

SCOPE OF SERVICES

CITY OF HOLLYWOOD

PROJECT # 18-7089

WASHINGTON PARK/LAWN ACRES SEPTIC TO SEWER CONVERSION

PRELIMINARY DESIGN, DESIGN, PERMITTING, and BIDDING SERVICES

I. PROJECT DESCRIPTION

Portions of the area between Pembroke Road and Hollywood Boulevard between S 56 Avenue and SR 441 are not sewered. The City of Hollywood is implementing a water main replacement program within this same area. To increase utility services to City residents, improve groundwater quality, and to combine projects within areas to reduce costs and disturbances within the area, the City of Hollywood requested that Tetra Tech provide this scope of services to provide engineering services under the General Engineering Consulting Services contract (City Project No. 17-1325). This scope of services is for utility coordination, flow determination, preliminary design, final design, permitting, and bidding services for new gravity sewers in the unsewered areas between Pembroke Road and Hollywood Boulevard between S 56th Avenue and SR 441. A portion of the area just east of SR 441, along Pembroke Road, will be connected to the existing gravity sewer on Pembroke Road and S 58th Avenue.

The City owns and operates various water, wastewater and stormwater utility infrastructure within the project right-of-way. Other existing utilities that typically share the right-of-way include power, telephone, cable, gas utilities, and others. The City would like to implement the utility improvements, while avoiding relocation of existing utilities, if possible. Survey and utilities verifications have been completed within the City's rights-of-way in this area as part of water main replacement program and will be utilized for this project. Additional survey scope is included in this proposal to identify sanitary sewer cleanouts and their invert elevations or the finished floor elevation when a cleanout is not located. This project includes design of approximately 28,000 linear feet of gravity sewers with discharge into existing lift stations.

To provide logical, orderly completion of this assignment, the project has been broken down into nine distinct tasks, further described herein.

II. SCOPE OF SERVICES

A. Kickoff Meeting

Tetra Tech will prepare an agenda for the kickoff meeting, attend the kickoff meeting with the City, and prepare and transmit meeting minutes.

B. Data Collection, Review, and Preliminary Design (30 Percent)

The project area currently has gravity sewers, lift stations, and force mains in the vicinity. It is anticipated that the unsewered areas will be serviced by new gravity sewers, which will discharge into either the existing gravity sewers leading to the existing lift stations or directly into the existing lift stations. One private lift stations, SW222-01, will be decommissioned and connected to the existing gravity sewers through proposed gravity sewer extensions. Another private lift station in the project area, SW169-01, will be decommissioned and connected to the SR 7 project and is not part of this project.

Tetra Tech will obtain readily available data required to proceed with preliminary design and final design tasks. Data to be obtained, reviewed, and processed includes the following:

- As-builts for the existing gravity sewers, which discharge to Lift Stations W-14, W-18, and W-24,
- As-builts for Lift Stations W-14, W-18, and SW222-01
- Location map for subsurface utility excavations,
- Current Lift Station W-14, W-18, and W-24,
- Water billing data for the parcels to be sewered, and
- Other readily available data.

Tetra Tech will utilize the information collected to confirm existing lift stations can accept additional wastewater flows. The proposed gravity system will be preliminarily designed to connect to existing lift stations or gravity sewers. Tetra Tech will confirm existing gravity sewers and lift stations are sufficiently deep to extend proposed gravity sewers. Tetra Tech will also confirm if Lift Station W-24 requires upgrading to receive additional flows from the unsewered areas due east (up to S 56th Avenue).

Water billing data provided by the City will be utilized to quantify existing water usage and estimate existing wastewater flows within the project area. Wastewater flows will be estimated for the evaluation of the collection systems, lift stations, and the discharge force main(s), through desktop analyses. Hydraulic modeling will not be performed.

A 30 percent preliminary design will be developed to establish wastewater flows, gravity sewer routing, and gravity sewer sizing. An overall plan, excluding profiles, will be developed.

Deliverables:

- Data collection list
- SUE location map
- 30 percent preliminary design plan and wastewater flows

C. Surveying

For the area including Dewey Street south to Rodman Street and portions of Plunkett Street from S 56 Avenue west to State Road 7 and for a single parcel east of SR 7 on Pembroke Road, Gibbs Land Surveyors will search for evidence of septic tanks and cleanouts. This area has a high structure density with front parking and the area is mostly covered by concrete and asphalt. Building finished floor elevations will be surveyed and included in the survey file.

