

**Pick list items**

**Green Field Definitions**

**Web url, if applicable**

**Walkability Score**

Walkability is a measure of how friendly an area is to walking. Walkability has many health, environmental, and economic benefits.

<http://www.walkscore.com/>

**Green Certifications**

**EarthCraft House™**

Developed in 1999 by the Greater Atlanta Home Builders Association and Southface, EarthCraft is the Southeast's standard for green building, pairing building science with regional know-how.

<http://earthcraft.org/>

**Energy Star Home™**

New homes that meet strict guidelines for energy efficiency can qualify for Energy Star certification. An Energy Star qualified home uses at least 15% less energy than standard homes built to the 2004 International Residential Code (IRC). They usually include properly installed insulation, high performance windows, tight construction and ducts, energy efficient cooling and heating systems, and Energy Star qualified appliances, lighting, and water heaters.

[http://www.energystar.gov/index.cfm?c=new\\_homes.hm\\_index](http://www.energystar.gov/index.cfm?c=new_homes.hm_index)

**EPA Indoor Air Quality Plus**

A home must first be designed and built to earn the ENERGY STAR—the government-backed symbol for energy efficiency. Indoor airPLUS construction specifications are designed to help improve indoor air quality (IAQ) in new homes compared with homes built to minimum code.

[http://www.epa.gov/iaplus01/pdfs/consumer\\_brochure.pdf](http://www.epa.gov/iaplus01/pdfs/consumer_brochure.pdf)

**EPA Water Sense**

WaterSense, a partnership program by the U.S. Environmental Protection Agency, seeks to protect the future of our nation's water supply by offering people a simple way to use less water with water-efficient products, new homes, and services.

<http://www.epa.gov/WaterSense/>

**FGBC Certified Neighborhood**

This standard was developed by the Florida Green Development Working Committee of the Florida Green Building Coalition. The committee had active participation from one or more architects, builders, consultants, developers, ecologists, educators, energy raters, government agencies, landscape architects, planners, Realtors, researchers, and water-management district personnel.

[http://www.floridagreenbuilding.org/files/1/File/Standard\\_Development/Version7/Green%20Development%20V7%20ReferenceGuide%202011%201-6-11.pdf](http://www.floridagreenbuilding.org/files/1/File/Standard_Development/Version7/Green%20Development%20V7%20ReferenceGuide%202011%201-6-11.pdf)

**FGBC**

The FGBC Green Home Standard is applicable to single-family homes and multi-family buildings 3 stories or under. All homes with Certificates of Occupancy ≤ 12 months from the green home certification application submittal must use the new home certification process.

<http://floridagreenbuilding.org/>

**FGBC Remodel**

All homes with a Certificate of Occupancy > 12 months from the green home certification application submittal must use the Existing Home certification process. All homes that have been occupied for their intended purposes are considered existing.

<http://floridagreenbuilding.org/>

**Florida-Friendly Yard Recognition**

By recognizing specific landscapes as Florida-Friendly, the Florida Yards & Neighborhoods (FYN) branch of the Florida-Friendly Landscaping™ (FFL) Program honors homeowners' efforts to conserve water and protect water quality and other natural

<http://fyn.ifas.ufl.edu/homeowner.htm>

**Florida Water Star<sup>SM</sup>**

Florida Water Star is a voluntary certification program for builders and developers, which is designed to increase water efficiency in landscapes, irrigation systems and indoors. The Southwest Florida Water Management District is encouraging good water stewardship to the building industry by offering this recognition program that focuses on water efficiency and water quality protection. Florida Water Star is tailored to the needs of Florida's water resources and is easily integrated into other green certification programs such as Energy Star®, the Florida Green Building Coalition's green standards and the U.S. Green Building Council's LEED program.

[http://www.swfwmd.state.fl.us/conservation/florida\\_water\\_star/](http://www.swfwmd.state.fl.us/conservation/florida_water_star/)

**FORTIFIED for Safer Living®**

Every area of North America is vulnerable to some type of natural disaster. For that reason, the Institute for Business & Home Safety (IBHS) created the **FORTIFIED for Safer Living®** single family residential construction program. The **Fortified** program offers a package of "code-plus" upgrades that greatly increase a new home's resistance to natural perils, including hurricane, tornado, wildfire, flood, freezing weather, hail and earthquake, as well as to fire and interior water damage. Specifically, Fortified requirements strengthen a home's outer envelope---notably roof and wall systems, doors, glazed openings, and the foundation.

