



CITY COUNCIL AGENDA FORM

REQUESTED COUNCIL MEETING DATE 06/16/09

SUBJECT: LAND DEVELOPMENT CODE TEXT AMENDMENTS/
GREEN INITIATIVES – PHASE I
Case No. 09-25000003

DEPARTMENT: COMMUNITY DEVELOPMENT

RECOMMENDED MOTION: To adopt Ordinance No. 2009-12, amending Chapters 2, 7, and 16 of the City's Land Development Code for Case No. 09-25000003 regarding green building and rain barrels, as recommended by the Planning Commission.

SUMMARY: In a continuous effort to promote a more sustainable future, the City will be reviewing the Comprehensive Plan and Land Development Code to remove barriers and to promote "green" development practices. As part of Phase I of the City's Green Initiative, the City of Port Orange, applicant, requests approval of amendments to the Land Development Code (LDC), related to 1) a certification-based green building program with incentives and 2) rain barrels. Included are text amendments to Chapter 2, Chapter 7, and Chapter 16 to incorporate new definitions, establish the Green Building Program, and establish special setbacks for rain barrels. If approved, the subject amendments will create procedures and incentives for the implementation of green building practices and recognize rain barrels as allowable accessory structures. Future phases may include topics such as community gardens, wind turbines, rain gardens, pervious pavement, and green roofs.

PLANNING COMMISSION ACTION: Recommended approval, 6-0 (Commissioner McMaster excused).

Please note that second reading will be on July 28, 2009.

ATTACHMENTS: Ordinance Resolution Budget Resolution
 Other Support Documents/Contracts Available for Review in Manager's Office

DEPARTMENT HEAD

Wayne Clark
Community Development Director

Date

5/29/09

FINANCE DEPARTMENT

n/a

Approved as to Budget Requirements

Date

CITY ATTORNEY

Approved as to Form and Legality

Date

6.9.09

CITY MANAGER

Approved Agenda Item For:

6/16/09

COUNCIL ACTION:

Approved as Recommended

Disapproved

Tabled Indefinitely

Continued to Date Certain

Approved with Modification

ORDINANCE NO. 2009- 12

AN ORDINANCE OF THE CITY OF PORT ORANGE, VOLUSIA COUNTY, FLORIDA, AMENDING THE LAND DEVELOPMENT CODE, CHAPTERS 2 AND 7 RELATING TO THE CREATION OF THE CITY OF PORT ORANGE GREEN BUILDING PROGRAM; AMENDING CHAPTER 16 RELATING TO RAIN BARRELS; PROVIDING FOR REPEAL OF CONFLICTING ORDINANCES AND RESOLUTIONS; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City Council of Port Orange (the "City Council") has investigated and determined that it would be advantageous and beneficial to the citizens of the City of Port Orange (the "City") to create procedures and incentives for the implementation of green building practices; and

WHEREAS, today's buildings consume 40 percent of total energy used, 16 percent of water used, and generate 40 percent of all municipal solid waste¹; and

WHEREAS, commercial buildings account for approximately 10.5 percent of global carbon dioxide (CO₂) emissions from fossil fuel energy used directly or as electricity to power equipment and condition the air (including both heating and cooling); and

WHEREAS, commercial buildings consume approximately 35 percent of all electricity produced annually in the United States; and

WHEREAS, the amount of salvageable structural lumber disposed of annually in the U.S. is approximately one billion board feet²; and

WHEREAS, the average per person use of publicly supplied water in Port Orange is 4.2 gallons per hour or 36,500 gallons per year; and

WHEREAS, the City Council has determined that it is in the best interest of the citizens of the City to promote energy efficiency, water conservation, and the responsible use of resources; and

WHEREAS, for purposes of this Ordinance words with underlined (underlined) type shall constitute additions to the original text and words with strikethrough (strikethrough) type shall constitute deletions to the original text.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF PORT ORANGE, FLORIDA:

SECTION 1. FINDINGS INCORPORATED. The recitals provided above are recognized as true and correct representations and are incorporated herein.

¹ World Watch Institute as reported in ULI, November, 2000

² Green Sustainable Growth Symposium, Lake County, Florida

SECTION 2. The City Council hereby amends Chapter 2 Definitions of the Land Development Code by adding definitions as follows:

Chapter 2 DEFINITIONS AND INTERPRETATIONS
Section 2: Definitions.

