

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS

AGENDA ITEM SUMMARY

Meeting Date: April 20, 2021

Consent [X]
Public Hearing []

Regular []

Department: Water Utilities Department

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to approve: Consultant Services Authorization (CSA) No. 1 to the Consulting/Professional Services Utility Distribution & Collection System Consulting Services Contract (Contract) with Keshavarz & Associates, Inc. (Consultant) for the Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project (Project) for a not to exceed amount of \$571,537.68.



Summary: On December 15, 2020, the Board of County Commissioners approved the Palm Beach County Water Utilities Department (PBCWUD) Contract (R2020-1898) with Consultant. CSA No. 1 provides for professional engineering services relating to survey, design and permitting of the Project. These services include, survey, subsurface utility exploration, geotechnical exploration, construction plans, permitting, outreach support and bid support services for the replacement and relocation of approximately 16,000 linear feet of water mains within the south east area of the City of Belle Glade designated as Zone 4. Project also includes the relocation of approximately thirty-one (31) water services from the rear of the property to the front of the property.

This Contract was procured under the requirements of the Equal Business Opportunity Ordinance. On October 2, 2019, the Goal Setting Committee applied an Affirmative Procurement Initiative (API) of a minimum mandatory 20% Small Business Enterprise (SBE) subcontracting goal and an evaluation preference for up to 15 points based upon the relative level of dollar participation by certified SBE firms were the API applied to the Contract. The Contract provides for 85.00% SBE participation, which includes 85.00% M/WBE participation, 82.00% MBE (A), and 3.00% MBE (B). CSA No. 1 includes 86.79% SBE participation which includes 86.79% M/WBE participation, 86.79% MBE (A). The cumulative SBE participation including CSA No. 1 is 86.79% SBE, which includes 86.79% MBE (A). Consultant is a Palm Beach County based company. The Project is included in the PBCWUD FY21 Budget. (PBCWUD Project No. 21-033) District 6 (MJ)

Background and Justification: Zone 4 of the Belle Glade water distribution system experiences issues with leaks, unknown location of facilities, substandard pipe materials, undersized water mains and valve isolation. The Project will replace aging water distribution infrastructure within the project area including pipes, valves, fire hydrants, and water meters. The Project also includes the relocation of water services from the rear to the front of the properties. The Project include the areas generally bounded by South Main Street, East Canal Street and Dr. Martin Luther King Jr., Boulevard. The existing water mains to be replaced under the Project are undersized and lack adequate fire protection. The Project is needed to increase fire protection, restore the service life, efficiency and effectiveness of the water distribution system. This Project will also help to reduce the operations and maintenance workload and associated cost.

Attachments:

1. Four (4) Originals of Consultant Services Authorization No. 1
2. Location Map
3. Certificate of Liability Insurance

| | | | |
|-----------------|--|-------------------|--|
| Recommended By: |  Department Director | 3-23-2021 Date | |
| Approved By: |  Assistant County Administrator | 4/2/2021 Date | |

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

| Fiscal Years | 2021 | 2022 | 2023 | 2024 | 2025 |
|--|------------------|----------|----------|----------|----------|
| Capital Expenditures | \$571,538 | 0 | 0 | 0 | 0 |
| Operating Costs | 0 | 0 | 0 | 0 | 0 |
| External Revenues | 0 | 0 | 0 | 0 | 0 |
| Program Income (County) | 0 | 0 | 0 | 0 | 0 |
| In-Kind Match County | 0 | 0 | 0 | 0 | 0 |
| NET FISCAL IMPACT | \$571,538 | 0 | 0 | 0 | 0 |
| # ADDITIONAL FTE POSITIONS (Cumulative) | 0 | 0 | 0 | 0 | 0 |

Budget Account No.: Fund 4011 Dept 721 Unit W038 Object 6543

Is Item Included in Current Budget? Yes X No

Does this item include the use of federal funds? Yes No X

Reporting Category N/A

B. Recommended Sources of Funds/Summary of Fiscal Impact:

One (1) time expenditure from user fees, connection fees and balance brought forward.

C. Department Fiscal Review: _____ GE

III. REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Development and Control Comments:

Steve Martin 3/26/21
OFMB BR 3/28
3/25

Ann J. Sawley 3/31/21
Contract Development and Control
3-31-21

B. Legal Sufficiency:

Ron Bm for M Jones 4/1/21
Assistant County Attorney

C. Other Department Review:

Department Director

This summary is not to be used as a basis for payment.

