

177 Abundance Run: a High-Performance Home recognized by the Green Built Alliance as a “Net-Zero Energy Green-Built ‘Platinum’ Home”.

The following list describes aspects of the home that contribute to its operational energy efficiency, ecological sensitivity, and conduciveness to healthy living. Please note that the accolades, third party inspection data, HERS score, test results etc. are listed elsewhere. This list is meant to describe in plain English what makes this home far and above others in regard to sustainability and environmental concerns.

- **Passive Solar Design:**

The home was designed and placed on the land in such a way that it allows winter sun to heat the home while it blocks direct summer sun from entering the building.

The Lower Level slab foundation and the main level living area concrete floors serve as heat sinks for winter solar energy.

All of the windows are imperceptibly glazed differently from one another depending on their individual orientation to maximize winter heating and summer cooling.

- Insulated above and beyond “Code Minimum” in thicker walls framed with 2x6 studs.
- Air sealed down to 1.02 Air-Changes-Per-Hour.
- Constant, filtered, whole-house fresh air ventilation provided mechanically through a Heat Recovery Ventilator appliance.
- Low emitting materials and finishes create impeccable air quality
- Finished with site-sourced hardwoods throughout. All hardwoods were sawn, dried, and milled in Swannanoa just 9 miles from the house site.
- Hybrid Heat-Pump Water Heater located in utility space
- Appliances are Energy Star labeled
- LED Lighting throughout
- Exterior lighting specified to avoid unnecessary light pollution
- Majority of the invasive plant species removed from the building site
- No herbicides employed at any point
- Several mature trees conserved
- Edible landscaping established
- Windbreak of Eastern Red Cedar planted along north boundary
- Stormwater swales with faux creek beds water the edible landscaping
- Fly Ash used as a replacement for 20% of the Portland Cement content in concrete

- Windows are made from wood waste from the window manufacturer's wood window production
- The majority of the house framing material is Southern Yellow Pine from the southeastern U.S.
- Some wood waste processed into 'Biochar' for use improving soils and drawing down carbon
- Metal roof is Energy Star rated and 100% recyclable
- Wood chips used in landscaping sourced on site
- Neighborhood amenities include shared green spaces, a nature walking path, and a community "share shed" that allows homeowners access to shared hand tools and lawn and garden equipment
- Children's play area has an unscripted nature focus
- Garage is wired for a Level II car charger
- Paint-grade trim made from finger-jointed pine (a superior product made from wood scrap waste).
- Local college students studying sustainable home building practices were on site to observe on a few occasions.
- Close proximity to downtown Asheville
- Solar panels on the roof have been connected to the grid under the current (favorable) net-metering agreement with Duke Energy Progress. Ideally, the new owner would put the electricity in their name prior to July 1st to maintain this favorable interconnection agreement.