CONSERVE FLORIDA: Name of a statewide water conservation effort by water management districts and Florida DEP to develop and implement an accountable and measurable program to allow public water supply utilities to tailor cost effective conservation programs to reflect their individual circumstances to achieve greater efficiency for water use.

DARK SKY: Lighting technology intended to provide safe exterior lighting while emphasizing the reduction or elimination of night glare above the light source. Various technologies are approved by the International Dark Sky Association.

ENERGY STAR: A joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy to encourage use of energy efficient products and practices. Qualified projects may receive Energy Star certification.

FGBC: An acronym for the Florida Green Building Coalition, Inc., a Florida 501(c)3 not-for-profit corporation whose mission is to establish and maintain a Florida system of statewide green building standards and third party certification programs with environmental and economic benefits.

FGBC GREEN LOCAL GOVERNMENT DESIGNATION: A designation given by FGBC that recognizes outstanding efforts and practices in environmental stewardship. Green Local Governments have demonstrated a certain level of commitment to environmental performance as measured by a ranking system of best practices for all local government functions. Levels of "Gold", "Silver", "Bronze", and "Certified" can be achieved.

FLORIDA FRIENDLY LANDSCAPING: Nine principles to guide Florida Yard and Neighborhood Landscaping programs. The nine principles are to locate the right plant in the right place, water efficiently, fertilize appropriately, mulch, attract wildlife, manage pests responsibly, recycle, reduce stormwater runoff and protect the waterfront.

GBI: Acronym for the Green Building Initiative, a not-for-profit organization whose mission is to accelerate the adoption of building practices that result in energy-efficient, healthier and environmentally sustainable buildings by promoting credible and practical green building approaches for residential and commercial construction.

GREEN BUILDING: A designation given to buildings that have achieved the requirements of the green building rating system defined in the green building program in Chapter 7, Section 8 of this Code.

GREEN BUILDING PROGRAM: The program outlined in Chapter 7, Section 8 of this Code for obtaining incentives for green buildings.

GREEN BUILDING PROGRAM CERTIFICATION: The final designation awarded to a Green Building Program (Chapter 7, Section 8) participant for satisfying all requirements associated with the program for a particular project.

GREEN BUILDING PROGRAM PARTICIPANT: Any person or entity seeking Green Building Program (Chapter 7, Section 8) certification for a particular project.

GREEN BUILDING PROJECT: Any construction associated with the creation, development, or erection of any building eligible for the Green Building Program (Chapter 7, Section 8).

GREEN BUILDING SUB-PROGRAM: Any area of construction covered by the Green Building Program (Chapter 7, Section 8).

GREEN DEVELOPMENT: A development approach that goes beyond conventional development practice by integrating the following elements: environmental responsiveness, resource efficiency, sensitivity to existing culture and community and brings these elements together through the green development approach and provides numerous environmental and economic benefits by capitalizing on the interconnections between them.

GREEN GLOBES: The U.S. commercial/institutional building rating system of the Green Building Initiative.

LEED: The Leadership in Energy and Environmental Design Rating System of the U.S. Green Building Council.

RAIN BARREL: A barrel that is used to collect and store rain water runoff, typically from rooftops via rain gutters. A rain barrel is usually outfitted with a fine mesh screen to keep out debris and insects, a spigot for accessing the stored water, overflow portals and possibly a pump.

SUSTAINABLE DESIGN: Utilizing environmentally sensitive, resource-efficient site selection, preparation, design, construction, and building operation techniques.

USGBC: An acronym for the United States Green Building Council, a non-profit organization whose mission is to transform the way buildings and communities are designed, built and operated, enabling an environmentally and socially responsible, healthy and prosperous environment that improves the quality of life.

SECTION 3: The City Council hereby amends Chapter 7, Building Plans and Permits Approval of the Land Development Code by adding the Green Building Program as follows:

Chapter 7 BUILDING PLANS AND PERMITS APPROVAL

Sec. 1: In general.

Sec. 2: Permit application.

Sec. 3: Building permit.

Sec. 4: Inspections.

Sec. 5: Certificate of occupancy, temporary use permit and certificate of completion.

Sec. 6: Early start permits.

Sec. 7: Master files.

Sec. 8: Green Building Program

Section 8: Green Building Program.

