



EarthCraft House™

Sensibly Built for the Environment

MIXED HUMID CLIMATE WORKSHEET

IECC 2000 Climate Zones 7 and 8

A worksheet must be submitted to EarthCraft House for each home to be certified. An EarthCraft House certification requires 150 points. In addition to having a completed worksheet, each home must also have appropriate documentation and a Final Inspection by an EarthCraft House Inspector.

Worksheets may be submitted via mail, fax, email or presented on-site to the inspector.

Mail: EarthCraft House
241 Pine St. NE
Atlanta, GA 30308
Fax: 404-872-5009
Email: worksheets@earthcrafthouse.com

Builder Group: _____

Contact Person: _____

Phone: _____

Fax: _____

Email: _____

House Address: _____

Lot #: _____

Community: _____

Builder - By accepting the EarthCraft House certification, I pledge that this house has been constructed to the standards listed on this Scoring Worksheet.

Builder Signature

date

Home Buyer - I have reviewed the EarthCraft House measures with the homebuilder or sales agent.

Home Buyer Signature (required only for pre-sales)

date

EarthCraft House Inspector

Inspector Signature

date

Worksheet Score

	POINTS	SCORE	DOCUMENTATION
SITE PLANNING			
REQUIRED: Must comply with all federal, state, and local government erosion control and tree protection measures.	-		
erosion control site plan	2		site plan
workshop on erosion and sediment control	2		certificate
excavated topsoil protected from erosion	5		
use of redundant mulch, compost, or straw bales for erosion control	3		
grind stumps and limbs for mulch	2		
mill cleared logs	2		
registered BuildingWith Trees (NAHB Program) development	5		confirmation letter
tree preservation plan	3		tree plan
utilities in tree root zones tunneled or hand dug (1 point per tree, max 5 trees)	1 per tree		
individual trees fenced at drip line (1 point per tree, max 5 trees)	1 per tree		
protected tree save area (min 25% of development or lot)	2		
tree planting (min 12 trees per acre of developed land; min 2" caliper)	4		
wildlife habitat including shelter, food, and water	2		
SITE PLANNING TOTAL			
ENERGY EFFICIENT BUILDING ENVELOPE AND SYSTEMS			
REQUIRED: ENERGY STAR HOME CERTIFICATION. Note: Homes with all items marked★ will likely qualify as ENERGY STAR Homes using a Builder Option Package. See www.energystar.gov .			
REQUIRED AIR SEALING MEASURES			
chases sealed and insulated	-		
stud cavities blocked at change in ceiling height	-		
attic kneewall has sealed exterior sheathing and/or netting for dense insulation	-		
joist cavities under attic kneewall blocked	-		
penetrations through top and bottom plate sealed	-		
bottom plate sealed to floor or foundation	-		
window and door rough openings sealed	-		
gaps in exterior wall sheathing sealed	-		
sheathing penetrations sealed (including exterior light fixtures)	-		
penetrations through band sealed (including bathroom exhaust fan)	-		
exterior walls of fireplace chase sealed	-		
penetrations through insulated subfloor sealed (including HVAC boots)	-		
shower and tub drains sealed	-		
cantilevered floor sealed above supporting wall	-		
all recessed can lights in insulated ceilings must be airtight and IC-rated	-		
penetrations through insulated ceiling sealed (including HVAC boots)	-		
attic kneewall doors & scuttle holes weatherstripped	-		
attic pull-down stairs, scuttle hole, & kneewall doors sealed at rough opening	-		
penetrations through drywall in attached garage sealed	-		
no polyethylene shall be used on exterior walls or foundation walls	-		
ADDITIONAL AIR SEALING MEASURE			
air barrier installed behind tubs and showers	2		
ceiling drywall sealed to top plate	2		
drywall penetrations in insulated walls	1		
attic pull-down stairs with sealed attic-side cover	2		
housewrap installed with all seams and edges taped	1		
seams in band joist between conditioned floors sealed	2		
BLOWER DOOR TEST			
REQUIRED: Blower door test result <0.50 cfm ₅₀ / square foot of building envelope	-		test results
★ test result <0.40 cfm ₅₀ / square foot of building envelope	25		test results
test result <0.25 cfm ₅₀ / square foot of building envelope (ventilation required)	35		test results
AIR SEALING SUBTOTAL			

