



The Making of a Masterpiece

Thorough planning, exacting product selection, and innovative design result in a house that will pay big dividends to the homeowners.

"This is a house that's designed to pay you back," says builder Kim Foy of Southern Traditions Development. That return on investment comes in more ways than one. From its super energy efficient envelope to its edible landscaping, the house is designed to "replenish."

"People think of a home as a giant investment, but from our standpoint, it's a house that reciprocates," says Foy. "From the indoor air quality to the ICF blocks that provide insulation to save on energy, to the fact that water is heated by the sun—they all make it a truly sustainable house."

This year's VISION House is set in the College Park neighborhood of Orlando. The community itself is a key sustainable component because it offers proximity to transportation as well as walkability. Builders Jon Pleveich and Foy saw the infill neighborhood as a perfect backdrop for a contemporary "Cracker" reinterpretation that gives a nod to old Florida architecture while nestling harmoniously with a neighborhood of Mediterranean, bungalow, and ranch style homes.

Architect Ed Binkley addressed the challenging narrow lot by opening the inside of the house up, loft-style, and offering a wide variety of ways to use interior spaces. He created the open layout and attractive exterior forms, which the team then detailed into an "urban farmhouse."

Read on for our behind-the-scenes breakdown of the VISION House on the following pages. We share insights from the builder, the architect, and the interior designer to see how they created an ultra efficient home that blends with neighboring houses and offers today's home buyers the utmost in flexible living.

EXTERIOR BREAKDOWN



“We want [our home buyers] to first and foremost show visitors their solar panels before they show them the granite. Or show them the dual-flush toilets that conserve. It’s important to get people to see that it’s not just a green house. It’s not a plain Jane house. And the most important benefits of owning it are energy efficiency and durability.— Jon Plevich, builder, shown here with co-builder Kim Foy

The metal roof, manufactured by Fabral www.fabral.com and installed by Neal Strickland Roofing www.nealstricklandroofing.com, has an acrylic-coated Galvalume finish. Its color has an IR (initial reflectivity) of .68, which is one of the highest IR color ratings. It is installed over Resisto’s Lastobond Pro HT-S underlayment, which waterproofs the roof deck and can withstand extremely high temperatures. www.resisto.ca

The team chose Azek deck and ceiling products because they are durable, made from 30% post-industrial waste, and don’t require additional resources such as priming, painting, staining, or sealing. www.azek.com

The team spec’d 5” of spray foam insulation in the attic, which tightly seals the house. Spray foam offers an added benefit of saving on heating and cooling costs by up to 50% because of its air sealing properties. www.icynene.com

The HardiePlank fiber-cement siding is pre-painted, which means no VOCs and no mess on site. The builder selected this product because of its ease of installation and durability. www.jameshardie.com

The roof is decked with 5/8” plywood as opposed to OSB. This thicker, heavier material won’t deteriorate if it gets wet. The team uses ring shaped nails and nails 6” on edges and 6” in the field. The additional nails and their strategic placement means that under pressure the roof is less likely to come up. The company is doing a customized tie down system from Simpson Strong-Tie to secure roof trusses and the floor system. www.strongtie.com



The SolPak Active Water Heating System by Rheem is a must-have for sunny Florida. The high-efficiency closed loop, active water heating system features a Lifetime Marathon tank. www.rheem.com



The modern aluminum and glass garage doors are from the Avante Collection by Clopay. The product has a 2 1/8” thick rust-proof aluminum frame. The team picked a white frame with obscure tempered glass. www.clopaydoor.com



The Enduro exterior metal spiral staircase adds urban style to the guest house. The standard kit can be ordered taller or shorter and is made from 12-gauge steel with a hot-dipped galvanized finish. www.arkstairs.com



The team spec’d Anderson 100 Series windows, which are a cost-effective way to add high-efficiency glazing to a project. The product is made of Fibrex, which is a sustainable structural composite that blends the best attributes of wood fiber and polymer. Much of the wood fiber is reclaimed from the company’s milling operations. www.andersenwindows.com



To protect the house against storm damage, the team spec’d MetalTech’s Dura-Weld Colonial Shutters, which are engineered to surpass the strictest hurricane standards. Made of hand-crafted aluminum construction, they have a welded master frame, a durable powder coat paint finish, and clear polycarbonate backing. www.metaltech.com



The building team felt that ARXX Prime ICFs enable significant energy savings, security, and a faster build than conventional construction. www.arxx.com



The edible landscaping includes tantalizing options such as tangerine, lemon, and pineapple guava. St. Johns Water Management www.sjrwmd.com will certify the house to Florida Water Star’s Gold level. Landscape consultant Teresa Watkins helped the team choose resource-efficient landscaping. The grass is perennial peanut from Blodgett Gardens www.blodgettgardens.com