[http://www.disastersafety.org/fortified?type=fortified\\_safer\\_living](http://www.disastersafety.org/fortified?type=fortified_safer_living)

**LEED Neighborhood Development**

The LEED for Neighborhood Development Rating System integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design. LEED for Neighborhood Development is a collaboration among USGBC, Congress for the New Urbanism and the Natural Resources Defence Council. LEED-ND certification provides independent, third-party verification that a development's location and design meet accepted high levels of environmentally responsible, sustainable

<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>

**LEED for Homes**

LEED, or Leadership in Energy and Environmental Design, is an internationally-recognized green building certification system. Developed by the U.S. Green Building Council (USGBC) in March 2000, LEED provides building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions.

<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1988>

**NAHB Certification**

The NAHB Research Center provides independent, third-party certification of new homes, additions & renovations, and land developments.

<http://www.nahbgreen.org/>

**Other (Specify in Remarks)**

## Green Energy

### Energy Star Dishwasher

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping us all save money and protect the environment through energy efficient products and practices. The ENERGY STAR label was established to reduce greenhouse gas emissions and other pollutants caused by the inefficient use of energy; and make it easy for consumers to identify and purchase energy-efficient products that offer savings on energy bills without sacrificing performance, features, and comfort. As of August 11, 2009, ENERGY STAR qualified dishwashers are required to use 5.8 gallons of water per cycle or less. Older dishwashers use much more water than newer models. A dishwasher built before 1994 wastes more than 10 gallons of water per cycle. A new, ENERGY STAR qualified dishwasher will save, on average, 1,300 gallons of water over its lifetime.

<http://energystar.supportportal.com/link/portal/23002/23018/Article/17719/How-much-water-do-ENERGY-STAR-dishwashers-use-Is-there-a-water-efficiency-metric-water-factor-for-ENERGY-STAR-dishwashers-like-there-is-for-ENERGY-STAR-qualified-clothes-washers>

### Energy Star Refrigerator

ENERGY STAR qualified refrigerators are required to use 20% less energy than models not labeled with the ENERGY STAR logo. Choose a new qualified model rather than a non-qualified model and cut your energy bills by \$165 over the lifetime of your fridge.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=RF](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=RF)

### Energy Star Qualified Roof Product

ENERGY STAR qualified roof products reflect more of the sun's rays. This can lower roof surface temperature by up to 100F, decreasing the amount of heat transferred into a building. ENERGY STAR qualified roof products can help reduce the amount of air conditioning needed in buildings, and can reduce peak cooling demand by 10-15 percent.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=RO](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=RO)

### Energy Star Clothes Washer

The average American family washes almost 400 loads of laundry each year. It's a good thing families can cut their related energy costs by about a third - and the water costs by more than half - just by purchasing a clothes washer with the ENERGY STAR label.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=CW](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CW)

### Energy Star Windows

Replacing old windows with ENERGY STAR qualified windows lowers household energy bills by 7-15 percent. Lower energy consumption also reduces greenhouse gas emissions from power plants and shrinks a house's carbon footprint.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=WI](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=WI)

### Gas Tankless Appliances (Water Heater)

By heating water only when it's needed, ENERGY STAR qualified gas tankless water heaters cut water heating expenses by 30%, while also providing continuous hot water delivery. Gas tankless models are a great choice for new construction and major remodeling, but are also becoming popular as a replacement for gas storage water heaters.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=WH](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=WH)

**Geothermal Heat Pump**

Geothermal heat pumps (sometimes referred to as GeoExchange, earth-coupled, ground-source, or water-source heat pumps) have been in use since the late 1940s. Geothermal heat pumps (GHPs) use the constant temperature of the earth as the exchange medium instead of the outside air temperature. This allows the system to reach fairly high efficiencies (300%-600%) on the coldest of winter nights, compared to 175%-250% for air-source heat pumps on cool days.

[http://www.energysavers.gov/your\\_home/space\\_heating\\_cooling/index.cfm/mytopic=12640](http://www.energysavers.gov/your_home/space_heating_cooling/index.cfm/mytopic=12640)

**Heat Pump Water Heater**

Most homeowners who have heat pumps use them to heat and cool their homes. But a heat pump also can be used to heat water—either as stand-alone water heating system, or as combination water heating and space conditioning system. Heat pump water heaters use electricity to move heat from one place to another instead of generating heat directly. Therefore, they can be two to three times more energy efficient than conventional electric resistance water heaters. To move the heat, heat pumps work like a refrigerator in reverse. While a refrigerator pulls heat from inside a box and dumps it into the surrounding room, a stand-alone air-source heat pump water heater pulls heat from the surrounding air and dumps it—at a higher temperature—into a tank to heat water.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=WHH](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=WHH)

**Heat Recovery Unit**

The heat recovery unit is installed in the hot line of your air conditioner or heat pump's refrigerant circuit. The hot vapor flows through a heat exchanger. The heat from the vapor is then absorbed by the water, which is circulated through the heat exchanger by a small pump. This gives you inexpensive hot water.

