

TOP TEN HIGH PERFORMANCE GREEN HOME FEATURES

High performance and green homes are energy efficient, comfortable, healthy and safe, durable, environmentally responsible and are designed and built as a system.

1. **TIGHT CONSTRUCTION:** Special framing techniques and air sealing reduce indoor drafts, improve insulation thermal properties, reduce interior moisture and mold and improve energy efficiency.
2. **SEALED HEALTHY CRAWL SPACE:** Building science proven system of sealing foundation vents and fully encapsulating the crawl space reduces moisture and mold, eliminates wood rot, improves indoor air quality and reduces energy use by 15-20%.
3. **IMPROVED INSULATION:** Blown cellulose is an environmentally responsible material which helps minimize gaps and voids. Enhanced application of formaldehyde free fiberglass batt insulation is also a good choice as long as it is installed without gaps, voids or compression.
4. **DOUBLE PANED LOW E WINDOWS:** Windows with low emissivity include a coating which reflects heat and screens out ultraviolet light thereby reducing fading and improving comfort.
5. **RIGHT SIZED HVAC EQUIPMENT:** High efficiency and correct sized units and systems reduce energy loads, ensure proper dehumidification in the summer and improve overall home comfort. Proper orientation of a home to utilize passive solar heating will also reduce energy load.
6. **PRESSURE BALANCED HVAC SYSTEM:** When combined with proper air and duct sealing, insulation, and duct design, a balanced system ensures no hot or cold rooms or indoor drafts.
7. **IMPROVED INDOOR AIR QUALITY:** Proper construction techniques, Energy and Health Check-Ups and healthy products ensure fewer health problems due to mold, formaldehyde, carbon monoxide, dust and other pollutants. Interior mechanical fresh air ventilation systems dilute pollutants and odors and reduce harmful air infiltration from garages, attics or crawl spaces.
8. **PROPER EXTERIOR MOISTURE MANAGEMENT:** Keeping moisture from entering exterior wall cavities and a foundation is the first step to ensure a home is healthy and safe, energy efficient, durable and comfortable. Properly installed house wrap and window/door flashing is a good start.
9. **ENVIRONMENTALLY RESPONSIBLE MATERIALS:** Careful selection of products and construction processes can greatly reduce our negative impact on the environment.
10. **ENERGY EFFICIENT AND GREEN CERTIFICATION:** Partnering and certifying a home with our existing ENERGY STAR for Homes, North Carolina HealthyBuilt Homes or LEED for Homes programs ensures a high performing and environmentally responsible home.



OTHER IDENTIFIED HIGH PERFORMANCE AND GREEN HOME FEATURES

<p>EXTERIOR</p> <p>11. House wrap vapor retarder 12. Gutters and downspouts 13. Rain water catchment barrel 14. Fiber-cement siding back and side primed 15. Drought resistant plants 16. Exterior penetrations sealed 17. Wood shingles from sustainable source 18. Grade sloped away from foundation</p>	<p>HTG VENTILATION & AIR CONDITIONING</p> <p>60. Duct Blaster test to identify duct leakage 61. Right sized high efficiency equipment 62. Sealed combustion gas equipment 63. Pressure balanced system 64. Well designed and sealed R-8 ductwork 65. Mechanical fresh air ventilation 66. Programmable thermostat 67. Kitchen and baths exhaust to outside</p>
<p>CRAWL SPACE</p> <p>20. Reinforced vinyl encapsulation system 21. Exterior rigid board insulation 22. Foundation vents removed or sealed 23. Floor insulation eliminated 24. Sump pump on sloped crawl space floor</p>	<p>WINDOWS AND DOORS</p> <p>70. Double paned low-e windows 71. No metal frames 72. Insulated exterior doors 73. Windows and doors properly flashed</p>
<p>FRAMING METHODS AND WOOD PRODUCTS</p> <p>30. Insulated window and door headers 31. Exterior/interior wall connections insulated 32. Engineered lumber; no old growth trees used 33. OSB roof sheathing with radiant heat barrier 34. Two stud insulated corners 35. Non load bearing walls at 24" on center 36. OSB exterior sheathing 37. Interior trim is finger jointed or mdf wood</p>	<p>PLUMBING</p> <p>80. High efficiency water heater 81. Insulated water heater 82. Power vented and sealed gas water heater 83. Low flow faucets and shower heads 84. Low flow or dual flush toilets 85. Insulated pipes in attic or crawl 86. Re-circulating hot water pump</p>
<p>AIR SEALING</p> <p>40. Blower door tested to identify air leakage 41. Fireplace chase capped 42. Recessed light attic penetrations 43. Exterior wall sole plate 44. Electrical boxes & top plate penetrations</p>	<p>ELECTRICAL AND LIGHTING</p> <p>90. Solar light tube 91. Compact florescent fixtures 92. Ins contact and air sealed recessed can lights 93. Ceiling fans 94. Whole house fan</p>
<p>INSULATION</p> <p>50. Blown cellulose walls 51. Wall insulation installed with no gaps or voids 52. Insulation is not compressed 53. All insulation is in full contact with the air barrier 54. R-38 blown cellulose attic with depth ruler 55. Exterior rigid board insulation 56. Insulated and air sealed attic stair hatch cover</p>	<p>INDOOR AIR QUALITY</p> <p>100. Sealed combustion fireplace 101. Carbon monoxide detectors 102. Hygrometer to detect humidity levels 103. Low volatile organic compound (VOC) paint 104. Water based urethane floor finish 105. Fast growth bamboo grass flooring 106. Low VOC particle or wood cabinets</p>

Other selected features not identified: Trees protected and preserved, Natural areas retained, Impervious surfaces limited, Home oriented for passive solar heating, Large soffit overhangs, Garage power vented, Air sealed garage to inside, Alternative termite treatment, Minimized construction waste, Deck constructed from recycled materials.