	POINTS	SCORE	DOCUMENTATION
REQUIRED INSULATION			
exterior walls & band joist R13	-		
flat ceilings R30 (requires baffles and blocking in vented attics)	-		
sloped ceilings R19	-		
cantilevered floors R19 (blocking between joists required)	-		
framed floors R19 (if basement/crawl is outside building envelope)	-		
foundation walls R5 (if basement/crawl is inside building envelope)	-		
attic kneewalls R19 (or U less than or equal to 0.061)	-		
ADDITIONAL INSULATION			
2x6 attic kneewalls with R19 cavity insulation & non-insulated sheathing (U=0.061)	2		
2x6 attic kneewalls with R19 cavity insulation & R3 insulated sheathing (U=0.051)	3		
2x4 attic kneewalls with R13 cavity insulation & R5 insulated sheathing (U=0.058)	3		
slab insulation R4	3		
foundation walls insulated instead of floor over basement (no paper faced batts)	5		
foundation walls insulated with continuous insulation	2		
sealed, insulated crawl space walls R8	4		
cantilevered floors R30 (blocking between joists required)	1		
insulate fireplace chase or no fireplaces on exterior walls	1		
spray applied wall insulation	5		
insulated wall stud cavities R15	1		
insulated headers	1		
insulated corners	1		
insulated T-walls (exterior/interior wall intersection)	1		
★insulated wall sheathing R 2.5 or greater (min. 75%)	2		
insulated wall sheathing R 5 or greater (min. 75%)	3		
band joist insulated R19	2		
loose-fill attic insulation card and rulers	1		
energy heel trusses or raised top plate	2		
flat ceilings R38 (requires baffles and blocking in vented attics)	2		
vaulted and tray ceilings R25	1		
vaulted and tray ceilings R30	2		
attic radiant barrier	2		
attic kneewall doors R8	2		
attic pull-down or scuttle hole R5	1		
attic pull-down or scuttle hole R19 (compressed batt not acceptable)	2		
INSULATION SUBTOTAL			
WINDOWS			
REQUIRED: Maximum window U-factor 0.65	-		
window is NFRC certified with label	1		window label
window U-factor <0.40	3		window label
★window U-factor <0.35	5		window label
window, skylight and glass door SHGC <0.40	3		window label
★window, skylight and glass door SHGC <0.35	5		window label
1.5-foot overhangs over 80% of windows (max 2 feet above windows)	1		
solar shade screens (min all east and west windows)	3		
west facing glazing less than 2% of floor area	2		
east facing glazing less than 3% of floor area	2		
certified passive solar design (25% load reduction)	10		computer print-out
WINDOWS SUBTOTAL			
HEATING AND COOLING EQUIPMENT			
REQUIRED: Manual J calculation for sizing heating and cooling equipment	-		
Manual J calculation based on actual house orientation	5		
installed cooling equipment within 6,000 btu/hr of Manual J (all units)	2		load calc + eqmt size
installed heating equipment within 25,000 btu/hr of Manual J (all units)	2		load calc + eqmt size
★90% AFUE furnaces / 7.5 HSPF heat pumps	6		energy guide label
SEER 12 cooling equipment	4		energy guide label
SEER 14 cooling equipment	6		energy guide label