TIPS FROM THE PROS

- Consider alternatives to stick frame. “ICF block is changing the way we’re building houses now,” says Plevich. Not only is the R factor higher in ICFs, but they go up very quickly, which saves money on labor. “Everyone thinks it’s more expensive,” he says. “But it took an ICF crew of four men only three days to put up the first story.”
- Use the whole lot. The architect used every square foot of the long narrow lot. A beautiful outdoor patio and summer kitchen graces the backyard. The motor court doubles as parking and overflow space for larger parties. The double-deck porch on the front of the house forges a connection to the neighborhood while providing additional space for relaxing. Make sure to make your porches deep enough to accommodate chairs and a table.
- Use multiple entries. While the front door is the main entry to the home, a homeowner might opt to use the private side door, which offers convenient access to a mudroom, powder room, and easy access to the kitchen. The accessory building at the rear of the site has its own entry via a spiral staircase, which means guests can come and go without disturbing people in the main house.
- Innovate for memory points. Add special touches to the house that don’t break the bank. The porch railings for this house were created by a local metal fabricator out of stock hog wire fencing from the local Tractor Supply Co.
- Wire for electric cars. Florida is a leader in electric car infrastructure planning, so it made sense to run a 220V line for a charging station. Even if you don’t provide a charging station, it may pay to run a 220V line to future-proof your homes.



Scan here to learn more about the VISION House Orlando, or go to www.greenbuildermag.com and visit the Vision House section.

INTERIOR BREAKDOWN: FIRST FLOOR



To help provide fresh air, Lechuza self-watering planters are a low maintenance option. The planter system can take care of plants for up to 12 weeks with its water storage and nutrient sub-irrigation system. www.lechuza.com



The gas fireplace from Escea www.escea.co.nz/ is a direct vent to outside, which warms the house but keeps odors out. The fireplace front is Daltile's Terrazzo Jute with alabaster grout, which is recycled from concrete and marble chips. www.daltile.com



DeNova engineered stone in Armadillo Alto tops the cabinets in the kitchen. The product consists of 93% natural quartz and 7% resin. It is more durable than natural stone, virtually maintenance free, and stain, scratch, heat, and bacteria resistant. Because this product doesn't require chemical sealing, it contributes to good indoor air quality. www.denovasurfaces.com



The KitchenAid KIBU568SBL induction technology heats the pan and not the cooktop surface, which offers fast heating speed, precise control, and enhanced energy efficiency. The cooktop gives you five cooking elements, 18 heat-level settings, and the power to go from boil to simmer in a matter of seconds. All other appliances in the kitchen are KitchenAid or Whirlpool, which are energy-efficient, durable, and can be recycled at the end of their life cycle. www.insideadvantage.com



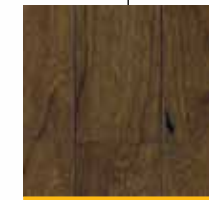
Merillat cabinets in a flat panel Tolani Maple Chiffon finish, offer durable display and storage for the kitchen, laundry room, and guest house. Merillat is now certified through the KCMA environmental stewardship program and was the first cabinetry organization to be certified company-wide with the ISO14001 world class environmental management manufacturing standards. www.merillat.com



Continuing the urban farmhouse feel in the kitchen, Gaylor chose the galvanized Wire Guard Pendant from Barnlight Electric www.barnlightelectric.com. She used lighting fixtures from this company throughout the house for continuity in style. She spec'd Cree's Ecosmart LED soft white lights. These LEDs have an integrated trim that fits most standard and shallow 6" cans, are dimmable, don't contain mercury, don't get hot, and last up to 15 years. www.creelighting.com



Mohawk's Queenstown O7 Hickory Vintage wood floor is reclaimed from dismantled buildings and structures. Full of texture, the flooring brings antique natural beauty to interiors. The product is engineered as well. The reclaimed hardwood is bonded to a no-added-urea formaldehyde substrate called Columbia Forest Product's PureBond, which doesn't offgas. www.mohawkflooring.com



