



**Craven Thompson  
& Associates, Inc.**  
Project Management  
Engineering  
Landscape Architecture  
Surveying & Planning

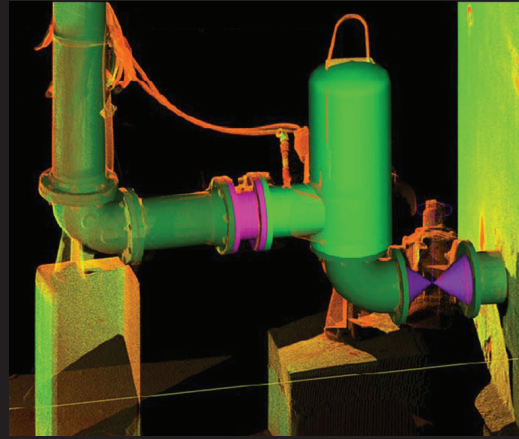
3563 NW 53rd Street, Fort Lauderdale, FL 33309  
Phone: (954) 739-6400

PREPARED FOR



**REQUEST FOR QUALIFICATIONS - RFQ -042-23-JJ**  
INFRASTRUCTURE PROJECTS  
(WATER, SEWER, REUSE AND STORMWATER)

FEBRUARY 28, 2022





**REQUEST FOR QUALIFICATION  
RFQ-042-23-JJ  
INFRASTRUCTURE PROJECTS (WATER, SEWER,  
REUSE AND STORMWATER)**

**FOR THE CITY OF HOLLYWOOD, FLORIDA**

CRAVEN THOMPSON



& ASSOCIATES, INC.

Craven, Thompson & Associates, Inc.  
3563 NW 53<sup>rd</sup> Street  
Fort Lauderdale, Florida 33309

Contact Person: Patrick J. Gibney, P.E.  
Vice President, Engineering  
Email: [pgibney@craventhompson.com](mailto:pgibney@craventhompson.com)  
Phone: (954) 739-6400

February 28, 2023



# LETTER OF INTEREST



February 28, 2023

Mr. Jean Joinville, Senior Purchasing Agent  
City of Hollywood, Office of Procurement Services  
2600 W. Hollywood Boulevard, Room 303  
Hollywood, Florida 33022-9045

**RE: INFRASTRUCTURE PROJECTS (WATER, SEWER, REUSE AND STORMWATER), RFQ-042-23-JJ**

Dear Selection Committee Members:

In response to the **City of Hollywood's** request for seeking professional engineering consultants to provide "*Infrastructure Projects (Water, Sewer, Reuse and Stormwater)*", **Craven Thompson and Associates, Inc.** is pleased to submit this Statement of Qualifications. We have provided similar services to past governmental clients. We are very familiar with all water, sewer, re-use water, and stormwater/drainage engineering design methods used in the South Florida region, and more particularly Broward County.

Over the years, we have provided surveying, design, permitting and CEI services for water, reuse water, wastewater, and stormwater projects to numerous municipalities and governmental agencies including: the City of Hollywood, City of Dania Beach, City of Hallandale Beach, City of Plantation, City of Lauderdale Lakes, City of Fort Lauderdale, City of Oakland Park, City of Deerfield Beach, City of Lauderhill, City of Miramar, City of West Palm Beach, City of Lake Worth Beach, City of Boca Raton, City of Greenacres, City of Miami Gardens, City of North Miami, City of North Miami Beach, Town of Palm Springs, Town of Davie, Broward County Water and Wastewater Services, Port Everglades, the Central Broward Water Control District, and the Tindall Hammock Irrigation and Soil Conservation District.

A sample of Craven Thompson's City of Hollywood projects include: Master Lift Station W-14, Lift Station A-6, Lift Station E-2, John U. Lloyd Watermain, Intracoastal Watermain Directional Drill, Hollywood Watermain Program Project No. 12-5117, Hollywood Watermain Replacement Program Project No. 15-5129, HMPG Emergency Generators, and the Driftwood Septic to Sewer Project.

***Authorized Representative of Firm and Project Manager/Client Contact for the Contract***

Patrick J. Gibney, P.E., Vice President, Engineering  
Craven Thompson & Associates, Inc.  
3563 NW 53<sup>rd</sup> Street, Fort Lauderdale, Florida 33309  
Phone: (954) 739-6400 / Email: [pgibney@craventhompson.com](mailto:pgibney@craventhompson.com)

Craven Thompson is a Fort Lauderdale based seventy (70) person corporation that has been in business for sixty-one (61) years. Based on the scope of services set forth in the Request for Qualifications, Craven Thompson has assembled a team of experienced engineering professionals well-suited to provide the City with the best possible service. Through that experience, we have developed the knowledge and expertise necessary to provide comprehensive and accurate engineering consulting services for the city.

We sincerely appreciate the opportunity of providing this response to the City of Hollywood and hope to continue to build upon the relationship we have with the City and staff.

Sincerely,

**CRAVEN THOMPSON & ASSOCIATES, INC.**



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

# Tab A: Table of Contents



	PAGE NO.
<b>TAB A: TABLE OF CONTENTS</b>	
▪ Table of Contents .....	A-1
<b>TAB B: EXECUTIVE SUMMARY</b>	
▪ Executive Summary.....	B-1
<b>TAB C: FIRM QUALIFICATIONS AND EXPERIENCE</b>	
▪ Firm’s Qualifications and Experience .....	C-1
▪ Relevant Project Experience.....	C-3
<b>TAB D: ORGANIZATIONAL PROFILE AND PROJECT TEAM QUALIFICATIONS</b>	
▪ Organizational Chart .....	D-1
▪ Subconsultants’ Responsibility .....	D-1
▪ Professional Resumes .....	D-2
▪ Professional Licenses / Certifications .....	D-19
<b>TAB E: APPROACH TO SCOPE OF WORK</b>	
▪ Approach to Scope of Work .....	E-1
<b>TAB F: KNOWLEDGE OF SITE AND LOCAL CONDITIONS</b>	
▪ Knowledge of Site and Local Conditions .....	N/A
<b>TAB G: REFERENCES</b>	
▪ Vendor References Form .....	G-2
<b>TAB H: SUB CONSULTANTS INFORMATION</b>	
▪ Sub-Consultants Information .....	H-1
<b>TAB I: FINANCIAL RESOURCES</b>	
▪ Financial Summary Statement.....	N/A
<b>TAB J: LEGAL PROCEEDINGS AND PERFORMANCE</b>	
▪ Legal Proceedings and Performance.....	J-1
<b>TAB K: REQUIRED FORM</b>	
▪ Sworn Statement Pursuant to Section 287.133(3)(a) .....	K-1
▪ W-9 (Request for Taxpayer Identification) .....	K-3
▪ Statement of Qualification Certification .....	K-4
▪ Certificate of Insurance .....	K-5

## Tab B: Executive Summary

Tab B

## EXECUTIVE SUMMARY

Craven Thompson & Associates, Inc. was founded in 1962 and has a large group of professional engineers, graduate engineers, surveyors, G.I.S. specialists, landscape architects and planners. Craven Thompson has been providing civil engineering, surveying and CEI services for the past sixty-one (61) years, landscape architectural services for the past thirty-eight (38) years, and G.I.S. services for the past seventeen (17) years.

**Primary contact for this contract, office location for which work will be performed, email, and phone number:**

Mr. Patrick Gibney, P.E., Project Manager, Vice President, Engineering  
 Craven Thompson & Associates, Inc.  
 3563 NW 53<sup>rd</sup> Street (main office)  
 Fort Lauderdale, Florida 33309  
 Phone: (954) 739-6400/Email: [pgibney@craventhompson.com](mailto:pgibney@craventhompson.com)

Craven Thompson is very experienced in surveying/GIS, stormwater/drainage, water, sanitary sewer, and reuse water design, permitting, and CEI services. Craven Thompson has completed a large number of watermain, reuse main, storm sewer and sanitary sewer projects over the past ten (10) years including: over 1.1 million linear feet of watermain, over 615,000 linear feet of sanitary gravity sewer, over 85,000 linear feet of forcemain, over 300,000 linear feet of storm sewer, over 90,000 linear feet of reuse main, and rehabilitated over fifty (50) lift stations in Broward and Palm Beach Counties.

Craven Thompson is providing the City of Hollywood with a highly experienced team to perform these services. This Team consists of:

Key Personnel	Role	Office Location
Patrick J. Gibney, P.E.	Project Manager/Civil Engineer	Fort Lauderdale
Philip Joseph, P.E.	Civil Engineer - Water, reuse water, sanitary sewer, and lift stations	Fort Lauderdale
Robert Connors, P.E.	Civil Engineer - Water, reuse water, sanitary sewer, and lift stations	Fort Lauderdale
Alex Scheffer, P.E.	Civil Engineer - Water, reuse water, sanitary sewer, and lift stations	Fort Lauderdale
Donnelly Chin	Civil Engineer - Water, sanitary sewer, and stormwater	Fort Lauderdale
Leonard "Zach" Gamble, P.E.	Civil Engineer - Water, reuse water, sanitary sewer, and stormwater	Delray Beach
Luis Pimentel, P.E.	Civil Engineer- Stormwater	Fort Lauderdale
Douglas Taylor, P.E.	Civil Engineer- Stormwater	Fort Lauderdale
Brian Tull	Construction Manager - - Water, reuse water, sanitary sewer, lift stations, and stormwater	Fort Lauderdale



## Tab C: Firm Qualifications and Experience

Tab C

## FIRM QUALIFICATIONS AND EXPERIENCE

Craven Thompson, a corporation registered in Florida, was founded in 1962 and has a large group of professional engineers, graduate engineers, surveyors, G.I.S. specialists, landscape architects and planners. Craven Thompson has been providing civil engineering, surveying and CEI services for the past sixty-one (61) years, landscape architectural services for the past thirty-eight (38) years, and G.I.S. services for the past seventeen (17) years. Craven Thompson has seventy employees consisting of four landscape architects, one planner; twenty-seven civil engineers, twenty surveyors & GIS specialists (includes field crews), two construction managers, construction inspectors; AutoCAD technicians, and administrative support personnel.

**Primary contact for this contract, office location for which work will be performed, email, and phone number:**

Mr. Patrick Gibney, P.E., Project Manager, Vice President, Engineering  
 Craven Thompson & Associates, Inc.  
 3563 NW 53<sup>rd</sup> Street (main office)  
 Fort Lauderdale, Florida 33309  
 Phone: (954) 739-6400 / Email: [pgibney@craventhompson.com](mailto:pgibney@craventhompson.com)

Craven Thomspson is very experienced in surveying/GIS, stormwater/drainage, water, sanitary sewer, and reuse water design, permitting, and CEI services. Craven Thompson has completed a large number of water system, reuse main, and sanitary system collection and transmission system projects including:

- Numerous sections of the Utility Zone Analysis (UAZ) Program (UAZs 108, 122, 123, 124, 308, & 310 including roadway reconstruction, water – including rear to front of lot service conversions) and sanitary sewer/septic tank elimination)
- Numerous County Neighborhood Improvement projects comprised of over 5,000 acres (including roadway reconstruction, stormwater / drainage improvements, watermain services from rear to front, approximately 90,000 linear feet of **reuse main extension**, and septic tank conversion)
- Miramar Reclaimed Water System Expansion
- City of Hollywood John U. Lloyd Watermain Directional Drilling
- City of Boca Raton Chatham Hills Watermain
- City of Greenacres 10<sup>th</sup> Avenue North Sanitary Sewer
- City of Plantation Historical Area Watermain Improvements
- City of Plantation Gardens Phase IIB Watermain Replacement
- City of Oakland Park Watermain and Sanitary Replacement;
- City of Hollywood Watermain Replacement and Septic Tank Conversion
- Davie Eastside Infrastructure Phases 2 & 3
- Numerous Broward County Water & Wastewater Services Septic Tank Elimination projects



We have also designed over fifty (50) lift stations over the past ten years. These include such stations as: Lift Stations: W-14, A-6, E-02, A-07, A-13, A-15 and A-16 for the City of Hollywood; Lift Stations: 50B, 50B1, 50B3, 50C, 50C1, 224, 226, 24E1, 22, 30E, 30T, 30U and 50K2 for Broward County Water and Wastewater Services; Pump Station A-13 for the City of Fort Lauderdale, Pump Station 8 for the City of Hallandale Beach and Lift Stations: A2, C1, 5 & 8 for the City of Oakland Park.

The following table demonstrates our extensive experience within the past ten years in the potable water & sanitary design discipline:

# TAB C: FIRM QUALIFICATIONS AND EXPERIENCE



Governmental Entity	Watermain (Linear Feet)	Sanitary (Linear Feet)	Forcemain (Linear Feet)	ROW Rest. (Linear Feet)	Water Services (Each)	Septic Tank Conversion (Each)
Broward County	540,000	360,000	57,000	900,000	9,000	6,400
Boca Raton	100,000	0	0	100,000	1200	0
Davie	28,000	12,750	3,000	29,800	260	275
Hollywood	246,000	238,000	19,000	123,000	1,500	4,200
Oakland Park	49,000	7,000	7,000	41,200	800	0
Lake Worth Beach	61,000	0	0	14,300	510	0
North Miami Beach	14,500	0	0	4,600	170	0
Plantation	55,000	0	0	43,500	520	0
<b>TOTAL</b>	<b>1,093,500</b>	<b>617,750</b>	<b>86,000</b>	<b>1,256,400</b>	<b>13,960</b>	<b>10,875</b>

Craven Thompson has prepared comprehensive stormwater management plans for the cities of Aventura, North Lauderdale, North Miami Beach, Hallandale Beach, Sunrise, Miami Gardens, Greenacres, and portions of Miramar and Fort Lauderdale. In addition, we are the drainage engineers for Tindall Hammock Irrigation and Soil Conservation District, and the Central Broward Water Control District providing planning, capital improvements costs, design and construction administration services which resolved flooding and environmental concerns for the Cities. Craven Thompson has performed major and minor stormwater basin studies and has implemented recommendations of those studies through design, permitting, and CEI of basin-wide improvements. Our stormwater master planning projects include computer modeling using Streamline Technologies ICPR Software as well as PCSWMM, the commercial version of US EPA SWMM5 Software. Craven Thompson has used the ICPR for the past twenty (20) years, and utilizes the latest update, V4.

We have designed and permitted over 300,000 linear feet of storm sewer and exfiltration trench in the past 10 years. These designs have included sustainable practices such as the design of bio-swales, exfiltration trench, tidal backflow devices, STORMCEPTORS, and wetland/retention preserve areas. We are currently finalizing the Historic Miramar Areawide Drainage Improvements, Phase I, and the Durrs and River Oaks Neighborhood Drainage Improvement Projects in Fort Lauderdale. We have completed the Park East Drainage Improvements; Historic District Drainage Improvements; Plantation Isles Drainage Improvements; Royal Palm Estates Drainage Improvements; El Dorado Estates Drainage Improvements; and the Plantation Golf Estates Drainage Improvements in Plantation, and are also preparing the Hollywood Reservation stormwater master plans for the Seminole Tribe of Florida.

In summary, a sample of our recent stormwater/drainage design projects include:

- Original Section Drainage Improvements, Phases 1 – 6, Greenacres
- River Oakes & Durrs Neighborhood Improvement Project, Fort Lauderdale
- SFWMD C-17 Outfall Replacement, Lake Park
- Historic Miramar Infrastructure Improvements – Phase IV
- Hallandale Beach CDBG Swale, Sidewalk, and Drainage Improvements
- N-17 Culvert Replacement, Davie
- Miami Gardens Livable Neighborhood Improvements
- N-29A Canal Connector Project, Davie
- NE 191<sup>st</sup> Street Drainage Improvements, Aventura
- Six neighborhood drainage projects in Plantation including: Royal Palm Neighborhood Drainage Imp., Historical Area Neighborhood Drainage Imp., Park East Neighborhood Drainage Imp., Plantation Golf Estates Neighborhood Drainage Imp, Plantation Isles Neighborhood Drainage Imp., and El Dorado Neighborhood Drainage Improvements

The following are specific projects that identify our experience in the water system, reuse water system, sanitary sewer collection and transmission system and stormwater disciplines.



## Master Lift Station W-14 Upgrade Hollywood, Florida



### Description of Work:

The rehabilitation for sanitary sewer Lift Station W14 included the modification of the existing stations by replacing the existing pumps based on a wastewater system analysis performed by Craven Thompson, replacement of internal piping to the station wall including valves and fittings, rehabilitation of the existing concrete floor, walls, ceiling, vaults, wet well, dry well, exterior vault, access hatch and concrete pillars, replace electrical meter and main, replace motor control panels and rewire new pumps, new RTU, new SCADA, rewire and replace branch wiring outlets and fixtures, generator with double wall tank with leak detection, etc. Services include surveying, design, permitting and CEI services.

#### Client Contact:

Mr. Jeff Jiang, P.E.  
Assistant Director ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

#### Project Role:

Prime Consultant

#### Start / Completion Dates:

2016 - 2020

#### Craven Thompson's Fees:

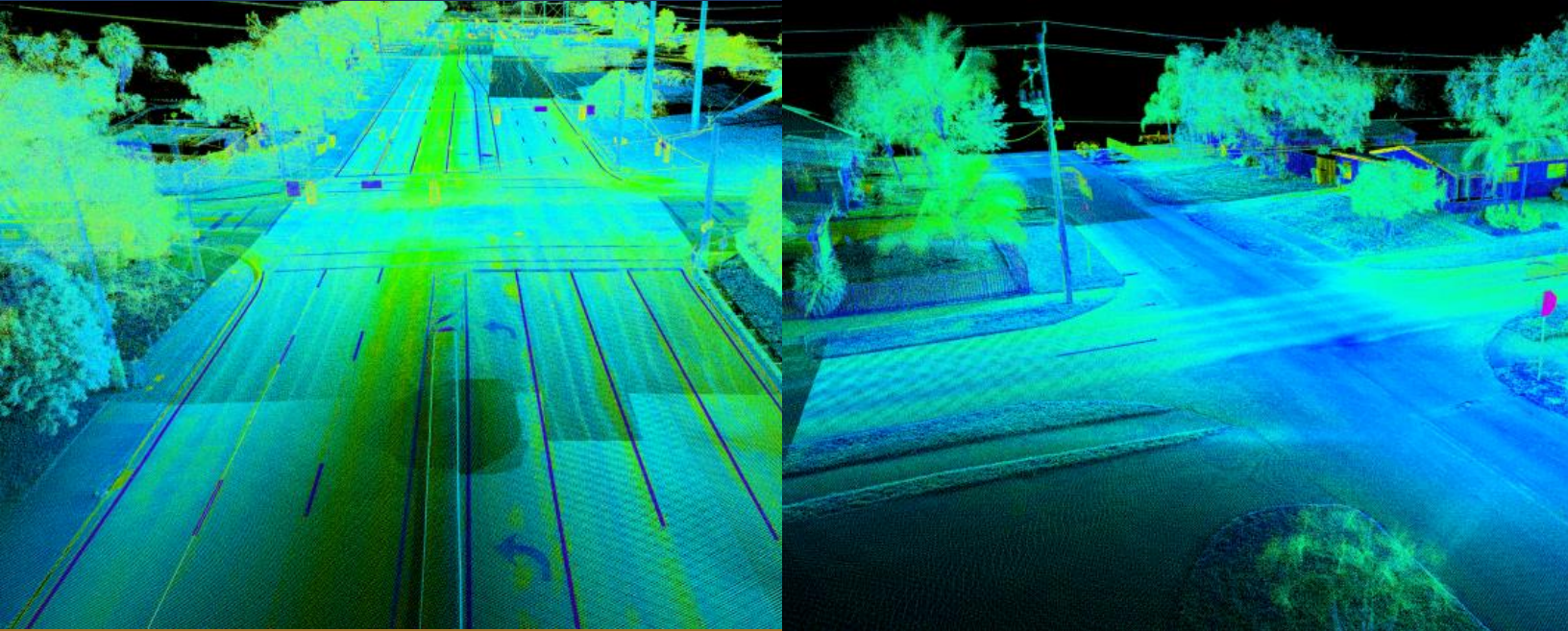
\$354,103.44

#### Construction Cost:

Estimated: \$2,512,000.00

Actual: \$2,395,072.00

## Watermain Replacement Program - City of Hollywood Project No. 12-5117 (Taft to Charleston, 66<sup>th</sup> to 72<sup>nd</sup>), Hollywood, Florida



### Description of Work:

The project consists of approximately 750 acres of existing developed area, where Craven Thompson performed mobile Lidar surveying, system modeling, design, permitting, bidding and limited construction engineering and inspection to construct approximately 60,490 linear feet of new 4" diameter water main, 5,400 linear feet of new 6" diameter water main, 18,220 linear feet of new 8" diameter water main, 20,655 linear feet of new 12" diameter water main, and the relocation to the front of the lots of services located in the rear yards. Craven Thompson is coordinating with the lot owners. This project also included the installation of new fire hydrants, relocated services, right-of-way restoration, and the restoration of affected areas on private property.

Craven Thomson provided surveying, and civil engineering services.

### Client Contact:

Mr. Jeff Jiang, P.E.  
Assistant Director ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

### Project Role:

Prime Consultant

### Start / Completion Dates:

Design: September 2016 - TBD  
Construction: On Hold

### Craven Thompson's Fees:

\$877,716.45

### Construction Cost:

\$18,129,340.00

## UAZ (Utility Analysis Zone) 122 Improvement Program Lauderdale Lakes, Florida



### Description of Work:

Utility Analysis Zone (UAZ) 122 is a one hundred and sixty (160) acre area bounded by the SFWMD C-13 Canal to the north, NW 47<sup>st</sup> Avenue to the east, West Oakland Park Boulevard to the south and the Florida Turnpike to the west in the City of Lauderdale Lakes, Florida. The project included the construction of a sanitary sewer collection system consisting of:

- 19,345 linear feet of 8" gravity main
- 1,350 linear feet of 10" gravity main
- 4,800 linear feet of 8" force main
- 105 service laterals

The water distribution system improvements included:

- 11,190 linear feet of 6" main
- 10,875 linear feet of 8" main
- 5,205 linear feet of 10" main
- 3,690 linear feet of 12" main
- 630 linear feet of 16" main
- abandonment and grouting of 25,435 LF existing watermain
- construction of 66 water services

In addition, the project involved 30,600 linear feet of roadway reconstruction along with right-of-way restoration. Craven Thompson modeled the systems using SewerCAD and WaterCAD as well as created the construction documents, provided permitting, assisted with bidding and provided CEI services for the infrastructure rehabilitation project.

### Client Contact:

Mr. Mike Hagerty, P.E., LEED AP  
Engineering Unit Supervisor  
Broward County Water  
& Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-3217  
Email: [mhagerty@broward.org](mailto:mhagerty@broward.org)

Project Role: Prime Consultant

Start / Completion Dates: 2016 – 2021

Craven Thompson's Fees:  
\$1,939,293.00

Estimated Construction Cost:  
\$15,125,153.00 (Estimated)  
\$13,705,609.00 (Actual)



Central Broward Water Control District - District Drainage Engineer  
Hollywood, Florida



## Description of Work:

Craven Thompson & Associates, Inc. has served as the District Engineer for the 22 square mile Central Broward Water Control District (CBWCD) since March 2007. In this capacity, we review and recommend approval of all drainage projects within the CBWCD; review variance requests; serve on the Development Review Committee; attend Board meetings; and prepare construction plans for capital improvement projects. Services to the District include Plan and Constructability Review; engineering ICPR studies and reports; plan review, surveying; design & permitting for capital improvement projects; construction services; inspection services; and meeting attendance.

### Client Contact:

Mr. Jace Selby  
District Manager  
Central Broward Water Control District  
8020 Stirling Road  
Hollywood, Florida 33024  
Phone: (954) 432-5110  
Email:

[districtmanager@centralbrowardwcd.org](mailto:districtmanager@centralbrowardwcd.org)

Project Role: Prime Consultant

Contract Term: 2007 - Present

## Eastside Master Infrastructure Project - Phases 2 & 3 Davie, Florida



### Description of Work:

The project is composed of approximately 340 acres within the CRA, east of Davie Rd., north of Orange Dr., south of SW 36<sup>th</sup> Ct. and west of SW 53<sup>rd</sup> Ave. This project provided infrastructure for the development of a portion of the Downtown Master Plan Area as well the redevelopment of SW 41<sup>st</sup> Ct. The basic infrastructure work consisted of replacement of the existing water distribution system and new installation of sanitary sewer system and drainage system.

The drainage/roadway work consisted of:

- 22,763 linear feet of roadway reconstruction
- 41,000 square yards of swale regrading
- 18,940 linear feet of storm sewer
- 12,450 square yards of sidewalk
- 7,400 square yards of driveway restoration
- 146 storm structures
- 3 outfalls
- 1 control structure
- The work also includes landscaping.

The water distribution included:

- 14,800 linear feet of 6" diameter main
- 5,075 linear feet of 8" diameter main
- 5,140 linear feet of 12" diameter main
- Abandon & grout 11,450 LF of existing watermain in place
- 50 fire hydrants, 154 gate valves
- 40,400 linear feet of water service piping on private property

The sanitary improvements included:

- 11,455 linear feet of 8" diameter pipe,
- 40 sanitary manholes
- 2,945 linear feet of 16" diameter forcemain.

### Client Contact:

Mr. Jonathon Vogt, P.E.  
Town Engineer  
Town of Davie  
6591 Orange Drive  
Davie, Florida 33314  
Phone: (954) 797-1137  
Email: [jonathan\\_vogt@davie-fl.gov](mailto:jonathan_vogt@davie-fl.gov)

### Project Role:

Prime Consultant

### Start / Completion Date:

Design: 2015 - 2016  
Construction: 2016 - 2018

### Craven Thompson Fees:

\$2,888,765.00

### Construction Cost:

Estimated: \$13,200,854.00  
Actual: \$13,275,149.00

Craven Thompson & Associates performed surveying, subsurface locates, civil design and permitting, landscape architecture, preparing construction documents, bid assistance, and construction engineering services.

## Hollywood HMGP Grant Emergency Generators for Lift Stations E-01, W-14, and W-15 Hollywood, Florida



### Description of Work:

The City of Hollywood was awarded grants from the State of Florida Department of Emergency Management (FDEM) as part of the Federal Emergency Management Agency (FEMA) Hazard Mitigation Grant Program (HMGP) program to install backup electrical power generators for lift stations E-01, W-14, and W-15. Craven Thompson as prime, along with sub-consultants, Hillers Electrical, TRC, and Tierra South Florida were selected by the City to provide surveying, planning, administrative services, design, permitting, preparation of preconstruction and project coordination activities, preparation of generator startup reports, coordination with the City and FEMA, permitting, engineering support services and construction engineering inspection for the projects. Generator upgrades are being provided in conformance with NFPA 820. Other design considerations included: coordination with FPL, changes to main disconnect and automatic transfer system (ATS), upgrades to grounding and lightning arrestor systems, ancillary electrical components including lighting, permanent standby power generator(s) and fuel systems with minimum fuel capacity for 72 hours, and sound attenuated enclosure (73dBA @ 21') and critical muffler design.

**Client Contact:**  
 Mr. Jeff Jiang, P.E.  
 Assistant Director ECSD  
 City of Hollywood  
 Department of Public Utilities  
 Engineering Support Services Division  
 1621 North 14<sup>th</sup> Avenue  
 Hollywood, Florida 33020  
 Phone: (954) 921-3930  
 Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

**Project Role:**  
 Prime Consultant

**Construction Completion Date:**  
 2021

**Craven Thompson's Fees:**  
 \$233,497.00

**Construction Cost:**  
 \$1,440,000.00

A special emphasis was placed on monitoring compliance with the FDEM/FEMA contract terms.



## North County Neighborhood Improvement Project, Northeast Quadrant, Bid Package 11 Pompano Beach, Florida



### Description of Work:

The North County Neighborhood Improvement Project (NCNIP) Northeast Quadrant, Bid Package 11 includes approximately 357 acres of land between Dixie Highway and Federal Highway, North of Sample Road in Pompano Beach. The infrastructure improvements to the existing neighborhood included new water, sanitary sewer, drainage, landscaping, signage, roadway, and sidewalk systems. Bid Package 11 was the final area in the North County Neighborhood Improvement, NE Quadrant. The area is primarily residential that was developed in the 1950's. The existing infrastructure was no longer suitable to meet the current standards for water and sanitary sewer facilities. The Project was completed under budget and on time. This project required coordination with several different municipalities and agencies including the SFWMD. NCNIP Bid Package 11 included over 29,350 linear feet of new drainage, 64,000 linear feet of water main, 553 Water Services, 49,700 linear feet of reclaimed water main, 796 reclaimed water services, 43,805 linear feet of gravity sewer main, 750 sewer laterals, lift station, and 1,630 linear feet of force main. Main line pipe sizes ranged from 4" to 48" in diameter. The project also included over 9.6 miles of new roadway construction, sidewalks, driveway aprons, and sodded swales. Craven Thompson & Associates, Inc. provided Surveying, civil engineering, landscape architecture and CEI services on the project.

