



# THREE ISLANDS STREET LIGHTING

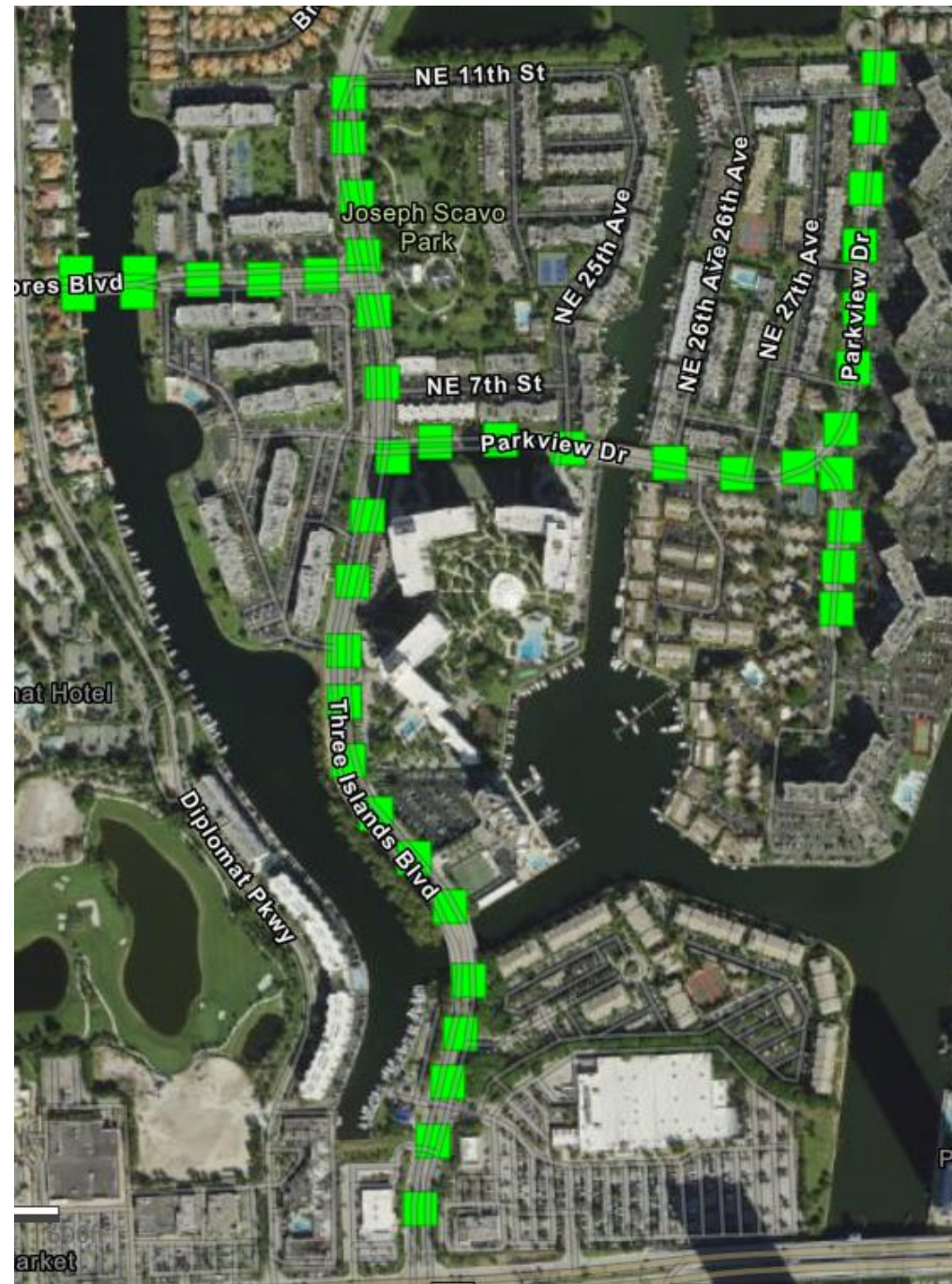
WHAT CAUSED THE STREETLIGHTS FAILURES?

