

May 15, 2026

Mr. Karl Kennedy, P.E., City Engineer  
City of Pembroke Pines  
Public Services Department, Engineering Division  
8399 S. Palm Drive  
Pembroke Pines, Florida 33025

**RE: WORK ORDER ENG0037 - PEMBROKE LAKES SECTION 1  
AND DRAINAGE NEIGHBORHOOD IMPROVEMENT PROJECT  
CITY OF PEMBROKE PINES, FLORIDA  
CTA PROPOSAL NO.: 2026-S13.136 (REVISED)**

Dear Mr. Kennedy,

The firm of Craven Thompson & Associates, Inc. (CTA) is pleased to provide you with the following proposal for professional Surveying and Civil Engineering Services for the proposed Pembroke Lakes Section 1 Swale Regrading and Drainage Neighborhood Improvement Project in the City of Pembroke Pines pursuant to the terms and conditions of *RFQ No. PSPW 23-20, Continuing Services for Citywide Professional Architectural, Engineering, Surveying and Mapping*. The project is located north of Taft Street, west of Palm Avenue at NW 106<sup>th</sup> Terrace.

The proposed improvements include regarding existing swales, replacement of sidewalk (where non-ADA compliant and where R.O.W. regraded), modification of the existing drainage/storm sewer system, and tree removal (where necessary). Services will include surveying, design, and the permitting necessary for constructing these improvements. The scope of our services includes the following:

**SITE LIMITS – Approximately 110 ACRES**



CRAVEN THOMPSON



& ASSOCIATES INC.

Engineers  
Planners  
Surveyors  
Landscape Architects

3563 NW 53<sup>rd</sup> Street  
Fort Lauderdale, FL 33309-6311  
Phone: (954) 739-6400  
Fax: (954) 739-6409

The scope of our services includes the following:

**I. TASK 1: DATA COLLECTION**

1.1 Topographic Survey (CTA Task No. 11050)

Prepare a Topographic survey for engineering design purposes of the rights-of-way covering approximately ±17,923 linear feet of roadway based on the limits shown above for the "Pembroke Lakes Section 1" drainage and swale project. The survey will meet all current surveying requirements of the Board of Professional Surveyors and Mappers of the State of Florida, as defined in Chapter 5J-17.050.052, Florida Administrative Code.

- The survey will include the recovery of sufficient existing boundary and/or right-of-way monumentation to determine the right-of-way lines needed to tie all visible improvements to.
- Locations of all aboveground and visible improvements, including all pavement, slabs, fences, signs, overhead wires, trees, swales, and utility features at the surface, within the limits of the existing platted rights-of-way.
- Rims, inverts, and pipe sizes will be measured on all sanitary and drainage structures found within the project limits, if accessible and physically unobstructed; otherwise, they will be noted on the drawing.
- Existing trees, four (4) inches in diameter and above, at four (4) feet above ground, will be located and identified with diameter and common name.
- Elevations will be taken on an approximate basis at fifty (50) foot cross-sections, along all roadways, and extend approximately 5 feet outside the right-of-way where accessible, permitted by the adjacent property owners, and can be done safely by the Survey crew in the field.
- Elevation datum to be relative to North American Vertical Datum of 1988 (NAVD88) and based on National Geodetic Survey (NGS) or Florida Department of Transportation (FDOT) benchmarks.
- The surveys will be in the projection: State Plane, Florida East Zone, NAD 83(90), US Survey feet.
- A minimum of two (2) benchmarks per road will be provided on, or immediately adjacent to, for future construction.
- The preparation of the survey drawing will be in AutoCAD Civil 3D, Version 2025 or higher, drawing file format.
- The final deliverable will be provided in hard copy, signed and sealed surveys (24" x 36").

*Lump Sum*..... \$90,000.00

1.2 Geotechnical Engineering (Provided by Tierra South Florida, Inc.)

Obtain one (1) soil borings (15' in depth), five (5) Double infiltrometer tests, and one (1) asphalt pavement core within the right-of-way within the project limits. Prepare geotechnical analysis and recommendations for soil/subgrade preparation.

*Lump Sum*..... \$13,900.00

- 1.3 Subsurface Utility Locates (Provided by InfraMap Corp)  
Provide ten (10) Level A underground utility locates including survey level horizontal and vertical locations.  
  
