

December 6, 2018

Mr. Clece Aurelus, P.E.  
Engineering Support Services Manager  
City of Hollywood, Department of Public Utilities  
1621 N. 14<sup>th</sup> Avenue  
Hollywood, Florida 33022

**RE: 441 CORRIDOR/PLAYLAND ESTATES  
SEPTIC TO SEWER CONVERSION  
CITY OF HOLLYWOOD PROJECT NO. 18-7090  
CTA PROPOSAL NO. 2018-S04.141**

Dear Clece,

CRIVEN THOMPSON



**& ASSOCIATES INC.**

Engineers  
Planners  
Surveyors  
Landscape Architects

Craven Thompson & Associates, Inc. (CTA) is pleased to submit this proposal for Consulting Services per our Professional Services Agreement for General Engineering Consulting Services in connection with the Septic to Sewer Conversion Phase Project within the **Project Limits** defined between Taft Street, Stirling Road, Street, N 56<sup>th</sup> Avenue and Florida's Turnpike, less the Seminole Reservation. The limits are delineated on the attached "**EXHIBIT A**". There are approximately 71,000 linear feet of sanitary sewer installation with approximately 57,000 linear feet within Water Main Replacement Project 5138 and 14,000 linear feet in adjacent areas.

The proposed work will consist of surveying, design, permitting and bidding assistance for approximately 71,000 linear feet of gravity sanitary sewer main and laterals in Water Main Replacement Project 5138 limits and adjacent areas. The work also includes coordination with the preliminary design of the proposed water main to accommodate the sanitary sewer system. The Project is in a septic tank area and the proposed design does not include connection to the existing house service. It is anticipated that the surveying, engineering design and permitting will be completed within fifteen (15) months from NTP. The bidding and construction will follow according to the City of Hollywood's schedule. Specifically, our proposed scope of services and fees are as follows:

**I. SURVEYING SERVICES**

**1.1 Prepare Topographic Survey (CTA Task No. 11050)**

Prepare a new Design survey for approximately 14,000 linear feet of additional roadways lying north and west of the previous Water Main Replacement Project No. 5138 and perform miscellaneous updates to the existing Topographic survey within Project 5138.

All surveys will include approximately 1,500 septic tank locations if accessible from the Right of Way and details of potential lift station sites within the Project Limits.

The updates to the Survey of Project No. 5138 area will consist of any new and/or altered locations within the rights-of-way and topography of adjacent areas discovered since the 2017 Topographic survey was completed.

3563 N.W. 53rd Street  
Fort Lauderdale, FL 33309-6311  
(954)739-6400  
Fax (954) 739-6409

The Topographic Design survey of the additional 14,000 linear feet of new roadways will include all aboveground and visible improvements within the Rights-of-way including adjacent areas affecting the design of proposed sanitary sewer lines. The survey will also include topographic cross-section elevations along the roadways at fifty-foot intervals and the location of any existing Sanitary or Storm drainage structures that would affect design. Structure information will include rim, invert, pipe size and material if visible and unobstructed. If obstructed, the structure will be noted and the information will be passed along to the City for clearing.

All elevations will be relative to North American Vertical datum of 1988 (NAVD 88) and based on National Geodetic Survey (NGS) or Florida Department of Transportation (FDOT) Benchmarks.

All survey data will meet the current standards of practice for surveying in Florida as defined under Chapter 5J-17, F.A.C. A copy of the CAD file and all data files will be provided to the City of Hollywood.

The entire project is delineated in the attached “**EXHIBIT A**”.

*Hourly, Not to Exceed* ..... \$84,440.84

## **II. ENGINEERING SERVICES**

- 2.1 Wastewater Collection & Transmission System Pre-Design Report (CTA Task No. 34010)  
Prepare a schematic sanitary sewer collection and transmission system for the Water Main Project 5138 Area and additional surrounding area west of State Road 7 from Taft Street to Atlanta Street. The layout will consider current project area including gravity layout and upgrades to Lift Stations W-12. The Pre-Design Report will provide gravity sewer layout to provide the most efficient way to provide new sanitary sewer service within the limits of Water Main Replacement Project 5138 and adjacent areas. Tech Memo will be issued for this Task.

*Hourly, Not to Exceed* ..... \$28,224.00

- 2.2 Sanitary Sewer Design CTA Task No. 34140)  
Prepare Final Engineering Plans for the design of a complete gravity sewer collection system to serve the Project Area. The sewer system will consist of gravity mains, manholes, and laterals. No lift stations, force mains or flow meters are part of this task. The proposed gravity system will tie into the existing wastewater collection/transmission system in the Project Area. The task will also include pavement restoration/replacement for the roadways affected by the proposed work. No gravity sewers exist within the Project Area and it is the intent of this task to design a new collection system to serve this area. The City has designed the lift station and force main system to convey the new flows from the Project Area.

This task does not include connections to any property services, abandonment of septic tanks, routing of service piping on private property, etc.

