

City of Palm Coast, Florida Agenda Item

Agenda Date: June 16, 2026

Agenda Item: G.2

Department STORMWATER AND ENGINEERING Division CONSTRUCTION MGT AND ENGINEERING	Amount \$197,380.00 Org/Account # 54205509-063000-SW55015
Subject: RESOLUTION 2026-XX APPROVING A WORK ORDER WITH FREESE AND NICHOLS FOR A DRY LAKE STORMWATER PRELIMINARY REPORT	
Presenter: Carmelo Morales, Stormwater Engineer	
Attachments: <ol style="list-style-type: none">1. Resolution2. Work Order Scope	
Background: Council Priority: B. Safe and Reliable Services <p>The City of Palm Coast is currently evaluating opportunities to enhance regional flood protection within the southern portion of the city, where flooding has been documented along Seminole Woods Boulevard, Sesame Boulevard, and several residential streets connected to the Little Canal and Seven Oaks Waterway systems. The city owns a 46 acre parcel known as Dry Lake, which currently functions as overflow floodplain storage for the Little Canal. A previous feasibility study demonstrated that increased storage volume at Dry Lake could reduce flooding impacts for residential properties and decrease peak stages in both the L-1 and K-1 canal systems.</p> <p>City Staff recommend approval of a work order with Frees and Nichols to build upon the previously conducted Dry Lake Feasibility Study to evaluate stormwater improvement opportunities at the Dry Lake parcel and surrounding stormwater infrastructure. The study will leverage the existing ICPR 1D model to simulate current and proposed conditions. The approach will include data collection, hydrologic and hydraulic modeling, evaluation of environmental and regulatory constraints, and explore funding opportunities. The goal is to provide the city with a clear understanding of the potential benefits, challenges, and an implementation path for the proposed project alternative.</p> <p>Under the existing contract RFSQ-SWE-24-12, staff negotiated a scope and fee not-to-exceed \$197,380 for a Dry Lake stormwater preliminary report. City staff have determined that the cost for the services is reasonable and fair and is consistent with these types of services for a project of this size and scope.</p> <p>Funds for this project are budgeted for out of the FY 2026 Stormwater Engineering Fund.</p>	

Source of Funds Worksheet

Original Budget: \$13,478,841.00

Total Expended/Encumbered to Date: \$9,796,200.25

Pending Work Orders.Contracts (Pending 6/16 Council Approval): \$679,892.92

Current (WO/Contract): \$197,380.00

Balance: \$2,805,367.83

Recommended Action:

ADOPT RESOLUTION 2026-XX APPROVING A WORK ORDER WITH FREESE AND NICHOLS FOR DRY LAKE STORMWATER PRELIMINARY REPORT

RESOLUTION 2026-____
DRY LAKE STORMWATER PRELIMINARY REPORT

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PALM COAST, FLORIDA APPROVING A WORK ORDER FOR A PRELIMINARY STORMWATER REPORT OF DRY LAKE; AUTHORIZING THE CITY MANAGER, OR DESIGNEE, TO EXECUTE THE NECESSARY DOCUMENTS; PROVIDING FOR FUTURE AMENDMENTS, PROVIDING FOR SEVERABILITY, PROVIDING FOR CONFLICTS; PROVIDING FOR IMPLEMENTING ACTIONS AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the City of Palm Coast desires to utilize Freese and Nichols for a preliminary stormwater report of Dry Lake; and

WHEREAS, Freese and Nichols desires to provide engineering services for an evaluation and preliminary stormwater report of the Dry Lake; and

WHEREAS, City Council desires to approve above-mentioned services for Dry Lake Stormwater evaluation; and

WHEREAS, in accordance with Chapter 2, Article 1, Division 3 – Purchase and Contractual Services Sections, 2-26- Approval Requirements- Subsection A, City Council desires to grant authority for the City Manager to enter into or increase any necessary contracts including those that are equal to or exceed \$100,000 associated with the expenses related to the above-mentioned services.

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 findings of the City Council of the City of Palm Coast.

SECTION 2. APPROVAL OF A WORK ORDER. The City Council of the City of Palm Coast hereby approves the terms and conditions of a work order with Freese and Nichols for a preliminary engineering report of Dry Lake, as attached hereto and incorporated herein by reference as Exhibit “A.”

SECTION 3. AUTHORIZATION TO NEGOTIATE, FINALIZE AND EXECUTE. The City Manager, or designee, is hereby authorized to execute the necessary documents.

SECTION 4. FUTURE AMENDMENTS. The City Manager, or designee is hereby authorized to approve any future amendment to the Master Price Agreement for changes totaling less than \$100,000 as long as this amount does not exceed the line-item limit for the budgeted purchase. Further, the City Manager has the authority to execute amendments to the Master Price Agreement on behalf of the City for any other changes that may be necessary.

SECTION 5. SEVERABILITY. If any section or portion of a section of this Resolution proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other section or part of this Resolution.

SECTION 6. CONFLICTS. All resolutions or parts of resolutions in conflict with any of the provisions of this Resolution are hereby repealed.

