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April 24, 2017

Clèce Aurélus, P.E.  
Engineering Manager - ECSDD  
Department of Public Utilities  
1621 N. 14th Avenue  
P.O. Box 229045  
Hollywood, FL 33022

Subject: City of Hollywood Water Main Replacement Project – City Project No. 16-5133

Dear Mr. Aurélus:

As requested, enclosed is Brown and Caldwell's proposal for engineering design services for water main replacement within the project limits defined as between Sheridan Street, N. 26<sup>th</sup> Avenue, Taft Street, and Interstate 95, as further explicitly delineated within the attached proposal.

The proposed work will consist of surveying, geotechnical investigations, design, permitting, bidding, and limited construction observation services for the replacement of approximately 19,000 linear feet of water mains. This proposal includes one (1) canal crossing using horizontal directional drilling within Sherman Street, and FDOT permit applications for Roadway Right-of-Way construction for the two connections along the southern right-of-way of Sheridan Street. It is anticipated that the surveying and design will be completed within fourteen (14) months from NTP, with bidding and construction services to follow.

As per the attached proposal and fee, Brown and Caldwell will perform design and construction services for a total lump sum fee not to exceed \$213,459. Please provide a Purchase Order and Notice to Proceed following acceptance of the proposal terms and conditions. If you have any questions or comments, please feel free to contact us for clarification.

Very truly yours,

**Brown and Caldwell**

A handwritten signature in blue ink, appearing to read 'C. Earle'.

Celia D. A. Earle, Ph.D.  
Vice President

cc: V. Hurlburt, Brown and Caldwell  
B. Scott, Brown and Caldwell

Attachments (1)

1. Engineering Services Proposal and Fee for Water Main Replacement Program, City Project No. 16-5133

**Engineering Services Proposal  
For  
WATER MAIN REPLACEMENT PROGRAM**

**Taft Street to Sheridan Street, and N. 26<sup>th</sup> Ave. to Interstate 95 (N. 28<sup>th</sup> Avenue)**

**PROJECT NO. 16-5133**

**CITY OF HOLLYWOOD, FLORIDA**

April 24, 2017

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**INTRODUCTION/OVERVIEW**

The City of Hollywood (CITY) has requested that Brown and Caldwell (CONSULTANT) provide professional engineering services for design and limited construction management for water distribution system improvements within the City's specifically designated PROJECT area.

The boundaries of the PROJECT area are shown in Exhibit 1 and are described as the following:

Northern Boundary: The southern right-of-way of Sheridan Street between the eastern right-of-way of N. 26<sup>th</sup> Avenue and the eastern right-of-way of Interstate 95 (or within the right-of-way of N. 28<sup>th</sup> Avenue);

Eastern Boundary: The eastern right-of-way of N. 26<sup>th</sup> Avenue between Sheridan Street and Taft Street;

Southern Boundary: The northern right-of-way of Taft Street between Interstate 95 and N. 26<sup>th</sup> Avenue, with exceptions as noted;

Western Boundary: The eastern right-of-way of Interstate 95 (or within the right-of-way of N. 28<sup>th</sup> Avenue) between Sheridan Street and Taft Street.

The following areas are NOT included:

- The right-of-way of Interstate 95
- Crossing of water main under Interstate 95 at Taft Street
- Direct connection to existing 24-inch diameter PCCP within the Sheridan Street ROW at the intersection of N. 26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue is not included as directed by the City

- The right-of-way of Taft Street is not included as directed by the City, with several exceptions (see below)

There is only limited land surveying and design work required for the segment of existing north-south 2-inch diameter HDPE water main that will be replaced by 4-inch diameter PVC water main within the south ROW of Sheridan Street between the intersection of N. 26<sup>th</sup> Avenue (replace 6 by 6 by 2 existing tee with new 8 by 6 by 4 tee), and 28<sup>th</sup> Avenue (tie into existing 8-inch diameter pipe). These connections are to be either within the shoulder or within the outside east bound lane of Sheridan Street.

There is only limited land surveying and design work required within the right-of-way for Taft Street because the water main within that ROW is NOT to be replaced except for the following:

- 1) connection point at the intersection of N. 26<sup>th</sup> Avenue,
- 2) connection point at the intersection of N. 28<sup>th</sup> Avenue,
- 3) connection point for a 2-inch water meter on the east side of the canal,
- 4) connection point for a 2-inch water meter on the west side of the canal,
- 5) segment of Taft Street between N. 27<sup>th</sup> Avenue and N. 27<sup>th</sup> Court along north ROW for replacement of existing 2-inch water main with 4-inch water main

Design work is included within the ROWs of all streets and alleys (with existing water mains) within the area bounded by the above-named streets. In addition, only those roadways disturbed by installation of replacement water mains will receive full width asphalt pavement replacement. The scope of work includes one (1) canal crossing using horizontal directional drilling and the associated connections within Sherman Street. Any additional work or services outside the stated project boundaries will be based on CONSULTANT's hourly rates, and will be included in a change order to this engineering services agreement.

The PROJECT area consists of approximately 19,000 linear feet (LF) of water mains. A preliminary hydrant coverage analysis indicates that a few dead-end areas of the system in the project area would benefit from additional hydrants. Any decisions regarding addition and placement of fire hydrants, including hydrant coverage and fire flow analysis for this project is solely the responsibility of the CITY. Decisions regarding hydrant placement will be provided to the CONSULTANT prior to 60 percent design submittal.

The purpose of this project is to replace existing undersized and aging water mains located in the specifically bounded area. The CITY has requested that all existing 2-inch diameter water mains will be replaced with 4-inch diameter PVC water mains. In addition, existing 6-inch diameter water mains with existing fire hydrants will be increased to 8-inch diameter. The potable water distribution piping arrangement will be designed as a looped system to minimize piping dead ends where possible given the limitations of the project area. There are several cul-de-sacs with dead end piping within the boundaries of the

project area. A portion of the existing water distribution system (Coolidge, Harding, Wilson, and Taft Streets) are currently located in an alley easement at the rear of the residential properties. The existing water meters and water service connections are located in these same alleys. Designing the proposed water mains in the alleys will facilitate the switchover to the new water mains. Once the undersized existing water mains are replaced (and cleared for use by the regulatory agency) the existing water services will be connected to the newly installed water mains. The old undersized existing piping segments will be removed from service, and the piping larger than 6-inch diameter will subsequently be grouted and capped, rather than removed and disposed of. All existing piping less than 6-inch diameter will be plugged and abandoned in place, but will not be grouted. The segments of existing 2-inch diameter water main along the alleys will be increased to 4-inch diameter per the City's direction.

The project includes the following tasks: preliminary design (60 Percent) services (including surveying, geotechnical exploration, and utility locates), final design (90 Percent and 100 Percent) services, permitting services, bidding services, and limited construction administration services. The required land surveying and geotechnical services will be performed by specialty sub-consultants. A detailed description of the overall scope of services to be provided to the CITY for this PROJECT is presented below. Any deviations from the assumed limits of the work described herein or assumed length of new pipe required will necessitate an amendment to the project scope and associated fees.

## **SCOPE OF SERVICES**

### **TASK 1.0 PRELIMINARY DESIGN PHASE**

#### **1.1 Data Collection and Review**

##### **1.1A Review of City Provided Information**

The CONSULTANT will review all CITY-provided information applicable and pertinent to the PROJECT including, but not limited to, record drawings, atlases, geotechnical reports, surveys, right-of-way records, and easements. The CONSULTANT will review the requirements of applicable regulatory agencies having jurisdiction. The CONSULTANT's review shall be initiated once the CITY has collected and furnished all available information.

##### **1.1B Preliminary Site Visit**

The CONSULTANT will perform preliminary site visits to review the existing conditions for the proposed water distribution system improvements. The CONSULTANT will consider observable current field conditions and any proposed

site improvements (provided by the CITY) that may affect the PROJECT during the design of the water distribution system. Verification of survey information and utility locations will be made to facilitate preliminary design decisions.

## **1.2 Topographical Survey**

Professional Land Surveying services will be performed for this PROJECT. The topographic survey will include locating and identifying all visible existing above-ground and underground utilities and infrastructure to a point of 5 feet outside the ROW line, and locate existing water meters (including within rear easements) within the project limits. The survey will be limited to the full ROW (plus 5 feet outside the ROW lines) of all streets and alleys containing an existing or proposed water main as detailed in the attached sub-consultant scope of work. In addition, underground utilities (marked by others) within the south side of the Sheridan Street ROW will be located and included in the survey. (See attached sub-consultant scope of work).

