

**Work Authorization No. 2**  
**SCOPE OF SERVICES**  
**Reiss Engineering, Inc.**

**Coconut Creek Utility Services**  
**Hilton Road Storage and Re-pump Facility Replacements**

THIS WORK AUTHORIZATION is made and entered into by and between the City of Coconut Creek, Florida, hereinafter referred to as "City" and, Reiss Engineering, Inc., hereinafter referred to as "Consultant", consistent with the terms of the Master Agreement (RFQ 11-19-14-10) between the City and Consultant;

WHEREAS, the Master Agreement (RFQ 11-19-14-10) between the City and Consultant provides that requirements for professional services are to be set forth in work authorizations;

IT IS AGREED as follows:

**Section A. BACKGROUND AND INTENT**

The City of Coconut Creek (City) is replacing components of the Hilton Storage and Re-pump Facility, built in 1984. The existing ground storage tank was rehabilitated in 2011 and has a capacity of 2 million gallons. The existing Operations Building has a metal skin exterior, emergency generator, disinfection/storage feed and sampling equipment, electrical/control systems, discharge piping, and houses three (3) high service pumps, each with a different capacity. The Operations Building and various components inside of the building, including the pumps and chemical feed systems, are in need of replacement due to the age and condition of the building and equipment. The conceptual design for this facility was completed and identified the required replacements, preferred locations of structures and equipment, and permitting requirements. This portion of the work will include final design and permitting, followed by bidding assistance.

The work for the project includes project administration, geotechnical investigations, survey work, final design, permitting, and bidding services for the following facilities:

- Pump Station Building Improvements: The walls and roof of the existing metal building will be removed and split-face masonry walls will be constructed on the existing slab (with modifications as necessary) to the extent feasible. A concrete membrane roof will be provided on the new building.
- Pump Station Pumping Equipment and Appurtenances: The existing pumping equipment will be removed and the new pumps will be horizontal split case centrifugal pumps providing the same total capacity as the existing pumps (different configuration).
- Pump Station Piping and Accessories: The existing piping will be removed and the new pump piping will include ductile iron piping and fittings, flexible couplings, isolation gate valves, check valves, air release valves, and suction and discharge pressure gauges. Yard piping will include PVC or ductile iron piping (below ground), and ductile iron piping (above ground).
- Pump Station Electrical Equipment: The existing electrical equipment will be removed and the new equipment will include service entrance equipment, a motor control center, variable frequency drives (VFD's), a transformer, a circuit breaker panel, lighting, wiring and conduit, an exterior sound attenuated emergency generator with a sub-base fuel tank, and an automatic transfer switch.

- Pump Station Instrumentation and Controls: The existing equipment will be removed and a new PLC based control system including SCADA Interface, electronic flow, level and pressure measurement instruments, wiring and conduit, and associated gauges will be provided.
- Pump Station HVAC: A split system air conditioning system for conditioning of the electrical room is included.
- Chemical Pavilion: An open pavilion structure with concrete columns and a metal roof, bulk chemical storage tanks, and enclosed skid-mounted chemical feed systems are included.
- Storage Shed: A “Pole Barn” type framed metal building with a metal roof is included.

Constructing the new facilities will require coordination with state/county agencies and approval of the site plan by the City of Coconut Creek Planning and Zoning department. The permit coordination and approvals included are described below.

*Drinking Water Facility Construction Permit*

Based on the replacement of the station components such as the high service pumps and the chemical feed storage and pumping facilities with similar size and capacity components, a construction permit from the Florida Department of Health (FDOH) in Broward County may not be required. This scope includes miscellaneous correspondence/discussions with Utilities & Engineering and FDOH (approximately 4 hours by the REI PM). This scope also includes a separate permitting task if needed to submit a FDOH permit application with information required to obtain a construction permit.

*Environmental Resource Permit (ERP)*

The facilities will require an Environmental Resource Permit (ERP) modification from FDEP or SFWMD before the facilities are constructed. This permit addresses site drainage and stormwater management including erosion and sediment control issues. Civil site plans will need to be submitted under separate cover as part of the ERP permit modification process.

