

# City of Palm Coast, Florida Agenda Item

**Agenda Date:** June 16, 2026

**Agenda Item:**  
**G.1**

<b>Department</b> UTILITY <b>Division</b> UTILITY CAPITAL CME	<b>Amount</b> \$195,000.00 <b>Org/Account #</b> 54029081-063030-81059 54019081-034000
<b>Subject:</b> RESOLUTION 2026-XX APPROVING A WORK ORDER WITH JACOBS ENGINEERING GROUP, INC., FOR A MASTER PUMP STATION ODOR CONTROL FRAMEWORK DEVELOPMENT AND DESIGN AND CONSTRUCTION SERVICES	
<b>Presenter:</b> Brian Roche, Director of Utility	
<b>Attachments:</b> 1. Resolution 2. Proposal	
<b>Background:</b> <b>Council Priority:</b> <b>D. Sustainable Environment and Infrastructure</b>  The City of Palm Coast operates and maintains an extensive wastewater collection and treatment system with 2 wastewater treatment facilities, 182 pump stations, 8 master pump stations, and over 700 miles of gravity sewer piping.  Elevated Hydrogen Sulfide levels caused due to long detention time have resulted in odor control challenges in the collection system and in the large master pump stations that receive high flows.  The City has the need to standardize odor control equipment and design criteria for both existing and future master pump stations. The City has chosen Jacobs Engineering to develop the framework for future master pump station odor control projects which will also serve as the basis for design. After researching the different types of odor control processes City staff has chosen the bio-trickling filter process with optional carbon polisher to be installed at the Ravenwood Master Pump Station and Matanzas Woods Master Pump Station.  Jacobs Engineering services are in accordance with the terms and conditions of the Master Services Agreement for Professional Utility Engineering Services dated September 6, 2024 (RFSQ-SWE-24-12).  Scope of Services to include development of framework and development of odor control standards, and design, bidding, and construction engineering services for the above-mentioned master pump stations.	

This project is subject to approved funds in future fiscal year beyond the current fiscal year 2026.

The project will extend into Fiscal Year 2027, funding will need to be allocated across two fiscal years, with 50% of the funds available in Fiscal Year 2026 and the remaining 50% available in Fiscal Year 2027.

54019081-034000	
Task 1 Framework of Odor Control Standards	\$28,000
Task 2 Odor Control Standards Development	\$56,000
Expenses	<u>\$ 2,000</u>
<b>Total for 54019081-034000</b>	<b>\$86,000</b>

54029081-063000-81059	
Task 3 Design, Bidding, and Construction Engineering Services	\$108,000
Expenses:	<u>\$1,000</u>
<b>Total for 54029081-063030-81059</b>	<b>\$109,000</b>

#### **Source of Funds Worksheet**

##### **54019081-034000 FY 26**

Original Budget: \$192,000.00  
Total Expended/Encumbered to Date: \$147,420.55  
Pending Work Orders.Contracts: \$0.00  
Current (WO/Contract): \$43,000.00  
**Balance: \$1,579.45**

##### **54019081-034000 Proposed FY 27**

Original Budget: \$261,000.00  
Total Expended/Encumbered to Date: \$0.00  
Pending Work Orders.Contracts: \$0.00  
Current (WO/Contract): \$43,000.00  
**Balance: \$218,000.00**

##### **54029081-063030-81059 FY 26**

Original Budget: \$100,000.00  
Total Expended/Encumbered to Date: \$0.00  
Pending Work Orders.Contracts: \$0.00  
Current (WO/Contract): \$54,500.00  
**Balance: \$45,500.00**

##### **54029081-063030-81059 Proposed FY 27**

Original Budget: \$300,000.00  
Total Expended/Encumbered to Date: \$0.00  
Pending Work Orders.Contracts: \$0.00

Current (WO/Contract): \$54,500.00

**Balance: \$245,500.00**

**Recommended Action:**

**ADOPT RESOLUTION 2026-XX APPROVING A WORK ORDER WITH JACOBS ENGINEERING GROUP, INC. FOR A MASTER PUMP STATION ODOR CONTROL FRAMEWORK DEVELOPMENT AND DESIGN AND CONSTRUCTION SERVICES**

**RESOLUTION 2026-\_\_\_\_**  
**MASTER PUMP STATION ODOR CONTROL**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA, APPROVING THE TERMS AND CONDITIONS OF A WORK ORDER WITH JACOBS ENGINEERING GROUP, INC., IN THE AMOUNT NOT TO EXCEED \$195,000.00 FOR THE MASTER PUMP STATION ODOR CONTROL FRAMEWORK DEVELOPMENT AND DESIGN AND CONSTRUCTION SERVICES; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE THE WORK ORDER; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE.**

**WHEREAS**, The City of Palm Coast desires to purchase a master pump station odor control framework development and design and construction services for the City of Palm Coast; and

**WHEREAS**, Jacobs Engineering Group, Inc., desires to sell the aforementioned a master pump station odor control framework development and design and construction services to the City of Palm Coast.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA AS FOLLOWS:**

**SECTION 1. LEGISLATIVE AND ADMINISTRATIVE FINDINGS.** The above recitals (whereas clauses) are hereby adopted as the legislative and administrative findings of the City Council.