CONSULTANT SERVICES AUTHORIZATION NO. 1

Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Utility Distribution & Collection System Engineering Services
Resolution No. R2020-1898 Contract Dated December 15, 2020

Project Title: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project

PBCWUD Project No.: 21-033

Consultant: Keshavarz & Associates, Inc.

Address: 711 North Dixie Highway, Suite 201, West Palm Beach, FL 33401

Budget Line Item No.: 4011-721-W038-6543

District No.: 6

This Consultant Services Authorization provides for: Engineering services, including but not limited to: Subsurface Utility Exploration (SUE), geotechnical exploration, survey, preparation of construction plans, permitting, community outreach support and bid assistance services towards the addition of new water mains, replacement of existing water mains and water services, as well as the conversion of existing rear-lot water services to front-lot services within the limits of the geographical area referred to as "South East Zone 4" in the City of Belle Glade, Florida.

(See ATTACHMENT A for detailed scope of services)

The Contract provides for 85.00% SBE participation which includes 85.00% M/WBE participation, 3.00% MBE (B) and 82.00% (A). This Consultant Services Authorization includes 86.79% overall SBE participation which includes 86.79% M/WBE participation, which includes 0.00% MBE (B) and 86.79% MBE (A). The cumulative SBE participation, including this authorization is 86.79% which includes 86.79% M/WBE participation, which includes 0.00% MBE (B) and 86.79% MBE (A).

1. Services completed by the Consultant to date :

See ATTACHMENT B.

2. Consultant shall begin work upon receipt of Notice to Proceed correspondence.

3. The compensation to be paid to the Consultant for providing the requested services shall be:

A. Computation of time charges plus expenses, not to exceed \$571,537.68

B. Fixed price of \$0.00

C. Total \$571,537.68

4. This Authorization may be terminated by the County without cause or prior notice. In the event of termination not the fault of the Consultant, the Consultant shall be compensated for all services performed through the date of termination, together with reimbursable expenses (if applicable) then due.

CONSULTANT SERVICES AUTHORIZATION NO. 1

Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Utility Distribution & Collection System Engineering Services
Resolution No. R2020-1898 Contract Dated December 15, 2020

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PBCWUD Project No.: 21-033

5. SBE participation is included in **ATTACHMENT C** under this Authorization. The attached Schedule 1 defines the SBE applied to this Authorization and Schedule 2 establishes the SBE contribution from each Sub-Consultant (Letter of Intent).
6. This Authorization does not amend, change, or modify the Contract dated December 15, 2020 which remains in full force and effect.
7. All Attachments to this Authorization are incorporated herein and made a part of this Consultant Services Authorization.

Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Utility Distribution & Collection System Engineering Services
Resolution No. R2020-1898 Contract Dated December 15, 2020

Project Title: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project

PBCWUD Project No.: 21-033

IN WITNESS WHEREOF, this Authorization is accepted, subject to the terms, conditions and obligations of the aforementioned Contract.

PALM BEACH COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA

Joseph Abruzzo, Clerk of the Circuit Court
& Comptroller, Palm Beach County

Palm Beach County, Board
of County Commissioners

ATTEST:

Signed: _____ *HJM*

Signed: _____
Dave Kerner, Mayor *JKS*

Typed Name: _____
Deputy Clerk

(Date)

Approved as to Form and Legal
Sufficiency

CONSULTANT: Keshavarz & Associates, Inc.

Signed: _____

(Signature)

Typed Name: Michael W. Jones
County Attorney

Amir Keshavarz, P.E., Senior Project Manager
(Name and Title)

2/24/2021
(Date)

STATE OF FLORIDA

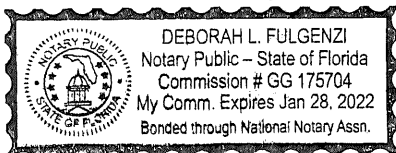
COUNTY OF PALM BEACH

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this 24th day of February, 2021, by Amir Keshavarz, P.E. who is personally known to me or has produced _____ as identification.

(Signature of Notary Public - State of Florida)

Deborah L. Fulgenzi

(Print, Type, or Stamp Commissioned Name of Notary Public)





KESHAVARZ
— & ASSOCIATES —
CIVIL ENGINEERING | SURVEYING | CONSULTING

October 22nd, 2020

Palm Beach County Water Utilities Department
8100 Forest Hill Boulevard
West Palm Beach, FL 33413

Reference: Utility Distribution & Collection System Engineering Services
WUD 19-082

To whom it may concern,

We are hereby designating Amir Keshavarz, P.E. as an authorized signer associated with the contract for Utility Distribution & Collection System Engineering Services and any associated Consultant Service Authorizations and invoices that may fall under this agreement.