### Client Contact:

Mr. Mike Hagerty, P.E., LEED AP  
Engineering Unit Supervisor  
Broward County Water  
& Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-3217  
Email: [mhagerty@broward.org](mailto:mhagerty@broward.org)

**Project Role:** Prime Consultant

### Start / Completion Dates:

Design: November 2009 - February 2011  
Construction: October 2011 - 2016

### Craven Thompson's Fees:

\$5,213,155.00

### Construction Cost:

Initial Cost: \$17,613,540.00  
Final Cost: \$17,807,186.00  
(8 Change Orders)

## River Oaks Neighborhood Drainage Improvements Fort Lauderdale, Florida



### Description of Work:

Craven Thompson & Associates is a sub-consultant to Hazen Sawyer for design, permitting, and CEI services for the River Oaks Neighborhood Drainage Improvements in the City of Fort Lauderdale. The River Oaks neighborhood is located east of I-95 and South Fork New River and is bounded by State Road 84 to the south, Davie Road to the north, and SW 9<sup>th</sup> Ave. to the east. The neighborhood occupies a total area of approximately 518-acres. A major objective is to collect the runoff from the low areas. Selective pipe upsizing, pipe interconnections, the installation of permeable pavement and exfiltration trench will be used to reduce road flooding in the residential areas. Proposed improvements are intended to reduce flood stage and time of inundation above road crowns for a 10 year-24-hour design storm event and to protect against structural flooding in a 100 year-72-hour storm event. Craven Thompson is developing construction documents (design, permitting, & CEI services) for the neighborhood. Our design includes new piping & structures (conveyance system), exfiltration trench, sea level rise - backflow prevention and seawall height.

In addition, we are designing nutrient separating baffle boxes (NSBB), and STORMCEPTOR water quality structures. Improvements include: 12,677 linear feet of swale re-grading, 5,346 linear feet of storm pipe removal, removal of 251 storm drainage structures, the installation of 90 linear feet of 15" diameter storm sewer, 4,374 linear feet of 18" diameter storm sewer, 4,675 linear feet of 24" diameter storm sewer, 1,771 linear feet of 36" diameter storm sewer, 145 linear feet of 48" diameter storm sewer, 3,129 linear feet of 66" diameter storm sewer, 1,056 linear feet of 72" diameter storm sewer, 2,640 linear feet of 24" diameter exfiltration trench, the installation of 236 new drainage structures, 2 - STORMCEPTER water quality structures, one TIDEFLEX backflow prevention valve, and 4,219 linear feet of sidewalk. The project also includes one small duplex stormwater pump station, and one large stormwater pump station.

#### Client Contact:

Mr. Rares Petrica, MBA, P.E.  
Senior Project Manager  
Public Works Department  
City of Fort Lauderdale  
101 N. 3<sup>rd</sup> Avenue, Suite 1410  
Fort Lauderdale, Florida 33301  
Phone: (954) 828-6720  
Email: [RPetrica@fortlauderdale.gov](mailto:RPetrica@fortlauderdale.gov)

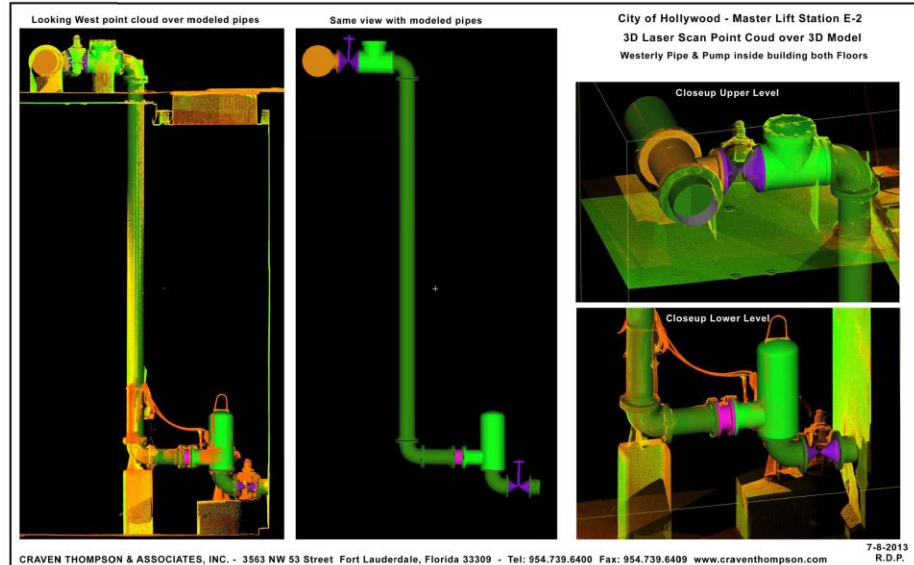
**Project Role:** Sub-Consultant

**Start / Completion Date:**  
2016 - 2023

**Construction Cost:**  
\$25 Million



## Lift Station E-2 Rehabilitation Hollywood, Florida



### Description of Work:

The existing lift station was equipped with three - 22 horsepower pumps, which were upgraded to 45 horsepower pumps. The final design upgraded the pumps to three - 45 horsepower pumps to meet the build-out increased sanitary flow and the current DEP standards. The 18.7' x 16.1' wet well was rehabilitated, all of the 8-inch piping and valves in the lift station were upgraded to 12-inch diameter, new controls were added, and structural elements were upgraded. The capacity upgrades increased the lift station capability from approximately 1,700 gallons per minute to 3,500 gallons per minute. The additional upgrades provided odor control through additional high stack vent and new wet well hatch with odor reduction gaskets.

The surveying of the existing above and below ground elements of the station was performed using a Leica C-10 3D Laser Scanner.

Services include surveying, design, permitting and CEI services.

**Client Contact:**  
Mr. Jeff Jiang, P.E.  
Senior Project Manager - ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

**Project Role:**  
Prime Consultant

**Construction Completion Date:**  
2015

**Construction Cost:**  
\$966,000.00

## Master Pump Station 224 Improvements Lighthouse Point, Florida



### Description of Work:

Craven Thompson & Associates, Inc. provided professional consulting services to County including surveying, design, regulatory permitting assistance, cost estimating, bidding and award for the rehabilitation of the existing Master Pump Station 224 including wet well rehabilitation, by-pass system, replacement of piping, pumps, panels, electrical services, valves, water proof vaults, hatches, an odor control system, and SCADA instrumentation. Master Pump Station 224 is a triplex submersible station.

Craven Thompson designed, permitted, and provided construction engineering and inspection services for the construction of the submersible triplex station including new 103 HP Ebara submersible pumps, 12" diameter internal piping, a 15' x 24' wet well, valve box, and a new control panel. The station was designed to pump 2,180 gallons per minute at 110 feet of head.

#### Client Contact:

Mr. Mike Hagerty, P.E., LEED AP  
Engineering Unit Supervisor  
Broward County Water  
& Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-3217  
Email: [mhagerty@broward.org](mailto:mhagerty@broward.org)

#### Project Role:

Prime Consultant

#### Start / Completion Dates:

2019 - 2020

#### Craven Thompson's Fees:

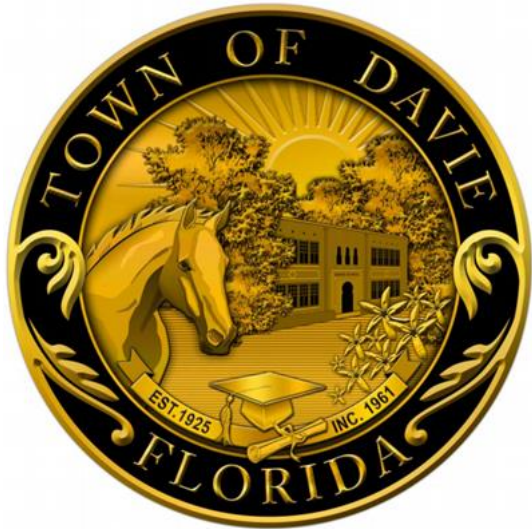
\$281,674.00

#### Construction Cost:

\$1,567,660.00



Westside Drainage Project  
Davie, Florida



### Description of Work:

Craven Thompson completed the Westside Infrastructure Improvements within the CRA, west of Davie Road and north of Orange Drive. The site is approximately thirty-four (33.79) acres and is bounded by SW 41<sup>st</sup> Court on the south, SW 67<sup>th</sup> Avenue on the west, SW 39<sup>th</sup> Street on the north, and Davie Road on the east. The Drainage Study (performed using **Interconnected Channel and Pond Routing (ICPR) software**) incorporated a 5-acre parcel of Town owned land adjacent to the Central Broward Water Control District Canal west of Town Hall as a passive park/retention area to attenuate the storm water. The Public Works site, West Side, Covenant House Park Site, North Side with Dry Retention, and the SW 67<sup>th</sup> Avenue Extension were interconnected with a storm drainage trunk line, and discharge to the CBWCD N-7 Canal via one (1) new control structure. The project required an ICPR stormwater modeling analysis. The new control structure was placed in the dry retention area near the northern end of the Covenant House Park Site and has a 5.40-inch-wide weir slot at invert elevation 3.55' NAVD to limit the discharge to the canal and provides the required water quality for the Public Works Site, Covenant House Park Site, and the West Side.

The North Side has its own dry retention area for water quality and control structure with a weir elevation of 3.10' NAVD, prior to discharging to the main trunk line. The storm sewer was 3,225 linear feet, the exfiltration trench was 1,270 linear feet, the roadway, 6,100 LF and the sidewalk 2,300 linear feet.

Craven Thompson provided surveying services, stormwater modeling & analysis (using ICPR software), design and permitting of stormwater/drainage and roadway restoration improvements, bid phase assistance, and construction administration and inspection services.

**Client Contact:**  
Mr. Jon Vogt, Town Engineer  
Town of Davie  
6591 Orange Drive  
Davie, Florida 33314  
Phone: (954) 797-1137  
Email: [jonathan\\_vogt@davie-fl.gov](mailto:jonathan_vogt@davie-fl.gov)

**Project Role:** Prime Consultant

**Project Completion Date:** 2018

**Craven Thompson's Fees:** \$639,020.00

**Construction Cost:**  
Estimated: \$4,193,225.00  
Final: \$3,455,350.00

## John U. Lloyd Water Main Replacement Project Hollywood, Florida



### Description of Work:

The City of Hollywood required replacement of an existing 12" diameter water main along S.R. A1A from Dania Beach Boulevard to the northern limits of John U. Lloyd State Park. The replacement consisted of 8,800 linear feet of 12" diameter PVC water main, 880 linear feet of 8" water main, 3,000 linear feet of 12" diameter directional drill water main, consisting of two 12" diameter HDPE directional drills that cross beneath two canals directly connected to the Intracoastal Waterway. The pipe is located 15' - 20' below the bottom of the canals.

Craven Thompson & Associates, Inc. provided the civil engineering design, permitting and construction engineering and inspection services for the project.

### Client Contact:

Mr. Jeff Jiang, P.E.  
Assistant Director ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

### Project Role:

Prime Consultant

### Start / Completion Date:

Design: May 2013 - August 2014  
Construction: November 2014 - 2016

### Craven Thompson's Fees:

\$149,700.00

### Construction Cost:

Estimated: \$2,352,035.00  
Actual: \$1,799,195.00

## Miramar Reclaimed Water System Expansion, Phases 1A & 1B Miramar, Florida



### Description of Work:

As a sub-consultant to Hazen and Sawyer for the wastewater reclamation facility reuse water system expansion phases 1A, & 1B, Craven Thompson designed the Reuse Water Main in the Pembroke Road and Miramar Parkway rights-of-way including open cut design and a horizontal directional drilling design. We also had meetings and coordinated with the City, Broward County and FDOT. Phase 1A included primarily 5,948 linear feet of 16" diameter reuse main. Phase 1B primarily consists of 2,835 linear feet of horizontally directionally drilled 30" diameter HDPE/CPA provided surveying, civil engineering, ICPR stormwater modeling, water and sanitary modeling, construction documents, permitting, bid assistance, landscape architecture and construction engineering services on the project.

#### Client Contact:

Mr. Phil Cooke, P.E.  
Hazen and Sawyer, PC  
4000 Hollywood Blvd. Suite 750N  
Hollywood, Florida 333021  
Phone: (954) 987-0066  
Email: [pcooke@hazenandsawyer.com](mailto:pcooke@hazenandsawyer.com)

**Project Role:** Sub-Consultant

#### Start / Completion Dates:

Design: June 2017 to Sept. 2018  
Construction: November 2018 to 2020

#### Craven Thompson's Fees:

\$229,470.00

#### Construction Cost:

\$3,456,406.00



## Lift Station 50 B1 Rehabilitation Lauderdale Lakes, Florida



### Description of Work:

Utility Analysis Zone (UAZ) 122 is a one hundred and sixty (160) acre area bounded by the SFWMD C-13 Canal to the north, NW 47<sup>th</sup> Avenue to the east, West Oakland Park Boulevard to the south and the Florida Turnpike to the west in the City of Lauderdale Lakes, Florida.

The infrastructure improvements to the existing neighborhood included new water and sanitary sewer systems. Also included in improvements was the rehabilitation of lift station 50 B1 (at the southeast corner of NW 49<sup>th</sup> Avenue and NW 35<sup>th</sup> Street) owned by Broward County and operated and maintained by Broward County WWS. The new 50B1 station replaced the old 50 B1 and 50 B3 stations. Craven Thompson designed, permitted, and provided construction engineering and inspection services for the construction of the submersible duplex station including new 30 HP 150DLBKFMU6224 submersible pumps, 10" diameter piping, a 12' diameter wet well, valve box, a new control panel, and a new emergency generator. The station was designed to pump 1,100 gallons per minute at 68 feet of head.

### Client Contact:

Mr. Mike Hagerty, P.E., LEED AP  
Engineering Unit Supervisor  
Broward County Water  
& Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-3217  
Email: [mhagerty@broward.org](mailto:mhagerty@broward.org)

### Project Role:

Prime Consultant

### Project Duration Design - Const:

August 2017 - February 2020

### Construction Cost:

Lift Station Cost: \$775,000.00  
Emergency Generator Cost:  
\$125,000.00

## Chatham Hills Infrastructure Upgrade Boca Raton, Florida



### Description of Work:

Infrastructure improvements for the Chatham Hills neighborhood. Chatham Hills is bounded by NE 32<sup>nd</sup> Street on the north, Federal Highway on the east, NE 28<sup>th</sup> Street on the south and Dixie Highway on the west. The improvements include: Relocation and upsizing of existing domestic water mains from the rear yards to the rights-of-way. This includes abandonment of the existing water main system, relocation and reconnection of the water service from the new water main to the structure as well as restoration of private and public property. The new water main along Federal Highway interconnects to the existing infrastructure to the east. The water distribution system improvements include 10,971 linear feet of 6" main, 7,387 linear feet of 8" main, 1,607 linear feet of 12" main, 2,596 linear feet of 16" main, 28 fire hydrants, the abandonment and grouting of 15,700 linear feet of existing watermain, and the construction of 280 water services.

In addition, 19,900 linear feet of mill & overlay along with right-of-way restoration. Work also includes sidewalk removal and replacement due to trip hazards, infill of missing segments of sidewalks to complete network, installation/replacement of ADA ramps (where ramps and sidewalks exist), and minor swale improvements. Specific tasks include survey, design, permitting, construction documents and bidding assistance services.

### Client Contact:

Mr. Edward Galvan  
Project Engineer  
City of Boca Raton, Utility Services  
1401 Glades Road  
Boca Raton, Florida 33431  
Phone: (561) 447-7405  
Email: [egalvan@myboca.us](mailto:egalvan@myboca.us)

**Project Role:** Prime Consultant

### Start / Completion Date:

Design: August 2018 - August 2019  
Construction: 2021

**Craven Thompson's Fees:** \$687,683.00

### Construction Cost:

Estimated: \$6,449,170.00  
Actual: \$5,113,777.00



# TAB C: FIRM QUALIFICATIONS AND EXPERIENCE



Pump Station A-13 & Sewer Redirection, East of Federal Highway  
Fort Lauderdale, Florida



## Description of Work:

This project is for the construction of Lift Station A-13, located at the southeast corner of Southeast 2<sup>nd</sup> Court and Southeast 8<sup>th</sup> Avenue. The project scope includes the construction of 1,543 linear feet of 18-inch diameter gravity sanitary sewer system and the connection to an existing active sanitary sewer manhole located at the intersection of Federal Highway and Broward Boulevard to the new lift station. The project also includes the construction of a submersible triplex sewage pump station (2,087 GPM @ 79' TDH) and valve vault with electric control panels and appurtenances. The Pump Station includes a "Living Wall," located on the north, west, and east sides of the pump station site; this requires the removal of two trees, shrubs, and the restoration of the existing irrigation system. The project also includes construction of a 14-inch diameter force main, within the right-of-way of Southeast 2<sup>nd</sup> Court from the proposed Pump Station to an existing 48-inch diameter force main at the intersection of Southeast 2<sup>nd</sup> Court and Southeast 9<sup>th</sup> Avenue.

Services included survey, utility locates, geotechnical, electrical engineering for pump station, sanitary sewer design, permitting, bid documents and construction services.

**Client Contact:**  
Mr. Jorge Holguin  
Senior Project Manager  
City of Fort Lauderdale  
Public Works Department  
200 N. Andrews Avenue  
Fort Lauderdale, Florida 33301  
Phone: (954) 828-5675  
Email: [jholguin@fortlauderdale.gov](mailto:jholguin@fortlauderdale.gov)

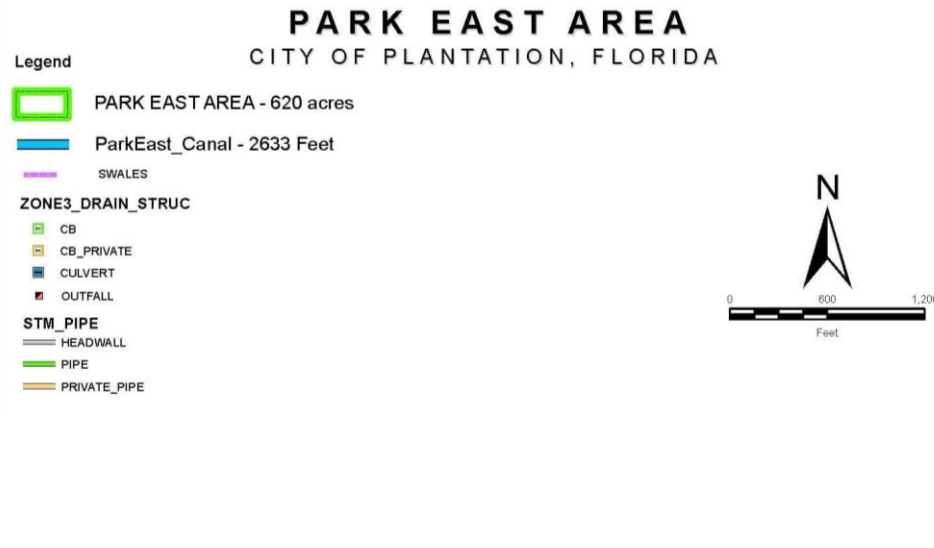
**Project Role:**  
Prime Consultant

**Project Duration:**  
2015 - 2019

**Craven Thompson's Fees:**  
\$186,460.00

**Construction Cost:**  
\$3,657,600.00

## Park East Neighborhood Drainage Improvement Project Plantation, Florida



### Description of Work:

Craven Thompson provided surveying, analysis, assessment for repair/replacement of existing storm water management systems, preparation of construction documents and permitting, bidding assistance, and construction services for the Park East Neighborhood. The neighborhood is 620 acres in size and is bounded by the W. Sunrise Blvd. to the north, the Florida Turnpike to the west, State Road 7 to the east, and W. Broward Blvd. to the south. Improvements include: 1,500 linear feet of swale re-grading, 14,340 linear feet of storm sewer removal, removal of 158 storm drainage structures, the installation of 4,000 linear feet of 15" diameter storm sewer, 1,600 linear feet of 18" diameter storm sewer, 3,400 linear feet of 24" diameter storm sewer, 1,600 linear feet of 30" diameter storm sewer, 1,100 linear feet of 36" diameter storm sewer, 900 linear feet of 42" diameter storm sewer, 750 linear feet of 48" diameter storm sewer, 370 linear feet of 54" diameter storm sewer the removal and replacement of 6 outfalls, and the installation of 155 - 30" diameter ADS drainage structures.

The project also included C.I.P.P. lining of: 400 linear feet of 12" diameter storm sewer, 1,040 linear feet of 18" diameter storm sewer, 135 linear feet of 21" diameter storm sewer, 136 linear feet of 24" diameter storm sewer, 400 linear feet of 30" diameter storm sewer, 147 linear feet of 36" diameter storm sewer, 138 linear feet of 42" diameter storm sewer, 72 linear feet of 48" diameter storm sewer, 986 linear feet of various diameters of elliptical storm sewer and the conversion of 2,633 linear feet of existing canal into a piped system. Restoration of the disturbed right-of-way areas was also included.

#### Client Contact:

Mr. Joseph DeGirolmo, Engineer 1  
City of Plantation  
401 NW 70<sup>th</sup> Terrace  
Plantation, Florida 33317  
Phone: (954) 797-2277  
Email: [jdegirolmo@plantation.org](mailto:jdegirolmo@plantation.org)

**Project Role:**  
Prime Consultant

**Project Duration:**  
2017 - 2022

**Craven Thompson's Fees:**  
\$368,500.00



## Lift Station A-6 Upgrade Hollywood, Florida



### Description of Work:

This project involved the reconstruction of duplex submersible Lift Station A6 which included the replacement of the existing suction lift pump station (VFD submersible duplex, 360 GPM @ 65' TDH) with a new 8' diameter wet well, 2 - 23 HP submersible pumps, converting the existing wet well into a manhole, valve vault, panels, SCADA system as well as hardscape and landscaping. The new lift station was designed to accept City standard transfer switch for a generator. The work included coordination with the contractor and developer for the residential development to west. The coordination included accounting for the additional flows and allowing for a temporary connection to the existing wet well. The pumps were designed as variable frequency drives in order to meet the flow-pressure requirements provided by the City.

Services included surveying, design, permitting and CEI services.

**Client Contact:**  
Mr. Jeff Jiang, P.E.  
Senior Project Manager - ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

**Project Role:**  
Prime Consultant

**Project Duration:**  
December 2015 - June 2017

**Construction Cost:**  
\$643,975.00

## Livable Neighborhood Improvement Project, Vista Verde, Phases 1D, 2 and 3 Miami Gardens, Florida



### Description of Work:

The Vista Verde Phase 1D, 2, 3 Improvements project is located within the City of Miami Gardens bordered by NW 213<sup>th</sup> Street to the north, NW 207<sup>th</sup> Lane to the south, NW 37<sup>th</sup> Avenue (Douglas Road) to the east, and a vacant lot of land to the west. This is a drainage improvements project for the City of Miami Gardens. Improvements include, but are not limited to the following: 7,280 linear feet of storm sewer, 5,640 linear feet of exfiltration trench, 140 drainage structures, 30,050 SY of roadway milling & resurfacing, and 29,900 SY of roadway reconstruction. The project involved the design, permitting of Improvements for multiple phases within the Vista Verde neighborhood in the City of Miami Gardens. Craven Thompson processed permit applications with Miami Dade Department of Environmental Resources Management. Prepared bid documents.

Craven Thompson & Associates, provided all of the survey services, all civil engineering, and provided limited construction services for the project.

#### Client Contact:

Mr. Tom Ruiz, Director of Public Works  
City of Miami Gardens  
1050 NW163rd Drive  
Miami Gardens, Florida 33169  
Phone: (786) 279-1260  
Email: [truiz@miamigardens-fl.gov](mailto:truiz@miamigardens-fl.gov)

#### Project Role:

Prime Consultant

#### Start / Completion Dates:

Design: 2018 - 2019  
Construction: 2019 - 2020

#### Construction Cost:

Engineer's Cost Estimate:  
\$4,611,006.00  
Actual: \$3,913,210.00

## UAZ (Utility Analysis Zone) 123 Improvement Program Lauderdale Lakes, Florida



### Description of Work:

Utility Analysis Zone (UAZ) 123, two hundred forty (240) acre area, is bounded by the SFWMD C-13 Canal to the north, State Road 7 to the east, West Oakland Park Boulevard to the south and NW 47<sup>st</sup> Ave. to the west in the City of Lauderdale Lakes, Florida. The project included the construction of a sanitary sewer collection system consisting of:

- 28,750 linear feet of 8" gravity main
- 1,735 linear feet of 10" gravity main
- 45 linear feet of 18" main
- 180 linear feet of 6" force main
- 1,920 linear feet of 8" force main
- 585 linear feet of 12" force main
- 1,680 linear feet 16" force main
- 1,230 linear feet 18" force main
- 800 linear feet 20" force main
- 260 service laterals

The water distribution system improvements included:

- 17,330 linear feet of 6" main
- 9,555 linear feet of 8" main
- 1,830 linear feet of 10" main
- 1,740 linear feet of 12" main
- 4,930 linear feet of 16" main
- 1,380 linear feet of 20" main
- abandonment & grouting of 26,695 LF of existing watermain
- construction of 441 water services

In addition, the project involved 36,800 linear feet of roadway reconstruction along with right-of-way restoration.

### Client Contact:

Mr. Mike Hagerty, P.E., LEED AP  
Engineering Unit Supervisor  
Broward County Water  
& Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-3217  
Email: [mhagerty@broward.org](mailto:mhagerty@broward.org)

Project Role: Prime Consultant

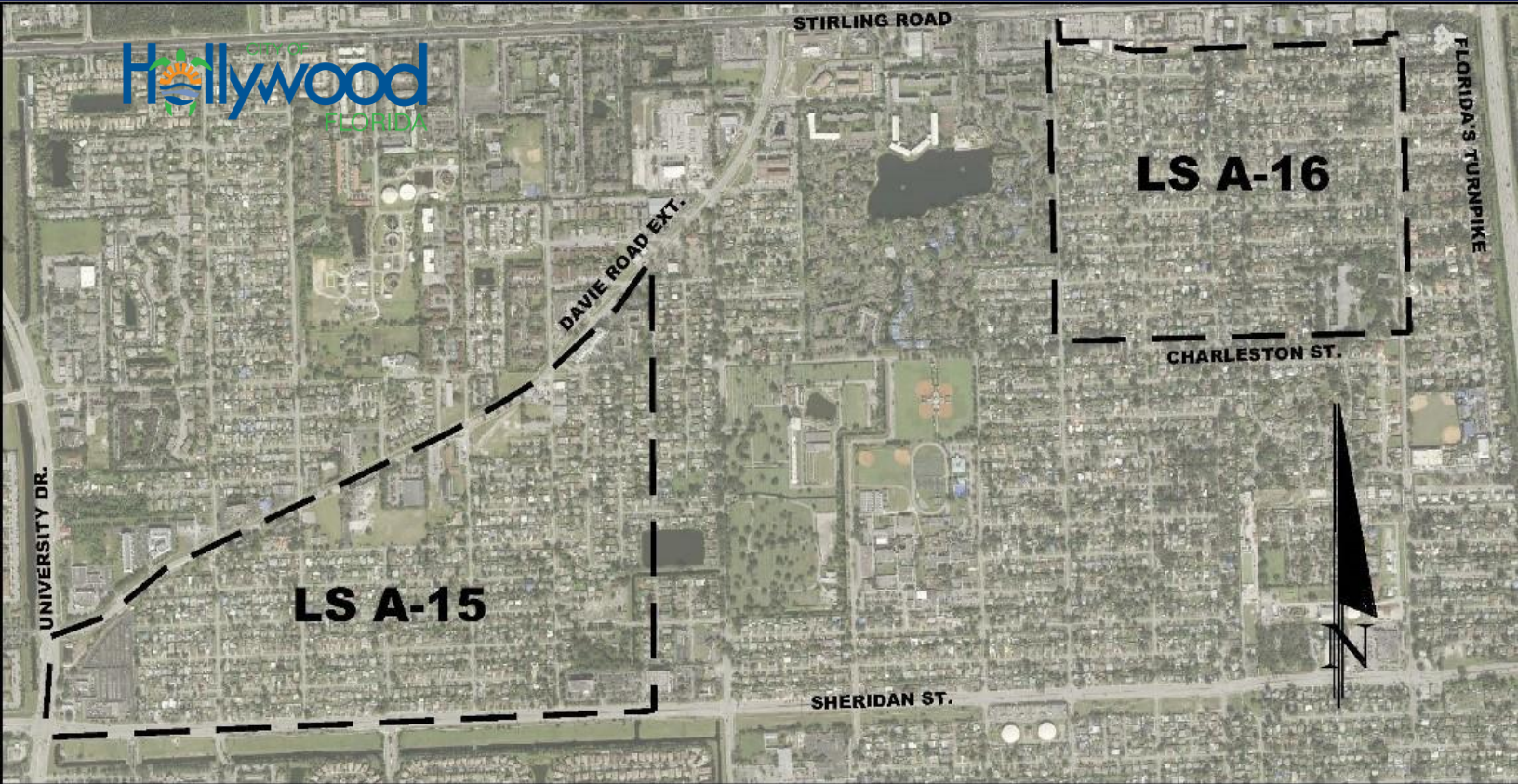
Start / Completion Dates: 2016 - 2021

Construction Cost: \$12,497,223.00

Craven Thompson modeled the systems using SewerCAD and WaterCAD as well as created the construction documents, permitted the project, assisted with bidding and provided CEI services for the infrastructure rehabilitation project.