WHAT HAVE WE DONE SO FAR?

WHAT IS OUR EXPENDITURE TO DATE?

WHAT IS THE PLAN FORWARD?



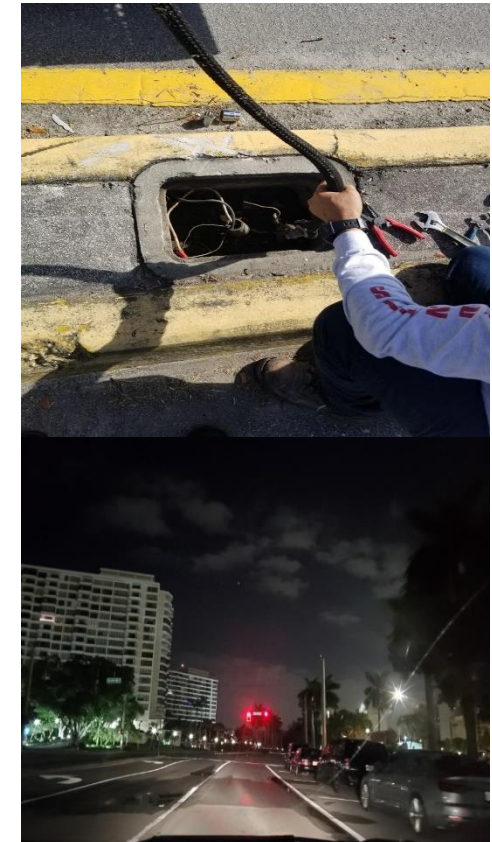


## WHAT CAUSED THE STREET LIGHT FAILURES?

Since November of last year, the Three Islands area experienced four (4) major streetlight outages, which affected all or most of the area. Three Islands have a total of 44 concrete light poles, of those 39 have dual luminaires and 5 have single luminaires.

When the streetlights were installed 15-20 years ago, the workmanship could have been a lot better. Some of the wire lengths were too short causing strain and faster insulation degradation of the wires. Some wires were exposed to the elements and some were installed in conduits with sharp edges with no protection for the wire insulation, hence the reason for most of the streetlights outage in the area.

Date	Cause	Area affected	Temporary Power restored	Final Resolution
12/23/2020	Water intrusion in junction boxes	Three Islands Blvd (Parkview to HBB.)		Replace Polaris connectors & Wiring (1/8/2020)
1/6/2020	FPL Equipment Failure	All	1/13/2020	FPL restored Power <b>(2/11/2020)</b>
3/23/2020	FPL substation failed.	All		FPL restored power the same night. <b>(3/23/2020)</b>
4/14/2020	Electrical short on Three Islands Blvd, from Atlantic Shores to Hollywood City limit.	Leslie Drive, Parkview Drive, Atlantic Shores and Three Islands Blvd (from Parkview Drive to Hollywood City limit)		With the exception of last 2 poles closest to the City of Hollywood, Staff replaced the burned wires and restored on <b>(4/15/2020)</b>