**HERS Index**

Home Energy Rating System (HERS) is a measurement of a home's energy efficiency, recognized by the Federal Government which is the uniform system for evaluating the overall energy efficiency of a residential dwelling.

**Hydro Power**

Hydropower technologies capture water's potential energy via a turbine to generate electricity. It is the nation's largest, most reliable, and least expensive source of renewable power generation.

<http://energy.gov/articles/16-rd-projects-across-11-states-advance-hydropower-us>

**Hydronic Radiant Heating**

Hydro heat is hot water heat and uses a boiler to heat water and circulates it through radiators installed in the various rooms of your home.

<http://energy.gov/articles/16-rd-projects-across-11-states-advance-hydropower-us>

**Humidistat**

A humidistat is a critical part of a humidifier that measures the humidity in the area where you wish to control the humidity levels. There are two major components to the humidistat. The first is a sensing element made up of alternate metal conductors mounted on a flat plate. This sensing unit is attached to the relay amplifier, which will read the signals from the sensing element and turn the humidifier on or off. Humidistats are used in stand-alone humidifiers but are also used in other applications. Since humidistats accurately measure the amount of relative humidity, they are used to control dampers, valves and other switches in an HVAC system to control the flow of air and thereby control the humidity levels in specific

[http://www.ehow.com/about\\_5059469\\_humidistat.html?ref=Track2&utm\\_source=ask](http://www.ehow.com/about_5059469_humidistat.html?ref=Track2&utm_source=ask)

**No Outdoor Lighting**

Outdoor lighting that is designed and implemented properly should be cost-effective, should control light by directing it where it is needed, should reduce glare and distribute illumination evenly, and should reduce light trespass. No Outdoor lighting reduces the energy costs for the entire property.

<http://www.energystar.gov/ia/business/EPA BUM CH6 Lighting.pdf>

**Programmable Thermostat**

The average household spends more than \$2,200 a year on energy bills - nearly half of which goes to heating and cooling. Homeowners can save about \$180 a year by properly setting their programmable thermostats and maintaining those settings. The pre-programmed settings that come with programmable thermostats are intended to deliver savings without sacrificing comfort. The key is to establish a program that automatically reduces heating and cooling in your home when you don't need as much.

[http://www.energystar.gov/index.cfm?fuseaction=find\\_a\\_product.showProductGroup&pgw\\_code=TH](http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=TH)

**Radiant Barrier Insulation**

Radiant barrier insulation is a reflective insulation system that offers a permanent way to reduce energy costs. Radiant barrier insulation systems reflect radiant heat energy instead of trying to absorb it. A pure aluminumized film radiant barrier reflective insulation is unaffected by humidity and will continue to perform at a consistent level no matter how humid it may be. A radiant barrier insulation system is a layer of metalized film facing an airspace and is installed in the envelope of a building.

**Reflective Roofing Material**

Cool Roof Coatings are white or special reflective pigments that reflect sunlight. Coatings are like very thick paints that can protect the roof surface from ultra-violet (UV) light and chemical damage, and some offer water protection and restorative features.

[http://www.energysavers.gov/your\\_home/designing\\_remodeling/index.cfm/mytopic=10097](http://www.energysavers.gov/your_home/designing_remodeling/index.cfm/mytopic=10097)

**SEER**

Seasonal Energy Efficiency Ratio (SEER): This is a measure of equipment energy efficiency over the cooling season. It represents the total cooling of a central air conditioner or heat pump (in Btu) during the normal cooling season as compared to the total electric energy input (in watt-hours) consumed during the same period. SEER is based on tests performed in accordance with AHRI 210/240 (formerly ARI Standard 210/240)1

[http://www.energystar.gov/index.cfm?c=airsrc\\_heat.pr\\_crit\\_as\\_heat\\_pumps](http://www.energystar.gov/index.cfm?c=airsrc_heat.pr_crit_as_heat_pumps)

### **Solar Cover for Pool**

Swimming pools lose energy in a variety of ways, but evaporation is by far the largest source of energy loss. Covering a pool when it is not in use is the single most effective means of reducing pool heating costs. Savings of 50%–70% are possible. A Solar Pool Cover or Blanket traps heat from the sun, transmitting the heat to the pool, keeping the water temperature warm. The cover also prevents heat from escaping into the air and can help reduce the size of a solar pool heating system, saving money.

