

MIAMI BEACH

COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission

FROM: Eric Carpenter, City Manager

DATE: May 21, 2025

TITLE: REFERRAL TO THE FINANCE AND ECONOMIC RESILIENCY COMMITTEE TO 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 aeroponic gardens at the Miami Beach Convention Center Campus in collaboration with Sodexo Live!, the Convention Center's food and beverage concessionaire.

BACKGROUND/HISTORY

On January 22, 2025, the Convention Center Advisory Board (CCAB) passed a motion recommending support for funding, procurement, and operation of small aeroponic gardens at the Miami Beach Convention Center (MBCC) campus. (Exhibit A).

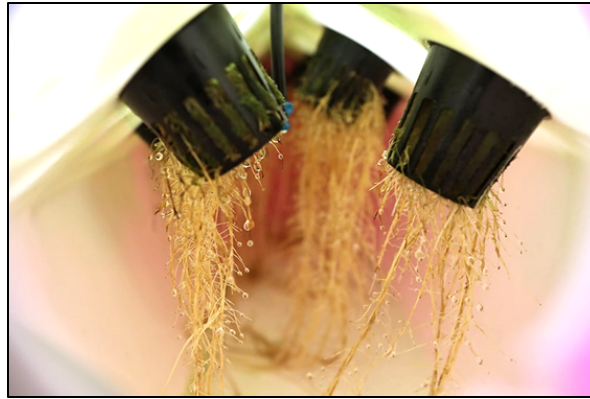
At the request of Commissioner Laura Dominguez, the Mayor and City Commission referred the item to the Public Safety, Neighborhoods and Quality of Life Committee (PSNQLC) on February 26, 2025. The item proposed exploring the potential benefits of aeroponic gardens growing lettuce, herbs, edible flowers, and other produce.

On April 9, 2025, the PSNQLC unanimously recommended that the item be referred to the Finance and Economic Resiliency Committee (FERC) to evaluate fiscal impacts. Further discussion would allow exploration of maintenance costs, operational partnerships with Sodexo Live!, possible garden locations, and next steps (See Exhibit B).

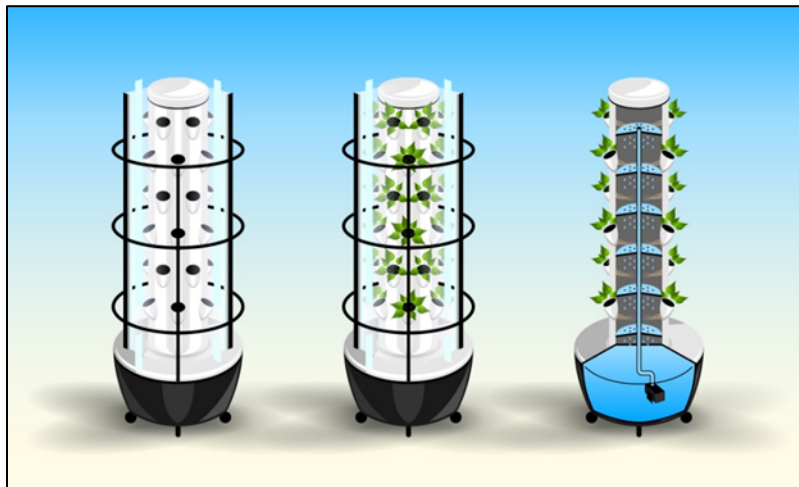
ANALYSIS

Aeroponic gardening is an innovative method of plant cultivation that offers both advantages and challenges. It allows for the efficient and precise delivery of nutrients and oxygen directly to plant roots, promoting accelerated growth and higher yields while conserving both water and space. In aeroponic systems, plant roots are suspended in air and periodically misted with a nutrient-rich solution, allowing for precise control over plant nutrition and resulting in faster, healthier growth.

This technique is highly water-efficient—using up to 98% less water than traditional soil gardening and approximately 30% less than hydroponic systems. Traditional soil gardens often result in water loss through evaporation, leakage, and runoff. In contrast, aeroponic systems conserve water by recirculating the nutrient solution. Excess mist that is not absorbed is captured and reused, maximizing efficiency and minimizing waste.



Vertical aeroponic systems also offer significant space-saving benefits. In many configurations, plants are grown in vertically stacked towers or shelves, optimizing the use of limited space. This is particularly advantageous on the MBCC campus, where available gardening space is minimal.



Aeroponic systems reduce exposure to common pests and fungal diseases—such as those caused by soil-borne pathogens or invasive species like iguanas—due to their enclosed, soil-free environment. This decreases the need for chemical pesticides and herbicides, resulting in a cleaner and safer crop. One well-known example is the aeroponic Tower Garden system, which has been adopted by several large venues as a model for clean, pest-free, and disease-resistant growing without reliance on harmful chemical treatments.



For the MBCC campus, the environmental benefits of aeroponic gardens are especially compelling. The controlled growing environment promotes water conservation, reduces chemical use, and enables consistent, year-round cultivation. Unlike traditional gardening methods that are subject to seasonal and weather-related limitations, aeroponic systems provide optimal conditions regardless of external factors.

In addition to operational benefits, aeroponic gardens support broader goals related to sustainability and education. They encourage responsible food sourcing, present educational opportunities for the community, and may enhance the Convention Center's reputation as a leader in innovation and environmentally conscious practices.



Sodexo Live! currently operates a successful aeroponic garden using GALLERI systems by Babylon Micro-Farms at a venue in Orlando. The proposed concept for MBCC involves a similar model, with Sodexo Live! overseeing operations and integrating fresh produce into the menus at Venu and Rum Room. The system could also serve as a live educational showcase for visitors and community members.

Initial implementation steps include:

1. Conducting a feasibility study to determine optimal garden locations and site preparation needs.
2. Developing a comprehensive budget including site work, system installation, labor, equipment, and maintenance.
3. Selecting and integrating an aeroponic system (e.g., GALLERI or equivalent) into MBCC operations.
4. Collaborating with a system provider to customize the garden to MBCC needs.
5. Establishing a phased implementation timeline, including a pilot phase to assess impact and scalability.



FISCAL IMPACT STATEMENT

Estimated one-time equipment cost: \$14,500

Estimated ongoing monthly cost (service, labor, maintenance): \$1,781

Annual total: \$21,372

Does this Ordinance require a Business Impact Estimate?

(FOR ORDINANCES ONLY)

If applicable, the Business Impact Estimate (BIE) was published on:

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

FINANCIAL INFORMATION

Potential costs for key services may include:

1. **Seed & Supply Delivery:** Regular replenishment of seeds, nutrients, and materials.
2. **Remote Monitoring & Support:** Automated performance tracking and system optimization.
3. **Maintenance Assistance:** Technical support via live or digital platforms.
4. **Warranty Coverage:** Limited warranty for equipment components.
5. **Educational Resources:** Training tools and materials to maximize system usage.

CONCLUSION

The proposed installation of aeroponic gardens at the MBCC represents an opportunity to promote sustainability, responsible food sourcing, and community engagement. In partnership with Sodexo Live!, the project would support environmentally conscious practices while contributing to the Convention Center's culinary and educational programming.

The Administration recommends that the Mayor and City Commission refer this item to the Finance and Economic Resiliency Committee for further discussion and review.

Applicable Area

South Beach

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

No

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

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

Ref: FERC - Install Aeroponic Gardens at Convention Center Campus. (Dominguez/Bhatt) ED

Previous Action (For City Clerk Use Only)