



NEW STREETLIGHTS MELROSE PARK

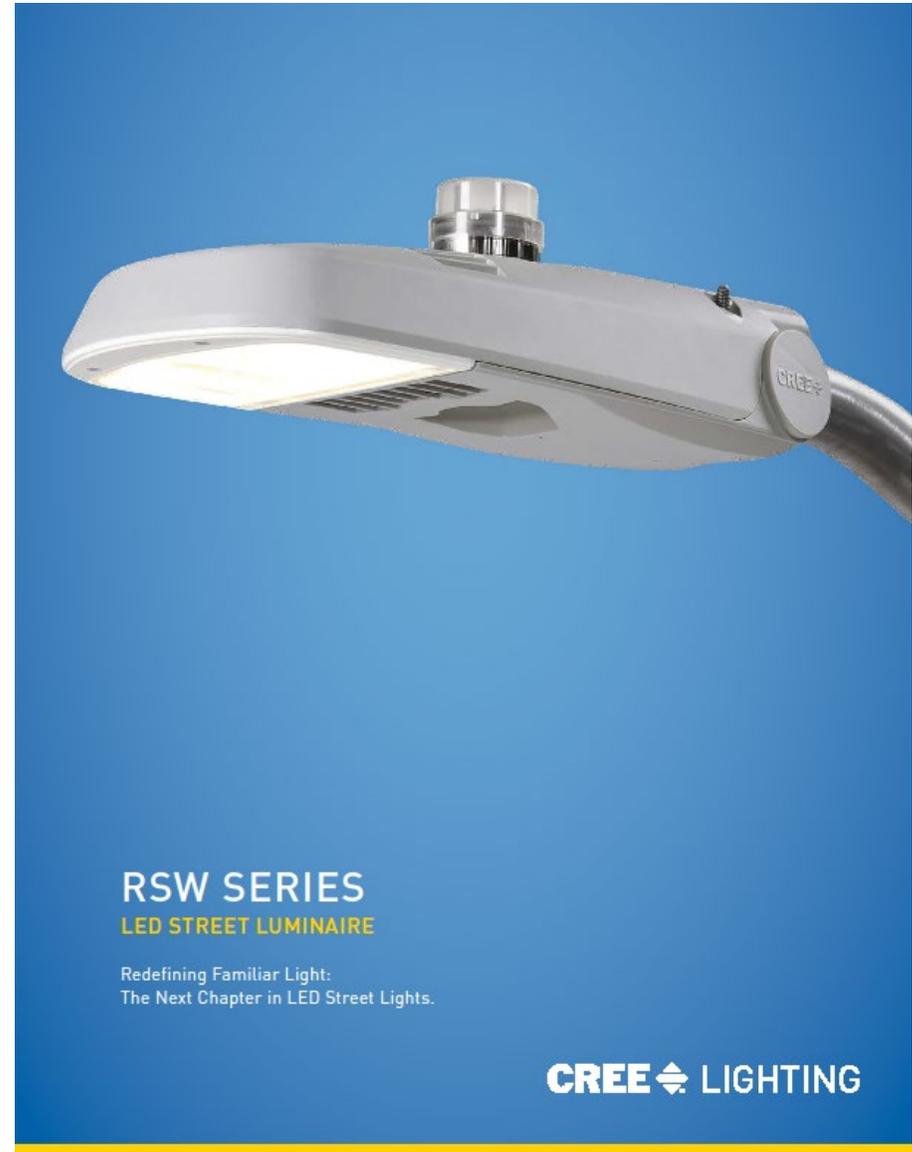
Conference Meeting, February 21, 2023

NEW STREETLIGHTS MELROSE PARK



Project Presentation

- Overall Project Description
- History of this Project
- Project Goal
- Project Area
- Preliminary Schedule
- Estimated Budget
- Design Elements