[http://www.energysavers.gov/your\\_home/water\\_heating/index.cfm/mytopic=13140](http://www.energysavers.gov/your_home/water_heating/index.cfm/mytopic=13140)

### **Solar Heated Pool**

Solar pool heating systems are the most cost effective way to heat your pool, with a very low operating cost. Pool water is pumped through the filter and then through the solar collector(s), where it is heated before it is returned to the pool. In hot climates, the collector(s) can also be used to cool the pool during peak summer months by circulating the water through the collector(s) at night.

### **Solar Hydronic Radiant Heating**

Solar Hydronic heat is hot water heat that uses solar collectors to heat water and circulates it through radiators installed in the various rooms of your home.

### **Solar Outdoor Lighting**

Solar powered lighting consists of a solar panel or photovoltaic cell that collects the sun's energy and storing it in a rechargeable battery. The controller senses when there is no energy from the sun and begins to use the stored energy in the rechargeable battery.

### **Solar Photovoltaic**

Photovoltaics (PV) is a method of generating electrical power by converting solar radiation into direct current electricity using semiconductors that exhibit the photovoltaic effect. Photovoltaic power generation employs solar panels composed of a number of solar cells containing a photovoltaic material. Materials presently used for photovoltaics include monocrystalline silicon, polycrystalline silicon, amorphous silicon, cadmium telluride, and copper indium gallium selenide/sulfide

<http://en.wikipedia.org/wiki/Photovoltaics>

### **Solar Powered Pool Pump**

The conventional way of cleaning a swimming pool of debris and unwanted particles of dirt is to "turn over" and filter the water using an electric motorized pump. Depending on the size of your pool and the cost of electricity in your locality, running the electric pump is often very expensive. Filtering a pool by using solar-powered pumps can offer a cost-effective and ecologically friendly alternative. A "stand-alone" solar filtration system sends wattage direct from the sun panels to the pool pump without the need to connect to any other form of electricity. It is possible to power an AC pump with solar energy by converting the direct current through a power inverter, but it will require more watts of solar power to run them than a DC pump will.

[http://www.energysavers.gov/your\\_home/water\\_heating/index.cfm/mytopic=13230](http://www.energysavers.gov/your_home/water_heating/index.cfm/mytopic=13230)

### **Sprayfoam Insulation- Walls**

Sprayed foam insulation materials have the ability to fill even the smallest cavities and gives them twice the R-value per inch than traditional batt insulation.

[http://www.energysavers.gov/your\\_home/insulation\\_airsealing/index.cfm/mytopic=11700](http://www.energysavers.gov/your_home/insulation_airsealing/index.cfm/mytopic=11700)

**Sprayfoam Insulation- Attic**

Sprayed foam insulation materials have the ability to fill even the smallest cavities and gives them twice the R-value per inch than traditional batt insulation.

[http://www.energysavers.gov/your\\_home/insulation\\_airsealing/index.cfm/mytopic=11700](http://www.energysavers.gov/your_home/insulation_airsealing/index.cfm/mytopic=11700)

**Tankless Gas Hot Water**

The concept of tankless water heating is pretty simple - instead of heating water and storing it in a tank where energy is lost throughout the day, tankless systems heat water on demand, only as hot water is actually needed and used. A flow sensor detects when you turn on a hot water faucet and activates the tankless water heater. A series of heating elements then heat the water and will continue to do so until the flow sensor recognizes that the water has stopped flowing (you turn the faucet off).

<http://www.gotankless.com/how-tankless-works.html>

**Wind**

Renewable energy refers to electricity supplied from energy sources, such as wind and are considered renewable sources because they are continuously replenished. Electricity that is generated from renewable energy sources is often referred to as "green power." Green power products can include electricity generated exclusively from renewable resources or, more frequently, electricity produced from a combination of fossil and renewable resources.

[http://www.energystar.gov/index.cfm?c=sb\\_guidebook.sb\\_guidebook\\_renewable](http://www.energystar.gov/index.cfm?c=sb_guidebook.sb_guidebook_renewable)

**Green Water**

**Cistern**

Cisterns are storage tanks for rainfall that has been collected from a roof or some other catchment area. Although usually located underground, cisterns may be placed at ground level or on elevated stands either outdoors or within buildings. Cisterns should be watertight, have smooth interior surfaces, enclosed lids, and be large enough to provide adequate storage. They should be fabricated from non-reactive materials such as reinforced concrete, galvanized steel, and plastic.

**Dual Flush Toilets**

Dual flush toilets handle solid and liquid waste differently from standard American style toilets, giving the user a choice of flushes. It's an interactive toilet design that helps conserve water that has caught on quickly in countries where water is in short supply and in areas where water supply and treatment facilities are older or overtaxed.