## Watermain Replacement Program, City of Hollywood Project No. 15-5129 Hollywood, Florida



### Description of Work:

The project involves the replacement of approximately 87,400 linear feet of existing water service mains, 2" and 4", with new 4" - 6" water service main and water services and replacement of existing 6" - 12" distribution water mains with new 6" - 12" water distribution water mains including replacement and addition of fire hydrants. The new water main replaces the existing 2" water main in the rear yards and relocates the water mains to streets/avenues including relocation of services from the rear yard to the front yards. The project also includes pavement restoration for the roadways and relocating the service. The majority of the existing water mains are being abandoned in place and only removed if absolutely necessary. All pipe 6" diameter and larger are being abandoned and grout filled and all pipes 2" and 4" are being capped and abandoned.

### Client Contact:

Mr. Jeff Jiang, P.E.  
Assistant Director ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

**Project Role:** Prime Consultant

### Start / Completion Dates:

Design: September 2016 - 2020  
Construction: On Hold

**Craven Thompson's Fees:** \$997,125.00

**Construction Cost:** \$17,100,000.00



## Lake Worth Beach 2" Watermain Replacement, Phases 5 & 6 Lake Worth Beach, Florida



### Description of Work:

Lake Worth Beach is situated in far eastern Palm Beach County with an aging and undersized infrastructure. The City developed a program for the replacement of all 2" diameter water mains throughout the City. This is to be accomplished in six (6) yearly phases. The City sought and secured a FDEP Drinking Water State Revolving Fund loan for the project.

Phases 5 & 6 consist of: 2,620 linear feet of 4" diameter main, 10,842 linear feet of 6" diameter main, 133 water services, 19 fire hydrants, 31 gate valves, and the restoration of the right-of-way including roadway, curb & gutter and sidewalk.

Craven Thompson was retained by the City to provide survey, design, permitting, DWSRF loan assistance and construction services for Phases 2 – 6 of the project.

### Client Contact:

Mr. Giles Rhoads, P.E.  
Assistant Water Utilities Director  
City of Lake Worth Beach  
301 College Street  
Lake Worth, Florida 33460  
Phone: (561) 586-1640  
Email: [grhoads@lakeworthbeachfl.gov](mailto:grhoads@lakeworthbeachfl.gov)

**Project Role:** Prime Consultant

**Start / Completion Date:**  
Survey, Design, Permitting & DWSRF  
Loan Assistance: 2019 - 2020  
Construction: 2021

**Craven Thompson's Fees:**  
\$372,821.00  
(Not including Construction Services)

**Construction Cost:**  
Estimated: \$4,040,078.00

## Durrs Neighborhood Drainage Improvements Fort Lauderdale, Florida



### Description of Work:

Craven Thompson & Associates is a sub-consultant to Hazen Sawyer for design, permitting, and CEI services for the Durrs Neighborhood Drainage Improvements in the City of Fort Lauderdale. The Durrs Neighborhood is located on the western side of central Fort Lauderdale, bounded by Interstate 95 (I-95) on the west, Sunrise Boulevard (State Road 845) on the north, NW 12th Avenue on the east, and Sistrunk Boulevard/NW 6th Street on the south. The neighborhood is comprised of approximately 237-acres. A major objective is to collect the runoff from the low areas. Selective pipe upsizing, pipe interconnections, the installation of permeable pavement and exfiltration trench will be used to reduce road flooding in the residential areas. Proposed improvements are intended to reduce flood stage and time of inundation above road crowns for a 10 year-24-hour design storm event and to protect against structural flooding in a 100 year-72-hour storm event. Craven Thompson developed construction documents (design, permitting, & CEI services) for the neighborhood. Our design included new piping & structures (conveyance system), exfiltration trench, sea level rise – backflow prevention and seawall height. In addition, we designed nutrient separating baffle boxes (NSBB), and STORMCEPTOR water quality structures.

Improvements included: 22,506 linear feet of swale re-grading, 29,650 linear feet of storm pipe removal, removal of 260 storm drainage structures, the installation of 13,104 linear feet of 15” diameter storm sewer, 8,358 linear feet of 18” diameter storm sewer, 5,790 linear feet of 24” diameter storm sewer, 1,014 linear feet of 30” diameter storm sewer, 1,794 linear feet of 36” diameter storm sewer, 200 linear feet of 48” diameter storm sewer, 3,500 linear feet of 24” diameter exfiltration trench, the installation of 293 new drainage structures, 3,520 square yards of permeable pavement, 2 - nutrient separating baffle boxes (NSBB), and 31,440 linear feet of sidewalk. Restoration of the disturbed right-of-way areas was also included.

#### Client Contact:

Mr. Rares Petrica, MBA, P.E.  
Senior Project Manager  
Public Works Department  
City of Fort Lauderdale  
101 N. 3<sup>rd</sup> Avenue, Suite 1410  
Fort Lauderdale, Florida 33301  
Phone: (954) 828-6720  
Email: [RPetrica@fortlauderdale.gov](mailto:RPetrica@fortlauderdale.gov)

#### Project Role: Sub-Consultant

Project Duration:  
October 2016 – March 2023

Construction Cost:  
\$18,305,000.00 (Estimated)

# TAB C: FIRM QUALIFICATIONS AND EXPERIENCE



## Septic Tank Elimination (STEP) District 2, Area 2-G Pompano Beach, Florida

### FORCE MAIN AND LIFT STATION PLAN

### SEPTIC TANK ELIMINATION PROGRAM DISTRICT 2 AREA 2G

BCWWS/WWED PROJECT NO. 9326-104246

### CITY OF POMPAÑO BEACH

### BROWARD COUNTY, FLORIDA

**CONTACTS:**

**CRAVEN THOMPSON & ASSOCIATES, INC.**  
1500 N.W. 30th Street, Fort Lauderdale, Florida 33309  
P.O. Box 10000, Fort Lauderdale, Florida 33310  
Tel: (954) 339-4000 Fax: (954) 339-4000

**CRAVEN THOMPSON & ASSOCIATES, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
1500 N.W. 30th Street, Fort Lauderdale, Florida 33309  
P.O. Box 10000, Fort Lauderdale, Florida 33310  
Tel: (954) 339-4000 Fax: (954) 339-4000

**LEGAL DESCRIPTION:**

ALL OF THE 80 FOOT FRONT OF WEST FOR N.W. 16th LANE AS SHOWN ON COPLANAR ROAD INDUSTRIAL ZONING ACCORDING TO THE PLAT THEREON AS RECORDED IN PLAT BOOK 10, PAGE 807 THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA, TOGETHER WITH:

ALL OF THE 80 FOOT FRONT OF WEST FOR N.W. 17th LANE AND ALL OF THE 80 FOOT FRONT OF WEST FOR N.W. 18th LANE AS SHOWN ON "ASSOCIATED PLAT NO. 2" AS RECORDED IN PLAT BOOK 10, PAGE 807 THE PUBLIC RECORDS OF BROWARD COUNTY, FLORIDA.

**SHEET INDEX**

SHEET NO.	DESCRIPTION	REV.
01-1	COVER SHEET	
02-1	GENERAL NOTES & SPECIFICATIONS	
03-1	COLLECTION INFRASTRUCTURE PLAN	
04-1	FORCE MAIN PLAN	
05-1	FORCE MAIN DETAILS	
06-1	LIFT STATION SITE PLAN	
07-1	LIFT STATION INFRASTRUCTURE	
08-1	LIFT STATION DETAILS	
09-1	LIFT STATION NOTES	
10-1	ELECTRICAL GENERAL NOTES	
11-1	ELECTRICAL LIFT STATION	
12-1	ELECTRICAL ONE LINE DIAGRAM	
13-1	ELECTRICAL SCHEMATIC DIAGRAM	
14-1	ELECTRICAL DETAILS	
15-1	ELECTRICAL PANEL	

SECTION 22, TOWNSHIP 48 SOUTH, RANGE 42 EAST  
100% DESIGN SUBMITTAL

PREPARED FOR:  
**BROWARD COUNTY WATER AND WASTEWATER SERVICES**

**CONTRACTORS:**

**STURMUDRUM**  
1500 N.W. 30th Street, Fort Lauderdale, Florida 33309  
Tel: (954) 339-4000 Fax: (954) 339-4000

**PERMIT INDEX**

PERMIT	SUBMITTAL DATE	RESUBMITTAL DATE	APPROVAL DATE
CRAVEN THOMPSON & ASSOCIATES, INC.	04/11/2018		

**APPROVED:**

April 11, 2018  
14-0011-001-31



### Description of Work:

Craven Thompson and Associates, Inc. provided professional consulting services to the County including survey, design regulatory permitting services, and CEI for the STEP Area 2-G Project.

Craven Thompson designed three thousand (3,000') feet of eight (8") gravity sewer main, eleven (11) maintenance access structures, one (1) retail lift station and seventeen hundred and fifty (1,750') feet of six (6") force main in NW 16<sup>th</sup> Lane, NW 17<sup>th</sup> Lane, Park Central Boulevard South and Copans Road in Pompano Beach. Roadway restoration was included in the construction. The project also included test holes, and a geotechnical investigation.

**Client Contact:**  
Ms. Alicia Dunne, P.E.  
Project Manager/GIS Analyst  
Broward County Water & Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-0793  
Email: [adunne@broward.org](mailto:adunne@broward.org)

**Project Role:** Prime Consultant

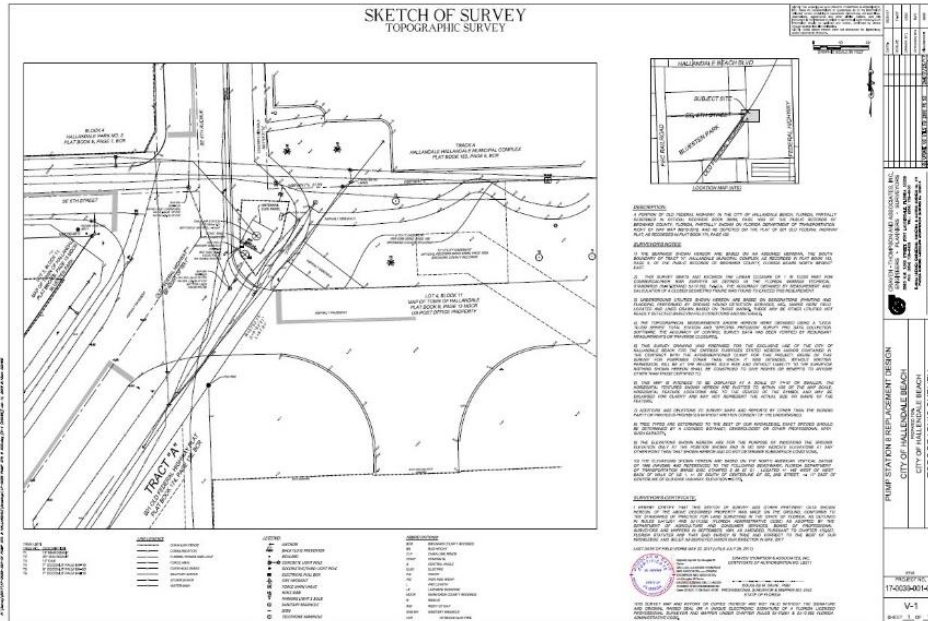
**Contract Term:** 2017 - 2019

**Craven Thompson's Fees:**  
\$108,824.00

**Construction Cost:**  
\$649,104.00



## Wastewater Pump Station 8 Replacement Hallandale Beach, Florida



### Description of Work:

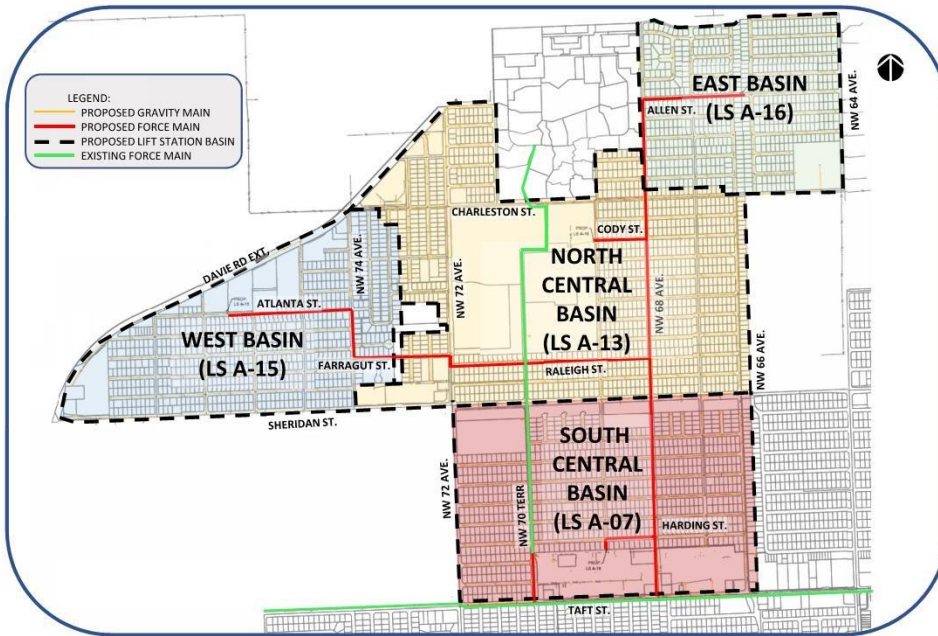
Craven Thompson & Associates provided surveying, design and permitting for Wastewater Pumping Station No. 8. The station is located at the northeast corner of SE 5<sup>th</sup> Street and Old Federal Highway. The project includes the demolition of and temporary bypass pumping for existing Wastewater Pump Station No. 8. The new submersible triplex lift station has three (3) 60HP Myers 6VC600M4-43 pumps in a ten (10) foot diameter wet well. The station pumps 1140 GPM @ 117' TDH.

**Client Contact:**  
 Mr. Peter Kunen, P.E.  
 Assistant Director of Public Works /  
 City Engineer  
 City of Hallandale Beach  
 630 NE 2<sup>nd</sup> Street  
 Hallandale Beach, Florida 33009  
 Phone: (954) 457-3042  
 Email: [pkunen@cohb.org](mailto:pkunen@cohb.org)

**Project Role:**  
 Prime Consultant

**Contract Term:**  
 2019 - 2023

## Driftwood Septic to Sanitary Sewer Conversion Project, Phase I Hollywood, Florida



### Description of Work:

This was part of the City-wide conversion of existing private sewer septic tank systems by expanding the city operated and maintained public sanitary sewer collection system. Craven Thompson created a Basis of Design Report and preliminary design layout splitting the service area into two (2) sewer basins. The layout provided expanded sanitary sewer service to approximately 1,828 single family residences, 222 multifamily residences and 981,000 SF of commercial property; for a total Average Daily Flow (ADF) of 733,900 GPD. Craven Thompson performed mobile LiDAR surveying, water meter use analysis, gravity sanitary sewer and force main system modeling and calibration, design, permitting and limited construction inspection of approximately 81,654 linear feet of 8" to 18" gravity sewer main, 16,598 linear feet of 8" to 30" force main, 9,416 linear feet of 16" reclaimed water main design, water main replacement, and 274 structures.

Craven Thompson coordinated with the lot owners on easement requirements and connection details. This project also includes the removal and decommissioning of 11 existing lift stations, providing new service laterals and right-of-way restoration including pavement marking and signage.

#### Client Contact:

Mr. Jeff Jiang, P.E.  
Senior Project Manager - ECSD  
City of Hollywood  
Department of Public Utilities  
Engineering Support Services Division  
1621 North 14<sup>th</sup> Avenue  
Hollywood, Florida 33020  
Phone: (954) 921-3930  
Email: [fjiang@hollywoodfl.org](mailto:fjiang@hollywoodfl.org)

#### Project Role:

Prime Consultant

#### Contract Term:

2018 - On Hold



## Plantation Isles Neighborhood Drainage Improvement Project Plantation, Florida

### PLANTATION ISLES AREA CITY OF PLANTATION, FLORIDA



**Legend**

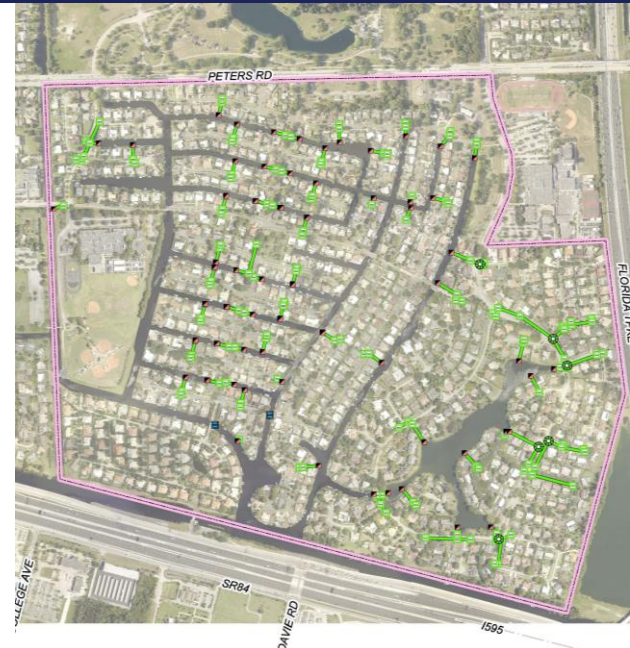
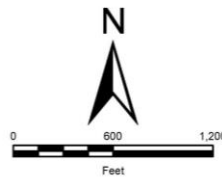
 PLANTATION ISLES AREA - 448 acres

**PLANTATION\_ISLES\_STRUCTURES**

-  CB
-  MH
-  CULVERT
-  OUTFALL

**PLANTATION\_ISLES\_STM\_PIPE**

-  HEADWALL
-  PIPE



### Description of Work:

Craven Thompson provided surveying, analysis, assessment for repair/replacement of existing storm water management systems, preparation of construction documents and permitting, bidding assistance, and construction services for the Plantation Isles Neighborhood. The neighborhood is 448 acres in size and is bounded by Peters Road to the north, the Florida Turnpike to the east, Royal Palm Estates to the west, and I-595 to the south.

Improvements include: 3,150 linear feet of swale re-grading, 5,359 linear feet of storm sewer removal, removal of 161 storm drainage structures, the installation of 2,217 linear feet of 15" diameter storm sewer, 471 linear feet of 18" diameter storm sewer, 429 linear feet of 24" diameter storm sewer, 576 linear feet of 30" diameter storm sewer, 828 linear feet of 36" diameter storm sewer, 321 linear feet of 42" diameter storm sewer, 101 linear feet of 48" diameter storm sewer, 116 linear feet of 72" diameter storm sewer the removal and replacement of 5 outfalls, and the installation of 160 - 30" diameter ADS drainage structures.

The project also included C.I.P.P. lining of: 1,213 linear feet of 12" diameter storm sewer, 3,488 linear feet of 15" diameter storm sewer, 1,839 linear feet of 18" diameter storm sewer, 487 linear feet of 21" diameter storm sewer, 1,540 linear feet of 24" diameter storm sewer, 244 linear feet of 30" diameter storm sewer 482 linear feet of 42" diameter storm sewer, and pipe bursting consisting of: 93 linear feet of 12" diameter pipe with 15" pipe, 56 linear feet of 15" diameter pipe with 18" pipe, and 166 linear feet of 21" diameter pipe with 24" pipe. Restoration of the disturbed right-of-way areas was also included.

**Client Contact:**

Mr. Joseph DeGirolmo, Engineer 1  
City of Plantation  
401 NW 70<sup>th</sup> Terrace  
Plantation, Florida 33317  
Phone: (954) 797-2277

Email: [jdegirolmo@plantation.org](mailto:jdegirolmo@plantation.org)

**Project Role:**

Prime Consultant

**Project Duration:**

2017 - 2022

**Craven Thompson's Fees:**

\$277,880.00



## Oak Hill Drainage Study Davie, Florida



### Description of Work:

The analysis of the Oak Hill drainage study conducted by Craven Thompson on behalf of the Town and the CBWCD concluded there are 3 factors that contribute to street flooding within Oak Hill:

- Prolonged high stages in the CBWCD canals due to a surface water back-up from the C-11 West canal until the SFWMD pumps can effectively lower stages after a storm event.
- Undersized storm sewers in the street network that perform at a reduced level of service with respect to evacuating runoff from the neighborhood and into the canals.
- Undersized catch basins connecting the street drainage that causes runoff to pond before entering the pipes.

All three conditions are evident in the following example: SW 15<sup>th</sup> Court in the northeast quadrant of Oak Hill experienced street flooding resulting from rainfall events during late October 2020. Portions of the street and neighborhood front yards were also flooded during Tropical Storm Eta in November 2020. Runoff from the eastern portion of SW 15<sup>th</sup> Court drains eastward via 15” pipes that discharge into the N-25 Canal via SW 16<sup>th</sup> Street. The 16<sup>th</sup> Street outfall at SW 136<sup>th</sup> Avenue is just north of Davie Wetlands Park. There are ten other outfalls along SW 136<sup>th</sup> Avenue that discharge to the N-25 along the park frontage.

**Client Contact:**  
 Mr. Jace Selby  
 District Manager  
 Central Broward Water Control District  
 8020 Stirling Road  
 Hollywood, Florida 33024  
 Phone: (954) 432-5110  
 Email:  
[districtmanager@centralbrowardwcd.org](mailto:districtmanager@centralbrowardwcd.org)

**Project Role:** Prime Consultant  
**Project Duration:** 2019  
**Craven Thompson’s Fees:** \$72,042.00

## UAZ (Utility Analysis Zone) 108 Improvement Program Lauderdale Lakes, Florida



### Description of Work:

Utility Analysis Zone (UAZ) 108, a two hundred and twenty (220) acre area, in the City of Lauderdale Lakes, Florida. The project included the construction of a sanitary sewer collection system consisting of:

- 26,875 linear feet of 8" gravity main
- 1,395 linear feet of 10" gravity main
- 2,790 linear feet of 12" gravity main
- 1,530 linear feet of 6" force main
- 3,630 linear feet of 8" force main
- 1,350 linear feet of 10" force main
- 1,140 linear feet of 16" force main
- 452 service laterals

The water distribution system improvements included:

- 24,560 linear feet of 6" main
- 8,450 linear feet of 8" main
- 6,300 linear feet of 10" main
- 975 linear feet of 12" main
- 150 linear feet of 16" main
- 1,425 linear feet of 20" main
- abandonment and grouting of 35,575 LF of existing watermain
- construction of 441 water services

In addition, the project involved 36,000 linear feet of roadway reconstruction along with right-of-way restoration. Craven Thompson modeled the systems using SewerCAD and WaterCAD as well as created the construction documents, performed permitting, assisted with bidding and provided CEI services for the infrastructure rehabilitation project.

### Client Contact:

Mr. Mike Hagerty, P.E., LEED AP  
Engineering Unit Supervisor  
Broward County Water  
& Wastewater Services  
2555 West Copans Road  
Pompano Beach, Florida 33069  
Phone: (954) 831-3217  
Email: [mhagerty@broward.org](mailto:mhagerty@broward.org)

### Project Role:

Prime Consultant

### Contract Term:

2016 - 2020

### Estimated Construction Cost:

\$12,895,230.00



## Original Section Drainage Improvements, Master Plan, and Phases 1 thru 6 Greenacres, Florida



### Description of Work:

The Original Section Drainage Improvements project located in the City of Greenacres is a master planned drainage improvement project for an existing 250-acre neighborhood between Jackson Avenue and Fleming Avenue, from Lake Worth Road to 10<sup>th</sup> Avenue North. The Master Plan included the modeling of existing and proposed drainage improvements using ICPR computer software and developing phased improvements for the area. The project required over 4,500 linear feet of drainage pipe, 21,615 linear feet of ditch re-shaping, long lengths of sidewalk replacement, driveway restorations, and pavement restoration. Project challenges included improving a neighborhood without a typical modern drainage system in and working with numerous franchise utility conflicts. The Phase 1 project required installation of 500 linear feet of 36" RCP storm pipe, 1,010 linear feet of 24" RCP Storm Pipe, 156 linear feet of 18" RCP Storm Pipe, 156 linear feet of 12"x18" RCP storm Pipe, significant ditch reshaping, sidewalk replacement, and replacement of outfall to LWDD canal; Phase 2 included 6,200 linear feet of ditch grading and 4 culvert crossings; Phase 3 included 1,000 linear feet of drainage pipe; Phase 4 involved ditch reshaping and 5 culvert crossings; Phase 5 encompassed the replacement of 6 outfalls, and the restoration of 120 linear feet of canal; Phase 6 included the replacement of 9 outfalls, the installation of drainage pipe, and canal restoration.