The influent pipe of Lift Station SW 222-01 will be surveyed as well.

For the area including Hollywood Boulevard south to Madison Street from S 56 Avenue to S 57 Way and S 58 Terrace, Gibbs Land Surveyors will locate existing septic tank cleanouts and or septic tanks on private property. A probe rod will be used to find the concrete top of septic tank, to approximate its location, without excavation. For properties not allowing access or if a septic tank cannot be located, the septic tank location will be estimated using the structures roof vent stack. Cleanout invert elevations will be surveyed, if the cleanout cap can be removed and replaced, without breaking. Structures without cleanout invert elevations will be surveyed for finished floor elevations. The approximate number of homes/structures is 252.

D. Subsurface Utility Evaluations

Fifteen (15) utility soft digs will be performed by Craig A Smith & Associates, to collect information for size, type, material, and location for existing utility conflicts with proposed gravity sewer conversion in the Washington Park/Lawn Acres Septic to Sewer Conversion project.

Locates will preliminarily be performed with Ground Penetrating Radar (GPR) to mark City and privately-owned facilities. Existing utility conflicts will then be located with Vacuum Digging (POT-HOLING). The taking of GPS coordinates utilizing sub-centimeter equipment is not included.

E. Geotechnical Investigation

PSI will drill and sample a total of twenty (20) Standard Penetration Test (SPT) borings to depths of approximately 12 feet below grade. The SPT borings will be performed with a drill rig using rotary drilling procedures. Samples of the in-place materials will be recovered with a standard split barrel sample spoon driven with a 140-pound hammer falling 30 inches (the Standard Penetration Test in accordance with ASTM D1586).

In addition to the SPT borings, PSI proposes to core the asphalt pavement at ten (10) of the twenty (20) SPT boring locations. The asphalt cores will be brought to our laboratory for further evaluation.

Upon completion of our field work, the boreholes will be backfilled with excavated soil/rock, the surface patched and the site generally cleaned.

Underground utility clearance will be required prior to commencing the drilling of the borings. Therefore, PSI will contact "Sunshine One-Call" Service to obtain underground public utility clearance.

A geotechnical engineer will review the soil samples and representative samples will be tested or physical properties such as gradation, moisture content and organic content, if deemed necessary. The results of the field exploration and laboratory test results will be the basis for our geotechnical engineering report, which will specifically contain the information listed below:

1. A plan of the site showing the SPT boring and percolation test locations.
2. Logs of the exploratory borings will be provided, which furnish the results of the SPT sampling.
3. A general discussion of the soil conditions encountered within the SPT borings.
4. Recommendations for pipe bedding and backfill materials as well as recommendations for compaction.
5. Recommendations for construction in wet environments.
6. Photographs of the asphalt pavement cores.
7. Groundwater level depth noted in our boring at the time of drilling, if encountered.
8. Associated laboratory testing, if required.

One geotechnical report will be provided, as part of the other project, but will include information from this proposal.

F. Gravity Sewer System Final Design

The final design will be based on the accepted layouts developed as part of Task B. Gravity sewers will be designed to connect to existing gravity sewers or directly into existing lift station wet wells.

This task includes preparation of the bid documents for the accepted layouts, including the following:

- plan and profile view engineering drawings for the proposed gravity sewer mains at 1-inch = 20-ft horizontal and 2-ft vertical Scale, and
- project technical specifications and cost estimates.

The design will be predominantly gravity PVC pipe and precast manholes installed by open trench construction. All other roads other than Pembroke Road, SR 441, and Hollywood Boulevard are City roads and all road crossings will all be open trench/open cut. The design will not enter the ROW of SR 441. The proposed gravity sewers will provide a sewer lateral and cleanout at the property line, based on existing cleanout / septic tank location for each existing building/parcel, for connections by others. Existing and proposed water main conflicts will be adjusted, as required. This project will require three (3) reviews, which will be at the 60%, 90%, and 100% completion levels. The 60% improvements submittal will include plan and profile drawings. The 90% and 100% completion level will incorporate City comments and comments received during permitting.