## **1.3 Geotechnical Services**

Geotechnical engineering services will be performed for this PROJECT. Up to 2 SPT borings up to 20 feet deep will be performed in areas identified as potential directional bore locations for the canal crossing on Sherman Street. The 2 SPT borings will be conducted during the pre-design phase regardless of whether directional bore is determined to be feasible and utilized in the final design. An additional 14 SPT borings at 6 feet deep will provide a cross-section of soil conditions across the work area. (See attached sub-consultant scope of work).

## **1.5 60 Percent Design**

### **1.5A Preparation of 60 Percent Contract Drawings**

The CONSULTANT will prepare the 60 percent Contract Drawings as necessary to depict and describe the water distribution system improvements in a clear and concise manner. The drawings will be prepared in the latest version of AutoCAD™ using a 22" x 34" drawing format. Topographic survey will be utilized for the generation of the drawing base sheets. The drawings will meet all requirements for construction contract competitive bid formulation and subsequent construction of the PROJECT. All documents will comply with current requirements of the CITY's Standards. The CONSULTANT will conduct an internal quality assurance and "constructability" review prior to the submittal to the CITY.

The CONSULTANT will submit two (2) sets of 11" by 17" drawings and one (1) set of PDF documents (front end and technical specifications) to the CITY for review of the 60 percent contract documents. The proposed sheets to be included in the 60 Percent Contract Drawing set are provided in Exhibit 2.

The 60 percent level of completion submittal will include a complete set of plan drawings indicating the pipeline alignment, all survey and topographic information, identified existing utility locations, water main and water service connections, and applicable construction details.

### **1.5B 60 Percent Review Meeting**

The CONSULTANT will meet with the CITY following the 60 percent submittal to review and discuss CITY comments.

At the 60 percent submittal review, the CITY and CONSULTANT will agree on the direction of all major design decisions for the project including the proposed water main alignment, line extensions, tie-in locations, tie-in configurations, location of appurtenances (valves, hydrants, meters, pavement, etc.), the addition of drawing sheets or details, and any other decisions which require significant design effort for completion of the 90 percent level design submittal to follow.

## **TASK 2.0 FINAL DESIGN PHASE**

### **2.1 90 & 100 Percent Design**

#### **2.1A Preparation of 90 Percent Contract Drawings, Inserts to City Specifications, and Preliminary EOPCC**

The CONSULTANT will prepare the 90 percent Contract Drawings as necessary to depict and describe the water distribution system improvements in a clear and concise manner. The drawings will be prepared in the latest version AutoCAD™ using a 22" x 34" drawing format. Topographic survey will be utilized for the generation of the drawing base sheets. The drawings will meet all requirements for construction contract competitive bid formulation and subsequent construction of the PROJECT. All documents will comply with current requirements of the CITY's Standards and Specifications (front end and technical). The CONSULTANT will conduct an internal quality assurance and "constructability" review prior to the submittal to the CITY.

At the 90 percent submittal, the CITY comments received at the 60 percent review will be incorporated. The 90 percent level of completion submittal will include a complete set of plan drawings indicating the pipeline alignment, all survey and topographic information, identified existing utility locations, water main and water service connections, and applicable construction details. The proposed sheet set is provided in Exhibit 2, to be included in the 90 Percent Contract Drawing set.

The 90 percent complete drawings will be at a level of completion that will allow the PROJECT to be submitted for permit application to the required regulatory agencies. Two (2) sets of 11" by 17" drawings and one (1) PDF copy of the

documents (front end and technical specifications) will be provided to the CITY for review of the 90 percent contract documents.

The CONSULTANT will prepare and submit a Preliminary Engineer's Opinion of Probable Construction Cost (EOPCC) at the 90 percent completion level.

### **2.1B 90 Percent Review Meeting**

The CONSULTANT will meet with the CITY following the 90 percent submittal to review and discuss CITY comments.

Any remaining design revisions requested by the CITY are due at the 90 percent review meeting. Design revisions include any deviation from the proposed alignment, line extensions, tie-in re-configurations, addition or removal of appurtenances (valves, hydrants, meters, pavement, etc.), changes requiring additional drawing sheets, or any other change which would result in significant design modification effort. Exempt from this list are design changes made to satisfy requirements for construction contract competitive bid formulation, compliance with current requirements of the CITY's Standards and Specifications, or the requirements of any other authorities having jurisdiction.

### **2.1C Preparation of 100 Percent Contract Documents, Inserts to City Specifications, and EOPCC**

At the 100 percent submittal, comments received and reconciled at the 90 percent review meeting with the CITY will be incorporated. Two (2) 11" by 17" sets and one (1) electronic PDF format of the 100 percent contract drawings will be provided for use on the CITY's website for use in the advertisement of the PROJECT. The 100 percent complete submittal will include the bid schedule/form, table of contents, and the front end and technical specifications in electronic Microsoft Word™ and PDF format.

The CONSULTANT will prepare and submit an EOPCC at the 100 percent completion level.

### **2.1D 100 Percent Review Meeting**

The CONSULTANT will meet with the CITY following the 100 percent submittal to review and discuss CITY comments.

Only minor revisions are to be made following the 100 percent submittal. As outlined in Section 2.1B of this Scope of Work, any design modifications requested by the CITY following the 100 percent submittal are beyond the stated scope of services, and will be only be included following a change order to this engineering services agreement based on the CONSULTANT's hourly rates.

Final drawings (including any comments from regulatory agencies) will consist of the following:

- Two (2) sets 22" by 34" signed and sealed (for CITY)
- Two (2) sets 11" by 17" (for CITY)
- Two (2) sets 22" by 34", PDF and CAD (for Contractor)
- Survey in PDF and CAD

Any design modifications requested by the CITY following the 100 percent submittal are beyond the stated scope of services, and will be only be included following a change order to this engineering services agreement based on the CONSULTANT's hourly rates.

## **2.2 Preparation of Permit Applications**

The CONSULTANT will prepare and submit the following permit applications:

- Broward County Health Department (BCHD)/Florida Department of Environmental Protection (FDEP) permit applications – Application for a General Permit to Construct PWS Components.
- FDOT permit application(s) for Roadway Right-of-Way (for Sheridan Street) – for the associated connections.
- Broward County Traffic
- City of Hollywood Roadway Right-of-Way Permit Application

The CONSULTANT will respond to all requests for additional information from the permitting agencies. The CITY will pay the fees for all permit applications.

## **TASK 3.0 BIDDING PHASE SERVICES**

The following scope of services outlines the tasks to be completed by the CONSULTANT during the bidding phase. The CITY will be responsible for advertising the construction project, distributing the bidding documents, and awarding the contract.

### **3.1 Attend Pre-Bid Conference**

The CONSULTANT will attend a Pre-Bid Conference to discuss the project with all prospective bidders and respond to technical questions. Questions regarding the project will be recorded at the meeting and addressed in writing following the meeting. The CONSULTANT will prepare agenda and minutes of pre-bid conference.



### **3.2 Bidders Questions and Addenda**

The CONSULTANT will answer questions from bidders, provide clarifications, and prepare responses to be included in addenda. The CONSULTANT will prepare and submit the addenda to the CITY in a timely manner that allows reception of addenda by all bidders no later than a minimum of seven (7) days prior to bid opening date. The CITY will be responsible for the distribution of the addenda to the bidders.

### **3.3 Bid Evaluation and Recommendation of Award**

The CONSULTANT will prepare a bid evaluation after receipt of the bids. This bid evaluation will include a tabulation of bids plus a review of the bid package from the three (3) lowest responsive bidders. The review of the three (3) lowest responsive bids will include an inspection of the bid package for completeness, errors and omissions, evaluation of the listed experience on similar project, evaluation of other submitted data and review of the references of the lowest bidder. Following the bid evaluation, the CONSULTANT will prepare and submit a recommendation of Contract Award to the CITY.

## **TASK 4.0 CONSTRUCTION PHASE SERVICES**

The CONSULTANT will provide the following limited services during construction. The following Scope of Work to be provided during construction is based on the assumption that the construction period from the construction notice to final completion of construction will be 12 months. In addition, it is assumed that the CITY will provide their own staff to perform the necessary full-time routine daily construction observation services of the Contractor's activities (e.g. tie-ins, bedding preparation, pipe laying, and backfilling/compaction/restoration along entire alignment). The CONSULTANT observation services provided in this Scope of Work are limited to review of daily inspection reports (prepared and provided by CITY) and limited onsite observation of pressure tests and other critical activities only.