*Lump Sum..... \$17,000.00*

**II. TASK 2: PROJECT MANAGEMENT (Not Applicable)**

**III. TASK 3: PLANNING (Not Applicable)**

**IV. TASK 4: DEVELOPMENT OF PROJECT DELIVERABLES**

- 4.1 50% Design Development Civil Engineering Plans, Calculations, Specifications, and Cost Estimate (CTA Task No. 31030)  
Prepare 50% Design Development plans for swale regrading, drainage and sidewalk improvements including sections and details, grading and drainage of project area, demolition plans, erosion control plans, stormwater/drainage calculations, project specifications, and a 50% Design Development Cost Estimate.

*Lump Sum..... \$40,360.00*

- 4.2 90% Design Development Civil Engineering Plans, Calculations, Specifications, and Cost Estimate (CTA Task No. 31030)  
After review of 50% Design Development plans by City, further develop project documents to 90% Final Design Documents for swale regrading, drainage and sidewalk improvements, demolition plans, erosion control plans, stormwater/drainage calculations, project specifications, and a 90% Design Development Cost Estimate.

*Lump Sum..... \$37,760.00*

- 4.3 100% Design Development Civil Engineering Plans, Calculations, Specifications, and Cost Estimate (CTA Task No. 31030)  
After review of 90% Design Development plans by City, further develop project documents to 100% Construction Documents for swale regrading, drainage and sidewalk improvements, demolition plans, erosion control plans, stormwater/drainage calculations, project specifications, and a 100% Design Development Cost Estimate.

*Lump Sum..... \$22,060.00*

- 4.4 Meetings During Project Deliverables Phase (CTA Task No. 31101)  
Prepare for and attend coordination meetings and conference calls regarding the proposed project. This task shall include meetings with the City, and local permitting agencies This assumes up to eight (8) three-hour meetings for an Engineer IV.

*Hourly, Not to Exceed ..... \$6,000.00*

**V. TASK 5: CIVIL PERMITTING ASSISTANCE**

- 5.1 Prepare and Process On-Site Permit Applications (CTA Task No. 31080)  
 Prepare and process permit applications and supporting documents through state and local agencies including:
- City of Pembroke Pines Engineering Permit
  - South Broward Drainage District (SBDD) - Surface Water
  - South Florida Water Management District ERP
- Lump Sum*..... \$12,500.00

**VI. TASK 6: BIDDING ASSISTANCE (Not Applicable)**

**VII. TASK 7: CONSTRUCTION ADMINISTRATION (Not Applicable)**

**VIII. MISCELLANEOUS**

- 8.1 Reimbursable Expenses (CTA Task No. 31140)  
 Reimbursable expenses such as courier services, mailing of public participation notices, progress prints, permit prints, set of reproducible Mylar, etc.
- Estimated Budget*..... \$500.00

**SUMMARY OF FEES**

I.	<b>TASK 1: DATA COLLECTION</b> .....	<b>\$120,900.00</b>
II.	<b>TASK 2: PROJECT MANAGEMENT (Not Applicable)</b>	
III.	<b>TASK 3: PLANNING (Not Applicable)</b>	
IV.	<b>TASK 4: PROJECT DELIVERABLES</b> .....	<b>\$106,180.00</b>
V.	<b>TASK 5: CIVIL PERMITTING ASSISTANCE</b> .....	<b>\$12,500.00</b>
VI.	<b>TASK 6; BID ASSISTANCE (Not Applicable)</b>	
VII.	<b>TASK 7 CONSTRUCTION ADMINISTRATION (Not Applicable)</b>	
VIII.	<b>MISCELLANEOUS</b> .....	<b>\$500.00</b>
	<b>GRAND TOTAL</b> .....	<b>\$240,080.00</b>

**SERVICES NOT INCLUDED**

Additional services will be performed as authorized in writing by the Client. Additional services include but are not limited to the following:

1. Construction Services, Management, Inspection, Observation, Certifications, etc.
2. Irrigation plans
3. Arborist Services
4. Tree Removal Permitting and Mitigation
5. Landscape Architecture Services

6. Water and Sewer Plans
7. Lift Station Design or Lift Station Upgrades if necessary
8. Phasing of any of the construction documents
9. Paving Plans
10. Material testing.
11. Environmental Services
12. Traffic studies
13. Traffic Signal Plans
14. Grant Related Services
15. Any services required in connection with threatened or endangered species.
16. Services required by additional governmental regulations which might be put into effect after the date of this agreement.
17. Any additional services requested by City.