*Site Plan Approval and Building Permits*

The site plan for the project will need approval through the City of Coconut Creek Planning and Zoning division which includes a review by the Development Review Committee (DRC). The building code that applies for facilities constructed within the next 2 years is the 5<sup>th</sup> Edition of the Florida Building Code (2014). The structures will be designed for Risk Category 3 in the area which corresponds to a design wind speed of 177 mph. Other applicable codes are NFPA 1 - Fire Code and NFPA 101 – Life Safety Code. The Contractor selected to construct the facilities applies for the necessary building permits. This scope only includes miscellaneous correspondence/discussions with Utilities & Engineering and other City departments (approximately 8 hours by the REI PM).

**Section B. PROJECT REPRESENTATIVES**

For City:	Dennis Westrick, PE 954-973-6786 <a href="mailto:dwestrick@coconutcreek.net">dwestrick@coconutcreek.net</a>	Carlos Nuesa 954-973-6786 <a href="mailto:cnuesa@coconutcreek.net">cnuesa@coconutcreek.net</a>
For Consultant:	Mark K. Worsham, PE 407-679-5358 <a href="mailto:mkworsham@reisseng.com">mkworsham@reisseng.com</a>	

## **Section C. SCOPE OF WORK**

The Consultant proposes the following scope to accomplish the above objectives:

### **Task 1 – Project Administration**

*Task 1.1: Kick-Off Meeting* – Prepare for and attend a project kick-off meeting with all associated team members, including the City’s representatives to discuss the project goals and objectives, clarify team roles and assignments, as well as establish the project schedule and deliverables. The Consultant will prepare and submit a meeting summary.

*Task 1.2: Progress Meetings* – Prepare for and attend up to two (2) progress meetings with the City to review progress of the project and project schedule. The Consultant will prepare and submit meeting summaries for each progress meeting.

*Task 1.3: General Project Administration* – Perform general project coordination and management activities, including general administrative activities for this authorization, as well as specific coordination activities with the team members, including the City’s staff and other representatives.

Prepare and submit invoices for this assignment to the City. The invoice will include percent complete for each task to advise and highlight the overall progress of the tasks as well as identify items completed, on-going and pending activities.

### **Task 2 – Final Design**

*Task 2.1: Geotechnical Services* – The sub-consultant proposed to perform the geotechnical investigation is Terracon of Fort Lauderdale, Florida. The geotechnical services scope of work is as follows:

1. The sub-consultant will perform borings suitable for a geotechnical investigation; three (3) Standard Penetration Test (SPT) borings to 20 feet depth, one (1) SPT boring to 15 feet depth, and one (1) SPT boring to 30 feet depth are included for the proposed structures. A geotechnical report shall be provided which includes foundation recommendations.
2. REI will coordinate completion of the geotechnical investigation.
3. REI will review geotechnical data for completeness and accuracy for support of final design.

*Task 2.2: Survey & Location Services* – The sub-consultant proposed to perform the survey is Keith & Associates of Pompano Beach, Florida. The survey services scope of work is as follows:

1. The sub-consultant will prepare a Boundary and Topographic Survey including the establishment or resurrection of boundary corners, monuments, topographic data, and tree location types and diameters.
2. REI will coordinate the work and review the survey results for completeness and accuracy to support final design.
3. The sub-consultant will use vacuum excavation or “soft digs” to verify vertical locations of critical utilities. Three (3) “soft digs” are included.

4. REI will coordinate with the sub-consultant to determine areas requiring location services, and will review results for completeness and accuracy to support final design.

*Task 2.3: Preparation of equipment layouts based on the conceptual design report dated 7/29/16.*  
Activities will include:

1. Prepare and submit for review and comment mechanical and electrical layouts of the pumping and chemical feed system components.
2. Coordinate and participate in an equipment layout review conference call with the City. REI will provide a summary with action items resulting from the teleconference.
3. Respond to City comments and outline revisions to be made to the documents.

*Task 2.4: Preparation of design development phase (60% design) documents* – REI will prepare design development phase (60% design) documents. Activities will include:

1. Prepare and submit for review and comment the 60 Percent Design Phase Drawings and Specifications. Drawings will include 60% design phase structural, electrical and HVAC design, in addition to civil and process design.
2. Attend a 60% design phase review meeting with the City. REI will provide meeting agendas, summaries and action items resulting from the meeting. This meeting is in addition to the monthly progress meetings (included in Task 1.2).
3. Respond to City comments and outline revisions to be made to the documents.