Two (2) sets of drawings will be provided at the 60 percent design stage. Two (2) sets of drawings and specifications, including the bid form and measurement and payment section, will

be provided to the City at the 90 and 100 percent design stage. An engineer's opinion of probable construction cost will accompany the 60, 90, and 100 percent design documents. Tasks to be conducted as part of this task include:

1. Site Visit: Tetra Tech staff will visit the project site to observe existing conditions and evaluate the pipeline corridors and other project factors. One (1) day has been included in the proposal for this activity.
2. Prepare drawings in AutoCAD and specifications based on survey and geotechnical engineering base information. A preliminary list of drawings is presented below:
 - Legends, Abbreviations and General Notes
 - Key Plan
 - Plan and Profile Drawings for Gravity Sewer (47 sheets at 1-inch = 20-ft horizontal and 2-ft vertical Scale)
 - Double Panel Plan Drawings – Pavement Restoration (5 Sheets at 1-inch = 20-ft Scale, assuming most pavement restoration is covered in the water main improvement drawings)
 - Standard City Sewer Details (2 Sheets)
 - Other details (1 Sheet)
3. Prepare technical specifications and modify the City's front-end specifications, as required.
4. Attend design review meeting at 60%, 90%, and 100% completion levels, prepare agenda and minutes.
5. Prepare an engineer's estimate of construction cost based on previous bid tabulations, vendor quotes, and estimates provided by Contractors.

Deliverables:

- Two (2) Copies of the 60 percent gravity sewer plans, and cost estimate.
- Two (2) Copies of the 90 percent gravity sewer plans, specifications, and cost estimate.
- Two (2) Copies of the 100 percent gravity sewer plans, specifications, and cost estimate.
- Electronic files of the gravity sewer plans, specification, and cost estimate.

G. Permitting

Tetra Tech will prepare and submit permit applications and supporting documentation necessary to obtain permits from the Broward County Environmental Protection and Growth Management Department (EPGMD) and City of Hollywood Building Department for the gravity collection systems. Accordingly, Tetra Tech will perform the following tasks:

1. Prepare and submit one (1) "Notification/Application for Constructing a Domestic Wastewater Collection/Transmission System" [DEP Form 62-604.300(8) (a)] and one (1) "Application to Construct a Wastewater Collection/Transmission System" [Broward County Domestic Wastewater Licensing Program Form] to the EPGMD and respond to

“Requests for Additional Information” (RAI) issued by the regulatory agency. All permit application fees are to be paid by the CITY.

2. Prepare and submit two (2) signed and sealed sets of plans to the City of Hollywood Building Department for review and response to “Requests for Additional Information” (RAI) issued by the regulatory agency.
3. Prepare FDOT Utility Permit (ROW Use) application and corresponding standard Indices for Maintenance of Traffic (MOT) exhibits for Pembroke Road and response to one (1) anticipated “Request for Additional Information” (RAI) issued by the regulatory agency or one (1) teleconference with agency staff. Detailed MOT plans along with Lane Closure permitting will be required to be submitted by the Contractor once the ROW Use permit is approved by FDOT.
4. Tetra Tech will prepare and submit a permit submittal package to Broward County Traffic Engineering Division (TED) complete with the Permit Set of drawings for review and approval. Tetra Tech will respond to one (1) anticipated “Request for Additional Information” (RAI) issued by the regulatory agency or one (1) teleconference with agency staff. TED requests photos of the construction restoration and photos and correspondence with the agency are included in this proposal.
5. The City will be responsible for all permitting fees.

Deliverables:

- Permit application submittals.
- Final approved permits.
- Construction restoration photos

H. Bidding and Award

The proposed improvements will be bid with the City Water Main Replacement Program Project Number 16-5136. Bidding and award activities will be led by the City. Tetra Tech will conduct the following additional services during the bidding process.

1. Tetra Tech will work with the City staff to provide a master copy of the Bid Set construction drawings and specifications in electronic format (PDF). It is our understanding that the City will be responsible for distribution of bid packages to potential bidders via online plan distribution.
2. Support with addenda. Tetra Tech will respond to technical questions forwarded by the City for anticipated addenda as part of this scope of services. Tetra Tech will respond to questions using the Addendum Form for expedited response time and will generate necessary supporting documents, as applicable, and submit them to the City for distribution to registered plan holders.