**The following is a list of items which are to be provided by Client:**

1. Any documents, plans, permits, etc., associated with this Project.
2. Arborist Services
3. Tree Mitigation
4. Permit Fees

**Acceptance**

This proposal and fee schedules are based on acceptance within 30 days of the date of preparation. If not accepted by you within that time-period, we reserve the right to re-evaluate the terms and conditions contained herein.

The above will be subject to the terms and conditions as specified in the Contract Documents. If the proposed work and fees contained herein are agreeable with you, please provide a Purchase Order and a Notice to Proceed.

Should you have any questions regarding the above, please do not hesitate to call.

Sincerely,

**CRAVEN THOMPSON & ASSOCIATES, INC.**



GARY TENN, P.E.  
Senior Supervising Engineer



PATRICK J. GIBNEY, P.E.  
Vice President, Engineering

GT/tg

		Craven Thompson & Associates, Inc.										Subconsultants			
		Principal Engineer	Engineer IV	Engineer III	Engineer II	Engineer I	Principal Surveyor	Surveyor III	Survey CADD I	Survey Crew - 3 Man	Total Hours	Total Prime Consultant Estimated Cost	InfraMap Corp. (Sub-Surface Utility Locates)	Tierra South Florida (Geotechnical Engineering)	Total Estimated Cost
Hourly Billing Rate		\$ 295.00	\$ 250.00	\$ 225.00	\$ 200.00	\$ 175.00	\$ 300.00	\$ 200.00	\$ 100.00	\$ 240.00			Estimated Fee	Estimated Fee	
Task No.	Task Name	Hours	Estimated Hours	Estimated Hours	Estimated Hours	Estimated Hours	Estimated Hours	Estimated Hours	Estimated Hours	Estimated Hours	Total Hours	Total Prime Consultant Estimated Cost	Estimated Fee	Estimated Fee	Total Estimated Cost
<b>I. TASK 1: DATA COLLECTION</b>															
1.1	Topographic Survey						40	90	180	175	485	\$ 90,000.00			\$ 90,000.00
1.2	Geotechnical Engineering										0	\$ -		\$ 13,900.00	\$ 13,900.00
1.3	Surface Utility Locates										0	\$ -	\$ 17,000.00		\$ 17,000.00
<b>II. TASK 2: PROJECT MANAGEMENT (NOT APPLICABLE)</b>															
<b>III. TASK 3: PLANNING (NOT APPLICABLE)</b>															
<b>IV. TASK 4: DEVELOPMENT OF PROJECT DELIVERABLES</b>															
4.1	50% Design Development	8	32		80	80					200	\$ 40,360.00			\$ 40,360.00
4.2	90% Design Development	8	32		32	120					192	\$ 37,760.00			\$ 37,760.00
4.3	100% Design Development	8	24		16	60					108	\$ 22,060.00			\$ 22,060.00
4.4	Meeting During Project Deliverables Phase		24								24	\$ 6,000.00			\$ 6,000.00
<b>V. TASK 5: CIVIL PERMITTING ASSISTANCE</b>															
5.1	Prepare and Process On-Site Permit Applications		20		20	20					60	\$ 12,500.00			\$ 12,500.00
<b>VI. TASK 6: BIDDING ASSISTANCE (NOT APPLICABLE)</b>															
<b>VII. TASK 7: CONSTRUCTION ADMIN. (NOT APPLICABLE)</b>															
<b>VIII. TASK 7: MISCELLANEOUS</b>															
7.1	Reimbursable Expenses											\$ 500.00			\$ 500.00
Total Hours		24	132	0	148	280	40	90	180	175	1,069				
Subtotal Estimated Cost		\$ 7,080.00	\$ 33,000.00	\$ -	\$ 29,600.00	\$ 49,000.00	\$ 12,000.00	\$ 18,000.00	\$ 18,000.00	\$ 42,000.00		\$ 209,180.00	\$ 17,000.00	\$ 13,900.00	\$ 240,080.00



## Scoping Meeting Report

Project Name: Pembroke Lakes Section 1 Swale Regrading and Drainage Neighborhood Improvement Project

Work Order Request No.: ENG0037

Consultant Name: Craven Thompson & Associates, Inc.