*Task 2.5: Preparation of construction document phase (90% and 100% design) documents* – REI will prepare construction document phase (90% and 100% design) documents. Activities will include:

1. Perform 90% design phase coordination, permitting, and prepare 90% design phase drawings and specifications for submittal and review.
2. Attend a 90% design review meeting with the City. REI will provide meeting agendas, summaries and action items resulting from the meeting.
3. Respond to City comments and outline revisions to be made to the documents.
4. Perform 100% design phase coordination, permitting, and prepare final construction documents (100% complete bid-ready) including drawings, specifications, and bid documents.
5. Prepare a construction cost estimate for the project. The information provided will be adequate for preparation of a definitive estimate, as defined by the AACE. An estimate of this type is normally expected to be accurate within plus 15 percent and to minus 5 percent of the estimated cost. Estimates for all major construction quantities and vendor quotes for all equipment will be provided.
6. Submit 100% complete bid-ready package to the City.

**Task 2 Deliverables:**

- Geotechnical investigation report with foundation recommendations
- Survey and Utilities Location Documentation
- Two (2) hard copies and an electronic file of the equipment layouts
- Two (2) sets of design development phase (60% design) documents including 24" x 36" 60% design phase drawings, and an electronic copy of the documents
- Three (3) sets of construction documents phase (90% design) documents (two (2) signed and sealed) including 24" x 36" 90% design phase drawings and an electronic copy of the documents

- Three (3) sets of 100% complete bid-ready documents (two (2) signed and sealed) including 24" x 36" final design drawings and an electronic copy of the documents
- Construction cost estimate at 100% design
- Meeting summaries

### **Task 3 – Permitting**

REI will lead the following efforts and associated meetings as noted below:

*Task 3.1: FDOH Coordination* – REI will perform the following:

1. Coordinate with FDOH and Utilities & Engineering (up to 4 hours by REI PM).

*Task 3.2: ERP Permit Modification* – REI will perform the following:

1. Coordinate with FDEP/SFWMD on the ERP permit modification (permit to construct) requirements.
2. Submit civil site plans prepared under Task 2 with the applicable permit application and fees (fees provided by the City) to FDEP/SFWMD.
3. Prepare responses to Requests for Additional Information (RAIs) provided by FDEP/SFWMD during the permit review process (up to (2) RAIs).
4. Submit NPDES construction notification for stormwater discharge. The costs associated with submitting this notification is included with this task.

*Task 3.3: Site Plan Approval Coordination* – REI will perform the following:

1. Coordinate with Utilities & Engineering and other City Departments (up to 8 hours by REI PM).

*Task 3.4: Building Permit Assistance* – REI will perform the following:

1. Review comments from the Building Department on 90% design documents submitted by Utilities and Engineering and incorporate comments into the 100% design documents.

### **Task 3 Deliverables:**

- FDEP/SFWMD ERP permit application and documents for signature by City

### **Task 4 – Permitting (If Needed)**

REI will lead the following efforts and associated meetings as noted below:

*Task 4.1: FDOH Permitting* – REI will perform the following:

1. Submit 90% plans and specifications and design calculations prepared under Task 2 with the applicable permit application and fees provided by the City to FDOH.
2. Prepare responses to RAIs provided by FDOH during the permit review process (up to 2 RAIs).

**Task 5 – Bidding Services**

*Task 5.1: Attendance at Pre-bid Conference* – REI will attend a pre-bid conference at a location selected by the City. REI’s representative will answer Contractor questions as applicable.

*Task 5.2: Question Response* – In consultation with the City, REI will prepare responses to Contractor questions received by the City during the pre-bid and bid processes.

*Task 5.3: Recommendation of Award* – REI will prepare a tabulation of all bids received, review and evaluate the apparent three (3) lowest bidders’ unit prices, similar projects, and references, and make recommendations to the City regarding the award of the construction contract.

**Task 5 Deliverables**

- Attendance at Pre-bid meeting
- Bidder question responses
- Recommendation of award

**Section D. COORDINATION**

The Consultant will coordinate the project with the City staff members listed below as appropriate.

