

8. DISCUSS THE POTENTIAL DEPLOYMENT AND OPERATION OF SERVE ROBOTICS' AI-POWERED SIDEWALK DELIVERY ROBOTS IN THE CITY OF MIAMI BEACH.

Applicable Area:

MIAMI BEACH

COMMITTEE MEMORANDUM

TO: Public Safety and Neighborhood Quality of Life Committee Members

FROM: Eric Carpenter, City Manager

DATE: March 12, 2025

TITLE: DISCUSS THE POTENTIAL DEPLOYMENT AND OPERATION OF SERVE ROBOTICS' AI-POWERED SIDEWALK DELIVERY ROBOTS IN THE CITY OF MIAMI BEACH.

RECOMMENDATION

The Administration is in support of the operation of the Serve Robots, Inc. in Miami Beach via a pilot program, contingent a contract agreement between the City and Serve Robotics, Inc. (similar to Citi Bike), based on the City's needs and regulations, including a type of insurance that would protect the City from liability.

BACKGROUND/HISTORY

On February 3, 2025 at the request of Commissioner Laura Dominguez, the Mayor and City Commission (City Commission) approved item C4F (Attachment A), a referral to the Public Safety and Neighborhood Quality of Life Committee to discuss the potential deployment and operation of Serve Robotics' AI-powered sidewalk delivery robots in Miami Beach.

Serve Robotics, Inc. ("Serve") develops advanced, AI-powered, low-emission sidewalk delivery robots that endeavor to make deliveries sustainable, reliable, and economical. Spun off from Uber in 2021 as an independent company, Serve has completed tens of thousands of deliveries (in cities including West Hollywood, Los Angeles, and San Francisco) for enterprise partners such as Uber Eats and 7-Eleven. These sidewalk delivery robots have also made their way to Miami Dade County. Commissioner Dominguez would like to discuss the feasibility of having robots operate in Miami Beach.

ANALYSIS

The City reached out to Serve to gather more data on these sidewalk delivery robots and how they would work out in the City. As it turns out, Serve robots are currently operating in Miami Beach, delivering through the Uber Eats application. There are about 20-25 robots currently operating in "hot spot" areas (areas with highest demand for Uber Eats orders). Not everyone will get their food delivered via these robots, since there is a limited amount of units, however this is expected to change in the near future. It is estimated that by June of this year, there will be about 50 robots operating in Miami Beach, and possibly more in the future, as demand increases (more robots are currently being built).

Gen3 Model Specs (model currently being used in the City):

Speed: Average speed of 3 miles per hour when driving through sidewalks and about 5-6 miles per hour when crossing the streets.

Weather: Can drive thru moderate rain (will stop in heavy weather)

Radius: 1.5 miles (as a way to keep food orders warm)

Cargo: 15 gal, or 4x16" size pizzas

Delivery: It can only be opened by a customer or the merchant via a unique passcode.

Navigation: Serve robots use a range of sensors to identify the objects around them and to avoid obstacles

Maintenance: Robots are taken once a day to a container (trailer) to have them charged, cleaned up, and data download.

Due to its speed, these robots mostly operate on the sidewalk, on their own in self-driving mode, and supervised by remote pilots. Each robot is covered by Serve's insurance policy.

Should Serve and the City agree to collaborate, a contract would need to be drafted and agreed upon (similar to Citi Bike), based on the City's needs and regulations, including insurance that would protect the City from liability.

A potential pilot may be considered, including the City facilitating a permanent parking spot, where they can operate to and from. A suggested lot is Parking Lot P27, located on Meridian Avenue and Lincoln Lane North, next to Cafecito. Should this be the case, the contract agreement between the City and Serve would include an option of revenue sharing, to compensate for loss of space to park these devices.

These robots are not considered micromobility, as they do not transport people. Since there are currently about 25 units, it would not require an immediate traffic study, however, as the number of operating robots increase, and selected areas of operation expand, a study may be required. Should the agreement between the City and Serve include a revenue share option, Serve would not need to pay a daily parking fee to use the lot. It will require a Business Tax Receipt depending on where the Serve's office is located, and City Commission approval should the threshold of the pilot exceed \$100,000, as well as a bid waiver should Serve be considered as the sole vendor. A contract would need to be drafted and agreed upon prior the start of the pilot. Public Works will work with Miami Beach Police Department to address any potential law enforcement concerns.