3. Bid Evaluation and Recommendation. Tetra Tech will tabulate and evaluate bids received. References for the three lowest responsive bidders will be checked and a recommendation of award prepared and submitted to the City.

Deliverables:

- Five (5) Copies of the bid plans, specification, and cost estimate
- Electronic files of the plans, specification, and cost estimate
- Responses to questions during bidding.
- Bid tabulation, reference check forms, and recommendation of award

I. Lift Station W-24 Upgrades Final Design (Allowance)

Should it be determined, with the completion of Task B, that Lift Station W-24 is undersized to receive the additional flows from the unsewered area to the east, to S 56th Avenue, upgrades to the lift station may be necessary. This task includes an allowance amount for work needed to design upgrades to the lift station, permitting, and construction administration.

Use of this task requires a scope of work, fee detail, and must be approved in writing by the City's Project Manager, prior to use.

Deliverables:

- To be determined at the conclusion of Task B.

J. Reimbursable Expenses

Reimbursable expenses including reproductions, fees, and other costs that may be incurred as part of this project will be paid and invoiced under this task.

Deliverables:

- Reimbursable costs receipts

III. SERVICES NOT INCLUDED

- A. Other Permits - This proposal does not include permitting services for any permits not previously listed.
- B. Costs for advertising the Project are to be paid by the City.
- C. Obtaining easements on property for construction of the project is not included in this scope.
- D. All construction related layout and record drawing survey work and geotechnical services, including materials testing and other services are to be provided by the Contractor. This pertains only to such work that is completed during the construction phase.
- E. Services during construction (to be provided in a future work order).

- F. Services related to permitting pipeline construction through wetlands or environmentally sensitive areas are not anticipated and are not included in this scope.
- G. Hydraulic modeling.
- H. All permitting fees are to be paid by the City.
- I. Additional work due to a bid protest.
- J. Services related to the stormwater improvements design, permitting, bidding and construction administration.
- K. Lift station design or lift station upgrade/rehabilitation design, except for services contained within Task G for Lift Station W-24.
- L. Force main evaluation or design.

IV. COMPENSATION SUMMARY

The total Lump Sum compensation for the Scope of Services described in Section II is \$316,680. The compensation for the Scope of Services by task is summarized below.

Task	Cost
A Kickoff Meeting	\$ 793
B Data Collection, Review, and Preliminary Design	\$ 44,107
C Surveying	\$ 36,432
D Subsurface Utility Evaluations	\$ 4,940
E Geotechnical Investigation	\$ 12,253
F Gravity Sewer System Final Design	\$ 138,284
G Permitting	\$ 19,906
H Bidding and Award	\$ 9,635
I Lift Station W-24 Upgrades Final Design (Allowance)	\$ 50,000
J Reimbursable Expenses	\$ 330
Total Lump Sum	\$ 316,680

V. SCHEDULE

This project is to be completed within 12 months and within the timeframe of completion of the water main project within this area.

 Price Proposal		Labor Plan							Price Summary / Totals			
Washington Park / Lawn Acres Septic to Sewer Conversion <i>Septic to Gravity Sewers Conversion</i>		Bill Rate >	7 Resource							Task Pricing Totals		316,680
			239.00	183.00	140.00	94.00	88.00	103.00	88.00	Specify Add'l Fees on Setup		0
		Proj Area >								Technology Use Fee		
Submitted to: City of Hollywood Attn: Clece Aurelus										Total Price		316,680
Contract Type: Lump Sum										Pricing by Resource		
Project Phases / Tasks	Total Labor Hrs	Sr Project Manager	Project Manager	Engineer IV	Engineer I	Engineer I	Sr CAD/Engineering Designer	Project Administrator	Labor	Subs	ODCs	Task Pricing Totals
	1,802	78	194	262	427	280	517	44	212,725	53,625	330	316,680
Task A - Kickoff Mtg	5	1	2	-	2	-	-	-	793	-	-	793
Task B - Data Collection, Review, and Preliminary Design (30%)	361	20	45	64	126	42	64	-	44,107	-	-	44,107
Task C - Surveying	-	-	-	-	-	-	-	-	-	36,432	-	36,432
Task D - Subsurface Utility Evaluations	-	-	-	-	-	-	-	-	-	4,940	-	4,940
Task E - Geotechnical Investigation	-	-	-	-	-	-	-	-	-	12,253	-	12,253
Task F - Gravity Sewer System Final Design	1,176	49	131	156	220	214	368	38	138,284	-	-	138,284
Task G - Permitting	187	3	-	33	66	24	59	2	19,906	-	-	19,906
Task H - Bidding and Award	73	5	16	9	13	-	26	4	9,635	-	-	9,635
Task I Lift Station W-24 Upgrades Final Design (Allowance)	-											50,000
Task J - Reimbursables	-	-	-	-	-	-	-	-	-	-	330	330
Totals	1,802	78	194	262	427	280	517	44	212,725	53,625	330	316,680

