

Savvy & Sustainable

A Dated Texas Floorplan
Transforms Into a
**MILLENNIAL'S DREAM
HOUSE**

ReVISION
House
Austin
LIFE WITH PURPOSE

Energy efficiency, even on the go. Wine refrigerators from Signature Kitchen Suite—available in stainless steel and panel-ready options—include multiple temperature zones for wine. Plus, all SKS appliances can be controlled with smart technology. This is a useful energy-saving feature for Cooper for when she travels.

CREDIT: BRIAN COLE PHOTOGRAPHY



ATTAINABLE SUSTAINABILITY

A Millennial's New Green Remodeled Home

Many older homes lack the energy-efficient design features of more recently built residences. The ReVISION House Austin addresses the challenges of adapting an existing dwelling to match the sustainability goals of today's younger home buyers.

BY MICHELE LERNER

The 1980s and 1990s are known for big hair and big houses with cathedral-style ceilings, often referred to as McMansions. Today, the **median age of owner-occupied homes** in the United States is 39, which means that plenty of people own a home that was built in 1982.

Just four percent of owner-occupied homes today were built in 2010 or later, according to the National Association of Home Builders. The result: Even if young buyers would prefer an energy-efficient smart new home, they may be forced to buy a home that is ripe for remodeling.

"We have to address the existing built environment if we want to meet our climate goals," says Sara Gutterman, CEO and co-founder of Green Builder Media. "These homes are not energy efficient, not healthy, and not resilient."

The New Plan



Home Details

PROPERTY LOCATION: Georgetown, Texas, in the San Gabriel River Estates neighborhood

