

# MIAMI BEACH

OFFICE OF THE CITY MANAGER

## COMMITTEE MEMORANDUM

TO: SUSTAINABILITY AND RESILIENCY COMMITTEE

Commissioner Michael Grieco, Chair  
Commissioner Ricky Arriola, Vice-Chair  
Commissioner Kristen Rosen-Gonzalez, Member  
Commissioner Joy Malakoff, Alternate

FROM: Jimmy L. Morales, City Manager

DATE: December 12, 2016



SUBJECT: MEETING OF THE SUSTAINABILITY AND RESILIENCY COMMITTEE (SRC) ON MONDAY, DECEMBER 12, 2016

A meeting of the Sustainability and Resiliency Committee has been scheduled for Monday, December 12, 2016 at 1:00pm in the Commission Chambers, 3<sup>rd</sup> Floor of City Hall.

The agenda for the meeting is as follows:

### Discussion Items

1. **Discussion Regarding the Securing and Storage Of Commercial Dumpsters.**

*Commission item C4A, May 11, 2016  
(Requested by Commissioner Grieco)*

Hernan Cardeno, Code Compliance Director/ Debora Turner, First Assistant City Attorney

2. **Discussion on Requiring Sustainability Standards Similar to LEED for Retrofits in City-owned Properties**

*Commission Item C4G, November 9, 2016  
(Requested by Commissioner Rosen-Gonzalez)*

Elizabeth Wheaton, Environment and Sustainability Director/ Adrian Morales, Interim Property Management Director

### Verbal Reports

3. **Mayor's Blue Ribbon Panel on Flooding and Sea Level Rise**

Scott Robins, Committee Chairman

4. **Resiliency Strategy**

Amy Knowles, Deputy Resiliency Officer

JLM/SMT/ESW/FCT/YP

Sustainability and Resiliency Committee  
December 12, 2016

**Discussion Regarding the Securing and Storage Of Commercial Dumpsters.**

Item to be presented by Hernan Cardeno, Code Compliance Director

**ITEM # 1**

## **VERBAL REPORT AT COMMITTEE MEETING**

**Sustainability and Resiliency Committee  
December 12, 2016**

**Discussion on Requiring Sustainability Standards Similar to LEED for Retrofits in City-owned Properties**

**Item to be presented by Elizabeth Wheaton, Environment and Sustainability Director/  
Adrian Morales, Interim Property Management Director.**

**ITEM #2**

# MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, [www.miamibeachfl.gov](http://www.miamibeachfl.gov)

## COMMITTEE MEMORANDUM

TO: Sustainability and Resiliency Committee

FROM: Jimmy L. Morales, City Manager

DATE: November 16, 2016

SUBJECT: **DISCUSSION ON REQUIRING SUSTAINABILITY STANDARDS SIMILAR TO LEED FOR RETROFITS IN CITY-OWNED PROPERTIES**

### **BACKGROUND**

On November 9, 2016, the Mayor and City Commission referred a discussion to the Sustainability and Resiliency Committee (SRC) requiring sustainability standards similar to LEED (Leadership in Energy & Environmental Design) for retrofits in city-owned properties. This item was sponsored by Commissioner Rosen Gonzalez.

### **ANALYSIS**

In the United States, the built environment accounts for approximately 48% of annual greenhouse gas (GHG) emissions. In Miami Beach, an even greater percentage of the City's government GHG emissions can be attributed to the built environment. In 2014, 65.7% of the government GHG inventory was generated from municipal buildings and facilities.

The greatest proportion of energy is used during the buildings' operational phase. Though figures vary from building to building, studies suggest that over 80% of GHG emissions take place during this phase to meet various energy needs such as heating, ventilation and air conditioning (HVAC), water heating, lighting and telecommunications. Governments can therefore achieve the greatest reductions in GHG emissions by targeting the operational phase of buildings.

Energy efficiency retrofits can reduce the operational costs and improve overall building performance, particularly in older buildings. The greatest potential for an effective near-term mitigation wedge for climate change comes from energy conservation and efficiency improvements in the built environment. Decisions made by cities today about the design and construction of its buildings will impact the physical, environmental and social health of their communities for many years to come. By utilizing green building practices in the construction and operation of their own facilities, cities serve as a model for all occurring development.

