

MIAMI BEACH

City of Miami Beach, 1700 Convention Center Drive, Miami Beach, Florida 33139, www.miamibeachfl.gov

COMMISSION MEMORANDUM

TO: Mayor Philip Levine and Members of the City Commission

FROM: Jimmy L. Morales

DATE: January 11, 2016

SUBJECT: **DISCUSSION ON INSTALLING A RESILIENT FLORIDA-FRIENDLY
LANDSCAPE AT CITY HALL THAT INCLUDES AN EDUCATIONAL ELEMENT
AND NATIVE PLANT IDENTIFICATION GARDENS**

BACKGROUND

At the City Commission meeting on February 10, 2016, the Mayor and City Commission referred a discussion item to the Sustainability and Resiliency Committee (SRC) prohibiting contractors from using roundup and other chemicals that may be carcinogens in public spaces. This item was sponsored by Commissioner Ricky Arriola. This item was discussed at the March 30, 2016 and May 18, 2016 Sustainability & Resiliency Committee. The Committee discussed the adoption of Integrated Pest Management (IPM) for both City staff and contractors to follow.

During the October 26, 2016 SRC, Rodney Knowles, Greenspace Division Director, explained that the City currently complied with the principles of Florida-Friendly Landscaping (FFL) and IPM when managing pests in the landscape. At the request of the SRC, the Greenspace Management Division developed a FFL Plan with educational component for City Hall in order to educate the public about the environmental benefits derived from the principles of FFL including IPM. Millicent McFadden, Parks Superintendent, presented the FFL guidelines, explaining how IPM is incorporated into these guidelines. Ms. McFadden also presented a plan for a resilient FFL pilot with educational gardens for City Hall. After the presentation, the SRC Committee referred the item to City Commission with a favorable recommendation to implement a FFL landscaping plan for City Hall, including an educational component.

ANALYSIS

The City of Miami Beach's Parks and Recreation Department, the Public Works Department - Greenspace Management Division, and their contractors currently use pesticides and fertilizers to maintain the landscaping in our parks, greenspaces and parking lots.

Parks and Recreation Department and Greenspace Management Division and their contractors currently follow the State of Florida's Green Industries Best Management Practices for pest control management, which uses FFL and IPM as its foundation. IPM utilizes best practices to minimize the use of chemicals while emphasizing the proper horticultural methods to ensure the

overall vitality of the landscape. In their everyday operations, Parks and Recreation Department and Greenspace Management also follow the FFL principles which are landscaping practices that conserve water, protect the environment, are appropriate for local conditions, and are drought, wind and/or salt tolerant. These practices also includes planting the right plant in the right place, efficiently watering, appropriate fertilization, mulching, attraction of wildlife, responsible management of yard pests (IPM), recycling yard waste, reduction of stormwater runoff, and waterfront protection. Additional components of FFL include planning and design, soil analysis, use of solid waste compost, practical use of turf, and proper maintenance.

At the request of the SRC, the Greenspace Management Division has developed in-house a resilient FFL project for City Hall (Attachment A- Conceptual Design). The Greenspace Management Division will be working with the Environment and Sustainability Department, UF/IFAS Extension Office, and the Miami Beach Botanical Garden to include an educational element and native plant identification. The goal of the project is to demonstrate and educate our residents, visitors and employees about how a resilient FFL can protect the environment through environmentally sustainable practices, using low-maintenance plants, conserving water and reducing fertilizers and pesticides use.

The project will provide for a formal, FFL utilizing Florida Native Plants around City Hall to demonstrate to the public that FFL and Florida Native Plants can provide for both highly esthetic and sustainable landscaping. The educational component, along the perimeter of the property, will be divided into four different “gardens” that will present different plant palettes, including the most common/available, resilient native plants for South Florida featuring:

- Butterfly attractors;
- Wildlife attractors;
- Seaside Garden; and
- Grasses and Wildflowers.

Each garden will have an educational signage with information about the different habitats, resilient plant species, benefits to the environment and how residents can bring back these principals into their own landscaping.

