


**Date:** February 2, 2011

**To:** Honorable Chairman Joe A. Martinez and Members  
Board of County Commissioners

**From:** George M. Burgess  
County Manager 

**Subject:** Sustainable Buildings Program Annual Report - December 2009 to December 2010

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Miami-Dade County is a recognized leader in promoting green building practices. The Miami-Dade Board of County Commissioners approved the Sustainable Buildings Ordinance 7-65 on May 8, 2007 and Implementing Order 8-8 on December 7, 2007, requiring the submission of an annual progress report summarizing the County's accomplishments through the Sustainable Buildings Program. I am pleased to share the program's second annual report, highlighting our progress and successes.

### **Sustainable Building Projects Update**

As directed by the ordinance and IO, all new County-owned, County-financed and County-operated buildings, certain major and minor renovation projects and other non-certifiable projects for which requests to advertise (RTA) were issued after December 14, 2007 must be designed "green."

The Office of Sustainability (OOS) tracks progress, provides input on projects, and works with the Office of Capital Improvement (OCI) on improving tracking and monitoring of projects by implementing capital departments. While most new construction projects met or will meet the Leadership in Energy and Environmental Design (LEED) Silver requirement for new construction, some projects due to their type, scope and/or size could not, in a cost-effective manner, meet the requirements. These projects, though, will incorporate maximum sustainable measures in their design and construction.

The attached summary (Attachment A) provides an update of all building-type capital projects seeking certification, as well as some projects that will include maximum sustainable measures as of December 2010. It is noteworthy to mention that several projects that are not required to meet certification have voluntarily agreed to meet the minimum certification criteria or include maximum sustainable measures. Also listed are non-building projects that voluntarily are incorporating sustainable design and construction building practices. Cumulative to date, there are 31 qualifying projects and six non-qualifying projects that will meet maximum sustainable measures or become certified under the LEED system. I am pleased to advise you that the County received certification from U.S. Green Building Council for the first LEED Silver certified County facility built under the ordinance and IO mandates, the General Services Administration Trades Shop Facility.

Buildings and developments are responsible for a broad range of impacts on human health and the environment. Rating systems such as LEED can be used to provide specific strategies to achieve emissions reduction across the life cycle (from site selection, design, and construction to operation, renovation, and reuse) of a project to maximize pollution reduction while minimizing capital costs and operating expenses.

Based on post-occupancy data, an average LEED-certified office building uses 25 to 30 percent less energy. For example, through energy savings alone, a 100,000 square-foot office building can save more than \$1 million and 15 million pounds of CO<sub>2</sub>e during its 20 year life.

Assuming that every office facility the County builds in the next four years achieves LEED Silver certification and is commissioned for 20 years, more than \$7 million in electricity charges can be saved and 96 million pounds CO<sub>2</sub>e avoided during their life (20 years). Additional savings can be achieved by other projects such as correctional facilities, the new ballpark, animal services facility, fire stations and residential units. In addition, green buildings cost less to operate and maintain, are energy and water efficient, and contribute to occupant health and productivity.

### **Training & Education**

This year OOS provided several training and educational opportunities for County staff interested in becoming more knowledgeable about sustainability and the built environment. OOS facilitated the LEED for Existing Buildings: Operations and Maintenance training in August 2010, which was attended by 27 County employees. In addition, OOS launched a Sustainable Buildings Lecture Series. This new, monthly lecture series provides training to interested County employees in the area of sustainable development and green building products, practices and technologies. Once monthly, a guest speaker will give a lunch presentation on their area of expertise. Also, OOS staff has incorporated a sustainability module into the existing OCI training for construction managers to review the ordinance and IO, provide tips on how to successfully implement it and share lessons learned from previous projects. To date, 84 employees have completed the construction manager sustainable buildings module. The Sustainable Buildings Committee is fully functional and meeting every month to help advance the County's sustainability agenda.

