

MANDATORY GREEN BUILDING PRACTICES

§ 151.150 DEFINITIONS.

For purposes of this subchapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ASHRAE. The American Society of Heating, Refrigerating and Air-Conditioning Engineers

COMMERCIAL. Relating to multifamily residential buildings exceeding 20,000 square feet of gross aggregate floor area and all other buildings not described in the definition of

RESIDENTIAL.

ENERGY STAR. Energy Star rating system (use latest edition of rating system at time of submittal of permit application to the Building Division)

FGBC. Florida Green Building Coalition (use latest edition of rating system in effect at time of submittal of permit application to the Building Division).

GREEN BUILDING PRACTICE. Any of the building practices listed in §§ [151.151](#), [151.152](#), and [151.153](#) below.

LEED. Leadership in Energy and Environmental Design by the USGBC. (use latest edition of LEED rating system in effect at time of submittal of permit application to the Building Division)

MAJOR RENOVATION. Repairs and/or alterations made within any 12-month period to areas exceeding 50% of the gross aggregate floor area of a building.

MERV. Minimum efficiency reporting value.

RESIDENTIAL. Relating to single-family residences, townhouses, duplexes, and multifamily buildings not exceeding 20,000 square feet of gross aggregate floor area.

USGBC. U.S. Green Building Council.

(Ord. O-2011-06, passed 2-16-11)

Cross-reference:

Green building construction, see § [151.010](#)

§ 151.151 RESIDENTIAL GREEN BUILDING PRACTICES.

The following residential green building practices are approved:

(1) *Sanitation system for pools that reduces chlorine usage.* To claim this item, a system that eliminates the use of liquid chlorine by recycling a salt alternative, or a system that reduces the amount of liquid chlorine required by using ionization technology must be used. An ultra violet and ozone system that sterilizes the water without the use of chemicals is also acceptable. Systems must be shown on plans and verified by plumbing inspector on site at final inspection.

(2) *No garbage disposal.* No disposal should be shown on plans, and no disposal should be present at time of final building inspection.

(3) *All Energy Star appliances.* All permanent appliances in the residence that can be Energy Star rated must be so rated to claim this item. (This includes refrigerator, stove, washing machine, dryer, etc. Items not covered are countertop appliances such as toasters, mixers etc.) Energy Star appliances must be verified by building inspector on site at final inspection.

(4) *No shower with more than one shower head, and all low flow shower heads.* Low flow shower heads are rated at a maximum flow of 2.5 gallons per minute at 80 psi water pressure. One shower head per shower and low flow shower heads must be shown on plumbing plans and verified by plumbing inspector on site at final inspection.

(5) *Central vacuum system (CVS).* CVS canister shall be located in non air-conditioned space and shown on plans accordingly. CVS system must be verified by building inspector on site at final inspection.

(6) *Washer and dryer outside of air-conditioned space.* Washer and dryer outside of air-conditioned space must be shown on plans and verified by building inspector on site at final inspection.

(7) *Energy Star qualified homes.* Owner shall submit proof of application and the retainer retention of an energy star rater. A copy of the Energy Star home certificate shall be given to Building Division upon receipt prior to final certificate of occupancy.

(8) *Recycling.* A dedicated storage area for a garbage bin and a recycle bin, sized to fit both, must be shown on the plans. Dedicated storage area shall be verified by plans examiner. Plans for kitchen must include pull-out recycle and garbage bins built into cabinets. Pull-out bins built into cabinets shall be verified by plans examiner at permit review and by building inspector at final inspection.

(Ord. O-2011-06, passed 2-16-11)

§ 151.152 COMMERCIAL GREEN BUILDING PRACTICES.

The following commercial green building practices are approved:

(A) *Bicycle storage and changing room for a minimum of 5% of building occupants.* Bicycle storage can be a bicycle rack outside that allows for locking bicycles or a room inside the building to which users have access to store bicycles. The changing room will be a dedicated lockable room for the changing of clothes to which occupants of the building have access when building is in use. To claim this item, owner must meet the LEED criteria (latest edition).

