RESORT-STYLE LIVING MEETS ENERGY SMARTS IN A SLEEK AND LUXURIOUS MIDCENTURY RETREAT

BY AMY ALBERT, EDITOR-IN-CHIEF
PHOTOGRAPHS BY JEFFREY A. DAVIS, DAVIS PHOTOGRAPHY
THE NEW AMERICAN HOME, LAKE NONA, FLA.
ARCHITECT/BUILDER/INTERIOR DESIGNER: PHIL KEAN DESIGN GROUP, WINTER PARK, FLA.
LANDSCAPE DESIGN: MILLS DESIGN GROUP, OVIEDO, FLA.
LOT SIZE: 31,094 SF
TOTAL AREA: 12,509 SF
LIVING AREA: 8,245 SF
BEDROOMS: 5; BATHS: 7.5
A COVERED OUTDOOR ENTRY COURT PROVIDES A SITTING AREA, A PROCESSIONAL TO THE GREAT ROOM, AND A PLAYFUL SURPRISE ELEMENT: A FIVE-HOLE PUTTING GREEN. MATERIALS SUCH AS WALL CLADDING BY ENVIRONMENTAL STONEWORKS HELP EMPHASIZE THE INDOOR-OUTDOOR TRANSITION. DOORS BY SIMPSON ECHO THE DESIGN OF THE HOME’S EXTERIOR DETAILING AND FIRE FEATURES BY TOWN & COUNTRY WARM THE INDOOR-OUTDOOR SPACES THROUGHOUT THE HOUSE.
Contemporary architecture is a signature of Phil Kean, principal of Phil Kean Design Group, in Winter Park, Fla., and architect and builder of The New American Home 2017. Many a Kean home offers a hat-tip to the roots of modernism, such as the International Style that developed here and in Europe in the 1920s and ’30s, or the Prairie Style originated by American icon Frank Lloyd Wright. Yet another icon of American culture helped inspire Kean’s design of The New American Home 2017: the group of 1950s celebrities known as the Rat Pack and the fun-loving postwar era that personalities such as Sammy Davis Jr., Dean Martin, and Frank Sinatra came to symbolize. Fast-forward half a century, and this year’s edition of The New American Home is a 21st-century take on the glamorous, sprawling ranch houses of the 1950s. In Kean’s hands, the architectural style that grew up in Palm Springs, Calif., is equally at home in Lake Nona, Fla.
A house of glass that’s built around a putting green and a pool, The New American Home 2017 is an indoor-outdoor haven. The design elaborates on the courtyard idea with mini-courtyards within courtyards set on precise axes, and covered lanais that offer connections to the outdoors and privacy. Sightlines throughout the home provide abundant natural light, not to mention views of the pool and putting green, as well as to the pond and golf course beyond.

Lake Nona, a gated community 15 minutes south of Orlando airport, is home to impassioned amateur and professional golfers alike, as well as tennis pros and snowbirds from all over the world. With a casita that boasts its own kitchenette and three guest suites, the five-bedroom, seven and a half-bath home can easily accommodate family and guests that come from afar for extended stays.

Kean intended the home to feel like a mini-resort built for good times. A swimming pool, hot tub, workout room/spa, golf-simulator room with bar, and a game room with a pool table offer play spaces of every sort. “This is a house where you put on Frank Sinatra, have a martini, and feel like you’ve arrived,” Kean says.
The great room opens to the pool on one side and the putting green on the other. A 40-foot-wide screen by Phantom Screens, the largest the company has ever made, filters afternoon sun. Progress Lighting supplied all the light fixtures for the home. Kean worked with the company to create many of them, including these sparkling chandeliers. Floating ceiling panels give the expansive room a human scale.
MOD PODS

The 12,509-square-foot home has 8,245 square feet of conditioned space with the rest designated as outdoor area. Its innovative pod configuration offers privacy and energy efficiency, too. Kean designed the plan so that each separate pod can be shut down for minimal HVAC use when unoccupied. This helps the house be as energy-wise as it is expansive and is achieved via electronic dampers that divert air to the rooms that need it and ensure some dehumidification is occurring at all times, even when rooms aren’t in use.