To date, there are 82 LEED Accredited Professionals in the County workforce, 11 more than last year. These professionals from various departments (Attachment B) are able to staff LEED projects, assist in LEED administration and point calculations, and coordinate with LEED consultants. In addition, the number of Certified Energy Managers (CEM) in the County workforce has increased to four. Furthermore, through the Energy Efficiency and Conservation Block Grant (EECBG), OOS will be sponsoring in-house CEM training for County facility managers this month, empowering staff with knowledge and tools to improve efficiency of our built environment.

In April 2010, a new [green.miamidade.gov](http://green.miamidade.gov) was launched; it was designed in a way that educates its visitors, including residents and County employees, on sustainability. The webpage includes a section on green building and development, which highlights the Sustainable Buildings program. This year, the County will launch a new "Green" tab on E-NET to serve as a resource on everything green for County employees, including information and tools for green building.

### **Enhancing Capital Budgeting, Planning and Improvement Processes for Sustainability**

In order to streamline the process and provide assistance to departments incorporating sustainability goals, concepts, standards and requirements in their capital projects, OCI and OOS will enhance the Capital Improvements Information System database to easily capture this data for future reporting purposes. These enhancements will provide department staff important information at the project's inception, as well as facilitate tracking and monitoring of qualifying projects

EECBG is also funding two projects, coordinated by OOS, that will directly impact and improve current process:

- **Capital Improvement Process**

Reynolds, Smith & Hills was selected to develop energy and climate-focused policies and procedures that will be integrated into the County's capital improvement process (CIP). The project includes an evaluation of the current CIP to identify best management practices and options for improving the process. The final, proposed guidelines are expected in February 2011. OOS will work closely with OCI to implement process recommendations presented in the guidelines. Policy recommendations will be presented to the Board for consideration this year.

- **Sustainable Development and Building Code Project**

Clarion Associates was selected to evaluate and propose sustainability provisions that could be incorporated into the County's development regulations (zoning, subdivision, etc.) and building codes. The project encompasses evaluation of the County's regulatory framework, identification of best practices from local jurisdictions applicable to Miami-Dade circumstances and goals and development of recommendations. A draft manual will be presented later this year.

**Ordinance Updates**

Three years have passed since the County adopted the Sustainable Buildings Program Ordinance and Implementing Order. As staff becomes more familiar with these requirements, and as new developments emerge in this field, a review and update to the ordinance is due in order to continue its objectives and further the County's sustainability efforts. OOS, the consultants and various user departments are compiling a list of improvements to be incorporated into the existing legislation, including addressing existing buildings, maintenance and replacements. This proposal will address concerns communicated by all stakeholders.

If you have any questions please contact Sustainability Director Susy Torriente at 305-375-5593 or me directly at 305-375-1880.

c: Honorable Carlos Alvarez, Mayor  
Robert A. Cuevas, County Attorney  
County Executive Office Senior Staff  
Christopher Mazzella, Inspector General  
Robert Meyers, Executive Director, Commission on Ethics and Public Trust  
Department Directors  
Sustainable Buildings Committee