GIBBS LAND SURVEYORS

2131 HOLLYWOOD BOULEVARD SUITE 204 HOLLYWOOD, FLORIDA 33020

PHONE: 954-923-7666 FAX: 954-923-7668

SSEELEY@GIBBSLANDSURVEYORS.COM

March 5, 2018

Ken Caban
Tetra Tech
450 N Park Road Suite 502
Hollywood FL 33021

RE: **City of Hollywood – Septic Tank Survey – Lawn Acres**

Dear Mr. Caban:

We are pleased to submit the following proposal for Professional Land Surveying services on the above referenced project.

LIMITS OF WORK

Hollywood Blvd south to Madison Street; S 56 Avenue west to S 57 Way and S 58 Terrace in the "Lawn Acres" neighborhood.

SCOPE OF WORK

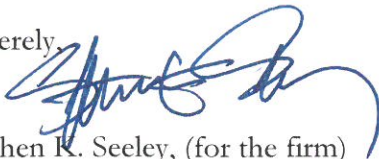
Land Survey Services:

1. Survey influent pipe for Lift Station SW222.01
2. Locate existing septic clean outs and/or Septic Tanks on private property. Access to these locations will be limited by fences, walls and gates; attempting access without owner's permission, untethered dogs, people denying access verbally. Once inside, the use of a probe rod to find the concrete tank top, then without excavation, making an approximate location. Surveyor will look for roof vent stack to determine Septic tank location (left side-right side) on those properties without access or where underground systems cannot be determined. Cleanout Inverts will be surveyed on individual homes with caps that are easily removed and replaced. Corroded or damaged cleanout caps, or those that appear at risk of breaking will not be opened. Survey finish floor elevations on houses without cleanout inverts.

Number of Septic Systems: Approximately 252 homes

Hourly, not to exceed: \$15,120.00

Sincerely,



Stephen K. Seeley, (for the firm)

GIBBS LAND SURVEYORS

2131 HOLLYWOOD BOULEVARD SUITE 204 HOLLYWOOD, FLORIDA 33020
PHONE: 954-923-7666 FAX: 954-923-7668
SSEELEY@GIBBSLANDSURVEYORS.COM

February 14, 2018

Ken Caban
Tetra Tech
450 N Park Road Suite 502
Hollywood FL 33021

RE: **City of Hollywood – Septic Tank Survey – Industrial/Commercial Warehouses**

Dear Mr. Caban:

We are pleased to submit the following proposal for Professional Land Surveying services on the above referenced project.

LIMITS OF WORK

Dewey Street south to Rodman Street and portions of Plunkett Street;
from S 56 Avenue west to State Road 7, and one parcel east of SR 7 on
Pembroke Road – as shown on by outlined polygons on Atlas Maplet by email
of Feb 5.

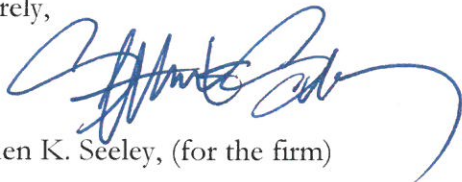
SCOPE OF WORK

Land Survey Services:

1. Search for evidence of septic tanks and cleanouts within the above limits. This area has a high structure density with front parking. Concrete and asphalt cover most surface areas. Accessing cleanout inverts will be met with very limited success. We propose surveying all building floor elevations. Previously delivered CAD file will reference invert elevations and floor elevations.

