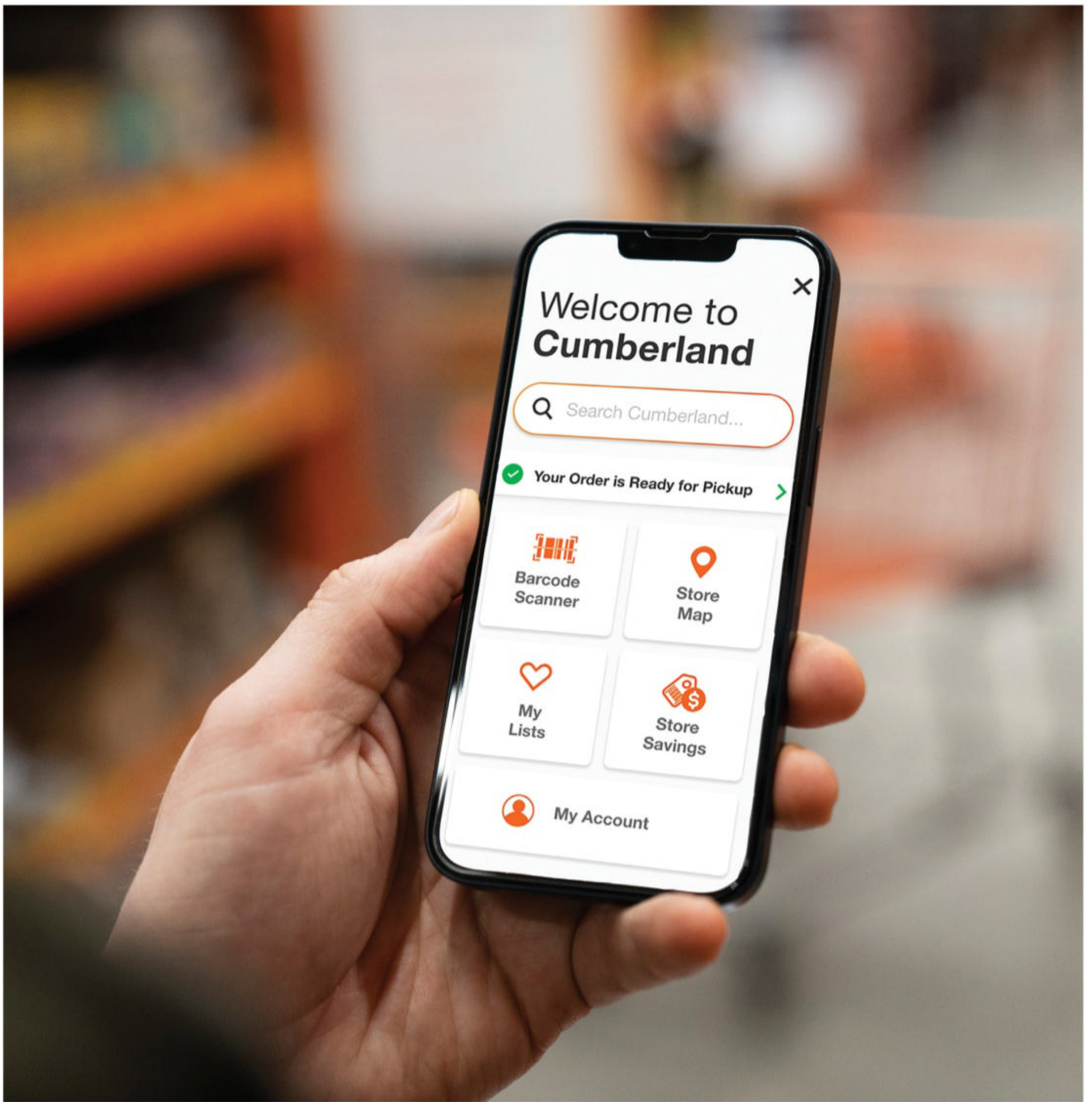


THE AT-HOME OPTION

Larger soil-test kits like this one (\$30; lusterleaf.com) offer 80 separate tests and detailed advice for various plant requirements and soil amendments.



WATCH See Nathan upgrade kitchen cabinets at thisoldhouse.com/cabinet-hardware



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Compost containment

I want to start composting at home.
What's better, a bin or a pile?