### **4.1 Conduct Pre-construction Conference**

The CONSULTANT will attend and conduct a pre-construction conference for the PROJECT. During the conference, the CONSULTANT will present the agenda and conduct the meeting. After the conference is completed, the CONSULTANT will prepare minutes for distribution to the meeting attendees.

### **4.2 Shop Drawing Review**

The CONSULTANT will review shop drawings submitted by the Contractor. Activities for this task include maintaining a submittal log/record, reviewing shop drawings, providing review comments, and transmitting copies of reviewed shop drawings to the CITY staff and the Contractor.

#### **4.3 Technical Assistance**

The CONSULTANT will provide technical assistance to CITY representatives during project construction and provide limited clarifications and interpretation of the Contract Documents (drawings) to resolve design related technical issues or conflicts which may arise. The CONSULTANT will also provide limited technical support and attend required field meetings concerning the resolution of field conflicts pertaining to the design. Hours for this task will be limited to the breakdown as shown on the cost proposal. Attendance at field coordination meetings that are not design based and do not require the direct technical assistance of the CONSULTANT will NOT be required, including but not limited to maintenance of traffic (MOT) coordination meetings, soft-dig verifications, or more than 18 monthly progress meetings.

#### **4.4 Observation**

The CONSULTANT will review daily inspection reports (prepared by CITY) and conduct limited onsite observation (i.e., pressure tests and other critical activities) only during Contractor work activities. The on-site observation hours by the CONSULTANT will be monitored to ensure that the observation only occurs during pertinent work activities. The CITY will provide their own staff to perform the necessary full-time routine construction observation services of the Contractor's activities (e.g. tie-ins, bedding preparation, pipe laying, and backfilling/compaction/restoration along entire alignment). The CONSULTANT will witness pressure tests.

#### **4.5 Monthly Progress Meetings**

The CONSULTANT will attend up to 12 monthly progress meetings during construction. The CONSULTANT will conduct all monthly progress meetings and develop the agenda and meeting minutes for each monthly progress meeting.

#### **4.6 Substantial and Final Completion Inspections**

The CONSULTANT will perform site inspections at milestones such as project substantial completion and final completion. Each inspection will be performed with the CITY representatives with the objective of developing a punch list for deficient work.

#### **4.7 Review of Record Drawings**

The CONSULTANT will be responsible for reviewing and approving the reconciled as-built drawings received from the Contractor (signed by the Contractor's surveyor). These reconciled as-built/record drawings will be provided to the CONSULTANT as one (1) hard copy and one (1) electronic PDF. The CONSULTANT will review and approve drawings and submit revisions to the Contractor. Following approval and revision, Contractor will submit four (4) hard copies, and electronic PDF and CAD files to the CONSULTANT. The CONSULTANT will sign and seal these drawings and submit one (1) set to the Broward

County Health Department (BCHD), one (1) set to FDOT and two (2) hard copy sets of record drawings and one (1) electronic file in AutoCAD™ format on a CD to the CITY.

#### **4.8 Project Certification & Closeout**

The CONSULTANT will prepare and submit the required Certificate of Completion and attach the associated signed and sealed record drawings for the PROJECT to the BCHD/FDEP/FDOT. The CONTRACTOR will provide copies of the water main hydrostatic pressure test results and bacteriological test results to the CONSULTANT to review prior to completing the Certification of Completion. This task is contingent on receipt of daily reports from the CITY inspectors. Prepare and submit closeout documentation for all required permits.

### **CITY OF HOLLYWOOD'S RESPONSIBILITIES**

The CITY will provide the following information or will perform the following activities:

1. Provide record drawings or atlases (water and wastewater) of the PROJECT area. Provide available listing of all existing water meters and water service connections for the PROJECT area.
2. Verification of all water main sizes, hydrant locations, and fire flow coverage.
3. Provide electronic copies of updated versions of front end and technical specifications, and CITY details for use by the CONSULTANT.
4. Acquisition of all easements from owners of property encroached by any proposed utility easements and negotiations related thereto.
5. Review of the contract drawings at the 60 and 90 percent design level, and submit review comments to the CONSULTANT within 60 days in accordance with the schedule below. CITY and CONSULTANT will agree on the direction of all major design decisions for the project at the 60 percent submittal review. All design revisions and modifications requested by the CITY are due following 90 percent design submittal.
6. Distribution of the bid documents (drawings and specifications) and all addenda.
7. Provide payment for all permit application fees.
8. Provide full-time observation services during construction activities. These services shall consist of daily observation and documentation of construction progress, resources utilized, testing, preparation of inspection reports, and documentation and resolution of field conflicts that may emerge.

9. Provide copies of daily reports to the CONSULTANT on a timely basis as required for preparation of Certificate of Completion and signed and sealed record drawings.
10. Prepare, review, and negotiate change orders.
11. Coordinate with Contractor for performance of bacteriological testing requirements.
12. Independent verification of the utility locations and elevations (Soft-Digs).
13. Where required, coordinate with property owners and Contractor for final placement of services/meter boxes during the construction phase.
14. Review and approval of Contractor Application for Pay Request.
15. Public engagement, notification, advisory meetings, and complaint response.

## **SCHEDULE**

We anticipate completing the design phase of the PROJECT based on the following schedule starting from the receipt of the engineering services notice to proceed (NTP) letter. The milestone dates are also based on the receipt of the topographic survey from the land surveying subconsultant once authorized.

<b><u>Milestone</u></b>	<b><u>Days from NTP</u></b>
60% Submittal to City	200 Calendar Days
60% Review Comments from City	260 Calendar Days
90% Submittal to City	320 Calendar Days
90% Review Comments from City	380 Calendar Days
100% Submittal to City	410 Calendar Days

## **ASSUMPTIONS**

CONSULTANT's services under this scope of services do **NOT** include:

1. Water main sizes for all water mains.
2. Hydraulic modeling.
3. Fire flow coverage analysis.
4. Attendance at more than 12 monthly progress meetings.

5. Independent soft-dig verification of the utility locations (CITY-provided).
6. Preparation of the technical specifications (CITY-provided). CONSULTANT will modify CITY-provided specifications for the project.
7. Preparation of front-end documents (CITY-provided).
8. The "Advertisement for Bids" under bidding services.
9. There are certain CONSULTANT activities that are time dependent. As such, any extensions of time to the contract during the construction phase may result in additional fees by the CONSULTANT.
10. Preparation of Maintenance of Traffic (MOT) plans or traffic studies (prepared by the Contractor).
11. Sanitary sewer, storm sewer, landscaping, or other improvements.

