MIAMIBEACH

COMMISSION MEMORANDUM

TO: Honorable Mayor Steven Meiner and Members of the City Commission

FROM: Alina T. Hudak, City Manager

DATE: April 3, 2024

SUBJECT: DISCUSS/TAKE ACTION ON ESTABLISHING A REQUIREMENT THAT ELECTRICAL OUTLETS IN PUBLIC RIGHTS-OF-WAY AND OUTSIDE PUBLIC BUILDINGS BE COVERED, LOCKED, AND/OR OTHERWISE SECURED AND RENDERED INOPERABLE FOR USE BY ANYONE OTHER THAN CITY STAFF OR PERMITTED EVENTS STAFF

BACKGROUND

On January 31, 2024, the Mayor and City Commission discussed item R9 AD, sponsored by Commissioner Suarez pertaining to establishing a requirement that electrical outlets in public rights-of-way and outside public buildings be covered, locked, and/or otherwise secured and rendered inoperable for use by anyone other than City staff or permitted events staff.

In particular, the item addressed the electrical outlets on Lincoln Road used by the homeless to charge their telephones, which has promoted camping and sleeping in public places. In an effort to mitigate encampment and vagrancy, the sponsor requested the City Commission support implementing a strategy where all electrical outlets on government-owned properties, including Lincoln Road, can be rendered inoperable through a remote control or through a switch. Upon deliberation of the item, the Administration was directed to explore the use of technology to control the access and operability of the electrical receptacles on Lincoln Road.

ANALYSIS

According to construction plans, there were approximately 220 outlets from the 400 to the 1100 blocks of Lincoln Road. Through the years, many have been permanently capped off and are no longer usable. Currently there are approximately 120 active electrical outlets which serve to power permitted activations and special events, the Green Market (operating every weekend, year-round), the Antiques Market (operating every weekend, October-May), and restaurants with outdoor dining, or concession agreement permits on Lincoln Road.

The receptacles utilized by the Green and Antiques Markets and permitted events have historically been manually disabled. Those of the restaurants are currently powered all the time. Despite many of the outlets having covered boxes and locked, these are regularly vandalized and bypassed by homeless individuals.

In assessing the electrical infrastructure's needs, the City's electrical contractor and staff inventoried all receptacles, mapped corresponding circuits and electrical panels. With this information, the Administration has researched and proposed two (2) viable alternatives to render the electrical outlets inoperable. A diagram accompanying this Memorandum as Exhibit A, illustrates the mapped locations and summarized options.

Option 1 - Smart Electrical Panelboards Technology

Smart or intelligent panelboards are an innovative technology that allows for optimizing electrical systems. This option offers control of individual circuits and other advanced features. This technology focuses on load management to control circuits. City staff can monitor energy consumption and prioritize circuit control. Through an application, the user can program schedules based on priority, dictate which critical loads stay on, and remotely turn circuits on or off as needed. This option offers the greatest control, flexibility, and features. However, this the most labor intensive and cost prohibitive. Each electrical panel (total nine) would be replaced with an intelligent panel and each circuit reinstalled. Due to the complexity of the project, the novelty and availability of the smart panels, this option would require the longest time for installation. The proposal for this option is attached hereto as Exhibit B. In addition to materials and labor, engineering, design, permitting and dedicated internet costs needs to be contemplated.

Option 2 – Electronic Timer Technology

This option requires installing electronic timers on the active circuits and programming these to be operable when needed. Migrating to this option would require the installation of nine (9) 12-pole electronic timers to the panels from the 400 to 1100 blocks. Power to the restaurants' outlets would be programmed to be disabled when the restaurants are not operational (before 11 am and after midnight). This option offers a more cost-effective solution and installation can be achieved in a few weeks. The proposal of this option is attached hereto as Exhibit C.

The first option utilizing intelligent panels offers the most features, management, and monitoring of the electrical circuits. In addition to costs described above, the overall planning to execute this project should also be considered. As there are future plans to the upgrade internet infrastructure with fiber optic technology to service the cameras on Lincoln Road, option 1 should be planned to align with the upgraded network.

The second option is also effective and can provide an intermediate, cost-effective solution. This option requires minimal time for installation and deployment. This solution can address disabling outlets which are currently always active.