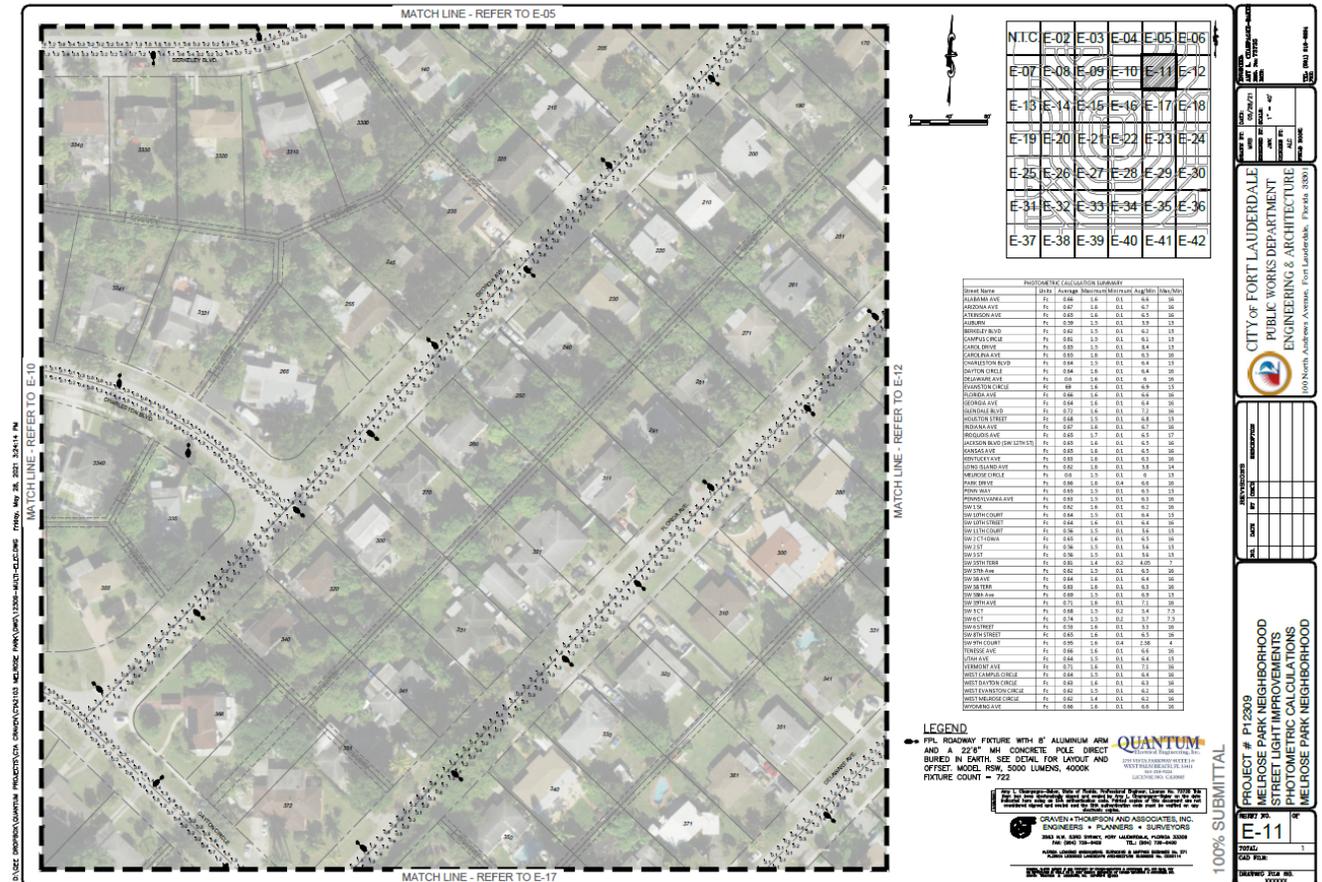


NEW STREETLIGHTS MELROSE PARK



Overall Project Description

- Melrose Park Association is 2,000 home development with a population of just over 7,000 people. Melrose Park is one of the newer additions to the City of Fort Lauderdale; it was annexed in 2002. Currently there is no streetlighting in the development.
- The City is proposing to install 720 new FPL roadway LED streetlights.