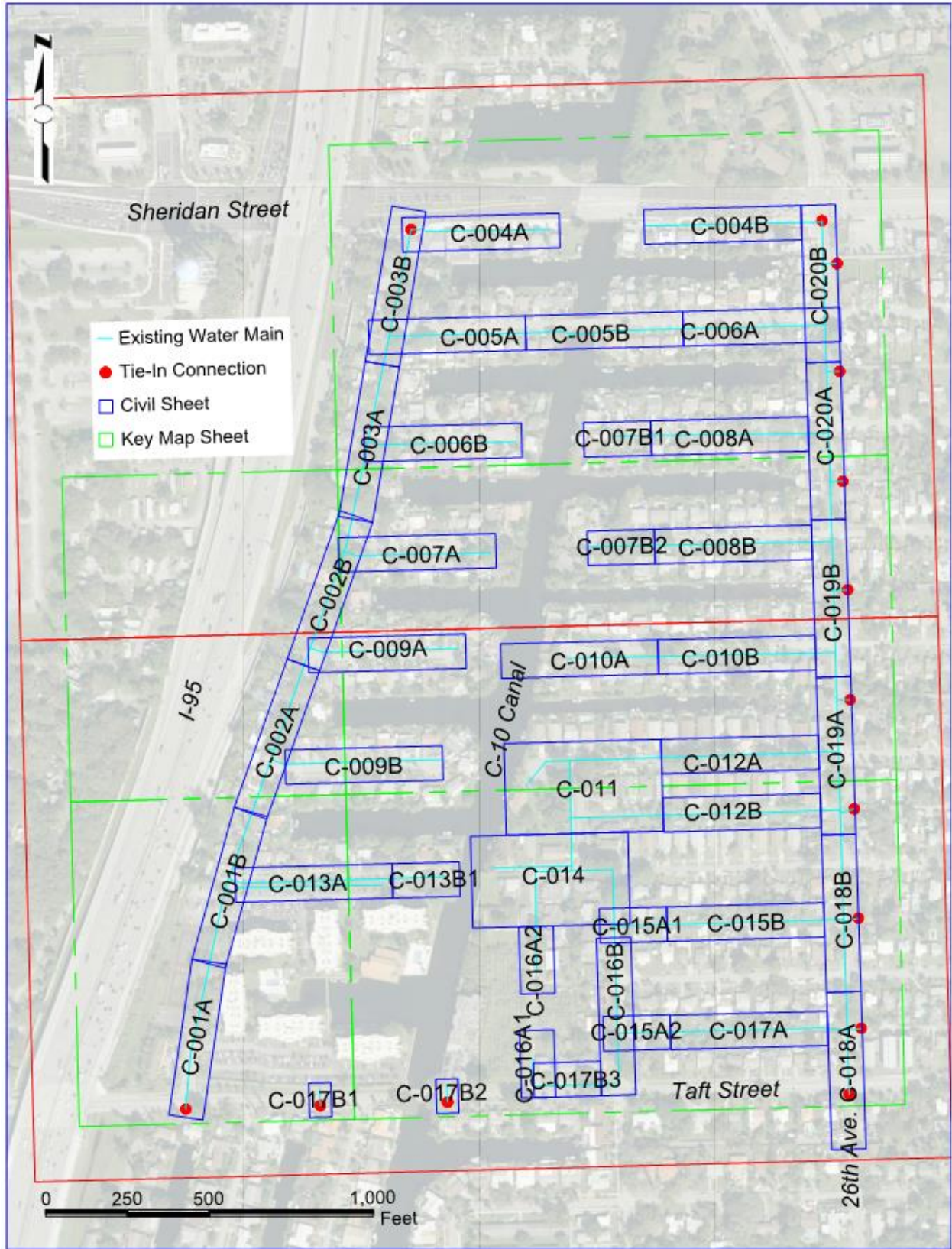
CONSULTANT will generally assume available record drawings and related information regarding the locations of the existing underground utilities is accurate.

## **COMPENSATION**

CONSULTANT proposes to perform the above services included the PROJECT for a total lump sum fee not to exceed \$213,459. Any additional work or services beyond the stated scope of services will be based on CONSULTANT's hourly rates, and will be included in a change order to this engineering services agreement.

For the services to be completed under this scope, CONSULTANT will invoice the CITY on a monthly basis for services completed to date.

# Exhibit 1. Project Extents



### Exhibit 2. Proposed Sheet Set List

Description	No. of Drawings
Cover sheet	1
General Notes and Project Notes	1
Legend and Abbreviations	1
Project Key Maps and Key Maps	5
Water Main Abandonment Plans	2
Pavement Restoration Plans	4
Plan Sheets @ 1-inch equals 20-foot scale, The plan sheets will be double-stacked plan views, and will not include a profile view, as the water mains will be designed for 3-foot of cover material.	20
Site Plan Detail Sheets	5
FDOT Permit Plans, Profiles and Photos	4
Sherman Street HDD - Plan and Profile	1
Civil Details (CITY-provided)	3
Pavement Striping Plans	4
<b>Total Drawing Sheet Count</b>	<b>51</b>

**Table 1. Summary of Engineering Fees - City of Hollywood - Water Main Improvements  
Project No. 16-5133**

<b>Description</b>	<b>Amount</b>
Labor Costs	\$ 111,178
Other Direct Costs	\$ 102,282
<b>Total Fee</b>	<b>\$ 213,459</b>



**COST ESTIMATE  
CITY OF HOLLYWOOD  
WATER MAIN REPLACEMENT PROGRAM 16-5133**

	Vice President	Chief Engineer	Managing Engineer (QA/QC)	Senior Engineer	Engineer II	Senior Drafter	Administrative Coordinator	Labor Hours	Labor Cost
Billing Labor Rate	\$254.00	\$237.01	\$218.99	\$156.19	\$116.85	\$98.87	\$98.87		
<b>DESIGN &amp; CONSTRUCTION</b>									
<b>TASK NO. 1 - PRELIMINARY DESIGN PHASE</b>									
1.1 DATA COLLECTION AND REVIEW									
1.1A REVIEW OF CITY PROVIDED INFORMATION		2			8			10	1,409
1.1B PRELIMINARY SITE VISIT		2	2		5			9	1,496
1.2 TOPOGRAPHICAL SURVEY									
1.3 GEOTECHNICAL SERVICES									
1.4 60 PERCENT DESIGN									
1.4A PREPARATION OF 60 PERCENT CONTRACT DRAWINGS		24	8	46	65	40	8	191	26,966
1.4B 60 PERCENT REVIEW MEETING	4	2		2	4			12	2,270
Hour Subtotal	4	30	10	48	82	40	8	222	
<b>Labor Cost Subtotal</b>	<b>\$1,016</b>	<b>\$7,110</b>	<b>\$2,190</b>	<b>\$7,497</b>	<b>\$9,582</b>	<b>\$3,955</b>	<b>\$791</b>		<b>32,141</b>
<b>TASK NO. 2 - FINAL DESIGN PHASE</b>									
2.1 90 & 100 PERCENT DESIGN									
2.1A PREPARATION OF 90 PERCENT CONTRACT DRAWINGS AND PRELIMINARY EOPCC		18	4	16	22	20	4	84	12,585
2.1B 90 PERCENT REVIEW MEETING	4	2		2	4			12	2,270
2.1C PREPARATION OF 100 PERCENT CONTRACT DOCUMENTS AND EOPCC		6	2	8	2	6	6	30	4,530
2.1D 100 PERCENT REVIEW MEETING	4	2		2	4			12	2,270
2.2 PREPARATION OF PERMIT APPLICATIONS		10		12			1	23	4,343
Hour Subtotal	8	38	6	40	32	26	11	161	
<b>Labor Cost Subtotal</b>	<b>\$2,032</b>	<b>\$9,006</b>	<b>\$1,314</b>	<b>\$6,248</b>	<b>\$3,739</b>	<b>\$2,571</b>	<b>\$1,088</b>		<b>25,997</b>
<b>TASK NO. 3 - BIDDING PHASE SERVICES</b>									
3.1 ATTEND PRE-BID CONFERENCE		2			3			5	825
3.2 BIDDERS QUESTIONS AND ADDENDA		2		2	2	2	1	9	1,317
3.3 BID EVALUATION AND RECOMMENDATION OF AWARD				2	4			6	780
Hour Subtotal	0	4	0	4	9	2	1	20	
<b>Labor Cost Subtotal</b>	<b>\$0</b>	<b>\$948</b>	<b>\$0</b>	<b>\$625</b>	<b>\$1,052</b>	<b>\$198</b>	<b>\$99</b>		<b>2,921</b>
<b>TASK NO. 4 - CONSTRUCTION PHASE SERVICES</b>									
4.1 CONDUCT PRE-CONSTRUCTION CONFERENCE	4	4		2				10	2,276
4.2 SHOP DRAWING REVIEW		8	2	12	20		2	44	6,743
4.3 TECHNICAL ASSISTANCE	2	12	6	18	6		4	48	8,574
4.4 OBSERVATION		8	4	12	82		3	109	14,525
4.5 MONTHLY PROGRESS MEETINGS	8	12			48		4	72	10,880
4.6 SUBSTANTIAL & FINAL COMPLETION INSPECTIONS		8		4	8			20	3,456
4.7 REVIEW OF RECORD DRAWINGS		4						4	948
4.8 PROJECT CERTIFICATION & CLOSEOUT		4	2		8		4	18	2,716
Hour Subtotal	14	60	14	48	172	0	17	325	
<b>Labor Cost Subtotal</b>	<b>\$3,556</b>	<b>\$14,221</b>	<b>\$3,066</b>	<b>\$7,497</b>	<b>\$20,098</b>	<b>\$0</b>	<b>\$1,681</b>		<b>50,119</b>
<b>PHASE 2 - Total Labor Hours</b>	<b>26</b>	<b>132</b>	<b>30</b>	<b>140</b>	<b>295</b>	<b>68</b>	<b>37</b>	<b>728</b>	
<b>PHASE 2 - Total Labor Cost</b>	<b>\$6,604</b>	<b>\$31,285</b>	<b>\$6,570</b>	<b>\$21,867</b>	<b>\$34,471</b>	<b>\$6,723</b>	<b>\$3,658</b>		<b>\$111,178</b>