**Grey Water System (Whole House)**

Greywater is water that has been used for washing dishes, laundering clothes, or bathing. Essentially, any water, other than toilet wastes, kitchen sinks and diaper wash water, draining from a household is greywater. Reusing greywater serves two purposes: it reduces the amount of freshwater needed to supply a household, and reduces the amount of waste water entering sewer or septic

**High Efficiency Faucet/Fixtures**

This can be difficult to verify. If the home has been recently updated with these features, the seller may have receipts or manufacturer information, especially for showerheads. In general, look for aerators on all faucets and showerheads.

**High Efficiency (Low Flow) Toilet**

In 1992, Congress passed the Energy Policy Act of 1992, which mandated that beginning in 1994 all residential and commercial toilets use no more than 1.6 gallons of water per flush. Before that time, typical toilets sold in the United States used 3.5 to 7 gallons (13.24 to 26.5 liters) per flush.

**Low Volume Irrigation**

Low Volume Irrigation, also known as trickle irrigation or microirrigation, is an irrigation method which saves water and fertilizer by allowing water to drip slowly to the roots of plants, either onto the soil surface or directly onto the root zone. Low Volume Irrigation is not required for the entire yard and can consist of mini-sprays, drip irrigation, or a network of valves, pipes, tubing, and emitters which delivers water directly to the base of the plant.

**Irrigation by Reclaimed Water**

Reclaimed water is highly treated wastewater and can be used for irrigation and other uses to extend our water supplies. Up to 50% of a community's drinking water is used for irrigation. Much of this irrigation water could be replaced with reclaimed water. Reclaimed water is a clear and odorless high-quality water source for irrigating industrial and natural systems' needs.

<http://www.swfwmd.state.fl.us/conservation/reclaimed/>

**No Irrigation**

Many homeowners are choosing to use plants that are more appropriate for a Florida landscape. Florida-Friendly plants - which include both native plants and adopted, non-native plants - survive with little maintenance and thrive in the climate and soils of the state's varied regions, with no irrigation. Use of these low-maintenance plants in residential landscapes reduces the need for water, fertilizer, and pesticides which also reduces the energy required for landscape maintenance. Creating landscaping that needs no irrigation reduces energy costs for landscaping and

<http://edis.ifas.ufl.edu/pdffiles/EP/EP39600.pdf>

**Rain Barrels with Spigot and Overflow Plumbing**

The water savings from using stored rainwater rather than municipal or well water can be substantial over a period of time. A rain barrel can also help reduce the amount of water that may settle around the foundation of your home.

<http://www.swfwmd.state.fl.us/conservation/rainbarrel/>

**Rain Water Harvesting**

Rainwater harvesting involves the collection, storage and distribution of rainwater from a roof or a runoff-supplied system for use inside and/or outside a home or business.

[http://www.sfwmmd.gov/portal/page/portal/xrepository/sfwmd\\_repository\\_pdf/spl\\_rain\\_harvest.pdf](http://www.sfwmmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/spl_rain_harvest.pdf)

**Disaster**

**Above Flood Plain**

Above the base flood elevation level determined by FEMA.

<http://msc.fema.gov/webapp/wcs/stores/servlet/info?storeId=10001&catalogId=10001&langId=-1&content=floodZones&title=FEMA%20Flood%20Zone%20>

### **Fire Resistant Exterior Cladding/Finishes**

Of all construction materials, concrete is one of the most resistant to heat and fire. Such fire resistance gives houses built with insulating concrete forms (ICFs) certain safety advantages. Those advantages give builders and buyers yet another reason to consider using ICFs for their next project. Experience shows that concrete structures are more likely to remain standing through fire than are structures of other materials. Unlike wood, concrete does not burn. Unlike steel, it does not soften and bend. Concrete does not break down until it is exposed to thousands of degrees Fahrenheit—far more than is present in the typical house fire.

