

WORK ORDER No. 8 FOR PROFESSIONAL SERVICES

TO: H. W. Lochner, Inc.
8750 NW 36th Street, Suite 360
Doral, Florida 33178
(305) 503-9873

DATE: November 19, 2019

The City of Doral authorizes the firm of H.W. Lochner, Inc. to proceed with the provision of engineering services for the lighting analysis of the existing trail network system citywide. The analysis will include the prioritization of segments and lighting recommendations. Additionally, the services include the design of improvements at Trails and Tails Park as of the date of this Work Order. The work should be performed in accordance with the contract provisions contained in the Continuing Professional Services Agreement between H.W. Lochner, Inc. and the City of Doral dated February 2, 2018, and the attached Proposal submitted by your firm for the above referenced project.

SCOPE OF SERVICES AND SCHEDULE:

The scope of the project will be as described in the attached proposal from H.W. Lochner, Inc. The schedule requires the work to be performed within 6 months from NTP. All limitations of time set forth in this Work Order are of the essence. The performance of services associated with this Work Order will be executed on a time and materials basis with a not to exceed amount of \$71,055.00.


You are required by the Continuing Service Agreement to begin work subsequent to the execution of this Work Order, or as directed otherwise. If you fail to begin work subsequent to the execution of this Work Order, the City of Doral will be entitled to disqualify the Proposal, and revoke the award.

Work Order incorporates the terms and conditions set forth in the Continuing Services Agreement dated February 2, 2018 between the parties as though fully set forth herein. In the event that any terms or conditions of this Work Order conflict with the Continuing Services Agreement, the provisions of this specific Work Order shall prevail and apply.

Work Order is not binding until the City of Doral agrees and approves this Work Order.



IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and date first above written, in three (3) counterparts, each of which shall, without proof or accounting for the other counterpart be deemed an original Contract.

CONSULTANT: H.W. Lochner, Inc.

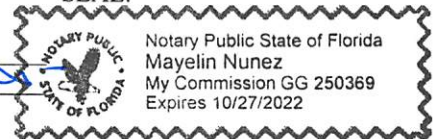
BY: 
NAME: EDWIN MOJENA
TITLE: VICE PRESIDENT

WITNESSES:

- 1.
- 2.

SEAL:



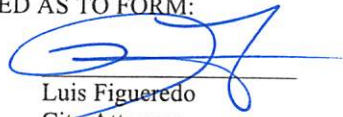
OWNER: City of Doral

BY: 
NAME: Albert P. Childress
TITLE: City Manager

AUTHENTICATION:

BY: 
NAME: Connie Diaz
TITLE: City Clerk

APPROVED AS TO FORM:

BY: 
NAME: Luis Figueredo
TITLE: City Attorney

October 22, 2019

Eugene Collings-Bonfill, P.E., P.S.M., CFM, PMP
Chief of Engineering
City of Doral
8401 NW 53 Terrace
Doral, FL 33166
T (305) 593-6740 Ext. 6017
M(786) 570-6957
F (305) 593-6617
eugene.collings@cityofdoral.com

RE: PROPOSAL – Trails Lighting Analysis

Dear Mr. Collins-Bonfill:

H.W. Lochner, Inc. (LOCHNER) is pleased to respond to your request for proposal on the above referenced project.

1. PROJECT BACKGROUND

The City of Doral has requested LOCHNER to perform an analysis of existing trails within the City of Doral.

2. SCOPE OF WORK FOR ENGINEERING SERVICES:

Trails are generally treated as linear parks, open from dawn to dusk, and closed at night. However, low level/security lighting can be provided to discourage loitering and undesirable behavior, to allow passers-by and law enforcement to observe the sites at night, and to make people aware of the presence of a trail.