What’s more, the spaces “talk” to one another to breathe and filter so that each zone has its own return air, with air conditioning units by Trane providing the main filtration for the home. Balance between spaces’ HVAC is achieved via 14-inch air conditioning ductwork that connects the spaces to one another and to the 5-ton variable-speed air conditioner with MERV-13 filters and a 19.25 SEER rating. Ceiling fans positioned throughout the house and in the covered outdoor spaces help optimize airflow. Ideally, the home maintains a humidity level that’s less than 55 percent, minimizing mold and dust-mite spores, says Drew Smith, COO of Two Trails Sustainable Building Consulting, the home’s third-party certifier. The home is aiming for multiple certifications: National Green Building Standard (NGBS) Emerald, Indoor airPLUS, Energy Star, and LEED for Homes.
THE SLEEK AND ROOMY KITCHEN ISLAND HAS LOADS OF STORAGE, PLUS A DINING TABLE CRAFTED FROM A SINGLE PIECE OF OLD-GROWTH WOOD. PREP SPACE ABOUNDS, WITH SURFACES BY CAESARSTONE. THE INDUCTION COOKTOP, COFFEEMAKER, OVENS, WINE STORAGE, AND REFRIGERATION ARE ALL BY SUB-ZERO AND WOLF. FOR BEST SIGHT LINES, THE COOKTOP VENT IS CONCEALED IN THE CEILING.
LUXURY HOME, ENERGY MISER
A 12,000-square-foot house that lives lightly sounds implausible, especially when more than half of the walls are glass. Yet energy costs are expected to come in at just under $250 per year, thanks to numerous features working in concert. Many appliances are Energy-Star rated and all light fixtures are LED, including a control system that’s timed to sunrise and sunset, with wiring by Eaton. The roof, which has an R-21 value, is insulated with Icynene; exterior walls are R-16.2 thanks to a combination of injected foam on the insulation blocks, ¾-inch extruded foam and insulation board by Kingspan, plus a radiant barrier from Fi-Foil and drywall by CertainTeed.

Sliding glass window-walls are low-E single-glazed, with a thermally broken aluminum frame. The windows’ SHGC ratings range from 0.23 to 0.17.
IN THE MASTER SUITE, A FULL-HEIGHT CUSHIONED HEADBOARD ADDS TEXTURE AND MUFFLES SOUND, AND A FIRE FEATURE PROVIDES WARMTH AND AMBIENCE ON CHILLY NIGHTS. GENEROUS CLOSETS IN THE MASTER SUITE OFFER AMPLE STORAGE; ONE DOUBLES AS A SAFE ROOM FOR STORM SHELTER.
THE MASTER BATH IS AN OPEN, SPA-STYLE WETROOM WITH MULTIPLE BODY SPRAYS. A LACK OF CURBS OFFERS ACCESSIBILITY FOR AGING IN PLACE. ALL OF THE HOME’S BATH VENTILATION IS FROM PANASONIC AND ALL PLUMBING FIXTURES AND FITTINGS ARE BY KOHLER. WITH PLENTY OF PARTY SPACES, THE HOME ALSO HAS SEVERAL POWDER ROOMS, SUCH AS THE ONE BELOW. INTERIOR DOORS HERE AND THROUGHOUT ARE BY TRUSTILE.
THE CASITA, PERFECT FOR A RELATIVE, CAREGIVER, OR LONG-TERM GUEST, HAS ITS OWN KITCHENETTE AND LIVING ROOM, BEDROOM, FULL BATH, AND ADJACENT PRIVATE PATIO.
ABUNDANT LIGHT

A hefty portion of The New American Home’s energy savings comes from the rooftop’s 60-panel 17 kW solar array. Two Tesla battery units, 14 kW each, are tucked at the north side of the house with the other mechanicals. They store the power collected by the rooftop’s solar array, minimizing energy demand on the home after sunset.