**OTHER DIRECT COSTS SUMMARY**

	UNIT	NO. OF UNITS	UNIT COST	TOTAL COST
1.0 COPYING AND PRINTING FULL-SIZE DRAWINGS	DRAWINGS	225	\$ 2	\$450
2.0 MAILING - FED EXPRESS	UNIT	0	\$ 20	\$0
<b>SUBTOTAL OTHER DIRECT COSTS</b>				<b>\$450</b>
3.0 SUBCONTRACTS				
DRAFTING (no markup)	LS		\$27,795.00	\$27,795
GEOTECHNICAL (includes 10% markup)	LS		\$5,306.00	\$5,837
SURVEYING (includes 10% markup)	LS		\$62,000.00	\$68,200
<b>SUBCONTRACTS SUBTOTAL</b>				<b>\$101,832</b>
<b>TOTAL ODCS</b>				<b>\$102,282</b>

**Exhibit A [DRAFT]**  
**Brown and Caldwell**  
**Scope of Services**  
**Hollywood Water Main Replacement Project No. 16-5133**  
**Drafting Services**

**Scope of Services**

**I. BACKGROUND**

The City of Hollywood (CITY) has requested that Brown and Caldwell (CONSULTANT) provide professional engineering services for design and limited construction management for water distribution system improvements within the City’s specifically designated PROJECT area.

The boundaries of the PROJECT area is shown in Exhibit A-1 and are described as the follows:

- Northern Boundary: The southern right-of-way of Sheridan Street between the eastern right-of-way of N. 26th Avenue and the eastern right-of-way of Interstate 95 (or within the right-of-way of N. 28th Avenue);
- Eastern Boundary: The eastern right-of-way of N. 26th Avenue between Sheridan Street and Taft Street;
- Southern Boundary: The northern right-of-way of Taft Street between Interstate 95 and N. 26th Avenue;
- Western Boundary: The eastern right-of-way of Interstate 95 (or within the right-of-way of N. 28th Avenue) between Sheridan Street and Taft Street.

The following areas are NOT included:

- The right-of-way of Interstate 95
- Crossing of water main under Interstate 95 at Taft Street
- Direct connection to existing 24-inch diameter PCCP within the Sheridan Street ROW at the intersection of N. 26th Avenue and N. 28th Avenue is not included as directed by the City
- The right-of-way of Taft Street is not included as directed by the City, with several exceptions (see below)

There is only limited land surveying and design work required for the segment of existing north-south 2-inch diameter HDPE water main that will be replaced by 4-inch diameter PVC water main within the south ROW of Sheridan Street between the intersection of N. 26th Avenue (replace 6 by 6 by 2 existing tee with new 8 by 6 by 4 tee), and 28th Avenue (tie into existing 8-inch diameter pipe). These connections are to be either within the shoulder or within the outside east bound lane of Sheridan Street.

There is only limited land surveying and design work required within the right-of-way for Taft Street because the water main within that ROW is NOT to be replaced except for the following:

- 1) Connection point at the intersection of N. 26th Avenue,
- 2) Connection point at the intersection of N. 28th Avenue,
- 3) Connection point for a 2-inch water meter on the east side of the canal,
- 4) Connection point for a 2-inch water meter on the west side of the canal,
- 5) Segment of Taft Street between N. 27th Avenue and N. 27th Court along north ROW for replacement of existing 2-inch water main with 4-inch water main

Design work is included within the ROWs of all streets and alleys (with existing water mains) within the area bounded by the above-named streets. In addition, only those roadways disturbed by installation of replacement water mains will receive full width asphalt pavement replacement. Any additional work or services outside the stated project boundaries will be based on SUBCONSULTANT's hourly rates, and will be included in a change order to this engineering services agreement.

The PROJECT area consists of approximately 19,000 linear feet (LF) of water mains. A preliminary hydrant coverage analysis indicates that areas of the system in the project area would benefit from additional hydrants. Any decisions regarding addition and placement of fire hydrants, including hydrant coverage and fire flow analysis for this project is solely the responsibility of the CITY. Decisions regarding hydrant placement will be provided to the CONSULTANT prior to 60 percent design submittal.

The purpose of this project is to replace existing undersized and aging water mains located in the specifically bounded area. The CITY has requested that all existing 2-inch diameter water mains will be replaced with 4-inch diameter PVC water mains. In addition, existing 6-inch diameter water mains with existing fire hydrants will be increased to 8-inch diameter. The potable water distribution piping arrangement will be designed as a looped system to minimize piping dead ends where possible given the limitations of the project area. There are several cul-de-sacs with dead end piping within the boundaries of the project area. The existing water meters and water service connections are located in these same alleys. Designing the proposed water mains in the alleys will facilitate the switchover to the new water mains. Once the undersized existing water mains are replaced (and cleared for use by the regulatory agency) the existing water services will be connected to the newly installed water mains. The old undersized existing piping segments will be removed from service, and the piping larger than 6-inch diameter will subsequently be grouted and capped, rather than removed and disposed of. All existing piping less than 6-inch diameter will be plugged and abandoned in place, but will not be grouted. The segments of existing 2-inch diameter water main along the alleys will be increased to 4-inch diameter per the City's direction.

The CONSULTANT's project includes the following tasks: preliminary design (60 Percent) services (including surveying, geotechnical exploration, and utility locates), final design (90 Percent and 100 Percent) services, permitting services, bidding services, and limited construction administration services. The required land surveying and geotechnical services will be performed by specialty sub-consultants.

This scope of services is intended to provide the CAD drafting services to prepare the drawings for the water mains as defined below. This scope of services will be performed under the Contract Agreement (dated April X, 2017) between Brown and Caldwell (CONSULTANT), C Solutions, Inc. (SUBCONSULTANT).

## **II. SCOPE OF SERVICES**

The SUBCONSULTANT will perform the scope of services as described herein.

### **Task 1 Preparation of 60 Percent Contract Drawings**

The SUBCONSULTANT will provide drafting services for the preparation of 60 percent design drawings. The CONSULTANT will prepare the design and describe the water distribution system improvements in a clear and concise manner for the 60 percent Contract Drawings as necessary for the SUBCONSULTANT to prepare CAD drawings without any design knowledge of the project. The drawings will be prepared in the latest version of AutoCAD™. Topographic survey will be utilized for the generation of the drawing base sheets. The CONSULTANT will provide the topographic survey to the SUBCONSULTANT in AutoCAD along with the survey of

all existing piping. All AutoCAD files provided to the SUBCONSULTANT will comply with current requirements of the CITY's Standards as provided in the initial CAD templates provided to the SUBCONSULTANT by the CONSULTANT. The CONSULTANT will conduct an internal quality assurance and "constructability" review prior to the submittal to the CITY. The SUBCONSULTANT will submit the AutoCAD file to the CONSULTANT for the generation of any printed documentation or creation of Adobe \*.pdf drawing sets.

The 60 percent level of completion submittal will include a complete set of plan drawings indicating the pipeline alignment, all survey and topographic information, identified existing utility locations, water main and water service connections, and applicable construction details. All of these details will be drafted as provided by the CONSULTANT. The SUBCONSULTANT will not provide any design services from any engineering professionals to augment the data provided by the CONSULTANT to meet expectations of the CITY.

**TASK 1 Deliverable:**

- 60 Percent Drawings (AutoCAD electronic \*.dwg and \*.dwf files) as provided on buzzsaw for CONSULTANT's use

**Task 2 Preparation of 90 Percent Contract Drawings**

The SUBCONSULTANT will provide drafting services for the preparation of 90 percent design drawings. The CONSULTANT will provide any review comments from the 60 design and prepare the updated design and describe the water distribution system drawing changes in a clear and concise manner as necessary for the SUBCONSULTANT to prepare CAD drawings without any design knowledge of the project. The drawings will be prepared in the latest version of AutoCAD™. All documents will comply with current requirements of the CITY's Standards as provided in the initial CAD templates provided to the SUBCONSULTANT by the CONSULTANT. The CONSULTANT will conduct an internal quality assurance and "constructability" review prior to the submittal to the CITY.