**SECTION 2. APPROVAL OF THE WORK ORDER.** The City Council of the City of Palm Coast hereby approves the terms and conditions of the work order with Jacobs Engineering Group, Inc., as attached hereto and incorporated herein by reference herein by reference as Exhibit "A."

**SECTION 3. AUTHORIZATION TO EXECUTE.** The City Manager, or designee, is hereby authorized to execute any necessary documents.

**SECTION 4. SEVERABILITY.** It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses and phrases of this Resolution are

severable, and if any phrase, clause, sentence, paragraph or section of this Resolution shall be declared unconstitutional by the valid judgment or decree of a court of competent jurisdiction, such unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs and sections of this Resolution.

**SECTION 5 CONFLICTS.** All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

**SECTION 6. IMPLEMENTING ACTIONS.** The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

**SECTION 7. EFFECTIVE DATE.** This Resolution shall take effect immediately upon adoption by the City Council.

**DULY PASSED AND ADOPTED** by the City Council of the City of Palm Coast, Florida, on this 16<sup>th</sup> day of June 2026.

ATTEST:

CITY OF PALM COAST

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KALEY COOK, CITY CLERK

\_\_\_\_\_  
MICHAEL NORRIS, MAYOR

APPROVED AS TO FORM AND LEGALITY

\_\_\_\_\_  
MARCUS DUFFY, CITY ATTORNEY

Attachment: Exhibit "A" Work Order Jacobs Engineering Group, Inc.

## Proposal for Professional Utility Engineering Services

<b>Date:</b>	May 21, 2026	643 SW 4th Ave
<b>Project name:</b>	Master Pump Station Odor Control Framework Development and Design and Construction Services	Gainesville, FL 32601 United States
<b>Attention:</b>	Nancy Thakkar, Danny Ashburn, James Melley	T +1.352.335.7991
<b>Client:</b>	City of Palm Coast	www.jacobs.com
<b>Prepared by:</b>	José Ramos and Sam Hanzel	
<b>Reviewed by:</b>	Matt Tennant, Mike Dykes	
<b>Copies to:</b>	Brandon Mahadeo, Brian Roche	

## Background

The City of Palm Coast (City) operates and maintains an extensive wastewater collection and treatment system, including more than 165 sewer pump stations, 8 master pump stations, over 700 miles of conventional gravity sewer piping, and 2 wastewater treatment facilities (WWTFs).

A significant portion of the system receives flow from pre-treatment effluent pumping tanks, which are known to generate elevated concentrations of hydrogen sulfide (H<sub>2</sub>S) due to long detention times and septic conditions. These elevated H<sub>2</sub>S levels have resulted in persistent odor control challenges throughout the collection system. In particular, the City's master pump stations have experienced chronic odor issues, indicating sustained sulfide loading and the need for enhanced mitigation strategies. Jacobs Engineering Group Inc. ("Supplier" or "Jacobs") staff met with Mr. Brandon Mahadeo on December 16, 2025, at the WWTP #1 Master Pump Station to conduct a visual inspection. During the visit, Mr. Mahadeo outlined the ongoing issues at the Master Pump Station and provided H<sub>2</sub>S data from one of the City's pump stations, along with specifications and proposals previously submitted by third-party vendors.

The City intends to standardize odor control equipment and design criteria for both existing and future master pump stations. As part of this work, Jacobs will develop an adaptable framework for future Master Pump Station odor control projects, which will also serve as the basis of design for a biotrickling filter with an optional carbon polisher at the Ravenwood Master Pump Station and Matanzas Wood Master Pump Station, as requested by the City.

Services outlined below are in accordance with the terms and conditions of the Master Services Agreement (Professional Services) for Professional Utility Engineering Services dated September 6, 2024 (RFSQ-SWE-24-12).