Trail lighting typically occurs as part of the street or walking light, or near trailhead or parking areas and consist of low level lighting to allow for security without interfering with neighboring homes.

a. Field Review

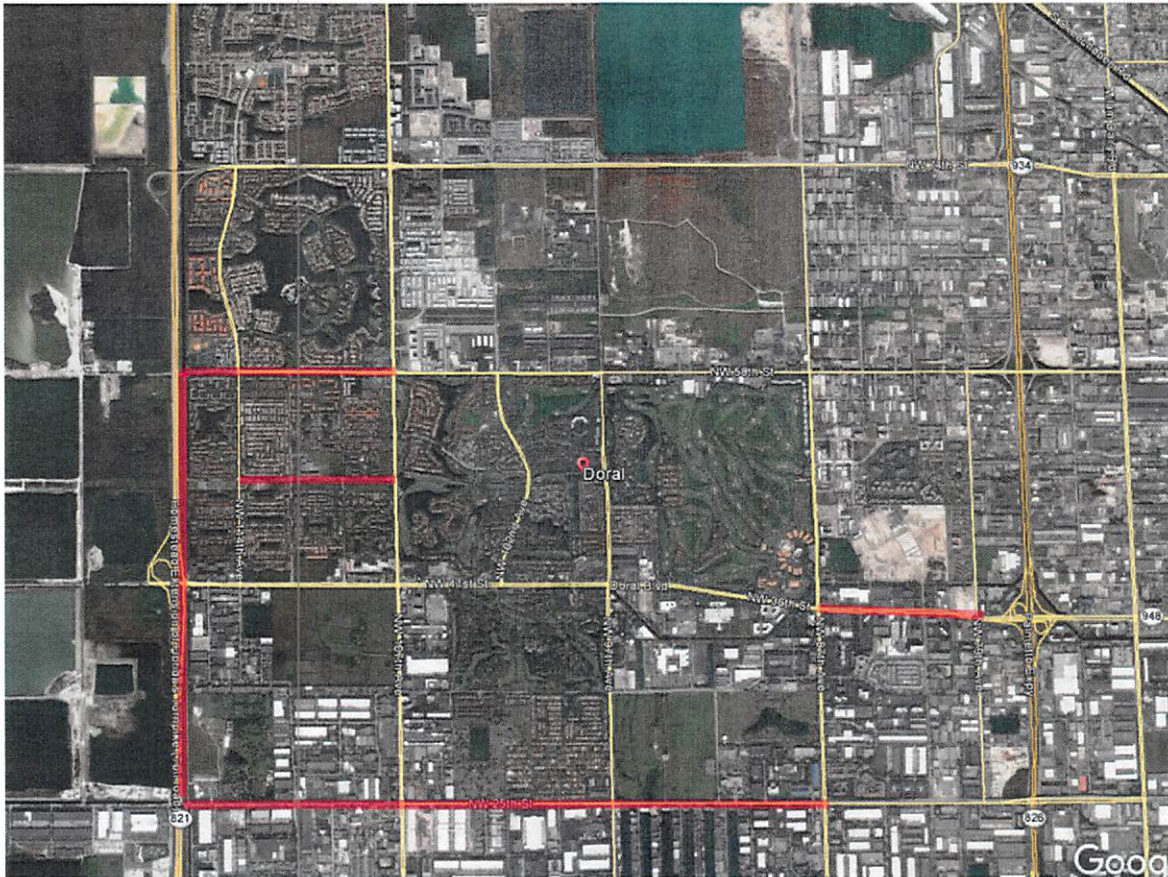
LOCHNER will review existing conditions under daytime and nighttime conditions. Google Earth will be utilized to identify existing lighting along the trails. Daytime field review will be to verify where existing lighting may exist. Nighttime review will be performed to measure lighting levels in foot candles every 250 feet to 300 feet, or as needed.

Based on map and KMZ files provided by the City of Doral staff, the following locations will be reviewed:

LOCHNER

- 25th Street/Beacon Trail between NW 87th Avenue and Turnpike Trail
- Turnpike Trail between 25th Street/Beacon Trail and NW 58th Street/Dressel's Trail
- Dressel's Trail/NW 58th Street between Turnpike Trail and NW 107th Avenue
- NW 50th Street Trail between NW 114th Avenue and NW 107th Avenue
- NW 41st Street Trail between NW 87th Avenue and NW 79th Avenue

Locations are highlighted in red.



b. Development of "Typical" Lighting Standard Design and Placement

Decorative or "branded" low-level lighting for users will be recommended with adequate spacing requirements, as per lighting specifications.