(a) Purpose and Intent. The Green Building Program establishes procedures and incentives for the implementation of green building standards. The program is intended to encourage the incorporation of green building practices into development projects. The program may be applied to any development within the City, including redevelopment projects and government initiated development projects, submitted for City review.

(b) Terms. The following terms may be used in this section and are defined in Chapter 2 of this Code:

Conserve Florida; Dark Sky; Energy Star; FGBC; FGBC Green Local Government Designation; Florida Friendly Landscaping; GBI; Green Building; Green Building Program; Green Building Program Certification; Green Building Program Participant; Green Building Project; Green Building Sub-Program; Green Development; Green Globes; LEED; Sustainable Design; and USGBC.

(c) Government Leadership. To demonstrate the City's commitment to a green building program, the City shall comply with the green building programs established herein for all government buildings pursuant to Section 255.2575(2) Florida Statutes, and

(1) Track and report the City's monthly water and energy use;
and

(2) Publish an annual report that outlines the City's energy and water use performance for the prior year and outlines methodologies for potential reductions in the subsequent year.

(d) Scope and Applicability. This program applies to all lands private and public within the City and the City-owned wellfields. The scope of its application shall be for development approvals and building permits submitted for the voluntary green building program. Such plans and approvals shall be reviewed for compliance with the appropriate parts of the adopted City Comprehensive Plan and the Land Development Code.

(e) Green Building Program Coverage. The program shall be comprised of the following sub-programs:

- (1) New residential construction;
 - (2) Residential retrofitting/remodeling;
 - (3) New commercial/mixed-use/institutional construction; and
 - (4) Existing commercial/mixed-use/institutional retrofitting/remodeling.
- (f) Green Building Standards. In addition to the Florida Building Code's minimum standards and Volusia County's Water Wise Ordinance (No. 2004-20, section V, 12-16-04), the program shall be administered using standards developed by the Florida Green Building Coalition (the "FGBC"), the U.S. Green Building Council (the "USGBC"), the Green Building Initiative's (GBI) Green Globes rating system, or a nationally recognized, high-performance green building rating system as approved in writing by the City Manager or his designee, including but not limited to, any monetary or certification requirements.
- (1) New residential construction. New residential project participants shall obtain certification from the entity and satisfy the certification requirements associated with either:
 - (a) the current Green Home Designation Standard of the FGBC for projects with fewer than three (3) floors or Green High Rise Residential Designation Standard of FGBC for projects of three (3) floors or more;
 - (b) the current USGBC LEED for Homes program; or
 - (c) the GBI new home designation.
 - (2) Residential retrofitting/remodeling. The participant shall obtain certification from the entity and meet requirements of remodeling certification for either:
 - (a) the current Green Home Designation Standard of the FGBC for projects with fewer than three (3) floors or Green High Rise Residential Designation Standard of FGBC for projects of three (3) floors or more;
 - (b) the current LEED for Homes program requirements for "remodeling" or "existing home" of the designation; or
 - (c) the GBI.
 - (3) New commercial/mixed-use/institutional construction. The participant shall obtain certification from the entity and satisfy all of the requirements associated with:

- (a) the current Green Commercial Designation Standard of the FGBC;
 - (b) the current LEED for new construction or derived USGBC LEED rating system; or
 - (c) the Green Globes environmental assessment system for new designs.
- (4) Existing commercial/mixed-use/institutional retrofitting/remodeling. The program participant shall obtain certification from the entity and satisfy all of the requirements associated with:
- (a) the current Green Commercial Designation Standard of the FGBC;
 - (b) the current LEED for existing buildings or derived USGBC LEED rating system program; or
 - (c) the Green Globes environmental assessment system for existing designs.
- (5) Review. For the purpose of this section of the program, a program participant shall be bound by the standard designated for a particular subprogram unless the participant requests to be certified under a more current version of a designated standard and the request is approved by the jurisdiction responsible for administering the particular program.
- (g) Tiered Qualification. A project certified by the Florida Green Building Coalition may qualify for one of four levels: "Certified", "Bronze", "Silver" or "Gold". A project certified by the U.S. Green Building Council may qualify for one of four levels: "Certified", "Silver", "Gold" or "Platinum". A project certified by the Green Building Initiative may qualify for a certification of one, two, three, or four Green Globes.
- (h) Incentives. The City shall provide the following incentives to encourage the use of this program and are hereby authorized:
- (1) Fast-Track Permitting. For any voluntary program participant actively seeking a program certification, the City shall provide fast-track permitting. All such applications for fast-track permitting shall be accompanied by the appropriate green building program application form, evidence of a completed green building certification application according to the requirements of the certifying entity, and proof of payment of the application fee required to process the application for certification. A City staff member shall be designated as project manager and shall work in close

contact with the applicant and his/her agent(s). The project manager shall oversee an expedited review of the project once formal plans have been prepared and submitted to the city.

