

MIAMI BEACH

COMMITTEE MEMORANDUM

TO: Public Safety and Neighborhood Quality of Life Committee Members

FROM: Eric Carpenter, City Manager

DATE: April 9, 2025

TITLE: DISCUSS POTENTIAL INSTALLATION OF SMALL AEROPONIC GARDENS AT A LOCATION TO BE DETERMINED WITHIN THE CONVENTION CENTER CAMPUS

RECOMMENDATION

The Administration recommends proceeding with the exploration, budgeting, and planning for the installation of the aeroponic gardens at the Miami Beach Convention Center Campus in collaboration with Sodexo Live!.

BACKGROUND/HISTORY

During the February 26, 2025 City Commission meeting, the Mayor and City Commission referred, at the request of Commissioner Laura Dominguez, to the Public Safety, Neighborhoods and Quality of Life Committee (PSNQLC) a discussion regarding the possible installation of small aeroponic gardens at a location to be determined on the Miami Beach Convention Center (MBCC) campus, as recommended by the Convention Center Advisory Board (CCAB) at its January 14, 2025 meeting (Exhibit A).

Sponsor, Commissioner Dominguez, asked the Administration to explore and review whether the concept of aeroponic gardens, featuring a variety of plants such as lettuce, vegetables, herbs, and edible flowers, would be beneficial to the MBCC and the Miami Beach community.

In addition, the Administration was asked to explore the cost of maintenance and operation of the gardens with the Convention Center food and beverage concessionaire, Sodexo Live!, and identify a possible location, estimated budget, and next steps. (See Exhibit B)

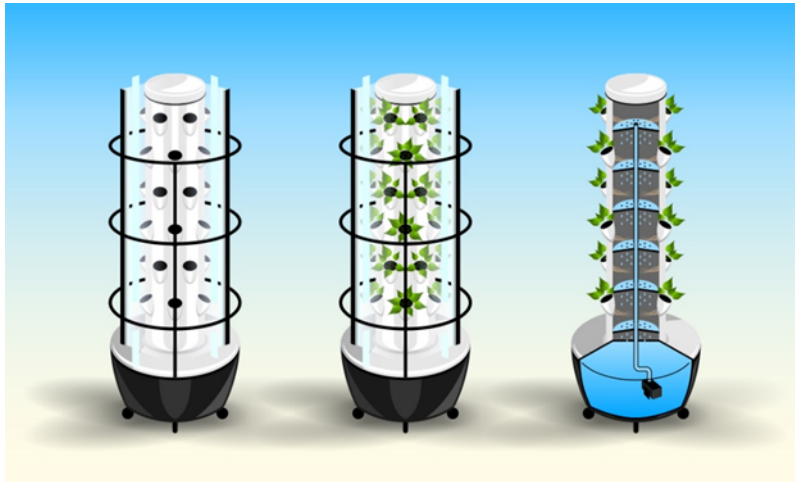
ANALYSIS

Aeroponic gardening is an innovative method of plant cultivation that offers several advantages and challenges. It allows for the efficient and precise delivery of nutrients and oxygen to plant roots, promoting rapid growth and higher yields while conserving water and space. Aeroponic gardens are where roots are suspended in air and periodically sprayed with a nutrient-rich solution, allowing for precise control over plant nutrition and faster growth.

It is a remarkably water-efficient technique, using 98% less water than traditional gardening methods and 30% less than hydroponic systems. For example, traditional soil gardens often lead to water loss through evaporation, leakage, and runoff. In contrast, aeroponics conserves water resources by recirculating the nutrient solution. The mist is applied directly to the plant roots, and any excess nutrient solution that is not absorbed is collected and recycled.



Vertical aeroponic growing systems provide a space-saving advantage. In many aeroponic setups, plants are grown in stacks or shelves, allowing for the efficient use of available space. This makes it particularly valuable on the MBCC campus, where space to garden is limited.