(B) *Recycling.* A dedicated area for collecting recycled materials that is accessible to all occupants must be provided. This can be internal or external but must be shown on plans and verified by plans examiner at permit review and by building inspector at final inspection.

(Ord. O-2011-06, passed 2-16-11)

§ 151.153 RESIDENTIAL AND COMMERCIAL GREEN BUILDING PRACTICES (APPROVED FOR EITHER CATEGORY).

The following residential and commercial green building practices (approved for either category) are approved:

(A) Central air conditioner of 18 SEER or higher.

(B) Radiant barrier – Energy Star qualified – applied to attic or crawlspace.

(C) Solar attic vent fans.

(D) *Energy efficient (Low e) windows.* All windows shall conform to the Energy Star rating criteria for South Florida as approved by the NFRC (National Fenestration Rating Council).

(E) *Energy efficient doors.* All doors shall conform to the Energy Star rating criteria for South Florida.

(F) Energy Star rated skylights.

(G) Energy Star approved roofing materials.

(H) Programmable thermostats.

(I) Occupancy/vacancy sensors.

(J) Pervious pavement.

(K) *State-certified solar hot water heater system.* A specification sheet, product approvals, and copy of certification shall be submitted with permit application. System shall pass all required inspections by plumbing inspector.

(L) *Pool solar hot water heater system.* System shall be shown on plans and manufacturer's data sheets and product approvals shall be submitted with permit application. System shall pass all required inspections by plumbing inspector.

(M) *Reuse for irrigation.* Where wastewater reuse is available, wastewater reuse shall be used. Where wastewater reuse is not available, rainwater reuse shall be used. Plans shall indicate system to be used, and if rainwater reuse is to be used, system shall substantially comply with rainwater harvesting guidelines adopted by the Broward County Board of Rules and Appeals. System must be verified by plumbing inspector at final inspection. In determining whether to count this green building practice towards the minimum number of green building practices required, the city does not expect single-family properties to use wastewater reuse unless it is reasonably available to access.

(N) *Dual flush toilets.* These toilets when flushed use less than one gallon to flush liquid and 1.6 gallons or less for solids (USGBC). Plans shall indicate dual flush toilet. System must be verified by plumbing inspector at final inspection.

(O) *Solar photovoltaic system comprising at least 800 watts or better.* Calculations must be submitted with plans. System must pass all required inspections by electrical inspector.

(P) *At least 80% of plants, trees and grasses per the South Florida Water Management District recommendations (latest edition).* Landscape plan, reviewed and approved by a landscape architect, shall be submitted with permit application. Landscaping shall be verified by inspection prior to final certificate of occupancy.

(Q) *All energy-efficient outdoor lighting.* Suggested lights for outdoor spaces include fluorescent bulbs and fixtures with electronic ballasts (more efficient than magnetic types), low pressure sodium or mercury vapor, photovoltaic systems, LED lighting and low voltage landscape lights that run on a timer. All energy-efficient outdoor lighting shall be verified by electrical inspector at final inspection.

(R) Energy performance at least 10% more efficient than standard established by ASHRAE (latest edition). Calculations shall be submitted with permit application.

(S) *Rough-in plumbing for future solar hot water system.* This item is not available if a solar hot water system is installed at initial construction. The rough-in must consist of running copper or CPVC piping up through the roof at a south facing roof. The penetration should be properly sealed. Rough-in plumbing shall be shown on plans and verified by plumbing inspector on site at final inspection.

(T) *All hot water pipes insulated.* All hot water pipes shall have a minimum of one-half inch insulation, including buried pipes. (CPVC is not a suitable replacement for insulation.) All hot water pipes insulated shall be shown on plans and verified by plumbing inspector on site at final inspection.

(U) *MERV of air filters on all air conditioning units at least 8 with anti-microbial agent.* MERV of at least 8 shall be verified by mechanical inspector on site at final inspection

(V) *Tankless water heater in lieu of a standard tank water heater.* Documentation of energy savings must be provided. Product approvals should be provided with plans and shall indicate total energy demand. Tankless water heater shall be shown on plans and shall pass all required inspections.