(2) Signage. The City shall allow the following bonuses to the currently allowed signage regulations:

(a) One additional temporary construction sign may be installed that notes that "This project is a City of Port Orange Green Certified project by [COMPANY NAME]." This additional temporary construction sign must meet the standard dimensional requirements for a temporary construction sign in this Code.

(b) The notation "City of Port Orange Green Certified Project" may be added on project entry monument signage. The additional sign area to include the City approved notation letters and logo shall be a maximum of four-inches high by 42-inches wide. Additional sign area on the monument signage shall be permitted for this notation only if the minimum area necessary to display the notation will cause the monument sign to exceed its maximum allowable sign area, as set forth in this Code.

(3) Marketing. For any program participant seeking program certification, the City shall provide the following marketing incentives, including but not limited to:

(a) The inclusion of program participants on a webpage dedicated to the program;

(b) The creation of promotional documents such as a program logo for a participant's advertisements or brochures; and

(c) Press releases.

(4) Green Building Award. For the purpose of publicly recognizing outstanding commitment to green building, the program shall provide for an award called the "City of Port Orange Green Building Award" to be awarded annually by the City to one program participant in each sub-program.

(i) Certification Verification. The applicant shall provide documentation to the City verifying the authenticity of a project's green certification. The program shall be subject to certification by a qualified third party who has been trained and certified as a green building certifier. For the purpose of this section of the program, "third party" means any person or entity authorized according to the requirements of the certifying entity, FGBC, USGBC, or GBI.

(j) Education and Training. The City, in conjunction with FGBC, USBGC, GBI, or other nationally recognized high-performance green building rating system, may conduct training workshops for the purpose of educating potential or current program participants about the program.

(1) The City will attempt to make available a meeting space at a government facility when available for green building programs offered by organizations that are of a general nature (not product specific). Organizations shall contact the facility's staff to make arrangements.

(2) City staff shall be encouraged to attend at least of 8 hours of green building training a year.

SECTION 4. The City Council hereby amends Chapter 16, Miscellaneous Regulations, Section 5, Special setbacks for a Rain Barrel and screen requirements for generators, fuel storage tanks and rain barrels as follows:

Chapter 16 MISCELLANEOUS REGULATIONS

- Sec. 1: Accessory uses and structures.
- Sec. 2: Home occupations.
- Sec. 3: Fences and walls.
- Sec. 4: Height.
- Sec. 5: Special setbacks.
- Sec. 6: Visual clearance.
- Sec. 7: Reserved.
- Sec. 8: Administrative variance procedure.
- Sec. 9: Personal wireless communications.

Section 5: Special setbacks.

(a) *In general.* This section provides for specific accessory structures and architectural appurtenances and features to be located within required building setback areas. Recorded easements and required landscaped buffers shall supersede the minimum dimensions permitted by this section.

(b) *Special setbacks.*

TABLE INSET:

Structure or Building Feature	Special Setback
Air conditioning unit	3.5 feet into yard (1)
Antenna, tower (2)	15 feet from property line
Antenna, dish (2), (3), (7)	10 feet from property line
Awning	3 feet into yard (1)
Balcony, open three sides	5 feet into yard (1)
Barbecue pit, residential (2)	10 feet from property line