Renovation, retrofit and refurbishment of existing buildings represent an opportunity to upgrade the energy performance of building assets for their ongoing life. Often retrofits involve modifications to existing buildings that may improve energy efficiency or decrease energy demand. In addition, retrofits are often used as opportune time to install distributed generation to a building.

Establishing green building retrofit policies for city-owned facilities can yield long-term savings by efficiently managing energy, water, waste and stormwater and improving the health and comfort of building occupants.

The US Green Building Council (USGBC) developed the LEED Green Building Rating System for Existing Buildings Operation and Maintenance (LEED-EBOM) with the intent to certify building's operations and maintenance and create a plan for ensuring high performance over time. The rating system captures both a building's physical systems (equipment, design, land use, etc.) and the way the building is occupied and operated by its managers (waste management, temperature monitoring, commuting programs, etc.).

However, before making what could result in a major investment for energy and sustainability improvements, it is important to determine if the investment is worthwhile in perspective with other building conditions. Older buildings may not be structurally sound and certain retrofits could result into a significant expense. LEED-EBOM requires an ENERGY STAR Portfolio Manager score of 69 as a prerequisite. The ENERGY STAR score compares buildings to a peer group of buildings in the national population. Consequently, to qualify for certification, a building must rank among the top 31 percent of all buildings in energy efficiency, which could require significant expenses to upgrade the buildings' systems and management. The City is currently compiling its municipal buildings database into ENERGY STAR Portfolio Manager to identify buildings that have its energy efficiency improved.

Even though certain retrofits may not make the investment worthwhile (in terms of return-of-investments in the short-run), LEED standards could be followed as certain retrofits are economically feasible and will provide higher building performance, reducing operational and maintenance costs.

LEED-EBOM requires energy efficient best management practices, minimum energy efficiency performance and fundamental refrigerant management that could significantly reduce the energy consumption and increase efficiency in an existing building. LEED also rewards credits for commissioning/retrocommissioning through a systematic process to develop an understanding of the operation of the building's major energy-using systems, options for optimizing energy performance and a plan to achieve energy savings. Therefore, even if a building may not be able to acquire LEED-EBOM certification, there are several pre-requisites and credits that can be very useful to implement minor improvements and identify planned capital projects to ensure that the building's major energy-using systems are repaired, operated and maintained effectively to optimize energy performance. LEED-EBOM pre-requisites and credits could be used in order to evaluate cost-effective retrofits that could be implemented in existing buildings.

Many cities across the country have implemented sustainable operations programs following LEED standards:

#### **City of New York (NY)**

New York City is regulating a series of policies requiring green building standards for certain capital projects and requiring city-owned buildings to be designed as low energy buildings looking at LEED standards. In addition, New York is expanding their existing requirements for benchmarking, lighting upgrades and sub-metering.

### **City of Eugene (OR)**

Eugene incorporated principles of sustainability in the planning, financing, siting design, construction, operation and maintenance of buildings owned and occupied by the city and associated facilities. Eugene's buildings and facilities are required to use the LEED-EBOM as a guide for the sustainable operation and maintenance of municipal buildings. Implementing LEED-EBOM criteria on an inventory wide basis is intended to maximize sustainability benefits within existing resources and provide means of benchmarking environmental and financial performance improvements in their practices. Certification of existing buildings under LEED-EBOM is evaluated for technical and economic feasibility and pursued at the highest feasible level of certification on a case by case basis as funding is available.

### **City of Portland (OR)**

Portland incorporated green building practices into the design, construction, remodeling, and operation of all municipal facilities. All occupied, city-owned existing buildings are required to pursue LEED-EBOM certification at the Silver level. Any roof replaced on a municipal facility is required to have an eco-roof (green and/or blue roof) covering of at least 70% of the roof and high-reflectance 'Energy Star-rated' roof material on remaining roof areas, where practical. When an integrated eco-roof/Energy Star-rated roof is impractical, a high reflectance, Energy Star-rated roof material is required to be installed.

### **City of Bloomington (IN)**

Bloomington requires all occupiable municipal buildings to become at least LEED-EBOM Silver standards. In order to determine the extent and timing by which occupiable city-owned buildings should be upgraded to LEED standards, an evaluation of all existing and subsequently-acquired occupiable buildings is conducted. The evaluation consists of compiling data from each building and performing a cost-benefit analysis of the costs of bringing each building up to LEED Silver. In the interest of maintaining close control of the cost, a LEED Silver standard shall be pursued only when the payback period is no more than 10 years.