Serve robots produce zero emissions. By reducing our over-reliance on cars, they help lower CO2 emissions as well as traffic congestion. If they are able to take even a small fraction of food deliveries off the road, they estimate Serve can help eliminate over 1 billion car miles and more than 370K tons of CO2 annually.

Below is a photograph depicting Serve robots:



FISCAL IMPACT STATEMENT

To be determined

CONCLUSION

The Administration is in support of the operation of the Serve Robots, Inc. in Miami Beach via a pilot program, contingent a contract agreement between the City and Serve Robotics, Inc. (similar to Citi Bike), based on the City's needs and regulations, including a type of insurance that would protect the City from liability.

Applicable Area

Citywide

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

Yes

**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

Public Works

Sponsor(s)

Commissioner Laura Dominguez

Condensed Title

DISCUSS THE POTENTIAL DEPLOYMENT AND OPERATION OF SERVE ROBOTICS' AI-POWERED SIDEWALK DELIVERY ROBOTS IN THE CITY OF MIAMI BEACH.



COMMISSION MEMORANDUM

TO: Honorable Mayor and Members of the City Commission
FROM: Commissioner Laura Dominguez
DATE: February 3, 2025
TITLE: REFERRAL TO THE PUBLIC SAFETY AND NEIGHBORHOOD QUALITY OF LIFE COMMITTEE TO DISCUSS THE POTENTIAL DEPLOYMENT AND OPERATION OF SERVE ROBOTICS' AI-POWERED SIDEWALK DELIVERY ROBOTS IN THE CITY OF MIAMI BEACH.

RECOMMENDATION

BACKGROUND/HISTORY

ANALYSIS

Please place on the February 3, 2025 agenda a referral to the Public Safety and Neighborhood Quality of Life Committee to discuss the potential deployment and operation of Serve Robotics' AI-powered sidewalk delivery robots in Miami Beach.

Serve Robotics, Inc. ("Serve") develops advanced, AI-powered, low-emission sidewalk delivery robots that endeavor to make deliveries sustainable, reliable, and economical. Spun off from Uber in 2021 as an independent company, Serve has completed tens of thousands of deliveries (in cities including West Hollywood, Los Angeles, and San Francisco) for enterprise partners such as Uber Eats and 7-Eleven. Serve also has scalable multi-year contracts, including a signed agreement to deploy up to 2,000 delivery robots on the Uber Eats platform across multiple U.S. markets. Across the Miami-metro area, it's my understanding that Serve is planning to deploy 50 robots at the end of January, and up to 150 in March, with a goal of 235 robots by end of year.

The sidewalks are typically more chaotic than the streets in terms of the randomness of what can happen at any time; however, things happen more slowly and there is more time to react. Over these years, Serve has worked with disability rights advocates, senior citizens groups, transportation planners, and other stakeholders to design for safety and support smart regulations that set a high standard for deployment of new mobility solutions on the sidewalks. In Serve's operations, Serve reports having removed over 2 kg of CO2 for every delivery completed and, in West Hollywood alone, this has been reported to be over 700 car deliveries per month. More importantly, Serve asserts that they accomplished this with a best-in-class safety record marked by a 99.8% delivery completion rate, which is several percentage points better than cars.

Accordingly, I would request that the City Administration be prepared at Committee to discuss a potential permit program (similar to what I believe Serve accomplished with West Hollywood and Los Angeles) specifically with regard to, as it relates to the City: (1) a formal data sharing process; (2) traffic navigation guidelines; (3) speed and weight restrictions; and (4) insurance requirements. I would further request that the Administration be prepared to discuss any additional issues or concerns relating to the potential deployment of Serve delivery robots in the

City of Miami Beach.

FISCAL IMPACT STATEMENT

N/A

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-notice/>

FINANCIAL INFORMATION

CONCLUSION

Applicable Area

Citywide

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pursuant to City Code Section 2-17?**

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Project?**

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includes a principal engaged in lobbying?** No

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

Department

Office of Commissioner Laura Dominguez

Sponsor(s)

Commissioner Laura Dominguez

Co-sponsor(s)

Condensed Title

Ref: PSNQLC -Deploy Serve Robotics Potentially Operating in the City of Miami Beach.
(Dominguez)

Previous Action (For City Clerk Use Only)