

JEREMIAH RIDGE

GREEN HOME GUIDELINES [HILLTOP HOUSE]

1	SITE	
	Install silt fence at tree line	
	Recycle job site construction & demolition waste	
	Minimal site disturbance by setting up dig boundaries	
	Evaluate vegetation & trees on access road to homesite for responsible clearing	
	Recycle branches, saplings, roots from site clearing as ground cover & path surfaces	
	Install rainwater recovery systems	
	Install composting stations	
	Set up recycling station	
	Protect native soil and water quality with landscape design	
	Evaluate property site for unusual native plants	
	Landscape design to include drought tolerant and native plantings	
	Research greener road surface options for access road from street to home site	
	Consider use of permeable pavers for driveway	
	Consider installation of driveway grates to help capture pollutants	
	Research use of retention grading and swales to slow down & manage stormwater and control flooding	
	Sloped grade away from house	
2	FOUNDATION	
	Foundation Considerations [to include storm shelter & mechanical & control systems room]:	
	-- Poured concrete foundation with slab crawlspace OR	
	-- Concrete block foundation with slab crawlspace OR	
	-- ICF foundation with slab crawlspace	
	Use excavated soil in terraced areas on back hillside	
	Green compliant termite pre-treatment	
	Use of fly ash in concrete for better performance & to reduce environmental impact	
3	STRUCTURE	
	Exterior walls – 2 x 6 FSC certified framing	
	Exterior walls – 2 x 4 FSC certified framing	
	Engineered wood floor joists – first and second floor	
	Engineered wood I-joists for ceiling – with energy heels	
	Use OSB for subfloors, walls and roof sheathing [1/2" plus]	
	Interior walls – 2 x 4 FSC certified framing	

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4	EXTERIOR FINISHES	
	Use fiber-cement siding materials	
	Use treated wood that does not contain chromium/arsenic	
	Use composite decking material for porch	
	Use fiber-cement or FSC certified wood trim, column and railing materials	
	Use Klear or CertainTeed recycled content trim board	
	Use Azec or Komo exterior rails, columns, ect.	
	Low VOC paint and stains	
	Standing seam metal roof with reflective finish	
	Consider use of locally produced concrete and stone [reducing pollution in transit]	
5	PLUMBING	
	Research on “green” supply and waste lines	
	Install on-demand tankless water heater[s]	
	Install low-flush or dual flush toilets	
	Run supply lines in conditioned spaces???	
	Insulate hot and cold water pipes	
	Install whole-house water filtration unit	
	Use water-saver faucet and shower fixtures	
	Placement of faucets within 40’ of hot water heater for more efficient use of hot water	
6	ELECTRICAL	
	Install whole-house control system	
	Install motion-sensor security and exterior lighting	
	Install LED landscaping and exterior lighting	
	Install interior CFL lights	
	Install interior LED lighting	
	Install high efficiency ceiling fans throughout the house and porch	
	Install voltage conditioning switch [KVAR or similar]	
	Install solar panels for energy generation and distribution [see section 11]	
	Monitor daily power consumption through Central Alabama Electrical Cooperative’s online monitoring service	

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7 APPLIANCES

- Research Energy Star certification validity
- Install Energy Star dishwasher [two drawer model]
- Install Energy Star refrigerator/freezer
- Install Energy Star microwave
- Install Energy Star propane gas cooktop and ovens
- Install Energy Star hood vent
- Install Energy Star washer/dryer

8 INSULATION

- Use bio-based spray foam where applicable
- Insulate floor over crawl space
- Install radiant barrier on exterior of structure
- Install interior vapor barrier
- Minimum R-16 wall insulation
- Minimum R-38 ceiling insulation
- Minimum R-19 floor insulation
- All corners, outlets, headers and sill are caulked for extra draft stop

9 WINDOWS

- Install energy-efficient windows
 - Double paned
 - Low E
 - Low conductivity frames
- Windows and doors fully flashed
- Consider installation of light tube or skylight in loft area

10 FLOORING

- Use FSC certified manufactured or solid wood flooring on first floor
- Use rapidly renewable [cork] flooring in loft and upstairs bedrooms
- Use recycled content ceramic tiles in kitchen, foyer and bathrooms

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11	HEATING, VENTILATION, AIR CONDITIONING	
	Evaluate need for solar attic fan[s] & attic ventilation system	
	Install geo-thermal direct or indirect exchange as primary HVAC system	
	-- Install 13 SEER/11 EER or higher AC with TXV	
	-- Install high-efficiency heat pump	
	-- Central forced-air HVAC systems have minimum MERV 8 filter, no filter bypass and no ozone generators	
	-- Install AC with non-HCFC refrigerants	
	-- Install 90% Annual Fuel Utilization Efficiency [AFUE] furnace	
	-- Install EPA certified wood stoves/inserts, dampers & airtight doors	
	-- Install zoned in-floor electric heating in kitchen and bathrooms	
	-- Install high efficiency filters	
	-- Install Heat Recovery Ventilation Unit	
	-- Have HERS rating inspection on furnace and ac	
	Install sealed combustion units [water heater/furnace]	
	Use duct mastic on all duct joints to ensure seal	
	Install ductwork within conditioned space	
	Vent range hood to outside	
	Install energy-efficient exhaust fans in bathrooms – vent to outside	
	Fireplaces vented outdoors with hot air recirculation and glass doors	
	HVAC room loads calculated and documented	
	Duct system design documented and properly installed	
	Rooms pressure balanced	
	Clean all ducts before occupancy	
12	RENEWABLE ENERGY	
	Install photovoltaic system - <50% grid-dependent	
	Pre-plumb/install solar heating system	
	Install geo-thermal system for heating & cooling	
13	NATURAL HEATING/COOLING	
	Incorporate passive solar heating	
	Planting of deciduous trees on west side & evergreens on north side of home	
	House design includes 10' deep porch on all four sides	

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14	INDOOR AIR QUALITY AND FINISHES	
	Use engineered sheet goods with no added Urea & Formaldehyde	
	Use low/no VOC adhesives	
	Use low VOC water-based wood finishes	
	Use low/no VOC paints	
	Use exterior grade OSB for interior uses	
	Use FSC certified materials for interior finishes	
	Use finger-jointed or recycled content trim	
	Install whole-house vacuum system	
	Install CO detectors installed in each sleeping zone	
	Interior plants-scaping [1 12" pot per 100 sq ft]	
	Consider use of paperless drywall	
	Approved radon-resistant features installed	
	Gutters/downspouts direct water a minimum of 5' from foundation	
	Smoking prohibited in common areas at a least 25' from buildings	
	Fully flashed roof/wall intersections	
	Foundation joints & penetrations sealed, including air-tight sump covers	
	Foundation wall damp proofed or waterproofed	
	Basement/crawlspace insulated & conditioned	
15	MISCELLANEOUS	
	Research options for sustainably made cabinets for kitchen and bathrooms	
	No wet or water damaged materials enclosed in building assemblies	
	Corrosion proof rodent/bird screens installed at all openings that cannot be fully sealed	