(W) Any innovative building practice not listed above but approved by the Building Official.

(Ord. O-2011-06, passed 2-16-11)

§ 151.154 ENCOURAGEMENT OF MAXIMIZATION OF GREEN BUILDING PRACTICES.

The city shall encourage each person desiring to construct a new structure or make a major renovation to an existing structure to maximize the number of green building practices to be included in such project.

(Ord. O-2011-06, passed 2-16-11)

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§ 151.155 SINGLE-FAMILY DWELLINGS AND DUPLEXES.

New construction of, and a major renovation to, a single-family detached dwelling or duplex shall include a minimum of five green building practices.

(Ord. O-2011-06, passed 2-16-11)

§ 151.156 SMALL NON-RESIDENTIAL STRUCTURES.

New construction of, and a major renovation to, a structure (other than a single-family detached dwelling or duplex) with not more than 20,000 square feet of total floor area shall include a minimum of ten green building practices.

(Ord. O-2011-06, passed 2-16-11)

§ 151.157 MAXIMUM NUMBER OF UNLISTED INNOVATIVE GREEN BUILDING PRACTICES APPROVED BY BUILDING OFFICIAL FOR SINGLE-FAMILY DWELLINGS, DUPLEXES AND SMALL NON-RESIDENTIAL STRUCTURES.

For each project that is subject to § [151.155](#) or [151.156](#) above, a maximum of two innovative green building practices approved by the Building Official pursuant to § [151.153](#)(W) shall be counted towards the minimum number of required green building practices, and each green building practice shall be shown on the plans and specifications with supporting product approvals before the first building permit for the project is issued.

(Ord. O-2011-06, passed 2-16-11)

§ 151.158 LARGE DEVELOPMENTS.

(A) New construction of, and a major renovation to, a stand-alone building (other than a single-family detached dwelling or duplex) with more than 20,000 square feet of total floor area shall be certified under the LEED Green Building Rating System of the USGBC, certified by the FGBC, or under another recognized certification program approved by the City Manager or his/her designee.

(B) The requirement of certification may be varied by the Planning and Development Board following a public hearing as provided in Article 5.3(F) of the City Code. In addition to the variance standards in Article 5.3(F), an applicant for a variance must demonstrate that it has reasonably maximized the number of green building practices included in the development.

(C) If the developer/owner/contractor wishes to exceed the basic certification requirements, the following incentives shall be granted by the city:

(1) Priority site plan review, building plans review, and building permit processing, which provides priority review and processing of the proposed project ahead of other non-green building projects.

(2) Reduction in required parking. The developer shall provide a parking analysis justifying the parking reduction and showing that the then current code requirements are excessive. This incentive will be granted only if the developer obtains a variance under the city's Zoning and Land Development Regulations and only to the extent of such variance.

(3) Increased residential density by one unit per acre, but such increase shall not exceed the density allowed under the Future Land Use Element of the city's Comprehensive Plan unless flexibility units are applied. This incentive will require City Commission approval.

(4) Technical assistance by city staff on issues related to certification.

(D) At the time of the filing of a building permit application for a large development, the applicant shall provide the City with proof that the applicant has filed an application seeking

green certification with a City-recognized certification program as well as a bond in the amount of 3% of the total construction costs. The bond will be held by the City for the lesser of the time necessary for the green certification to issue or eighteen (18) months from the date of the issuance of the last certificate of occupancy for a building subject to the permit application. The applicant may obtain a full refund of the bond in the event that the building permit does not issue or, if issued, is abandoned or revoked.

If the green certification is achieved, the bond will be released to the applicant upon the applicant furnishing proof of certification to the Building Department. If the green certification is not achieved, the bond shall be forfeited to the City. Any proceeds from the forfeiture of the bonds under this section shall be placed in the City's Tree Fund.