Trail lighting should be done on a small scale and only where necessary. Generally, to preserve dark skies and wildlife, lenses should be flat in order to shed light only on the path below. Fixtures will be selected to reduce loss of light or glare in any way possible.

In general, lighting is traditionally limited to within fifty (50) feet of decision making areas or one-hundred and fifty (150) feet of crossings. Trail lighting fixtures are generally shorter and

LOCHNER

closer together than streetlamps. In other words, they must be of an appropriate scale for the trail's users while still providing an appropriate amount of horizontal and vertical clearance. For example, along the Chicago Lakefront Trail, lighting fixtures are 50 to 100 feet apart, depending on tree placement and the curve of the path.

As per AASHTO guidelines, at the very least, LOCHNER will recommend trail lighting at the following locations:

- Tunnels and/or overpasses
- Trailheads
- Bridge entrances and exits
- Public gathering places
- Along streets
- Crosswalks
- Where the path crosses another path or sidewalk
- On signage

There are several options for trail lighting. Factors that influence lighting choices shall include overhead clearance, trail location, trail features, types of trail users and weather. Options that will be examined include:

1. **Wired** - Wired lighting is the most expensive to install and difficult to repair, but with good design and quality components, it can be the easiest to operate and maintain. The wires, depending on the trail's needs, may be strung overhead or underground. Buried lines are the most expensive to install but are replaced the least often, even in locations with poor weather conditions. Overhead lighting is cheaper but more vulnerable as the wires must be strung directly from fixture to fixture. In the case of wired lighting, fusing is a factor. Giving each circuit its own fuse will make problems along the line easy to identify. However, this is a pricey decision. Wired lighting is not an option for riparian corridors either.
2. **Battery Powered** - Battery powered lights are the cheapest to install and repair, but they are very difficult to maintain. Depending on the brightness of the lighting, batteries may need frequent replacement. If dead batteries go unnoticed, it presents a danger to trail users who must face a completely dark section of trail. Lights of this kind are usually only practical on trails with high traffic where a dead battery is likely to receive notice before an emergency.
3. **Solar** - Solar lights power themselves and are the most environmentally conscious option. There are no interconnecting wires with solar lighting, which means repairs are contained to a single fixture at a time. However, solar-powered lights are not recommended in places with significant tree canopy or in northern regions where natural light is limited. Photovoltaic cells of any size can also be very costly upfront. Still, installing solar lights on trails in more sunny regions, like the City of Doral, can mean little to no cost of operation.

LOCHNER

4. LED - No matter what the power source, LED bulbs are a strong option. In comparison to standard incandescent bulbs, they produce much more light with very little power. In addition, LEDs need to be replaced far less frequently thanks to their efficiency and durability. LEDs do have a greater initial cost than standard bulbs. Some common complaints about LED bulbs include uneven or unnatural lighting, flickering and change in color over time. CFLs are similarly effective and expensive, but they contain mercury, which complicates the disposal process and may contribute to pollution if improperly discarded.

Price will be an important factor when recommending lighting standards.

A comparison summary will be provided to assist City of Doral staff with our recommendation.

c. Prioritization

LOCHNER will prioritize corridors based on the following factors:

- Proximity to trolley routes
- Amount of existing light (from no existing light to some existing light)

d. Documentation

LOCHNER will prepare a report summarizing the tasks.