—MARGE LANIER, TYLER, TX

TOH landscape contractor Jenn Nawada:

The choice usually comes down to how much space you have, though some people find bins easier to aerate. If you have an out-of-the-way corner of the yard, you can create a compost pile about 5 feet square and fence it off on three sides with a simple frame of cedar posts and chicken wire. The advantage of a pile is more space for compost; leaving one side open makes it accessible for turning with a rake or pitchfork every three to five days to introduce oxygen into the mix, which is important to encourage decomposition. If space is limited, or you prefer not to see the pile, there are quite a few plastic composting bins on the market. Many are designed to spin around on a metal stand, which makes it easy to aerate by turning the compost mix. Because they are enclosed, bins will usually speed up the composting process.

When you start, remember a few guidelines. The ideal ratio by volume for composting is 3 parts brown material (dried leaves, twigs) to 1 part green (vegetable scraps, lawn clippings). Do not include meat, dairy, or fatty oils. Add a little topsoil, which contains microbes that help accelerate the decay process, and a little water to keep things moist. In a few months' time, you should have fresh, crumbly, brown compost that's ready to enrich your garden.



GOOD DIRT Jenn explains to Kevin how the right mix of recycled organic ingredients combine to improve lawns and gardens.

BONUS HOW-TO



SKILL: Moderate
COST: \$1,500
TIME: 36 hours

Edge a driveway with cobblestones

We're having some problems with our driveway; one edge, where it meets the lawn, is beginning to crumble. What can we do to fix this?

—ERIKA REYNOLDS, SUDBURY, MA

TOH mason Mark McCullough: One of the best ways to control erosion along a driveway and delineate the border between lawn and paving is to install Belgian block edging. Different block sizes are available, but I like to use one of the most common, blocks that are 4½×8½×4½ inches. This project doesn't require a lot of tools, but there's a bit of labor involved, so you'll appreciate having a helper. Also, you may find it best to divide a long run of edging into manageable sections of 20 feet or so, and complete one section at a time. In terms of tools, you'll need a couple of shovels, a rake, a tamper, and a rubber-headed mason's mallet, as well as sections of ½-inch rebar to keep the blocks aligned. You'll also need a wheelbarrow or mason's tub for mixing concrete, and some wire snips. For this project, I recommend setting the blocks on end in a single row called a soldier course; their upright position gives them a deeper foundation in the concrete that will help preserve the driveway's edge, while still creating about 4 inches of barrier above grade. When it's done, the top of your edging should be slightly above the level of driveway paving or pea gravel. Taking the time for a few extra steps in the installation will help prevent blocks from being knocked out of place or shifting because of frost heaves: lining the trench with gravel to improve drainage, placing rebar on either side of the blocks and bedding it in concrete to anchor the blocks, and sloping the concrete to channel water toward the lawn.

COMPOSTING: MEG REINHARDT; MCCULLOUGH: ANTHONY TIEULI

STEP-BY-STEP

1] Dig the trench. A good rule of thumb is to make the trench 10–12 inches wide, and about 12 inches deep. Keep the trench sides close to vertical if possible, and follow the edge of the driveway. When the trench is complete, tamp the soil flat with a hand tamper.

2] Fill with gravel and tamp. I prefer crushed stone for this application because it drains well, but pea gravel will also work. Shovel stone into the trench, and then use the shovel and a rake to create a level stone surface layer about 2 inches deep. Once this is done, compact the stone flat with the tamper.

3] Spread concrete over the gravel. Concrete mix is sold by the bag; you can mix one or two bags at a time. Add just enough water to achieve an oatmeal-like consistency; then spread a layer that's a couple of inches deep over the gravel.

4] Set your blocks. Install a soldier course, with blocks standing on end. Bed the blocks in the concrete, and butt blocks against one another, tapping them into position with a rubber mallet. Leaving the small gaps between the blocks, created by the stone's irregular surface, will allow for drainage.

5] Place the rebar. When the blocks are aligned edge to edge and along their tops, place ½-inch (#4) rebar on top of the concrete along both sides of the stones. Overlap adjacent lengths of rebar by 2 feet or so, and pull these connections tight with rebar tie wire (see Tip). Push the rebar into the concrete so it stays in place.

6] Cover the rebar with concrete. Spread enough concrete to cover the rebar, and use a mason's trowel to slope the outer application down toward the lawn. Allow the concrete to dry for a day, then cover it with more gravel on the driveway side and soil on the lawn side.