TIPS FROM THE PROS

- Consider a galley kitchen. The central kitchen is a galley to make cooking more efficient. It is designed to encourage people to congregate around the space like they would in a bar in a restaurant. From behind the island, you can see 180 degrees into the living areas.
- Keep it flexible. Architect Binkley designed the space for ultimate layout flexibility. "You could get rid of every interior wall and use folding doors or rolling walls and screens to divide the space—you could personalize it for how you live," he notes. For example, the dining room and family rooms in this plan could be flopped if a home buyer wanted to connect the dining area to the outdoor "summer kitchen."
- Include quiet space. Scaled down, enclosed, and intimate, the chat room provides a quiet place to converse while at the same time being part of what's going on in the house. Interior designer Gaylor turned this space into a semi-open home office, where a homeowner could pay bills or work without having to completely retreat from the scene. The space could also be used as a parlor where intimate conversations can take place.
- Consider indoor air quality. Including green components in your home isn't just about recycling or durability, it's also about good air quality, which is important today as allergies and asthma rates continue to rise. In this house, engineered wood with a no-added formaldehyde substrate, countertops that don't offgas, no-VOC paint, live plants that provide oxygen, Energy Star-rated exhaust fans, and plenty of windows to let in fresh air, are some of the components that let homeowners breathe a little easier.



"It's a great thing when you can marry good design with classic style. It's even better when the design includes items that are locally sourced, have good indoor air quality, or are made from materials that are renewable or sustainable. I call that a real win-win situation."—Pat Gaylor, interior designer



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INTERIOR BREAKDOWN: SECOND FLOOR

Gaylor spec'd Kohler faucets throughout the house because they offer sophisticated style and are WaterSense qualified. Shown here is the K-647-VS Purist Rite-Temp pressure-balancing bath and shower faucet. www.savewateramerica.com



Cope Closet Concepts' closet system was chosen because it uses solid hardwood to manufacture closet shelving. Wood component parts, such as connectors and supports, use stock material not used in the manufacture of shelving, which minimizes wood waste. The wood is finished with a water-borne formula. The company collects waste sawdust to be used on farms as compost. www.copeclosetconcepts.com



To maintain good air quality in the house, the team put in Panasonic's WhisperGreen Energy Star-rated exhaust fans, which are lead free and mercury free and can run for more than a year using the equivalent energy of a 4W light bulb. These models come with variable two-speed and delay timer controls built in or as a single speed. A motion sensor model is also available. www.panasonic.com/building



This chrome Barn Ceiling Fan 60F-9 can help homeowners save up to 30% of heating and 50% of cooling costs, says manufacturer Barn Light Electric. www.barnlightelectric.com



"The upstairs is an extension of social space—another area in a relatively small house where you can have different experiences and different places to go and enjoy. The guest space above the garage is another such space and has a multitude of uses. It could be a rec room or a home office or a place for college kids to come and go." —Ed Binkley, architect

The house is protected against fire by Uponor's Aquasafe Residential Fire Safety System. While sprinkler systems are not commonly used in Florida, builder Pleveich points out that about 34 states have made it mandatory. "It's a really good idea," he says. "It's not that much of an up charge, and it's one of those things that will help home buyers save money on insurance." www.uponor.com

The house is painted in Sherwin-Williams Harmony no-VOC paint www.sherwin-williams.com. The main color used throughout the home is Accessible Beige. Coordinating Hunter Douglas Architella honeycomb blinds are Daisy White. They are not only attractive, but they also provide insulative value. www.hunterdouglas.com

The laundry room boasts a Whirlpool Duet front-load washer and dryer pair. The energy-efficient Duet dryer features an innovative 6th Sense technology that helps keep clothes looking newer longer. The Energy Star-qualified washer has a CEE Tier 3 rating. Steam enhancements help remove stains. www.insideadvantage.com



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TIPS FROM THE PROS

- › Consider an accessory building. Because today's lots can be tight or irregular, it may make sense to use an accessory structure to house some functions that would normally be in the main house. The VISION project includes a 576-square-foot retreat over the garage that can be used as a recreation room, rental unit, guest quarters, or home office.
- › Use every square foot. Architect Binkley used space halfway up the stairs for the laundry and craft room. The room has openings to the stairwell, which adds daylight to the stairwell as well as the loft area.
- › Provide flexibility. Mimicking the flexibility of downstairs where the living room and dining room could potentially switch places, the upstairs master can be either in the back of the house (as shown) or flopped with the two bedrooms at the front of the house to have more connection with the street.
- › Remember indoor air quality. Many people opt for wood floors downstairs and carpet upstairs for both cost and comfort reasons. It is important to use a green carpet choice, such as Mohawk's SmartStrand, so the material doesn't offgas. Use bathroom fans, such as Panasonic's Whisperlight, to provide ventilation, and offer brochures about furniture that doesn't offgas to your home buyers. Interior designer Gaylor recommends Young America www.youngamerica.com and Martha's Vineyard www.mvfurnitureco.com.



BEHIND THE SCENES

A Sense of Place



Crafting good solutions to life's wily situations is all about context. For example, you can use the same spoon to stir cream into your coffee as you do to blend fertilizer into your planting soil. You just need to do it in the right order. Designing and building a green home requires this kind of context. The benefit of an efficient house is greatly diminished if a homeowner doesn't know how to live sustainably in that home.