### Client Contact:

Mr. Carlos I. Cedeno  
Public Works Director  
City of Greenacres  
5750 Melaleuca Lane  
Greenacres, Florida 33463  
Phone: (561) 642-2074  
Email: [ccedeno@greenacrefl.gov](mailto:ccedeno@greenacrefl.gov)

### Project Completion Date:

Master Plan: 2014, Phase 1: 2015,  
Phase 2: 2016, Phase 3: 2017, Phase 4: 2018,  
Phase 5: 2019, Phase 6: 2020

### Estimated Construction Cost:

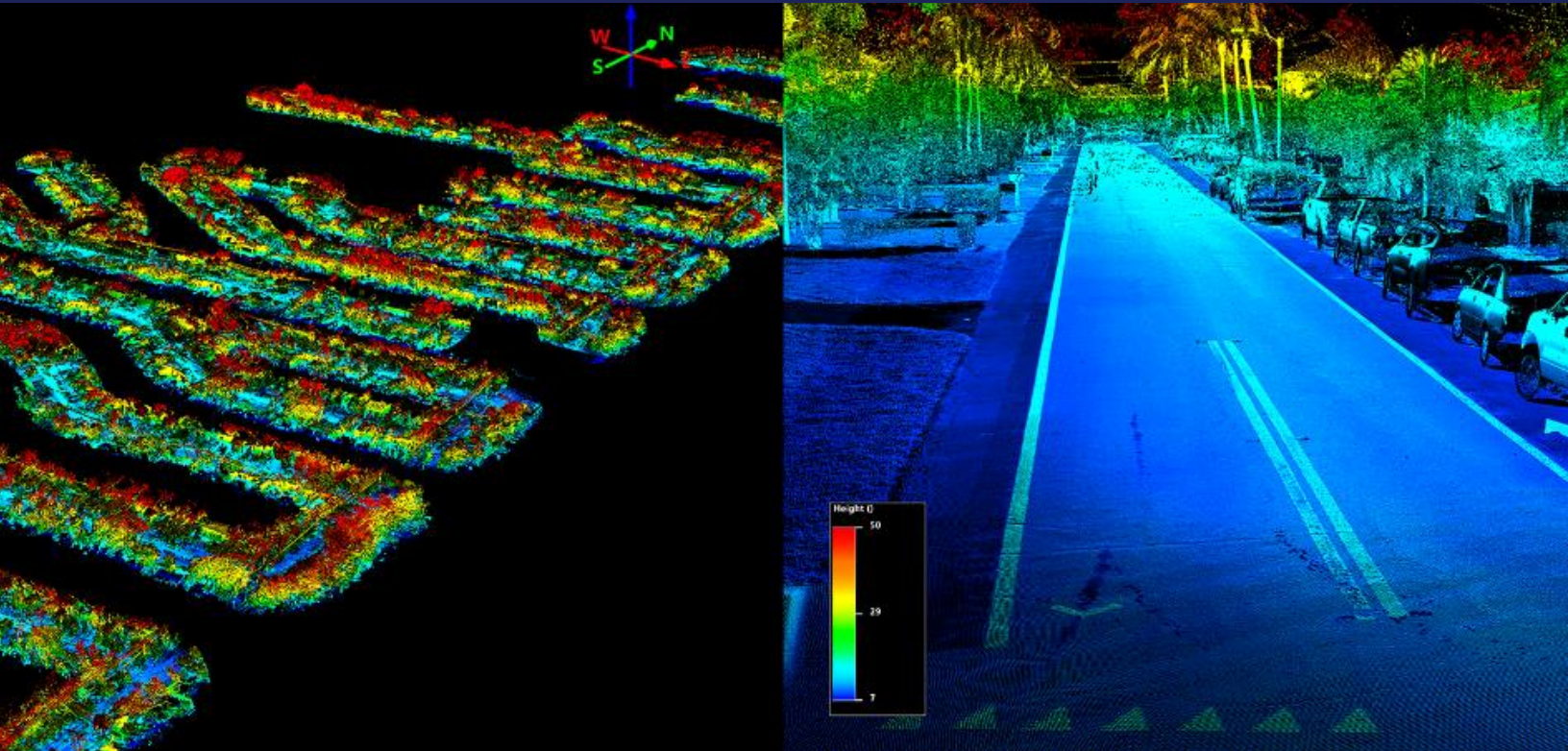
Phase 1: \$515,522.00, Phase 2: \$199,680.00  
Phase 3: \$346,392.00, Phase 4: \$221,371.00  
Phase 5: \$246,852.00, Phase 6: \$311,700.00

### Final Construction Cost:

Phase 1: \$452,970.00, Phase 2: \$212,340.00  
Phase 3: \$327,765.00, Phase 4: \$200,730.00  
Phase 5: \$166,533.00, Phase 6: \$276,760.00



## Boca Villas Infrastructure Upgrade Project Boca Raton, Florida



### Description of Work:

The water distribution system improvements included: 1,100 linear feet – 4” main, 19,605 linear feet – 6” main, 16,459 linear feet – 8” main, 6,453 linear feet – 12” main, and 2,982 linear feet – 16” main. Craven Thompson set the survey control and Lidar targets and provided XYZ coordinates to our subconsultant that drove the 9 miles of roadway with a Leica Pegasus Two Mobile Lidar Mapping System to collect high accuracy LiDAR point clouds for use in as-built mapping. They processed the point clouds holding our Lidar targets to control horizontal and vertical positioning, and then did a least squared analysis of the final point cloud verifying the accuracy to the Survey control. The Subconsultant then provided Craven Thompson with the finalized point clouds in a series of tiles in “.las” lidar format as their deliverable on a portable hard-drive. Upon receipt of the Lidar, Craven Thompson proceeded to import and combine all tiles into Leica Cyclone software and do an independent Quality Control analysis of the Lidar to our Survey control. Once that was completed and verified to meet tolerances on +/- 0.03 feet both horizontal and vertical at each Lidar target, a separate report is prepared and filed with the project. The combined the LiDAR point cloud, is then separated into individual streets and published to a Leica Jetstream project which can then be opened and used within the AutoCAD Civil 3D environment and create the engineering base map of each roadway for design of the reuse watermain.

### Client Contact:

Mr. Edward Galvan, E.I.  
Project Engineer, Utility Services  
City of Boca Raton  
1401 Glades Road  
Boca Raton, Florida 33431  
Phone: (561) 447-7405  
Email: [egalvan@myboca.us](mailto:egalvan@myboca.us)

Project Role: Prime Consultant

Project Duration:  
2019 - 2019

Craven Thompson's Fees:  
Final: \$140,312.90 (Survey only)



## Lake Worth 2" Watermain Replacement, Phase 4 Lake Worth Beach, Florida



### Description of Work:

Lake Worth Beach is situated in far eastern Palm Beach County with an aging and undersized infrastructure. The City developed a program for the replacement of all 2" diameter watermains throughout the City. This is to be accomplished in six (6) yearly phases. The City sought and secured a FDEP Drinking Water State Revolving Fund loan for the project.

Phase 4 consists of: 10,206 linear feet of 4" diameter main, 10,870 linear feet of 6" diameter main, 600 water services, 19 fire hydrants, 62 gate valves, and the restoration of the right-of-way including roadway, curb & gutter and sidewalk.

Craven Thompson was retained by the City to provide survey, design, permitting, DWSRF loan assistance and construction services for Phases 2 - 6 of the project.

### Client Contact:

Mr. Giles Rhoads, P.E.  
Assistant Water Utilities Director  
City of Lake Worth Beach  
301 College Street  
Lake Worth, Florida 33460  
Phone: (561) 586-1640  
Email: [grhoads@lakeworthbeachfl.gov](mailto:grhoads@lakeworthbeachfl.gov)

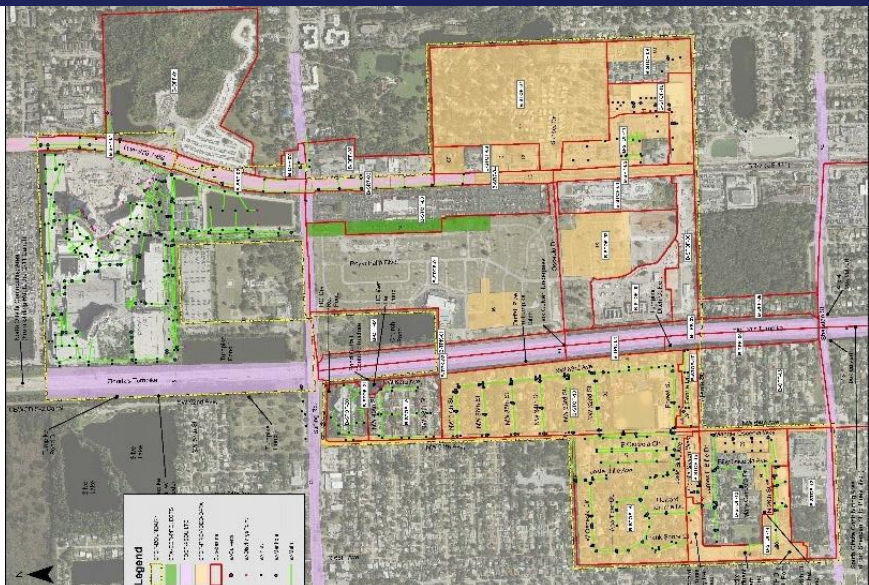
**Project Role:** Prime Consultant

**Start / Completion Date:**  
Survey, Design, Permitting & DWSRF Loan Assistance: 2018 - 2019  
Construction: 2019 - 2020

**Craven Thompson's Fees:**  
\$692,410.00

**Construction Cost:**  
Estimated: \$4,691,896.00  
Actual: \$3,499,666.00

## Hollywood Seminole Reservation Stormwater Master Plan Hollywood, Florida



### Description of Work:

The Hollywood Seminole Reservation is generally bounded by Stirling Road on the north and by Sheridan Street on the south and includes the Hard Rock Hotel and Casino which is located north of Stirling Road. The east and west boundaries are formed by existing residential neighborhoods in the City of Hollywood.

Craven Thompson developed a stormwater master plan inclusive of data collection, basin delineation, stormwater modeling and analysis, alternative development and evaluation, and a prioritized capital improvement plan (CIP) that considered existing and future land uses as well as future environmental conditions, including the impacts of sea-level rise and global warming for the Hollywood, Seminole Indian Reservation. The stormwater master plan developed a level-of-service for existing areas and land uses, identified potential capital projects and prepared associated construction cost estimates, and assisted in planning drainage and density for proposed new developments. The plan identified stormwater/drainage CIP projects for each basin within the reservation as well as a reservation-wide plan.

#### Client Contact

Mr. Ranthus Fouch, P.E.  
Senior Civil Engineer  
Public Works Department  
Seminole Tribe of Florida  
5700 Griffin Road, Suite 200  
Davie, Florida 33314  
Phone: (954) 203-1034  
Email: [ranthusfouch@semtribe.com](mailto:ranthusfouch@semtribe.com)

#### Project Role

Prime Consultant

Start / Completion Date  
2020 - 2023

Craven Thompson's Fees:  
\$636,990.00

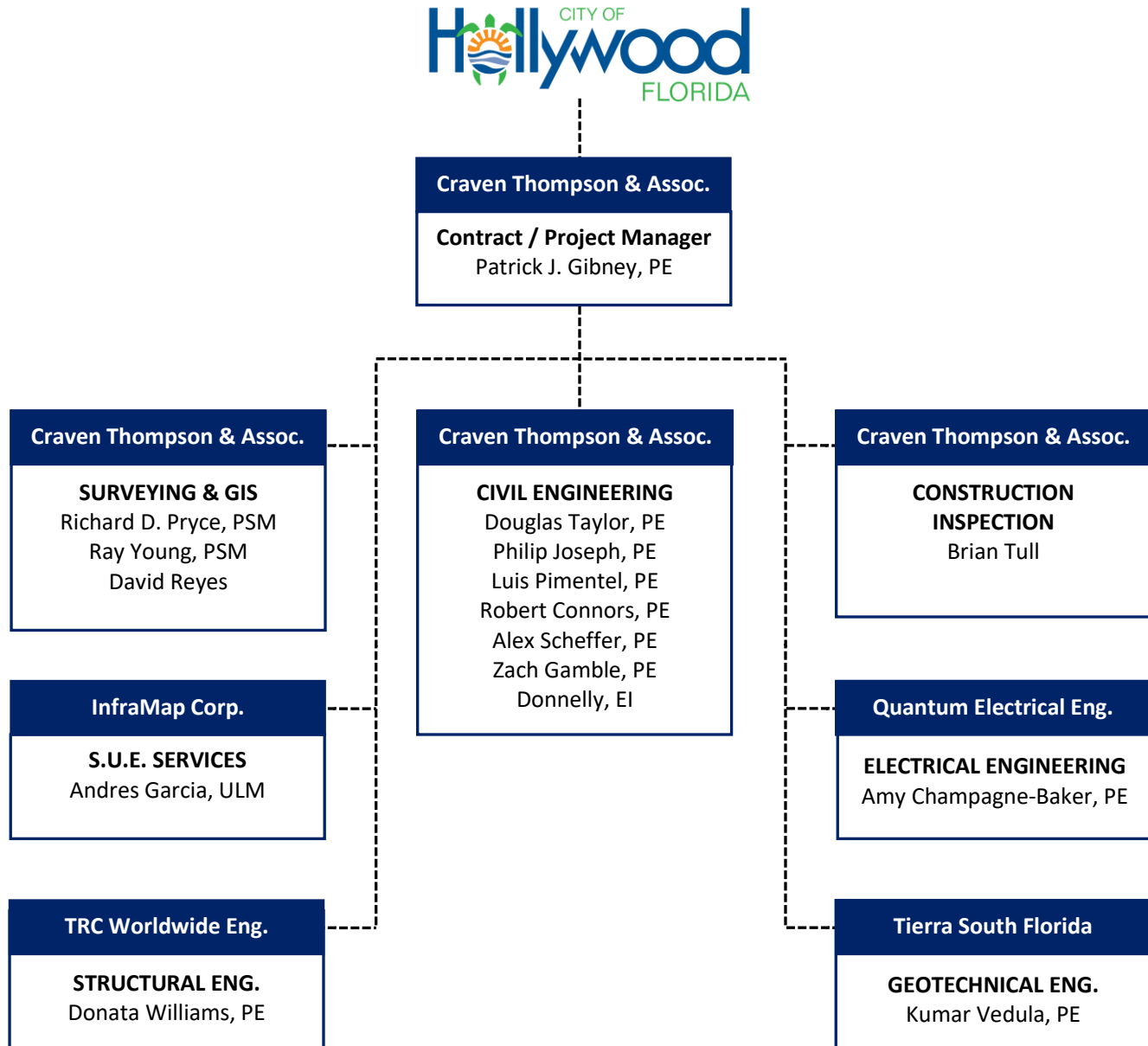


## **Tab D: Organizational Profile and Project Team Qualifications**



**Tab D**

**ORGANIZATIONAL CHART**



**SUBCONSULTANTS' RESPONSIBILITY**

*Quantum Electrical Engineering, Inc.* will perform any necessary electrical design and permitting including that involved with new lift station design or existing lift station rehabilitation. *Jenkins Charland (dba TRC Worldwide Engineering)* will perform structural engineering design and permitting and more specifically, structural work associated with lift stations. *Tierra South Florida, Inc.* will perform geotechnical services such as soil borings and percolation tests to assist with the water, sewer, reuse and stormwater projects. *InfraMap Corp.* will perform Subsurface Utility Engineering. Level A locates to assist Craven Thompson with final design.



**PATRICK GIBNEY, P.E., PROJECT MANAGER / CLIENT CONTACT**  
**AVAILABILITY: 20 HRS/WEEK**

Mr. Gibney has over thirty-six years of experience providing project management, design and construction management services for public civil engineering projects. These projects include infrastructure improvements for a multitude of infrastructure rehabilitation projects. This includes design and CEI services for water distribution systems, sanitary sewer collection & transmission systems, lift Stations, pavement design, storm water management systems, drainage systems, preparation of contract documents.



**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Education**

Rutgers, The State University,  
 Bachelor of Science  
 in Civil Engineering  
 (1987)

**Years of Experience**

Total: 36; With Firm: 29

**Licenses/Certifications**

State of Florida  
 Professional Civil Engineer  
 Florida No. 49428 (1995)

FDOT Pre-Qualified  
 Roadway Construction  
 Engineering Inspection

**Relevant Experience:**

**Utility Analysis Zone Improvement Program (UAZ) 308** | Broward County, Florida | Project Manager. Mr. Gibney was responsible for the management of the civil engineering design and permitting of a sanitary sewer collection system consisting of 19,253 LF of 8" gravity main. The sanitary force main system consisted of 1,215 LF of 6" main. The water distribution system additions included 18,281 LF of 6" main, and 575 LF of 8" main.

**Utility Analysis Zone Improvement Program (UAZ) 122** | Broward County, Florida | Project Manager - UAZ 122 is a one hundred and sixty (160) acre area in the City of Lauderdale Lakes, Florida. The water distribution system improvements included: 11,190 LF of 6" main; 10,875 LF of 8" main; 5,205 LF of 10" main; 3,690 LF of 12" main; 630 LF of 16" main; abandonment and grouting of 25,435 LF of existing watermain; and the construction of 66 water services. Craven Thompson modeled the systems using SewerCAD and WaterCAD as well as creating the construction documents, permitting, assisting with bidding and CEI services for the infrastructure rehabilitation projects.

**Master Pump Station 224** | Lighthouse Point, Florida | Project Director  
 Rehabilitated existing Master Pump Station 224 including wet well rehabilitation, by-pass system, replacement of piping, pumps, panels, electrical services, valves, waterproof vaults, hatches, & SCADA instrumentation.

**Retail Wastewater Meter M-471 Rehabilitation** | Pompano Beach, Florida | Project Director - Replaced an existing 36" venturi meter with a 36" mag meter, replaced existing butterfly valves with plug valves, installed line stops and by-pass piping as necessary to pass existing flow, replaced existing top slab and hatches, designed a permanent pig launching and receiving pit from M-471 north approximately 1,600 linear feet to the tee at NW 30<sup>th</sup> Place and from M-471 south approximately 400 linear feet to the tee heading into the Plant.

**District 2 - Sample Road 12" Watermain Aerial Crossing** | Lighthouse Point, Florida | Project Director - Permitting and design of a new aerial water main canal crossing of the Captain Knight Bayou Canal on Sample Road in Lighthouse Point. Engineering Services include structural, environmental, permitting, landscape, geotechnical, geo-referenced roadway, utility and benthic survey services required or necessary for a new pile supported aerial water main crossing. Services will also include a color rendering of the new aerial crossing.



PATRICK J. GIBNEY, P.E. (continued)

**John U. Lloyd Water Main Directional Drilling Project** | Hollywood, Florida | Project Director

The City of Hollywood required replacement of an existing 12” diameter water main along State Road A1A, from Dania Beach Boulevard to the northern limits of John U. Lloyd State Park. The replacement consisted of 8,800 LF of 12” diameter PVC water main, 880 LF of 8” water main, 3,000 LF of 12” diameter directional drill water main, consisting of two 12” diameter HDPE directional drills that cross beneath two canals directly connected to the Intracoastal Waterway. The pipe is located 15’ – 20’ below the bottom of the canals. Craven Thompson provided the civil engineering design, permitting and construction engineering and inspection services for the project.

**Broadview Estates Drainage Study** | Broward County, Florida | Project Manager

Prepared study to determine what improvements are necessary to alleviate the nuisance flooding issues that have persisted on SW 19<sup>th</sup> Street between SW 67<sup>th</sup> Terrace and SW 66<sup>th</sup> Avenue.

**Hillsboro Pines Drainage Study** | Broward County, Florida | Project Manager

Craven Thompson prepared a revised flood routing ICPR model to reflect the current vertical datum of NAVD 88 and incorporate plan revisions into model. Also, we provided plan review services for proposed improvements, and through our sub-consultants provided new Geotechnical Test for percolation rates via the Usual Open Hole and Double Ring Infiltrometer Tests.

**Wastewater Reclamation Facility Reuse Water System Expansion** | Miramar, Florida | Project Manager - As a sub-consultant to Hazen and Sawyer for the wastewater reclamation facility reuse water system expansion Phases 1A, & 1B, Craven Thompson designed the Reuse Water Main. Phase 1A included primarily 5,948 linear feet of 16” diameter reuse main. Phase 1B primarily consisted of 2,835 linear feet of horizontally directionally drilled 30” diameter HDPE.

**North County Neighborhood Improvements Project, NE Quadrant, Bid Package 11** | Broward County, Florida | Project Manager

- This project included approximately 357 acres of land. This project included over 14,777 LF of new storm sewer, 12,993 LF of exfiltration trench, 64,500 LF of water main, 553 water services (many of these services were moved from the rear of the lot to the front), 78 fire hydrants, 235 gate valves, 42,800 LF of grouting and abandon in place watermain, 15,400 LF of water service pipe on private property, **49,700 LF of reclaimed water main, 796 reclaimed water services**, 43,805 LF of gravity sewer main, 750 sewer laterals, lift station, and 1,630 LF of force main. The project also included over 50,688 LF of new roadway construction, sidewalks, driveway aprons, and sodded swales. Craven Thompson provided surveying, civil engineering, landscape architecture and CEI on the project.

**Eastside Master Infrastructure Project – Phases 2 & 3** | Davie Florida | Project Manager

Mr. Gibney managed the design and permitting of the project which consisted of approximately 340 acres of infrastructure rehabilitation. The basic infrastructure work consisted of watermain, sanitary sewer, and storm sewer. The drainage/roadway work consisted of: 22,763 LF of roadway reconstruction; 41,000 square yards of swale regrading; 18,940 LF of storm sewer; 12,450 square yards of sidewalk; 7,400 square yards of driveway restoration; 146 storm structures; 3 outfalls; 1 control structure. The water distribution included: 14,800 LF of 6" diameter main; 5,075 LF of 8" diameter main; and 5,140 LF of 12" diameter main; abandon and grout 11,450 LF of existing watermain in place; 50 fire hydrants; 154 gate valves; 40,400 LF of water service piping on private property. The sanitary improvements included: 11,455 LF of 8" diameter pipe; 40 sanitary manholes; and 2,945 LF of 16" diameter forcemain.

**Utility Analysis Zone Improvement Program (UAZ) 310** | Broward County, Florida | Project Manager

Responsible for managing the civil engineering design and permitting of the construction of a water distribution system consisting of 2,120 LF - 6” main, 38,502 LF - 8” main and 6,895 LF - 12” D.I.P. main. The construction also included sixty-three (63) new fire hydrants.



**PHILIP JOSEPH, P.E., CIVIL ENGINEER - WATER, WASTEWATER**  
**AVAILABILITY: 20 HRS/WEEK**

Mr. Joseph has over twenty-nine years of experience in the civil engineering field in water and sewer system modeling, design, analysis, and land development. He is proficient in AutoCAD, MicroStation, SewerCAD, and WaterCAD.

**Relevant Experience:**

**Master Lift Station W-14 Upgrade** | Hollywood, Florida | Civil Engineer

The rehabilitation for sanitary sewer Lift Station W14 included the modification of the existing stations by replacing the existing pumps based on a wastewater system analysis performed by Craven Thompson, replacement of internal piping to the station wall including valves and fittings, rehabilitation of the existing concrete floor, walls, ceiling, vaults, wet well, dry well, exterior vault, access hatch and concrete pillars, replace electrical meter and main, replace motor control panels and rewire new pumps, new RTU, new SCADA, rewire and replace branch wiring outlets and fixtures, generator with double wall tank with leak detection, etc.

**Lift Station A-6 Upgrade** | Hollywood, Florida | Civil Engineer

Mr. Joseph assisted in the design and permitting of the reconstruction of sanitary sewer Lift Station A6 which included the replacement of the existing suction lift pump station with a new wet well, submersible pumps, converting the existing wet well into a manhole, valve vault, panels, SCADA system as well as landscaping.

**Lift Station E-02 Rehabilitation** | Hollywood, Florida | Civil Engineer

The existing lift station is equipped with three 22 HP pumps which were upgraded to 46.94 HP pumps. The final design upgraded the pumps to three 45 horsepower pumps to meet the build out increased sanitary flow and the current DEP standards. All the 8" piping and valves in the lift station were upgraded to 12". These upgrades increased the lift station capacity from approximately 1,700 GPM to 3,500 GPM.

**Lift Stations 24E1, 22, 30E and 50K2 Rehabilitation** | Broward County, Florida | Civil Engineer - Rehabilitation of existing Retail Lift Stations 24E1, 22, 30E and 50K2, including pumps, panels, controls, coatings, valve pits, hatches and piping out of valve pit.

**Lift Stations 1, 2, 5 & 7 Upgrade** | Oakland Park, Florida | Civil Engineer - Modeled the sanitary system, assisted in the design and preparation of contract documents and permitting of the upgrade of existing sanitary sewer lift stations.

**Lift Station A-2 Upgrade and Force Main** | Oakland Park, Florida | Civil Engineer - Mr. Joseph modeled the sanitary system, prepared contract documents, and permitted upgrade of an existing sanitary sewer lift station and a new force main to avoid re-pumping.

**Utility Analysis Zone Program (UAZ) 310** | Broward County, Florida | Civil Engineer - Mr. Joseph designed, and permitted a complete water distribution system consisting of 2,120 linear feet of 6" main, 38,502 linear feet of 8" main and 6,895 linear feet of 12" D.I.P. main. The construction also included sixty-three (63) new fire hydrants.



CRAVEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Education**

Master of Business Administration  
 Florida Atlantic University  
 (2001)

Master of Science - Mechanical Engineering  
 Florida Atlantic University  
 (1993)

**Years of Experience**

Total: 29; With Firm: 19

**Licenses/Certifications**

State of Florida  
 Professional Civil Engineer  
 Florida No. 50825 (1996)

**Computer Skills**

AutoCAD, MicroStation,  
 SewerCAD, WaterCAD,  
 InfoSWMM



**ROBERT M. CONNORS, P.E., CIVIL ENGINEER - WATER, WASTEWATER**  
 AVAILABILITY: 24 HRS/WEEK

Mr. Connors is a native South Floridian with thirty-six years of engineering experience in Broward County. During this time, he has participated in the engineering design and construction of various private and public sector land development projects. Responsibilities include design and preparation of construction plans, permit coordination and approval with governmental agencies. Responsible for project management and design of public-sector projects, including water, sewer, roads, drainage, cost estimates, specifications and construction administration, inspection, and certifications.



CRAVEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**  
 3563 NW 53<sup>rd</sup> Street  
 Fort Lauderdale, Florida 33309

**Education**

University of Florida,  
 Bachelor of Science  
 in Civil Engineering  
 (1984)

**Years of Experience**

Total: 36; With Firm: 30

**Licenses/Certifications**

State of Florida  
 Professional Civil Engineer  
 Florida No. 41863 (1989)

**Relevant Experience:**

**North County Neighborhood Improvements Project, NE Quadrant** | Pompano Beach, Florida | Civil Engineer Assisted in design, water, and sewer system modeling, and permitting of water distribution and sanitary sewer for rehabilitation project. This included a sanitary sewer collection system consisting of 69,550 LF - 8" gravity main, 807 LF - 10" gravity main, 129 LF - 12" gravity main, and 144 LF - 16" gravity main. The sanitary force main system consisted of 540 LF - 8" main, and 1,540 LF 12" main. The water distribution system additions included 35,626 LF - 6" main, 10,161 LF - 8" main, 841 LF - 12" main, 1,306 LF - 20" main, and 1,023 LF - 24" main, for a total of 9.27 miles of water main.

**Septic Tank Elimination Program District 2, Area 2-G Project** | Pompano Beach, Florida | Project Manager - Designed approximately 3,000' feet of 8" gravity sewer main, 11 maintenance access structures, 1 retail lift station and 1,750' feet of 6" force main in NW 16<sup>th</sup> Lane, NW 17<sup>th</sup> Lane, Park Central Boulevard South, and Copans Road in Pompano Beach. Roadway restoration, test hole locations, geotechnical investigation are also included in the project.

**Utility Analysis Zone (UAZ) 108** |Lauderdale Lakes, Florida | Project Engineer  
 Mr. Connors was primarily responsible for the design of sanitary improvements. The project sanitary sewer collection system consisted of 26,875 LF - 8" gravity main, 1,395 LF of 10" gravity main, 2,790 LF of 12" gravity main, 1,530 LF of 6" force main, 3,630 LF of 8" force main, 1,350 LF of 10" force main, 1,140 LF of 16" force main, and 452 service laterals.

**Utility Analysis Zone (UAZ) 308** |Dania Beach, Florida| Project Engineer - Project Engineer - Mr. Connors assisted in the design and permitting of a sanitary sewer collection system consisting of 19,253 LF of 8" gravity main. The sanitary force main system consisted of 1,215 LF of 6" main. The water distribution system additions included 18,281 LF of 6" main, and 575 LF of 8" main.

**Lake Worth 2" Watermain Replacement Phase 2** | Lake Worth Beach, Florida | Civil Engineer - The City sought and secured a FDEP Drinking Water State Revolving Fund loan for the project. Craven Thompson was retained by the City to provide survey, design, permitting, DWSRF loan assistance and construction services for Phases 2 - 6 of the project. Phase 2 consists of: 11,859 LF of 4" diameter main, 4,902 LF of 6" diameter main, 509 water services, 16 fire hydrants, 78 gate valves, and the restoration of the right-of-way including 27,235 square yards of roadway and curb & gutter and sidewalk.





**ALEX SCHEFFER, P.E., LEED GREEN ASSOCIATE**  
 CIVIL ENGINEER - WATER, WASTEWATER, AVAILABILITY: 16 HRS/WEEK



CRAVEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Education**

University of Florida,  
 Bachelor of Science  
 in Civil Engineering  
 (2006)

**Years of Experience**

Total: 16; With Firm: 10

**Licenses/Certifications**

State of Florida  
 Professional Civil Engineer  
 Florida No. 73802 (2012)  
 Maryland No. 50935 (2017)  
 LEED Green Associate -  
 ID No. 10850250  
 FDEP Stormwater, Erosion &  
 Sedimentation Control  
 Inspector No. 26929

Mr. Scheffer has over sixteen years of experience providing project management, design and construction management services for various public and private civil engineering projects and initiatives. These services include Master Planning Improvements, project feasibility studies, water resources engineering, program management, permitting, utilities engineering, transportation engineering, plans production, specifications preparation, bidding, contract administration, inspections, oral and written presentations and client service management.

**Relevant Experience:**

**Water Main Replacement Program - City Project No. 12-5117** | Hollywood, Florida | Project Manager. Mr. Scheffer managed system modeling, design, permitting, bidding and limited construction engineering and inspection to construct approximately 60,490 linear feet of new 4" diameter water main, 5,400 linear feet of new 6" diameter water main, 18,220 linear feet of new 8" diameter water main, 20,655 linear feet of new 12" diameter water main, and the relocation to the front of the lots of services located in the rear yards.

**Water Main Replacement Program - City Project No. 15-5129** | Hollywood, Florida | Project Manager. Mr. Scheffer managed the replacement of approximately 87,400 LF of existing water service mains, 2" and 4", with new 4" - 6" water service main and water services and replacement of existing 6" - 12" distribution water mains with new 6" - 12" water distribution water mains including replacement and addition of fire hydrants. The new water main replaces the existing 2" water main in the rear yards and relocates the water mains to streets/avenues including relocation of services from the rear yard to the front yards.