A Kohler generator supplies additional backup power, if needed. In the event of an outage, major appliances and HVAC can run, with enough power for radio and television so homeowners can get news and weather updates. Final numbers were still being run at press time, but Smith says that the home’s HERS Index score is zero.

With floor-to-ceiling windows and white surfaces galore, the need for artificial lighting during the day is minimal. Phantom Screens, positioned throughout the home, work in tandem with generous overhangs to manage solar gain, substantially reducing the indoor air temperature.
THE HOUSE OFFERS MULTIPLE FUN SPACES, INCLUDING AN OUTDOOR KITCHEN NEXT TO A GAME ROOM. COURTYARDS FACE EAST-WEST AND ARE PRECISELY ALIGNED TO PROVIDE NATURAL VENTILATION, WITH CEILING FANS THAT LEND AN ASSIST.
BREATHING EASY
Low- or no-VOC paints and finishes by Sherwin-Williams are used throughout the house. Overhead fans help maximize airflow and support air filtration. Concealed pullout vacuum hoses throughout the home make getting rid of dust as easy as possible. In all of the baths, Panasonic fans provide ample ventilation and dehumidification, ranging from 80 cfm to 120 cfm, based on the square footage of the room.
A key aspect of sustainability is little modification needed for aging in place. The New American Home is built at ground level and on one level, with wide doorways, several showers easily accessible via walker or wheelchair, commodes that are easy to reach, and faucets that don’t require gripping. Sliding doors feature automatic controls in case occupants aren’t strong enough to operate them. The rooftop deck can be reached via a Garaventa Lift elevator. The casita, with its separate entrance, could be home to a nanny, aging parents, boomerang kids, or caregivers.
WATER-SMART, STORM-WISE

The New American Home features eight Energy Star–rated gas tankless water heaters in a piggyback sequence to ensure that a constant supply of hot water is delivered in the most energy-efficient manner. Low-flow lavatory faucets and toilets by Kohler (with an average 1.28-gallon flush) are in all powder rooms and baths. Plumbing fittings by SharkBite allow pipes of differing materials to be connected without an adapter, minimizing waste (and trips to the plumbing supplier). They also require no glue.

Drought isn’t a worry in Florida, but easing pressure on aquifers is. Once established, landscaping, such as Zoysia, a warm-weather turf grass, and podocarpus, bottle brush, Buddha belly bamboo, Schilling’s holly, and six varieties of palm don’t require much water in addition to rainfall. Pine bark is used instead of cypress mulch to minimize the use of cypress, a native Florida tree that’s an integral part of the wetland ecosystem. Drip irrigation is installed under the plant-bed mulch.

Storm runoff is managed by smooth stones that help drainage, plus downspouts, gutters, and pop-up drains that divert storm water to the street and then the pond. The raised platform deck was designed to prevent penetration, minimize the chance of leaks, and divert runoff to the garden. An energy-saving side benefit of the roof deck: It provides shading for the roof, reflecting sunlight rather than absorbing it. A fine gravel channel that borders the home is part of a Polyguard system that aids drainage, discourages mold by keeping plants and moisture from exterior walls, and deters termites.
A ROOFTOP DECK, ACCESSIBLE BY STAIR OR ELEVATOR, BOASTS GREAT VIEWS AND AMPLE PARTY SPACE, WITH CABLE RAIL BY AGS STAINLESS. THE ROOF, INSULATED BY IYCNYENE, HOLDS A 60-PANEL, 17 KW SOLAR ARRAY THAT ENSURES MINIMAL ENERGY USE AND HELPS GIVE THIS EXPANSIVE HOME A HERS RATING OF ZERO.
Tucked at the side of the home, two garages allow room for storage. They also have daylight, thanks to windows and translucent garage doors by Clopay that operate via Liftmaster systems. Artificial turf in the concrete manages storm runoff and minimizes water use. An outdoor shower is another detail that makes this home feel like a resort.
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* Simpson Door Co.
  Town & Country Luxury Fireplaces
  TruStile Doors

