Neighborhood/Community Affairs Committee Meeting
November 19, 2012

Discussion Regarding "Green Alleys" on Miami Beach.
Referred at September 12, 2012 Commission, Item C4F
(Requested by Commissioner Tobin)

Fred Beckmann, Public Works Department Director

ITEM #10

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COMMITTEE MEMORANDUM

TO: Neighborhood / Community Affairs Committee

FROM: Kathie G. Brooks, Interim City Manager

DATE: November 19, 2012

SUBJECT: **Discussion Regarding Green Alleys**

BACKGROUND

The City of Miami Beach aims to be national leader in the implementation of green technology to create a sustainable and environmentally friendly urban environment. For this purpose, staff has researched green initiatives throughout the United States including the City of Chicago's Green Alley program. Staff has also researched the use of permeable concrete with local concrete industry groups and LED lighting with national lighting suppliers. Additionally, the City has approached local permitting agencies such as the Department of Regulatory and Environmental Resources (formerly DERM) and the South Florida Water Management District for information regarding their acceptance of sustainable technology to reduce storm water runoff and achieve water quality requirements.

The City is developing plans to use permeable concrete, LED lighting, and rainwater harvesting, as appropriate, in its alleys as well as other locations in the City. To date, the parking lots at 900 Washington Avenue, 1000 Washington Avenue, 1625 West Avenue, 1262 Collins Avenue, and 6933 Harding Avenue; one alley at the 700 block of Collins Court; and the Dade Boulevard bike path have been designed with LED lighting and/or permeable concrete. A rainwater harvesting design is also included at the parking lot on 1625 West Avenue. These features will be included in more designs going forward.

It should be noted that the installation of permeable concrete or permeable concrete valley gutters is not appropriate everywhere. It is best suited for areas at a higher elevation and less intense, non-commercial uses. Permeable concrete installation is only recommended at locations were the ground elevation is at least 24 inches higher than the seasonal high water table. This precludes its use in lower lying areas of the City. Further, permeable concrete has approximately half the strength of standard concrete and does not have steel reinforcement. As a result, it is much more prone to cracking and damage when subjected to heavy loads like those resulting from sanitation and delivery vehicles. In addition, permeable concrete can be clogged by grease and oils that are often washed into the alleys by the operations of adjacent restaurants and businesses.

Further, the construction costs for green alleys are estimated to be three times the costs for standard alleys. This is due to the additional costs for the installation of permeable concrete and for the need to relocate utilities that are often in conflict with the underlying drainage area.

The City has moved forward with green technology in these parking lots and the Dade Boulevard Bike Path as these facilities are often higher, have less intense loading, and are less subject to dumping of grease and oil than alleys. The City will construct the 700 block of Collins Court as a pilot project and evaluate its performance. If successful, staff will add more green alleys to future capital budgets.

CONCLUSION

The above information is provided for discussion by members of the N/CAC.

JGG//FHB/JJF/RWS

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