1



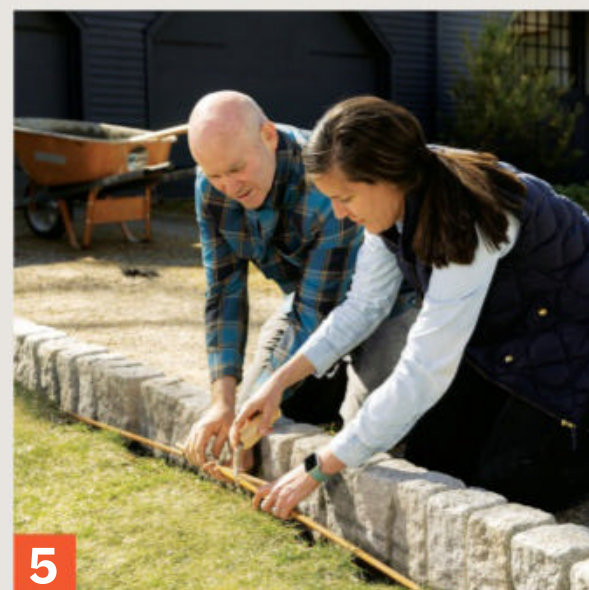
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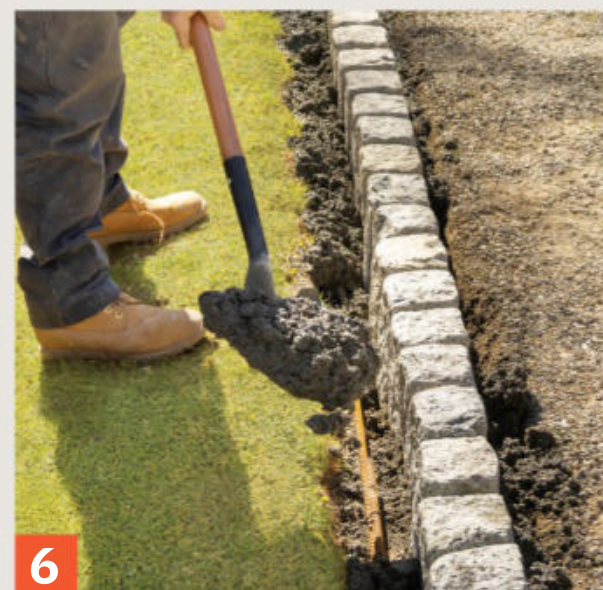
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5



6

TIP

DO THE TWIST WITH THIS WIRE-TYING TOOL

Rebar needs a tight wire connection where adjacent lengths overlap. You can save time—and your fingers—by twisting tie wire tight with a simple tool like this Tie Wire Twister (marshalltown.com).



Holes in framing

Our old house has undergone multiple renovations, and we're concerned about large holes made for pipes and ducts in the joists. Is there a way to restore the structural integrity of framing that's been weakened in this way?

—JIM WRIGHT, CHAGRIN FALLS, OH

TOH plumbing and heating expert Richard Trethewey:



You're right to be concerned about compromised framing. Building code prohibits holes greater than $\frac{1}{3}$ the joist's width (the latter number in 2×8 or 2×10). Code also stipulates that notches

can't be located in the center $\frac{1}{3}$ of the joist's span, and must not exceed $\frac{1}{6}$ the joist's width.