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History of the Project

- Neighbor Support Group developed conceptual design and cost estimate in October of 2015. The project included 1,387 solar streetlights with estimated cost of \$11 million.
- On September 15, 2016, an interest survey was mailed to the community. Of the 1961 total mailings sent out, 454 (23%) were returned, with 367 (81%) in favor of lighting, 83 (18%) not in favor of lighting and 4 (1%) unmarked indicating no preference.
- On November 18, 2016, the project was transferred to Public Works.
- Public Works developed a few conceptual layouts and cost estimates including 22' height pole and cobra light at approximate construction cost from \$8.5 million to \$14 million depending on design; as well as option for FPL to install the lights (at that time the annual operational cost of \$422,000 a year was estimated based on 2018 rates with no initial investment).
- Public Works installed 3 RetroFlex solar lights as part of the pilot program at the cost of \$25,129 in 2019.
- In November 2020 Public Works received the directive to proceed with option to install the lights using FPL streetlight program where FPL installs the lights, and the City is responsible for paying monthly fees to FPL.
- City staff and the City consultant worked with Florida Power and Light Company (FP&L) on surveys and designs for implementation of this streetlighting project. Public Meeting was held on July 28, 2021, to present the project to the neighborhood.
- Staff submitted LED Lighting Agreement with FP&L for approval; however, the resolution (CR-5, #22-0096) was defeated on February 15, 2022 Commission meeting. The project was put on hold.





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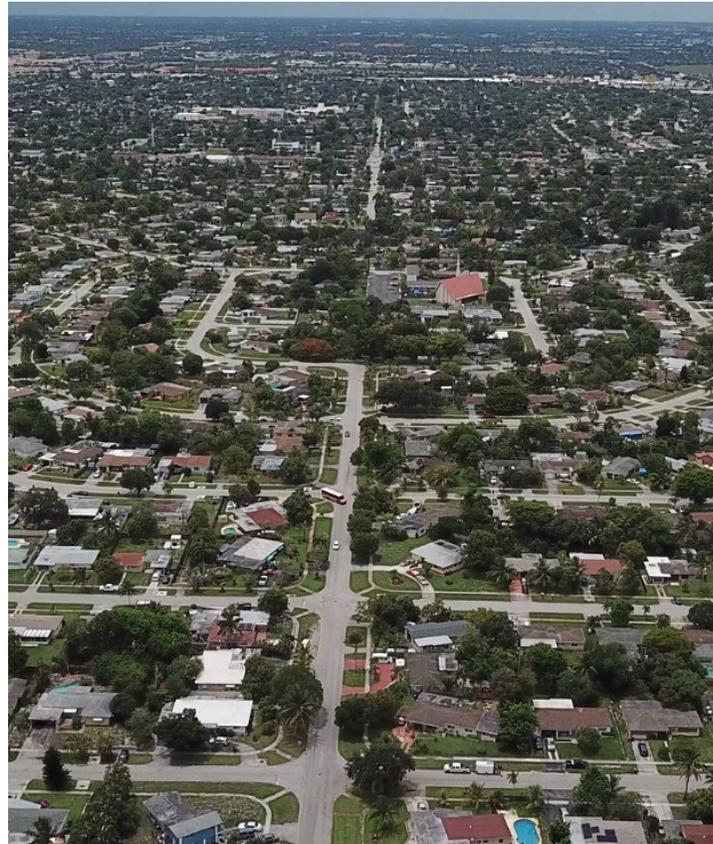
Project Goal

This project will provide new streetlighting throughout the Melrose Park Neighborhood Association to enhance the pedestrian and roadway safety. The City is planning to use Florida Power & Light Company (FPL) street lighting program where the streetlighting cost is paid based on established monthly fees.