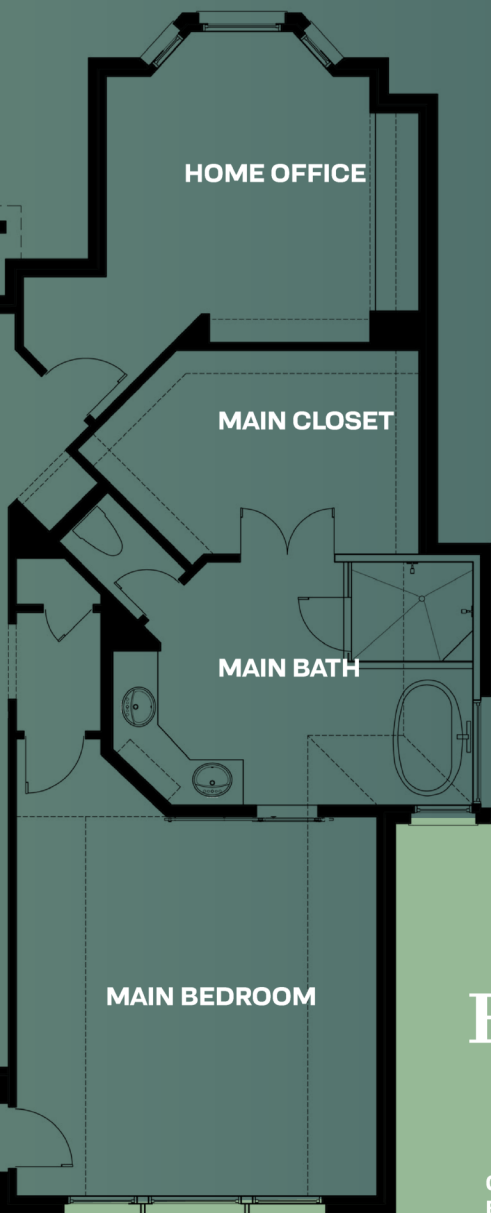
AGE OF HOUSE: Built in 1998

ORIGINAL SQUARE FOOTAGE: 3,445 square feet

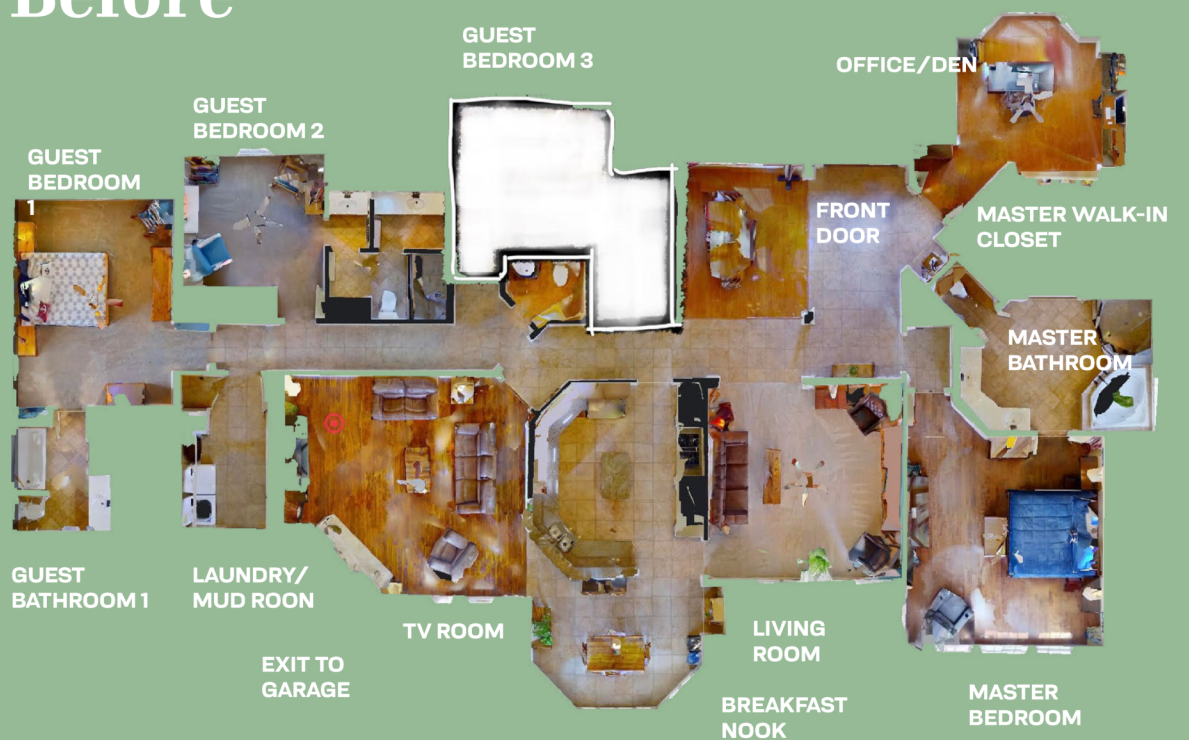
REMODELED SQUARE FOOTAGE: All remodeling within original 3,445-square-foot footprint

LOT: 1.98 acres

TYPE OF CONSTRUCTION: Stick frame clad with stone



Before



Green Priorities

Austin millennial Tiana Cooper, owner of the ReVISION House Austin, wanted to improve her house to match her priorities within a finite budget.

“Tiana’s house is a perfect example of an older, larger house that we could renovate to be more sustainable in order to show how this can be done with older housing stock around the country,” says Gutterman. “Ultimately, our goal was to achieve a baseline level of sustainability rather than go to a ‘space shuttle’ level of green that’s unattainable for people on a budget.”

For Cooper, a blogger, foodie, and traveler, the top priorities were cooking, and replacing the multiple types of flooring in the house with an aesthetically pleasing look that could stand up to her dogs. She also wanted a healthier house with better indoor air quality to ease her allergies and to improve its energy efficiency, including the swimming pool.

The ReVISION project was an ideal collaboration for Signature Kitchen Suite. “Our appliances are designed for individuals who are passionate about cooking, and want that luxury experience combined with technological innovation and efficiency,” says Rod Gower, SKS senior regional sales manager. “With industry-only features such as built-in sous vide, to wine column refrigerators with a *Signature Sommelier* app that allows you to manage your collections in never-before-seen ways, we were able to deliver the culinary precision, performance and style to this ‘technicurean’ homeowner and address her desire for smart, healthier and greener living.”

Replacing the HVAC system created several benefits for Cooper, including lowering her energy bills and improving the home’s comfort

level and efficiency.

“We were excited to dive in and help this millennial homeowner tackle issues such as addressing the inconsistent temperature fluctuations in various areas of the home—a major pain point—to increasing the overall efficiency of the space and help reduce her utility bills,” says Lorie Quillin-Bell, marketing director for the air conditioning technologies division of LG Electronics USA.