### **Fire/Smoke Detection System Integrated**

Enhance your safety by installing heat/smoke detectors integrated with your security and home automation services. A low-current photoelectric smoke detector integrated circuit is designed to be used with an infrared optical chamber to sense light scattered from smoke particles. Key features of a low-current photoelectric smoke detector includes operating with ultra-low standby current that results in an average 10-year battery life, plus a networking capability that allows units to be interconnected so that if any unit senses smoke all units will sound an alarm

### **Hurricane Insurance Deduction Qualified**

Taxpayers who sustain losses attributable to a disaster occurring in an area subsequently declared by the President of the United States to be a federally declared disaster area that warrants assistance by the federal government under the Robert T. Stafford Disaster Relief and Emergency Assistance Act may elect Section 165(i) treatment. For purposes of 165(i), a disaster includes an event declared by the President as a major disaster or emergency

<http://www.irs.gov/businesses/small/article/0,,id=171088,00.html>

### **Hurricane Shutters/Windows**

Hurricane shutters are used to prevent windows from being broken by flying objects during a storm. Although the negative pressure caused by high velocity wind flowing over a building roof can cause the roof to fail with the building envelope intact, broken windows allow the air pressure to rise inside a building, creating an even greater pressure difference, and increasing the likelihood of roof failure. Windows can be purchased that will sustain up to 150 mph winds which occur during a hurricane or tornado.

### **Lightning Protection System**

Lightning Protection is designed for two objectives. A lightning protection system shields a home and provides a direct path to ground for the lightning current to flow. It must also prevent damage to the home as the current flows through the system. Lightning protection systems keep homeowners and their property safe from lightning. A Certified Lightning Protection System guarantees that specific national safety standards are met, such as those set forth by the National Fire Protection Association and Underwriters Laboratories.

<http://www.lightning.org/brochures-protection>

**Safe Room**

Extreme windstorms in many parts of the country pose a serious threat to buildings and their occupants. Your residence may be built “to code,” but that does not mean it can withstand winds from extreme events such as tornadoes and major hurricanes. The purpose of a safe room or a wind shelter is to provide a space where you and your family can seek refuge that provides a high level of protection. You can build a safe room in one of several places in your home: your basement, atop a concrete slab-on-grade foundation or garage floor or an interior room on the first floor.

[http://www.fema.gov/hazard/tornado/to\\_saferoom.shtm](http://www.fema.gov/hazard/tornado/to_saferoom.shtm)

**Indoor Air**

**Bath Fans vented to outside**

A plumbing vent that vents sewer gases outside.

[http://www.energystar.gov/ia/partners/publications/pubdocs/DIY\\_Guide\\_May\\_2008.pdf](http://www.energystar.gov/ia/partners/publications/pubdocs/DIY_Guide_May_2008.pdf)

**Direct Vent**

Direct Vent is sealed combustion water heater, fireplace, space heating or water heater outside conditioned space.

**Fresh Air Ventilation System**

If too little outdoor air enters a home, pollutants can sometimes accumulate to levels that pose health and comfort problems. Likewise, one approach to lowering the concentrations of indoor pollutants in your home is to increase the amount of outdoor air coming in. Outdoor air enters and leaves a house by: infiltration, natural ventilation, and mechanical ventilation. In natural ventilation, air moves through open windows and doors. Mechanical ventilation devices, from exhaust fans to air handling systems use fans and duct work to distribute the filtered air to strategic points throughout the house.

<http://www.epa.gov/iaq/homes/hip-ventilation.html>

**HVAC Filter MERV 8 or greater**

The main purposes of a Heating, Ventilation, and Air-Conditioning (HVAC) system are to help maintain good indoor air quality through adequate ventilation with filtration and provide thermal comfort. In most HVAC systems a portion of ventilation air supplied to occupied spaces is outdoor air and a portion is recirculated air. Air filters should have a dust-spot rating between 35% and 80% or a Minimum Efficiency Rating Value (MERV) of between 8 and 13. The higher the rating, the better the protection for the equipment and the

<http://www.epa.gov/iaq/schooldesign/hvac.html>

**Low/No VOC Paints, stains and finishes**

Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands. Examples include: paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers, correction fluids and carbonless copy paper, graphics and craft materials including glues and adhesives, permanent markers, and photographic solutions. Low or No VOC Paints, Stains and Finishes reduce the amount of gas exposure.

<http://www.epa.gov/iaq/voc.html>

**No/Low VOC Flooring**

Volatile organic compounds (VOCs) are emitted as gases from certain solids or liquids. VOCs include a variety of chemicals, some of which may have short- and long-term adverse health effects. Concentrations of many VOCs are consistently higher indoors (up to ten times higher) than outdoors. VOCs are emitted by a wide array of products numbering in the thousands. Examples include: paints and lacquers, paint strippers, cleaning supplies, pesticides, building materials and furnishings, office equipment such as copiers and printers, correction fluids and carbonless copy paper, graphics and craft materials including glues and adhesives, permanent markers, and photographic solutions. Low or No VOC Paints, Stains and Finishes reduce the amount of gas exposure.