- Report shall identify existing and the addition of new lights in graphic format.
- Report shall identify possible location to feed additional or new lights from
- These findings shall be coordinated with the County to verify if they have any plans for the trails along NW 25 Street
-

e. Lighting Design for Park and Greenway Trail on NW 50th Street from NW 117th Ave to NW 107th Ave

The scope of work for this task is to design a wired lighting system for the existing trails and parking lot within the park located at 11645 NW 50th Street. This lighting system will supplement the existing solar powered bollards along the Greenway Trail. The system shall provide adequate illumination as detailed below in the Lighting Analysis Report. LOCHNER will review the existing lighting conditions and measure lighting levels as needed along the Greenway Trail, between NW 117th Avenue and NW 107th Avenue. The park facility lighting scope includes the following areas: existing surface parking lot, small dog play area, large dog play area, the children's playground, and the exterior of the restroom facility. A survey of the area is not included as part of this scope.

LOCHNER will prepare construction documents for a fully functional lighting system at these locations and will include:

LOCHNER

- Lighting Analysis Report – This report will include a point by point photometric study of the parking lot and the trails. Lighting criteria used will be as per Miami Dade County Ordinance Chapter 8C-3 and will comply with Florida Building Code. The report will detail what fixture is being used and provide all electrical calculations used to design the lighting system.
- Lighting Plans – The plans will include a cover sheet, project notes, legend, pole data table, plan sheets, service point details, lighting details, and foundation design.
- Engineers Cost Estimate – A cost estimate will be provided by using pay items to separate the unit cost of all materials including contractor mobilization and contingency.
- Bid Document – Project specifications will be prepared.

Note: Bidding services and post design services will be under a separate task work order authorization.

Any task not mentioned in this Scope of Work document will be considered additional services.

3. CONTRACT SUM

For the services performed under paragraph 2, the Client will pay the Engineer time and materials fee in amount not to exceed (\$71,055.00) payable as follows. Any additional services will be negotiated as needed.

4. PAYMENTS

Subsequent progress payments of the above lump sum fees shall apply and invoice monthly in proportion to the services performed.

Should the client wish us to provide and/or negotiate with third parties, any of the aforementioned services or any other additional work not included in this proposal under the Scope of Work, we will provide it on a Time Charge plus Expenses basis, computed as the sum the following:

- Salary Costs times a multiplier of 3.00
- Non-Salary expenses times a multiplier of 1.05

Salary costs is defined as salary and wages paid for time expend on the project plus the cost of Engineer's statutory and customary benefits, such as, insurance, sick leave, holidays, vacations, medical and retirement benefits, etc.

Non-Salary expenses include such typical expenses as cost of: transportation and subsistence; toll telephone calls and telegraph; computer time and programming costs; subcontract services such as: surveys, subsurface investigation and testing by commercial laboratories.

5. CLIENT RESPONSIBILITIES

Provide access to and make all provisions for the Engineer to enter upon public and private lands as required for the Engineer to perform his work under this proposal.

Place at the disposal of the Engineer all available information pertinent to the project upon which the Engineer can rely, including previous reports and any other data related to the design and construction of the project.

Designate a person to act as the Client's representative with respect to the work to be performed, such person to have complete authority to transmit instructions, receive information, interpret and define the Client's policies and decisions with respect to the work covered by this proposal.

6. SCHEDULE & DELIVERIES

The Engineer has neither jurisdiction nor control over the regulatory agencies and their plans review process, therefore the Engineer shall not be liable for the delays created by said agencies.

LOCHNER

7. ACCEPTANCE

The return of an executed copy of this proposal would constitute our authorization to proceed.