## **CONCLUSION**

The following is presented to the members of the Sustainability and Resiliency Committee for discussion and further direction.

Attachments:

A- LEED Existing Buildings Operations and Maintenance Fact Sheet

  
MT/SMT/ESW/AM/FCT



## **LEED for Existing Buildings: Operations & Maintenance**

### **What is LEED for Existing Buildings: Operations & Maintenance?**

LEED for Existing Buildings: Operations & Maintenance is the tool for the ongoing operations and maintenance of existing commercial and institutional buildings. The certification system identifies and rewards current best practices and provides an outline for building's to use less energy, water and natural resources; improve the indoor environment; and uncover operating inefficiencies.

### **What are the benefits of LEED for Existing Buildings: Operations & Maintenance?**

LEED helps building owners and managers solve building problems, improve building performance, and maintain and improve this performance over time. LEED reduces cost streams associated with building operations, reduces environmental impacts, creates healthier and more productive employee workspaces, and provides public recognition for leadership in sustainability. The majority of requirements for LEED for Existing Building certification are operations and maintenance best practices. LEED for Existing Buildings: Operations & Maintenance encourages owners and operators of existing buildings to implement sustainable practices and reduce the environmental impacts of their building over their functional life cycles.

### **How is LEED for Existing Buildings: Operations & Maintenance different than other LEED certification systems?**

The LEED for New Construction and Commercial Interiors Rating Systems focus largely on the construction and/or major renovation phase of a building. When the project is complete and the building is in operation, LEED for New Construction and Commercial Interiors have performed their intended task. The intent of LEED for Existing Buildings: Operations & Maintenance is to certify the operations and maintenance of the building and create a plan for ensuring high performance over time. The rating system captures both a building's physical systems (equipment, design, land use, etc.) and the way the building is occupied and operated by its managers (waste management, temperature monitoring, commuting programs, etc.).

A key goal of LEED for Existing Buildings: Operations & Maintenance is to institutionalize a process of reporting, inspection and review over the lifespan of the building. So when LEED is applied to new construction and commercial interiors, the one time act of renovating, constructing or tenant fit-out is certified. LEED for Existing Buildings: Operations & Maintenance certifies the completed and operated building as it functions on an ongoing basis.

### **Who should use LEED for Existing Buildings: Operations & Maintenance?**

LEED for Existing Buildings: Operations & Maintenance helps building owners and managers solve building problems, and improve building life cycle performance. The rating system is targeted at single buildings, whether owner occupied, multi-tenanted, or multiple-building campus projects and requires three months of operational data for an initial certification; any building construction must be complete for at least a three month span before LEED certification can be pursued. Historic properties can also become certified under the rating system, and the USGBC has been working collaboratively with the National Trust for Historic Preservation to outline specific metrics that highlight and promote preservation activities as green building strategies.

Existing buildings undergoing substantial renovations are eligible to become certified under LEED for Commercial Interiors, Existing Buildings: Operations & Maintenance (upon completion of the renovation and three months of occupancy/operation) or New Construction. Comparing the requirements of LEED for Existing Buildings: Operations & Maintenance to other LEED rating systems will help you determine which rating system is better suited to your project type.

Projects that have already been certified using LEED for New Construction, LEED for Schools or LEED for Core & Shell will receive free registration if they choose to certify using LEED for Existing Buildings: Operations & Maintenance.

**How do I know if LEED for Existing Buildings: Operations & Maintenance is right for my project?**  
USGBC encourages the project team to tally a potential point total using the rating system checklists for all possibilities. The project is a viable candidate for LEED certification if it can meet all prerequisites and achieve the minimum points required in a given rating system. If more than one rating system applies, then it is up to the project team to decide which one to pursue. If questions or concerns remain, please e-mail [leedinfo@usgbc.org](mailto:leedinfo@usgbc.org).

**How often does a project need to recertify under LEED?**  
Buildings can apply for recertification as frequently as each year but must file for recertification at least once every five years to maintain their LEED for Existing Buildings: Operations & Maintenance status. If projects do not recertify at the five year mark, their next application will be considered an initial certification application. The project must recertify all prerequisites but may drop previously earned credits or add new credits as desired.