<http://www.epa.gov/iaq/voc.html>

**Non Toxic Pest Control**

The best way to manage pests is to try to prevent them from appearing in the first place. For instance, stop insects from entering your home by removing sources of water and shelter; and prevent mold growth by properly ventilation and maintaining your bathroom. If pest prevention does not work, consider natural or less-toxic alternatives to chemical pesticides.

**HVAC Cartridge/Media Filter**

Media filters provide a combination of trapping and removing the smallest and potentially harmful particles in the air, while allowing the maximum amount of air to flow through the filter.

<http://www.epa.gov/iaq/pubs/residair.html>

**HVAC UV/Electronic Filtration**

Two types of air cleaning devices can remove particles from the air: mechanical and electronic air cleaners. Mechanical air filters remove particles by capturing them on filter materials and the High Efficiency particulate air (HEPA) filters are in this category. Electronic air cleaners such as electrostatic precipitators use a process called electrostatic attraction to trap charged particles. They draw air through an ionization section where particles obtain an electrical charge. The charged particles then accumulate on a series of flat plates called a collector that is oppositely charged. Ion generators, or ionizers, disperse charged ions into the air, similar to the electronic air cleaners but without a collector. These ions attach to airborne particles, giving them a charge so that they attach to nearby surfaces such as walls or furniture, or attach to one another and settle faster.

**Range Hood vented to outside**

Unvented appliances leave all combustion products in the house. Even if incomplete combustion pollutants such as carbon monoxide (CO) are kept to a minimum, these appliances can generate large amounts of moisture which can create its own problems.

<http://www.epa.gov/iaq/homes/hip-combustion.html>

**Sealed Combustion Appliances**

Combustion appliances are those which burn fuels for heating, cooking, or decorative purposes. Typical fuels are gas, both natural and liquefied petroleum (LP); kerosene; oil; coal; and wood. Examples include space heaters, ranges, furnaces, fireplaces, water heaters, and clothes dryers. These appliances are usually safe. However, under certain conditions, these appliances can release harmful or deadly combustion pollutants into the home (commonly called combustion spillage or backdrafting).

<http://www.epa.gov/iaq/homes/hip-combustion.html>

**Whole House Water Purification**

A whole house water filter system helps reduce sediment, sand and rust at the main water supply so there's less build up inside water heaters, pipes, dishwashers and other appliances and fixtures. To obtain the best results from a household filtration system by installing it at the home's main water inlet. This lets the system reduce sand, sediment and rust from a home's water supply.

**Whole House Vacuum System**

Central vacuum systems are designed to remove all the dirt and debris from your house and send it through tubing located in the walls to a receptacle in an out-of-the-way location like a garage or basement. With central vacuums, A central vacuum system can cost less than a high-end moveable vacuum and can add around \$2,000 to your home's resale value.

<http://home.howstuffworks.com/central-vacuum1.htm>

## Landscape

### Florida Friendly / Drought Tolerant Turf

Many homeowners are choosing to use plants and/or turf that are more appropriate for a Florida landscape. Florida-Friendly plants and/or turf - which include both native plants and/or turf and adopted, non-native plants - survive with little maintenance and thrive in the climate and soils of the state's varied regions. Use of these low-maintenance plants in residential landscapes reduces the need for water, fertilizer, and pesticides which also reduces the energy required for landscape maintenance.

### Non Toxic Fertilizer and Pesticides

Nonpoint source pollution, or "polluted runoff," is created when rain, snowmelt, irrigation water, and other water sources run over the land, picking up pollutants and transporting them to local water bodies. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters and ground waters. Using Non Toxic Fertilizer and Pesticides reduces the NPS Pollution and is better for the environment.

[http://www.epa.gov/owow\\_keep/NPS/index.html](http://www.epa.gov/owow_keep/NPS/index.html)

### Vegetable (Productive) Garden Roof

A green roof system is an extension of the existing roof which involves a high quality water proofing and root repellent system, a drainage system, filter cloth, a lightweight growing medium and plants. Green roof systems may be modular, with drainage layers, filter cloth, growing media and plants already prepared in movable, interlocking grids, or, each component of the system may be installed separately. Green roof development involves the creation of "contained" green space on top of a human-made structure.

<http://greenroofs.org/index.php/about-green-roofs>

## Financing

### Energy Efficient Mortgage

An Energy Efficient Mortgage (EEM) is a mortgage that credits a home's energy efficiency in the mortgage itself. EEMs give borrowers the opportunity to finance cost-effective, energy-saving measures as part of a single mortgage and stretch debt-to-income qualifying ratios on loans thereby allowing borrowers to qualify for a larger loan amount and a better, more energy-efficient home.