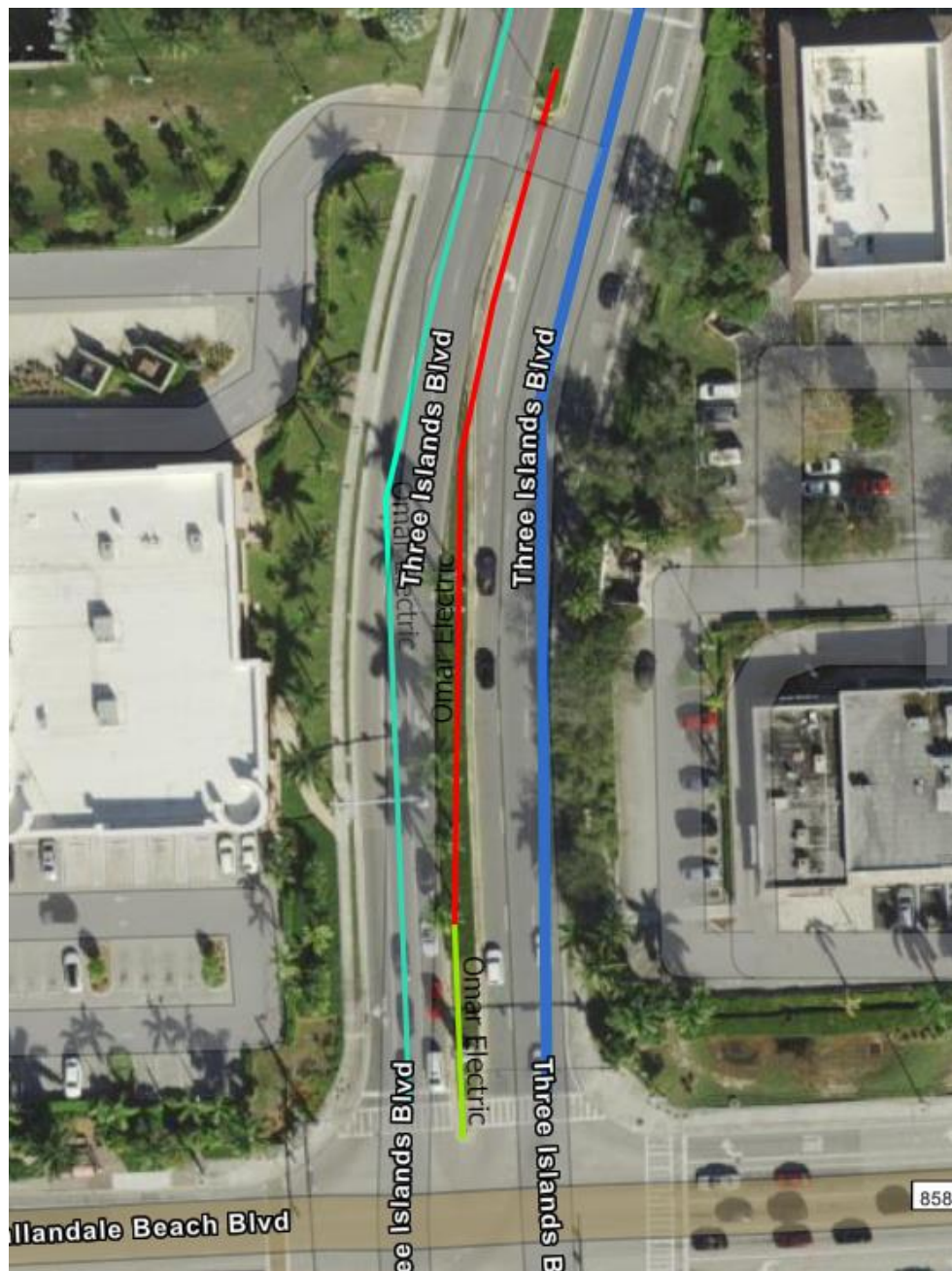


# WHAT HAVE WE DONE SINCE?

- Omar Electric replaced the Polaris connectors at the junction boxes from Parkview Dr. to Hallandale Beach Boulevard.
- Omar jack and bored between the first and second median on 3-Islands Blvd from Hallandale Beach Boulevard to replace the shorted wiring.
- Replaced the old monument fixtures with new LED fixtures and replaced the underground wires to the monument.
- Staff replaced the wiring from the light poles on 3-Islands Boulevard from Parkview Dr. to Hollywood City limit.







# WHAT IS OUR EXPENDITURE TO DATE?

The Public Works department initiated a purchase order at the beginning of fiscal year 2020 with budget of \$40,000 to maintain and respond to lighting issues throughout the city. After receiving three quotes, Omar Electric was chosen to perform the work. The unexpected number of lighting outages had caused near depletion of the \$40,000 original budget and purchasing authority when an emergency occurred in Three Islands requiring additional response and exceeding the City Manager's \$50,000 procurement threshold for Omar Electric.