LG installed two highly efficient and high-performance HVAC systems. “One was retrofitted into an existing ducted system and the second was a ductless system, both connected to the outdoor heat pump,” Quillin-Bell says. “We delivered a more efficient, comfortable environment for the homeowner, while also helping reduce the home’s overall environmental footprint.”

Features such as solar modules from LG Electronics and insulation from Greenfiber make the home more energy efficient, while the central vacuum system from H-P Products improves Cooper’s indoor air quality by removing allergens and dog hair from her rooms.



Dream weaver.

Cooper’s Austin home has wonderful high ceilings and big windows in the primary suite, which also once included carpet that attracted dog hair and was a magnet for allergens. New floors from Mohawk provide cleaner, environmentally friendly surfaces that contribute to Cooper’s healthier home.

CREDIT: BRIAN COLE PHOTOGRAPHY





Living color. Mixing textures can be as important as using contrasting colors to create interest in a home. Cooper's rough-hewn stone fireplace in the family room offsets the smooth white walls, polished wood floors and sleek modern kitchen.

CREDIT: BRIAN COLE PHOTOGRAPHY



Form and function. The big footprint of Cooper's house and lack of insulation made it inefficient, especially in Austin's heat. Cooper's light and airy color palette and decorating style help keep the house looking cool, while the addition of two new HVAC systems and Greenfiber insulation work together to improve energy efficiency. CREDIT: BRIAN COLE PHOTOGRAPHY



Technicureans unite!

Wood and metal barstools offer guests a place to relax at the breakfast counter while Cooper, a self-proclaimed foodie, enjoys cooking with the modern stainless-steel appliances from Signature Kitchen Suite in the large kitchen. (Psst: If you don't know what a technicurean is, it's a foodie who cooks with high-technology products.)

CREDIT: BRIAN COLE PHOTOGRAPHY

**RIGHT: Green, clean,
and lustrous.**

The Viatera Quartz counters from LX Hausys America, in Adagio Gold, are 93 percent quartz and created using an eco-friendly manufacturing process.

CREDIT: BRIAN COLE PHOTOGRAPHY



BELOW: Subtle nod.

Wood doors and a light fixture with wrought iron detailing provide rustic contrast to the clean white walls and neutral modern furniture in Cooper's living room. They also provide a transition from the aesthetic of the exterior (which was not in the budget for an update) with the new contemporary interior.

CREDIT: BRIAN COLE PHOTOGRAPHY





Air of sophistication. A clean color palette, a sleek contemporary sink from BOCCHI and new Mohawk flooring create the modern look Cooper wanted to update her 1990s bathroom without requiring a complete—and costly—bathroom overhaul. CREDIT: BRIAN COLE PHOTOGRAPHY

Value-minded

But Cooper also wants a beautiful home that reflects her values. In the kitchen and bathrooms, she chose *Viatera Quartz Surface* and *HI-MACS Solid Surface* products from LX Hausys America. Since the products are manufactured in the United States using eco-friendly processes and have exceptional durability, they are a good fit for today's sustainability-minded homeowner, says Claudia Mueller, marketing director for LX Hausys America.

Cooper's priority for the floors was to find durable products that are attractive and yet fit in her renovation financial plan. Her flooring choices from Mohawk include *UltraWood*, *Pergo Extreme*, and *Ever-Strand*, all products that can stand up to water drips from swimming in the pool as well as dog traffic.

And speaking of the pool: Cooper put as much emphasis on the outside of the pool as the inside of the house. "We love to show how rewarding it is to bring an older pool up to modern standards," says Dave MacNair, vice president of marketing for swimming pool equipment supplier Hayward. "It's not hard to accomplish, and it checks so many boxes because it's easy to do. It provides huge efficiency improvements and big increases in pool enjoyment by getting rid of red eyes and putting pool control on your smartphone."

"We did this project with millennials, for millennials, to tap into their priorities and demonstrate how they can be met even when there are budget constraints," says Gutterman.

Green Builder is proud to showcase the results of this millennial show home project on the following pages. Don't forget to check out the Product Guide, which gives the details on all the innovative, sustainable, and health-conscious products and systems used in the home.



Clean, clear and efficient. The aging swimming pool at Cooper's house got an upgrade that includes new equipment from Hayward to increase its energy efficiency and reduce the amount of harmful chemicals in the water.

