



HILLERS ELECTRICAL ENGINEERING, INC.

October 26, 2018

Ms. Shannon LaRocque, PE
Utility Director
Village of Wellington
12300 Forrest Hill Boulevard
Wellington, FL 33414

Subject: Village of Wellington Utilities– WRF Lighting and Lightning Protection Upgrade Design

Dear Shannon:

Hillers Electrical Engineering, Inc. (HEE) is pleased to provide the Village of Wellington (Village) this proposal to for electrical engineering design services for the above referenced project. The Village desires to upgrade the existing exterior site lighting by implementing energy saving LED type lighting fixtures at the Water Reclamation Facility (WRF). The Village also desires to implement lightning protection systems, to supplement existing lightning protection systems, to achieve comprehensive lightning protection system coverage at the facility. Our scope of work is based upon the Technical Memorandum “WRF Lighting and Lightning Protection Study”, Prepared by HEE, dated September 5, 2018.

The following facilities will receive lightning protection systems under this project:

- Pretreatment Structure
- Aeration Basins No.1 & No.2
- Small Aerobic Digester
- Clarifiers No.1, No.2 & No.3
- Digester Splitter Structure
- Sludge Dewatering Facility
- Truck Loading Facility
- Filter Dosing Pump Station/Fuel Storage Tank & Canopy
- Operations & Maintenance Building

In addition to the lightning protection systems, a lighting prediction and warning system will be specified for implementation.

Lighting will be upgraded for the general site and the exterior of the following facilities:

- Pretreatment Structure
- Aeration Basins No.1 & No.2
- Aeration Basins Odor Control
- Small Aerobic Digester
- Clarifiers No.1, No.2 & No.4
- Clarifier No.4 RAS/WAS Pump Station

- Clarifier Splitter Structure
- Large Aerobic Digester
- Aerobic Digesters Odor Control System
- Effluent Filters
- Filter Backwash Basin
- Chlorine Contact Tanks No.1 & No.2
- Sludge Dewatering Facility
- Sludge Drying Facility
- Sludge Facilities Odor Control System
- MCC/Generator Building Exterior
- Filter Dosing Pump Station
- Operations & Maintenance Building

Our design phase scope of work consists of the following:

1. Attend Kick-off meeting with Village.
2. Perform field investigations at the WRF as necessary to determine existing lighting system characteristics such as existing methods of control; lighting circuits presently used; available panelboard capacity and connectivity for additional circuits as necessary.
3. Analyze as-built drawings in support of Item 2 above, as well as, to determine the existing site grounding grid, if possible.
4. Prepare a 50% level-of-completion submittal of drawings, specifications and opinion of probable construction cost for review by the Village.
5. Incorporate comments from 50% level-of-completion review and prepare 90% level-of-completion submittal of drawings, specifications and opinion of probable construction cost for review by the Village.
6. Attend 90% documents review meeting with the Village.
7. Incorporate comments from 90% level-of-completion review and prepare permit submittal of drawings and specifications cost for submittal to the Village Building Department.
8. Attend one (1) review meeting with Village and Building Department, if necessary, to discuss and resolve comments.
9. Incorporate building department comments and submit 100% (final) bid ready documents for bidding purposes.
10. Attend Pre-Bid meeting with the Village.
11. Respond to bidder questions/issue addenda.

Anticipated Drawing List:

Project Cover Sheet

Legend and Symbols/General Notes

Lightning Protection Plans – Six (6) sheets

Lighting Demolition Site Plans – Six (6) sheets

Modified Lighting Site Plans – Six (6) sheets

Photometric Plans – Six (6) sheets

Lightning Protection Plans – Six (6) sheets

Lighting Fixture Schedule – One (1) sheet

Panel Schedules/Riser Diagrams – Two (2) sheets

Yard Conduit Schedule – One (1) sheet

Details – Two (2) sheets

Our proposed lump-sum engineering design services fee is \$75,324.00

The following is our proposed project schedule:

50% document submittal: 90 days after notice to proceed.

50% document review: 10 days after 50% document submittal.

90% document submittal: 60 days after 50% document review meeting.

90% document review: 10 days after 90% document submittal.

Permit document submittal: 14 days after 90% document submittal.

100% (Final) Bid documents: 21 days after receipt and clearing of Building Department comments.

Assumptions:

1. It is anticipated that a net reduction in power demand will be realized and no upgrades to normal (utility) or emergency power distribution systems are required. It is further anticipated that no significant modifications will be necessary to the existing power distribution system to accommodate the new lighting, and associated, control systems.
2. Existing light poles will not be reused and will be replaced together with new light fixtures.
3. New lighting circuits, including new wire and raceway will be designed.
4. No photometric survey of the existing facility will be performed as the entire exterior lighting system will be upgraded.
5. Lighting will be designed in accordance with Palm Beach County ULD Article 5 Section E for outdoor lighting.
6. Existing plant structures not listed as receiving lightning protection systems above either have existing systems or are receiving lightning protection systems under other projects.
7. The Village will provide all available, appropriate, as-built drawings for HEE use in preparing the design.

HEE wishes to thank the Village for the opportunity to assist with this project. Please do not hesitate to call me if you have any questions regarding this proposal or any other related matter.

Sincerely,

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A handwritten signature in black ink, appearing to read "Mark E. Luther". The signature is fluid and cursive, with the first name "Mark" being more prominent.

Mark E. Luther, PE

MEL/mel

Attachment

Business Development/Wellington/Village of Wellington –WRF Lighting and Lightning Protection Design.doc

Village of Wellington Utilities WRF Lighting and Lightning Protection Design

Village of Wellington Utilities

HILLERS ELECTRICAL ENGINEERING, INC.

Scope Fee Breakdown -Design Services

Date: 10/26/18

Rate	\$225.00	\$192.00	\$153.00	\$147.00	\$129.00	\$90.00	\$81.00	\$138.00	\$78.00				
	Principle	Chief	Project	Professional	Lead	Designer	CADD	Construction	Administrative	Total	Expenses	SUBTOTAL	TASK TOTAL
PHASE OF WORK	Hours	Engineer	Manager	Engineer	Engineer	Hours	Technician	Coordinator	Assistant	Task	Cost	Cost	Cost
Design Phase													\$71,418.00
Kick-off Meeting													
Engineering Hours		3		3						6		\$1,017.00	
50% Document Preparation													
Engineering Hours		40		120			150			310		\$37,470.00	
50% Document Review Meeting													
Engineering Hours		3		3						6		\$1,017.00	
90% Document Preparation													
Engineering Hours		20		60			80			160		\$19,140.00	
90% Document Review Meeting													
Engineering Hours		3		3						6		\$1,017.00	
Permit Documents													
Engineering Hours		10		30			35			75		\$9,165.00	
Bid Documents													
Engineering Hours		4		8			8			20		\$2,592.00	
Bid Phase													\$3,906.00
Attend Pre-bid Meeting		4								4		\$768.00	
Respond to Bidder Questions/Issue Addenda		6		8			10			24		\$3,138.00	
Lump Sum Totals		93		235			283			611			\$75,324.00
Cost by Labor Rate		\$17,856.00		\$34,545.00			\$22,923.00					\$75,324.00	