Plants in aeroponic systems are less susceptible to common fungi and pests (e.g., iguanas) due to the absence of soil contact and being completely enclosed. This results in reduced reliance on chemical pesticides and herbicides, creating a cleaner, safer crop. **The aeroponic Tower Garden is a popular aeroponic system, used by a few large venues as a prime example of clean, disease-free, and critter-free growing.** Vertical tower gardens maintain healthy, pest-free crops without the need for harmful chemical interventions.



What is appealing for the MBCC campus is that aeroponic gardens celebrate the environment. Gardens produced in a controlled environment result in better water efficiency and reduce reliance on chemical pesticides. Moreover, aeroponic gardens offer the flexibility of year-round cultivation. Unlike traditional gardening, which is often constrained by seasons or weather conditions, aeroponic systems can create and maintain optimal growing conditions regardless of external factors.

The concept of installing aeroponic gardens on the Miami Beach Convention Center Campus originated from a shared vision to promote sustainability, innovation, and responsible food sourcing. Aeroponic gardening, on the MBCC campus, could offer a number of community benefits including efficient gardening, sustainable food production, potentially boosting the reputation of the MBCC which could positively contribute to our economy, and provide opportunities for education and community engagement, especially to the next generation.



The Administration and Sodexo Live! explored the steps needed to create an aeroponic garden on the MBCC campus. Sodexo Live! is currently hosting an aeroponic garden in Orlando, with much success by installing GALLERI aeroponic gardens by Babylon Micro-Farms – state-of-the-art indoor vertical gardening solutions.

Initial steps include:

1. conducting a feasibility assessment to identify optimal locations and determine site development and preparation costs;
2. preparing a full operational budget including site development, micro farm system, labor, parts, equipment, supplies, and ongoing maintenance costs;
3. integrating with either the GALLERI system, or a similar system, into daily operations and menu development plans, maximizing culinary and educational benefits;
4. collaborating with Babylon Micro-Farms, or a similar provider, to customize the aeroponic system to meet the specific needs and volume demands of the MBCC; and
5. establishing a timeline for implementation, including a pilot phase to evaluate the system's impact and scalability.

The installation could be maintained and operated by Sodexo Live!, where they would grow fresh produce that would be integrated into menu offerings at the Venu and Rum Room restaurants. Beyond its food production applications, Sodexo recommends utilizing GALLERI as a visual and educational showcase, engaging both Convention Center visitors and the local community in sustainable food production practices.



FISCAL IMPACT STATEMENT

One time equipment cost is \$14,500 and monthly cost, for service provider, labor, parts, equipment and maintenance, would be approximately \$1,781 monthly or \$21,372 annually.

Does this Ordinance require a Business Impact Estimate? (FOR ORDINANCES ONLY)

The Business Impact Estimate (BIE) was published on .

See BIE at: <https://www.miamibeachfl.gov/city-hall/city-clerk/meeting-notice/>

FINANCIAL INFORMATION

Potential costs include key services specifically designed to ensure seamless and efficient gardening experience lifecycle. Services include:

1. Seed and Supply Delivery: Regular delivery of seeds, nutrients, and other necessary supplies to keep the system running smoothly.
2. Remote Monitoring and Support: Access to the aeroponic platform, which remotely monitors the gardens' performance and provides automated adjustments for optimal growth.
3. Maintenance Assistance: Support for troubleshooting and maintaining the system, including live assistance or online chat options.
4. Warranty Coverage: A limited parts warranty to address any issues with the equipment.
5. Educational Resources: Access to training materials and resources to help users maximize the system's potential.

CONCLUSION

The Administration recommends proceeding with the exploration, budgeting, and planning for the installation of the aeroponic gardens at the Miami Beach Convention Center Campus in collaboration with Sodexo Live!.

Applicable Area

South Beach

Is this a "Residents Right to Know" item, pursuant to City Code Section 2-17?

Is this item related to a G.O. Bond Project?

No

No

Was this Agenda Item initially requested by a lobbyist which, as defined in Code Sec. 2-481, includes a principal engaged in lobbying? No

If so, specify the name of lobbyist(s) and principal(s):

Department

Economic Development

Sponsor(s)

Commissioner Laura Dominguez

Co-sponsor(s)

Commissioner Tanya K. Bhatt

Condensed Title

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