Furthermore, the sustainability of a home isn't defined only by the green products and systems within it. Sustainable living doesn't end at the building envelope or even at the lot's edge. A truly green home exists in balance with the natural environment, seamlessly connected to its community. The VISION House Orlando, located in the charming community of College Park, responds contextually to its surroundings. This "urban farmhouse" blends the serenity of country living with a colorful metropolitan aesthetic. Its advanced green technologies and upbeat design bolster the neighborhood's value and sustainability.

As a community, College Park epitomizes a trend in the housing market toward smaller, walkable neighborhoods. These desirable, mixed-use communities are located close to public transportation and amenities such as schools, shopping areas, and restaurants, enabling homeowners to reduce their environmental impact by limiting the need for long drives and commutes.

For more information about the VISION House Orlando, visit the VISION House pages at www.greenbuildermag.com or email us at info@greenbuildermag.com.



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VISIT THIS HOUSE AT IBS!

Visit the completed VISION House Orlando while you are at the International Builders Show. Tours runs January 12-15, and transportation will be provided from the Orange County Convention Center. Stop by the Green Builder Media booth (W4671) or email Heather: heather@greenbuildermag.com.

HEALTHY CHOICE

The VISION House team didn't stop the sustainability at the energy story or the products, it continues the education by showing people how they can live better in their green home. With today's tight houses, minimizing the amount of chemicals brought in after the house is complete is important.

Gaylor researched the green furniture options and found a company that had collections suitable for the entire VISION house: Martha's Vineyard.

The company's products are made out of reclaimed materials and domestically made in family-run workshops. The company's Olive Street line boasts cushions filled with 100% post-consumer regenerated fibers and cased in 100% cotton, and upholstery made from 100% natural, renewable fibers including linen, cotton, and recycled fabrics. Furniture springs are made from 50% recycled metal, and frames are provided by suppliers that adhere to the Sustainable Forestry Initiative. www.mvfurnitureco.com



PATH TO SAFETY

The Blueprint for Safety Education Program mission is to provide residential builders and citizens with accurate, current and reliable information about how to make homes more disaster-resistant. The VISION House team adhered to the program when building this year's house. The Blueprint for Safety Field Manual supports the mission by offering information about how to build, remodel or restore homes

using disaster-resistant techniques, technologies and products.

This website includes references for additional learning; however, it is not intended to replace the counsel of registered architects, engineer, or licensed contractors. For information regarding the Blueprint for Safety Education Program or any other Federal Alliance for Safe Homes program, call 877-221-SAFE, log onto www.flash.org or email flash@flash.org.

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- > Whirlpool www.insideadvantage.com



THE VISION HOUSE TEAM WOULD LIKE TO THANK THE FOLLOWING ORGANIZATIONS FOR THE DONATION OF LABOR, CONSULTING, OR PRODUCTS.

- > Azek www.azek.com/azek-rail
- > Arke Stairs www.arkestairs.com
- > Barn Light Electric www.barnlightelectric.com
- > Blodgett Gardens www.blodgettgardens.com
- > Clear Water Products and Services www.clearwaterpsi.com
- > Clopay www.clopay.com
- > Cree www.creelighting.com
- > Department of Energy www.doe.gov
- > Escea www.escea.com
- > FLASH www.flash.org
- > Hunter Douglas www.hunterdouglas.com
- > Lechuza www.lechuza.com
- > Martha's Vineyard Furniture www.mvfurnitureco.com
- > Metal Tech www.metaltech.com
- > Neal Strickland Roofing www.nealstricklandroofing.com
- > Orlando Utilities Company www.ouc.com
- > Sherwin-Williams www.sherwin-williams.com
- > Simpson Strong-Tie www.strongtie.com
- > St. Johns Water Management www.sjrwmd.com

BEHIND THE VISION

Here are the details on this ground-breaking sustainable show home.

The VISION House Orlando 2011 is a new home that Green Builder Media constructed with partners Southern Traditions Development www.southerntraditionsfl.com, ed binkley design www.edbinkleydesign.com, and Designs by Pat Gaylor www.patriciagaylor.com.

The project incorporates the essentials of sustainable design and construction and includes education and training for building professionals and consumers about green building products and techniques, as well as broader aspects of sustainable living.

Visit the VISION House Orlando '11 pages for case studies, videos, articles, and other important information. To learn more about green design and construction, visit Green Builder College www.greenbuildercollege.com, our online educational platform, which offers a comprehensive curriculum about sustainable development.



Scan here to learn more about the ReVISION House Orlando, or go to www.greenbuildermag.com and visit the Vision House section.