The SUBCONSULTANT will submit the AutoCAD file to the City for the generation of any printed documentation or creation of Adobe \*.pdf drawing sets.

The 90 percent level of completion submittal will include a complete set of plan drawings indicating the pipeline alignment, all survey and topographic information, identified existing utility locations, water main and water service connections, and applicable construction details. The proposed sheet set is provided in Exhibit A-2, to be included in the 90 Percent Contract Drawing set. All of these details will be drafted as provided by the CONSULTANT. The SUBCONSULTANT will not provide any design services from any engineering professionals to augment the data provided by the CONSULTANT to meet expectations of the CITY.

**TASK 2 Deliverable:**

- 90 Percent Drawings (AutoCAD electronic \*.dwg and \*.dwf files) as provided on buzzsaw for CONSULTANT's use

**Task 3 Preparation of 100 Percent Contract Drawings**

The SUBCONSULTANT will provide drafting services for the preparation of 100 percent design drawings. Any remaining design revisions requested by the CITY or CONSULTANT are due prior to the start of drafting work for preparation of the 100 percent design drawings. Design revisions include any deviation from the proposed alignment, line extensions, tie-in re-configurations, addition or removal of appurtenances (valves, hydrants, meters, pavement, etc.), changes requiring additional drawing sheets, or any other change which would result in significant design modification effort. Exempt from this list are design changes made to satisfy requirements

for construction contract competitive bid formulation, compliance with current requirements of the CITY's Standards and Specifications, or the requirements of any other authorities having jurisdiction. The CONSULTANT will provide any review comments from the 90 design review meetings and describe these revisions in a clear and concise manner as necessary for the SUBCONSULTANT to prepare the 100% CAD drawings without any design knowledge of the project. The drawings will be prepared in the latest version of AutoCAD™. All documents will comply with current requirements of the CITY's Standards as provided in the initial CAD templates provided to the SUBCONSULTANT by the CONSULTANT. The CONSULTANT will conduct an internal quality assurance and "constructability" review prior to the submittal to the CITY. The SUBCONSULTANT will submit the AutoCAD file to the CONSULTANT for the generation of any printed documentation or creation of Adobe \*.pdf drawing sets.

The 100 percent design drawings will incorporate comments received and reconciled at the 90 percent review meeting with the CITY. All of these details will be drafted as provided by the CONSULTANT. The SUBCONSULTANT will not provide any design services from any engineering professionals to augment the data provided by the CONSULTANT to meet expectations of the CITY.

#### **TASK 3 Deliverable:**

- 100 Percent Drawings (AutoCAD electronic \*.dwg and \*.dwf files) as provided on buzzsaw for CONSULTANT's use

#### **Task 4 Preparation of Final Contract Drawings**

The SUBCONSULTANT will provide drafting services for the preparation of final drawings. Only minor revisions are to be made following the 100 percent drawing submittal. Any design modifications requested by the CITY or CONSULTANT following the 100 percent submittal are beyond the stated scope of services, and will be only be included following a change order to this scope of services and Contractual Agreement based on the SUBCONSULTANT's hourly rates.

Any design modifications requested by the CITY or CONSULTANT following the 100 percent submittal are beyond the stated scope of services, and will be only be included following a change order to this engineering services agreement based on the CONSULTANT's hourly rates.

#### **TASK 4 Deliverable:**

- Final Drawings (AutoCAD electronic \*.dwg and \*.dwf files) as provided on buzzsaw for CONSULTANT's use

#### **ASSUMPTIONS**

This Authorization scope of services is based on the following:

- A. The CONSULTANT will setup and maintain a buzzsaw site for use by SUBCONSULTANT for sharing of AutoCAD drawings and repository for work performed.
- B. All AutoCAD files provided to the SUBCONSULTANT will comply with current requirements of the CITY's Standards as provided in the initial CAD templates provided to the SUBCONSULTANT by the CONSULTANT.
- C. The SUBCONSULTANT will only deliver electronic files (AutoCAD) uploaded to the buzzsaw site for the CONSULTANT's use and delivery to CITY. No paper drawings will be produced by the SUBCONSULTANT.
- D. All delivery packages from SUBCONSULTANT will be saved on CONSULTANT's buzzsaw site.

- E. The Drawings determined in Exhibit A-2 assume a 22"x34" sheet layout and a 1:20 scale.
- F. No drawings for the directionally drilled crossing will be provided as part of this scope of services.
- G. The complete Topographic survey will be provided to the SUBCONSULTANT prior to start of work for the generation of the 60% design drawings. The Topographic survey will be provided in AutoCAD and be compliant with the CITY CAD standards.
- H. The surveyed locations of the existing piping, required for display in drawings, shall be provided to the SUBCONSULTANT by the CONSULTANT in AutoCAD format compliant with the City Standards.
- I. No significant changes to the pipeline alignment will be made following the 60% design submittal.
- J. All information transmitted by CONSULTANT to SUBCONSULTANT will be transmitted in an electronic format.
- K. This scope of services does not include attendance at any meetings.
- L. No profiles are being provided for the pipelines.

### III. Time of Completion

The Notice to Proceed (NTP) defines the official commencement of the CONSULTANT's contract. The working day following the receipt of the contract authorization will define the date of Notice to Proceed (NTP). The following schedule is based on the notice to proceed (NTP). All days are defined as calendar days.

<b>Task Description</b>	<b>Completion (Days from NTP)</b>
Notice to Proceed (NTP)	-
Task 1 - Preparation of 60 Percent Contract Drawings	200
Task 2 - Preparation of 90 Percent Contract Drawings	320
Task 3 - Preparation of 100 Percent Contract Drawings	410
Task 4 - Preparation of Final Contract Drawings	

Failure to provide the availability of required staff at the aforementioned meetings or the requested information from RBUD in the time periods specified will result in delays to the above schedule.

### IV. Proposed Compensation

The CONSULTANT shall perform the services defined in this scope of work for a lump sum fee of \$27,795. Invoices will be submitted to RBUD monthly and define the current percent complete for the project. The breakdown of fees per task is estimated below.

<b>Task Description</b>	<b>Lump Sum Amount</b>
Task 1 - Preparation of 60 Percent Contract Drawings	\$13,500
Task 2 - Preparation of 90 Percent Contract Drawings	\$7,795
Task 3 - Preparation of 100 Percent Contract Drawings	\$5,000
Task 4 - Preparation of Final Contract Drawings	\$1,500
<b>TOTAL</b>	<b>\$27,795</b>

# GIBBS LAND SURVEYORS

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

March 14, 2017

Victor A. Hurlburt, PE  
Brown and Caldwell  
2301 Lucien Way Suite 250  
Maitland, FL 32751

RE: **City of Hollywood – Water Main Replacement Project - City Project No. 16-5133**  
**Survey Limits: Approximately 20,000 Linear Feet**

Dear Mr. Hurlburt:

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

## LIMITS OF WORK:

1. The full roadway right-of-way (ROW) width of N. 26<sup>th</sup> Avenue from the south edge of pavement of Sheridan Street to the north ROW line of Taft Street
2. The full roadway ROW width of N. 28<sup>th</sup> Avenue between the south edge of pavement of Sheridan Street to Taft Street.
3. The eastbound outside lane of Sheridan Street between N.26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue.
4. Intentionally deleted.
5. The full roadway ROW width of Sherman Street between N. 26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue.
6. The full roadway ROW width of Thomas Street between N. 26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue including two cul-de-sacs.
7. The full roadway ROW width of Lee Street between N.26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue including two cul-de-sacs.
8. The full roadway ROW width of Scott Street between N. 26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue including two cul-de-sacs.
9. The full roadway ROW width of Coolidge Street between between N. 26<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue including two cul-de-sacs.
10. The full roadway ROW width of alley between Coolidge Street and Harding Street for length between N. 26<sup>th</sup> Avenue to Waterview Place.
11. The full roadway ROW width of Harding Street between N. 27<sup>th</sup> Avenue and N. 28<sup>th</sup> Avenue.
12. The full ROW width of alley between Harding Street and Wilson Street for length between N. 26<sup>th</sup> Avenue to N. 27<sup>th</sup> Avenue.