**Installation of New Redundant Bypass Line (Zone 4B & 4C) - 54" FM** | Fort Lauderdale, Florida | Project Manager - The project involved the installation of 54" nominal OD HDPE Force Main by Horizontal Directional Drill (HDD), with sections of open-cut trench installation of 16" HDPE Force Main. The total length of Horizontal Directional Drill (HDD) 54" OD HDPE Force Main is 3,223 linear feet in length which was proposed to minimize the disturbance to the community and limit the amount of pavement restoration, with an additional 653 linear feet of 16" HDPE Force Main installed by open-cut trench.

**South Middle River Force Main Crossing - 16" Redundant Pipe** | Fort Lauderdale, Florida | Project Manager - The project involved the installation of 16" nominal OD HDPE Force Main under the South Middle River Waterway, with sections of open-cut trench installation of 16" PVC Force Main. The total length of subaqueous crossing of 16" HDPE Force Main is 1092 linear feet in length, with an additional 832 linear feet of 16" PVC Force Main installed by open cut trench.



**LEONARD "ZACH" GAMBLE, P.E., CIVIL ENGINEER - WATER, WASTEWATER & STORMWATER, AVAILABILITY: 12 HRS/WEEK**

Mr. Gamble has twenty years of experience in Civil Engineering design and permitting in South Florida. The areas in which Mr. Gamble has municipal engineering experience including: stormwater studies, computer modeling, drainage/water/sanitary design & permitting, and roadway design. The range of his experience includes drainage design and analysis, design of water distribution systems, design of sewer collection systems, CADD drafting, cost estimates, ICPR, and construction engineering services.

**Relevant Experience:**

**Western C-11 Facilities Report Update and Basin Study-CBWCD** | Davie, Cooper City, Southwest Ranches, Florida | Project Civil Engineer. Assisted in performing a hydrologic and hydraulic analysis of CBWCD canals within the Western C-11 Basin; developed a model utilizing PCSWMM stormwater modeling software. Craven Thompson surveyed, cross-sectioned, and created a Stormwater Master Plan for thirty-seven (37) District maintained Canals in the West Basin covering 15,952 acres for the purpose of updating the Facilities Report.

**North County Neighborhood Improvements Project, NE Quadrant, Bid Package 10** | Broward County, Florida | Project Engineer – This project included approximately 213 acres of land. The project included 47,520 linear feet of roadway reconstruction, and 53,460 linear feet of sidewalk construction. Also, included were 15,283 linear feet of swale, 6,508 linear feet of storm sewer, and 8,074 linear feet of exfiltration trench. A reuse water distribution system consisting of 32,900 linear feet was constructed on Bid Package 10, as well as approximately 32,970 linear feet of water main, 430 water services (many of these services were moved from the rear of the lot to the front), 26,580 linear feet of grouting and abandon in place watermain, 69 fire hydrants, 195 gate valves, 4,300 linear feet of water service pipe on private property, 27,755 linear feet of sanitary sewer collection and transmission lines, and 475 laterals. CTA provided topographic survey, design, ICPR stormwater modeling, water and sanitary modeling, permitting landscape architecture, and CEI.

**Utility Analysis Zone (UAZ) 122** | Lauderdale Lakes, Florida | Civil Engineer  
The project included the construction of a sanitary sewer collection system consisting of 19,345 linear feet of 8" gravity main; 1,350 linear feet of 10" gravity main; 4,800 linear feet of 8" force main; and 105 service laterals. The water distribution system improvements included: 11,190 linear feet of 6" main; 10,875 linear feet of 8" main; 5,205 linear feet of 10" main; 3,690 linear feet of 12" main; 630 linear feet of 16" main.

**Boca Villas Infrastructure Upgrade** | Boca Raton, Florida | Senior Engineer  
The Boca Villas project is part of the City's Innovative Sustainable Infrastructure Program (ISIP). The water distribution system improvements include: 1,100 linear feet – 4" main, 19,605 linear feet of 6" main, 16,459 linear feet of 8" main, 6,453 linear feet of 12" main, 2,982 linear feet of 16" main, 36 fire hydrants, the abandonment and grouting of 28,700 linear feet of existing watermain, and the construction of 600 water services.



CRAVEN THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Education**

North Carolina State University,  
Bachelor of Science in Mechanical Engineering  
(2002)

**Years of Experience**

Total: 20; With Firm: 16

**Licenses/Certifications**

State of Florida  
Professional Civil Engineer  
Florida No. 65921 (2007)



**DOUGLAS R. TAYLOR, P.E., CIVIL ENGINEER - STORMWATER**  
**AVAILABILITY: 12 HRS/WEEK**

Mr. Taylor has been responsible for a multitude of municipal engineering / stormwater projects throughout Florida. This includes project management, master design responsibility and oversight for a variety of projects.

**Relevant Experience:**

**North Lauderdale Water Control District Stormwater Master Plan** | North Lauderdale, Florida | Senior Engineer - The North Lauderdale Water Control District covers an area covers approximately 2,960 acres. The stormwater system includes culverts, pipe networks, swales, lakes, canals, and headwalls. Craven Thompson prepared a Stormwater Master Plan that addressed current and future drainage needs for the City of North Lauderdale. We reviewed the City’s drainage atlas, as-builts, design plans, documents as well as SFWMD permits prepared for the city. We performed an operational analysis of all sub-basins, control structures, and outfalls in, and the associated South Florida Water Management District (SFWMD) and North Lauderdale Water Control District permit requirements. The city was analyzed through the creation of an existing ICPR computer model, and a proposed model implementing various proposed improvements.

**Plantation Golf Estates Drainage Improvements** | Plantation, Florida | Senior Engineer - Craven Thompson provided surveying, analysis, assessment for repair/replacement of existing storm water management systems, preparation of construction documents and permitting, bidding assistance, and construction services for the Plantation Golf Estates Neighborhood. The neighborhood is 355 acres in size and is bounded by the El Dorado Neighborhood to the southwest, West Broward Boulevard to the north, the Plantation Park Neighborhood to the east, and West Broward Boulevard to the south. Improvements include: 1,000 linear feet of swale re-grading, 913 linear feet of storm pipe removal, the installation of 532 linear feet of 15” diameter storm sewer, 352 linear feet of 18” diameter storm sewer, 29 linear feet of 72” storm sewer, the dredging of 4,875 linear feet of existing canal, the installation of 28 – 30” ADS drainage structures.

**City of Miami Gardens Livable Neighborhood Improvement Project – Vista Verde Phases 1A & 1B** | Miami Gardens, Florida | Senior Engineer. The Vista Verde Phase 1A & 1B Improvements are located within the City of Miami Gardens bordered by NW 213<sup>th</sup> Street to the north, NW 207<sup>th</sup> Lane to the south, NW 37<sup>th</sup> Avenue (Douglas Road) to the east, and a vacant plot of land to the west. The project included 1,900 linear feet of roadway and 1,900 linear feet of storm sewer and full right-of-way restoration. The project was permitted through Miami-Dade RER (DERM).

**Eastern C-11 Facilities Report Update and Basin Study - CBWCD** | Davie, Florida | Senior Engineer – In this role he is managing the East Basin Facilities Plan update for the District. This includes secondary canal and culvert surveys, analyzing existing and future land use changes, developing a new hydrology and hydraulics model, and the development of an updated capital improvement plan for the basin.



CRAVEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Education**

University of Illinois,  
 Bachelor of Science in  
 Civil Engineering (1984)

**Years of Experience**

Total: 39; With Firm: 12

**Licenses/Certifications**

State of Florida  
 Professional Civil Engineer  
 Florida No. 50569 (1996)

TS EM5 Intermediate  
 ICS (G300) Certification





**LUIS PIMENTEL, P.E., CIVIL ENGINEER - STORMWATER**  
 AVAILABILITY: 20 HRS/WEEK

Mr. Pimentel is a Civil Engineer with over seventeen years of experience in the Municipal Engineering field. Mr. Pimentel has worked on projects ranging from roadway improvements to citywide infrastructure improvement projects. He has experience with permitting agencies such as Miami Dade County Water and Sewer Department, Broward County Health Department, and Broward County Environmental Protection and Growth Management Department.



CRAVEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**  
 3563 NW 53<sup>rd</sup> Street  
 Fort Lauderdale, Florida 33309

**Education**

Bachelor of Science  
 in Civil Engineering  
 Florida International  
 University  
 (2008)

**Years of Experience**

Total: 17; With Firm: 9

**Licenses/Certifications**

State of Florida  
 Professional Civil Engineer  
 Florida No. 86616 (2019)

**Relevant Experience:**

**Seminole Hollywood Reservation Stormwater Master Plan** | STOF Hollywood Reservation, Florida | Project Manager - Craven Thompson developed a stormwater master plan inclusive of data collection, basin delineation, stormwater modeling and analysis, alternative development and evaluation, and a prioritized capital improvement plan (CIP) that considered land uses as well as future environmental conditions. impacts of sea-level rise and global warming.

**Hallandale Beach Stormwater Master Plan** | Hallandale Beach, Florida | Senior Engineer - Mr. Pimentel generated a computer model using Streamline Technologies ICPR software to analyze the entire 2,800 acres of the City of Hallandale. Included in the model were headwater and tailwater assumptions, stormwater pump stations and wells. The drainage basin was divided into sixty (60) sub-basins for analysis. Recommended improvements were generated based on the results of the post improvement model.

**Vista Verde Phases 1C, 1D, 2, & 3** | Miami Gardens, Florida | Senior Engineer Assisted in the design and permitting of stormwater improvements for multiple areas within the Vista Verde neighborhood in the City of Miami Gardens. Assisted in the design and permitting of stormwater improvements for multiple areas within the Vista Verde neighborhood in the City of Miami Gardens. Improvements included: 7,280 linear feet of storm sewer, 5,640 linear feet of exfiltration trench, 140 drainage structures, 30,050 SY of roadway milling & resurfacing, and 29,900 SY of roadway reconstruction.

**Hallandale Beach NE & SW Quadrant Drainage Study & Improvements** | Hallandale Beach, Florida | Project Engineer - While with another firm, Mr. Pimentel modeled a proposed system of two pump stations connected to eight wells each (for a total of sixteen wells) while maintaining the existing gravity wells and gravity outfall. These sixteen new wells will be pressurized with fifteen (15) feet of head in order to produce the necessary discharge into the G3 aquifer. A new storm sewer collection system was designed and permitted, along with a water quality treatment system for the 200-acre tributary area.

**NE 191<sup>st</sup> Street Drainage Improvements** | Aventura, Florida | Senior Engineer Craven Thompson provided surveying and civil engineering for NE 191<sup>st</sup> Street, from Biscayne Boulevard to NE 29<sup>th</sup> Avenue. Mr. Pimentel assisted in the design and permitting of stormwater improvements for NE 191<sup>st</sup> Street between Biscayne Boulevard and NE 29<sup>th</sup> Avenue.



**DONNELLY CHIN, E.I., CIVIL ENGINEER - WATER, WASTEWATER & STORMWATER, AVAILABILITY: 20 HRS/WEEK**

Mr. Chin has eighteen years of experience in Planning, Designing, Permitting, Project Management and Construction Phase Services for infrastructure improvements to water, sewer and drainage pipelines for both private and public sector clients. He has experience in Land development projects that range from small scale to big box commercial retail and mixed used developments.

**Relevant Experience:**

**River Oaks Neighborhood Drainage Improvements** | Fort Lauderdale, Florida | Project Engineer - Improvements include: 12,677 linear feet of swale re-grading, 5,346 linear feet of storm pipe removal, removal of 251 storm structures, the installation of 90 linear feet of 15” storm sewer, 4,374 linear feet of 18” storm sewer, 4,675 linear feet of 24” storm sewer, 1,771 linear feet of 36” storm sewer, 145 linear feet of 48” storm sewer, 3,129 linear feet of 66” storm sewer, 1,056 linear feet of 72” storm sewer, 2,640 linear feet of 24” exfiltration trench, 236 drainage structures, 2 – STORMCEPTER water quality structures, one TIDEFLEX backflow prevention valve, and 4,219 linear feet of sidewalk. The project also includes one small duplex stormwater pump station, and one large stormwater pump station.

**Durrs Neighborhood Drainage Improvements** | Fort Lauderdale, Florida | Project Engineer - The Durrs Neighborhood is comprised of approximately 237-acres. The neighborhood occupies a total area of approximately 518-acres. Craven Thompson is surveying, ICPR modeling, designing, preparing construction documents, permitting, and providing construction related services for the construction for the installation of 50,010 linear feet of storm sewer, 7,685 linear feet of exfiltration trench, 305 storm structures, 4 water quality structures, 2 stormwater pump stations, 15,145 linear feet of swale re-grading (including bio-swales), 2,500 linear feet of pervious pavement, and the construction of a wetland/retention/habitat/educational area. Craven Thompson provided surveying, civil engineering, permitting and CEI services.

**Design of 16-inch Force Main** | City of North Bay Village, Florida - Part of the Design-Build Team for the design for the construction of approximately 13,650 LF of 16-inch PVC and HDPE force main piping from the City of North Bay Village’s existing Main Pump Station to a connection point with the MD-WASD wastewater system located in the City of Miami. The route included three water crossings, one of which will cross beneath the Intracoastal Waterway. Horizontal Directional Drill (HDD) construction methods were use at the water crossings with HDPE) Project included design & permitting, and CEI services. The project also included abandoning the existing 12-inch force main in place upon activation of the new 16-inch force main.

**Sample Road Recharge Line** | City of Pompano Beach & Deerfield Beach, Florida Project engineer for the design, permitting and bidding for a 48” storm drain pipe to provide recharge capability between the Crystal Lake system to the Bonnie Loch Subdivision lake system. Project involves the crossing of CSX Railroad Tracks and a major multi-lane intersection



CRIVEN THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Education**

Bachelor of Science in Civil Engineering, Florida International University, Miami (2007)

**Years of experience**

With Firm: 8; Total: 18

**Computer Skills**

AutoCAD Civil 3D and AutoTURN  
Microsoft Office Project & Resource Scheduling using Microsoft Project or Fasttrack  
Geographic Information System (GIS)  
Cascade 2001 ver. 1.0



**BRIAN TULL, CONSTRUCTION MANAGER**

AVAILABILITY: 16 HRS/WEEK

Mr. Tull is a Construction Manager/Inspector with twenty-five years of experience overseeing of project / construction activities from the bid phase to construction completion. Other tasks involved include quantity takeoffs for payment to contractors; shop drawing review; processing of change orders; tracking of all water, sanitary, and drainage testing for certification to various agencies; conduct progress meetings; document work deficiencies and review of as-built drawings.

**Relevant Experience:**

**Eastside Master Infrastructure Project, Phases 2 & 3 | Davie, Florida**

Mr. Tull was responsible for Construction inspection. Project included: 5,075 linear feet of 8" watermain, 5,140 linear feet of 12" watermain, 11,455 linear feet of 8" sanitary gravity sewer, 2,945 linear feet of 16" sanitary forcemain, 18,940 linear feet of storm sewer, 41,000 square yards of swale regrading, and over 20,000 SY of roadway reconstruction.

**North County Neighborhood Improvements Project, NE Quadrant, Bid Package 10**

| Broward County, Florida | Resident Project Representative - Bid Package 10 improvements consisted of approximately 32,970 linear feet of water main, 430 water services (many of these services were moved from the rear of the lot to the front), 69 fire hydrants, 195 gate valves, 26,580 linear feet. of abandon in place watermain, 27,755 linear feet of sanitary sewer collection and transmission lines, 475 laterals, 47,520 linear feet of roadway reconstruction, and 53,460 linear feet of sidewalk construction. Also included were 15,283 linear feet of swale, 6,508 linear feet of storm sewer, and 8,074 linear feet of exfiltration trench. Craven Thompson provided survey, civil engineering, landscape architecture and CEI Services.

**North County Neighborhood Improvements Project, NE Quadrant, Bid Package 11**

| Broward County, Florida | Resident Project Representative - NCNIP Bid Package 11 included over 14,777 linear feet of new storm sewer, 12,993 linear feet of exfiltration trench, 64,000 linear feet of water main, 553 Water Services (many of these services were moved from the rear of the lot to the front), 49,700 linear feet of reclaimed water main, 796 reclaimed water services, 43,805 linear feet of gravity sewer main, 750 sewer laterals, lift station, and 1,630 linear feet of force main. Main line pipe sizes ranged from 4" to 48" in diameter. The project also included over 50,688 linear feet of new roadway construction, sidewalks, driveway aprons, and sodded swales. Craven Thompson provided surveying, civil engineering, landscape architecture (design, permitting & bid assistance) and CEI services on the project.

**Garden Acres Neighborhood Improvements | Oakland Park, Florida |**

Construction Inspector - Responsible for construction management. The infrastructure improvements to the existing neighborhood including a storm sewer, exfiltration trench, structures, milling & resurfacing, roadway reconstruction, and right-of-way restoration.



CRNEN THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Years of Experience**

Total: 25; With Firm: 15

**Licenses/Certifications**

FDEP Stormwater, Erosion & Sedimentation Control Inspector, No. 43752

Certified for Troxler Nuclear Testing (2009)

United States Navy - Mechanical and Safety Inspector on F-14 Tomcat Aircraft

Philips and Jordan Underground Utilities Superintendent for Army Corp. of Engineers





**RICHARD D. PRYCE, P.S.M., LEAD SURVEYOR & MAPPER**  
 AVAILABILITY: 12 HRS/WEEK

Mr. Pryce has over fifty-one years of experience surveying in South Florida. He has specialized in all aspects of the land surveying & mapping profession and has also specialized in developing GIS/Survey applications using ESRI ArcGIS software since 1990. Mr. Pryce has been fully trained on Leica 3D Laser Scanners and 3D Modeling He has also been developing ways to analyze Lidar data for utility and drainage projects.

**Relevant Experience:**

**Hollywood Watermain Replacement Program Mobile LiDAR Survey** | Hollywood, Florida – Survey Director for GPS Network data collection & adjustment, coordination of field crews, Mobile LiDAR computer extraction for 17-mile topographic survey and creation of base maps.

**Plantation Historical Area Watermain Mobile LiDAR Survey** | Plantation, Florida | Survey Director. GPS Network data collection and adjustment, coordination of field crews, Mobile Lidar computer extraction for 6-mile topographic survey and preparation of base maps for final drawings.

**Stormwater GIS/Data Collection Project** | North Miami Beach, Florida | Principal Survey/GIS Manager - The City is divided into six (6) zones and that structure/pipe data was collected within each zone and identified by zone and structure numbers. GIS data was collected and processed utilizing the City’s existing Unit ID naming system in the geodatabase. The Craven Thompson data was collected by a Unique ID. Craven Thompson provided the city with a copy of the updated geodatabase with all the proposed data fields to be collected for review. The GIS data collected consisted of: Structure type (junction, inlet, control structure, drainage well): Pipes: Culverts, Headwalls and Seawalls.

**Western C-11 Facilities Report Update and Basin Study - CBWCD** | Davie, Cooper City, Southwest Ranches (**Survey & DTM Development**) – Survey Project manager for GPS Network data collection and adjustment, and creation of final base map drawings and computations for stormwater master plan. Mr. Pryce created the digital elevation model from the information.

**Utility Analysis Zone Improvement Program (UAZ) 310** | Broward County | Principal Surveyor - Responsible for the management of the surveying services necessary for the design of a water distribution system consisting of 2,120 linear feet of 6” main, 38,502 linear feet of 8” main and 6,895 linear feet of 12” D.I.P. main. The construction includes sixty-three (63) fire hydrants.

**Utility Analysis Zone Improvement Program (UAZ) 308** | Broward County | Principal Surveyor - Mr. Pryce was responsible for the management of the surveying services necessary for the design and permitting of a water distribution system and sanitary sewer collection system consisting of 19,253 linear feet of 8” gravity main, a sanitary force main system consisting of 1,215 linear feet of 6” main, and a water distribution system consisting of 18,281 linear feet of 6” main, and 575 linear feet of 8” main.



CRAVEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**education**

Broward Community College,  
 Associate of Science in  
 Criminal Justice (1978)

**years of experience**

Total: 51; With Firm: 17

**licenses/certifications**

Professional Surveyor  
 and Mapper: LS4038 (1983)

**publications**

Co-author POB Magazine -  
 “22,000 Acres and Counting”  
 November 1998

Co-author POB Magazine -  
 “The CAD Resolution”  
 September 1999

**affiliations**

Past Director - Broward County  
 Chapter of Florida Surveying &  
 Mapping Society

State & County Chapters, Florida  
 Surveying & Mapping Society  
 American Congress on  
 Surveying and Mapping

National Society of  
 Professional Surveyors  
 American Society of  
 Photogrammetry and  
 Remote Sensing



**RAYMOND YOUNG, P.S.M., SURVEYOR & MAPPER**  
 AVAILABILITY: 20 HRS/WEEK

Mr. Young has forty-one years of experience surveying in South Florida. He has performed both field and office work on a variety of projects both large and small. He is experienced in all aspects of surveying including boundary, topographic, construction layout, ALTA mortgage, as-built, control and location surveys. He has prepared numerous plats and has been involved in the recordation of these plats.

**Relevant Experience:**

**Hydrographic and Storm Water Infrastructure Survey** | Greenacres, Florida | Surveyor - Along with our sub-consultant, Craven Thompson created a survey from high-resolution, low-level LiDAR and ground surveying. The survey included roadways and canal cross-sections for proposed Drainage Improvements. Also, included right-of-way surveys, storm drains, canals, and ditches along 1<sup>st</sup> Street in the Original Section area of the City of Greenacres and a portion of Lake Worth Canal E-3 (cross sectioned).

**Margate Canal Survey** | Margate, Florida | Surveyor - Craven Thompson provided professional surveying services for the proposed canal rehabilitation and pedestrian path. Craven Thompson prepared Boundary, Topographic and Hydrographic Survey of the canal lying along the east side of Parcel "A", "Margate Third Addition". The north-south canal was extremely overgrown with Brazilian Pepper and Australian Pines making it difficult to locate edge of water, top of bank and deep cut line. Clearing these items was essential to the topographic data collection. This increased the accuracy of the survey and decreased the labor effort needed to obtain the as-built conditions.

**Topographic/Hydrographic Surveys for Boat Ramps Improvements** | Sunrise, Florida | Surveyor - Prepared topographic survey, including elevations obtained from a hydrographic survey, at six (6) different canal locations. The survey limits consisted of only those canal locations for the purpose of engineering design for eight (8) boat ramps.

**Storm Sewer Outfall Replacement to SFWMD C-17 Canal Survey** | Lake Park, Florida | Survey Project Manager - He prepared an As-built survey of the 2 outfalls and 2 drainage structures in the City of Lake Park, and including 1 structure at the car wash property and the next 4 drainage structures upstream from and south of the Firestone property within the North Lake Blvd. R.O.W. The survey included 3 hydrographic cross-sections of a portion of SFWMD Canal C-17 at the 2 outfall locations to show the existing bank slope above and below the water out to the edge of water of the canal.

**Town of Davie 20' Wide Utility Easement** | Davie, Florida | Surveyor  
 Prepared a sketch and legal description for a 20-foot-wide utility easement, running along the northerly boundary of the Nova High School and Nova Blanche Forman Elementary School, extending from the east right-of-way line of College Avenue, easterly to the west ROW line of Davie Road, approximately 2,310 feet.



CRAVEN THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**years of experience**

Total: 41; With Firm: 29

**licenses/certifications**

Professional Surveyor  
 and Mapper: LS5799

**affiliations**

Florida Society of  
 Professional Surveyors and  
 Mappers



**DAVID REYES. SENIOR SURVEY/GIS TECHNICIAN**  
 AVAILABILITY: 16 HRS/WEEK

Mr. Reyes has significant surveying and mapping experience in Florida. He has extensive private and public sector project experience including design, construction engineering inspection (CEI), construction, global positioning systems (GPS), geographic information systems (GIS), right-of-way control. Having performed fieldwork and eventually moving to map preparation and quality assurance/quality control. In addition, he has extensive knowledge of digital terrain modeling and has prepared numerous digital terrain models used in roadway design and for quantity calculations.

**Relevant Experience:**

**Hollywood Watermain Replacement Program Mobile LiDAR Survey** | Hollywood, Florida - Field Coordinator and Senior CAD Technician, GPS Network data collection & adjustment, coordination of field crews, Mobile LiDAR computer extraction for 17-mile topographic survey and survey technician for final drawings.

**Greenacres - Digital Topographic Mapping for FEMA Flood Map** | Greenacres, Florida - Senior Survey Technician - The survey included a GPS network of control to meet horizontal and vertical accuracies to 0.10 feet on all hard surfaces within the project area. This consisted of setting 20 aerial targets to control an area of about 7,700 acres from Southern Boulevard, south to Lake Worth Road and from Military Trail west to Pinehurst Drive. Our survey crews then ran level loops and cross-sections over 304 ground truth checks on hard surfaces at 30 street intersections across the city with accuracy of 0.09 feet at one sigma and 0.18 feet accuracy at 95% two sigma. The LiDAR data was delivered and accepted by FEMA.

**Original Section Drainage Survey (LiDAR, DTM, Survey & G.I.S.)** | Greenacres, Florida - Field Coordinator for Field Operations and Senior CAD Technician, GPS Network data collection and adjustment, coordination of field crews, Mobile LiDAR computer extraction to create a Digital Terrain Model.

**Pump Station A-13 & Sewer Redirection East of Federal Highway Route Survey** | Fort Lauderdale, Florida | Field Coordinator for Field Operations and Senior CAD Technician, GPS Network data collection and adjustment, coordination of field crews, and CAD Technician for final drawings and computations for route survey.

**Lake Worth Infrastructure 2020 Master Plan - Year 1 Survey** | Lake Worth, Florida - Field Coordinator for Field Operations and Senior CAD Technician, GPS Network data collection and adjustment, coordination of field crews, Mobile LiDAR computer extraction for topographic survey for right-of-way.

**Western C-11 Facilities Report Update and Basin Study - CBWCD** | Davie, Cooper City, Southwest Ranches (**Survey & DTM Development**) - Field Coordinator for Field Operations and Senior CAD Technician, GPS Network data collection and adjustment, coordination of field crews, and CAD Technician for final drawings and computations for Hydrographic & topographic surveys. Mr. Reyes created the digital elevation model from the information.



CRNIEN-THOMPSON & ASSOCIATES INC.

**Firm:**

**Craven Thompson & Associates, Inc.**

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

**Registrations / Certifications**

Certified Survey Technician Level III, Florida, 2003  
 FDOT Maintenance of Traffic, Florida

**Continuing Education**

FDOT Intermediate Work Zone Traffic Control Refresher (2005)

**Years of Experience**

Total: 31; With Firm: 9

**FDOT Work Type Codes:**

- 8.1 - Control Surveying
- 8.2 - Design, Right-of-Way Construction Survey
- 8.4 - Right-of-Way Surveying

**Affiliations**

- Member, CAICE Users Group
- Member, Florida GPS Users Group
- Member, Florida Local Users Group
- MicroStation Community Secretary, Florida Surveying & Mapping Society, Broward County Chapter 2004





# Andres Garcia

## SUE Project Manager

[agarcia@inframap.net](mailto:agarcia@inframap.net) | O: 561-586-0790 | C: 561-315-5714

**JOB ASSIGNMENT:**  
**SUE PROJECT MANAGER**

**AVAILABILITY:**  
65%

**YEARS OF EXPERIENCE:**  
25 years (24+ years with Inframap, 1 year with other firms)

**EDUCATION:**  
Associates in Science, Palm Beach State College, Palm Beach, FL

**PROFESSIONAL CERTIFICATIONS:**  
Inframap Training Program for Utility Locating & Designating Certification/Instructor

ATSSA, Traffic Control Supervisor Certification

Confined Space Entry Training Program Certification (OSHA 1910.146)

### QUALIFICATIONS

Mr. Garcia has performed utility locating assignments for Inframap Corp. in Florida, Virginia, Maryland, Georgia, and Alabama since 1998. He is proficient with utility designating, performing test holes, and utility CADD. Mr. Garcia's responsibilities include project management, attending utility scoping meetings, obtaining permits, records research, traffic control supervision, field data collection, quality control of the field work and FDOT Standards compliance for each delivered submittal. Mr. Garcia has excelled as a survey party chief with experience in Total Station survey and data collector knowledge. His role also includes QA/QC, supervising field crews, and meeting with utility company personnel.