	POINTS	SCORE	DOCUMENTATION
geothermal heat pump	8		
sensible heat fraction less than or equal to 0.75 (all air conditioners)	2		spec sheet
★programmable thermostat (all systems)	1		
outdoor thermostat for heat pump	1		
cooling equipment has non-CFC and non-HCFC refrigerant	3		product literature
zone control - one system services multiple zones	5		
HEATING AND COOLING SUBTOTAL			
DUCTWORK / AIR HANDLER			
REQUIRED: air handlers & duct systems sealed with mastic or mastic tape	-		
REQUIRED: code approved solid connector for all flex to flex connections	-		
air handler located within conditioned space (all units)	5		
ducts located within conditioned space (min 90%)	5		
duct design complies with Manual D on a room-by-room basis	5		sizing calculation
all supply duct take-offs spaced 6" apart (no ducts from cap)	2		
no duct take-offs within 6" of supply plenum cap	1		
rigid ductwork or all flex duct pulled tight with no pinches	1		
return capacity 120% of supply capacity	3		
airflow for each duct run measured and balanced to within 15 cfm of design value	4		test results
variable speed blower	5		
no ducts in exterior walls or vaulted ceilings	1		
rigid supply trunk	3		
multiple return ducts (min 1 in each bedroom) or transfer grills	2		
interior doors with 1 inch clearance to finish floor	1		
duct trunk lines outside conditioned space insulated to R8	2		
DUCT BLASTER TEST			
REQUIRED: Duct blaster test result <10% of floor area served	-		test results
★Duct blaster result <5%	20		test results
DUCTWORK / AIR HANDLER SUBTOTAL			
ENERGY EFFICIENT BUILDING TOTAL *			
<i>*Builder must earn a minimum of 75 pts. No more than 85 pts. can be applied to the total score</i>			
ENERGY EFFICIENT LIGHTING / APPLIANCES			
indoor fluorescent fixtures (min 200 watts)	2		
recessed light fixtures are compact fluorescents	2		
automatic outdoor lighting controls (e.g. motion sensor)	2		
high efficiency exterior lighting	2		product literature
ENERGY STAR dishwasher	1		product label
ENERGY STAR refrigerator	2		product label
no garbage disposal	1		
ENERGY EFFICIENT LIGHTING / APPLIANCES TOTAL			
RESOURCE EFFICIENT DESIGN			
total floor area of house <1800 square feet	6		
total floor area of house 1800-2100 square feet	4		
total floor area of house 2100-2500 square feet	2		
outside dimensions of floor plan adheres to 2-ft dimensions	2		
floor joists @ 24-in. centers (all floors)	5		
floor joists @ 19.2-in. centers (all floors)	3		
non-load bearing wall studs @ 24-in. centers	2		
all wall studs @ 24-in. centers	3		
window rough openings eliminate jack stud	2		
non-structural headers in non-load bearing walls	2		
single top plate with stacked framing	3		
2-stud corners with drywall clips or alternative framing	3		
T-walls with drywall clips or alternative framing	3		
RESOURCE EFFICIENT DESIGN TOTAL			

	POINTS	SCORE	DOCUMENTATION
RESOURCE EFFICIENT BUILDING MATERIALS			
RECYCLED AND NATURAL CONTENT MATERIALS			
sustainably harvested lumber (50%)	3		
25% of cement in concrete replaced with fly ash or slag	3		content print-out
recycled concrete used as aggregate	1		letter
insulation (min 25% recycled)	1		product literature
reclaimed wood flooring	2		letter
recycled content tiles (min 30% recycled)	2		product literature
cork or bamboo flooring (min 10% of total floor area)	2		
carpet (min 50% recycled)	2		product literature
biodegradable carpet and backing (wool, hemp, etc.)	2		
outdoor decking and porches (min 40% recycled content)	3		
air conditioner condensing unit pad (min 50% recycled content)	1		
RECYCLED AND NATURAL CONTENT MATERIALS SUBTOTAL			
ADVANCED PRODUCTS			
engineered floor framing (80%)	4		
engineered roof framing	2		
OSB roof decking	1		
all beams are steel, engineered wood, or trusses	1		
all headers are steel or engineered wood	1		
engineered wall framing (25% of studs)	1		
engineered wall framing (80% of studs)	2		
interior trim finger jointed or MDF	1		
engineered exterior trim including soffit, fascia, and trim	1		
steel interior wall framing	1		
Structural Insulated Panels (exterior walls)	5		
Structural Insulated Panels (roof)	3		
Precast Autoclaved Aerated Concrete	5		
Insulated Concrete Forms	5		
ADVANCED PRODUCTS SUBTOTAL			
DURABILITY			
roofing (min 25-year warranty)	1		warranty
roofing (min 30-year warranty)	2		warranty
roofing (min 40-year warranty)	3		warranty
light roof color (tile or metal)	2		
roof drip edge	1		
exterior cladding (min 3 sides with 40-year warranty or masonry)	1		
walls covered with builder paper or housewrap (drainage plane)	1		
siding with vented rain screen	1		
back-primed siding and trim	1		
10 year warranty on all insulated glazing	1		warranty
window and door pan & sill flashing integrated with drainage plane	1		
window and door head flashing integrated with drainage plane	2		
continuous foundation termite flashing	1		
roof gutters that discharge water 5 feet away from foundation	1		
covered entryways (all doors)	2		
DURABILITY SUBTOTAL			
RESOURCE EFFICIENT BUILDING MATERIALS TOTAL			
WASTE MANAGEMENT			
WASTE MANAGEMENT PRACTICES			
Required: No construction materials shall be burned or buried on job site or anywhere but in a state-approved landfill.	-		
job site framing plan with cut list	1		frame plan + cut list
job site framing plan with locations of studs, joists, and roof structure with cut list	10		frame plan + cut list