CREDIT: BRIAN COLE PHOTOGRAPHY



Wide Ranging. The 48-inch *Dual-Fuel Pro Range* from Signature Kitchen Suite includes a unique sous vide function and induction cooktop. In addition, the home upgrade includes SKS 30-inch *Combination Wall Oven With Steam*, offering the ability to cook foods with less oil. CREDIT: BRIAN COLE PHOTOGRAPHY

"The ReVISION House Austin project was an ideal collaboration for Signature Kitchen Suite, as our appliances are designed for individuals who are passionate about cooking, and want that luxury experience combined with technological innovation and efficiency. With industry-only features such as built-in sous vide, to wine column refrigerators with a *Signature Sommelier* app that allows you to manage your collections in never-before-seen ways, we were able to deliver culinary precision, performance, and style to this 'technicurean' homeowner and address her desire for smart, healthier and greener living."

**ROD GOWER, SKS SENIOR REGIONAL
SALES MANAGER**

Product Guide

The ReVISION House Austin was made possible by the contributions of sponsors that are dedicated to creating today's most innovative homes. Read on for details on all products showcased in the home.

SIGNATURE KITCHEN SUITE (SKS)

For homeowners who are passionate about cooking, and appreciate technological innovation and peak performance, this suite hit all the hot buttons. Cooper's appliances come with Wi-Fi integration, so that she can control them with SKS's app. Installed products include:

Signature Kitchen Suite 48-inch *Dual-Fuel Pro Range with Sous Vide & Induction*, the first range with built-in sous vide function. This means that food is vacuum sealed and immersed in warm water. The induction cooktop function cooks using electromagnetism, directly heating the pots and pans, allowing for quicker cooking time, minimizing heat loss and reducing energy consumption.

Signature Kitchen Suite 30-inch *Combination Wall Oven With Steam* not only reduces the loss of nutrients in food, but eliminates the need for cooking oil, greatly reducing emissions.

Signature Kitchen Suite's 30-inch *Integrated Column Refrigerator and*



Simple Power

With its sleek commercial look, the PowerSteam 24-inch dishwasher matches the rest of the Signature Kitchen Suite.

CREDIT: BRIAN COLE PHOTOGRAPHY



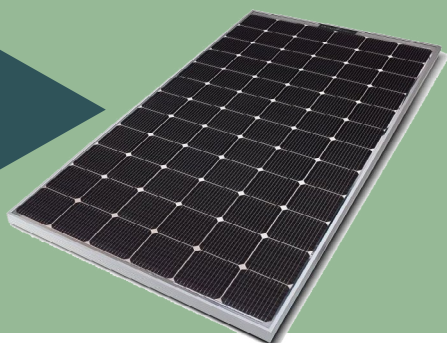
Smart Fridge

Cooper settled on a well-appointed column refrigerator to accommodate her cooking interests. Both models are enabled for remote operation, ENERGY STAR certified and offer precise preservation technologies.



Power House

Installed by NATiVE Solar, the 12 kilowatt solar array features 35 NeON 2 panels from LG Solar, each rated at 350 watts.



Power Player

LG's 54,000 BTU Ductless Mini Split Heat Pump Inverter provides heating and cooling.



Freezer runs on an inverter compressor. Artificial intelligence will even switch it to "Energy Save Mode" at times when Cooper is less likely to open the fridge. Similarly, "Vacation Mode" on the app also allows her to save energy when traveling. SKS refrigerators have a wetter evaporator that holds humidity, so it actually allows you to keep vegetables fresh longer.

ALONG WITH:

- SKS 36-inch *Counter-Depth French Door Refrigerator with Craft Ice*
- SKS 48-inch *Pro-Style Wall Hood*, which communicates directly with range, so burners and fans are synchronized and IAQ ensured
- Two SKS 18-inch *Integrated Column Wine Refrigerators*
- 24-inch *PowerSteam Stainless Steel Dishwasher* (two—one in kitchen and one in butler's pantry)
- 24-inch *Microwave Oven Drawer* in the butler's pantry

SOLAR MODULES

The Austin house is reducing its carbon footprint with 35 high-efficiency 350-watt panels from **LG**. These NeON 2 modules, installed by NATiVE Solar, are designed to deliver a maximum power output of 12.25 kilowatts (based on the inverter type).