### EXPERIENCE WITH PRIME

Inframap has extensive experience working with Craven Thompson and Associates, Inc. as a subconsultant teaming partner providing SUE services. Notable assignments include performing utility test hole services for District 3C Water System Improvements and Septic Tank Elimination, during which the Inframap team excavated quality level A test holes. Mr. Garcia led the team as project manager, overseeing all field efforts for this assignment.

### RELEVANT EXPERIENCE

**SR A1A Utility Designating and Test Hole Services, Vero Beach, FL:** Serving as SUE project manager, Mr. Garcia led the Inframap field crews to provide utility designating and test hole services along SR A1A in Vero Beach. Approximately 8,000 LF of utilities were located and 75 utility test holes were performed for the client. This project was completed on time and on budget. Inframap's share of the overall contract value was \$40,000.

**City of Hollywood Water Main Replacement Program, Hollywood, FL:** Serving as SUE project manager, Mr. Garcia led the Inframap field crews to provide utility designating and utility test hole services for this project. Approximately 20,000 LF of utilities were located and 31 utility test holes were completed. This project was completed on time and under budget. Inframap's contract value: \$56,000.

**City of Fort Lauderdale 48 Inch Force Main Emergency Project, Fort Lauderdale, FL:** For this multiphase emergency project, Mr. Garcia served as SUE project manager for the Inframap team. Inframap provided utility designating, and utility test hole services to the client. A total of 89 utility test holes were excavated for the client, and final submittals of all deliverables were made on time and under budget. Inframap's contract value: \$100,000.

**FDOT District 4 District-Wide Surveying and Mapping Contract:** Serving as SUE project manager, Mr. Garcia led the Inframap team to perform utility designating, air/vacuum test holes, survey and EFB/CAiCE/MicroStation CADD services on highway projects in District 4 in support of the District's pre-design program. Contract value: \$1.5 million.



**Amy L. Champagne-Baker, PE**  
President  
Electrical Engineer

**Quantum Electrical Engineering, Inc.**

5571 N. University Dr Suite 101  
Coral Springs, FL 33067

Mobile: (561) 308-3526  
Office: (954) 359-5810  
Email: Amy.Champagne@Quantum-EE.com

**Education**

Clarkson University, Potsdam, NY  
Bachelor of Science  
Electrical Engineering – 1997

**Professional Registration**

Registered Electrical Engineer  
Florida – No. 73735

Registered Electrical Engineer  
Connecticut – No. 27854

Registered Electrical Engineer  
US Virgin Islands – No. 1291E

**Professional Memberships**

LEED-AP  
IES  
NFPA

**Tools**

AutoCAD, MicroStation, SKM Power  
Tools™ for Windows DAPPER,  
CAPTOR, AGI

**Professional Experience**

Hillers Electrical Engineering Inc  
June 1997 – December 2019

Quantum Electrical Engineering Inc  
May 2014 – Present

Resident: West Palm Beach

**Professional Summary**

Amy Champagne-Baker is a 25-year Professional Engineer experienced in electrical design and construction management, with an extensive background completing various electrical engineering projects throughout the state of Florida. Amy strives to be an innovator who excels in the challenge of accurate solutions for difficult situations in the design and implementation of electrical systems. Throughout her career she takes great pride in being a well-rounded and reliable leader with outstanding interpersonal and communication skills who is driven to develop and grow within a challenging and rewarding environment.

Amy has developed and implemented successful programs and projects that delivered cost reductions that lead to increased overall customer satisfaction. As a detail-oriented and focused individual she has a passion to collaboratively work with multidisciplinary engaged teams to deliver time sensitive programs while maintaining priorities and achieving project expectations.

Her work in electrical design and construction management experience includes project management, installation observation, shop drawing submittal review, testing, startups and construction observation of high, medium and low voltage distribution systems. Amy's detailed experience extends into Solid Waste projects, FDOT roadways, air carrier and general aviation airports, parking and site lighting, interior and exterior lighting systems, fire alarm and security system infrastructure, camera systems, normal and stand by emergency generation systems and power.

Technical expertise includes electrical design, lighting calculations, estimating, project budgeting, contract administration, scheduling, staffing, resource allocation, subcontracts, submittals, purchasing, client/owner interaction, cost analysis, labor tracking, quality, value engineering, change orders, invoicing and project close out.

**Project Experience**

CITY OF POMPANO BEACH DISTRICT 2 ROADWAY LED LIGHTING CONVERSION

Provided photometric calculations for new FPL street lighting conversion project for the City of Pompano for 3000 light fixtures. Included light layout of the replacement of existing lighting system Collier, Liberty Park, Cresthaven, Highlands, Kendall Green, and Old Pompano neighborhoods.

CITY OF FORT LAUDERDALE MELROSE PARK FPL ROADWAY LED LIGHTING

Provided photometric calculations for new FPL street lighting conversion project for the City of Fort Lauderdale for 800 light fixtures. Included FPL coordination and light layout for new lighting system for Melrose Park neighborhood.

PALM BEACH INTERNATIONAL AIRPORT THIRD LEVEL TICKETING INTERIOR IMPROVEMENTS PHASE 2

Project included the design of the replacement of Lighting for the Third Level ticketing including relocation of existing fire alarm, relocation of existing Public address system while maintaining full use of the ticketing level. Included new conduit and wiring systems, fire alarm panel replacements, and programming of existing computer reporting system.

NORTHERN IMPROVEMENT DISTRICT VISTA PARKWAY ROADWAY LED LIGHTING CONVERSION

Provided photometric calculations for existing street lighting conversion project for Northern Improvement District. Included study of light fixture options and photometric calculations for the existing roadway.

JOHN PRINCE PARK PHASE 3 CAMPGROUND DESIGN

Provide design and construction services for the electrical portion of the upgrade project. Included new electrical distribution, 100 campground power pedestals and underground infrastructure.

## **KUMAR VEDULA, PE**

**Principal Geotechnical Engineer**

**27 Years Professional Experience**



### **City of Residence**

**Pembroke Pines, Florida**

### **Education**

MS in Geotechnical Engineering, University of Memphis, 1995

BE in Civil Engineering, Andhra University, 1992

### **Professional Organization and Registration**

Professional Engineer  
54873

American Society of Civil Engineers, Past President (Broward Branch)

## **Professional Experience**

Mr. Vedula, a Florida-Registered Professional Engineer, has over 27 years of experience providing engineering services for a wide variety of geotechnical projects involving foundation design, slope stability analysis, WEAP analysis and interpreting PDA reports, excavation support, and construction inspection. His extensive experience includes foundation inspections (shallow and deep foundations), soil modification (dynamic compaction, stone columns), preloading, excavations, backfilling, and post-construction monitoring. Mr. Vedula has served as a principal inspector on numerous surcharging and settlement evaluations of organic-laden soil assignments. His project experience includes 300+ geotechnical engineering studies for various project types including parks, piers, shoreline stabilization, dredging, bridges, roadways, utilities, high-rise buildings, schools, and government facilities. Mr. Vedula has authored, and co-authored papers published in national and international publications.

## **Relevant Project Experience**

- SW 4th Avenue at SW 28th Street, Broward County, FL
- BCWWS # 104538 Davis Isles New Sewer and Water Main Replacement, Fort Lauderdale, FL
- Coconut Isle Bridge Replacement, Fort Lauderdale, FL
- Marina Mile (SR 84) at SW 15th Avenue, Broward County, FL
- Sheridan St. and Dykes Rd. Intersection Improvements, Broward County, FL
- Parking and Drainage Improvements, Fort Lauderdale, FL
- Parking Lot 2980 N. Federal Highway, Fort Lauderdale, FL
- Plantation Pointe -Parking Garage, Broward County, FL
- Broward College-Parking Lot A Resurfacing, Broward County, FL
- Lauderdale by the Sea-Majestic Parking Lot, Broward County, FL
- AOB and COB Office Building Parking Lot, Plantation, FL
- Parking Lot @ 8110 Royal Palm Blvd, Coral Springs, FL
- NE 34th Street Parking Lot, Oakland Park, FL
- SFWMD S-151 Culvert Replacement and Automation, Broward County, FL
- 54-Inch Force Main - NE 11th Ave., Fort Lauderdale, FL
- Cypress City Center @ Westin Hotel, Fort Lauderdale, FL
- Breakers Avenue Streetscape, Fort Lauderdale, FL
- SE 9th Ave. Structure No. 865758, Fort Lauderdale, FL
- Riverwalk Floating Dock, Fort Lauderdale, FL
- City of Fort Lauderdale Pump Station Improvements, Fort Lauderdale, FL
- SR 25 from Griffin Rd. to Truck Stop Light Poles, Broward County, FL
- North Federal Highway Senior Living, Fort Lauderdale, FL
- Bill Keith Preserve Shoreline Restoration, Fort Lauderdale, FL
- Animal Care Adoption Facility, Fort Lauderdale, FL
- SR 823/Flamingo Road from N. of SR 818/Griffin Road to S. of SR 84, Broward County, FL
- SR 824 at Dixie Highway and NE 1st Avenue/S 21st Avenue, Safety Study, Broward County, Florida
- Pine Island Road Widening from SR 84 to Nova Drive, Broward County, FL





**Donata Williams, P.E., MBA, LEED AP, CM-BIM**

## PROFESSIONAL EXPERIENCE

Ms. Williams is a Structural Engineer with more than 19 years' experience in analysis, design and construction management of various types of structures for the governmental, commercial, aviation, educational and residential sectors. She utilizes various computer aided analysis and design tools such as Ram Structural System, Ram Concept, Ram Elements, Tekla Structural Designer Adapt, PCA Walls, AutoCAD, and Revit Structure.

Ms. Williams is a LEED Accredited Professional who worked on one of the first LEED certified buildings in Florida. She has worked on several other buildings that have obtained various levels LEED certifications and has other projects that are currently pursuing LEED certification.

She was one of the first 3 people in the state of Florida to receive her CM-BIM certification.

## YEARS' EXPERIENCE:

19

## EDUCATION

Masters of Business Administration  
University of Florida / 2011

M.S. in Architectural Engineering  
with a Structures Concentration  
N.C. Agricultural & Technical  
University / 2002

B.S. in Civil Engineering  
University of Florida / 2000

## PROFESSIONAL REGISTRATION

Registered Professional Engineer:  
 Florida 67337  
 North Carolina 036136  
 New York 093022-1

Special Inspector of Threshold  
Buildings - FL SI 7018699

LEED Accredited Professional  
CM-BIM Certification

## PROFESSIONAL AFFILIATIONS

(FSEA) Florida Structural Engineers  
Association

(AISC) American Institute of Steel  
Construction

## Project Experience:

- **ECF Office Building, West Palm Beach:** Project Manager for a new 21,000 sq. ft. two-story office building. The structural framing includes tilt-up bearing walls, steel columns, and composite steel floor framing.
- **Lift Station W8, Hollywood:** New lift station, included new wet well, valve vault, magameter/pump vault. Designed for H2O truck loads.
- **Lift Station W14, Hollywood:** Restoration of an existing lift station included concrete restoration, concrete pump pedestals, and structural connections.
- **Parkland West Fire Station, Parkland:** Project Manager for 11,000 sq. ft. fire station facility with offices for the city of Parkland building department; designed using BIM by Ms. Williams who led the team of engineers and technicians. (\*)
- **Ravenswood Bus Maintenance Facility, Dania Beach:** Project Engineer for the replacement of the existing bus maintenance facility and addition of a parking garage. The project included a bus maintenance building with a 60,000 sq. ft. area with a storage mezzanine and a three-level parking garage that included office space at the 2<sup>nd</sup> level. The project is certified **LEED Gold**. (\*)
- **City of Miramar Police Head Quarters Facility, Miramar:** Project Manager for four-story, 65,000 sq. ft. facility designed to withstand extreme hurricane wind loads. The building exterior walls and framing are also designed to mitigate damage from explosive blasts and to prevent progressive collapse. The building is certified **LEED Gold**. (\*)
- **Miami-Dade school prototype:** 148,000 sq.ft prototype elementary school for Miami-Dade County Public Schools. Successful completion of project resulted in satisfied county client deciding to use model to build four more schools. (\*)
- **Broward / Palm Beach School Prototype:** 126,000 sq.ft. prototype elementary school for Broward and Palm Beach County School Boards – Managed analysis, designed, and detailed 2 one-story and 1 two-story building with tiltup exterior and concrete frame with PSI system interior. (\*)

(\*) work performed with another firm

**PROFESSIONAL LICENSES / CERTIFICATIONS**

CRAVEN THOMPSON & ASSOCIATES, INC.

**Licensee**

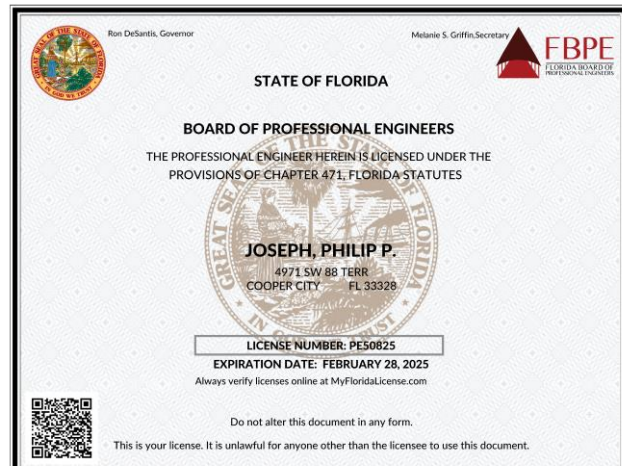
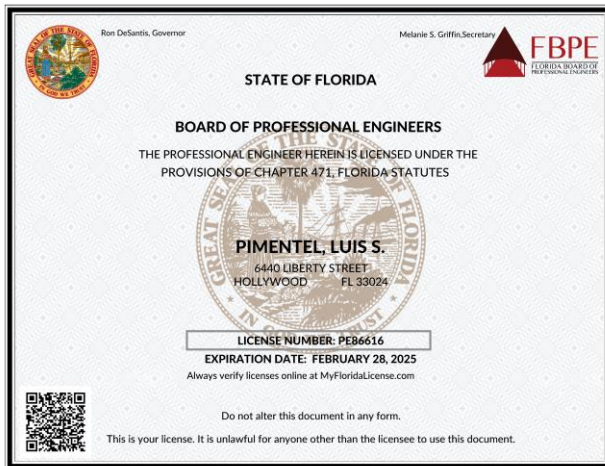
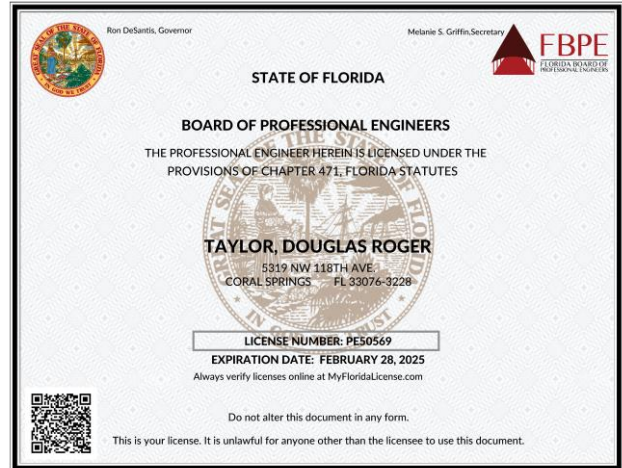
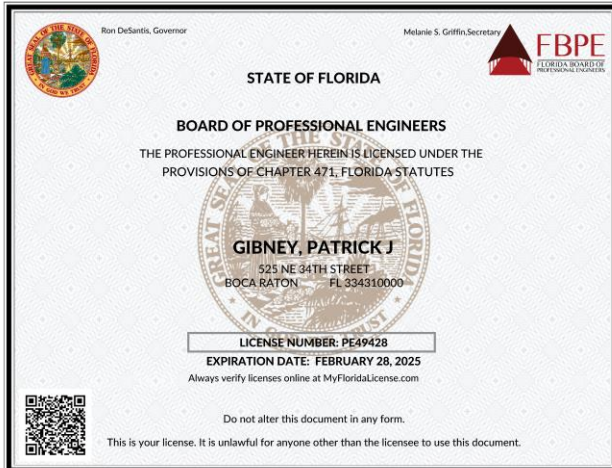
Name: **CRAVEN, THOMPSON & ASSOCIATES, INC.** License Number: **271**

Rank: **Registry** License Expiration Date:

Primary Status: **Current** Original License Date: **05/10/1977**

**Related License Information**

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
49428	Current, Active	GIBNEY, PATRICK J	Registry	03/14/2014	Professional Engineer	02/28/2025





Ron DeSantis, Governor Melanie S. Griffin, Secretary

**STATE OF FLORIDA**

**BOARD OF PROFESSIONAL ENGINEERS**

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

**GAMBLE, LEONARD Z**  
8671 GOLD CAY  
WEST PALM BEACH FL 33411

LICENSE NUMBER: PE65921  
EXPIRATION DATE: FEBRUARY 28, 2025  
Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.  
This is your license. It is unlawful for anyone other than the licensee to use this document.

Ron DeSantis, Governor Melanie S. Griffin, Secretary

**STATE OF FLORIDA**

**BOARD OF PROFESSIONAL ENGINEERS**

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

**CONNORS, ROBERT MICHAEL**  
5895 NE 22ND AVENUE  
FT. LAUDERDALE FL 33308

LICENSE NUMBER: PE41863  
EXPIRATION DATE: FEBRUARY 28, 2023  
Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.  
This is your license. It is unlawful for anyone other than the licensee to use this document.

Ron DeSantis, Governor Melanie S. Griffin, Secretary

**STATE OF FLORIDA**

**BOARD OF PROFESSIONAL ENGINEERS**

THE PROFESSIONAL ENGINEER HEREIN IS LICENSED UNDER THE PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

**SCHEFFER, ALEXANDER DARCY**  
2211 NE 52ND STREET  
FORT LAUDERDALE FL 33308

LICENSE NUMBER: PE73802  
EXPIRATION DATE: FEBRUARY 28, 2023  
Always verify licenses online at MyFloridaLicense.com

Do not alter this document in any form.  
This is your license. It is unlawful for anyone other than the licensee to use this document.

**QUALIFIED  
STORMWATER MANAGEMENT  
INSPECTOR**

The undersigned hereby acknowledges that

**Luis Pimentel**

has successfully met all requirements necessary to be fully qualified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program

  
Jared Searcy  
Environmental Specialist III

May 30, 2019

**Inspector Number 43752**

  
Kevin Coyne  
WQRP Program Administrator

**QUALIFIED  
STORMWATER MANAGEMENT  
INSPECTOR**

The undersigned hereby acknowledges that

**Leonard Gamble**

has successfully met all requirements necessary to be fully qualified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program

03/09/2022

  
Jared Searcy  
Statewide Training  
Coordinator

**Inspector Number 49376**

  
Kevin Coyne  
WQRP Program  
Administrator

**QUALIFIED  
STORMWATER MANAGEMENT  
INSPECTOR**

The undersigned hereby acknowledges that

**Brian Tull**

has successfully met all requirements necessary to be fully qualified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program


May 30, 2019

  
Jared Searcy  
Environmental Specialist III

**Inspector Number 43752**

  
Kevin Coyne  
WQRP Program Administrator






Florida Department of Agriculture and Consumer Services  
 Division of Consumer Services  
 Board of Professional Surveyors and Mappers  
 2005 Apalachee Pkwy Tallahassee, Florida 32399-6500

License No.: **LB271**  
 Expiration Date February 28, 2025


**Professional Surveyor and Mapper Business License**  
 Under the provisions of Chapter 472, Florida Statutes

**CRAVEN-THOMPSON & ASSOC, INC**  
 3563 NW 53RD ST  
 FT LAUDERDALE, FL 33309-6311



**WILTON SIMPSON**  
 COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

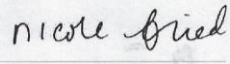


Florida Department of Agriculture and Consumer Services  
 Division of Consumer Services  
 Board of Professional Surveyors and Mappers  
 2005 Apalachee Pkwy Tallahassee, Florida 32399-6500

License No.: **LS4038**  
 Expiration Date February 28, 2025


**Professional Surveyor and Mapper License**  
 Under the provisions of Chapter 472, Florida Statutes

**RICHARD D PRYCE**  
 1031 SW 127TH TER  
 DAVIE, FL 33325-5558



**NICOLE "NIKKI" FRIED**  
 COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.




Florida Department of Agriculture and Consumer Services  
 Division of Consumer Services  
 Board of Professional Surveyors and Mappers  
 2005 Apalachee Pkwy Tallahassee, Florida 32399-6500

License No.: **LS5799**  
 Expiration Date February 28, 2025

**Professional Surveyor and Mapper License**  
 Under the provisions of Chapter 472, Florida Statutes

**RAYMOND YOUNG**  
 2661 NW 63RD AVE  
 MARGATE, FL 33063-1721



**WILTON SIMPSON**  
 COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.



Florida Department of Transportation

RON DESANTIS  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.  
SECRETARY

June 21, 2022

Thomas McDonald, President  
CRAVEN, THOMPSON & ASSOCIATES, INC.  
3563 NW 53<sup>rd</sup> Street  
Fort Lauderdale, Florida 33309

Dear Mr. McDonald:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

- Group 3 - Highway Design - Roadway
  - 3.1 - Minor Highway Design
  - 3.2 - Major Highway Design
- Group 8 - Survey and Mapping
  - 8.1 - Control Surveying
  - 8.2 - Design, Right of Way & Construction Surveying
  - 8.4 - Right of Way Mapping
- Group 10 - Construction Engineering Inspection
  - 10.1 - Roadway Construction Engineering Inspection
- Group 15 - Landscape Architect

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. Your firm may pursue projects in the referenced work types with fees estimated at less than \$500,000.00.\* This status shall be valid until June 21, 2023, for contracting purposes.

\*Limit for FDOT projects only

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,



Carliayn Kell  
Professional Services  
Qualification Administrator

CBHK/kw

1

## State of Florida Department of State


I certify from the records of this office that CRAVEN, THOMPSON & ASSOCIATES, INC. is a corporation organized under the laws of the State of Florida, filed on January 1, 1962.

The document number of this corporation is 254407.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on January 13, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this  
the Thirteenth day of January,  
2023*

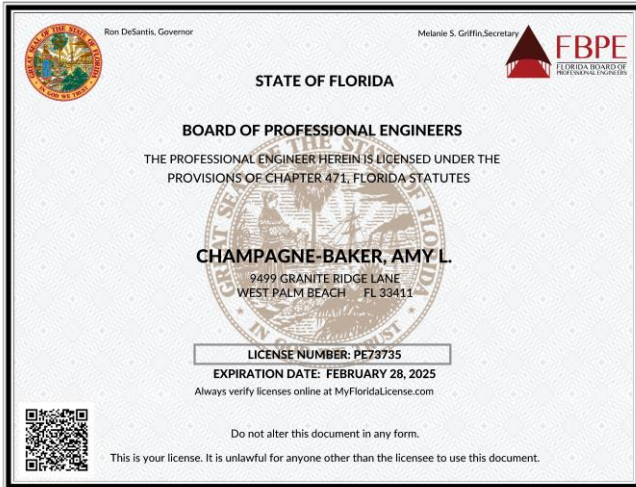



Secretary of State

Tracking Number: 8763448021CC  
To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.  
<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

**QUANTUM ELECTRICAL ENGINEERING, INC. - ELECTRICAL ENGINEERING & LIGHTING**

<b>Licensee</b>							
Name:	<b>QUANTUM ELECTRICAL ENGINEERING, INC.</b>			License Number:	<b>30805</b>		
Rank:	<b>Registry</b>			License Expiration Date:			
Primary Status:	<b>Current</b>			Original License Date:	<b>08/01/2014</b>		
<b>Related License Information</b>							
License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date	
73735	Current, Active	CHAMPAGNE-BAKER, AMY L	Registry	08/01/2014	Professional Engineer	02/28/2023	







**Florida Department of Transportation**

RON DESANTIS  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

JARED W. PERDUE, P.E.  
SECRETARY

January 17, 2023

Amy Champagne-Baker, President  
QUANTUM ELECTRICAL ENGINEERING, INC.  
125 South State Road 7, Suite 108-298  
Wellington, Florida 33414

Dear Ms. Champagne-Baker:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

- Group 7 - Traffic Operations Design
- 7.2 - Lighting

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. Your firm may pursue projects in the referenced work types with fees estimated at less than \$500,000.00.\* This status shall be valid until January 17, 2024 for contracting purposes.  
\*Limit for FDOT projects only

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,

Carliayn Kell  
Professional Services  
Qualification Administrator

CBHK/kw

## State of Florida Department of State

I certify from the records of this office that QUANTUM ELECTRICAL ENGINEERING, INC. is a corporation organized under the laws of the State of Florida, filed on May 6, 2014.

The document number of this corporation is P14000040467.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on February 16, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the  
Great Seal of the State of Florida  
at Tallahassee, the Capital, this  
the Sixteenth day of February,  
2023*



  
Secretary of State

Tracking Number: 0114517066CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

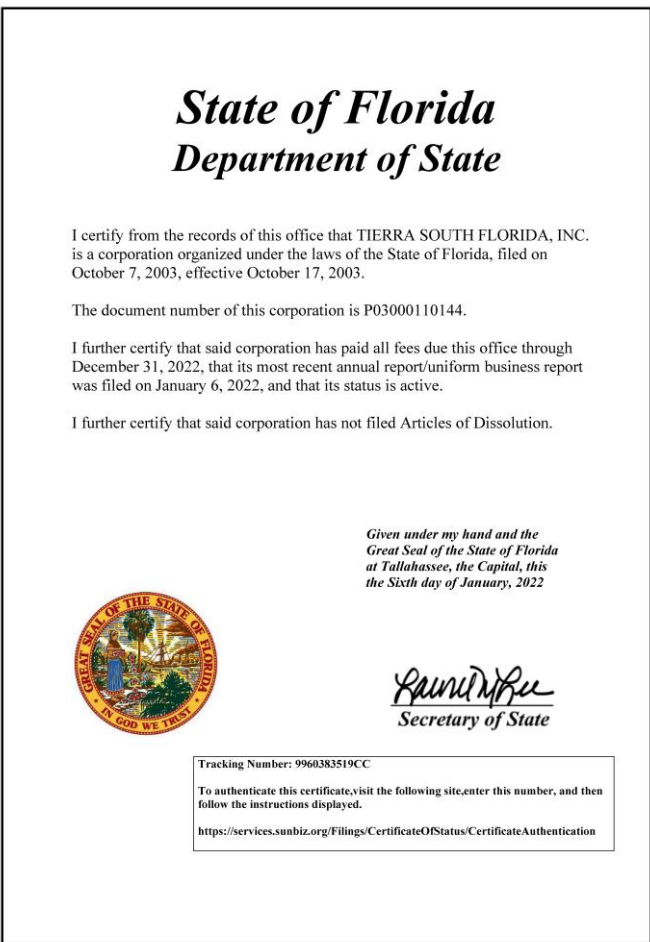
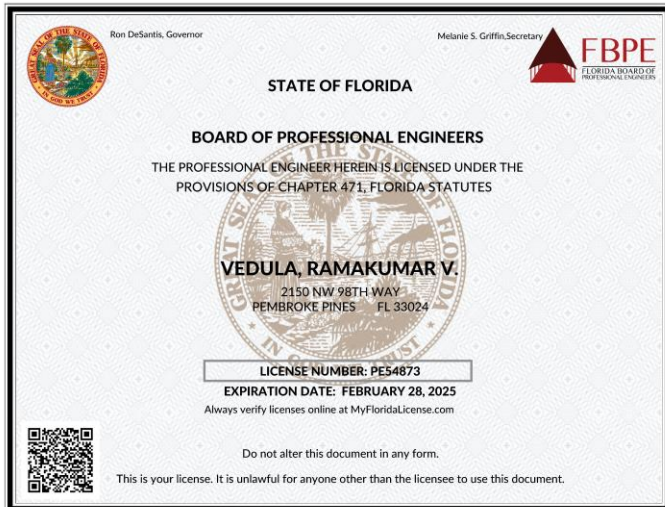
**TIERRA SOUTH FLORIDA, INC. - GEOTECHNICAL ENGINEERING**

**Licensee**

Name: **TIERRA SOUTH FLORIDA, INC.** License Number: **28073**  
 Rank: **Registry** License Expiration Date:  
 Primary Status: **Current** Original License Date: **04/13/2008**

**Related License Information**

License Number	Status	Related Party	Relationship Type	Relation Effective Date	Rank	Expiration Date
53567	Current, Active	KRISHNASAMY, RAJ	Registry	04/13/2008	Professional Engineer	02/28/2025



**FDOT**  
Florida Department of Transportation

RON DESANTIS  
GOVERNOR

605 Sawannee Street  
Tallahassee, FL 32399-0450

JARED W. FERRELL, P.E.  
SECRETARY

June 25, 2022

Raj Krishnasamy, President  
TIERRA SOUTH FLORIDA, INC.  
2765 Vista Parkway, Suite 10  
West Palm Beach, Florida 33411

Dear Mr. Krishnasamy:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

Group 9 - Soil Exploration, Material Testing and Foundations

9.1 - Soil Exploration  
9.2 - Geotechnical Classification Laboratory Testing  
9.3 - Highway Materials Testing  
9.4.1 - Standard Foundation Studies  
9.4.2 - Non-Redundant Drilled Shaft Bridge Foundation Studies  
9.5 - Geotechnical Specialized Laboratory Testing

Group 10 - Construction Engineering Inspection

10.1 - Roadway Construction Engineering Inspection  
10.3 - Construction Materials Inspection

Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue projects in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2023, for contracting purposes.