Hourly, not to exceed: \$18,000.00

Sincerely,



Stephen K. Seeley, (for the firm)

Craig A. Smith & Associates

Utility Locations / Vacuum Excavation
7777 Glades Road, Suite 410
Boca Raton, FL 33434



QUOTATION

DATE 4/12/2018
Quotation # 17-TTEC-001
Customer ID TBD
Project # 16-9999-MISC

Customer:

Tetra Tech | Water, Environment & Infrastructure Group

Janine M. Alexander, PE
Cell: (321) 388-5178

Quotation valid until: 6/11/2018

Prepared by: JFD

Comments or Special Instructions:

Per email provide 30 utility softdig info for size ,type, material, and location
for utility conflicts with proposed gravity sewer conversion
WASHINGTON PARK LAWN ACERS (REVISED)

Description of Services to be Performed	Quantity	Unit Price	Unit Total
Locates with Ground Penetrating Radar (GPR) and Mark City & privately Owned Facilities. (included)	15.00	\$ 34.95	\$ 524.25
Locate with Vacuum Digging (POT-HOLING) and Mark City Owned Facility.	15.00	\$ 199.50	\$ 2,992.50
The taking of GPS coordinates utilizing sub-centimeter equipment. (not included)	15.00	\$ 64.95	\$ 974.25
<i>Facility depths are not provided from surface designations. If facility depths are required, vacuum excavations will be necessary. CAS can provide depth approximations from EM or GPR equipment, but these are estimations and are not considered accurate.</i>			
Proposal Total			\$ 4,491.00

Payment Terms are Invoice Net 30. Late Fees of 1.5% per month accrue after 30 days.

Accepted & Approved: Tetra Tech	Signing this document constitutes a Contract and Promise to Pay. Customer agrees to pay all charges associated with the work performed. Payment terms are Net 30. Interest on late payments or balances will accrue at the rate of 1.5% per month after 45 days delinquency. CAS reserves all rights to secure payment and Debtor may be liable for all costs associated with collection of outstanding balances including, reasonable Attorney Fees and Court Costs.
Approved Date	



THANK YOU FOR YOUR BUSINESS!!!
Phone: 561-791-9280 Fax: 561-791-9818



7950 NW 64th Street
Miami, FL 33166
phone: 305.471.7725
fax: 305.593.1915
intertek.com/building
psiusa.com

May 4, 2018

TETRA TECH

450 N Park Rd, Suite 502
Hollywood, Florida 33021

To: Mr. Kenneth L. Caban, P.E., BCEE
South Florida Regional Manager

Re: Proposal for Geotechnical Engineering Services
City of Hollywood Gravity Mains
City of Hollywood
Broward County, Florida
PSI Proposal No.: 0397-235994

Dear Mr. Caban:

In response to your request, **Professional Services Industries, Inc. (PSI)**, an **Intertek Company**, is pleased to submit this proposal to complete a subsurface exploration for the referenced project. Included herein is our understanding of the proposed project along with a scope of services, fee estimate and anticipated schedule to conduct the requested subsurface exploration.

PROJECT DESCRIPTION

We understand the proposed project involves the design and installation of gravity sewer lines along multiple streets, outlined on the set of plans provided with your Request for Proposal (RFP), in Hollywood, Florida. Based on the information provided, we further understand that the total length of the project is approximately 27,000 lineal feet.

Please note that Maintenance of Traffic (MOT) will be required to complete this project.

Should any of the noted details be inconsistent, PSI requests that you contact us immediately to allow us to make any necessary modifications to this proposal.



SCOPE OF SERVICES

As requested, PSI will drill and sample a total of twenty (20) Standard Penetration Test (SPT) borings to depths of approximately 12 feet below grade. The SPT borings will be performed with a drill rig using rotary drilling procedures. Samples of the in-place materials will be recovered with a standard split barrel sample spoon driven with a 140-pound hammer falling 30 inches (the Standard Penetration Test in accordance with ASTM D1586).

In addition to the SPT borings, PSI proposes to core the asphalt pavement at ten (10) of the twenty (20) SPT boring locations. The asphalt cores will be brought to our laboratory for further evaluation.

We assume the locations of the SPT borings and asphalt pavement cores will be provided by the Client along with our Notice to Proceed.