The jet black panels produce impressive power per square foot, meaning they occupy less roof space than some other modules to create the same amount of electricity. The panels also have an exceptional temperature coefficient. So, when temperatures hit extremes, the solar modules will continue to perform efficiently.

LG HVAC DUCTLESS MINI-SPLIT PACKAGE

A new multi-zone heating and air conditioning system offers vastly better performance than the old HVAC system in the Austin house. It's not only the fact that insulation levels in much of the house will be increased. It's also the fundamental difference between old and new HVAC technology.

LG's inverter compressors raise the efficiency bar even higher than standard heat pumps because they run at variable speeds. That means that they ramp up to necessary speed, and do not draw a massive surge of power. Unlike conventional systems that cycle on and off, an inverter compressor ramps up or down to match the capacity needed to maintain the ideal comfort levels. On top of this, variable speed units are more compatible with battery storage. If Cooper adds a battery bank to the home's solar array later, she'll be able to run her HVAC during a power outage.

Cooper's install included: an LMU540HV Multi F-MAX Inverter Heat Pump outdoor unit (shown), and a single zone LUU420HHV. Tied in with these outdoor units are indoor units, including an LAN090HSV5 (ARTCOOL MIRROR) in the pantry. The package also included an LVN361HV4, which is a 4-way variable speed air handler (VAHU), capable of 36,000 BTU cooling, or 40,000 BTU heating, and another LVN420 4-way VAHU, with slightly higher output. These units provide rapid response heating or cooling for the home.

LX HAUSYS COUNTERTOPS AND SURFACING

The Austin house features a range of countertop, surface and flooring products from **LX Hausys**, including quartz (Viatera) and solid surface



Sun Kissed

With shades of gold, *Calacatta Sol* surfacing in the master bath adds a high-end luster and is part of the *Viatera* line.



Midas Touch

With similar gold highlights, *Adagio Gold* manufactured countertops from LX Hausys contain up to 93 percent quartz. You'll find them in ReVISION House Austin's kitchen.

CREDIT: BRIAN COLE PHOTOGRAPHY



Retractable Help

Chosen specifically to deal with excessive dog hair from the family pet, the whole-house vacuum from H-P Products includes a retractable hose.

(*HI-MACS*). The company also makes resilient flooring (*HFLOR*).

Several countertops, along with the kitchen backsplash, are made with a quartz-based manufactured product called *Viatera*. This ultra-durable material is not only beautiful, but more sustainable than most quarried stone. It contains up to 93 percent natural quartz, resulting in high durability and higher tensile strength than natural stone products, which typically contain between 20 and 60 percent quartz.

MASTER BATH: *Calacatta Sol* meets the ongoing trend toward bright whites. Available in a polished finish, it has a striking white appearance, fused with shades of gold, with large-pattern veins and set upon a backdrop of warm, twirling hues.

KITCHEN COUNTERTOP: *Adagio Gold*. This new color is designed with a soft, yet brilliant base, and features thin gold veins, to create a sense of brightness and accent in any room.

KITCHEN BACKSPLASH. As a creative, low-maintenance detail, *Viatera* quartz has been installed in place of tile as a continuous, modern backsplash design. Along with the two colors described above, popular backsplash colors include:

Gotham—One of two colors from the all-new *Urban Collection*, *Gotham* is a concrete-inspired design that brings an edgy, industrial look softened by unique marbling. Stone-gray hues and whisper-thin neutrals bring a sleek and sophisticated look.

Carbo—With a dark base, shot through with long diagonal light grey veins running, *Carbo* takes inspiration from *Soapstone*.

**Note that Viatera colors contain up to 93 percent natural quartz, resulting in advanced durability and higher tensile strength than natural stone products, which typically contain between 20 to 60 percent quartz. Non-porous, Viatera is easy to clean and maintain and offers hygienic benefits. Unlike other stone products, Viatera does not require sealing. It's also NSF certified.*

LAUNDRY COUNTERTOP. This top is made from *HI-MACS*, a solid surface material that is super durable, non-porous and commercial-ready. Cooper chose Gray Teak as the color, from the *Wood Collection*. This contemporary collection displays intricate, realistic, weathered wood grain patterns and knots.