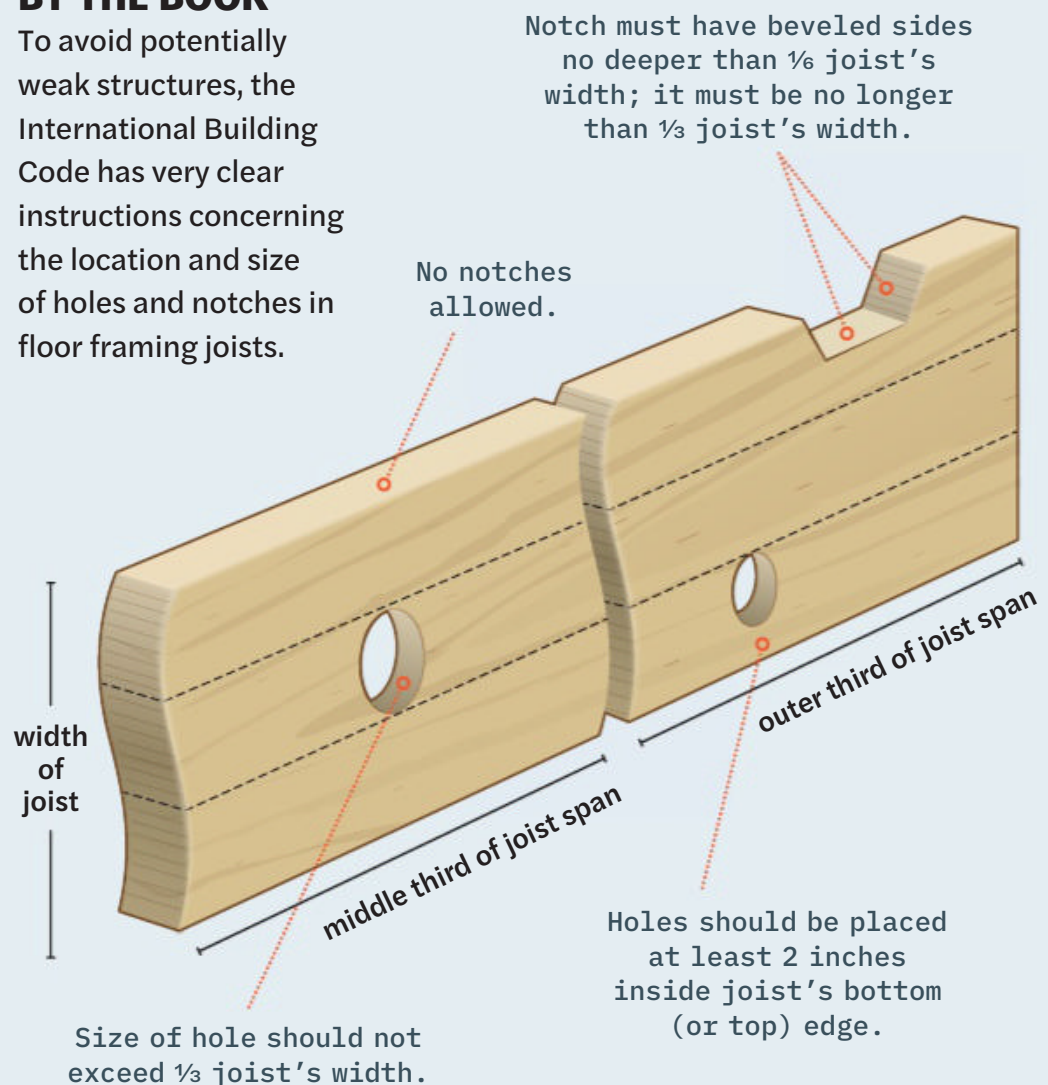
During new construction, workers are pretty diligent about adhering to these code requirements. But renovation often involves less-than-ideal working conditions, like cramped spaces that limit access and visibility. Inexperienced or unscrupulous contractors can also do work that compromises framing.

Fortunately, there are ways to restore structural integrity when joists have been weakened by improper plumbing or electrical installations. One option is to install blocking on either side of a joist where it has been weakened by notches or holes. Install pieces of framing lumber of the same width between the weak joist and the joists on either side so that they form an H pattern when seen from above or below. The blocking needs to fit tightly between joists to work effectively, and it's best to fasten blocking with construction screws rather than nails. You can also use galvanized joist hangers to secure the blocking. This additional framing will transfer some of the load that bears on the weakened joist to the surrounding framing.

Another option is to sister, or double up, the existing joist. If you're able to relocate plumbing pipes or ductwork away from a weakened joist, try sistering a new joist onto the original to stiffen up the structure. If the weakened joist is sagging or bowed downward, jack it back to level, then

BY THE BOOK

To avoid potentially weak structures, the International Building Code has very clear instructions concerning the location and size of holes and notches in floor framing joists.



TIP



Hardware fix

Even in new construction, there are rare times when a joist has to be compromised for the sake of the plumbing. A floor joist repair kit like this one (joistrepair.com) restores structural integrity with steel plates screwed on either side of the hole.

fasten a new joist to the old one with construction adhesive and 3-inch screws. (You can also substitute two layers of $\frac{3}{4}$ -inch plywood for a 2×; just make sure to apply construction adhesive between the layers.) The new joist should be as long as possible—ideally it should be the same length as the original, but at a minimum it should extend at least 3 feet beyond both sides of the weakened spot.

If it's not possible to relocate plumbing pipes or ducts, look for galvanized-steel repair plates for joists that have been compromised with holes (see Tip). The heavy-gauge plates are meant to be installed with manufacturer-specified fasteners. Repair hardware specifically designed to strengthen notched joists is available, too.

One or more of these strategies—blocking, sistering, or using specialized hardware—will enable you to make your framing as strong as it needs to be once more.



WATCH See Richard's methods for fixing floor joists at thisoldhouse.com/joist-repair

Reviving a hardwired doorbell

We have an original doorbell from 1939 that no longer chimes. How can we get it working again?

—ROSEANNE JEPSKY, MARBLEHEAD, MA

TOH master electrician Heath Eastman:



You can check the button, chime, and transformer with a voltage tester. If they all work, you'll need to replace the low-voltage wire.