Very truly yours,

LOCHNER

Edwin Mojena, PE
Vice President

ACCEPTED BY: _____ DATE: _____

LOCHNER

CONSULTANT PROFESSIONAL SERVICES FOR CITY OF DORAL

Trails Lighting Analysis

10/22/2019

FEE PROPOSAL

Task	Activity	Principal Engineer	Project Manager	Senior Engineer	Project Engineer	CADD Technician	Landscape Architect	TOTAL
		<i>Rates</i> \$ 200.00	\$ 165.00	\$ 155.00	\$ 125.00	\$ 65.00	\$ 95.00	
A Field Review								
	Google Earth	2.0				4.0		6.0
	Daytime (2 staff x 4 hrs)		2.0		4.0		4.0	10.0
	Nighttime (2 staff x 7.5 hrs), 1.5 hour per trail		2.0		7.5		7.5	17.0
								-
	Sub-total Hours	2.0	4.0	-	11.5	4.0	11.5	33.0
	Sub-total Salary Cost	\$ 400.00	\$ 660.00	\$ -	\$ 1,437.50	\$ 260.00	\$ 1,092.50	\$ 3,850.00
B Development of "Typical" Lighting Standard Design and Placement								
	Lighting Comparison	10.0	30.0	40.0				80.0
	Staff Correspondence	4.0	4.0					8.0
	Recommended Typical	2.0				16.0		18.0
								-
	Sub-total Hours	16.0	34.0	40.0	-	16.0	-	106.0
	Sub-total Salary Cost	\$ 3,200.00	\$ 5,610.00	\$ 6,200.00	\$ -	\$ 1,040.00	\$ -	\$ 16,050.00
C Prioritization								
	Identification of factors		2.0		4.0		4.0	10.0
	Itemized list	2.0	2.0		4.0			8.0
								-
	Sub-total Hours	2.0	4.0	-	8.0	-	4.0	18.0
	Sub-total Salary Cost	\$ 400.00	\$ 660.00	\$ -	\$ 1,000.00	\$ -	\$ 380.00	\$ 2,440.00
D Documentation								
	Draft Report		2.0	4.0	16.0			22.0
	Final Report		2.0	2.0	8.0			12.0
	Coordination with Miami Dade County	8.0						8.0
	Sub-total Hours	8.0	4.0	6.0	24.0	-	-	42.0
	Sub-total Salary Cost	\$ 1,600.00	\$ 660.00	\$ 930.00	\$ 3,000.00	\$ -	\$ -	\$ 6,190.00
E Lighting Design for Park and Greenway Trail on NW 50th Street from NW 117th Ave to NW 107th Ave								
	Kickoff Meeting	2.0						2.0
	Gather Project Information		2.0					2.0
	Field Review	5.0						5.0
	Lighting Analysis Report/Photometric Calculations/Electrical Calculations	8.0	8.0	16.0				32.0
	Electrical Service Coordination	3.0						3.0
	Develop Construction Alignment				6.0			6.0
	Lighting Plans - 90% Submittal	10.0	15.0	25.0	30.0	40.0		120.0
	QAQC	1.0	6.0			8.0		15.0
	Comment Review and Implementation	4.0	4.0	8.0		8.0		24.0
	Comment Resolution Meeting	2.0						2.0
	Lighting Plans - Final	2.0	2.0	10.0	10.0	16.0		40.0
	QAQC	1.0	6.0			8.0		15.0
	Comment Review and Implementation	2.0	6.0			8.0		16.0
	Comment Resolution Meeting	2.0						2.0
	Engineer's Cost Estimate	4.0	1.0					5.0
	Bid Document/Specifications (Specs only, no RFP)	8.0	2.0		8.0			18.0
	Other Meetings	6.0	2.0					8.0
								-
	Sub-total Hours	60.0	54.0	59.0	54.0	88.0	-	315.0
	Sub-total Salary Cost	\$ 12,000.00	\$ 8,910.00	\$ 9,145.00	\$ 6,750.00	\$ 5,720.00	\$ -	\$ 42,525.00
LOCHNER Total Hours								
	LOCHNER Salary Cost	\$ 17,600.00	\$ 16,500.00	\$ 16,275.00	\$ 12,187.50	\$ 7,020.00	\$ 1,472.50	\$ 71,055.00
<i>Sub-consultant Fee (Attached)</i>								
<i>Direct Expenses:</i>								
SUB-TOTAL COST FEE (EXPENSES) \$ -								
TOTAL COST FEE \$ 71,055.00								