## Scope of Services

Jacobs services will focus on assessing the current system conditions, design improvements, and support during construction. This scope is divided into the following tasks:

- Task 1 – Framework of Odor Control Standards
- Task 2 – Odor Control Standards Development
- Task 3 – Design, Bidding, and Construction Engineering Services

## **Task 1 – Framework of Odor Control Standards**

### **Subtask 1.1 – Site Visit**

- Conduct a one-day visit to the Ravenwood Master Pump Station and the Matanzas Wood Master Pump Station sites. Additional pump stations will be visited within this site visit as time allows.
  - Purposes of site visit: validate existing conditions, confirm typical installation constraints, gather field data to confirm proposed details and specifications are practical and implementable.

### **Subtask 1.2 – Data Collection, Condition Assessment, and Technical Summary**

- The City will provide one continuous week of dry weather odor control data for the Ravenwood and Matanzas Wood Master Pump Stations. Jacobs will identify the ideal location for data collection at both pump stations.
- The City will provide a copy of all available odor control data (H<sub>2</sub>S data, existing equipment information, odor complaints, etc.) and record drawings for the Ravenwood and Matanzas Wood Master Pump Stations.
- Jacobs will review the existing information provided and collected in the field.
- Jacobs will prepare a technical memorandum (TM) to document the result of the data collection and document the basis of design. The TM is expected to include the following sections:
  - Introduction
    - Background
    - Existing Conditions
  - Design Criteria
    - UV Odor Control
    - Biotrickling Filter (Master Pump Stations)
    - Biotrickling Filter and Carbon Polishing (Master Pump Stations)

## **Task 2 – Odor Control Standards Development**

The purpose of this task is to develop an odor control standard detail drawing and specifications for biotrickling filter and carbon polishing that can be adapted and implemented at the City's master pump stations. This task includes the following:

1. Prepare standard plans, details, and specifications:
  - a. Prepare design representing odor control system configurations tailored to varying H<sub>2</sub>S concentration ranges for use at City's master pump stations.
2. Standard plans and details will consist of:
  - a. Biotrickling filter system layout
  - b. Optional carbon polishing unit layout as applicable
  - c. Piping, valving, and bypass arrangements
  - d. Electrical single line diagram
  - e. Instrumentation control diagram
  - f. Itemized takeoff estimates
3. Technical specifications
  - a. Develop an adaptable comprehensive odor control technical specification

- b. Specification will address:
  - i. Evaluation and pre-approval of up to five equipment manufacturer's models to be listed in the specification
  - ii. Performance requirements for the biotrickling filter and carbon polishing
  - iii. H<sub>2</sub>S loading and removal efficiency criteria
  - iv. List of pre-qualified equipment manufacturers/vendors
  - v. Media requirements and replacement intervals
  - vi. Media irrigation type
  - vii. Nutrient addition
  - viii. Instrumentation and monitoring Integration
  - ix. Startup, commissioning, and operations and maintenance requirements
  - x. Submittal requirements and quality assurance provisions
- c. Specification will match the format of the current City's Technical Specifications.
- 4. Provide an electronic PDF set of the draft standard documents to the City for review.
- 5. Schedule and facilitate a review meeting of the draft standard documents. The meeting is anticipated to be conducted virtually.
- 6. Incorporate the City's comments into the final standard documents.
  - a. The final standard documents will incorporate any comments and clarifications made throughout the detailed and final design of the Ravenwood and Matanzas Wood Master Pump Stations.

### **Task 3 – Design, Bidding, and Construction Engineering Services**

Jacobs will prepare construction plans and specifications for new odor control system at the Ravenwood and Matanzas Wood Master Pump Stations based on the odor control standards developed in Task 2. This task includes the following:

#### **Subtask 3.1 – Detailed Design**

This subtask includes the following:

- 1. Prepare detailed design plans, details, and specifications: Prepare design representing odor control system configurations tailored to varying H<sub>2</sub>S concentration ranges at the Ravenwood and Matanzas Wood Master Pump Stations.
  - a. Plans and details will consist of:
    - i. General sheets (cover, index, notes and discipline legends)
    - ii. Process mechanical sheets
    - iii. Process and instrumentation diagram sheets
    - iv. Electrical sheets (plan and single line diagram)
    - v. Civil and structural sheets (plan and details)
  - b. Technical specifications
- 2. Provide an electronic PDF set of the draft design documents to the City for review.
- 3. Schedule and facilitate a review meeting of the draft design documents. The meeting is anticipated to be conducted virtually.
- 4. All comments and recommendations will be documented and incorporated into the Final Design deliverable.