*Hourly, Not to Exceed* ..... \$528,595.20

2.3 Permitting (CTA Task No. 33100)

Consultant shall prepare applications and such documents and design data as may be required for approvals of all such governmental authorities as have jurisdiction over the Project regarding Engineering Design. Engineering and Environmental Permit may include the following:

- Florida Department of Environmental Protection (FDEP)
- City of Hollywood
- Broward County Environmental Protection and Growth Management Department (BCEPGMD) (Water and Wastewater)
- Florida Department of Transportation (FDOT)

*Hourly, Not to Exceed* ..... \$25,862.40

2.4 Geotechnical Services (CTA Task No. 31006)

Geotechnical services to include up to twelve (12) soil borings a maximum of twenty (20') feet in depth per boring.

*Hourly, Not to Exceed* ..... \$11,294.72

2.5 Test Hole Locations (CTA Task No. 33160)

Test hole locations of existing utilities to assist in design of proposed infrastructure. Locate up to twenty (20) test holes within the Project Area with accurate horizontal and vertical information in the form of x-y-z coordinates.

*Each Test Hole (\$750/TH x 20 TH)*..... \$15,000.00

2.6 Contract Document Preparation, Bidding Assistance (CTA Task No. 31100)

Prepare Contract Documents, attend Pre-Bid Meetings, Prepare Addendums, Answer RFI's, Prepare Bid Analysis, etc.

*Hourly, Not to Exceed* ..... \$16,819.20

**III. REIMBURSABLE EXPENSES**

3.1 Reimbursable Expenses (CTA Task No. XPEN)

Reimbursable expenses shall include printing, mylars, copying, postage, photographic services, Federal Express and courier services.

*Budget, Estimate*..... \$2,000.00

**IV. ALLOWANCES**

4.1 Allowances

Allowance may be used for W-12 upgrades as well as other potential improvements. Use of this Task will require a detailed scope of work and fee estimate and must be approved by Public Utilities Engineering Support Services Manager and/or Senior Project Manager.

*Budget* ..... \$50,000.00

**TOTAL, SURVEYING, ENGINEERING,  
REIMBURSABLES & ALLOWANCE .....\$762,236.36**

**DELIVERABLES:**

1. Technical Memo
  - Technical memo will include the Master Plan and schematic layout of wastewater collection system within the Project Area.
2. 60% and 90% Design Phase Submittals
  - Eight (8) hard copies and a digital copy (pdf) of design plans and OPCC will be issued for City staff review. Digital copy (pdf) of specifications will be provided with 90% design submittal.
3. 100% Final Submittals
  - One (1) hard copy of design plans signed and sealed along with Digital copy (pdf).

Drawings

Sheets

Cover Sheet .....	1
General Notes, Key Map, Phasing .....	15
Demolition Plans .....	8
Water and Wastewater Plan Sheets .....	106
Wastewater Profile Sheets .....	110
Lift Station Sheets.....	18
Pavement Markings and Signage .....	106
Construction Details .....	16

- One (1) hard copy and digital copy (pdf): Project Manual for Bidding Purposes
  - Front End Documents (provided by City for inclusion in Project Manual)
  - Technical Specifications including Division 1 and 2
  - Geotechnical Report.
  - Test Hole Data
  - Copies of approved permits
- One (1) digital copy (pdf) of 100% Contract Documents



### **PROJECT UNDERSTANDING**

- The City of Hollywood proposes to expand the existing wastewater collection and transmission system within the existing Rights of Way and Easements in the Project Area west of N 56<sup>th</sup> Avenue, north of Taft Street, east of the Turnpike and south of Stirling Road, excluding the Seminole Reservation.
- Survey locations and investigation of septic tank locations are based on 1,600 structures and an average less than of 15 minutes per structure. We will locate as many structures as possible within the budget.
- Project 7090 will consist of one (1) Bid Package.
- It is anticipated that no new lift stations will be designed for the Project Area.
- Proposed sanitary sewer laterals are proposed from the gravity sanitary sewer main to the front property line of each property and capped. Removal, abandonment and hook up of existing on-site facilities will be performed by others.
- Design and permitting of the Project will be performed as one (1) phase.
- Construction shall be performed in one (1) phase.
- The general scope of services includes basin delineation, sewage flow projections, pipe sizing and hydraulics, design, preparation of construction documents, permitting, bid and award assistance for the Project Area.
- Survey, Design and permitting shall be completed within fifteen (15) months of the Notice to Proceed.

### **SERVICES NOT INCLUDED**

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

1. Roadway Design and Permitting.
2. Dewatering Plans and Calculations.
3. Corrosion Protection systems.
4. Permit/Certification Fees.
5. Sketch and Legal Descriptions.
6. Storm Drainage Improvements/Calculations/Permitting.
7. Site Planning.
8. Maintenance of Traffic Plans.
9. Traffic Studies.
10. Signalization Design and Plans.
11. Landscape Architectural and Tree Removal permitting Services.
12. Construction Observation Services
13. Material testing.
14. Wastewater Transmission System including Lift Stations design, calculations, etc.
15. Services required by additional governmental regulations which might be put into effect after the date of this agreement.
16. Any additional services requested by Client.