RESOLUTION No. 19-292

A RESOLUTION OF THE MAYOR AND THE CITY COUNCIL OF THE CITY OF DORAL, FLORIDA, APPROVING A WORK ORDER BETWEEN THE CITY OF DORAL AND H.W. LOCHNER, INC., TO PROCEED WITH PROFESSIONAL ENGINEERING SERVICES FOR THE PROVISION OF ANALYSIS OF THE LIGHTING ALONG EXISTING PARKS TRAILS, AND THE DESIGN OF LIGHTING IMPROVEMENTS AT TRAILS AND TAILS PARK IN AN AMOUNT NOT TO EXCEED \$71,055.00, TO BE MADE AS PART OF THE GENERAL OBLIGATION PARKS BOND; AUTHORIZING THE CITY MANAGER TO EXECUTE THE WORK ORDER AND EXPEND BUDGETED FUNDS ON BEHALF OF THE CITY IN FURTHERANCE HEREOF; PROVIDING FOR IMPLEMENTATION; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City of Doral (the "City") completed the Doral Parks System Master Plan in 2017 which showed the City is "underparked" based on state and national benchmarks; and

WHEREAS, with Doral's population projected to continue increasing into the foreseeable future, strategic improvements to existing parks and facilities will be necessary to main quality of experience that Doral residents have come to expect; and

WHEREAS, on November 6, 2018, the General Obligation Parks Bond for \$150 million was passed in order to help fund the construction of high-priority park projects; and

WHEREAS, one of the projects under the Bond is for the lighting improvements along the existing Park Trails as well as the design of lighting improvements at Trails and Tails Park for enhanced safety; and

WHEREAS, in order to develop procurement documents that would allow the City to advertise the project with accurate quantities and information the City has tasked H.W. Lochner with analyzing the existing trail lighting and prioritizing lighting improvements to enhance safety as well as the design of the lighting improvements at Trails and Tails Park;

and

WHEREAS, H.W. Lochner, Inc., is a prequalified provider of professional engineering services selected in accordance with Consultant Competitive Negotiation Act (CCNA) requirements and approved by the City Council in November 2017; and

WHEREAS, City staff respectfully requests that the Mayor and City Council members approve Work Order No. 08 for H.W. Lochner Inc., a copy of which is attached hereto as Exhibit "A", for the provision of professional engineering services to analyze the existing lighting along the Parks Trails and for the design of lighting improvements at Trails and Tails Park on a time and material basis in an amount not to exceed \$71,055.00; and

WHEREAS, funds for these services will be allocated from the Park Bond Fund in Fiscal Year 2019-20 in account number 303.9000572.500650.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF DORAL, FLORIDA, AS FOLLOWS:

Section 1. Recitals. The above recitals are confirmed, adopted, and incorporated herein and made part hereof by this reference.

Section 2. Approval. The Work Order between the City of Doral and H.W. Lochner, Inc. for the engineering services for environmental sampling, in an amount not to exceed of \$71,055.00, a copy which is attached as Exhibit "A", is hereby approved.

Section 3. Authorization. The City Manager is authorized to execute the Work Order and expend budgeted funds on behalf of the City in furtherance hereof.

Section 4. Implementation. The City Manager and the City Attorney are hereby authorized to take such further action as may be necessary to implement the purpose and the provisions of this Resolution.

Section 5. Effective Date. This Resolution shall take effect immediately upon adoption.

The foregoing Resolution was offered by Councilmember Cabrera who moved its adoption. The motion was seconded by Councilmember Mariaca and upon being put to a vote, the vote was as follows:

Mayor Juan Carlos Bermudez	Not Present at Time of Vote
Vice Mayor Christi Fraga	Yes
Councilwoman Digna Cabral	Yes
Councilman Pete Cabrera	Yes
Councilwoman Claudia Mariaca	Yes

PASSED AND ADOPTED this 19 day of November, 2019.



JUAN CARLOS BERMUDEZ, MAYOR

ATTEST:



CONNIE DIAZ, MMC
CITY CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY
FOR THE USE AND RELIANCE OF THE CITY OF DORAL ONLY:



LUIS FIGUEREDO, ESQ.
CITY ATTORNEY