## Attachment A, Sustainable Buildings Tracker Status Update (January 2011)

No.	Project Name	Date of Status Update	Department	Project start date and estimated completion date	Project Qualifies for Ordinance (Y/N)	LEED Certification Level Sought and Certification Type (NC, EB, CI, CS, etc.) <sup>1</sup>	Description	Current Status (e.g. 50% Design/Development, etc.)	Process Number (GBCI #, CIIS #)
1	Marlins Stadium	12/27/2010	GSA	05/06/2010 03-07/2012	Y	Silver NC	37,000 Seat 939,000 Sq ft	Populous attempted 34 credits and was awarded 18 credits during design phase towards LEED Silver Certification. Will attempt 18 credits during construction phase. Construction is 36% complete.	GBCI-10220920 CIIS- GOB#70269- 50.1 Marlins Ballpark
2	New Animal Services Facility	12/27/2010	GSA/ASD	TBD	Y	Silver NC	70,000 Sq ft	On Hold; looking for new site	CIIS-Z00043
3	Northeast Library	12/27/2010	GSA	05/22/2008 3/8/2013	Y	Silver NC	27,770 Sq ft	Project has been submitted for permitting.	CIIS-Z00086
4	Joseph Caleb Center Courtroom Annex and Parking Garage	12/27/2010	GSA	05/14/2009 02/08/2013	Y	Silver NC	40,000 Sq ft Office Bldg. 475 Spaces Parking Garage	Project has been submitted for permitting.	GBCI-10505297 CIIS-W70308
5	Wynwood/Allapattah Neighborhood Service Center	12/27/2010	GSA	05/23/2011 TBD	Y	Silver EB	30,000 Sq ft	100% Construction documents. (Construction Phase on Hold pending funding)	GBCI-10505297 CIIS-W70308
6	Children's Courthouse	12/27/2010	GSA	03/2011 12/2013	Y	Silver NC	371,500 Sq ft	Notice to Proceed Phase	GBCI-10003272 CIIS-W40114C
7	Richmond Heights Shopping Center	12/27/2010	GSA	TBD	Y	Silver NC	23,000 Sq ft	On hold for funding	CIIS-Z00099

<sup>1</sup> NC = New Construction, EB = Existing Building (Operations & Maintenance), CI = Commercial Interiors, CS = Core and Shell

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8	DCS Trade Shops	12/27/2010	GSA	10/25/2008 10/20/2011	Y	Silver NC	100,000 Sq ft	Completed. Awarded LEED Silver Certification.	GBCI-10304091 CIIS-W80021
9	GSA West Lot	12/27/2010	GSA	02/2010 02/2012	Y	Silver NC	43,500 Sq ft Office Bldg. 810 Spaces Parking Garage	Foundation permit	GBCI-10525736 CIIS-W80052
10	CAA Headstart	12/27/2010	GSA	01/01/2011 10/01/2012	Y	Silver NC	16,350 Sq ft	Notice to Proceed	GBCI-10501118 CIIS-Z00045
11	Pre-Trail Detention Kitchen Renovations	12/27/2010	GSA	09/10/2005 07/20/2012	Y	Silver NC	18,279 Sq ft	90% Construction Documents	GBCI-10523862 CIIS-Z00018
12	Gran Via	12/27/2010	GSA/MDPHA	01/21/2010 01/15/2013	Y	Silver NC	80,000 Sq ft Residential	Construction Documents	CIIS-Z000107
13	Little River Library	12/27/2010	GSA	03/01/2011 TBD	Y	Silver NC	10,000 Sq ft	Work order for Green demolition of the building has been open by GSA.	CIIS-W100225
15	New Scale House at Central Transfer Station	12/14/2010	DSWM	12/30/2008 9/30/2013	Y	Sustainable Measures	688 sq ft	85% Design – Consultant currently working on comments from City of Miami	CIIS-505670
16	New Collections Building at Northeast Transfer Station	12/14/2010	DSWM	10/29/2009 9/30/2013	Y	Certified NC	7,000 sq ft	22% Design, consultant is meeting with City of North Miami Beach for Utilities connection	CIIS-505950
17	West/ SW New Trash & Recycling Center	12/14/2010	DSWM	9/16/2008 9/30/2014	Y	Sustainable Measures	1,600 sq ft/ 500 sq ft	23% Design; EQCB Package submitted to DERM on Oct 13, 2010	CIIS-5054051