**INFORMATION PROVIDED BY CITY**

1. Permit applications fees and recording fees.
2. Atlas', As-Built, GIS, Calculations for all Utilities within the Project in ACAD and/or GIS format.
3. Pressure readings, drawdown tests, previous wastewater studies, etc. on existing lift stations within and adjacent to the Project Area.

**Acceptance**

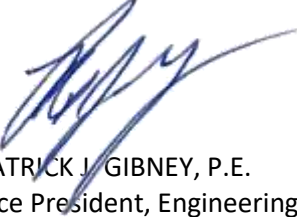
This proposal and fee schedules are based on acceptance within 60 days of the date of preparation. If not accepted by you within that time period, we reserve the right to re-evaluate the terms and conditions contained herein.

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

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

Sincerely,

**CRIVEN THOMPSON & ASSOCIATES, INC.**



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

PJG/tg

Enclosures




EXHIBIT B  
STAFF TIME ESTIMATE

Personnel	Hourly Rate	Hours per Task										Totals	
		Task 1.1	Task 2.1	Task 2.2	Task 2.3	Task 2.4	Task 2.5	Task 2.6	Task 3.1	Task 4.1		Hours	Cost
<b>Administration</b>													
Principal	\$201.60											0	\$0.00
Administrative Assistant	\$77.76							24				24	\$1,866.24
Sub Total												24	\$1,866.24
<b>Engineering</b>													
Principal Engineer	\$201.60		12	40	8	4		4				68	\$13,708.80
Sr. Supervising Engineer	\$181.44		32	800	40	8	4	24				908	\$164,747.52
Senior Engineer	\$129.60		48	980	60	8	8	40				1,144	\$148,262.40
Project Engineer	\$115.20		80	1100	80		8	40				1,308	\$150,681.60
Senior CADD Technician	\$95.04		48	1280								1,328	\$126,213.12
												0	\$0.00
Sub Total												4,756	\$603,613.44
<b>Construction</b>													
Construction Manager	\$152.64											0	\$0.00
Senior Field Representative	\$95.04											0	\$0.00
												0	\$0.00
Sub Total												0	\$0.00
<b>Surveying</b>													
Principal Surveyor	\$158.40	24					1					25	\$3,960.00
Professional Land Surveyor	\$135.36	80					4					84	\$11,370.24
Land Surveyor	\$112.32	80										80	\$8,985.60
Senior CADD Technician	\$95.04	96					11					107	\$10,159.36
Survey Laserscan Crew	\$250.00											0	\$0.00
Survey Crew (3 Man)	\$161.28	200					16					216	\$34,836.48
Sub Total												512	\$69,311.68
<b>Landscape Arch./ Planning</b>													
Principal LA Planner	\$158.40											0	\$0.00
Sr. Project LA Planner	\$132.48											0	\$0.00
Project LA Planner	\$115.20											0	\$0.00
Senior CADD Technician	\$95.04											0	\$0.00
												0	\$0.00
Sub Total												0	\$0
<b>Cost per Task</b>		\$64,995.84	\$28,224.00	\$528,595.20	\$25,862.40	\$3,294.72	\$7,000.00	\$16,819.20	\$0.00		\$0.00	\$674,791.36	
<b>Budget per Task</b>		\$64,995.84	\$28,224.00	\$528,595.20	\$25,862.40	\$3,294.72	\$7,000.00	\$16,819.20	\$0.00		\$0.00	\$674,791.36	
<b>Subconsultants</b>													
Geotechnical Soil Borings		\$8,000.00										\$0.00	
Mobile Lidar		\$19,445.00										\$8,000.00	
Test Hole Locations - 20 Locations		\$8,000.00										\$19,445.00	
Subconsultants Sub Total		\$19,445.00	\$0.00	\$0.00	\$0.00	\$8,000.00	\$8,000.00	\$0.00	\$0.00		\$0.00	\$8,000.00	
<b>Total</b>		\$84,440.84	\$28,224.00	\$528,595.20	\$25,862.40	\$11,294.72	\$15,000.00	\$16,819.20	\$0.00	\$0.00	\$0.00	\$35,445.00	
<b>Direct Expenses Allowance</b>									\$2,000.00	\$50,000.00	\$0.00	\$2,000.00	
												\$50,000.00	
<b>Grand Total</b>		\$84,440.84	\$28,224.00	\$528,595.20	\$25,862.40	\$11,294.72	\$15,000.00	\$16,819.20	\$2,000.00	\$50,000.00	\$0.00	<b>\$762,236.36</b>	





**EXHIBIT "A"**  
**CITY OF HOLLYWOOD**  
**SEPTIC TO SANITARY SEWER**  
**CONVERSION PROJECT NO. 18-7090**

-  = LIMITS OF WATER PROJECT NO. 5138  
TO BE UPDATED FROM 2015 SURVEY
-  = LIMITS OF NEW DESIGN SURVEY
-  = NEW RIGHTS-OF-WAY TO BE SURVEYED  
(APPROX. 14,000 LINEAR FEET)