Consultant Address: 3563 NW 53<sup>rd</sup> Street, Fort Lauderdale, Florida 33309

Consultant Project Manager: Gary Tenn, P.E.

Date of Scoping Meeting: April 15, 2026

Project Location / Address: The project is located north of Taft Street, west of Palm Avenue at NW 106<sup>th</sup> Terrace.

City Department: Engineering Division, Public Services Department

City Project Manager: Marielisa Barbaran

Communication Matrix: Marielisa Barbaran, City Project Manager  
[mbarbaran@ppines.com](mailto:mbarbaran@ppines.com)  
954-518-9040 Ext. 51387

John England, P.E., Assistant City Engineer  
[jengland@ppines.com](mailto:jengland@ppines.com)  
954-518-9040

Karl Kennedy, P.E., City Engineer  
[kkennedy@ppines.com](mailto:kkennedy@ppines.com)  
954-518-9040

Gary Tenn, P.E., Craven Thompson Project Manager  
[gtenn@craventhompson.com](mailto:gtenn@craventhompson.com)  
954-739-6400 Ext. 306

Richard Crawford, Craven Thompson Survey Manager  
[rcrawford@craventhompson.com](mailto:rcrawford@craventhompson.com)  
954-739-6400 Ext. 345

PROJECT DETAILS:

1. PROJECT UNDERSTANDING

The proposed improvements include re-grading of existing swales, replacement of sidewalk (where non-ADA compliant and where R.O.W. regraded) modification of the existing drainage/ storm sewer system, and tree removal (where necessary). Services will include surveying, design, and the permitting necessary for constructing these improvements

2. SCOPE OF SERVICES

TASK 1 - DATA COLLECTION

- 1.1 - Topographic Design Survey
- 1.2 - Geotechnical Engineering
- 1.3 - S.U.E. (Test Holes)
- 1.4 – Information Gathering (Initial Utility Coordination and 811 Design Ticket)
- 1.5 – Engineering Preliminary Phase Meetings

TASK 2 - PROJECT MANAGEMENT

- 2.1 – Project Administration & Coordination with City
- 2.2 – Quality Assurance/Quality Control

TASK 3 – PRELIMINARY PLANNING (**NOT INCLUDED**)

TASK 4 - DEVELOPMENT OF PROJECT DELIVERABLES

- 4.1 – 50% Design Development Civil Engineering Plans, Calculations, Specifications, and Cost Estimate
- 4.2 – 90% Final Design Civil Engineering Plans, Calculations, Specifications, and Cost Estimate
- 4.3 – 100% Civil Engineering Construction Plans, Calculations, Specifications, and Cost Estimate
- 4.4 - Civil Engineering Meetings During Design Phase

TASK 5 - PERMITTING ASSISTANCE

- 5.1 – Civil Engineering Permit/Approval Preparation & Processing

TASK 6 - PROCUREMENT/SOLICITATION ASSISTANCE (**NOT INCLUDED**)

TASK 7 – CONSTRUCTION ADMINISTRATION (**NOT INCLUDED**)

3. PROJECT SCHEDULE - See attached Schedule
4. OPINION OF PROBABLE CONSTRUCTION COST - \$2.8 million including design & construction costs
5. SUBCONSULTANTS
  - Tierra South Florida, Inc. – Geotechnical Services
  - InfraMap Corp – S.U.E. Services
6. CITY FURNISHED DOCUMENTS & DATA

City to provide arborist services and tree mitigation planning and permitting, and all permit fees.
7. MEETINGS AND SITE VISITS – See attached proposal
8. COMPENSATION – See attached proposal
9. SERVICES NOT INCLUDED – Arborist services and tree mitigation planning and permitting, bidding phase services, construction phase services
10. ADDITIONAL SERVICES -
  - Arborist Services
  - Tree Mitigation Planning and Permitting
  - Bidding Assistance
  - Construction Phase Services
  - Project Certifications
11. SPECIAL CONSIDERATIONS/NOTES/ASSUMPTIONS (*None.*)
12. OTHER INFORMATION (*None*)