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18	South District Wastewater Reclamation Facility, Operations Business Center	12/9/2010	WASD	01/01/2008 12/31/2014	Y	Silver NC	11,600 sq ft	Project is in the design phase, 60% design drawings completed.	GBCI-184751234714 2418
19	On-site Chlorine Generation & Emergency Generator System	12/9/2010	WASD	TBD TBD	Y	Maximum sustainable Measures or TBD	TBD	One bidder at step 2, Committee rejected bid, County may enter negotiations based on original Unsolicited Proposal.	
20	Fire Station 40 Addition	12/7/2010	MDFRD	12/16/2010 04/2012	Y	Silver LEED NC-2009	5,753 sq ft	Ground breaking 12/16/2010 Building permit obtained. Project has been registered with GBCI.	GBCI-1000005467
21	Station No. 64, Miami Lakes MDFRD-T-31	1/6/2010	MDFRD	10/21/2010 03/2013	Y	Silver NC	13,512 sq ft	Design process is up to 95% complete. LEED professional is working with the Architect in the incorporation of credits.	GBCI-252986680514 1604
22	Station No. 70	12/7/2010	MDFRD	1/2011 TBD	Y	Silver NC	TBD	One story, new station, to be built on vacant lot.	
23	MIA Mover APM System Project	12/17/2010	MDAD	9/8/2008 9/7/2011	Y	Silver NC	39,683 sq. ft (2) levels	Design-Build-Operate-and-Maintain (DBOM) contract. Construction is 60% Completed. MIA Mover fixed facilities construction services approximately 60% completed.	

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24	Leisure Lake Parks Recreation Center	12/9/2010	MDPR	5/2008 TBD	Y	Silver – achievable Certified V2.2 NC	Prototype recreation center, 5,000 sq ft	Project on hold pending resolution of funding issue	
25	North Glade Park Recreation Center	12/9/2010	MDPR	5/2008 TBD	Y	Silver – achievable certified V2.2 NC	Prototype recreation center, 5,000 sq ft	Design Criteria Package Development / On-hold for Funding	
26	Amelia Earhart Park Restroom Facilities(2)	12/9/2010	MDPR	10/2008	Y	Maximum measures	1,500 Sq ft	Design Criteria Package Development / On-hold for Funding. V3 NC. 40 points are required for LEED certification. Maximum points achievable 30.	
27	Greynolds Park Renovations and Improvements	12/9/2010	MDPR	7/2009 TBD	Y	Maximum measures	Less than 3,000 sq ft	Pending Award. Consultant team hired. Greynolds Park – Phases I and II – GOB Project 21 –ESP, Project Number 220901-05-001. Scope of work for this project will not permit to seek LEED certification.	
28	Chuck Pezoldt Park Field Center	12/9/2010	MDPR	05/2008 TBD	Y	Silver – achievable certified V2.2 NC	1,500 Sq ft	Design Criteria Package Development / On-hold for Funding	
29	JMH-Inpatient Rehabilitation Building 1st & 2nd Floor Renovation	12/7/2010	PHT	TBD	Y	TBD	TBD	Project postponed until FY 2013-14	

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30	SW Site for Domestic Violence Center Project	1/4/2011	HT	TBD	Y	Silver NC	Five 4,660 sq ft buildings totaling 23,300 sq ft	RFA not yet released. Design/Build/Operate project	CIIS-207931
31	Homestead Project Verde Gardens Neighborhood	11/8/2010	HT	05/10 05/11	Y	Silver NC	Townhomes: 147,970 sq ft, Community Center: 4,020 sq ft and Fresh Market: 4,400 sq ft.	145 units of housing. HT/Developer will certify the five model houses, community center and fresh market. Construction is Approximately 51% Complete.	CIIS: 207330 GBCI: Community Center-000010006 Fresh Market-1000010008



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Projects voluntarily complying with IO 8-8 (seeking certification or maximum sustainable measures).