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Surrounding The New American Home’s rooftop terrace and summer kitchen are stainless steel cable railings by **AGS Stainless**. The custom-designed flat-top railings, from the Clearview line, are factory fabricated and shipped for on-site installation. Welding and polishing are done by hand. In addition to the flat style, top rails come in round, round with lighting, wood, and with stem reducers. Two lengths—36 inches and 42 inches—are available, as are many colors. Powder coating is optional. (Bronze Sponsor)

Countertops in The New American Home are made by **Caesarstone**. The engineered quartz material requires no sealants and comes in more than 20 standard colors and 20 custom colors. Resistant to scratches, cracks, stains, heat, mold, and mildew, Caesarstone has four times the flexural strength and double the impact resistance of granite, the manufacturer says. It comes with a lifetime warranty. (Bronze Sponsor)

The New American Home incorporates a number of **Eaton**’s products, including decorative switches, advanced lighting controls, USB receptacles, and circuit protection. The CH ¾-inch load centers enclose CH circuit breakers for power distribution and premium protection. They are the largest load center available and have the highest main breaker short-circuit rating in the industry. The plug-on neutral technology creates time savings of up to 25 percent for each AFCI or GFCI installation. (Gold Sponsor)

Designed to easily score and snap, **SilentFX QuickCut** provides STC ratings of 50 or higher, decreasing sound transmission through walls and increasing labor efficiency. It consists of an enhanced noise-reducing drywall and a sound-dampening viscoelastic polymer that **CertainTeed Gypsum** combined in one board to reduce sound transmission. Also in the show home are the company’s AirRenew, Easi-Lite, Type X drywall, and Aquabead corner bead. (Bronze Sponsor)

Because it contains no cellulose, **M-Shield reflective insulation from Fi-Foil** eliminates the food source for mold growth. It is intended for use on furred-out masonry walls, has a Class A flammability rating, and passes the ASTM C1338 fungus test. It also meets and, in some cases, exceeds the Florida and International Building Codes. (Bronze Sponsor)
Clopay’s Avante garage doors are constructed with a 2 1/8-inch-thick commercial grade aluminum frame designed to be virtually maintenance-free. Frosted tempered glass panels allow natural light into the garage during the day while maintaining privacy. Solid aluminum panels to match the frame are also available. Panels come in glass, acrylic, polycarbonate, aluminum, and wood finishes. Avante’s frames and solid panels are offered in nine standard colors plus custom colors, and there are 12 glazing options. Doors that meet many local wind-load requirements are available. (Bronze Sponsor)

Environmental StoneWorks, which both manufactures and installs stone veneer, has developed a component system that lets builders and architects pick the trim bands and patterns of install. In The New American Home, for example, the stone veneer that continues from the exterior into the interior combines Sabbia as the trim and Bugnato as the larger block, both in the light Bianca color. Sabbia comes in several textures. (Gold Sponsor)

FlashShield flexible gas piping saves time during installation and provides more options in deciding where gas-fired appliances will go in a home, says the manufacturer, Gastite Division of Titeflex Corp. The metallically shielded gas pipe provides the highest possible level of lightning protection. FlashShield is the only flexible gas piping to meet the electrical arcing requirements of the ICC-ES PMG LC1027 listing criteria. (Silver Sponsor)

Trane’s heat pumps come in three price points: economy, standard, and premium. The competitively priced XR series includes models with a SEER rating of up to 17.25; midrange XL heat pumps have a SEER rating of up to 18; and the XV20i variable-speed heat pump has a rating of up to 20. The XL18i (SEER rating of up to 18), was chosen for The New American Home. Several models feature humidity control and some have variable-speed compressors. Trane also makes air conditioners, air handlers, gas furnaces, oil furnaces, coils, ductless systems, packaged systems, and geothermal systems. (Silver Sponsor)