To do that, carefully remove the doorbell chime from the wall, and detach the wires. Attach new low-voltage wiring to the old wiring with electrical tape, then use the old wire to pull new wire through the wall and out again, where they can be connected to the old components. This same snaking technique can be used to pull new wire from the chime to the transformer. If it's not possible to use the old wiring for this purpose, you can pull new wiring with fish tape (see Tip); attach the wire to the tape's hook and use the tape to direct the wire. You'll need a helper—one person to push the tape, while another person pulls it through the other side. Repeat the process from the chime to the transformer.

Once you've run new wire between the transformer, the chime, and the button, all that remains is the easy work. Attach the wires to the terminals on the transformer, button, and chime, and then wait for your first visitor to arrive.

FISH TAPE: DANA SCHIFFMAN



TIP



Pulling assistant

The secret weapon electricians use to snake electrical cable through walls or between floors: fish tape. It's stiff yet flexible, made of either steel such as the Wide Steel Fish Tape shown above (kleintools.com), or a non-conductive polyester. When using steel tape, always be sure to turn off the power to any nearby circuits.

BRING THE NOISE

Heath attaches new low-voltage wiring from the doorbell's transformer (located near the service panel) to the doorbell chime.



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Fine-tuning airflow

Our forced-air system leaves certain rooms too warm and others not warm enough. We've tried closing off some registers, but it hasn't really solved the problem. Is there a better fix for this?

—WARREN BERRY, LIBERTY, NY

TOH plumbing and heating expert

Richard Trethewey: You're not alone; surveys



tell us that about 70 percent of homeowners aren't happy with their forced-air system, mostly because of uneven distribution and the potential for air leaks. That's not that

surprising when you consider how complicated it is to design a well-functioning HVAC system, taking into account house size, insulation, airtightness, and local climate. Separate supply and return ductwork has to deliver balanced airflow based on room size, the duct runs, and the control characteristics of the dampers.

I suggest you call in an experienced HVAC contractor. After running some airflow tests, the contractor can suggest ways to decrease excessive airflow in certain duct runs and increase flow in others. The basic built-in dampers on supply registers throughout your house can perform this function, but they can be imprecise. If the ductwork is accessible, special "iris" dampers can be added in the existing ductwork runs to replace or augment existing dampers (see Tip).

But the best solution may be adding zoning using motorized dampers. Rooms or areas can be grouped together with separate thermostats. Modern systems, such as those from ZoneFirst, are "plug and play," with easy-to-wire connections and a bypass eliminator feature to avoid noise or frozen cooling coils.

But before you start any major alterations, determine if some of your discomfort is due to poor insulation or air sealing. For example, inadequate attic insulation, combined with air leakage around a ceiling light fixture, will make a second-floor bedroom noticeably cold, even when it's getting plenty of heat in the winter. And the reverse can be true in warm-weather months.

TIP



Damper upgrade

Adjusting a conventional damper is like driving blind; you can't see exactly what you're doing to the airflow. The benefits of an iris damper (shown) are that it opens like a camera lens, from 0 to 100 percent, and has ports that allow the airflow to be monitored and controlled efficiently. Another type, an automatic volume damper, is preset to a specific aperture, but is spring-loaded to respond to varying air pressure so it allows the same predetermined amount of airflow, even if the system's pressure is inconsistent. Both improve the distribution of hot or cold air.

Ask This Old House

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Include a complete address and daytime phone number. Published questions will be edited for clarity and length, and may be used in other media. We regret that, because of the volume of mail received, we're unable to reply to unpublished questions.



DRAINAGE FIX
Tom measures for a new section of downspout as part of a gutter rehab.

Stop the leaks

The gutters on our house don't seem to be clogged, but we still have leaks during heavy rains. What could be causing them? —ROSE BERENSKI, FENTON, MO

TOH general contractor Tom Silva: Gutter seams are sealed when the system is installed, so you can expect leaks to develop over time. Try applying a polymer- or rubber-based gutter sealant to seams at corners, downspouts, and other connection points—after clearing gutters of debris so the sealant can adhere effectively.

Downspouts deserve attention, too. Make sure the uppermost fitting extends *inside* the fitting below, and use only aluminum or stainless steel pan-head screws to join sections together. Gutters should be pitched toward the downspout; ½ inch for every 10 feet of run is adequate. If a gutter is longer than 40 feet, it should be pitched from a higher center point to downspouts at both ends. In snow country, the outer edge of the gutter should sit below the slope of the roof to prevent snow or ice from sliding off and snagging the gutter.