H-P PRODUCTS CHAMELEON CENTRAL VACUUM

With a retractable hose, automatic hose lock and a dual-seal system, this quiet, efficient whole house vacuum puts itself away, and keeps dander and pollutants indoors down. **H-P Products'** *Chameleon* vacuum delivers everything that the unit picks up into a container in the garage, keeping dust and dirt far from living spaces.

The whole-house vacuum was a priority for Cooper, who is a dog owner and a foodie. Those two passions are not ones that she would ever want to have crossover. *Chameleon* takes pet hair and dander completely out of the home, not simply tossing it into the air the way



Sound Crusher

Along with its insulating factor, GreenFiber's *Sanctuary* cellulose insulation reduces the amount of sound that makes it through walls or joists dramatically.

SANCTUARY: ESSENTIAL SPECS

- 60% reduction in sound power
- 25% reduction in heating and cooling costs
- Made from 85% recycled material
- Coverage Area (square feet): 48.8 at R-19
- ENERGY STAR certified
- Formaldehyde free
- Limited lifetime warranty
- R-Value per Inch: 3.7



CREDIT: BRIAN COLE PHOTOGRAPHY

Recycled Flooring

The Austin house features Mohawk's *UltraWood* throughout. Specially designed to resist spills and stains, it's made with 85 percent recycled material.

some conventional vacuums do.

A sealed bag in the remote canister can be removed easily, without spilling or the need for additional cleanup. The bags, however, last for up to a year, so replacement is not a regular chore. This part of the unit's mechanics could also be located in a basement or mechanical room, and one hose can access 2,200 square feet, so there's no need for switching hoses to reach different rooms, unless you want extras for convenience.

Designed to last for the lifespan of the home, *Chameleon* not only has health benefits, but it also reduces the need to replace whole-house furnace or ventilation filters.

GREENFIBER SANCTUARY RECYCLED INSULATION

Made with 85 percent post-consumer recycled paper, **GreenFiber** cellulose insulation has been designed to fill even the smallest cracks and crevices in walls, ceilings or attics. Its unique formula makes it especially effective not only at insulating, but also at sound attenuation. In Cooper's remodel, it's being used to "silence" noise from laundry and appliances between walls, and provide places to work at home or find quiet sanctuary throughout the home.

Sanctuary cellulose locks in 1.34 tons of carbon dioxide during the lifetime of a typical home. That's the equivalent CO₂ absorbed by about 807 trees. The product installed at Austin, *Sanctuary* has an insulating value of about R-3.7 per inch. So for a 6-inch conventionally framed wall, Cooper can expect center-of-wall R-20.5 (5.5 inches by R-3.7 per inch).

MOHAWK'S ULTRAWOOD FLOORS

In the main living spaces at ReVISION House Austin, **Mohawk's** *UltraWood* hardwood floors offer water-resistance, easy cleaning and durability. Mohawk brands these qualities as *EasyClean*, *WetProtect*, and *EverLast* technology. The flooring also offers premier protection from dents, scratches, soil and stains. The boards can be installed with minimal tools and labor via a glueless locking system. Other products installed at the Austin house include:

PERGO EXTREME. For the laundry room, *Pergo Extreme* luxury vinyl tile was chosen for its durability and ease of cleaning. This product line is dent proof, waterproof, kid proof and pet proof (important, since Cooper is a dog owner). It also resists fading, stains and scratches, and muddy boots won't grind dirt into the surface.

EVERSTRAND CARPET: Mohawk's *EverStrand* carpet was used in the bedrooms. Not only is the carpet 100 percent recycled, but it's also formulated to resist stains and dirt. To create this carpet, Mohawk diverted more than 50 billion plastic bottles from oceans and landfills. This plastic will serve for many more years as *EverStrand* carpet.

BOCCHI CONTEMPO STEP-RIM SINK

BOCCHI supplied several sinks for the ReVISION House Austin. What makes these sinks special is not just their handsome look, but also the fact that they are made from fireclay, a 100 percent natural, recyclable product. It's fundamentally a refractory clay that has high aluminum content.



CREDIT: BRIAN COLE PHOTOGRAPHY

Elegant Utility

BOCCHI's fireclay *Contempo* sink is not only functional and spacious, but also made from 100 percent recyclable fireclay.



The company has just doubled down on its sustainability efforts. According to its website, "Any unfinished, unfired material can be repurposed into new products, resulting in zero waste. In the United States, select industrial landfills will accept customers' old sinks to be recycled, and in the company's home country of Turkey, sinks are repurposed into road construction material. In addition, BOCCHI requires that its production process yields zero hazardous waste."