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N.I.C.	E-02	E-03	E-04	E-05	E-06
E-07	E-08	E-09	E-10	E-11	E-12
E-13	E-14	E-15	E-16	E-17	E-18
E-19	E-20	E-21	E-22	E-23	E-24
E-25	E-26	E-27	E-28	E-29	E-30
E-31	E-32	E-33	E-34	E-35	E-36
E-37	E-38	E-39	E-40	E-41	E-42



Project Area

- 720 new streetlights are proposed to be installed throughout the entire Neighborhood Association limits and will be located within the City Right-Of-Way

NEW STREETLIGHTS MELROSE PARK



Preliminary Schedule

(Based on assumption that authorization to proceed is given in February)

- Layout and photometric drawings are completed by the consultant
- FPL completed the engineering drawings and draft agreement
- Task Order approval for Design Consultant (old task order expired) June 2023.
- Budget transfer June 2023
- Agreement approval and execution between City of Fort Lauderdale and FPL (August 2023)
- FPL to start the lights installation early 2024 and to be completed early 2025

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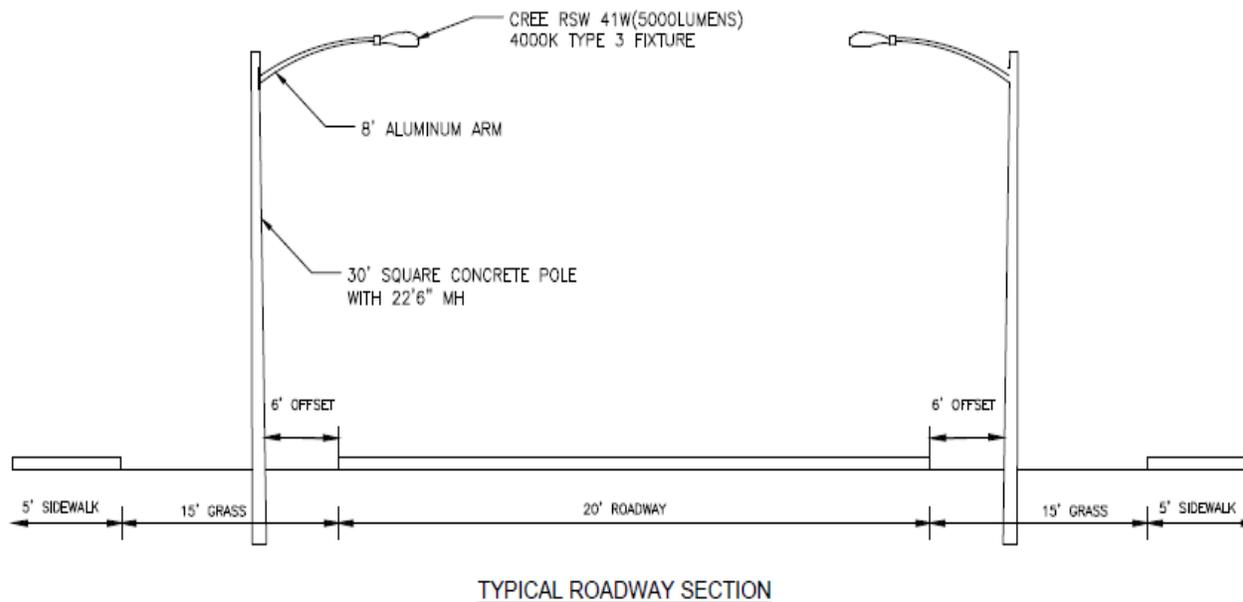


Estimated Budget

- The City is planning to use Florida Power & Light Company (FPL) street lighting program to implements the improvements where the streetlighting cost is paid based on established monthly fees plus Contribution in Aid of Construction (CIAC) in the amount of \$626,839 for construction is required.
- The monthly cost is currently estimated by FPL to be \$16, 839 and is planned be paid by the City as part of the streetlight bill.
- We estimate the design/construction budget of \$1.9 million including CIAC, restoration cost, design and project management fees plus contingency. Currently the project has \$937,322 available. CIP application was submitted for 2024FY.
- There is no proposed financial impact to the Melrose Park Neighborhood Association for this project, all costs are currently planned to be paid by the City. The agreement will require Commission approval.