Finally, it's smart to give your gutter system a thorough inspection at least twice a year—even when no problems are evident. Gutters can be favored habitats for birds, insects, and rodents; gutter guards can help keep them out.

WATCH See Richard explain how to zone a forced-air HVAC system at thisoldhouse.com/hvac-zoning



FROM THE TOH JOB SITE Old House, New Vision (pp. 9–15) **General contractor:** Jerry Davis, Park Atlanta Homes; 678-489-3024. **Interior designer:** Theresa Ory; theresaoryinteriors.com. **Architect:** Chris Bailey; chrisbaileyarchitecture.com. **Landscape contractor:** Danny Blankenship, Automatic Lawncare. **Landscape contractor/tree stumps:** bouttetree.com. **Wallpaper design:** forbesmasters.com. **Wallpaper manufacturer:** mitchellblack.com. **Wallpaper installer:** taubertandco.com. **Little Free Library/postcard station carpenter:** Char Miller-King; thewoodenmaven.com. **Lightning-rod contractor:** atlantalightning.com. **Granite countertop fabricator:** gaganite.com. **THROUGHOUT > Interior hardware:** baldwinhardware.com. **Tile:** walkerzanger.com. **Plumbing fixtures:** us.kohler.com. **Insulation:** alpinesprayfoaminsulation.com. **Water heater, heat pumps:** rheem.com. **EXTERIOR > Roof:** gaf.com. **Pavers:** cherokeebrick.com. **Plantings:** buckjones.com, saulnurseries.com. **KITCHEN > Cabinetry & range hood:** HandyMan and CabinetMan; 770-309-7732. **Countertops, backsplash:** Pietra Bardiglio granite; walkerzanger.com. **Pendant lighting:** bigshipsalvage.com. **FIRST-FLOOR BATH > Mirror, faucet:** us.kohler.com. **PRIMARY BEDROOM > Custom platform bed:** sunbleachcustomwoodwork.com. **Custom chandelier:** theresaoryinteriors.com.

IDEA HOUSE: MOUNTAIN MODERN Stunning Views, Custom Spaces (pp. 16–21) **Designer/builder:** Amber and Jared Phifer, Revolve Design-Build; revolvedb.com. **Staging:** Bret Alexandra for Guest House; guesthousesshop.com. **THROUGHOUT > Air sealing:** aeroseal.com. **Windows:** thinkalpen.com. **Roofing:** gaf.com. **Solar roofing system:** gaf.energy. **Heating & cooling:** mitsubishicomfort.com. **Plumbing fixtures:** winsupplyinc.com. **Lighting fixtures:** urbanlightsdenver.com. **Tile:** bedrosians.com, emser.com. **EXTERIOR > Decking:** thedecksuperstore.com. **ENTRY > Front door:** realcraft.com. **LIVING-DINING AREA > Television:** TCL; **home-security systems:** Ring; both available at Best Buy; bestbuy.com. **KITCHEN > Major appliances:** LG STUDIO; **range hood insert:** Zephyr; all available at Best Buy; bestbuy.com. **COFFEE BAR > Coffee maker:** Ninja; available at Best Buy; bestbuy.com. **HOME OFFICE > Computing:** Microsoft Surface; **keyboard:** Microsoft; **monitors:** Dell; **adjustable-height desk, desk chair:** Steelcase; **bookcases:** Walker Edison; **file cabinet (not shown):** Hirsh; **television (not shown):** TCL; all available at Best Buy; bestbuy.com. **REC ROOM > Lighting:** Philips Hue; **video game console:** Microsoft Xbox; **game**

table: Arcade1Up; **popcorn-maker (not shown):** Bella; **ice-maker:** GE Profile; **television:** TCL; **wine refrigerator:** Insignia; all available at Best Buy; bestbuy.com. **GYM > Stationary bike, treadmill, kettlebells, dumbbells:** NordicTrack; **earbuds:** Jabra; **exercise mat, bench:** ProForm; **massager:** Theragun by Therabody; **gym flooring:** NEXT; all available at Best Buy; bestbuy.com. **NOT SHOWN > Outdoor projector:** Epson; **projector screen:** Insignia; **outdoor furniture:** Yardbird; **wood-fired grill:** Traeger; **washer/dryer, styler:** LG STUDIO; **vacuum:** LG CordZero; all available at Best Buy; bestbuy.com. **Beer-making equipment:** spikebrewing.com.