[http://www.energystar.gov/index.cfm?c=mortgages.energy\\_efficient\\_mortgages](http://www.energystar.gov/index.cfm?c=mortgages.energy_efficient_mortgages)

### Green Financing Available

Numerous sources of funding for green building are available at the national, state and local levels for homeowners, industry, government organizations and nonprofits.

<http://www.epa.gov/greenbuilding/tools/funding.htm>

## Floor Covering

### Bamboo

Bamboo flooring provides high sustainability and is eco friendly. Bamboo is not only less expensive and more resilient than typical wood flooring, but it also takes only a few years to reach maturity.

**Concrete**

Save energy and create a healthier, more comfortable living environment by having the floor itself distribute the heat—from the ground up—via a radiant in-floor heating system. Tubes that circulate hot water or electrical heating elements are installed in the concrete slab when it's poured, turning the thermal mass of the concrete into an inconspicuous radiator of warm, even heat.

<http://www.concretenetwork.com/radiant-floor-heating/>

**Cork**

Floors made of sustainably grown or harvested materials. For instance, the cork used in linoleum and cork tiles is sustainably harvested from the bark of cork oak.

<http://www.epa.gov/greenhomes/bathroom.htm>

**Forestry Stewardship Certified**

Loggers, foresters, environmentalists, and sociologists came together in the first General Assembly to form the FSC in 1993. The FSC standards represent the world's strongest system for guiding forest management toward sustainable outcomes.

[http://www.fscus.org/about\\_us/](http://www.fscus.org/about_us/)

**Marmoleum**

Environmentally friendly, durable and cost effective flooring with built in bacteria resistance.

**Reclaimed Wood**

By using recycled or reclaimed woods, we do not have to cut down trees, nor fill any landfills which is environmentally friendly and cost effective.

**Salvaged Flooring**

Consider using reclaimed lumber as a flooring option. Hundreds of building material reuse stores sell high-quality flooring salvaged from construction and renovation projects.

**Pool Type**

**Salt Water Pool**

The important distinction is that saltwater pools (usually) lack chloramines, referred to as combined chlorine. Chloramines are the irritants which give traditional pools the stigma of burning eyes and caustic smell. The electrolytic process burns off chloramines in the same manner as traditional shock (oxidizer). When chlorine levels are low in the pool, one possible cause is low salt (others can be higher-than-normal chlorine demand, low stabilizer or mechanical issues with the generator itself.) No need to add chlorine to a salt water pool because salt makes chlorine.

**Exterior**

**ICF Insulated Concrete Forms**

Homes built using an insulating concrete form (ICF) system literally have the insulation built into the walls as part of the structure. This system creates walls that have a high thermal resistance, with R-values typically above R-17. Insulating concrete forms (ICFs) are basically forms for poured concrete walls, which remain as part of the wall assembly. ICF systems consist of interconnected foam boards or interlocking, hollow-core foam insulation blocks. Along with the foam boards, steel rods (rebar) can be added for reinforcement before the concrete is poured. When using foam blocks, steel rods are often used inside the hollow-cores to strengthen the walls.

[http://www.energysavers.gov/your\\_home/insulation\\_airsealing/index.cfm/mytopic=11640](http://www.energysavers.gov/your_home/insulation_airsealing/index.cfm/mytopic=11640)

**SIP Structurally Insulated Panel**

Structural Insulated Panels (SIPs) are prefabricated insulated structural elements for use in building walls, ceilings, floors, and roofs. They provide superior and uniform insulation compared to more traditional construction methods (stud or "stick frame"), offering energy savings of 12%–14%.

[http://www.energysavers.gov/you\\_r\\_home/insulation\\_airsealing/index.cfm/mytopic=11740](http://www.energysavers.gov/you_r_home/insulation_airsealing/index.cfm/mytopic=11740)

**Tilt Up Walls**

In a tilt-up construction project, the building's walls are poured directly at the jobsite in large slabs of concrete called "tilt-up panels" or "tiltwall panels". These panels are then raised into position around the building's perimeter forming the exterior walls. Tilt-up construction allows general contractors to build a wide range of commercial buildings more quickly and with lower construction costs than what is typical for traditional masonry construction projects.

**Wood Frame FSC (Forestry Stewardship Certified)**

FSC certification is a voluntary, market-based tool that supports responsible forest management worldwide. FSC certified forest products are verified from the forest of origin through the supply chain. The FSC label ensures that the forest products used are from responsibly harvested and verified sources.

<http://www.fsc.org/>



[http://fyn.ifas.ufl.edu/materials/FYN\\_Yard\\_Recognition\\_Checklist\\_2010.pdf](http://fyn.ifas.ufl.edu/materials/FYN_Yard_Recognition_Checklist_2010.pdf)