LED Lighting Plan				Completion Date - Calculator Tool	Date
		Estimate Lighting Agreement Signed and CIAC Paid Date		Expected Close Date	4/10/2023
		Month	Day	Year	Material Delivery Date
		4	10	2023	Estimated Requested Completion Date
					10/14/2023
Going Green					
This plan reduces power consumption by:		(120,960) kWh / year		<small>1 eGRID, U.S. annual non-baseload CO2 output emission rate, year 2012 data</small>	
and that eliminates:		(65) metric tons of CO ₂ every year ¹		<small>2 US Environmental Protection Agency</small>	
or removing:		(19) cars from the road ²			
TOTAL		\$	-	\$	16,530.77
Installation Details					
		Existing		Option 1	
1	select fixture:		Roadway 5,000L		
	fixture / pole:		1		
	select pole:		30' with 22.5'MH Standard Concrete Side Mount		
	Fixture*				\$3,236.40
Quantity:	720	Pole			\$5,414.40
FPL Non-LED Conversion:	No	Maintenance			\$936.00
FullHybrid:	Full	Energy**			\$643.15
FPL NW Area:	No	Monthly Total			\$10,229.95
SUB TOTAL	720				\$10,229.95
Installation Details					
		Existing		Proposed	
Additional Lighting Charge (ALC)		ALC FEE			\$6,300.82
		Total		\$	6,300.82
TOTAL	720			\$	16,530.77

NEW STREETLIGHTS MELROSE PARK



Design Elements

- **Concrete Poles 22'-6"** above ground (30' overall)
- **8' aluminum arm**
- **CREE RSW 41W LED light 5000 lumens, 4000K**
- **Concrete poles will provide attractive appearance and longevity, low maintenance versus wood poles**

NEW STREETLIGHTS MELROSE PARK



Design Elements

- CREE RSW 41W LED light 5000 lumens, 4000K
- LED lights are very energy efficient, reduce glare and provide optimized target illumination versus high pressure sodium lights

APPLICATIONS



Residential Street Lighting

As you leave or approach your driveway, the RSW Series, with WaveMax® Technology, reduces glare while delivering optimized target illumination. Residents no longer have to live with street lights shining into their living rooms and bedrooms at night.