Boat dock/boathouse	Refer to chapter 9, article III, shoreline protection regulations
Canopy, commercial (3):	
Bank drive-through	5 feet from side property line
Gasoline pump island	5 feet from side property line
Other	5 feet from side property line
Carport, residential (attached or freestanding) (3)	15 feet from rear property line 5 feet from side property line
Clothesline (5), (7)	5 feet from property line
Deck, wood (less than one foot above grade at property line) (2), (6)	5 feet from property line
Deck, wood (greater than one foot above grade at property line) (2), (3)	5 feet from property line, plus 2 feet for every 1 foot above grade
Driveway, residential A	5 feet from property line
Driveway, residential A:	
Expansion of existing drive with pervious and nonpermanent surface	2.5 feet from property line
Fireplace and chimney (2)	3 feet into yard
Fuel storage tank (aboveground) (2), (7):	
Residential zones	10 feet from property line
LP Fuel storage tank (2), (7), (8):	
Residential zones	Refer to NFPA 58 requirements, as may be amended
Generators (stationary emergency)(1), (8)	Refer to NFPA 37 requirements, as may be amended
Outdoor play equipment (7)	7.5 feet from rear property line
Overhang	3 feet into yard (1)
Patio, at grade (2)	5 feet from property line
Pool, swimming (2)	8 feet from property line (4)
Porch:	
Entry (less than 12 square feet)	3 feet into front or rear yard
Covered, open three sides	15 feet from rear property line
Rain Barrel (2)(7)(8)	<u>3.5 feet into yard</u>
Screen room, residential (roof, open three sides or open two sides if dwelling is not parallel to rear lot	15 feet from rear property line

line)	
Screen pool enclosure (2)	5 feet from property line
Sill, window	1 foot into yard
Storage building (2), (7):	
Residential uses (120 square feet or less)	5 feet from property line
Residential uses (121 to 250 square feet)	10 feet from property line
Nonresidential uses (250 square feet or less)	10 feet from property line
Tennis court, residential (2)	10 feet from property line
Treehouse (2)	1 foot for every 1 foot above grade, minimum 7.5 feet
Window, bay (3)	3 feet into yard (1)
Wingwalls	3 feet into yard (1)

NOTES:

- (1) In no case shall the special setback exceed 50 percent of the minimum yard dimension.
- (2) Location within required yards permitted in rear and side yards only.
- (3) Setback shall be measured from the leading vertical edge of the structure. Where the structure is movable, creating an adjustable vertical edge, the setback dimension shall be measured from the greatest possible vertical edge.
- (4) Structures elevated and attached to the top of aboveground pools shall be set back in accordance with the special setback provisions established for decks in this section.
- (5) Location within required yards permitted in rear yards only. Structures may be allowed in side yards provided they are screened from public view by an opaque fence.
- (6) Location within the side corner yard is allowed, provided that the deck is screened by an opaque fence.
- (7) Location within the required rear yard is prohibited on an atypical lot if structure is greater than four feet in height.
- (8) Structure shall be screened from rights-of-way and adjacent properties using architectural features, opaque fencing or walls, consistent with the surrounding primary structures, or landscaping of sufficient density and maturity at planting to provide opaque screening. and For generators and LP Fuel storage tanks, there shall provide be a three-foot clearance area in front of the service panel, if applicable, for maintenance. For rain barrels, screening shall not be required if structure is decorative in nature, or if it is light or dark brown, dark green, or black, or painted light or dark brown, dark green, black, or consistent with the primary structure.

SECTION 5. CONFLICTING ORDINANCES.

All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

SECTION 6. SEVERABILITY.

If any provision of this ordinance or the application thereof to any person or circumstance is held invalid, the invalidity shall not affect other provisions or applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared severable.

SECTION 7. EFFECTIVE DATE.

This ordinance shall take effect on the date on which it is enacted by the City.

MAYOR ALLEN GREEN

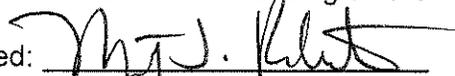
ATTEST:

Kenneth W. Parker, City Manager

Passed on first reading on the day of

Passed and adopted on second and final reading on the day of

Reviewed and Approved:



City Attorney



STAFF REPORT
CASE NO. 09-25000003
LDC AMENDMENTS/CHAPTERS 2, 7, AND 16:
GREEN INITIATIVE - PHASE I
City of Port Orange, Applicant
May 19, 2009

INTRODUCTION

The City of Port Orange has historically promoted water conservation and reuse as an integral part of its water management program; promoted water conservation through waterwise irrigation practices and the application of Florida-friendly landscaping practices; required the use of low volume plumbing fixtures, including low-flush fixtures, as a potable water conservation tool for all new development; utilized a rebate program for retrofits to low-flush fixtures and other inefficient plumbing devices. Other conservation initiatives include using hybrid vehicles in the City fleet whenever possible, installing an energy saving automatic shut off air cooling system at City Hall, energy efficient lighting at recreation facilities, solar panels on new public buildings, and a solar array for wells at the City's central wellfield.