Approved Rates							
Home/ Branch Overhead	Field Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense	Field Direct Expense	Published Fee Schedule
229.59%*	166.30%*	0.829%	Reimbursed	No	16.67%	20.37%*	Yes

\*Rent and utilities excluded from field office rate. These costs will be directly reimbursed on contracts that require the consultant to provide field office.  
 \*\*For multi-year contracts, DOT has adjusted the overhead rates to mitigate the adverse impacts of Payroll Protection Program loan forgiveness. For information on the adjusted overhead rates, contact the district Procurement Office.

Per Title 23, U.S. Code 112, there are restrictions on sharing indirect cost rates. Refer to Code for additional information.

1

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4587.

Sincerely,

Carliayn Kell  
Professional Services  
Qualification Administrator

2

**Florida Department of Transportation**

CHARLIE CRIST  
GOVERNOR

605 Sawannee Street  
Tallahassee, FL 32399-0450

STEPHANIE C. KOPELOUSOS  
SECRETARY

October 1, 2009

**Certified Mail – Return Receipt Requested**

Tierra South of Florida, Inc.  
Mr. Raj Krishnasamy, P.E.  
2765 Vista Parkway, Suite 9  
West Palm Beach FL 33411

**ANNIVERSARY DATE – Annually on September 30**

Dear Mr. Krishnasamy:

The Florida Department of Transportation [FDOT] is pleased to announce that your firm is certified under the Florida Unified Certification Program [UCP] as a **Disadvantaged Business Enterprise [DBE]** in accordance with Part 49 Section 26, Code of Federal Regulations.

DBE certification is continuing, but is contingent upon the firm maintaining its eligibility annually through this office. You will be notified of your annual responsibilities in advance of the **Anniversary Date**. You must submit the annual **AFFIDAVIT FOR CONTINUING ELIGIBILITY** no later than the **Anniversary Date**. Failure to do so will result in immediate action to remove certification.

Only those firms listed in the UCP DBE Directory, are certified by Florida UCP Members. Prime contractors and consultants should verify your firm's DBE certification status, and identify the work area(s) for which the firm is DBE eligible, through this Directory.

Your firm will be listed in Florida's UCP DBE Directory which can be accessed via the internet, at <http://www.bipinwebapps.com/biznet/florida/> or through The Department's website at [www.dot.state.fl.us/equalopportunityoffice](http://www.dot.state.fl.us/equalopportunityoffice), then select "DBE Directory."

DBE certification is **NOT** a guarantee of work, but enables the firm to compete for, and perform, contract work on all USDOT Federal Aid (FAA, FTA and FHWA) projects in Florida as a DBE contractor, sub-contractor, consultant, sub-firm, if at any time, there is a material change, you **must advise this office, by sworn affidavit and supporting documents, within thirty (30) days**. Changes

www.dot.state.fl.us

include, but are not limited to, ownership, officers, Directors, management, key personnel, scope of work performed, daily operations, on-going business relationships with other firms or individuals, or the physical location of your firm. After our review you should receive instructions as to how you should proceed, if necessary. Failure to do so will be deemed a failure, on your part, to cooperate, and will result in immediate action to Remove DBE certification.

Your firm is eligible to compete for, and perform, work on all USDOT Federal Aid projects throughout Florida, and may earn DBE credit for work performed in the following areas:

<b>NAICS:</b>	<b>FDOT Specialty Code &amp; Description</b>
541330	943-Geotechnical Engineering Services
541380	944-Laboratory Testing Services

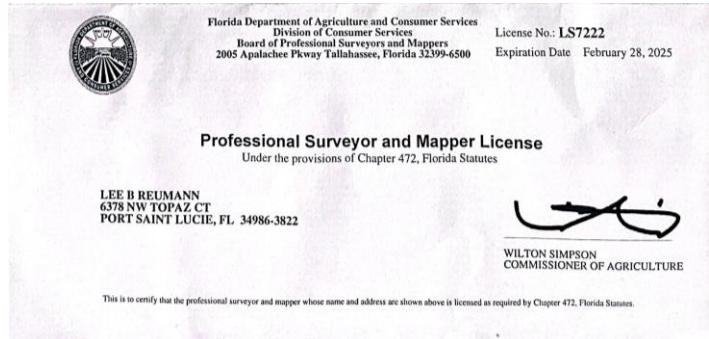
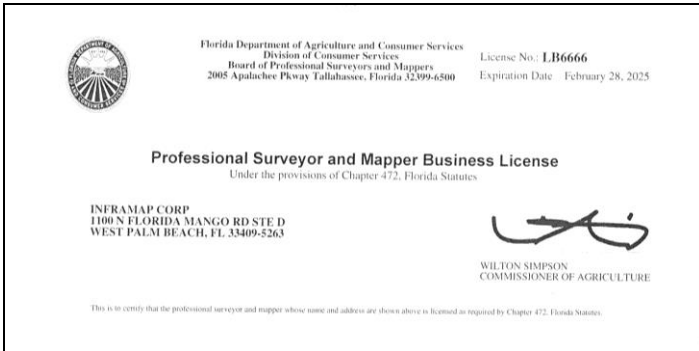

All other concerns should be directed to this office by mail or telephone. Our telephone number is (850) 414-4747. Our Fax number is (850) 414-4879

Sincerely,

John Goodeman  
DBE Certification Manager



**INFRAMAP CORP. - SUBSURFACE UTILITY LOCATES**

**Florida Department of Transportation**  
 605 Suwannee Street  
 Tallahassee, FL 32399-0450

RON DESANTIS  
 GOVERNOR

JARED W. PERDUE, P.E.  
 SECRETARY

July 20, 2022

Paul Hayes, President  
 INFRAMAP CORP.  
 10365 South Cedar Lane  
 Glen Allen, Virginia 23059

Dear Mr. Hayes:

The Florida Department of Transportation has reviewed your application for prequalification package and determined that the data submitted is adequate to technically prequalify your firm for the following types of work:

Group 8 - Survey and Mapping

- 8.1 - Control Surveying
- 8.2 - Design, Right of Way & Construction Surveying
- 8.4 - Right of Way Mapping

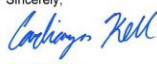
Your firm is now technically prequalified with the Department for Professional Services in the above referenced work types. The overhead audit has been accepted, and your firm may pursue projects in the referenced work types with fees of any dollar amount. This status shall be valid until June 30, 2023, for contracting purposes.

Approved Rates				
Home/ Branch Overhead	Facilities Capital Cost of Money	Premium Overtime	Reimburse Actual Expenses	Home Direct Expense
138.36%*	0.121%	Reimbursed	No	9.96%

\*For multi-year contracts, DOT has adjusted the overhead rates to mitigate the adverse impacts of Payroll Protection Program loan forgiveness. For information on the adjusted overhead rates, contact the district Procurement Office.

**Per Title 23, U.S. Code 112, there are restrictions on sharing indirect cost rates. Refer to Code for additional information.**

Should you have any questions, please feel free to contact me by email at carliayn.kell@dot.state.fl.us or by phone at 850-414-4597.

Sincerely,  
  
 Carliayn Kell  
 Professional Services  
 Qualification Administrator

1

**State of Florida  
 Department of State**

I certify from the records of this office that INFRAMAP CORP. is a Delaware corporation authorized to transact business in the State of Florida, qualified on October 6, 1994.

The document number of this corporation is F94000005189.

I further certify that said corporation has paid all fees due this office through December 31, 2022, that its most recent annual report/uniform business report was filed on March 15, 2022, and that its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

*Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twentieth day of July, 2022*



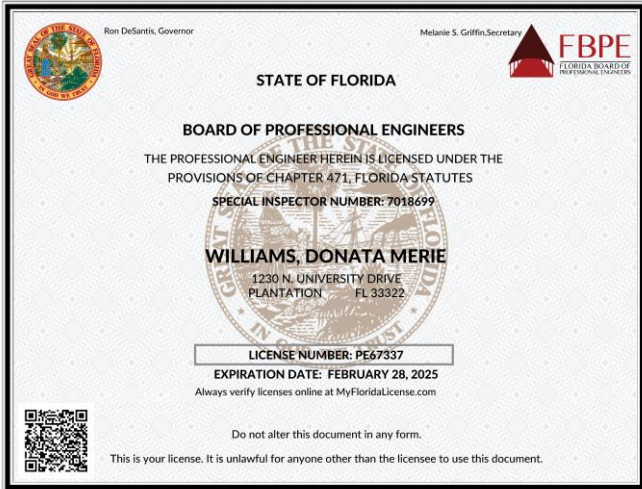
  
 Secretary of State

Tracking Number: 7570316168CU

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.  
<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

**JENKINS AND CHARLAND, INC., DBA TRC WORLDWIDE ENGINEERING - STRUCTURAL ENGINEERING**

<b>Licensee</b>						
<b>Name:</b>	<b>TRC WORLDWIDE ENGINEERING, INC.</b>		<b>License Number:</b>	<b>27322</b>		
<b>Rank:</b>	<b>Registry</b>		<b>License Expiration Date:</b>			
<b>Primary Status:</b>	<b>Current</b>		<b>Original License Date:</b>	<b>01/25/2007</b>		
<b>Related License Information</b>						
<b>License Number</b>	<b>Status</b>	<b>Related Party</b>	<b>Relationship Type</b>	<b>Relation Effective Date</b>	<b>Rank</b>	<b>Expiration Date</b>
43121	Current, Active	RAMANNA, SURENDRA	Registry		Professional Engineer	02/28/2025
67337	Current, Active	WILLIAMS, DONATA MERIE	Registry		Professional Engineer	02/28/2025



**State of Florida  
Department of State**



I certify from the records of this office that JENKINS AND CHARLAND, INC. is a corporation organized under the laws of the State of Florida, filed on October 1, 1969.

The document number of this corporation is 353080.

I further certify that said corporation has paid all fees due this office through December 31, 2023, that its most recent annual report/uniform business report was filed on February 15, 2023, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Fifteenth day of February, 2023*


  

  
**Secretary of State**

Tracking Number: 3265390288CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

## Tab E: Approach to Scope of Work



Tab E



## APPROACH TO SCOPE OF WORK

---

The project manager for the Hollywood contract will be Parick Gibney, PE. Mr. Gibney, a principal of the firm, takes an active role in the day-to-day design, permitting and construction. Mr. Gibney is very responsive to his clients, and is very quick to resolve any issues which may arise.

In order to keep projects on track and to meet time and budget requirements, Mr. Gibney, will be in regular contact with the City of Hollywood's representative through various means. We believe that having regular project meetings during the design and permitting process between City staff and the Craven Thompson team would be mutually beneficial. Face-to-face meetings tend to be more productive than conference calls. Within four hours from notification, Craven Thompson personnel would be available for any meeting. The Craven Thompson team members are readily accessible for meetings, by phone, or via email during regular hours, 7:00 am to 6:00 pm (and outside of regular hours should it become necessary).

Between meetings we will also be in contact through phone and email. Craven Thompson will supply the City of Hollywood with a contact list of team members at the beginning of the project. We will respond to the City's calls or emails within hours of receiving them. We will be available for emergency (non-scheduled) meetings within a very short notice.

Mr. Gibney will prepare a project status report either weekly, bi-weekly or monthly (dependent upon project/task duration and complexity) which will be transmitted to City staff. The report will detail tasks completed (and percentages complete of the tasks remaining), compliance with the design/permitting schedule, issues with potential impact to project schedule and/or budget, and any comments from agencies having jurisdiction.

Any potential changes to the budget or schedule will be discussed with the City of Hollywood's representative prior to making changes, if any are made at all. Where certain aspects of the project may contain costs, which are difficult to define, Craven Thompson is experienced in identifying alternatives for costs savings in the event that the project begins to exceed the City's budget. Craven Thompson will supply recommendations; however, the ultimate decision will remain up to the City. Comments from agencies having jurisdiction will be forwarded to the City prior to being addressed by Craven Thompson. In addition, our team will provide the City with the work product for review at appropriate intervals or whenever requested. Face-to-face review meetings will occur once the City has compiled all comments.

Upon being notified by the City of Hollywood of a potential project, Mr. Gibney will meet with City representatives to discuss the scope, budget and schedule. Craven Thompson will then prepare a proposal for the specific project. Once the Work Authorization has been signed, implementation will be initiated by Mr. Gibney. He will then initiate an initial internal meeting to define the scope and budget and assign specific tasks and schedules to each team member. He will share his ideas as to how to approach the tasks and define the deliverables to the City. At this point, Craven Thompson will present their intended program to the City to meet the goals, objectives, timelines and budget defined under the scope.

Craven Thompson will ensure continuity by keeping the same personnel on the project that were originally assigned. We will define a clear and concise project scope with a firm budget; assigned and well-defined project duties for each team member. Craven Thompson has a clear and concise cost control strategy with project tested implementation strategies, with a highly motivated and enthusiastic project team. As long as we adhere to our strategy, the project will progress on schedule and within budget.

As a principal of the firm, Mr. Gibney may at his discretion allocate any of the firm's personnel or resources necessary to meet the City's schedule and/or budget. Mr. Gibney will remain the point of contact for all projects under this solicitation, but will utilize different staff to perform the work necessary to maintain the schedule. All Hollywood projects will be of the highest priority and will be handled professionally to achieve

the desired outcome. We will pay special attention to meeting the City's time and budget requirements. Another discipline's project manager or lead professional will be assigned to each task and will answer directly to Mr. Gibney. Project engineers, and designers will answer directly to the lead professional assigned to the task.

Craven Thompson brings an extensive amount of combined experience in water/wastewater; and water resources/stormwater; and has built a reputation for delivering reliable and consistent engineering expertise with a focus on client satisfaction. We combine our knowledge and our refined set of skills for the benefit of our customers. At Craven Thompson, it is our mission to provide designs and solutions that exceed our customer's expectations and build long-term relationships that will enable us to work together for the safety and well-being of our communities, now and in the future.

Our project approach is to plan, design, and construct the project in concert with the City and their staff so that all ideas and opinions are considered and the entire team has ownership and a vested interest in the final product. Carrying this inclusive collaborative approach to all tasks is essential to ensuring seamless, cost-effective delivery of a project. Furthermore, we understand that each phase of the project delivery is critical, and each successive step is only as good as the work done in previous steps.

We will implement innovative design approaches to expedite the project design schedule and save additional costs. This includes reviewing and evaluating the various design options. We can provide a comparison of design options based on design factors, physical constraints and client preference.

Although, there is not a defined project or task as this is a continuing services contract, the following is provided to give the City an idea of the general step-by-step approach to a planning, survey, design, permit and build project undertaken by our team.

## PRELIMINARY PHASE

---

The preliminary phase establishes a basis for design, initial opinions of cost, and provides our client with a recommended plan for moving forward.

### ▪ Initial Stages

Upon being awarded the project by the City of Hollywood, Patrick Gibney, P.E. will meet with the assigned City staff to detail specific requirements of the project, refine the project budget, and will then prepare an understanding of project scope, and a project timeline. The understanding of project scope and preliminary project timeline will be provided to the City for review and approval prior to the Craven Thompson internal project "Kick-off Meeting." This "Kick-off Meeting" will occur after the initial project award meeting between the City of Hollywood's staff and Mr. Gibney.

At the "Kick-off Meeting", the team will be introduced to the scope, the budget and the timeline. The project manager will define the various elements of the projects and describe the quality control/quality assurance requirements at this meeting. Mr. Gibney will periodically review the progress of the project to assure meeting the project timeline and budget as initially approved by the City. As noted earlier, he will update Hollywood staff of the project progress at regular intervals.

### ▪ Information Gathering and Review

Craven Thompson will gather as much available information that can be obtained through due diligence. During this phase, we utilize available existing reliable resources and data where possible to reduce data collection costs. This will include GIS, studies, and past survey information. We will search for existing studies, reports, technical information, and design documents for the existing water mains, sanitary sewers, lift

stations, drainage, gas, telephone and electric. Also, Craven Thompson will seek public and private utility atlases and as-builts for service areas within the specific project limits.

We will review City specifications, standard details, and project management procedures; agency permitting requirements, determine regulatory agencies having jurisdiction, and their submittal requirements. We will also gather any other available existing geotechnical and environmental data within the project limits.

## ▪ **Surveying Project Limits**

Craven Thompson will prepare a boundary/topographic design survey along with a tree survey, if necessary, of the project area. We would perform the survey using mobile LiDAR and/or traditional surveying methods. The LiDAR collects millions of data points and allows us to more accurately define the existing aboveground improvements in and adjacent to the right-of-way. Using conventional means, we can set horizontal and vertical control as well as collect invert information for sanitary and storm structures. Integrating this information with collected as-built information, a base map will be produced depicting all available aboveground and below ground information. This base map's accuracy is vital in assuring the proposed design has accounted for existing conditions. Using mobile LiDAR on projects can potentially save a great deal of field time and would not be significantly different in cost to that done by conventional survey means.

Field crews will then compile below ground data such as inverts and pipe sizes as well as determine tree trunk diameters for those trees located in the right-of-way. In addition, if a tree survey is necessary, our landscape architect can provide a field assessment of the tree type and condition.

This survey would consist of a base map of the rights-of-way, a survey control baseline and survey control points, with both horizontal and vertical coordinate information, in the form of x-y-z coordinates, in State Plane, Florida East Zone, NAD83(90), US Survey Feet format. Craven Thompson can then use the survey control to create a topographic design survey of the full right-of-way of roadways and/or city property within the project areas, extending ten (10) feet beyond the existing rights-of-way where accessible. Locations would include all aboveground and visible improvements, including pavement, swales, signs, streetlights, sidewalks, driveways, utility features and trees, three (3) inches in diameter and above, measured at four (4) feet aboveground level. All sanitary and storm sewer structures would include rims, inverts and pipe sizes and directions.

Minimum Technical Requirements for the surveying will be per the Florida Board of Professional Surveyors and Mappers in Chapter 61G17-6 of the Florida Administrative Code, pursuant to Section 472.027 Florida Statutes.

## ▪ **Geotechnical Phase**

At this time, Craven Thompson will direct subconsultant to perform the necessary geotechnical services.

## ▪ **Meetings**

Regular project meetings will be held with Hollywood representatives for all phases of the project. Craven Thompson will facilitate these projects and attendees present at the meetings will be dependent on the phase of the project and the issues to be addressed. These meetings will be focused on adherence to the project timeline, quality control, budget, and also on the resolution of any outstanding issues.



## DESIGN & PERMITTING PHASE

---

We will implement innovative design approaches to expedite the project design schedule and save additional costs. This includes reviewing design options such as rehabilitation through pipe bursting or pipe abandonment and replacement. We can provide a comparison of design options based on design factors, physical constraints and client preference.

These approaches, coupled with our extensive design experience, are leveraged to provide a high-quality design that meets the City's current design standards along with regulatory requirements. At the 30% conceptual design we foster a collaborative environment by conducting a working design meeting with City staff. This allows for the City to be closely involved in the development of the documents to ensure that the needs of both management and operations staff are being met. A 30% conceptual opinion of cost is developed at this point to ensure that the budget is being maintained and opportunities to save costs are recognized and implemented where possible. The 30% conceptual design documents will then be provided to the City staff for review and comment.

City comments will then be incorporated into the plans, which will be further developed into 60% design development stage. Based on an approved 30% conceptual design, the 60% design development is the process of refining and fixing the design, and working out all the details. The aim is to finalize all design decisions before proceeding with 90% final design, the more detailed documents that the contractor will need to complete the project. A more detailed cost estimate will be provided at this phase.

Our project team will engage regulatory agencies during the design development stage to receive their preliminary input so that potential concerns can be addressed early in the process. This will minimize the number of reviews during the permitting process and allows the project to be ready for bid as soon as possible.

Craven Thompson will process the 60% design development plans and specifications through an internal review process as well as through City review. The typical Craven Thompson internal reviews take place at 30%, 60%, 90%, and 100% complete documents.

We will proceed to 90% final design stage upon incorporation of the City's 60% comments. The 90% final design documents will include clear and concise plans as well as technical specifications that will be developed for the project. The City's requirements, and permitting agency requirements will be addressed in the documents so that prospective bidders have a clear understanding of their responsibilities.

Craven Thompson will prepare the design permit applications and supporting documentation at the 90% final design stage to assist the City of Hollywood in obtaining the construction permits for the infrastructure improvements from the agencies having jurisdiction. During this period, Craven Thompson will prepare and submit responses to "Requests for Additional Information" (RAI) relative to the permitting package submitted. Any comments or additional requirements will be incorporated into the design prior to preparing the 100% design documents.

In addition, the project team will review the project from a "constructability" of design perspective to meet the City of Hollywood's goals and objectives and to maintain a firm grasp on the costs associated with each project. The "constructability" of a design is an important facet to consider during each phase of a design's development. However, when a design is nearing substantial completion (90% final design plans), it undergoes an in-house constructability review by Craven Thompson's construction services personnel. This review specifically ensures that the plans make sense from a construction perspective and is intended to minimize potential problems in the field during construction.

During our various internal review processes, we will also value engineer the project. Value engineering is not simply cutting the cost or scope of a project to reduce budget, it is a creative, organized effort, which analyses

the requirements of a project for the purpose of achieving the essential functions at the lowest total costs (capital, staffing, energy, maintenance) over the life of the project. Our construction experts have extensive experience providing constructability, bid-ability, and value engineering services to our current and past municipal clients. By providing these services, we have saved cities many thousands of dollars and months of schedule time.

We will meet with Hollywood staff to receive their comments on the 90% final design submittal. Following the meeting, our team will incorporate the City's comments and in addition identify any changes required due to agency permit comments. We will then incorporate comments from the constructability review and make appropriate revisions to the 90% final design documents. We will then proceed to complete preparation of the 100% construction documents, including plans, technical specifications and bidding documents for the solicitation of competitive bids for the construction of the project.

Close attention to the budgetary constraints will be a primary focus of Craven Thompson. In addition, value-engineering analysis will play a critical role ensuring the most efficient design possible. No work will be added to the project without review and agreement by both the City of Hollywood staff and Mr. Gibney. Such review will include cost and time impacts to identify alternative solutions, which can maintain the project's budget. Development of a solid budget will be first of foremost importance to the success of the project. Verifying the budget against the agreed upon project scope will establish the baseline cost for construction. Just as in the design controls stated above, no additions to the scope will be made without a review by the city staff and Mr. Gibney.

## **BIDDING ASSISTANCE PHASE**

---

Our project team will pull all necessary bid documents together to provide to the City for bidding purposes. Craven Thompson will work with the City to structure the bid form such that payment items align with their preferred methods of payment and tracking of quantities in the field. In addition, we advocate for utilizing alternate bid items where there are opportunities to increase competitive bidding and maximize potential cost savings. We also include in our bid assistance services the option of prequalifying bidders for our clients. Prequalification can help ensure the desired quality of work is received during construction of the project. We have prequalified prospective bidders on past projects and are well versed in the prequalification solicitation development, review, and implementation process.

We will assist the City of Hollywood by facilitating the pre-bid meeting and responding to questions and requests from the prospective bidders during the bidding phase.

Once bids have been received, Craven Thompson will tabulate the bids and review for completeness & responsiveness. In addition, we will check contractor references and prepare a recommendation to Hollywood of the lowest responsive qualified bidder. Once the contractor has been selected through the City Commission, Craven Thompson will work with the City and contractor to finalize the construction contract. Once the City has issued a Notice to Proceed for the contract, our construction personnel will facilitate a preconstruction meeting, which will include the City, agencies, contractors, and all utilities to identify responsibilities, procedures and processes to be used during construction. The construction schedule will be addressed at this meeting.

## **CONSTRUCTION SERVICES PHASE**

---

Perhaps the most critical element of a project's success is the translation of the design to actual construction. This will require constant communication between our project team, acting on the City's behalf, and the contractor to ensure that the intent of the design is being realized. We understand this dynamic well, as we have performed construction administration duties on nearly every project we have designed in our career.

Effective construction administration begins with a detailed pre-construction meeting which includes all stakeholders and a point-by-point discussion of critical activities, safety procedures, contacts, schedule, communication protocols, permit requirements, and numerous other items.

Once the City of Hollywood has issued a Notice-to-Proceed for the contract, the discipline project manager /construction services personnel will facilitate a preconstruction meeting, which will include the City, agencies, contractors, and all utilities to identify responsibilities, procedures and processes to be used during construction. The construction schedule will be addressed at this meeting. During the construction process, our team will work with the City of Hollywood and the contractor with the goal to complete the project on time and under budget.

During the first week of construction, the construction manager will be on-site interacting monitoring the construction. The Craven Thompson construction manager will keep in close contact with the City's project manager, and the Craven Thompson resident project representative to provide regular updates on the progress and issues related to the project.

To keep the City of Hollywood fully informed, the discipline project manager will generate weekly project status reports. We will communicate directives and clarifications on the project, as necessary. Our construction manager will play a critical role during the construction process by reviewing the contractor's work and identifying issues when they are discovered. Bi-weekly site meetings will be scheduled to review the project schedule and to maintain organization and communication.

The project construction manager will:

- Prepare an itemized unit quantities and unit cost spreadsheet to verify conformance with the contract;
- Review and approve shop drawings;
- Resolve field issues;
- Review contractor Requests for Additional Information (RAIs);
- Setup and facilitate construction progress meetings, and provide minutes to the city;
- Review Maintenance of Traffic (MOT) plans;
- Review and monitor Storm Water Pollution Prevention Plans (SWPPP);
- Prepare & negotiate Change Orders (COs) and Work Change Directives (WCDs);
- Attend pre-final inspection and prepare a punch-list;
- Regularly meet with the city staff to monitor schedules and budget;
- Maintain copies of the daily reports, the contractor's progress reports, change order requests, and updated construction schedules;
- Maintain a project file throughout the duration of the project, which will be provided to the City staff upon completion of the project;
- Prepare engineering certification letters as required;
- Sign & seal final record drawings;
- and prepare submittal package to the City for final approval.

## **RESIDENT PROJECT REPRESENTATIVE SERVICES**

---

The Craven Thompson resident project representative/inspector will perform the following RPR services for the City during this phase of the contract:

- Provide periodic field inspections for the construction of the infrastructure improvements;
- Attend inspections required by agencies having jurisdiction;
- Monitor conformity of construction with content of approved/permitted design plans and specifications;
- Schedule construction testing;



- Approve and certify all flushing and pressure testing of piping;
- Assist in approval process of material;
- Work with contractor on suggested value engineering opportunities;
- Ensure that inspection and testing reports are completed and provided to the City and other entities as required (including jurisdictional agencies, sub-contractors, etc.);
- Review applications for payment and verify contractor's progress;
- Coordinate and review as-built data collection with the contractor;
- and coordinate weekly as-built plan updates.

Administration of the construction work involves constant communication with the resident project representative and contractor's project manager. We understand that when construction is occurring there is no small issue and no time to be spared when resolving any issue.

While final completion and closeout of construction is primarily the responsibility of the contractor, we take our role as the Engineer of Record seriously in enforcing the closeout requirements. We understand that bringing a project to full completion can be a challenge and a source of frustration for the City. We will work closely with the contractor(s) to make sure the proper documentation is provided in a timely manner such that final payments can be made and the city can close out the project. Furthermore, the project is not complete until record drawings and engineering certifications have been issued. We will work diligently to complete record drawing responsibilities in close coordination with the contractor and City and submit certifications to the agencies having jurisdiction.

## WORKLOAD

The Craven Thompson business plan target composite utilization rate for the company is 75%. The targeted rate accounts for holiday, vacation, marketing, administration, illness, and other non-billable time. We employ a very small yet efficient number of administration personnel which contributes significantly to reducing our costs. The Craven Thompson business plan target composite utilization rate for the company is 75%. The targeted rate accounts for holiday, vacation, marketing, administration, illness, and other non-billable time. We employ a very small yet efficient number of administration personnel which contributes significantly to reducing our costs.