13. The full ROW width of alley between Wilson Street and Taft Street for the length between N. 26th Avenue and N. 27th Avenue.
14. The full roadway ROW width of N. 27<sup>th</sup> Avenue for length between Harding Street to Taft Street.
15. The full roadway ROW width of Waterview Place for length between Coolidge Street and Harding Street.
16. The full roadway ROW width of N. 27<sup>th</sup> Court for length between Harding Street and Taft Street.
17. The intersections of N 26 Avenue and N 28 Avenue at Taft Street.
18. The public ROW of Taft Street in an area for 2 2-inch water meter connections on east and west sides of the C-10 canal.
19. A portion of Taft Street between N 27 Avenue and N 27 Court along the north ROW.
20. Surveying for one canal crossing – Hydrographic soundings for Sherman Street bridge – one cross section on each side of bridge and ROW topography at each end.

#### SCOPE OF WORK

##### *Land Survey Services:*

1. Perform a topographic survey locating and identifying all visible existing above-ground and underground utilities (as marked by others) within the above limits.
2. Locate and/or provide permanent construction controls on site in State Plane Coordinates (1983 adjustment) and vertical control based on North American Vertical Datum of 1988 (NAVD88). Horizontal control data shall be relative to the Florida State Plane Coordinate system, East Zone, North American Datum of 1983/1990 adjustment.
3. Platted right-of-ways, easement and property boundaries (GIS derived) shall be plotted on survey drawings for the project route.
4. Digital baseline shall be established at the beginning and end of the project and all changes in direction. Monumentation and other survey control points found in the field will confirm the GIS file. State plane coordinate values and elevations (x,y,z) will be assigned to the control/work points in the digital file.
5. Provide cross-sections at 100 foot intervals to extend 5 feet beyond the right-of-way lines.

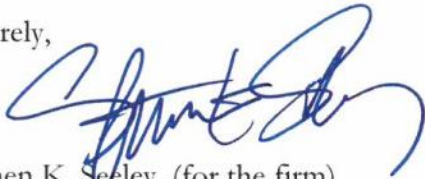
6. Provide location of all existing concrete pads, valve boxes, water/electrical meter boxes, electrical pull boxes, telephone/cable risers, fences, hydrants, above-ground utilities, wood/concrete utility poles, overhead electrical lines, culverts, guardrails, pavement limits, headwalls, endwalls, manholes, vaults, driveways, right-of-way limits, traffic signage, other signage (not to include pavement striping), and any other visible improvements within the above limits, extending 5 feet beyond R/W.
7. Provide rim and invert elevations and pipe size and type on all visible gravity sewer structures and/or outfalls (sanitary and storm drainage) within the above limits.
8. Provide location of vegetation (hedges) and individual trees greater than four (4) inches in diameter.
9. Digital maps shall delineate all field collected data.
10. Provide location of utilities where possible based on field observation and utility records provided to this office.
11. Record horizontal and vertical location of test holes (by others).
12. The final survey map to be prepared at 1"=20' horizontal in a standard plan sheet format to include all data listed above, right-of-way lines, property lines (GIS derived), baselines, platted easement lines and subsurface utility markings (by others). Deliverables to meet City of Hollywood Survey CAD Standards (March 11, 2016).
13. Provide signed and sealed survey showing all of the above survey information.

The above SCOPE OF WORK will be performed for a fee of **\$62,000.00**

Any additional surveying as requested will be performed at the following hourly rates:

Principal	\$125.00/hour
Survey Crew Supervisor	85.00/hour
Field Crew	85.00/hour
Cad Drafter - Survey Technician	60.00/hour
Secretary	35.00/hour

Sincerely,



Stephen K. Seeley, (for the firm)

February 24, 2017

Revised: March 9, 2017  
Revised: March 14, 2017

*Miami Dade County Tier 2 CBE  
Palm Beach County SBE  
SFWMD SBE  
Small Business Administration SBE  
for Federal Projects*

Brown & Caldwell  
Attn: Mr. Victor Hurlburt, P.E.  
850 Trafalgar Court, Ste. 300  
Maitland, FL 32751-4104  
Phone: 407.661.9536/ Email: vhurlburt@brwncald.com

Re: Proposal/Agreement for a Geotechnical Exploration  
Water Main Replacement – Project No. 16-5133  
Various Locations  
Hollywood, FL

Dear Mr. Hurlburt:

Nutting Engineers of Florida, Inc. (NE) is pleased to present this proposal/agreement for performing geotechnical engineering services at the referenced project.

Per your email dated February 23, 2017 and review of the site information, plan, and aerial photograph provided therein, we understand that plans for this project include the installation of approximately 19,000 lineal feet of 8-inch diameter water main to be installed via open trench at the referenced site. There will be three feet of cover over the 8-inch diameter pipe. Additionally, it is proposed to cross the canal at Sherman Street via directional drill. The project is bounded by Sheridan Street on the north, Taft Street on the South, N. 26<sup>th</sup> Street at the east, and N. 28<sup>th</sup> Avenue on the west. Based on your request for proposal and our understanding of the project, we propose the following scope of work and fee schedule.

#### **SCOPE OF WORK**

We propose to perform 14 Standard Penetration Test (SPT) borings to a depth of six feet each which equates to one boring approximately every 1,300 feet of water line as well as perform two SPT borings (one on each side) to a depth of 20 feet each at the Sherman Street canal crossing. The borings will be performed in general accordance with ASTM D-1586 specifications.

At the completion of the on-site work, the soil samples will be returned to our laboratory. We will provide an engineering report including a description of our findings and general trenching and backfill criteria after discussions with Brown & Caldwell personnel. In order to provide information concerning the engineering properties of the soils encountered, it is anticipated that tests may be performed to determine natural water content, organic content, and sieve analysis on representative soil samples collected from the site. The engineering report will include graphic logs of the test borings and a test boring location plan. We assume the site is accessible to truck mounted drilling equipment and that underground utilities will be cleared by others prior to our performing the on-site work.

**FEE SCHEDULE**

- **Per the Broward County Rotating List (RLI No. 20070206-0-PC-2):**

6.	Geotechnical Services	
a)	Standard Penetration Test Borings* 124 l.f. x \$18.50/l.f.	\$2,294.00
b)	Geotechnical Engineering – evaluation of existing soil 21 hrs. x \$78.00/hr.	\$1,638.00
7.	Soil:	
a)	Grain size 5 tests x \$58.80/ test	\$294.00
23.	Underground Utility Locating	
a)	Utility Clearance 12 hrs. x \$90.00/ hr.	<u>\$1,080.00</u>
	<b>Estimated Total:</b>	<b>\$5,306.00</b>

\*If loose or deleterious soil is encountered it may be necessary to extend the soil boring(s).

We currently anticipate starting this work within approximately four business days of receiving written authorization to proceed. The on-site work should take approximately three to four business days to complete. The geotechnical report should be available within approximately 10 - 12 business days after the on-site work is completed.

Representative soil samples may require laboratory testing in order to determine specific engineering properties. If there is a need for laboratory testing, we will notify you to obtain approval prior to performing any tests.

NE has been offering geotechnical engineering, environmental sciences, materials testing, and structural inspection services for over 49 years in South Florida and the Treasure Coast during which time we have worked on many similar projects. Our commitment to practical, cost effective solutions supported by responsive client services distinguishes our firm and enables us to solve your most demanding technical challenges. Another value added component NE brings to your project is our staff of experienced professionals including geotechnical engineers, environmental specialists, field personnel who are certified and have been trained to provide a wide range of consulting services, and our dedicated administrative staff.

Our laboratory is checked annually by the Construction Materials Engineering Council (CMEC) and is certified to perform geotechnical engineering and materials testing services for the Florida Department of Transportation (FDOT). Note that we carry one million dollar professional liability and one million dollar general liability insurance.

Thank you for providing us the opportunity to present this proposal/agreement. We look forward to working with you on this and future projects.

Respectfully submitted,  
**NUTTING ENGINEERS OF FLORIDA, INC.**

Scott Ersland  
Division Manager

James J. Flaig, P.E.  
Principal/Chief Engineer

Reports and invoices will be addressed to the client as listed below unless other instructions are provided in writing with this executed proposal. The undersigned, as an authorized representative of the entity listed below, approves this proposal and agrees to be bound by the terms and conditions contained in this proposal. Deposit amounts are collected at time of written authorization to proceed. If you are a first time client, we request that the balance due for these services be paid at the time of report completion. Once your account is established, our terms are net 30 days. Any invoices over 30 days will be assessed a 1 1/2 percent service charge per month until paid in full.