Upon completion of our field work, the boreholes will be backfilled with excavated soil/rock, the surface patched and the site generally cleaned.

Underground utility clearance will be required prior to commencing the drilling of the borings. Therefore, PSI will contact "Sunshine One-Call" Service to obtain underground public utility clearance.

ENGINEERING REPORTING

A geotechnical engineer will review the soil samples and representative samples will be tested for physical properties such as gradation, moisture content and organic content, if deemed necessary. The results of the field exploration and laboratory test results will be the basis for our geotechnical engineering report, which will specifically contain the information listed below:

1. A plan of the site showing the SPT boring and percolation test locations.
2. Logs of the exploratory borings will be provided, which furnish the results of the SPT sampling.
3. A general discussion of the soil conditions encountered within the SPT borings.
4. Recommendations for pipe bedding and backfill materials as well as recommendations for compaction.
5. Recommendations for construction in wet environments.
6. Photographs of the asphalt pavement cores.
7. Groundwater level depth noted in our boring at the time of drilling, if encountered.
8. Associated laboratory testing, if required.

If additional work beyond that outlined in this proposal is desired, PSI can provide the needed additional services on a unit price basis.

SCHEDULE AND FEES

Our study can begin one (1) day after we receive authorization to proceed. We will start drilling after underground utilities have been located and identified, which typically requires four (4) to five (5) business days. The field work will require approximately three (3) days to complete. The engineering report will be available within one (1) week following the field demobilization. Based on our work schedule at the time of the preparation of this proposal, we estimate that our study will be completed within three (3) to four (4) weeks from your notice to proceed.



Based on our general knowledge of the subsurface conditions near the proposed project areas and our understanding of your requirements, we propose to complete the subsurface exploration and geotechnical engineering evaluation described in this proposal for a lump sum fee of **\$11,139.00.**

The geotechnical work proposed herein will be carried out in accordance with our **General Conditions** attached hereto.

CLOSURE

PSI appreciates your consideration of our firm for this project. To formally authorize us, kindly indicate so by providing us with a signed agreement of our proposal. We look forward to working with you on this project. If you have any questions or if you require additional information, please do not hesitate to contact us.

Respectfully Submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Certificate of Authorization No: 3684



Morgan Dickinson, P.E.
Regional Engineer/Principal Consultant



Daniel Gonzalez, E.I.
Staff Engineer

Attachment: Fees Breakdown
General Conditions

AUTHORIZED BY:	INVOICE TO:
Signature	Firm
Name	Address
Title	
Date	Attention





FEES BREAKDOWN
CITY OF HOLLYWOOD GRAVITY MAINS
HOLLYWOOD, FLORIDA
PSI PROPOSAL NO. 0397-2235994

ITEM	UNIT	#	RATE	TOTAL
I. FIELD EXPLORATION				
Mobilization of Truck Mounted Equipment	each	3	\$ 350.00	\$ 1,050.00
Asphalt Cores	each	10	\$ 46.40	\$ 464.00
SPT Borings w/ 3" Casing (0-50ft)	feet	240	\$ 16.50	\$ 3,960.00
Senior Engineering Technician	hours	10	\$ 55.00	\$ 550.00
Flagman (8 hours @ \$55/hour)	per day	3.0	\$ 440.00	\$ 1,320.00
MOT Signs, Barricades, Arrow Board	per day	3.0	\$ 250.00	\$ 750.00
FIELD EXPLORATION TOTAL				\$ 8,094.00
200 Wash	each	7	\$ 30.00	\$ 210.00
Loss of Ignition Organic Content Tests	each	7	\$ 25.00	\$ 175.00
Moisture Content Tests	each	7	\$ 10.00	\$ 70.00
TOTAL LABORATORY TESTING				\$ 455.00
III. ENGINEERING SERVICES				
Senior Engineer	hour	3.0	\$ 160.00	\$ 480.00
Staff Engineer	hour	15.0	\$ 95.00	\$ 1,425.00
CADD/Computer Technician	hour	10.0	\$ 55.00	\$ 550.00
Secretary	hour	3.0	\$ 45.00	\$ 135.00
TOTAL ENGINEERING SERVICES				\$ 2,590.00
TOTAL				\$ 11,139.00