eliminating over **63,800 miles** driven by an average vehicle



saving **60+ barrels** of oil



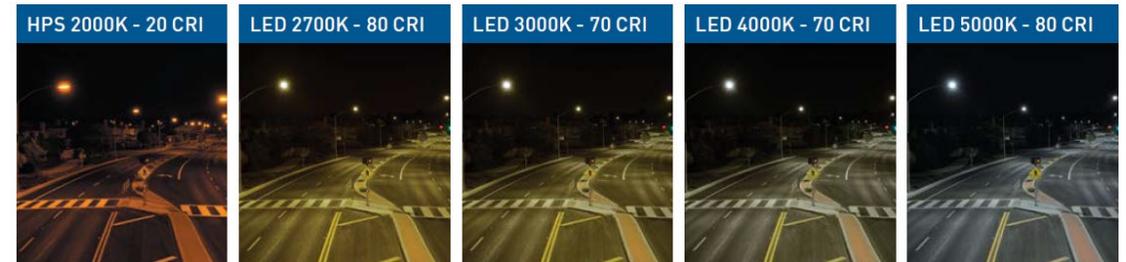
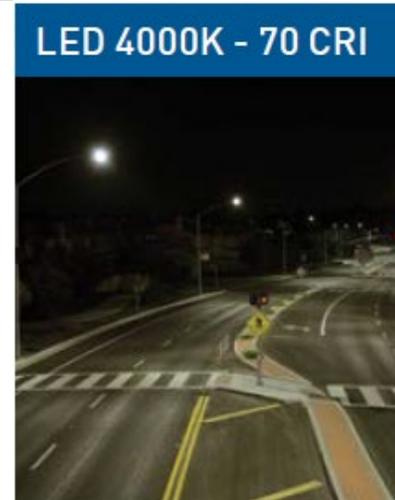
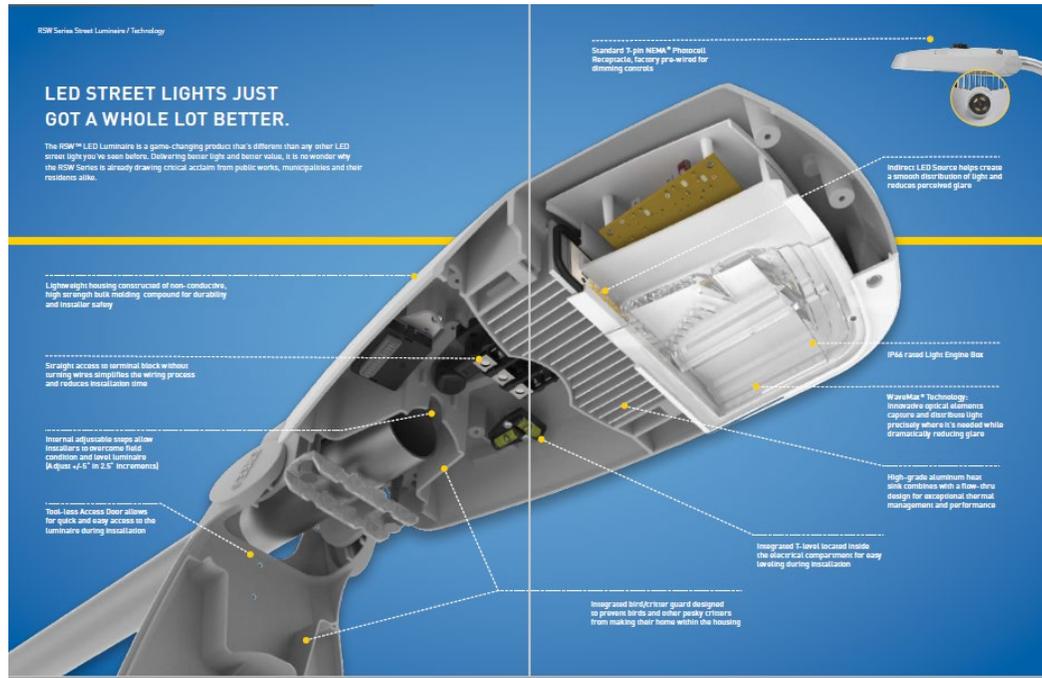
carbon sequestered by **675 seedlings** grown for 10 years

NEW STREETLIGHTS MELROSE PARK



Design Elements

- CREE RSW 41W LED light 5000 lumens, 4000K
- RSW light is best suited for residential streets, cost effective, has high color rendition 70 CRI
- Higher CRI improves visibility, drivers can see nearby vehicles, surrounding areas and traffic signs better to avoid unsafe surroundings



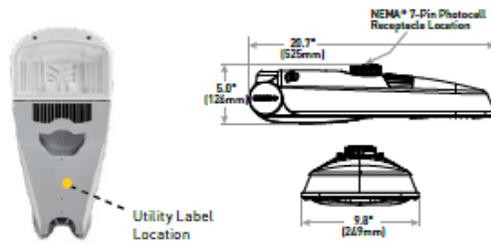
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Design Elements

- **CREE RSW 41W LED light 5000 lumens, 4000K**
 - **5000 lumens lights will allow for more even light distribution and fewer poles**

RSW SMALL 70-150W HPS REPLACEMENT



PERFORMANCE SUMMARY

Initial Delivered Lumens: Up to 7,000 lumens

Input Power: Up to 51 watts

Color Rendering Index (CRI): 70 or 80 (3L/5L)

CCT: 2700K (3L/5L), 3000K, 4000K, 5000K

Dimensions: L: 20.7" [525mm] / W: 9.8" [249mm] / H: 5.0" [126mm]

Weight: 9.4 lbs. [4.3kg]

