

## **4637 ARRAY DR , CHAPEL HILL, NC, 27516**

- **Designed by Arielle Schechter**, award winning modern net-zero energy architect and Forbes Magazine 2025 “200 Best Residential Architects in the US”
- **Built by NewPhire Building Company**, High Performance Home Custom Builder

### **House Energy Rating/Benefits**

- Energy Star Certified and National Green Building Certified
- HERs Score of -29, far exceeding the projected score of -18. The home produces more energy than it uses. Excess energy is stored in the two Franklin Back Up batteries to be used when needed and to power electric vehicles.
- Annual Electric Bill Savings = \$9,713
- 28,611 pounds of CO2 avoided/year. This is equal to taking 3–4 gas-powered cars off the road for a year or avoiding nearly 39,000 miles of driving.
- The house runs entirely on electricity generated by solar, freeing one of utility bills - electric, gas and water bills, with water being sourced from a private well.

### **Exterior**

- The home's exterior is a sophisticated interplay of Thermory, fluted pine, fiber cement, and cypress. Thermory siding is exceptionally durable and stable. It uses a chemical-free, heat and steam process that makes it resistant to rot. It is a low-maintenance, sustainable material with a gorgeous natural look.
- Cantilevered beams are warped in cypress
- Front porch is made of Thermory and the walls are Thermory modified fluted pine
- Concrete Terrace
- Deck is made of Thermory to match the front porch and has a wood privacy screen. The deck is accessible from the house and bonus room.
- Area can accommodate a pool. Proposed design is in the MLS Documents.

### **Lot**

- 1.52 Acres
- House is positioned for maximum privacy
- 5 Bedroom Perk
- Wooded Lot
- Shared driveway (Owners of 4637 will be the only users of the driveway)
- The lot to the right of 4637 (lot 8) has been purchased by the owner of the house to its right (lot 7). The owner of Lot 7 purchased lot 8 for their quiet enjoyment. Although the neighbor has no intentions of building on the lot or using the shared driveway, they will participate in the agreement to maintain the driveway.

## **Interior**

- Zero entry from the garage into the house
- 2812 Square Feet
- ¾" White Oak hardwood floors and porcelain tile throughout
- Natural oak accent wall in family room
- Silver Hardware
- Screens Installed on Select Windows
- 1 3/8" Solid Core Doors – Painted Front Slab, No Profile – Including Pocket Doors
- Sherwin Williams Zero-VOC paint
- Kitchen and bathroom cabinets and built-ins throughout the house are white, natural wood, semi-gloss and toxin free. They meet today's industry standards for sustainability, responsibility, and green, healthy homes.

## **Kitchen**

- Calacatta Capri Quartz Countertop
- Kitchen and prep sinks are Blanco scratch resistant granite
- Subzero Refrigerator
- Bosch Benchmark 36" Induction Cooktop
- Bosch Benchmark Wall Oven
- Bosch Dishwasher
- Large Walk-In Pantry, Including Space For Microwave

## **Primary Bathroom**

- Calacatta Capri Quartz Tile floor and shower
- Quartz vanity top
- Hansgrohe plumbing fixtures
- Toto Toilet
- Heated towel bar
- Zero entry shower
- Two Mirrored Medicine Cabinets above vanity, to keep vanity free of clutter.
- Walk-in Closet

## **Second Bathroom**

- Calacatta Capri Quartz Tile floor and shower
- Heated towel bar
- Zero entry shower
- Separate tub
- Toto Toilet
- Two Mirrored Medicine Cabinets above vanity, to keep vanity free of clutter.

## Powder Room

- Toto Toilet

## Laundry Room

- Large mudroom/laundry room combination
- Sink and cabinets
- Shelving for shoes
- Bench with hooks above

## Energy Efficient Features

- 2x6 wall construction on CMU sealed crawl foundation. Roof system is engineered trusses. Floor system I joist.
- HVAC: 3 ton Trane x variable speed HP split system 20 seer
- Walls R19 open cell foam plus R6 continuous
- Roof R40 open cell and R11 continuous
- Foundation R10
- Windows and exterior doors (passive house suitable) are made by Kowalscy in Poland. Aluminum clad (Gemini quadrat SF) wood **TRIPLE PANE**, Low E U-.13 SHGC .22 (Keeps the home air tight)
- Operable windows are tilt turn
- Roof is TPO
- TPO membranes are known for their strength and resistance to punctures, tears, and impact damage, ensuring long-lasting roof performance. This reliability means fewer repairs and maintenance costs.
- These roofing systems reflect sunlight, reducing heat buildup and lowering cooling costs for your building. This helps maintain a comfortable indoor environment.
- GE 50-gallon heat pump water heater
- Whole house water softener
- Fresh air circulation with an Energy Recovery Ventilator (ERV. This is a mechanical system that continuously replaces stale indoor air with fresh outdoor air. By passing both air-streams through a special heat-exchanger core, it transfers heat and moisture between them, bringing fresh air to near room temperature while keeping your energy bills low.

## Key Benefits of An ERV System

- **Superior Indoor Air Quality:** Dilutes indoor contaminants like VOCs, CO2, and cooking odors while filtering incoming allergens.
- **Energy Efficiency:** Recovers roughly 70% to 80% of the energy from your existing heating or cooling, meaning you don't waste money conditioning outside air from scratch.
- **No Negative Pressure:** Because it exhausts and supplies air simultaneously in equal volumes, it prevents the depressurization caused by standard bathroom exhaust fans.

## **Solar System**

- 36-panel array at 15.48kW DC with 2x FranklinWH batteries for 30kWh of storage capacity. The modeled production is 20,740kWh/yr.

## **Neighborhood Facts**

- 54 Acre Neighborhood
- Large Pond with two docks and stocked with fish
- Neighborhood Gathering Place
- Community Garden
- 2.5 miles of walking trails around the neighborhood
- HOA Dues - \$2400 annually
- Array Drive is ½ mile long gravel road. It will remain gravel because Array was developed in accordance with Orange County's Low Impact Development (LID) standards.
- 56% of neighborhood is held in open space and is in a designated conservation easement
- Duke Energy Power lines are installed underground.
- There 8 streetlights along Array drive, sufficient to illuminate the road for safety purposes
- High Speed Internet – T-Mobile
- Accessory Dwelling Units (ADUs) are allowed  
Chickens are allowed (no roosters)