Function	Name	Email	Phone
Utilities and Engineering	Dennis Westrick, PE	Dwestrick@coconutcreek.net	954-973-6786
Utilities and Engineering	Carlos Nuesa	Cnuesa@coconutcreek.net	954-973-6786

**Section E. SCHEDULE**

Work will commence upon receipt of the City’s notice-to-proceed (NTP) and follow the milestone dates below:

Milestone	Calendar Days to Complete	Sum of Days from NTP
Task 1.0 – Project Administration	On-going	On-going
Task 2.0 – Final Design Services	200 <sup>(1)</sup>	200
Task 3.0 – Permitting Services	90	260
Task 4.0 – Permitting Services (If Needed)		(To start at 90% Design)
Task 5.0 – Bidding Services	90	350 (To contract execution)

NTP = Notice to Proceed

(1) Schedule anticipates two (2) weeks for owner review and transmission of comments.

**Section F. BASIS OF COMPENSATION**

Therefore, the professional services set forth in this Scope document, the City shall compensate Reiss Engineering, Inc. a fixed fee not to exceed for Tasks 1 through 5, as well as for sub-consultants on these tasks, on a percent completed basis as shown below.

<b>Task</b>	<b>Cost</b>
TASK 1 – PROJECT ADMINISTRATION	\$ 14,146.76
TASK 2 – FINAL DESIGN SERVICES	\$ 66,735.88
TASK 3 – PERMITTING SERVICES	\$ 3,925.68
TASK 4 – PERMITTING SERVICES (IF NEEDED)	\$ 1,520.00
TASK 5 – BIDDING SERVICES	\$ 3,250.00
Expenses	\$ 81,198.68
<b>Total Fixed Fee Not To Exceed Cost</b>	<b>\$170,777.00</b>

A breakdown of the tasks by personnel, hours, and hourly rates for REI personnel is presented in Attachment A. Also presented in Attachment A is a breakdown of REI’s expenses. Sub-consultant proposals with breakdowns of personnel, hours, hourly rates and other direct costs are presented in Attachment B. The Coconut Creek Hilton Road Repump Station Replacement Preliminary Drawing List is provided in Attachment C.

**Section G. CITY’S RESPONSIBILITY**

The following shall be provided by the City in order to assist in the completion of the Consultant’s tasks:

- a) Copies of drawings, operating reports, and maintenance records as required.
- b) Review comments in 2-week period.

**Section H. SERVICES NOT INCLUDED**

The following are examples of some specific additional services that may be required, but are not included within this Scope of Services.

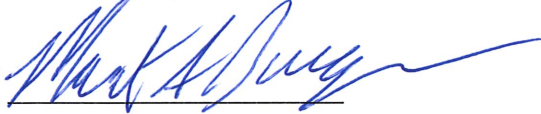
- Initial ERP permitting (this Scope only includes an ERP permit update)
- Landscape and/or irrigation system design
- Site plan approval services beyond miscellaneous correspondence/discussions with Utilities & Engineering and other City Departments as indicated in this Scope
- Building Department application preparation
- Sanitary sewer improvement design
- Utility easement acquisition services
- Contract administration services
- Ecological assessments

**Section I. CLOSURE**

If the City of Coconut Creek concurs with the foregoing and wishes to direct us to proceed with the aforementioned work, please execute the enclosed copy of this agreement in the space provided and return same to the undersigned.

Sincerely,

Reiss Engineering, Inc.



Mark A. Burgess, P.E., BCEE  
Vice President

9-22-16

Date

City of Coconut Creek

\_\_\_\_\_  
Mary C. Blasi  
City Manager

\_\_\_\_\_  
Date

Approved as to form:

\_\_\_\_\_  
Terrill C. Pyburn  
City Attorney

Attest:

\_\_\_\_\_  
Leslie Wallace May  
City Clerk



**Attachment A**

**Reiss Engineering, Inc.  
City of Coconut Creek  
Hilton Road Water Re-Pump Station Replacement**

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**Fixed Fee Not To Exceed Tasks**