In a continuous effort to promote a more sustainable future, the City will be reviewing the Comprehensive Plan and Land Development Code to remove barriers and to promote "green" development practices. As part of Phase I of the City's Green Initiative, the City of Port Orange, applicant, requests approval of amendments to the Land Development Code (LDC), related to 1) a certification-based green building program with incentives and 2) rain barrels. Included are text amendments to Chapter 2, Chapter 7, and Chapter 16 to incorporate new definitions, establish the Green Building Program, and establish special setbacks for rain barrels (see **Exhibit A**). If approved, the subject amendments will create procedures and incentives for the implementation of green building practices and recognize rain barrels as allowable accessory structures. Future phases may include topics such as community gardens, wind turbines, rain gardens, pervious pavement, and green roofs.

BACKGROUND

The term "green" has come to symbolize anything that is good for the environment. A green building, or sustainable building, is an outcome of a design which focuses on increasing the efficiency of resource use — energy, water, and materials — while reducing building impacts on human health and the environment during the building's lifecycle, through better siting, design, construction, operation, maintenance, and removal. Green buildings are designed to reduce the overall impact of the built environment on human health and the natural environment by:

- Efficiently using energy, water, and other resources
- Protecting occupant health and improving employee productivity
- Reducing waste, pollution and environmental degradation

The related concepts of sustainable development and sustainability are integral to green building. Effective green building can lead to 1) *reduced operating costs* by increasing productivity and using less energy and water, 2) *improved public and occupant health* due to improved indoor air quality, and 3) *reduced environmental impacts* by, for example, lessening storm water runoff and the heat island effect. Practitioners of green building often seek to achieve not only ecological but aesthetic harmony between a structure and its surrounding natural and built environment, although the appearance and style of sustainable buildings is not necessarily distinguishable from their less sustainable counterparts.

Florida's per-household consumption of electricity is among the highest in the United States, largely because the State's hot and humid weather drives up electricity demand for air-conditioning. The construction of energy-efficient buildings alone would significantly reduce Florida's energy consumption. In addition, residential irrigation can account for 50 percent or more of residential water use. Harvested rainwater can supplement other irrigation sources at a minimal cost.

The Florida legislature has declared that there is an important state interest in promoting the construction of energy-efficient and sustainable buildings and that government leadership in promoting these standards is vital to demonstrate the state's commitment to energy conservation, saving taxpayers money, and raising public awareness of energy rating systems. In 2008, HB 7135 (Sec. 255.2575 F.S.) was approved requiring all county, municipal, school district, water management district, state university, community college, and Florida state court buildings started after July 1, 2008 to be constructed to meet the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) rating system, the Green Building Initiative's (GBI) Green Globes rating system, the Florida Green Building Coalition (FGBC) standards, or a nationally recognized, high-performance green building rating system as approved by the Department of Management Services. In Volusia County, green building programs have either been adopted or are being reviewed by the County, the City of Deltona, and the City of DeLand. The Volusia County Water Resources and Utilities Department makes available rain barrels for \$70 plus tax and provides a \$30 rebate toward that cost. The Water Authority of Volusia (WAV) is also offering a limited number of \$20 rebates for rain barrels.

DISCUSSION

Green Building Program

The City of Port Orange Green Building Program is based on the Draft Volusia County Association for Responsible Development (VCARD) Green Development Ordinance (June 2008) and Florida's Model Green Building Ordinance (January 2008) developed for the Florida Green Building Workgroup to the Florida Green Building Commission, prepared by Florida Solar Energy Center - University of Central Florida (See **Exhibit B** – Comparative Matrix).

The Green Building Program establishes procedures and incentives for the implementation of "green" building standards. The program is intended to encourage the incorporation of sustainable building practices into development projects. The program may be applied to any development within the City, including redevelopment projects and government-initiated development projects, submitted for City review. The program requires all new buildings that are constructed by or for the City of Port Orange to adhere to the green building program. The program is voluntary for private development projects, but only those projects fully adhering to the program requirements would receive any incentives. The Green Building Program includes the following sub-programs:

- New residential construction;
- Residential retrofitting/remodeling;
- New commercial/mixed-use/institutional construction; and
- Existing commercial/mixed-use/institutional retrofitting/remodeling.