**Is there a minimum age for a building to participate in LEED for Existing Buildings: Operations & Maintenance?**

LEED for Existing Buildings: Operations & Maintenance requires buildings to be in operations for at least 12 continuous months before certifying.

**What is the point breakdown for LEED for Existing Buildings: Operations & Maintenance?**  
LEED for Existing Buildings: Operations & Maintenance ratings are awarded according to the following scale:

There are 100 base points; 6 possible Innovation in Design and 4 Regional Priority points

Certified 40–49 points  
Silver 50–59 points  
Gold 60–79 points  
Platinum 80 points and above

**Where can I get an updated copy of the LEED for Existing Buildings: Operations & Maintenance Rating System?**

The LEED for Existing Buildings: Operations & Maintenance rating system is located within the Green Building Operations & Maintenance reference guide and is available for purchase from the [USGBC Web site](#).

**Helpful tips to get started:**

1. Review the LEED rating system to assess credit potential
2. Set your target certification level: Certified, Silver, Gold, Platinum
3. Assess what equipment will need upgrades
4. Assign responsibility for credits and for writing green policies
5. Make a budget
6. Create a timeline to optimize work and process flow
7. Register project to take advantage of USGBC resources

**What is the process for LEED certification?**

Certification is now administered by the Green Building Certification Institute (GBCI) through a network of professional, third-party certification bodies. To register a project for LEED certification, visit [www.gbci.org](http://www.gbci.org).

## U.S. GREEN BUILDING COUNCIL

2101 L St NW, Suite 500, Washington, DC 20037 · Phone 202 828-7422 · [USGBC.org](http://USGBC.org)

**What educational programs are available to learn more about LEED?**

USGBC offers a variety of LEED instructor-led workshops, online courses and Webinars (live and on-demand). To learn more about USGBC's LEED curriculum, visit [www.usgbc.org/education](http://www.usgbc.org/education).

**Where can I get answers to additional LEED questions?** Send emails to: [leedinfo@usgbc.org](mailto:leedinfo@usgbc.org).

**U.S. GREEN BUILDING COUNCIL**

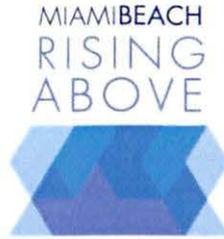
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Sustainability and Resiliency Committee  
December 12, 2016

**Mayor's Blue Ribbon Panel on Flooding and Sea Level Rise**

Item to be presented by Scott Robins, Committee Chairman

**ITEM #3**



## **MAYOR'S BLUE RIBBON PANEL ON SEA LEVEL RISE**

*Our Mission: to monitor the progress of the City's stormwater management program and comprehensive flood management plan; to study and recommend options for historic preservation in the face of climate change; to evaluate and recommend recommendations related to current floor to area ratio (FAR) in light of the need for climate adaptation and the resiliency of the City of Miami Beach; to evaluate and recommend green infrastructure design and to provide resident/business subject matter expertise and input into the development of the citywide Resiliency Strategy.*

**Tuesday, December 13, 2016, 3:00 PM – 5:00 PM**

**City Manager's Large Conference Room**

### **Draft Agenda**

1. Welcome and Call to Order – Scott Robins, Chair
2. Approval of Minutes from meeting held November 10, 2016
3. Old Business
  - a. Project Review – Dr. Bruce Mowry, City Engineer & David Martinez, Director, CIP
  - b. Land Development Regulation draft amendments, Thomas Mooney, Planning Director
  - c. Work Plan Update – Susy Torriente, Assistant City Manager/Chief Resiliency Officer
    - i. Business Resiliency Workshop Summary Report
4. New Business
  - a. "Sea Level Rise Data Acquisition, Integration, and Modeling Framework" Presentation – Carlos Tamayo and Francisco D'Elia
5. Panel Discussion
6. Summary & Assignments
7. Schedule for upcoming meetings
8. Adjournment

Sustainability and Resiliency Committee  
December 12, 2016

**Resiliency Strategy**

Item to be presented by Amy Knowles, Deputy Resiliency Officer

**ITEM #4**

# **VERBAL REPORT AT COMMITTEE MEETING**