With its in-line drive system, Garaventa Lift’s Elvoron elevator requires no machine room. All of the drive components, including the controller box, can be mounted within the hoistway. The Premium Door Package includes three-speed side sliding doors on the elevator cab and each landing. For The New American Home, brushed stainless steel doors were selected. (Bronze Sponsor)
Water inevitably penetrates exterior cladding at some point. A practical way to handle that is to install Kingspan Greenguard DC14 drainage mat. Made of extruded polystyrene, DC14 doesn’t absorb moisture. With drainage channels on both sides, it permits easy drainage for water and allows air movement between the siding and sheathing to help keep the wall dry. Also in The New American Home are the company’s XPS insulation board and KoolDuct preinsulated ductwork. (Silver Sponsor)

The Exhale showerhead from Kohler offers four spray choices: full coverage with large, air-infused drops; drenching rain; pulsating massage; and a gentle rinsing spray. Also in The New American Home’s baths are the company’s DTV+ and DTV Prompt digital shower systems, Abrazo freestanding bath, Veil one-piece dual-flush toilet, Jute bathroom vanity cabinet, and Ceramic/Impressions and Iron/Impressions sinks. Kitchen and entertaining area fittings include the Prolific undermount kitchen sink, Karbon bar sink faucet, Carafe kitchen sink faucet, Brinx top-mount bar sink, and Aquifer water filtration system. (Gold Sponsor)

Some of MiTek’s line of 4,000 USP connectors went into the construction of The New American Home. The company offers a comprehensive collection of code-evaluated connectors, framing hardware, fasteners, anchors, and epoxy. (Silver Sponsor)

With much of The New American Home floor done in tile, underlayment is essential. Polyguard Products’ TERM tile underlayment barrier acts as an anti-fracture membrane, moisture barrier, and sound deadener. In addition, it contains the company’s termite barrier sealant, which blocks termites from entering the house if any cracks develop in the concrete slab underneath. Two other Polyguard Products barriers also help protect the home from termites: TERM isolation joint barrier and TERM Particle Barrier. (Bronze Sponsor)

The WhisperGreen Select ventilation fan allows builders and homeowners to choose among a combination of features, such as airflow (50, 80, or 110 cubic feet per minute), motion sensor, condensation sensor, and night light. The fan, made by Panasonic Eco Solutions North America, is UL listed for installation in tub and shower enclosures when it’s used with a GFCI-protected circuit. (Gold Sponsor)
Instead of being mounted in the typical location on the garage ceiling, the **LiftMaster 8500** is attached to the wall. The ceiling then becomes available for storage, and the appearance is cleaner. The opener operates quietly, and with the company’s free MyQ app, homeowners can receive smartphone alerts if they forget to close the garage door. (Bronze Sponsor)

**Phantom Screens** are retractable, offer insect protection, solar shading, temperature control, and added privacy for doorways, windows, and large openings such as patios, verandas, and lanais. The screens are designed to pull into place when required and retract out of sight when not in use. Some models are motorized. The screen used in The New American Home’s great room is 40 feet wide—the widest the company has ever made. (Bronze Sponsor)

The **SharkBite** EvoPEX fitting is designed for PEX pipe and engineered as an easy alternative to tool-based pipe-joining methods. The push-to-connect design reduces the risk of installation errors by providing a visual indicator that assures a proper connection has been made. Other behind-the-wall rough-plumbing elements from the company in The New American Home include PEX pipe, water-control valves, and washing machine and ice maker boxes. (Silver Sponsor)

Featuring alternating clear and champagne-tinted glass accents, **The Pointe from Progress Lighting** provides an element of sparkle in The New American Home. A coordinating one-light wall sconce features a polished chrome finish. The company also provided ceiling fans for the home. (Bronze Sponsor)