SECTION 7. IMPLEMENTING ACTIONS. The City Manager is hereby authorized to take any actions necessary to implement the action taken in this Resolution.

SECTION 8. 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 16th day of June 2026.

ATTEST:

CITY OF PALM COAST

KALEY COOK, CITY CLERK

MICHAEL NORRIS, MAYOR

APPROVED AS TO FORM AND LEGALITY

MARCUS DUFFY, CITY ATTORNEY

April 10th, 2026

Carmelo Morales, P.E., C.F.M
City of Palm Coast
160 Lake Avenue
Palm Coast, FL 32164



RE: DRY LAKE PRELIMINARY ENGINEERING REPORT PROPOSAL

Dear Mr. Morales,

Freese and Nichols, Inc. (FNI) is pleased to submit this proposal for providing professional engineering services to the City of Palm Coast (CLIENT) to prepare a Preliminary Engineering Report (PER) for the Dry Lake stormwater improvement project.

Freese and Nichols, Inc. (FNI) will render professional services as outlined in the attached Scope of Services and is ready to commence work upon authorization to proceed and will complete the services in accordance with the task durations outlined in the referenced project schedule.

FNI proposes to provide the services described herein for a lump sum fee of One Hundred Ninety-Seven Thousand Three Hundred Eighty Dollars (\$197,380.00).

We appreciate the opportunity to submit this proposal. If additional information or clarification is desired, please do not hesitate to contact us. If you agree with the services described above and wish for us to proceed with this assignment, please initiate authorization in accordance with the City's Continuing Contracts Agreement.

Sincerely,



Beatriz Estrada Guerra, P.E.
Project Manager



Cory J. Stull, P.E.
Principal / Vice President



April 10th, 2026

Carmelo Morales, P.E., C.F.M
 City of Palm Coast
 160 Lake Avenue
 Palm Coast, FL 32164

**CITY OF PALM COAST
 DRY LAKE PRELIMINARY ENGINEERING REPORT PROPOSAL**

1. PROJECT BACKGROUND

The City of Palm Coast (the City) is evaluating opportunities to enhance regional flood protection within the southern portion of the City, where flooding has been documented along Seminole Woods Boulevard, Sesame Boulevard, and several residential streets connected to the Little Canal and Seven Oaks Waterway systems. The City owns a 46-acre parcel known as Dry Lake, which currently functions as overflow floodplain storage for the Little Canal. A previous feasibility study demonstrated that increased storage volume at Dry Lake could reduce flooding impacts for residential properties and decrease peak stages in both the L-1 and K-1 canal systems.

2. INTRODUCTION TO THE APPROACH

Freese and Nichols will build upon previously conducted Dry Lake Feasibility Study to evaluate stormwater improvement opportunities at the Dry Lake parcel and surrounding stormwater infrastructure. The study will leverage the existing ICPR 1D model to simulate current and proposed conditions. The approach will include data collection, hydrologic and hydraulic modeling, evaluation of environmental and regulatory constraints, and explore funding opportunities. The goal is to provide the City with a clear understanding of the potential benefits, challenges, and an implementation path for the proposed project alternative.

A breakdown of the tasks that FNI will conduct as part of this project is shown in **Table 1**. Details of each task are included in the following sections.

Table 1: Project Tasks

TASK	DESCRIPTION
1	Project Management
2	Data Collection
3	Existing Conditions Hydrologic and Hydraulic Analysis
4	Proposed Conditions Hydrologic and Hydraulic Analysis
5	Capital Project Opinion of Probable Cost
6	Implementation Strategy
7	Documentation

TASK 1 | PROJECT MANAGEMENT

1. Project Kick-Off Meetings - FNI will conduct a project kickoff meeting with the City to review project scope, schedule, and critical milestones. This meeting will be in-person with a virtual option. FNI will provide the City with a data request memorandum listing data and information received to date and identifying data needs. FNI will also hold a similar project kickoff meeting internal for the project team to review project scope, schedule, and critical milestones.
2. Overall Project Management - FNI Project Manager (PM) will provide overall project management of the project throughout including file management, scheduling management, financial management as well as team coordination and monthly client updates. The PM will schedule and coordinate all necessary meetings both internally and client-related. Subconsultant management will also be provided with this task should it become necessary as part of this contract. The task will run continuously throughout the project life cycle.
3. Project Communication - Throughout the project, monthly status reports will be submitted with invoices that summarize the progress and document upcoming tasks. The monthly status updates will outline any upcoming key decisions that require input from City staff.

TASK 2 | DATA COLLECTION

FNI will coordinate with City staff on obtaining data required for the development of the feasibility analysis. The following information will be gathered and analyzed during this project task:

1. Site Visit – Visit site to observe existing conditions and to ground-truth the City GIS data and other information provided by the City of Palm Coast.
2. Gather existing GIS information from City of Palm Coast/LiDAR data/open-source data.
3. Gather proposed/existing site development information within the project limits.
4. Review previous feasibility study and private developer plans provided by the City.
5. Field verification on the existing infrastructure of existing Dry Lake detention area and surrounding stormwater infrastructure to the extent possible via sight observations and limited field measurements. (No formal survey is included within this proposal).