Therefore, due to additional issues related to street lighting outages around the city and the expediency needed to respond to them as safety issues, the City incurred and is paying invoices from Omar Electric for work performed beyond the \$50,000.00 approval limit.

Pursuant to the Procurement Code which requires that the City Commission be informed of emergency purchases at the next available City Commission meeting, this presentation advises the City Commission of an expenditure to Omar Electric above the Manager's authority of \$21,057.00.

# WHAT IS THE PLAN FORWARD?

1. Finish investigating the rest of the streetlight poles wiring and the junction box connectors.
2. Replace any faulty wiring and connectors using City staff or an outside vendor.
3. Project P1906 (SAP Plan) \$64,333. Replace as a pilot ten (10) existing incandescent light fixtures with smart LED fixtures (to be networked later) and use the rest of the funding to replace other incandescent fixtures with straight LED fixtures. End of 2020 completion date.

## Smart LED Benefits

- Improve safety
- Reduce congestion
- Reduced energy cost.
- Longer life cycle
- Less maintenance
- Greater cost savings





# WHAT IS THE PLAN FORWARD? (continued)



## Cities Using Smart LEDs

- San Diego
- New York
- Barcelona
- Copenhagen
- Shanghai

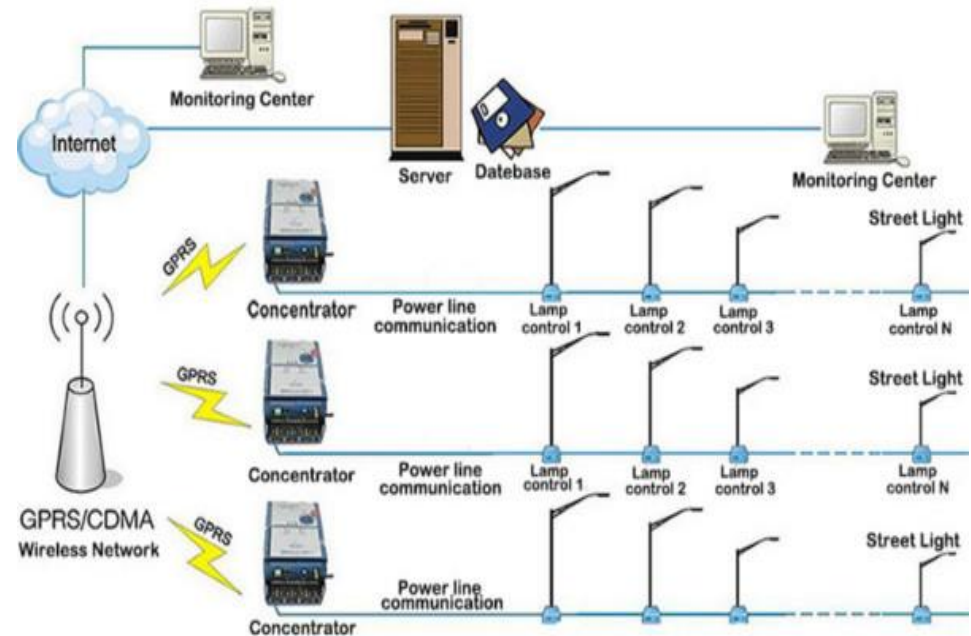
## Smart fixture Estimated Cost

- \$1,000 - \$3,000
- There are 83 streetlight fixtures at Three Islands



# WHAT IS THE PLAN FORWARD? (CONTINUED)

4. Cost analysis to secure funding to work with a consultant to design, install a networked streetlight system to alert staff of any failure.
5. Budget to continue with the same type of repairs outlined previously citywide.
6. Implementation of the same repairs and upgrades citywide after funding



*QUESTIONS?*