Fiscal Impact

Funding for either project option is an unbudgeted expenditure not currently part of the City's FY 2024-2028 Capital Improvement Plan nor the FY 2024 Operating Budget.

CONCLUSION

Based on the foregoing, the Administration recommends the Mayor and City Commission discuss the solutions provided to control or render inoperable the electrical receptacles on Lincoln Road at certain times. Consideration should be given to the overall cost, installation, flexibility, immediate needs, and long-term control solutions. In either option, there is no funding currently appropriated in the City's five-year Capital Improvement Plan or in the FY 2024 operating budget.





400 & 500





600 & 700

Objective:

Keep outlets energized only when they're needed.

Background information:

Many of the outlets have been capped and are no longer in use.

The outlets used for the farmer's market are identified and have been manually operated for years.

The outlets used for the restaurants are the ones powered 24/7.

Options:

There are 2 options.

Option1 is the most innovation and most modern. There are smart panels. These are programmable, you see the consumption per outlets, turn it on or off remotely, etc. These are not readily available. This option requires the panels to be changed. Of course this is the most expensive, and the one that will take the longest to build.

Option2 is the most cost effective. We can easily provide an electronic timer with a contactor to only power the outlets feeding the restaurants during operation hours.



1100 block





Exhibit A

Exhibit B



ELECTRICAL ENGINEERS ELECTRICAL CONTRACTORS 7447 NW 48 Street Miami, Florida 33166 Phone: (305) 403-7841 Fax: (305) 403-7842 www.RDElectricInc.com

PROJECT: option 1 Lincoln Rd. replacing panels by smart panels EC13001534 3/8/2024

item	Description	Unit	Qty	1	Unit Price	Total	
400/500 block	Replace 3 panels by new smart panel type	LABOR (HR)	330	\$	45.00	\$	14,850.00
		MATL (LS)	3	\$	16,250.00	\$	48,750.00
		MARKUP on material only (10%)					4,875.00
600/700 block	Replace 2 panels by new smart panel type	LABOR (HR)	220	\$	45.00	\$	9,900.00
		MATL (LS)	2	\$	16,250.00	\$	32,500.00
		MARKUP on material only (10%)				\$	3,250.00
800/900/ 1000 block	Replace 3 panels by new smart panel type	LABOR (HR)	330	\$	45.00	\$	14,850.00
		MATL (LS)	3	\$	16,250.00	\$	48,750.00
		MARKUP on material only (10%)				\$	4,875.00
1100 block	Replace 1 panels by new smart panel type	LABOR (HR)	88	\$	45.00	\$	3,960.00
		MATL (LS)	1	\$	18,680.00	\$	18,680.00
		MARKUP on material only (10%)				\$	1,868.00
4	Reimbursable sales tax	Sales Tax	7%	\$	148,680.00	\$	10,407.60
TOT					TOTAL	\$	217,515.60

Exhibit C



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PROJECT: option 2 Lincoln Rd. Controlling outlets through timer and contactor

EC13001534 3/8/2024

item	Description	Unit	Qty	U	nit Price	Total	
400/500 block	F&I three 12 pole contactor controlled by electronic timer	LABOR (HR)	198	\$	45.00	\$	8,910.00
		MATL (LS)	1	\$	9,650.00	\$	9,650.00
		MARKUP on material only (10%)				\$	965.00
600/700 block	F&I two 12 pole contactor controlled by electronic timer	LABOR (HR)	124	\$	45.00	\$	5,580.00
		MATL (LS)	1	\$	6,460.00	\$	6,460.00
		MARKUP on material only (10%)				\$	646.00
800/900/ 1000 block	F&I three 12 pole contactor controlled by electronic timer	LABOR (HR)	198	\$	45.00	\$	8,910.00
		MATL (LS)	1	\$	9,650.00	\$	9,650.00
		MARKUP on material only (10%)				\$	965.00
1100 block	F&I one 12 pole contactor controlled by electronic timer (nema 4X)	LABOR (HR)	80	\$	45.00	\$	3,600.00
		MATL (LS)	1	\$	6,120.00	\$	6,120.00
		MARKUP on material only (10%)			\$	612.00	
4	Reimbursable sales tax	Sales Tax	7%	\$	31,880.00	\$	2,231.60
					TOTAL	\$	64,299.60

Square D 8903LG1000V02 Lighting Contactor