In addition to the Florida Building Code's minimum standards and Volusia County's Water Wise Ordinance, the program will be administered using standards developed by the FGBC, the USGBC, and the GBI Green Globes rating system. A project certified by the FGBC may qualify for one of four levels: "Certified", "Bronze", "Silver" or "Gold". A project

certified by the USGBC may qualify for one of four levels: “Certified”, “Silver”, “Gold” or “Platinum”. A project certified by the GBI may qualify for a certification of one, two, three, or four Green Globes. Participants that plan on building “green” and would like to take advantage of the program incentives will be required to complete a green building program application form and include said form with their building permit application. Participants will be required to provide documentation to the City verifying the authenticity of a building’s green certification through these organizations. The proposed incentives include fast track permitting, additional signage, marketing, and an annual green building award.

Rain Barrels

A rain barrel is a barrel that is used to collect and store rain water runoff, typically from rooftops via rain gutters. Cisterns and rain barrels have been around for thousands of years. 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 a building. Storing rainwater also aids in the reduction of stormwater runoff, which can lead to reduced erosion and levels of pesticides and fertilizers in stormwater ponds and natural water bodies.

Currently, the LDC is silent with regards to rain barrels. The amendment to Chapter 16 of the LCD will officially recognize rain barrels as allowable accessory structures and identify that they can be located as follows:

- In rear and side yards;
- Structures greater than four feet in height cannot be located within the rear yard of an atypical lot; and
- Screening is required from rights-of-way and adjacent properties. However, screening is not required if the rain barrel is decorative in nature, or if it is light or dark brown, dark green, or black, or painted light or dark brown, dark green, black, or consistent with the primary structure.



The following basic components are involved in every rainwater collection system: catchment area, conveyance system, storage tank, filtration, and water distribution. A rain barrel is usually outfitted with a fine mesh screen to keep out debris and insects, a spigot for accessing the stored water, overflow portals and possibly a pump. One could make a rain barrel out of a 50- to 55-gallon plastic food-grade drum¹. A list of barrel vendors in Volusia County can be found on the Water Alliance of Volusia (WAV) website² or in the phonebook under drums, barrels or containers. A local supplier may have several types of plastic food-grade drums and barrels that can easily be converted into a rain barrel. Local plumbing suppliers or home centers sell all the necessary fittings such as spigots, PVC adapters and piping to finish the assembly. There are companies that

sell rain barrel “kits” that come with the inlet and outlet already installed. The Internet is also

¹ http://sarasota.extension.ufl.edu/Hort/Pubs/rain_barrels_guide.pdf Rain Barrels: A Homeowner’s Guide

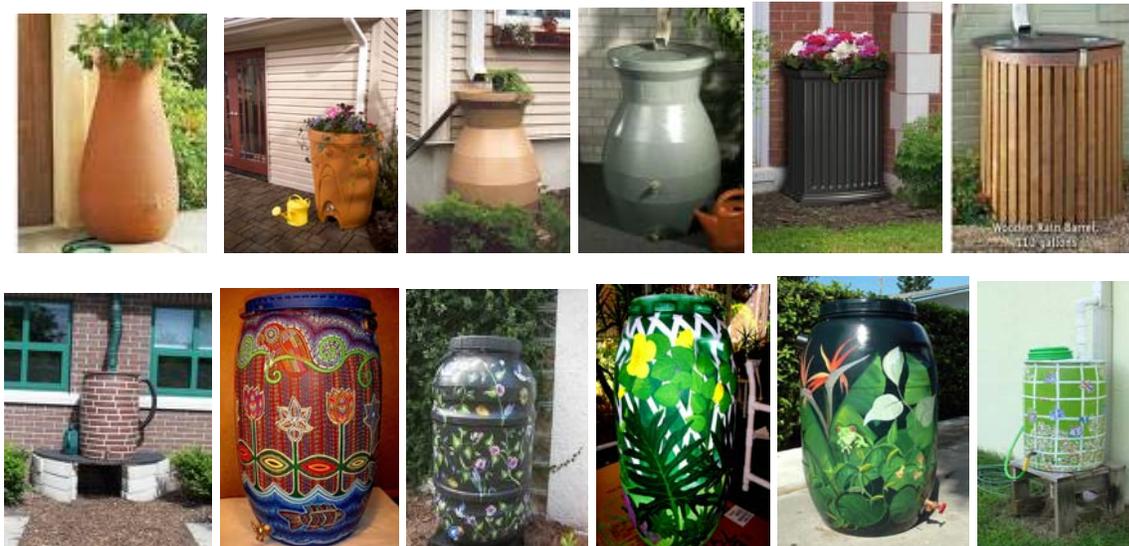
² <http://www.wavh2o.com/index.php>

a good resource to find an abundance of information about rainwater harvesting, rain barrels, and suppliers. A building permit is generally not required for rain barrels, unless they are designed to be permanent structures or they include an electric pump system. Today's rain barrels come in a variety of materials and designs.