TASK 3 | EXISTING CONDITIONS HYDROLOGIC AND HYDRAULIC ANALYSIS

1. Existing Conditions
 - a. Develop project boundary based on topographic information and data collection noted above.
 - b. Create a truncated 1D ICPR hydraulic model of the project area leveraging elements from the City-wide 1D model.
 - c. Generate flow hydrographs from the City-wide model at key locations to establish the truncated model's boundary conditions.

- d. Update other pertinent existing 1D components in project area, such as pipes, pipes, culverts, and drop structures.
- e. Execute model for the 2-, 5-, 10-, 25-, 50-, 100-, and 500-yr storm events.
- f. Document existing conditions results, including observed flow restrictions, baseline storage utilization, peak stages, and existing level of service (LOS).

TASK 4 | PROPOSED CONDITIONS HYDROLOGIC AND HYDRAULIC ANALYSIS

1. Proposed Conditions

- a. FNI will evaluate three concept level alternatives to improve flood storage and hydraulic performance by maximizing storage capacity and exploring multiple interconnection options with the existing drainage system.
 - i. Proposed conditions scenario assumes subdivision is built.
- b. Execute model for the 2-, 5-, 10-, 25-, 50-, 100-, and 500-yr storm events.
- c. Assess impact on existing flow conditions and identify potential mitigation options for each alternative.
- d. Compare storage gains, flood-stage reductions, and downstream impacts relative to existing conditions.
- e. Update city-wide 1D model with the final recommended alternative configuration.
- f. Execute and troubleshoot city-wide 1D ICPR model.
- g. Hold a workshop with City of Palm Coast to present results and gather feedback.

TASK 5 | CAPITAL PROJECT OPINION OF PROBABLE COST

Once the alternative analysis project concepts have been completed, FNI will provide a concept-level Opinion of Probable Cost (OPCC) for the recommended project configuration.

TASK 6 | IMPLEMENTATION STRATEGY (WATER QUALITY, ENVIRONMENTAL, FUNDING)

For the preferred alternative, FNI will develop an implementation-level planning assessment to address water quality performance, environmental considerations, and potential funding pathways.

1. Identify how increased storage and enhanced detention at Dry Lake can support stormwater treatment objectives in the Little Canal and Seven Oaks Waterway systems (e.g., increased residence time).
2. Summarize key environmental factors that may influence implementation, like wetland impacts associated with Dry Lake excavation and canal enhancements.
3. Identify planning level funding opportunities that could support implementation of the recommended configuration(s), with emphasis on combined flood risk reduction and water quality improvement benefits.

TASK 7 | DOCUMENTATION

FNI will document Tasks 1 – 6 to summarize the modeling efforts, results, and analysis for the existing conditions for the drainage basin. FNI will then identify possible solutions to address

these concerns based on the results of the post-condition modeling efforts. The proposed configurations will be described, and the final recommended configuration will be further analyzed. An OPCC will be created for the recommended configuration. This will be summarized in a Technical Memorandum (TM) outlining the findings.

ADDITIONAL SERVICES: Any services performed by FNI that are not included in the services described above are considered Additional Services. Additional Services will only be performed if requested and authorized by the City as set forth in the Continuing Contracts Agreement.

SCHEDULE:

FNI is authorized to commence work on the Project upon execution of this Task Order and estimates the work included in this task order will be completed in accordance with schedule shown in **Table 2**.

Table 2: Project Schedule

Task	Description	Calendar Days
Task 1	Project Management	Ongoing throughout the project
Task 2	Data Collection	45 Days from the kick-off meeting with City’s staff and receipt of all existing data
Task 3	Existing Conditions Hydrologic and Hydraulic Analysis	60 Days from completion of Task 2
Task 4	Proposed Conditions Hydrologic and Hydraulic Analysis	90 Days from completion of Task 3
Task 5	Capital Project Opinion of Probable Cost	45 Days from completion of Task 4
Task 6	Implementation Strategy	30 Days from completion of Task 5
Task 7	Documentation	45 Days from completion of Task 6

COMPENSATION:

For performance of the services described in this Scope of Services, the City will compensate FNI in the lump sum amount of **\$197,380** for Tasks 1 through 7 as shown in **Table 3**. FNI will be paid for services performed per task as set forth herein, covering the work-in-progress expressed as a percentage of the total cost of the service and work required for each task involved.

Table 3: Compensation for Basic Services

Task No.	Description	Lump Sum Fee
1	Project Management	\$24,146
2	Data Collection	\$14,824
3	Existing Conditions Hydrologic and Hydraulic Analysis	\$40,044
4	Proposed Conditions Hydrologic and Hydraulic Analysis	\$55,880
5	Capital Project Opinion of Probable Cost	\$13,030
6	Implementation Strategy	\$18,992
7	Documentation	\$30,464

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Totoarjle Pct	\$	197,380

icaeBssvice rS	197,380
piSceecsvael rS	-
ddiciAtesivael rSn	-
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Total Effort										\$	195,856	-	\$	1,624	\$	197,380