Financial Impact Summary

The project will cost approximately \$70,000. No sources of funding have been identified. The educational signage will cost about \$2K while the landscaping will cost around \$68,000. Attachment B provides a sample of the potential type of species, quantities and cost for the development of the conceptual design. Selection may change based on seasonality and species availability.

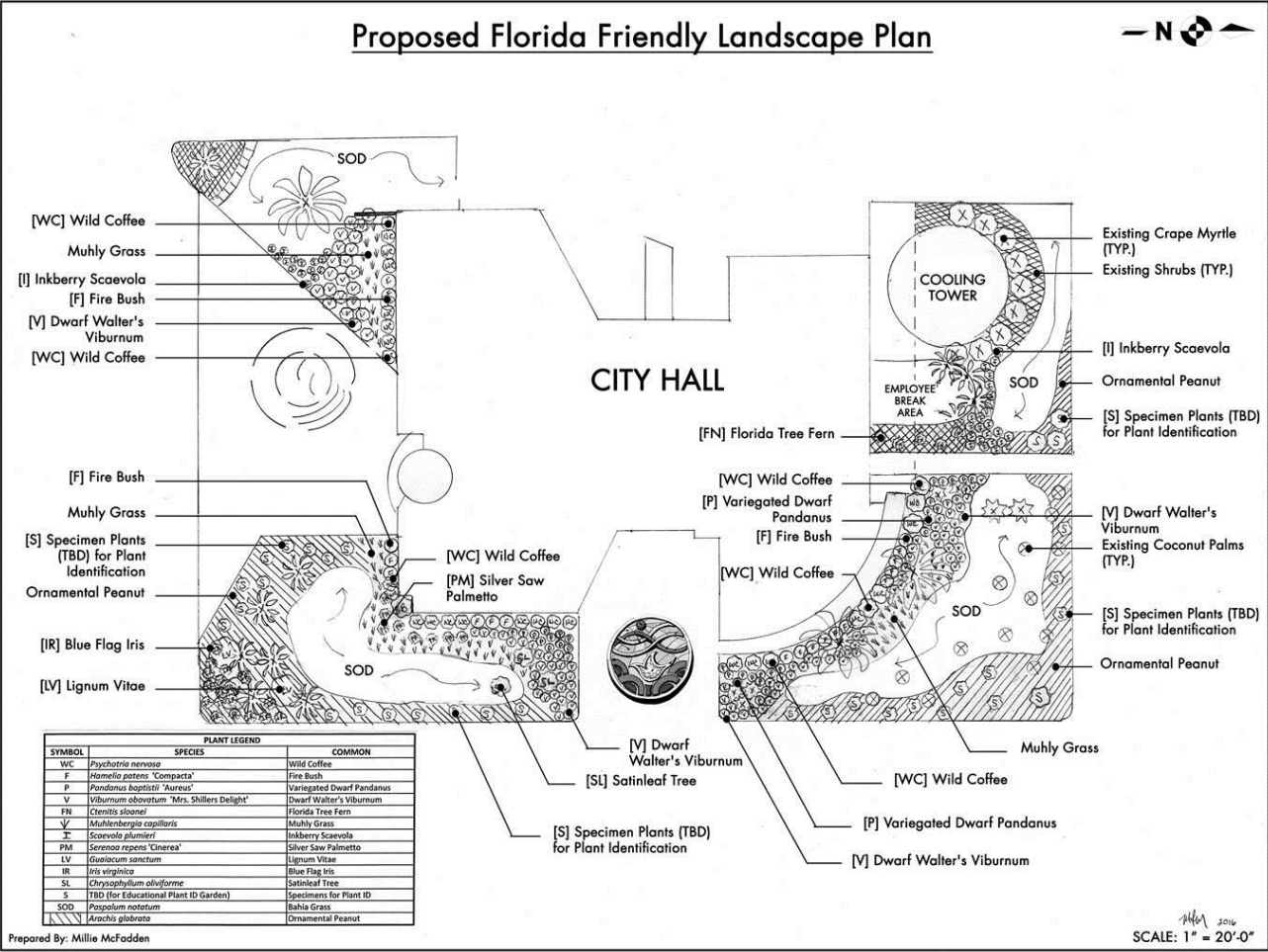
CONCLUSION

The following is presented to the members of the Mayor and City Commission for discussion and further direction.