### **Subtask 3.2 – Final Design**

Following City approval of the detailed design documents, Jacobs will progress the design to the final 100% level. This subtask includes the following:

1. Prepare Draft Final (90%) drawings and specification. The drawings will cover approximately 17 sheets, including:
  - a. 7 General sheets (Cover, index, notes and discipline legends)
  - b. 4 Process Mechanical sheets
  - c. 2 Process and Instrumentation Diagram sheets
  - d. 2 Electrical sheets (plan and single line diagram)
  - e. 2 Civil and Structural sheets (plan and details)
2. Prepare final (100%) drawings and specification. These will be the final design documents with updates from the review meeting and suitable for bidding.
3. The final deliverable will be an electronic PDF and signed and sealed by a Florida Professional Engineer.

### **Subtask 3.3 – Bidding Support**

Jacobs will provide technical assistance during the bidding phase to assist the City in answering questions submitted by contractors. Jacobs will participate in one pre-bid meeting and assist the City in preparing addenda. Jacobs will review and advise City as to qualifications of prospective contractors and subcontractors, suppliers, and others proposed by the bidder and will assist in the evaluation of bids received for determination of compliance with the design documents. The City will provide Division 0 and 1 Specification templates, and the Jacobs will incorporate them into the final documents

### **Subtask 3.4 – Conformed Documents**

Jacobs will revise the bid documents to incorporate changes made in the addenda issued to the bidders. Conformed documents will include bid submittal package, executed contract, and project specification. Conformed documents will be submitted to the City at the pre-construction meeting.

### **Subtask 3.5 – Engineering Services During Construction**

#### **Subtask 3.5.1 – Shop Drawing Review**

Jacobs will review and approve (or take other appropriate action) shop drawings for conformance with the design concept of the project and in compliance with information given in the Contract Documents. After review, Jacobs will transmit these documents to the contractor and City with written comments. Jacobs will review up to 12 total submittals and up to 1 resubmittal per shop drawing.

Jacobs will track submitted and outstanding shop drawing submittals in a submittal log to be provided bi-weekly to the City.

#### **Subtask 3.5.2 – Design Clarifications/Requests for Information**

Jacobs will issue up to one (1) design clarification to the Contract Documents. Clarifications will be consistent with, and reasonably inferable from, the intent of the Contract Documents.

Jacobs will also respond to requests for information (RFIs) as they relate to the Contract Documents. Jacobs will review up to two RFIs.

### **Subtask 3.5.3 – Contractor As-Built Review**

Jacobs will review contractor-submitted as-built drawings for compliance with project specifications.

### **Subtask 3.5.4 – Field Construction Support**

Jacobs' Lead Engineer will conduct one site visit to each pump station at an appropriate point during the construction phase to verify proper equipment installation, and subsequent site visits to observe startup systems during 1-2 month commissioning period, during which Jacobs is expected to conduct approximately 3-5 visits to confirm that system operation conforms to the Contract Documents, coordinate with the selected manufacturer as required, and identify any deficiencies requiring correction.

## **Deliverables**

1. Technical Summary
2. Draft Odor Control Standard Drawings and Specification
  - a. Jacobs proposes to conduct a technical review meeting with City staff. Meeting will be virtual.
3. Final Odor Control Standard Drawings and Specifications
4. Detailed Design Drawings and Specifications for Ravenwood and Matanzas Wood Master Pump Stations
  - a. Jacobs proposes to conduct a technical review meeting with City staff. Meeting will be virtual.
5. Final Design Drawings and Specifications for Ravenwood and Matanzas Wood Master Pump Stations
6. Design Addenda
7. Deliverables will be provided in both PDF and editable formats (as applicable). This will be AutoCAD or Microstation and Microsoft Word for the Technical Specifications.

## **Key Project Staff**

The key project staff are as follows:

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<b>Title</b>	<b>Name</b>	<b>Contact Number</b>	<b>Email</b>
Principal-in-Charge	Mike Dykes, PE <sup>[a]</sup>	904-607-2763	mike.dykes@jacobs.com
Project Manager	José Ramos, PE <sup>[a]</sup>	352-262-7223	jose.ramos1@jacobs.com
Process Mechanical Lead	Sam Hanzel, PE <sup>[a]</sup>	904-224-3136	samantha.hanzel@jacobs.com
Wastewater Process Lead/ Quality Manager	Matt Tennant, PhD, PE <sup>[a]</sup>	352-278-2903	matthew.tennant@jacobs.com
Odor Control Subject Matter Expert	John Siczka, PE	414-526-9223	john.siczka@jacobs.com

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<sup>[a]</sup> Active Licensed Professionals in Florida

## Schedule

Jacobs will begin this work upon receiving the fully executed Work Order from the City. Approximately 6 months is anticipated to complete final design documents following the receipt of the fully executed Work Order. The anticipated schedule follows:

<b>Milestone</b>	<b>Timeline</b>
Site Visit	Within 1 week of Notice to Proceed
Technical Memorandum (TM) Summary	4 weeks from site visit and receipt of information from City
Submit Draft Odor Control Standard Documents	8 weeks from TM completion
City Review Period and Review Meeting	2 weeks after Draft Submittal
Submit Detailed Design Documents	4 weeks after receipt of City comments on draft standard design
City Review Period and Review Meeting	2 weeks after Detailed Design Submittal
Submit Final Design Documents	3 weeks after receipt of City Comments on detailed design
Submit Final Odor Control Standard Documents	3 weeks after receipt of City Comments on detailed design
Bidding Assistance	Determined by the City
Services During Construction	Determined by the City

## Compensation

The compensation outlined below is provided in accordance with our Contract for Professional Utility Engineering Services dated September 6, 2024 (RFSQ-SWE-24-12). The work will be performed on a unit based-not to exceed basis (also referred as time and materials not to exceed). The total unit based not-to-exceed fee is derived from the labor categories, hour allocations, and estimated expenses. The not-to-exceed fee for these services is detailed below:

<b>Task</b>	<b>Total Cost</b>
Task 1 – Framework of Odor Control Standards	\$28,000
Task 2 – Odor Control Standards Development	\$56,000
Task 3 – Design, Bidding, and Construction Engineering Services	\$108,000
Expenses	\$3,000
<b>TOTAL</b>	<b>\$195,000</b>

## Assumptions and Exclusions

This proposal for engineering services is based on the following assumptions and exclusions:

- The City has already selected the odor control technology (biotrickling filter with optional carbon polishing); no alternatives analysis or evaluation is required.
- The scope is focused on design and specification of odor control improvement system. The scope also includes necessary structural, electrical, instrumentation and control (I&C), and civil design services to support the odor control system design. It is assumed that the existing infrastructure (structural, electrical, I&C and civil) is suitable for this addition without significant modifications.
- The City will provide access to Master Pump Station sites and any available as-built documentation.
- Each Master Pump Station site is assumed to have a reliable and continuous supply of potable or reclaimed water with adequate capacity, pressure, and availability to meet all operational, make-up, and maintenance water requirements of the selected odor control system.
- It is assumed that the selected odor control system will operate as a standalone process unit and will not require integration, data exchange, or supervisory control communication with any City-wide SCADA or centralized monitoring system. All required control, monitoring, and alarming functions are assumed to be self-contained within the odor control system's local control panel.
- The City will provide timely review comments on draft deliverables.
- The City will provide historical H<sub>2</sub>S data and operational insights.
- Cost estimating services are not included in this scope of work.
- Permitting services are not included in this scope of work.
- Jacobs will reasonably rely upon the accuracy, timeliness, and completeness of the information/data provided by the City or other third parties without independent verification. Additional effort by Jacobs due to invalid data or information provided by the City or others, may entitle Jacobs to additional compensation.
- Providing bidding/procurement support services - The City agrees that the Jacobs shall be appointed as City's representative for the limited purpose of performing any bid or procurement services under the contract and shall have no liability associated with the services procured by Jacobs on the City's behalf. Such services shall be performed under the City's direction and in accordance to such forms, terms and conditions, or modifications or revisions to same as the City may in its sole discretion at any time instruct Jacobs to use. All services shall be carried out in accordance with the procedures mutually agreed upon by the City and Jacobs.
- Onsite services during construction:
  - The presence or duties of Jacobs' personnel at a construction site, whether as onsite representatives or otherwise, do not make Jacobs or Jacobs' personnel in any way responsible for those duties that belong to the City and/or the construction contractor or other entities, and do not relieve the construction contractor or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction Contract Documents and any health or safety precautions required by such construction work.
  - Jacobs and Jacobs' personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or

safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except Jacobs' own personnel.

The presence of Jacobs' personnel at a construction site is for the purpose of providing to City a greater degree of confidence that the completed construction work will conform generally to the construction documents and that the integrity of the design concept as reflected in the construction documents has been implemented and preserved by the construction contractor(s). Jacobs neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents.

- The design will be based on the federal, state, and local codes and standards in effect on the effective date of the authorization. Any changes in these codes or standards may necessitate a change in scope, to include an equitable adjustment.
- Survey or geotechnical information has not been provided or included in the proposed scope of work. The City assumes all risk for any design impacts, unforeseen conditions, conflicts, or additional costs arising from the absence, inaccuracy, or later provision of such data. Any resulting revisions or services will be treated as additional services. Jacobs reserves the right to request survey or geotechnical information if deemed necessary to perform the scope of work.