

Homeowner’s Manual

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**Introduction**

**About EarthCraft**

EarthCraft is a high-performance building certification program designed to address climate, energy and water issues unique to the southeastern United States. EarthCraft serves as a blueprint for high performance and sustainable homes, renovation projects, multifamily structures, community developments, light-commercial buildings and historic preservations. Our third-party verification process provides assurance to residents and property owners that their building’s certification is a result of accurate inspections and assessments.

EarthCraft certified buildings are designed to deliver energy and water efficiency, healthy indoor air and consistent comfort for occupants. By adhering to high performance building practices, every EarthCraft project is built to perform and hold up to the test of time. EarthCraft residents never have to sacrifice comfort for affordability; EarthCraft projects typically achieve a minimum of 15 percent energy savings compared to new homes built to the minimum code standards.

**Background**

The Greater Atlanta Homebuilders Association and Southface Energy Institute developed the EarthCraft House program in 1999 as a response to the local demand for a building certification program that differentiates well-built homes from homes built to the minimum building code standards. The success of the EarthCraft House program and market demand led to the creation of additional programs that address different building types and sustainable community development. The EarthCraft family of programs continues to grow and expand its mission of helping professionals design and construct healthy, comfortable buildings and communities that minimize negative environmental impacts.

Since 1999, the EarthCraft Program has grown to include EarthCraft Renovation, Multifamily, Communities, Light Commercial and Sustainable Preservation.

**EarthCraft Documentation**

**Worksheet**

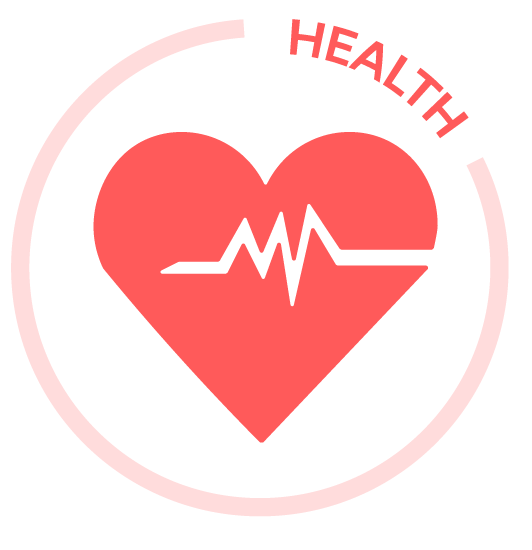
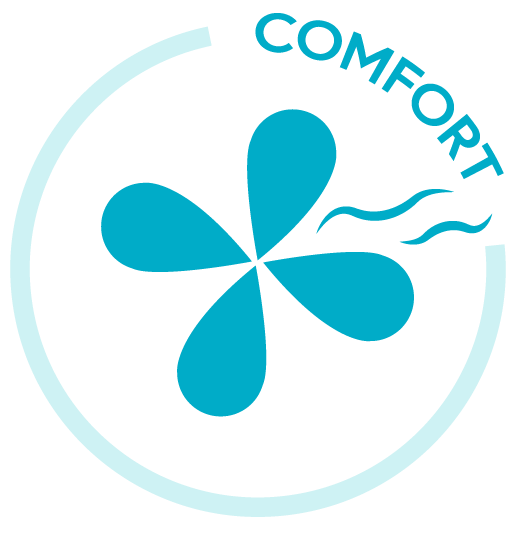
During construction, all projects use a worksheet to track whether or not specific program requirements have been met and verified. Items that have been verified are listed with a “Y”, while items that are not applicable to your particular home are listed with as “NA”. Please contact the builder if you have not received a copy of the worksheet.

**Certificate**

Each EarthCraft project earns a certificate that displays the details associated with certification.

In 2018, EarthCraft introduced four unique badges that may be awarded to projects that represent further efforts to achieve higher levels of energy and water use performance, healthy indoor air quality, maximum occupant comfort, and minimal environmental impact. When achieved, badges are displayed on the EarthCraft certificate. Please contact the builder if you have not received your certificate.

***Comfort Environment Performance Health***

**Heating, Cooling and Ventilation Systems (HVAC)**

**Heating and Cooling**

The HVAC system in your home has been carefully selected to provide year-round comfort and efficient performance. The intentional selection of your HVAC equipment was made possible by performing calculations that consider the various features specific to your home, such as the amount of insulation, geographic location and surface areas.

*You have a [heat pump, furnace, etc.] installed in your [attic, basement, crawlspace, etc.]. To properly use this system, [describe operating procedure]. [Provide additional details on the type of HVAC system and other important maintenance information specific to the equipment. If the system is zoned, explain which areas are controlled by which thermostat.]*

*All HAVC systems are equipped with a filter that is designed to trap particulates before they are distributed throughout your home. [Describe where the filter is located, MERV rating and recommended replacement or cleaning schedule for each filter.]*

*A programmable thermostat is designed to adjust its temperature setting throughout the day dependent on occupant behavior or preferences. [Describe the procedure to program thermostat. If the thermostat monitors indoor humidity or other indoor conditions, such as CO₂, describe any additional operation procedures.]*

**Ventilation**

**Whole-Building Ventilation**

Fresh, outdoor air is needed in any building to ensure indoor airborne pollutants are flushed out or diluted to support occupant well-being. Whole-house ventilation systems exhaust indoor airborne pollutants while providing fresh, outdoor air to the home.