Attachment A: City Hall Resilient Florida-Friendly Landscape Conceptual Design.

Attachment B: Sample of the potential type of species, quantities and cost for the development of the conceptual design.

Attachment A- City Hall Resilient Florida-Friendly Landscape Conceptual Design.



Attachment B- Sample of the potential type of species, quantities and cost for the development of the conceptual design.

CMB CITY HALL - FLORIDA FRIENDLY LANDSCAPE								
ESTIMATE AND PLANT PROFILES								
QTY	SIZE	SPECIES	COMMON NAME	UNIT	TOTAL	NATIVE	DROUGHT TOLERANCE	SALT TOLERANCE
35	3 gal.	<i>Psychotria nervosa</i>	Wild Coffee	\$ 9.50	\$ 332.50	Yes	High	High
25	3 gal.	<i>Hamelia patens</i> 'Compacta'	Fire Bush	\$ 9.50	\$ 237.50	Yes	High	High
45	3 gal.	<i>Pandanus baptistii</i> 'Aureus'	Variegated Dwarf Pandanus	\$ 12.50	\$ 562.50	No	High	High
90	3 gal.	<i>Viburnum obovatum</i> 'Mrs. Shillers Delight'	Dwarf Walter's Viburnum	\$ 9.50	\$ 855.00	Yes	High	High
5	7 gal.	<i>Ctenitis sloanei</i>	Florida Tree Fern	\$ 45.00	\$ 225.00	Yes	Med.	Med.
100	3 gal.	<i>Muhlenbergia capillaris</i>	Muhly Grass	\$ 9.50	\$ 950.00	Yes	High	High
30	3 gal.	<i>Scaevola plumieri</i>	Inkberry Scaevola	\$ 12.00	\$ 360.00	Yes	High	High
8	7 gal.	<i>Serenoa repens</i> 'Cinerea'	Silver Saw Palmetto	\$ 65.00	\$ 520.00	Yes	High	High
3	B & B	<i>Guaiacum sanctum</i>	Lignum Vitae	\$ 1,200.00	\$ 3,600.00	Yes	High	High
25	3 gal.	<i>Iris virginica</i>	Blue Flag Iris	\$ 12.00	\$ 300.00	Yes	Med.	Med.
3	45 gal	<i>Chrysophyllum oliviforme</i>	Satinleaf Tree	\$ 550.00	\$ 1,650.00	Yes	High	High
35	7 - 10 gal	TBD (for Educational Plant ID Garden)	Specimens for Plant ID	\$ 65.00	\$ 2,275.00	Yes	High	High
8500	Sq. Ft.	<i>Paspalum notatum</i>	Bahia Grass	\$ 0.29	\$ 2,465.00	No	High	Med.
7000	Sq. Ft.	<i>Arachis glabrata</i>	Ornamental Peanut	\$ 2.50	\$ 17,500.00	No	High	Med.
1	TBD	Irrigation - Separate Zones for turf and beds	Fla. Friendly	\$15,000.00	\$15,000.00	NA	NA	NA
250	MH	Demolition	Remove Existing	\$ 35.00	\$ 8,750.00	NA	NA	NA
3	Loads	Disposal	Dump Fees	\$ 150.00	\$ 450.00	NA	NA	NA
250	MH	Labor -	Installation	\$ 35.00	\$ 8,750.00	NA	NA	NA
100	Cu. Yds.	Mulch	Recycled or Pine Straw	\$ 35.00	\$ 3,500.00	NA	NA	NA
					\$68,282.50	NA	NA	NA