With its true flat finish, **Sherwin-Williams’** Duration Home acrylic latex paint for interior use offers the same durability and burnish resistance as matte and glossier sheens. Most stains clean up with mild soap and water with no color rub-off and little visible shine afterward. This paint-and-primer-in-one repels stains. Matte and satin versions are available. Also used on The New American Home is the company’s Emerald exterior acrylic paint, which can be applied in temperatures as low as 35°F and is also a paint and primer in one. Emerald paint resists mildew, blistering, peeling, and color fade. (Silver Sponsor)
Contemporary exterior wood doors from Simpson Door Co. feature clean lines, uncluttered looks, and distinctive styles. For The New American Home, Simpson provided a one-of-a-kind door, an opportunity that’s available to all builders and offers doors in any wood species and unlimited sizes and options. The company also makes matching sidelites and transoms and interior doors. (Bronze Sponsor)

Sub-Zero and Wolf kitchen appliances play a prominent role in The New American Home with its four kitchen areas. And with the size of the home, it makes good sense to have refrigerator drawers in the master bedroom breakfast bar, guest suite/casita, and wine bar—not to mention in the main kitchen itself. Also found in the home are the company’s under-counter refrigerator, freezer, refrigerator, wall oven, dishwasher, induction cooktop, built-in coffeemaker, microwave, steam oven, ice machine, wine storage, outdoor refrigerator, outdoor grill, and outdoor hood, plus Asko washer and dryer, which Sub-Zero sells. (Platinum Sponsor)

Interior doors in The New American Home are from two lines of TruStile Doors panel doors: Tru&Modern and Tru&Modern Infinite Rail. The Tru&Modern stile-and-rail door (pictured) comes in 9-rail, 13-rail, and panel versions with one to 11 inserts; the Infinite Rail line offers 13 styles with a variety of ¼-inch kerf cut and ½-inch metal inlay configurations. Both lines are available in paint-grade MDF and 19 wood species. (Bronze Sponsor)

Zero-clearance linear gas fireplaces from Town & Country Luxury Fireplaces have direct ignition. While the fireplaces look warm, cool-glass technology protects hands that might touch the glass box. Fireplaces are available in lengths from 3 to 106 feet. The Architectural Series is the world’s first smart fireplace that thinks every 3 seconds to maintain optimal flame. (Bronze Sponsor)

Icynene Classic Max is an ultra-low-VOC open-cell spray foam insulation and air barrier that eliminates the need for an ignition barrier in unvented attic assemblies. It allows for reentry by trades after one hour and reoccupancy by residents after two hours of active ventilation at 40 air changes per hour. Classic Max can be sprayed in a wide temperature range and is a certified Greenguard Gold product. (Gold Sponsor)
Clockwise from top left: Rob Turner, President Interior Design, Phil Kean Design Group; Tony Mancini, Group Director/Principal, Professional Builder magazine, SGC Horizon; Steve Earl, VP Operations, Phil Kean Design Group; Brad Grosberg, Principal, Phil Kean Design Group; William Nolan, Task Force Advisory, The New American Home; Paul Sullivan, 2017 Task Force Chair, The New American Remodeled Home; Tom Swartz, Task Force Vice Chair, The New American Home; Bill Owens, Task Force Vice Chair, The New American Home, Kelly Grove, Interior Design Coordinator, Phil Kean Design Group; Jim Kaiser, Construction Manager, Phil Kean Design Group; Chris Kaba, VP Construction, Phil Kean Design Group; Serena Hahn, Operations Manager Construction, Phil Kean Design Group; Judy Brociek, Director of Events, SGC Horizon; Tucker Bernard, Director, NAHB Leading Suppliers Council & The New American Home; Alyssa Smith, Assistant Designer, Phil Kean Design Group; Phil Kean, Principal, Phil Kean Design Group; Laura Wales, Design Assistant, Phil Kean Design Group