**PLEASE ENTER INFORMATION LEGIBLY BELOW SO IT CAN BE UTILIZED FOR PROJECT SET-UP:**

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

PRINT NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

COMPANY NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

EMAIL: \_\_\_\_\_

Brown & Caldwell Water Main Repl Pjt No. 16-5133 Hollywood geo 2-24-17 rev. 3-9-17 rev 3-14-17  
**General Terms and Conditions**

For the purpose of this project, the addressee of this proposal will be known as the Client. The client is expected to furnish NUTTING ENGINEERS OF FLORIDA, INC. ("NE"), with accurate information including sketch of survey and/or site plan, construction drawings/specifications as appropriate, details of proposed construction including the proposed structural system and loads or existing construction problem information and site accessibility information as appropriate. Other information requirements may be detailed in the enclosed proposal. IF ANY CONDITIONS CHANGE such as building layout, loading, project specifications/design, or unusual site conditions are observed, NE should be notified immediately in writing about the changed condition for possible review and comment. Should the Client wish to impose other conditions and requirements beyond those contained in this proposal such as in a separate contract, we reserve the option to modify contract language, fee amounts, to remove our proposal from consideration or other measures as may be indicated.

**Delivery** – Scheduled upon receipt of written authorization to proceed and deposit unless other arrangements are agreed to in writing. Additional report copies can be provided for a nominal fee to the Client. NE will exercise appropriate measures to ensure project completion within a reasonable time frame subject to existing workloads. However, NE will not be held responsible for unavailability of necessary project data and site access within the time frame agreed upon for the investigation. Project delivery may be delayed if the ENTIRE signed proposal and deposit are not received in a timely manner. The ENTIRE signed quotation should be returned along with the requested project information. This unsigned proposal is valid for 60 days.

**Payment** - No deposit required with signed agreement. Directing NE to proceed with the work shall constitute acceptance of the terms of NE's proposal and these General Terms and Conditions. Balance due upon delivery of report. Interest at the rate of 18% per annum or the highest rate allowable by law whichever is less, will be added to all amounts not paid within 30 days after date of invoice. All attorney fees and expenses associated with collection of past due invoices will be paid by Client.

**Insurance** – NE maintains Workers' Compensation and Employer's Liability Insurance in conformance with state law. In addition, we maintain Comprehensive General Liability Insurance and Automobile Liability Insurance with bodily injury limits of \$1,000,000.00 and property damage limits of \$1,000,000.00. A certificate of insurance can be supplied evidencing such coverage which contains a clause providing that fifteen days written notice be given prior to cancellation.

**Right-of-Entry** - Unless otherwise agreed, Client will furnish right-of-entry on the property for NE to make the planned borings, surveys, and/or explorations. NE will not be responsible for removing fences, earth berms, vegetation or other obstructions for purposes of our investigation. NE will take reasonable precautions to minimize damage to the property caused by its equipment and sampling procedures, but the cost of restoration or damage which may result from the planned operations is not included in the contracted amount. If Client desires to restore the property to its former condition, NE will accomplish this and add the cost to its fee. Client agrees to waive all claims arising from or related to the failure to provide NE with proper access to conduct its work.

**Damage to Existing Man-made Objects** - It shall be the responsibility of the Owner or his duly authorized representative to disclose the presence and accurate location of all hidden or obscure man-made objects relative to routes of access, field tests, sampling, or boring locations. When cautioned, advised or given data in writing that reveal the presence or potential presence of

underground or over-ground obstructions, such as utilities, septic tanks, etc., NE will give special instructions to its field personnel. In addition, Client waives any claim against NE arising from damage to existing man-made objects.

**Warranty and Limitation of Liability** - NE shall perform services for Client in a professional manner, using that degree of care and skill ordinarily exercised by and consistent with the standards of competent consultants practicing in the same or a similar locality as the project. In the event any portion of the services fails to comply with this warranty obligation and NE is promptly notified in writing prior to one year after completion of such portion of the services, NE will re-perform such portion of the services, or if re-performance is impracticable, NE will refund the amount of compensation paid to NE for such portion of the services. This warranty is in lieu of all other warranties. No other warranty, expressed or implied, including warranties of merchantability and fitness for a particular purpose is made or intended by the proposal for consulting services, by furnishing an oral response of the findings made or by any representations made regarding the services included in this agreement. In no event shall NE or any of its professional employees be liable for any special, indirect, incidental or consequential loss or damages, including but not limited to impact and delay claims. The remedies set forth herein are exclusive and the total liability of consultant whether in contract, tort (including negligence whether sole or concurrent), or otherwise arising out of, connected with or resulting from the services provided pursuant to this Agreement shall not exceed the total fees paid by Client or \$50,000.00, whichever is greater. At additional cost, Client may obtain a higher limit prior to commencement of services.

**PURSUANT TO §558.0035, FLORIDA STATUTES, NE'S INDIVIDUAL EMPLOYEES AND/OR AGENTS MAY NOT BE HELD INDIVIDUALLY LIABLE FOR NEGLIGENCE ARISING OUT OF, CONNECTED WITH, OR RESULTING FROM THEIR SERVICES PROVIDED PURSUANT TO THIS AGREEMENT.**

**Indemnification** – Client agrees to defend, indemnify and save harmless NE from all claims, including negligence claims, suits, losses, personal injuries, death and property liability resulting from NE's performance of the proposed work, whether such claims or damages are caused in part by NE, and agrees to reimburse NE for expenses in connection with any such claims or suits, including reasonable attorney's fees. Client's obligation to indemnify is limited to \$2 million per occurrence, which Client agrees bears a reasonable commercial relationship to the Work undertaken by NE. Client further agrees that these general conditions are a part of the Work's specifications or bid documents, if any.

**Sampling or Testing Location** - Unless specifically stated to the contrary, the unit fees included in this proposal do not include costs associated with professional land surveying of the site or the accurate horizontal and vertical locations of tests. Field tests or boring locations described in our report or shown on our sketches are based on specific information furnished to us by others and/or estimates made in the field by our technicians. Such dimensions, depths or elevations should be considered as approximations unless otherwise stated in the report. It is understood that all drilling locations are accessible to conventional truck mounted drilling equipment unless otherwise specified by the client. If unscheduled remobilizations or use of portable or all terrain equipment is required additional charges will apply. NE will attempt to clear utilities at our excavation/test locations by manual drilling to 3' below land surface (BLS). Any utilities/obstructions present at client specified test locations or below 3' BLS will be the responsibility of the client.

**Sample Handling and Retention** – Generally soil test samples are retained for approximately three months after which time they will be discarded unless written instructions to the contrary are received from the client.

**Legal Jurisdiction** - The parties agree that any actions brought to enforce any provision of this Agreement shall only be brought in a court of competent jurisdiction located in Palm Beach County, Florida. Any and all causes of action arising out of NE's performance of the Work, including but not limited to claims for indemnity, contribution and equitable subrogation, shall be deemed to have accrued and the applicable statutes of limitations shall commence to run not later than the date of NE's last invoice for the Work performed hereunder.

**Force Majeure** - NE shall not be held responsible for any delay or failure in performance of any part of this Agreement to the extent such delay or failure is caused by fire, flood, explosion, war, strike, embargo, government requirement, civil or military authority, acts of God, act or omission of subcontractors, carriers, client or other similar causes beyond its control.

**Documents** - NE shall be entitled to rely upon the accuracy and completeness of all surveys, reports and information furnished by the client. If conditions different from those described in our report are found at the site, NE should be notified in writing immediately upon discovery. NE reserves the right to revise conclusions and recommendations presented in the final report should additional information regarding the project become available. All permits will be obtained by others unless otherwise specified in this proposal or in writing to NE. NE has no liability for consequences of information not provided or unavailable or otherwise not reviewed or known from the normal sources customarily examined by NE in such investigations within the time frame allowed for this investigation under this agreement. The client, entities identified in writing on the address portion of our report, design team professionals engaged by our client and building official staff are entitled to use and rely upon NE's reports for purposes of the current project. Other parties are not authorized to use or rely upon NE's reports unless NE so states in writing.

NE - General Contract Terms and Conditions Dec 2015

cc: Richard Wohlfarth, P.E. – Principal/ Director of Engineering  
Kristina Berryman – Business Development Manager  
Pavel Cruz – CMT Division Manager

Brown & Caldwell Water Main Repl Pjt No. 16-5133 Hollywood geo 2-24-17 rev. 3-9-17 rev 3-14-17