



Memorandum

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MEMORANDUM

To: Honorable Mayor and Town Council

From: Rafael G. Casals, ICMA-CM, CFM, Town Manager

Date: July 29, 2019

Re: Amending Town Resolution No. 19-46 and Authorizing Additional Grant Match Funding: *Cutler Ridge Park Lighting*

REQUEST

A RESOLUTION OF THE MAYOR AND TOWN COUNCIL OF THE TOWN OF CUTLER BAY, FLORIDA, AMENDING RESOLUTION NO. 19-46 SELECTING ELECTRICAL CONTRACTING SERVICES, INC. FOR THE CUTLER RIDGE PARK LIGHTING IMPROVEMENTS PROJECT; AUTHORIZING ADDITIONAL GRANT MATCH FUNDING FOR THE CUTLER RIDGE PARK LIGHTING IMPROVEMENTS PROJECT; AND PROVIDING FOR AN EFFECTIVE DATE.

BACKGROUND AND ANALYSIS

On April 27, 2019, the Town received notification of grant award in the amount \$86,000.00 from the Florida Department of Agriculture and Consumer Services (FDACS) to fund the Cutler Ridge Park Lighting Improvements Project (the “Project”). The project scope includes replacing 28 outdated High Intensity Discharge (HID) light bulbs with 24 energy efficient Light Emitting Diode (LED) bulbs on the athletic field of Cutler Ridge Park. The total estimated cost of the Project at the time the grant was submitted was \$96,000.00 (\$86,000.00 from the grant, and \$10,000.00 Town Match). The contract between the Town and the FDACS was approved via Town Resolution #18-67. As a result of the FDACS grant award, the Town issued a purchase order in the amount of \$17,875.00 to Stantec Consulting Services, Inc. for the Design Phase, Bid and Permitting Phases, and the Capital Improvements Element.

On May 1, 2019, the Town issued Invitation to Bid No. 19-06 (“ITB”): Cutler Ridge Park Lighting Improvements Project to identify the lowest and responsive contractor to provide the requested goods and services, in accordance with the Town’s purchasing Ordinance. The ITB No. 19-06 had a due date and time of June 12, 2019 at 2:00 PM. The Town received two (2) sealed bid packages from potential bidders, which were publicly opened and read at Town Hall.

The lowest and responsive bid received was from Electrical Contracting Services Inc., in the amount of \$171,730.00. This would bring the Town's match from an estimated \$10,000.00 to \$85,760.00. On July 17, 2019, the Town Council awarded the contract to Electrical Contracting Services via Town Resolution #19-46 contingent upon the Town receiving additional grant funds from FDACS to reduce Town's match.

On July 2, 2019, the Town submitted a request for additional funding to the FDACS, in a final attempt to complete the Project; however, the Town's request was not approved as the FDACS does not have additional funding available (*Attachment "A"*).

In a final effort to complete the Project and avoid returning the grant award (\$86,000.00), the Town met with the representative from Electrical Contracting Services, Inc. to negotiate their costs to complete the Project. The Contractor assured the Town that the \$50,000.00 "Allowances" is not necessary to complete the Project and deducted it from the original bid, bringing the total Project costs from \$171,730.00 to \$121,730.00. The final cost will increase the Town's originally approved grant match of \$10,000.00 to \$35,730.00.

If approved, Town staff will include the additional grant match in the FY 2018-19 End of Year Budget Amendment. The additional grant match will be funded from the Town's Fund Reserves.

BENEFITS OF PROJECT

The High Intensity Discharge (HID) lights currently used by the Town are the oldest type of electrical light commonly used for large open spaces. The Town discussed this lighting improvement project with two Town consultants and found that on average the energy savings will be 30%. An article by Stouch Lighting comparing LED versus HID Lights (<https://www.stouchlighting.com/blog/lighting-comparison-led-versus-hid>) provided similar energy savings, and additional benefits related to environmental stewardship and savings in maintenance costs.

Our current HID lighting system have the following deficiencies when compared to LED lighting systems:

- **A portion (roughly 30%) of the energy emitted by HID lights is infrared (which in terms of lighting output means it's entirely wasted energy).**
- **HID lumen output can significantly deteriorate as the bulb ages.** Some HID bulbs produce 70% less visible light after only 10,000 hours of operation.
- **Most HID lighting emits a significant amount of UV radiation.** Due to this deficiency HID lamps require UV filters to prevent fading of dyed items exposed to their light, degradation of lamp fixture parts, or serious injury (sunburn or arc eye) to humans and animals.
- **HID lights are omnidirectional.** Omnidirectional lights produce light in 360 degrees. This is a large system inefficiency because at least half of the light needs to be reflected and redirected to the desired area being illuminated. This means that more accessory parts are required in the light fixture itself in order to reflect or focus the luminous output of the bulb (thus increasing unit costs).
- **HID lights contain toxic material internally.** This is particularly true with Mercury-Vapor Lamps which internally contain a significant amount (up to 50 mg) of toxic mercury vapor. As a consequence

of contaminants like mercury, HID lights require special waste disposal procedures when broken or at the end of their useful life.

The four (4) major advantages of Light Emitting Diode (LED) lighting are the following:

- **LEDs have an extremely long lifespan** relative to every other lighting technology (including HID). New LEDs can last 100,000 hours or more. The typical lifespan for an HID bulb, by comparison, is 10-25% as long at best (10,000 - 25,000 hours).
- **LEDs are extremely energy efficient** relative to every other commercially available lighting technology. There are several reasons for this to include the fact they waste very little energy in the form of infrared radiation (much different than most conventional lights to include HID), and they emit light directionally (over 180 degrees versus 360 degrees which means there are far fewer losses from the need to redirect or reflect light).
- Very high **light quality**.
- Very **low maintenance costs**.

RECOMMENDATION

Based on Town Staff's evaluation of the benefits of upgrading the lighting at Cutler Ridge Park, it is recommended that the Town Council approve the attached Resolution authorizing the Town Manager to increase grant match funding of \$10,000.00 to \$35,730.00, amending Town Resolution No. 19-46 and authorizing additional Town grant match funding for the Cutler Ridge Park Lighting Project.

ATTACHMENTS

- Attachment "A" - FDACS Response Letter for Additional Funding Request
(dated July 15, 2019)