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1	Fleet Shop 1 Renovations	12/6/2010	GSA	1/21/2003 TBD	N	Silver NC	TBD	On Hold for funding	
2	Miami Art Museum	12/6/2010	CUA for MAM	11/30/2010 Fall 2013	Not county owned/operated, partially financed by County	Silver NC	200,000 Sq ft Programmed (120,000 Interior; 80,000 Exterior)	100% complete construction documents. Permits pending to start construction	GBCI-2021342975140942 CIIS/GOB# 296-70428
3	Miami Science Museum	12/6/2010	CUA for MSM	Spring 2011 Fall 2014	Not county owned/operated, partially financed by County	Silver NC	250,000 Sq ft Programmed (which includes the outdoor, covered and semi-conditioned areas)	50% complete Design Development	GBCI-2678035525111812 CIIS/GOB# 297-70430
4	Truck Wash Facility	12/14/2010	DSWM	11/12/2008 9/30/2012	N, not a building	Sustainable Measures	Will recycle used water and collect rain water	Geotechnical completed, design in approximately 90% completed	CIIS-504450
5	MIA North Terminal	12/17/2010	MDAD		N	Silver NC			

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6	Scott-Carver HOPE VI - Phase 2	12/13/2011	MDPHA	12/30/2008 12/30/2012	Not County-owned/operated development partially financed with County Bond funds	LEED Silver Equivalent	354 Housing Units 1Bdr/2Bdr/3Bdr/4 Bdr	All new construction will comply with the 2003 International Energy Code or successor codes and the HUD-adopted Model Energy Code issued by the Council of American Building Officials. Developer will strive to meet the Enterprise Green Community status developed by Enterprise Communities with United States Green Building Council and other "green" organizations and are the same criteria that are included in the 2008 HOPE VI Act. Furthermore, the Developer will use best efforts to achieve a LEED Silver rating in accordance with the U.S. Green Building Council rating system for Homes and Neighborhood Development. Site work has started in the form of tree relocation and other preliminary work in preparation for site development. Construction plans are being submitted to the building department for review. County attorney's office resolving property title issues to allow plat approval.	

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### Other Projects

No.	Project Name	Date of Status Update	Department	Project start date and estimated completion date	Project Qualifies for Ordinance (Y/N)	LEED Certification Level Sought and Certification Type (NC, EB, CI, CS, etc.) <sup>3</sup>	Description	Current Status (e.g. 50% Design/Development, etc.)	Process Number (GBCI #, CIIS #)
1	POM Cruise Terminal H Re-roof	12/13/2010	Seaport	Fall 2010 Summer 2011	N	High solar reflectance roof	41,000 sq ft	90% Design Documents. Project will receive rebate from FPL.	CIIS-2010-026
2	POM Admin Building 1001, 1015 and Annex Re-roof	12/13/2010	Seaport	Fall 2010 Summer 2011	N	High solar reflectance roof	31,000 sq ft	90% Design Documents	CIIS-2010-027
3	POM Building 1080 Re-roof	12/13/2010	Seaport	Fall 2010 Summer 2011	N	High solar reflectance roof	37,000 sq ft	100% Design Documents	CIIS-2010-044
4	POM Electrification of Cranes 7 - 10	12/13/2010	Seaport	January 2010 September 2011	N	Convert cranes from diesel to electric	Electric cranes more reliable	100% Design Documents	

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5	Concourse D Roof Rehabilitation	12/17/2010	MDAD	Pending	N	Sustainable Measures – Cool roof	210,000 Sq Ft Roof	Request to Advertise for the A/E selection process for this project and the draft is with OCI for comment.	

Attachment B, Departmental Sustainable Built Environment Certifications

DEPARTMENT	LEED AP	CEM	OTHER
AVIATION	5		
BNC	13		
CUA	3		
DERM	2		
DPZ	2		
GSA	21	3	(1) Certified Measurement and Verification Professional (CMVP)
MDCR	1		
MDPHA	2		
MIDPR	11		
MDT	1		
OCI	1		
OOS	2	1	
PWD	6		
SEAPORT	6		
SWM	1		
WASD	5		
<b>TOTAL</b>	<b>82</b>	<b>4</b>	<b>1</b>