In 2022, Craven Thompson was at a company-wide utilization rate of 70%. Uncertainty since the onset of the pandemic and other economic issues has led to a smaller number of projects being issued by our municipal clients, while some existing projects being placed on hold. At this point in time, our staff is under-utilized. We see recovery from this situation as a gradual process and anticipate that for the next year or so we will slowly, but steadily increase our workload and perhaps approach a 72% - 73% utilization rate at the end of that period. This will still leave excess staff availability.

## ABILITY OF SOLVE COMPLEX ISSUES

The vast experience of our staff enhances Craven Thompson's ability to solve ever more complex issues. Whether this involves drainage issue, or water and wastewater our staff has encountered and solved a wide variety of problems encountered on infrastructure projects.

## TECHNOLOGY AND RESOURCES

Craven Thompson continues to update all of the needed software as the new versions are available. These programs include, but are not limited to:

- Autodesk Civil 3D 2019-2022
- Autodesk Navisworks Freedom 2019-22
- Transoft Solution AutoTURN 10
- ESRI Arc GIS 10.8 Standard and Advanced
- Applied Imagery- Quick Terrain Modeler
- Global Mapper Pro
- Bentley WaterCAD Connect Edition
- Bentley SewerCAD Connect Edition
- EPA PCSWMM Hydro
- Streamline Technologies ICPR
- Custom designed Engineering Calculation Software
- Trimble Geospatial
- Trimble Terraflex
- Leica Cyclone 2021\ 3D Laser Scan Software
- Leica Jetstream 2021\ AutoCAD Server application
- Leica Cloudworx 2021\ AutoCAD Scan Software

### **Servers:**

Our server infrastructure is running two Dell PowerEdge Host Servers running VMware Virtual Software. These 2 servers run 8 virtual servers running Windows 2008 R2 and Windows 2012 R2 server software and connect to a 96 Terabyte SAN (Storage Attached Network) device configured with RAID 6 redundancy which provides us with a high availability of file access and fault tolerance. All data is backed up to a Quantum Ultrium 4 SCSI tape drive with the capacity to backup up to 9.6 TB compressed data.

### **Network:**

Our network infrastructure consists of the latest Cisco Catalyst switches and CAT 6 network cabling with speeds up to 1 GBS.

### **Workstations:**

Our workstations are Dell Precision line workstations all running Windows 10 Professional with either Xeon or i7 Dual and Quad Core processors with solid state hard drives and a minimum 16 Gigabytes of RAM. Production workstation utilizes a minimum 4 GB video cards with dual 24" high resolution monitors.

### **Plotting:**

We have an in-house Ricoh MP W8140 high-capacity wide format plotter with color scanning capability and two Hewlett Packard High Resolution 1050 Design Jet plotters.

### **Surveying Department Resources and Equipment:**

A complete list of Craven Thompson equipment and software are as follows:

- **Craven Thompson Vehicles**
  - Eight (8) Ford F-150 Pick-ups fully equipped for Surveying Crews
  - Two (2) - 16-foot John Boat w/motor
- **Craven Thompson Field Data Collection GPS**
  - One (1) Trimble R8 GNSS GPS Systems Base Station
  - Six (6) Trimble GNSS RTK GPS Systems [Three (3) Trimble R2 and Three (3) Trimble R10]
  - One (1) Trimble R9 GNSS GPS Base Station with Trimble VRS Network
  - Five (5) Trimble DiNi Digital Level 0.3mm
  - One (1) Trimble TSC3 data collectors with Trimble Access Software
  - Six (6) Trimble TSC7 data collectors with Trimble Access Software
  - Two (2) Intuicom bridge radios

- **Field Data Collection**

- Three (3) Trimble Robotic Total Stations
- Two (2) Trimble Total Stations
- Ten (10) Radios
- Seven (7) Spectra Precision 3L Data Collectors with Survey Pro Software
- Six (6) Leica Total Stations
- Seven (7) Leica Levels
- Two (2) Apple IPAD Pro
- Two (2) Android Tablets
- One (1) Trimble GEO7x GIS Data Collection Unit

- **Sonar Equipment**

- One (1) Hydrolite Single Beam Echo Sounder
- One (1) Hydrone Portable Hydro-Lite Boat

- **3D Laser Scanning**

- Leica C10 Laser Scanner - 3D Laser High-Definition Survey System
- Cyclone 2021 Scanning Software
- CloudWorx Pro 2021 for AutoCAD

## SCHEDULING METHODOLOGY

Craven Thompson proposes using the critical path method (CPM) for scheduling, with *Microsoft Project* software. This method calculates the minimum completion time for a project along with the possible start and finish times for the project activities. The critical path itself represents the set or sequence of predecessor/successor activities which will take the longest time to complete. The duration of the critical path is the sum of the activities' durations along the path. Thus, the critical path can be defined as the longest possible path through the "network" of project activities. The duration of the critical path represents the minimum time required to complete a project. Any delays along the critical path would imply that additional time would be required to complete the project. There may be more than one critical path among all the project activities, so completion of the entire project could be delayed by delaying activities along any one of the critical paths. Formally, critical path scheduling assumes that a project has been divided into activities of fixed duration and well-defined predecessor relationships. A predecessor relationship implies that one activity must come before another in the schedule.

## APPROACH TO TEAM SCALABILITY

As project manager, Patrick Gibney, P.E. will assign the staff and resources necessary to complete the project or task. He will assign a lead engineer and then determine the number of project engineers to assign to the project dependent upon the level of design and CAD required to meet the schedule deadlines. This has been the process used on all of our continuing services contracts.



## Tab F: Knowledge of Site and Local Conditions

## Tab G: References

## VENDOR REFERENCE FORM

**City of Hollywood Solicitation #:** RFQ-042-23-JJ, Infrastructure Projects (Water, Sewer, Reuse and Stormwater)  
**Reference for:** Craven, Thompson & Associates, Inc.

**Organization/Firm Name providing reference:**

Broward County Water and Wastewater Services

**Organization/Firm Contact Name:**

Mr. Michael Hagerty, P.E., LEED AP

**Title:**

Engineering Unit Supervisor

**Email:**

mhagerty@broward.org

**Phone:**

(954) 831-3217

**Name of Referenced Project:**

Utility Analysis Zone 122

**Contract No:**

RLI # R1294801P1

**Date Services were provided:**

2016 - 2021

**Project Amount:**

\$2,620,441.00

**Referenced Vendor's role in Project:**

**Prime Vendor**

**Subcontractor/ Subconsultant**

**Would you use the Vendor again?**

**Yes**

**No. Please specify in additional comments**

**Description of services provided by Vendor (provide additional sheet if necessary):** Craven Thompson provided surveying, water and wastewater engineering, permitting, bid assistance and CEI services

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
<b>Vendor's Quality of Service</b>				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Vendor's Organization:</b>				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Staff turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Timeliness/Cost Control of:</b>				
a. Project	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Additional Comments (provide additional sheet if necessary):**

***THIS SECTION FOR CITY USE ONLY***					
<b>Verified via:</b>	<b>Email:</b>	<input type="checkbox"/>	<b>Verbal:</b>	<input type="checkbox"/>	<b>Mail:</b> <input type="checkbox"/>
<b>Verified by:</b>	<b>Name:</b>			<b>Title:</b>	
	<b>Department:</b>			<b>Date:</b>	



## VENDOR REFERENCE FORM

**City of Hollywood Solicitation #:** RFQ-042-23-JJ, Infrastructure Projects (Water, Sewer, Reuse and Stormwater)  
**Reference for:** Craven, Thompson & Associates, Inc.

**Organization/Firm Name providing reference:** Central Broward Water Control District

**Organization/Firm Contact Name:** Mr. Jace Shelby **Title:** District Manager

**Email:** districtmanager@centralbrowardwcd.org **Phone:** (954) 432-5110

**Name of Referenced Project:** District Engineer **Contract No:** Master Services Agreement

**Date Services were provided:** 2007 - Present **Project Amount:** Varies

**Referenced Vendor's role in Project:**  **Prime Vendor**  **Subcontractor/ Subconsultant**

**Would you use the Vendor again?**  **Yes**  **No. Please specify in additional comments**

**Description of services provided by Vendor (provide additional sheet if necessary):** Craven Thompson has served as the CBWCD District Engineer since 2007. Duties have included reviewed and recommend approval drainage projects within CBWCD boundaries, attend Board meetings; and prepare studies & construction plans for CIP projects provide surveys, prepare easement, permit CIP projects, and provide CEI services

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
<b>Vendor's Quality of Service</b>				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Vendor's Organization:</b>				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Staff turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Timeliness/Cost Control of:</b>				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Additional Comments (provide additional sheet if necessary):**

****THIS SECTION FOR CITY USE ONLY****					
<b>Verified via:</b>	<b>Email:</b>	<input type="checkbox"/>	<b>Verbal:</b>	<input type="checkbox"/>	<b>Mail:</b> <input type="checkbox"/>
<b>Verified by:</b>	<b>Name:</b>		<b>Title:</b>		
	<b>Department:</b>		<b>Date:</b>		

## VENDOR REFERENCE FORM

**City of Hollywood Solicitation #:** RFQ-042-23-JJ, Infrastructure Projects (Water, Sewer, Reuse and Stormwater)  
**Reference for:** Craven, Thompson & Associates, Inc.

**Organization/Firm Name providing reference:** City of Boca Raton

**Organization/Firm Contact Name:** Mr. Edward Galvan **Title:** Project Engineer, Utility Services

**Email:** egalvan@myboca.us **Phone:** (561) 447-7405

**Name of Referenced Project:** Chatham Hills Infrastructure Upgrade **Contract No:** RFP 2018-015

**Date Services were provided:** 2018 - 2022 **Project Amount:** \$609,327.90

**Referenced Vendor's role in Project:**  **Prime Vendor**  **Subcontractor/ Subconsultant**

**Would you use the Vendor again?**  **Yes**  **No. Please specify in additional comments**

**Description of services provided by Vendor (provide additional sheet if necessary):** Craven Thompson provided surveying, water & wastewater engineering, permitting, bid assistance and CEI services.

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
<b>Vendor's Quality of Service</b>				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Vendor's Organization:</b>				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Staff turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Timeliness/Cost Control of:</b>				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Additional Comments (provide additional sheet if necessary):**

****THIS SECTION FOR CITY USE ONLY****					
<b>Verified via:</b>	<b>Email:</b>	<input type="checkbox"/>	<b>Verbal:</b>	<input type="checkbox"/>	<b>Mail:</b> <input type="checkbox"/>
<b>Verified by:</b>	<b>Name:</b>		<b>Title:</b>		
	<b>Department:</b>		<b>Date:</b>		

## VENDOR REFERENCE FORM

**City of Hollywood Solicitation #:** RFQ-042-23-JJ, Infrastructure Projects (Water, Sewer, Reuse and Stormwater)  
**Reference for:** Craven, Thompson & Associates, Inc.

**Organization/Firm Name providing reference:** City of Miami Gardens

**Organization/Firm Contact Name:** Mr. Tom Ruiz, CGC, CFM **Title:** Public Works Director

**Email:** truiz@miamigardens-fl.gov **Phone:** (786) 279-1260

**Name of Referenced Project:** Livable Neighborhood, Vista Verde, **Contract No:** RFQ # 06-07-08  
**Date Services were provided:** Phases 1D, 2 & 3 **Project Amount:** \$226,369.50  
2018 - 2020

**Referenced Vendor's role in Project:**  **Prime Vendor**  **Subcontractor/ Subconsultant**

**Would you use the Vendor again?**  **Yes**  **No. Please specify in additional comments**

**Description of services provided by Vendor (provide additional sheet if necessary):** Craven Thompson provided surveying, civil engineering, stormwater design, permitting, bid assistance and limited CEI services.

Please rate your experience with the Vendor	Need Improvement	Satisfactory	Excellent	Not Applicable
<b>Vendor's Quality of Service</b>				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Vendor's Organization:</b>				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Staff turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Timeliness/Cost Control of:</b>				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Additional Comments (provide additional sheet if necessary):** It is always a pleasure to work with Craven and Thompson.


Digitally signed by O. Tom Ruiz  
 DN: cn=O. Tom Ruiz, o=City of Miami Gardens, ou=Public Works Department, email=truiz@miamigardens-fl.gov, c=US  
 Date: 2023.02.06 11:22:21 -05'00'

****THIS SECTION FOR CITY USE ONLY****				
<b>Verified via:</b>	<b>Email:</b> <input type="checkbox"/>	<b>Verbal:</b> <input type="checkbox"/>	<b>Mail:</b> <input type="checkbox"/>	
<b>Verified by:</b>	<b>Name:</b>		<b>Title:</b>	
	<b>Department:</b>		<b>Date:</b>	



## Tab H: Sub Consultants

## **INFRAMAP CORP. - S.U.E. LOCATES**

1100 North Florida Mango Road, Suite D  
West Palm Beach, Florida 33409

Contact: Mr. Andres M. Garcia, Senior Utility Location Manager

Phone: (561) 586-0790

Email: [agarcia@inframap.net](mailto:agarcia@inframap.net)



InfraMap is a leading provider of Utility Infrastructure Mapping and Subsurface Utility Engineering (S.U.E.) services. InfraMap collects utility infrastructure data in the field using sophisticated geophysical techniques and instrumentation (including GPR), with automated data collection gear and state of the art survey equipment. InfraMap then merges this information onto their client's base mapping in their desired format. They collect and present this data to aid their clients in reducing the design and construction cost of major infrastructure projects. Founded in 1987, InfraMap is a utility infrastructure mapping specialist. Their clients are State and Local Transportation Departments, Airports, Port Authorities and Utilities. InfraMap has performed some of the largest utility mapping projects ever undertaken by any firm.

---

## **QUANTUM ELECTRICAL ENGINEERING, INC. - LIGHTING AND ELECTRICAL ENGINEERING**

5571 North University Drive, Suite 101

Coral Springs, Florida 33411

Contact: Ms. Amy Champagne-Baker, P.E., President

Phone: (561) 210-9224 / Email: [Amy.Champagne@quantum-ee.com](mailto:Amy.Champagne@quantum-ee.com)

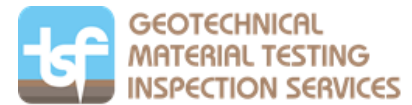


Quantum Electrical Engineering, Inc. is a full-service, women-owned professional engineering consulting firm located in West Palm Beach and Coral Springs, Florida. At Quantum Electrical Engineering, they value their clients' needs for safe, reliable, and operationally efficient designs by creating cost-effective engineering solutions delivered in a responsive, dynamic, and efficient way. Since Quantum's firm is built on this understanding, they have developed trusted, long-lasting relationships by conducting business with integrity, honesty, hard work, and accountability in a collaborative, solution-oriented environment.

Quantum provides full-spectrum electrical design services along with construction services to their clients and specialize in the design of electrical systems for Airports including passenger terminals, airfield lighting, and FAA approach systems. In addition to aviation, Quantum also provides industrial design services for municipalities, utilities and the transportation sectors. Including interior and exterior lighting systems, fire alarm and security systems, camera systems, normal and stand by emergency generation systems and power, roadway, parking and site lighting. Quantum's staff has extensive experience in electrical design and construction management experience including project management, shop drawing submittal review, testing, startups and construction observation of high, medium and low voltage distribution systems.

## TIERRA SOUTH FLORIDA, INC. - GEOTECHNICAL ENGINEERING

2965 Vista Parkway, Suite 10  
West Palm Beach, Florida 33411  
Contact: Mr. Raj Krishnasamy, P.E., President  
Phone: (561) 687-8536 / Email: [raj@tsfgeo.com](mailto:raj@tsfgeo.com)



Tierra South Florida, Inc. (TSF) provides a complete range of geotechnical engineering services. Their organization helps define the construction and long-term performance risks associated with subsurface conditions. TSF will evaluate and then develop recommendations regarding both existing structures and new construction. Whether infrastructure rehabilitation, buildings, airport facilities, transportation systems, landfills, dams, or other civil and private projects, their engineers have the experience and expertise to handle the most technically demanding projects. TSF owns a large, diverse fleet of 8 drill rigs with automatic hammers (truck-mounted, track-mounted, rotary, tripod, ATV, barge) capable of drilling in challenging conditions including remote, soft, marshy, over-water, difficult access or environmentally sensitive areas. They also employ MOT (Maintenance of Traffic) certified staff to safely perform drilling services in high traffic areas. TSF's geotechnical services include: laboratory testing and analysis, pavement evaluations and design, subsurface exploration, deep and shallow foundation analysis/design, and slope stability analysis, etc. TSF will be assisting Craven Thompson with the geotechnical services for the project. TSF has already performed preliminary soil borings on the park site and is therefore very familiar with the project.

---

## JENKINS AND CHARLAND, DBA TRC WORLDWIDE ENGINEERING - STRUCTURAL ENGINEERING

1230 North University Drive  
Plantation, Florida 33322  
Contact: Ms. Donata Williams, P.E., MBA, LEED AP, Managing Principal  
Phone: (954) 484-7777 / Email: [dwilliams@trcww.com](mailto:dwilliams@trcww.com)



TRC Worldwide Engineering, Inc. (TRC), founded in Fort Lauderdale in 1967 as Jenkins & Charland, provides structural engineering services to a wide variety of clients throughout the United States. The Structural Division of TRC has offices in Fort Lauderdale, Fort Myers, Sarasota and Tampa FL, Atlanta GA, Nashville TN, Indianapolis IN, Dallas TX, and Scottsdale AZ, and current professional structural and support staff of over fifty people. In addition, TRC Worldwide Engineering has offices in Chicago and Springfield IL, Gaithersburg MD, Allentown and York PA.

As professional engineers, the firm endorses and follows the highest ethical standards of professional engineering principles and is proud of the professional relationships we have maintained with the clients who have engaged our services.

TRC's design professionals constantly monitor, evaluate and improve management, technology, and project delivery systems to ensure our clients receive the most current and appropriate project solutions. We are known for quality control and quick response and have expertise in many complex analysis platforms such as ETABS, Ram Steel, RISA-3D, SDS/2, AutoCAD and REVIT. TRC prides itself in upholding the spirit of its philosophy.



## Tab I: Financial Resources

## Tab J: Legal Proceedings and Performance

## LEGAL PROCEEDINGS AND PERFORMANCE

---

### **CRAVEN THOMPSON & ASSOCIATES, INC.**

Craven Thompson & Associates, Inc. has not been involved in any arbitrations, lawsuits, bankruptcies, or any other legal matter in the last 5 years.

### **TRC WORLDWIDE ENGINEERING**

TRC Worldwide Engineering, dba Jenkins and Charland has not been involved in any arbitrations, lawsuits, bankruptcies, or any other legal matter in the last 5 years.

### **QUANTUM ELECTRICAL ENGINEERING, INC.**

Quantum Electrical Engineering, Inc. has not been involved in any arbitrations, lawsuits, bankruptcies, or any other legal matter in the last 5 years.

### **TIERRA SOUTH FLORIDA**

Tierra South Florida, Inc. dba TSFGeo, is not involved in any prior or pending litigation or investigation, either civil or criminal, involving a governmental agency or which may affect the performance of the Services to be rendered herein, in which Tierra South Florida, any of its employees (while in the performance of their duties), Subcontractors or Subconsultants is or has been involved.

### **INFRAMAP CORP.**

InfraMap Corp. has no litigation to report as related to this pursuit.



## Tab K: Required Forms



Tab K

**SWORN STATEMENT PURSUANT TO SECTION 287.133 (3) (a) FLORIDA STATUTES ON PUBLIC ENTITY  
CRIMES**

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY  
PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS

1. This form statement is submitted to the City of Hollywood by  
Patrick J. Gibney, P.E., V.P., Engineering for Craven Thompson & Associates, Inc.  
(Print individual's name and title) (Print name of entity submitting sworn statement)  
whose business address is  
3563 NW 53rd Street, Fort Lauderdale, Florida 33309  
and if applicable its Federal Employer Identification Number (FEIN) is 59-0948029. If the  
entity has no FEIN, include the Social Security Number of the individual signing this sworn  
statement.
- 

2. I understand that "public entity crime," as defined in paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misinterpretation.
3. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in an federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
4. I understand that "Affiliate," as defined in paragraph 287.133(1)(a), Florida Statutes, means:
1. A predecessor or successor of a person convicted of a public entity crime, or
  2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
- 5 I understand that "person," as defined in Paragraph 287.133(1)(e), Florida Statutes, means any natural person or any entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts let by a public entity, or which otherwise transacts or applies to transact



business with a public entity. The term "person" includes those officers, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

6. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

Neither the entity submitting sworn statement, nor any of its officers, director, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime, but the Final Order entered by the Hearing Officer in a subsequent proceeding before a Hearing Officer of the State of the State of Florida,

Division of Administrative Hearings, determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vendor list. (attach a copy of the Final Order).

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THAT PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017 FLORIDA STATUTES FOR A CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

  
\_\_\_\_\_  
(Signature)

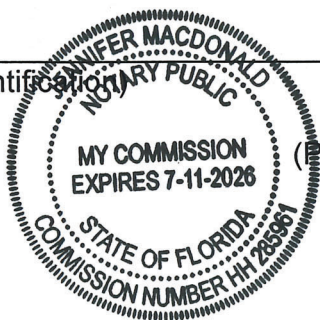
Sworn to and subscribed before me this 28th day of February, 2023.

Personally known Patrick J. Gibney, P.E.

Or produced identification \_\_\_\_\_ Notary Public-State of Florida

(Type of identification) \_\_\_\_\_ my commission expires 7/11/2026  
Jennifer MacDonald

(Printed, typed or stamped commissioned name of notary public)





# Request for Taxpayer Identification Number and Certification

**Give Form to the  
 requester. Do not  
 send to the IRS.**

▶ Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Print or type.  
 See Specific Instructions on page 3.

<b>1</b> Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>Craven, Thompson &amp; Associates, Inc.</b>	
<b>2</b> Business name/disregarded entity name, if different from above	
<b>3</b> Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate  <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is <b>not</b> disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.  <input type="checkbox"/> Other (see instructions) ▶ _____	<b>4</b> Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from FATCA reporting code (if any) _____  <i>(Applies to accounts maintained outside the U.S.)</i>
<b>5</b> Address (number, street, and apt. or suite no.) See instructions. <b>3563 NW 53rd Street</b>	Requester's name and address (optional) <b>City of Hollywood</b>
<b>6</b> City, state, and ZIP code <b>Fort Lauderdale, Florida 33309</b>	<b>1621 North 14th Avenue                  Hollywood, Florida 33020</b>
<b>7</b> List account number(s) here (optional)	

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

<b>Social security number</b>	
[ ][ ][ ] - [ ][ ] - [ ][ ][ ][ ][ ][ ]	
<b>or</b>	
<b>Employer identification number</b>	
5 9 - 0 9 4 8 0 2 9	

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

<b>Sign Here</b>	Signature of U.S. person ▶	Date ▶ <b>2/10/23</b>
------------------	----------------------------	-----------------------

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

### Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

*If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.*



## STATEMENT OF QUALIFICATION CERTIFICATION

**Please Note:** All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/> ).

Company: (Legal Registration) Craven, Thompson & Associates, Inc.

Name/Principal/Project Manager: Patrick J. Gibney, P.E., Vice President, Engineering

Address: 3563 NW 53rd Street

City: Fort Lauderdale State: FL Zip: 33309

Telephone No. (954) 739-6400 FEIN/Tax ID No. 59-0948029 Email: pgibney@craventhompson.com

Does your firm qualify for MBE or WBE status: MBE  WBE

**ADDENDUM ACKNOWLEDGEMENT** - Proposer acknowledges that the following addenda have been received and are included in the proposal:

<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>
<u>1</u>	<u>1/18/2023</u>	<u>3</u>	<u>1/19/2023</u>
<u>2</u>	<u>1/19/2023</u>	<u>4</u>	<u>1/24/2023</u>
		<u>5</u>	<u>2/21/2023</u>

**VARIANCES:** State any variations to specifications, terms and conditions in the space provided below or reference in the space provided below all variances contained on other pages of bid, attachments or bid pages. No variations or exceptions by the Proposer will be deemed to be part of the bid submitted unless such variation or exception is listed and contained within the bid documents and referenced in the space provided below. If no statement is contained in the below space, it is hereby implied that your bid/proposal complies with the full scope of this solicitation. If this section does not apply to your bid/proposal, simply mark N/A. **If submitting your response electronically through OPENGOV you must click the exception link if any variation or exception is taken to the specifications, terms and conditions.**

None.

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal. I have read all attachments including the specifications and fully understand what is required. By submitting this signed bid/proposal, I will accept a contract if approved by the City and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, hereby agrees that in no event shall the City's liability for respondent's indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of five hundred dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Patrick J. Gibney, P.E.

Name (printed)

February 28, 2023

Date: Title

  
Signature

Vice President, Engineering



# CERTIFICATE OF LIABILITY INSURANCE

**DATE (MM/DD/YYYY)**  
11/30/2022

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

<b>PRODUCER</b> Brown & Brown of Florida, Inc. 1201 W Cypress Creek Rd Suite 130 Fort Lauderdale FL 33309	<table border="0" style="width: 100%;"> <tr> <td style="font-size: small;">CONTACT NAME:</td> <td colspan="3">Angela Nervi-Saketkoo</td> </tr> <tr> <td style="font-size: small;">PHONE (A/C, No, Ext):</td> <td>(954) 776-2222</td> <td style="font-size: small;">FAX (A/C, No):</td> <td>(954) 776-4446</td> </tr> <tr> <td style="font-size: small;">E-MAIL ADDRESS:</td> <td colspan="3">angela.nervi@bbrown.com</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 2px;"> <tr> <th style="text-align: center;">INSURER(S) AFFORDING COVERAGE</th> <th style="text-align: center;">NAIC #</th> </tr> <tr> <td>INSURER A: Hartford Fire Insurance Company</td> <td style="text-align: center;">19682</td> </tr> <tr> <td>INSURER B: Hartford Insurance Company of the Midwest</td> <td style="text-align: center;">37478</td> </tr> <tr> <td>INSURER C: Hartford Casualty Insurance Company</td> <td style="text-align: center;">29424</td> </tr> <tr> <td>INSURER D: Continental Casualty Company</td> <td style="text-align: center;">20443</td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </table>	CONTACT NAME:	Angela Nervi-Saketkoo			PHONE (A/C, No, Ext):	(954) 776-2222	FAX (A/C, No):	(954) 776-4446	E-MAIL ADDRESS:	angela.nervi@bbrown.com			INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: Hartford Fire Insurance Company	19682	INSURER B: Hartford Insurance Company of the Midwest	37478	INSURER C: Hartford Casualty Insurance Company	29424	INSURER D: Continental Casualty Company	20443	INSURER E:		INSURER F:	
CONTACT NAME:	Angela Nervi-Saketkoo																										
PHONE (A/C, No, Ext):	(954) 776-2222	FAX (A/C, No):	(954) 776-4446																								
E-MAIL ADDRESS:	angela.nervi@bbrown.com																										
INSURER(S) AFFORDING COVERAGE	NAIC #																										
INSURER A: Hartford Fire Insurance Company	19682																										
INSURER B: Hartford Insurance Company of the Midwest	37478																										
INSURER C: Hartford Casualty Insurance Company	29424																										
INSURER D: Continental Casualty Company	20443																										
INSURER E:																											
INSURER F:																											
<b>INSURED</b> Craven Thompson & Associates, Inc. 3563 NW 53rd Street Fort Lauderdale FL 33309																											

**COVERAGES**                                  **CERTIFICATE NUMBER:** 22-23 & 23-24 COI                                  **REVISION NUMBER:** \_\_\_\_\_

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			21UUNOL5298	12/01/2022	12/01/2023	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Employee Benefits \$ 1,000,000
B	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			21UENOL5299	12/01/2022	12/01/2023	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ Medical payments \$ 5,000
C	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			21XHUOL5300	12/01/2022	12/01/2023	EACH OCCURRENCE \$ 6,000,000 AGGREGATE \$ 6,000,000 \$ <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER
B	<input checked="" type="checkbox"/> <b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N	N/A	21WBOL6H4G	01/01/2023	01/01/2024	E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Professional Liability incl. Pollution			591918336	03/30/2022	03/30/2023	Each Claim \$3,000,000 Aggregate \$4,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

**CERTIFICATE HOLDER**

**CANCELLATION**

For Proposals Purposes Only	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE <div style="text-align: right; margin-top: 10px;"> </div>
-----------------------------	--