KITCHEN SOLUTIONS Free the Cook! (pp. 22–27) **REWORKING THE ANGLES > Designer:** Lindsay Boudreaux; shotgundouble.com. **Contractor:** Brian Elias; equityrenovation.com. **Paint:** Caldwell Green (walls), Stone (island); benjaminmoore.com. **Cabinets:** midcontinentcabinetry.com. **Island pendant:** westelm.com. **SEND IN THE CROWDS > Designer:** Kate Adams; casedesign.com. **Cabinets, floating shelves:** crystalcabinets.com. **Tile backsplash:** Zellige 2"x6"x7/8" in Snow White; riadtile.com. **FRESH LOOK AND FUNCTION > Designer/builder:** Stephen Gordon; insiteremodeling.com. **Interior designer:** Kori Keyser; keyserinteriors.com. **Paint:** White Dove (cabinets), Polo Blue (island), Sail Cloth (walls); benjaminmoore.com. **Cabinets:** elmwoodcabinets.com. **Tile backsplash:** architessa.com.

TIMELESS BATHS Vintage Charmers (pp. 28–33) **A SHAPELY DOUBLE SINK > Designers:** Nicole Cole and Brooke Sipe; vestige-home.com. **Sink:** Randolph Morris Console Double Bowl Bathroom Sink; vintagetub.com. **Faucet:** us.kohler.com. **Tile:** tilebar.com (walls), flooranddecor.com (floor). **Sconces:** rejuvenation.com. **Paint:** Alphano Beige (walls), October Mist (beadboard); benjaminmoore.com. **COLORED TILE, FLORAL WALLPAPER > Designer:** Sean Lewis; airykitchens.com. **Wallpaper:** Garden Party in Indigo Multi; riflepaperco.com. **Tile:** Vector 4x8 in Azul Blue (walls), tilebar.com; American Restoration Tile penny rounds in Pattern H1226 (floor), restorationtile.com. **Vanity with sink:** potterybarn.com. **Sconce:** hvlgroup.com. **Mirror:** westmirrors.com. **A COPPER CLAW-FOOT TUB > Copper tub (similar to shown):** 66" Donnelly Hammered Copper Slipper Clawfoot Tub with Roll Top; signaturehardware.com. **Faucet, glass shelves:** signaturehardware.com. **Toilet:** totousa.com. **Tile:** londonmosaic.com (floor), interceramicusa.com (walls). **Sink:** qualitybath.com. **Medicine cabinet:** potterybarn.com. **Heated towel rail:** carronheating.co.uk.

FROM THE TOH JOB SITE Good to Be Home (pp. 34–41) **Architect:** Ken Savoie; savoienolan.com. **General contractor:** Charlie Silva; silvabrothers.com. **Plumbing:** Bilo Plumbing & Heating; biloplumbingandheating.com. **Masonry:** Mark McCullough, MJM Masonry Inc.; mjmmasonry.com. **Electrical:** Eaton & Eastman Electric; eatonandeastmanelectric.com. **Interior design, furnishings:** Kerry Vaughan, Red Bird Trading Co.; redbirdnewburyport.com. **EXTERIOR > Roof:** gaf.com. **Sod:** sodco.net. **Trim:** trimsolutions.net. **Hardscaping:** unilock.com. **EV charger:** chargepoint.com. **THROUGHOUT > Circulators, boiler controls:** emersonswan.com. **Boiler, water heater, gas fittings:** viessmann-us.com. **PEX piping, radiant floor parts:** viega.us. **Ductwork:** unicosystem.com. **Windows:** andersenwindows.com. **Doors:** broesco.com. **Faucets, fixtures, fittings:** fwwebb.com, americanstandard-us.com, dxv.com. **First-floor flooring:** huntcustomwood.com. **KITCHEN > Cabinets:** conorscarpentry.com. **Range hood:** appliancewhse.com. **Stove:** fulgor-milano.com. **Refrigerator:** subzero-wolf.com. **PRIMARY BATH > Shower door:** visionshowerdoors.com. **SECOND-FLOOR BATH > Shower door:** edosonline.com.

FROM THE TOH JOB SITE Taking on a 1700s House (pp. 43–47) **General contractor:** silvabrothers.com. **Architect:** Benjamin Nutter, AIA; benjaminnutter.com. **Timber-frame expert:** Arron Sturgis; preservationtimberframing.com. **Landscape design:** Rue Sherwood; ruesherwood.com. **Plumbing:** biloplumbingandheating.com. **Masonry:** mjmmasonry.com. **Exterior insulation boards:** ZIP System; huberwood.com.