<b>Task</b>	<b>Principal</b>	<b>Project Manager</b>	<b>Senior Engineer</b>	<b>Senior Process Engineer</b>	<b>Engineer</b>	<b>Junior Engineer</b>	<b>Drafter/GIS</b>	<b>Admin Assistant</b>	<b>Total Hours</b>	<b>Total @ Billing Rate</b>
	\$200.00	\$ 150.00	\$ 140.00	\$ 140.00	\$ 115.00	\$ 90.00	\$ 63.92	\$ 75.00		
	Hours	Hours	Hours	Hours	Hours	Hours	Hours	Hours		
<b>1 Project Administration</b>	4	52	4	4	29	0	3	12	108	\$ 14,146.76
1.1 Prepare For/Attend/Summarize Kick-off Meeting	0	6	0	0	5	0	1	0	12	
1.2 Prepare For/Attend/Summarize Progress Meetings (2)	0	10	0	0	8	0	1	0	19	
1.3 General Project Administration	4	36	4	4	16	0	1	12	77	
<b>2 Design Services</b>	2	36	82	56	249	0	189	12	626	\$ 66,735.88
2.1 Geotechnical Investigation Coordination	0	2	2	0	2	0	1	0	7	
2.2 Survey and Location Coordination	0	2	0	0	2	0	4	0	8	
2.3 Equipment Layouts	0	8	8	8	5	0	24	0	53	
2.4 60% Design Documents	0	12	36	24	120	0	80	6	278	
2.5 90% and 100% Design Documents	2	12	36	24	120	0	80	6	280	
<b>3 Permitting</b>	0	18	2	0	6	0	4	0	30	\$ 3,925.68
3.1 FDOH Coordination	0	4	0	0	0	0	0	0	4	
3.2 ERP Permit Modification	0	2	2	0	4	0	2	0	10	
3.3 Site Plan Approval Coordination	0	8	0	0	0	0	0	0	8	
3.4 Building Dept Assistance	0	4	0	0	2	0	2	0	8	
<b>4 Permitting (If Needed)</b>	0	4	0	0	8	0	0	0	12	\$ 1,520.00
4.1 FDOH Permit	0	4	0	0	8	0	0	0	12	
<b>4 Bidding Services</b>	0	14	0	0	10	0	0	0	24	\$ 3,250.00
4.1 Pre-Bid Conference	0	6	0	0	0	0	0	0	6	
4.2 Question Response	0	4	0	0	6	0	0	0	10	
4.2 Recommendation of Award	0	4	0	0	4	0	0	0	8	
<b>Total Hours</b>	6	88	86	60	278	0	192	24	734	
<b>Total Labor Amount</b>										\$ 89,578.32
<b>Total Expenses</b>										\$ 81,198.68
<b>Grand Total Fixed Fee Not To Exceed</b>										\$ 170,777.00

## Reiss Engineering, Inc.

### Hilton Road Repump Station Replacement

<b>Fixed Fee Not to Exceed Expenses</b>				
Reproduction	Task	Quantity	Rate	Total
Aerial Photography			\$ -	\$ -
(8.5 x 11) <sup>1</sup>		7400	\$ 0.08	\$ 592.00
(11 x 17) <sup>2</sup>		245	\$ 0.16	\$ 39.20
(24 x 36) <sup>3</sup>		1045	\$ 0.32	\$ 334.40
Travel			0	\$ -
Ownership Search (per parcel)			0	\$ -
Shipping (per pkg)			0	\$ -
Permitting Fees			0	\$ -
Terracon				\$ 4,590.00
Keith and Associates				\$ 20,980.00
Engineering Technologies, Inc				\$ 24,104.08
EMI				\$ 30,559.00
<b>Total Expenses for Fixed Fee Not To Exceed Tasks</b>				<b>\$ 81,198.68</b>

**1- PDR/Specifications**

PDR - Approx. 200 Sheets with (2) draft and (3) final copies (including REI copy).

60%, 90%, 100% Design - Approx 400 sheets with (2) draft and (3) final at each phase ((4) Final at 90%)

**2- Design Drawings (1/2 size)**

30% Design - Approx. 50 Sheets with (1) final (REI copy)

60%, 90%, 100% Design - Approx 65 sheets with (1) final at each phase (REI Copy)

**3 - Design Drawings (Full Size)**

30% Design - Approx. 50 Sheets with (2) draft and (2) final

60%, 90%, 100% Design - Approx 65 sheets with (2) draft and (2) final at each phase ((3) Final at 90%)