	POINTS	SCORE	DOCUMENTATION
central cut area	3		
donation of excess materials or re-use (min \$500/job)	1		letter
WASTE MANAGEMENT PRACTICES SUBTOTAL			
RECYCLE CONSTRUCTION WASTE			
posted job site waste management plan - recycle 75% of 3 materials	5		management plan
wood	3		
cardboard	1		
metal	1		
drywall (recycle or grind and spread on site)	3		
plastics	1		
shingles	1		
RECYCLE CONSTRUCTION WASTE SUBTOTAL			
WASTE MANAGEMENT TOTAL			
INDOOR AIR QUALITY			
COMBUSTION SAFETY			
REQUIRED: No unvented combustion fireplaces or space heaters.	-		
REQUIRED: No duct runs from house system serving garage	-		
detached garage or no garage	5		
attached garage - seal bottom plate, penetrations, and band area	2		
attached garage - exhaust fan controlled by motion sensor or timer	2		
direct vent, sealed combustion fireplace (all units)	3		
heat pumps located inside conditioned space (all units)	2		
sealed combustion furnace or furnace isolated from conditioned space (all units)	4		
power vented water heater	2		
direct vent water heater or water heater isolated from conditioned space (all)	4		
carbon monoxide detector (one per floor required)	4		
backdraft depressurization test	4		test results
COMBUSTION SAFETY SUBTOTAL			
MOISTURE CONTROL			
plastic as footing wrap or capillary break between footing and foundation	2		
foundation drain on top of footing	1		
foundation drain at outside perimeter edge of footing	2		
drainage board for below grade walls	4		
gravel bed beneath slab	3		
vapor barrier beneath slab (above gravel) and in crawl space	1		
100% coverage of vapor barrier in crawl space all seams sealed to piers, walls	1		
capillary break between foundation and framing	1		
MOISTURE CONTROL SUBTOTAL			
VENTILATION			
REQUIRED: bathroom exhaust fans & clothes dryers must be ducted to outside	-		
passive radon/soil gas vent system	4		
radon test of home prior to occupancy	2		
ENERGY STAR bath fans (all units)	3		product literature
bath fans ducted with rigid duct (all units)	1		
automatic tub/shower room fan controls (e.g. timer)	1		
kitchen range hood or downdraft vented to exterior	3		
ceiling fans (minimum of 3 fans)	1		
whole house fan	2		
basement or sealed crawlspace dehumidification system	3		
vented garage storage room	1		
no power roof vents	1		
outside air intake without damper (10 cfm/person)	4		
outside air intake with dampers (10 cfm/person)	5		
ventilation timer on outside air intakes	3		
energy recovery ventilator	4		
VENTILATION SUBTOTAL			