Typical rain barrel examples:



Rain barrels also come in more aesthetic designs or can be painted to increase their aesthetic value:



For a general calculation of the potential amount of rain water that could be harvested, a good formula to remember is: one inch of rain on a 1,000-square-foot roof yields 623 gallons of water³. Calculate the yield of the roof by multiplying the square footage of the roof by 623 and then dividing by 1,000. Although a small rain barrel may not provide all the water needed to sustain one's landscaping, it can certainly supplement current watering needs. Planter beds, vegetable or flower gardens and potted plants can easily be irrigated with the water from a rain barrel. If a property currently has a standard irrigation system, they may be able to turn off sprinkler zones that are in planter beds or gardens and use stored rainwater instead. The low water pressure generated from a small rain barrel is not adequate to operate any type of in-ground sprinkler or low-volume devices, such as mist sprays or inline drip tubing. However, a soaker hose or a length of PVC pipe or garden hose with holes punched in it may work with these low pressures. Of course, filling a watering can to water plants around the yard is an option.

³ <http://fyn.ifas.ufl.edu/materials/RainwaterBrochure.pdf> Rainwater Harvesting, University of Florida

As previously mentioned, the subject LDC amendments are part of Phase I of the City's Green Initiative. Before the end of the calendar year, staff anticipates additional Code amendments as well as future workshops on community gardens, wind turbines, rain gardens, pervious pavement, and green roofs. In an on-going effort to promote a more sustainable future, the City will be continuously reviewing the Comprehensive Plan and Land Development Code to remove barriers and to continue to promote "green" development practices.

RECOMMENDATION

Staff recommends **approval** of the LDC amendments to Chapter 2, Chapter 7, and Chapter 16 related to the City of Port Orange Green Initiative – Phase I.

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City of Port Orange Department of Community Development

(386) 506-5671

PLANNING COMMISSION DATE:
CITY COUNCIL DATE:

May 28, 2009
June 16, 2009

Exhibit A

Please See Ordinance Exhibit

Exhibit B

Comparative Matrix

Sections	Green Building Ordinance			
	Florida Green Building Workgroup to The Florida Building Commission - Model Green Building Ordinance	VCARD - Model Green Building Ordinance	City of Port Orange Green Building Program	City of Deltona Green Building Ordinance
Definitions	✓	✓	✓	✓
Purpose and Intent	✓	✓	✓	✓
Government Leadership	✓		✓	✓
Designation of Responsibility	✓		Not Necessary	✓
Green Building Program Applicability				
<i>New residential construction</i>	✓	✓	✓	✓
<i>Residential retrofitting/remodeling</i>	✓	✓	✓	✓
<i>New commercial/non-residential construction</i>	✓	✓	✓	✓
<i>Existing Commercial/non-residential construction</i>	✓	✓	✓	✓
<i>Land developments</i>	✓			
Green Building Coverage	✓	✓	✓	✓
Green Building Standards	✓	✓	✓	✓
Incentive Options				
<i>Fast-track Processing</i>	✓	✓	✓	✓
<i>Development Review Fee Reduction/Rebate</i>	✓	✓		
<i>Permit Fee Reduction</i>				✓
<i>Registration Fees Refund</i>	✓			
<i>Annual Rebates</i>	✓			
<i>Waiver or Mitigation of Impact Fees</i>	✓			
<i>Property Tax Credit</i>		✓		
<i>Density Bonus</i>	✓			
<i>Marketing</i>	✓		✓	✓
<i>Signage</i>		✓	✓	✓
<i>Green Award</i>	✓		✓	✓
<i>Ombudsman/Project Manager</i>		✓	✓	
<i>Simultaneous Processing</i>		✓	Already allowed	
Certification Verification	✓	✓	✓	✓
Education and Training	✓	✓	✓	✓