RENO PLANNER Building a Wet-Room Bath (pp. 60–67) *Thanks to* Jim Dow, CEO and founder, Dowbuilt. Joe Cannato, Cannato Flooring, Stratford, CT. John Hamilton, AIA, Hamilton Architects, Los Angeles. John Lum, AIA, John Lum Architecture, San Francisco. Matthew McHenry, project manager, Jetton Construction Inc., Berkeley, CA. Rick Thomas, cofounder, Thomas Custom Builders, Manassas, VA.

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SAVE This Old House

Fanciful Queen Anne with celebrated ties

THE HISTORY This two-story farmhouse was built circa 1860 by John T. C. Wilkins, a prominent local merchant who owned the town's original

PRICE \$44,900

LOCATION

Campbellsburg, IN

CONTACT

Greg Sekula,
Indiana Landmarks;
gsekula@indiana
landmarks.org

grist mill. In the late 1890s, Wilkins's son William remodeled the house after a design by acclaimed architect George F. Barber, making it one of four Barber houses the Wilkinses built in town. The house

stayed in the family until 1989 and was occupied until a couple of years ago. In 2021, the town acquired it with plans for demolition. Last year, recognizing its architectural significance, Indiana Landmarks won the right to market the house to a preservation-minded buyer.

WHY SAVE IT? The exterior showcases signature Barber details including stained-glass windows, porches with ornate spindles, decorative entry doors, and gingerbread fretwork. Two fireplace mantels, a paneled oak staircase, pocket doors, and wide-plank floors remain inside. A local landmark, the house is the earliest of the Wilkinses' Barber homes, which survive as an architecturally notable group. On a half-acre lot with four outbuildings included in the sale, the house is an hour's drive from Bloomington, IN, and Louisville, KY.

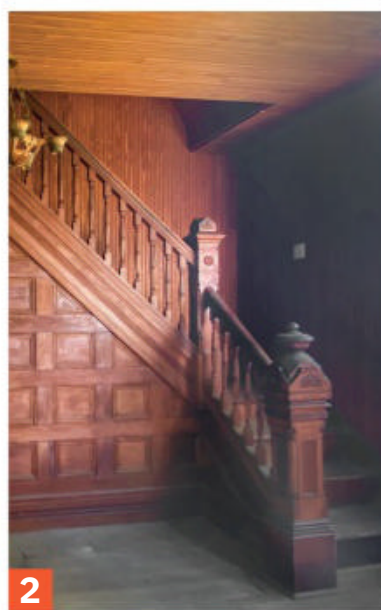
WHAT IT NEEDS An overall rehab is required, including a new kitchen, bath updates, and all new systems. Outside, decorative detailing, porches, gutters, clapboard siding, and some stained-glass windows need repair. While the house is believed to be structurally sound, sill and framing repairs are necessary and some roof flashing needs attention. Preservation covenants govern the exterior work and certain interior features. The reward is a chance to live in a Barber-designed house that deserves to stay put and stand proud. —SUZANNE ZENKEL



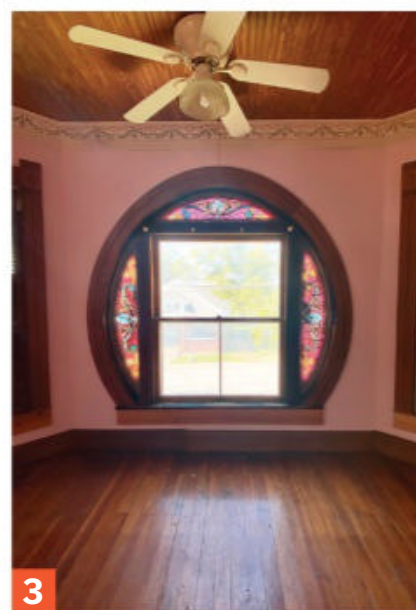
1



1. The 2,063-square-foot house retains many details from the Queen Anne remodel, on full display in a circa 1898 photo (inset). Among the most notable are horseshoe and arched stained-glass windows, variously patterned shingles, and three elaborate porches. Some pedimented window hoods date back to the original build.



2



3

2. Barber-designed details remain inside, among them a paneled oak staircase with handsome newel posts.

3. Horseshoe-shaped stained-glass windows lend the house—and this upstairs bedroom—character as well as light.



4

4. In one of two parlors, pocket doors and their casings remain, along with wide-plank flooring and a mirrored overmantel with a well-preserved tile fireplace surround. Metal stove mats found in the house suggest that stoves were the main heat source, while the fireplaces were mostly decorative.



GOT A HOUSE? If you know of an old house for sale that should be saved, write to **This Old House**, 262 Harbor Dr., Stamford, CT 06902 or savethisoldhouse@thisoldhouse.com



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