"Sustainable processes and the use of materials that benefit the planet have always been the core of who we are and what we do at BOCCHI," explains Akgun Seckiner, chief executive officer at BOCCHI.

Bocchi supplied luxury sinks for the Austin ReVISION House: a 36-inch sink for the kitchen, and a 33-inch *Sotto Sink* (60/40 split) in the butler's pantry, plus another model for the bath.

HAYWARD POOL PRODUCTS

Upgrading the pool filtration, lighting and controls offered Cooper the potential for major energy saving, at the same time giving her more control over pool maintenance. Replacing the single-speed pump with a variable speed model alone is likely to reduce monthly energy costs for pool filtration by more than half. Here's a rundown of some of the new product features from **Hayward**:

1.85HP TRISTAR VARIABLE SPEED PUMP (HL32900VSP)

The *TriStar VSP* is industry-leading in terms of energy efficiency, saving up to 90 percent in energy costs, and can modulate its speed, meaning the pump slows down or speeds up, depending on the current demand.

OMNI SMART HUB CONTROLLER (HLH485RELAY)

Hayward's *Omni Smart Hub* controller takes care of scheduling and integrates in-app smart control. It controls a full range of equipment, including pumps, heaters, lighting, sanitization, water features and more. The *Alexa*-capable hub can be controlled with just your voice.

DE FILTER (DEP-60 W/SP0425)

Engineered with cartridge convenience and Diatomaceous Earth (DE) technology, Hayward's DE filter is simple and fast to maintain but provides superior water clarity. The DE filtration offers exceptional dirt-trapping capabilities, while a reduced number of pleats significantly decreases cleaning time. This filter significantly reduces water consumption and chemical use.

HAYWARD QUICK CLEAN ROBOTIC CLEANER (RC9990CUB)

With a four hour complete cleaning cycle for walls, floor, coves and waterline, the *Quick Clean Robotic Cleaner* proves quick and efficient. In a rush? The *Quick Clean* technology lets you run a fast 90-minute cycle for a speedy touch-up. The on-board pump delivers intense vacuum power to suck up dirt and debris. The system runs separately from the pool's filtration system and reduces the frequency of filter backwash cycles.

COLORLOGIC LED POOL LIGHTS (LPCUS11100)

Ten fixed colors and seven color-changing light shows while reducing energy use by 86 percent is made possible with Hayward's *ColorLogic* LED pool lights. Perfect for steps, beach entries and fountains as well,





Pool Gear

Installed equipment includes (left and counterclockwise) Hayward's *Quick Clean Robotic Cleaner*, a Paramount *Clear O3+UV2* filtration add-on, a diatomaceous earth (DE) filter, a remote controller, energy-efficient LED lighting, and a super-efficient filter pump.



Multi-Featured Opener



The LiftMaster system interconnects with a security camera and smart home connectivity. The system can send alerts to a smartphone and allows remote access for deliveries.

you can instantly navigate to desired color and dim lights at increments of 20 percent.

UV203 KIT ULTRA CLEAR (006422004000)

Hayward recently acquired the Paramount Leisure line of pool products. The Austin house project will include the Paramount *Clear O3 +UV2 System*, a filtration accessory that instantly kills 99.9 percent of harmful bacteria, viruses, fungus, and algae. The green angle? It also reduces chemical demand by up to 60 percent. The ozone and UV work together to increase efficiency of chlorine while creating a cleaner and healthier pool environment.

LIFTMASTER 8500W GARAGE DOOR SYSTEM

Along with a Wi-Fi-enabled, powerful garage door opener, **LiftMaster's** latest opener, installed at the Austin ReVISION House, includes a full-featured smartphone-ready *myQ App*.

The wall-mounted *8500-W* garage door opener reduces noise and vibration, while freeing up ceiling space.

From the *myQ App*, Cooper will be able to track and control garage access from anywhere. For example, she can give remote access for Amazon deliveries, set it up for *Amazon Key In-Home Delivery* service, or receive security alerts whenever the door is accessed.

For enhanced security, the automatic garage door lock deadbolts the door automatically after closing, and connected LED lights illuminate every inch of the garage, with 1,500 lumens. **GB**

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