*[Describe the system installed in the home, including type, location, run schedule and controls.]*

*[Describe the location, maintenance schedule and type of filter used for the whole-building ventilation system.]*

*Residents should regularly check all exterior exhaust and supply vents to make sure they are clear of debris, such as leaves. Your exterior exhaust and supply vents are located [insert location].*

**Exhaust Fans**

*EarthCraft recommends bath fans to be used when showering, bathing and for ten minutes after occupancy. [For each unique fan, insert additional features, such as motion sensors, timers, etc.]*

*To remove pollutants created by cooking, your home has a kitchen exhaust fan. [Describe proper operating procedure and maintenance information].*

**Fixtures and Appliances**

**Lighting**

Energy efficient bulbs and fixtures use less energy, while emitting the same amount of light as conventional bulbs. In addition, efficient bulbs also don’t need to be replaced as often as inefficient lighting such as incandescent bulbs, due to their improved manufacturing. When replacing light bulbs, EarthCraft recommends investing in light emitting diodes (LED) rather than compact fluorescent light bulbs (CFL) and especially incandescent bulbs. LEDs have a higher initial cost, but users will benefit from a very short payback period, due to the bulbs’ longer lifespan and lower energy usage.

When compared to CFL lighting, LEDs use 50% less energy and last up to three times longer. Due to the mercury contained in CFL bulbs and fluorescent tubes, residents should follow manufacturer instructions for proper disposal. Many home supply retailers offer bulb recycling programs at no cost to consumers.

**Appliances**

Major home appliances contribute substantially to the energy usage of a home. High performance buildings minimize energy consumption with high efficiency fixtures, such as dishwashers, refrigerators and clothes dryers. Additionally, efficient water consuming fixtures and appliances, such as clothes washers, showerheads and faucets, help to minimize energy consumption by minimizing hot water use.

In addition, efficient water-consuming fixtures and appliances, such as clothes washers and WaterSense labeled showerheads and faucets, help minimize energy consumption by minimizing hot water use.

*Dishwasher:*

*[List make and model]*

*[Describe the proper operating/maintenance procedure]*

*[Insert warranty information, energy guide and other product literature in the back of this manual]*

*Refrigerator:*

*[List make and model]*

*[Describe the proper operating/maintenance procedure]*

*[Insert warranty information, energy guide and other product literature in the back of this manual]*

*Stove/Oven:*

*[List make and model]*

*[Describe the proper operating/maintenance procedure]*

*[Insert warranty information, energy guide and other product literature in the back of this manual]*

*Clothes Washer and Dryer:*

*[List make and model]*

*[Describe the proper operating/maintenance procedure]*

*To maintain energy efficiency and reduce the risk of fire, clean the lint screen after every dryer load. The dryer vent should also be periodically cleaned to ensure exhaust is being vented properly to the outdoors.*

*[Insert warranty information, energy guide and other product literature in the back of this manual]*

*Water Fixtures:*

*[Provide details on showerhead(s)]*

*[Provide details on toilet(s)]*

*[Provide details on faucet(s)]*

**Plumbing**

Water is an important resource and it takes energy to move, treat and heat water. Leaky pipes and fixtures can result in wasted water and energy. On top of resource waste, leaking water can cause damage to the building’s interior and instigate the growth of mold. According to the EPA, the combined leaks of one average household can waste more than 10,000 gallons of water in a year, this is equivalent to 270 loads of laundry. Residents should make sure to fix leaks immediately in pipes, fixtures and appliances immediately.

*A [gas or electric, 50 gallon storage tank, instant, etc.] water heater has been installed in your [garage, basement, crawlspace, etc.]. To adjust the temperature of the water leaving the appliance, [describe proper adjustment procedure]. [If the water heater has an insulation blanket and/or pipe insulation, explain proper maintenance and inspection. If the tank should never be insulated, explain.]*

**Irrigation** *(\*If* ***not*** *present in design, delete this section) (\*\*If present in design, delete this comment)*

*Your irrigation system is operated with a weather-based controller that waters based on the plant’s needs. At times when less watering in needed, such as a rainy day, your controller will automatically adjust the watering schedule. [To program your irrigation controller, describe proper operating procedure.]*

**Maintenance**

**Paints and Finishes**

Many paints and finishes contain volatile organic compounds, or VOCs, that are released into the air. Extended exposure to VOCs can be detrimental to quality of the indoor air, and as a result, occupant health. To ensure occupants are exposed to minimal amount of VOCs, EarthCraft requires each builder to use interior finishes that contain low or no VOCs. When you are considering repainting or refinishing any interior surface of your home, EarthCraft recommends using products that contain low or no VOCs.