	POINTS	SCORE	DOCUMENTATION
MATERIALS			
REQUIRED: Ducts in floor protected until floor finishing	-		
subfloor urea-formaldehyde free	1		product literature
all cabinets, shelves, and countertops urea formaldehyde free	3		product literature
all surfaces of particle board in house sealed with water-based sealant	1		
reduced VOC paints (less than 250 g/L)	1		product literature
low VOC paints (less than 150 g/L)	3		
reduced VOC stains and finishes on wood floors	1		product literature
low VOC sealants and adhesives (less than 250 g/L)	1		product literature
low VOC carpet certified by the Carpet & Rug Institute	2		product literature
alternative termite treatment	2		
alternative pest control	2		
outdoor structures made from non-CCA pressure treated lumber	1		product literature
central vacuum system with outside collection receptacle	1		
filter / air cleaner MERV 8 or better (e.g. pleated filter)	1		
2" pleated filter or thicker	2		
ducts protected until construction is completed	2		
MATERIALS SUBTOTAL			
INDOOR AIR QUALITY TOTAL			
WATER - INDOOR			
REQUIRED: All fixtures must meet National Energy Policy Act low flow standards.	-		
REQUIRED: heat traps on all water heaters	-		
water filter (NSF certified)	1		product literature
front-loading clothes washer	2		product label
low-flow showerheads (max 2.25 gal/min)	1		product literature
low-flush toilets (max 1.45 gal/min)	1		product literature
hot water demand re-circulation (not continuous circulation)	2		
manifold distribution system	2		
shower drain heat recovery device	2		
high efficiency water heater (min Energy Factor: gas 0.62 electric 0.92)	2		energy guide label
tankless gas water heater	2		
water heater tank insulation	1		
water heater pipe insulation on first two feet of pipe	1		
heat recovery water heating	1		
solar domestic water heating	10		
heat pump water heater	4		
WATER - INDOOR TOTAL			
WATER - OUTDOORS			
xeriscape™ guidebook given to homeowner	1		resource
xeriscape™ plan provided to homeowner	4		xeriscape plan
soil tested and amended	5		
drought-tolerant landscaping plants	5		
reduced sod area (less than the home's footprint)	5		
no irrigation system	3		
drip irrigation system	2		
greywater irrigation	3		
rainwater harvest system	3		
permeable pavement driveway / parking area	2		
WATER - OUTDOORS TOTAL			

	POINTS	SCORE	DOCUMENTATION
HOMEBUYER EDUCATION			
guaranteed energy bills	10		energy bill guarantee
review energy operations with homeowner	1		
review irrigation system operations with homeowner	2		
built-in recycling center	2		
local recycling contact	1		
household hazardous waste resources	1		
environmental features checklist for walk through	4		
HOMEBUYER EDUCATION TOTAL			
BUILDER OPERATIONS			
REQUIRED: Must build at least 1 EarthCraft House every year	-		
builder commits 80% of total homes to EarthCraft House standards	4		
markets EarthCraft House program	2		
environmental checklist provided to all subcontractors	2		
uses HBA Homeowner Handbook for warranty standards (or approved equiv.)	2		
BUILDER OPERATIONS TOTAL			
BONUS POINTS			
site located within 1/4 mile of mass transit	5		
sidewalk connects house to business district (max 2 miles)	5		
brownfield site	5		
solar electric system	25		
alternative fuel vehicles: electric charging station or natural gas pump	5		
Easy Living accessibility / visitability certification	2		
American Lung Association Health House	5		
certified as a LEED-H Home	10		
exceeds ENERGY STAR (1 point for each 5%) max 5 points			
Innovation points - Builder submits specifications for innovative products or design features to qualify for additional points			
BONUS POINTS TOTAL			
	MIN		
EARTHCRAFT HOUSE TOTALS			
SITE PLANNING	0		
ENERGY EFFICIENT BUILDING ENVELOPE AND SYSTEMS	75		(Max 85)
ENERGY EFFICIENT LIGHTING / APPLIANCES	0		
RESOURCE EFFICIENT DESIGN	0		
RESOURCE EFFICIENT BUILDING MATERIALS	0		
WASTE MANAGEMENT	0		
INDOOR AIR QUALITY	0		
WATER - INDOOR	0		
WATER - OUTDOORS	0		
HOMEBUYER EDUCATION	0		
BUILDER OPERATIONS	0		
BONUS POINTS	0		
GRAND TOTAL	150		