*Interior Paint:*

*[List manufacturer and color]*

*[Insert additional information, such as VOC content]*

*Exterior Paint:*

*[List manufacturer and color]*

*[Insert additional information, such as VOC content]*

*Interior Floor Finishes:*

*[List manufacturer and color]*

*[Insert additional information, such as VOC content]*

**Maintenance Schedule**

|  |  |
| --- | --- |
| **Exterior of Structure** | **Minimum**  **Interval** |
| Inspect basement/crawl space for water seepage/leakage, repair as needed | Annually |
| Inspect/repair all cracked or missing exterior caulking | Annually |
| Inspect roof/soffit vents and clear debris | Annually |
| Clean and treat outdoor decks for water stains, mildew, and fungus | Annually |
| Inspect/repair exterior concrete surfaces for cracks or deterioration | Annually |
| Remove leaves, debris around air conditioning condenser | Bi-Annually |
| Inspect/repair damaged shingles and flashing | Bi-Annually |
| Clean debris from gutters and downspouts | Bi-Annually |
| Inspect/repair seal between garage and home | Annually |
| Inspect exterior for loose siding or trim, cracks, chipped paint and crumbling mortar | Bi-Annually |
| Inspect air leakage of building envelope: replace/repair weather-stripping as needed | Every few years |
| Inspect/clean window and door weather-stripping and door tracks | Quarterly |
|  |  |
| **Indoor pollutants** | **Minimum**  **Interval** |
| Clean or replace walk-off matts | Annually |
| Inspect and clean chimney and fireplace, if present | Annually |
| Vacuum all carpets at least weekly, clean Annually | As needed |
|  |  |
| **Interior Durability and Finishes** | **Minimum**  **Interval** |
| Inspect/repair caulking around tubs, showers, toilets, sinks and tiled surfaces | Annually |
| If paint is needed, use only low or no VOC paint | As needed |
| Check attic for thorough insulation and signs of pests and/or leaks | Quarterly |
|  |  |
| **Lighting and Appliances** | **Minimum**  **Interval** |
| Check if exterior automated lighting controls are working | Bi-Annually |
| Vacuum refrigerator condenser coils | Bi-Annually |
| If replacing lights, consider ENERGY STAR labeled LED | Every few years |
| Use power strip to reduce phantom loads from chargers, TV, etc. | Every few years |
| If replacing appliances, look for the ENERGY STAR label | Every few years |
| Clean exterior of dryer vent | monthly |
| Clean clothes dryer lint screen | With every use |
| Clean refrigerator drain pan | Quarterly |

|  |  |
| --- | --- |
| **Mechanical Systems** | **Minimum**  **Interval** |
| Inspect furnace for proper flame color and rust/scaling on heat exchanger, if applicable | Annually |
| Have air conditioner and heating system inspected and serviced | Bi-Annually |
| Clean in and around radiators | Annually |
| Clean in and around grills and registers; vacuum inside of ducts | Bi-Annually |
| Check that spot ventilation fans are unobstructed and working | Bi-Annually |
| Check/clean exterior air intakes and exhausts for debris | Bi-Annually |
| Change batteries in thermostats if necessary | Annually |
| Clean or replace air handler filter | Bi-Annually |
| Perform air leakage tests of air handler | Every few years |
| Clean duct system | Every few years |
| Adjust thermostat for change in season | Quarterly |
| Check/adjust humidity levels; Air out damp basement | Quarterly |
| Check/clean whole house ventilation system | Quarterly |

**Maintenance Schedule Cont.**

|  |  |
| --- | --- |
| **Plumbing** | **Minimum**  **Interval** |
| Drain any outdoor faucets and/or hoses to prevent freezing | Annually |
| Keep water heater temperature at 120°F | Bi-Annually |
| Test water heater pressure valve according to manufacturer's instructions | Annually |
| Check hot water heater for mineral buildup, drain, and refill | Annually |
| Check interior and exterior faucets and pipes for leaks and clean aerators | Quarterly |
| Check appliances such as water heater, washer, toilets, and dishwasher for leaks | Quarterly |
|  |  |
| **Safety** | **Minimum**  **Interval** |
| Inspect smoke and carbon monoxide detectors / replace batteries | Annually |
| Inspect and ensure fire extinguishers are up-to-date | Annually |
| Avoid toxic chemicals for pest control | As needed |
| Do not store toxic chemicals and/or fuels within living space | As needed |
|  |  |
| **Landscape** | **Minimum**  **Interval** |
| Check landscaping sprinklers to ensure proper flow | Annually |
| Store fire wood off the ground, away from home | Annually |
| Winterize irrigation system: turn off water, drain | Annually |
| Trim shrubbery around walls of home and remove fallen limbs, branches or debris | Annually |
| Maintain proper grades for drainage on all property | Bi-Annually |
| Inspect, replace and repair landscaping - mulch, permeability features | Annually |

|  |  |
| --- | --- |
| **Miscellaneous** | **Minimum**  **Interval** |
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|  |  |
|  |  |

# **Contact information**

**Builder**

*[Name]*

*[Telephone Number]*

*[Email Address]*

*[Website]*

**HVAC Installer**

*[Name]*

*[Telephone Number]*

*[Email Address]*

*[Website]*

**EarthCraft**

EarthCraft House

404-604-3636

info@earthcraft.org

www.earthcraft.org