Thank you.

Respectfully,

Mark A. Williams, P.E.
Senior Vice President

711 N Dixie Hwy Suite #201, West Palm Beach, FL 33401 Tel: (561) 689-8600
Keshavarz.com

Palm Beach County Water Utilities Department
Contract for Consulting/Professional Services
Utility Distribution & Collection System Engineering Services
Resolution No. R2020-1898 Contract Dated December 15, 2020

LIST OF ATTACHMENTS

| | |
|---------------------|--|
| ATTACHMENT A | Scope of Services |
| ATTACHMENT B | Summary and Status of Consultant Services Authorizations |
| ATTACHMENT C | OEBO Schedules 1 and 2 |
| ATTACHMENT D | Project Schedule |
| ATTACHMENT E | Budget Summary |
| ATTACHMENT F | Summary of SBE-M/WBE Business Tracking |
| ATTACHMENT G | Location Map |

Revised 02/11/2021

ATTACHMENT A

SCOPE OF SERVICES

PBCWUD Project No.: 21-033

Project Title: Belle Glade Water Main Improvements; SE Zone 4 Water system Replacement Project

CONSULTANT shall perform:

BACKGROUND

Over the past decade, Palm Beach County Water Utilities Department (PBCWUD) has engaged in various system-wide potable water infrastructure improvement projects, segmented into geographical areas or “Zones” in the City of Belle Glade (City) and surrounding areas, to replace portions of the aged system and address persistent Operations and Maintenance (O&M) challenges.

Due to the characteristic unusual existing conditions and limited availability of reliable system records within the City, exploratory studies have been conducted in the past towards increased efficiency during zone-wide infrastructure replacement projects. In 2015 one such study was performed for “South East Zones 4 & 6”. A portion of this 2015 study area has been identified for the subject improvements and is referred to by PBCWUD as South East (SE) Zone 4. The 2015 study recommended improvements throughout SE Zone 4, which have been recently reviewed with PBCWUD Engineering and O&M to add, reduce, and/or otherwise update the recommended infrastructure improvements based on information that’s become available since 2015. Sources of the information are PBCWUD, Florida Department of Transportation (FDOT), the City and PBCWUD consultants who have completed or are currently working on improvement projects in the area. This infrastructure improvement/replacement project is focused on enhancing overall system reliability, replacing aged water mains and services, converting rear-lot water services and meters, addressing persistent O&M challenges, as well as improving system interconnectivity and fire protection throughout SE Zone 4.

SCOPE OF SERVICES:

Under this Consultant Services Authorization (CSA), Keshavarz & Associates, Inc. (CONSULTANT) shall perform the Engineering-related services necessary to prepare detailed drawings for construction of infrastructure improvements within SE Zone 4 in accordance with PBCWUD’s Minimum Engineering and Construction Standards, as well as all applicable permitting agency regulations. These services include surveying, subsurface utility exploration, geotechnical exploration, public engagement assistance, project management, design, permitting, contract award assistance and easement assistance services.

The subject triangular-shaped geographic area in the City referred to as SE Zone 4 is approximately 43 acres in size and is described as: south and west of East Canal Street S (the Hillsborough Canal); east of North Main Street (SR 80); and north of Dr. Martin Luther King Jr. Boulevard (SE Avenue E). The SE Zone 4 water main improvement area includes improvements throughout the above-described geographic area, as well as 2,900 linear feet (LF) of improvements within SR 80 from W. Avenue A to SE Avenue G, FDOT Right-of Way (R/W), 5,800 LF of improvements within East Canal Street S. from SR 80 to SE Avenue G, Palm Beach County Engineering and Public Works – Land Development Division (PBCLD) & FDOT R/W, and 2,500 LF of improvements within SE Avenue E from SR 80. to E. Canal St. S. (FDOT R/W).

The services provided under this CSA are related to approximately 17,500 LF of water and wastewater infrastructure improvements as summarized (figures are approximate).

- An approximate combined total of 16,700 LF of new water main installation and removal/replacement of existing water main comprising of:
 - 12,400 LF of removal/replacement of existing water mains
 - 4,300 LF of new water mains
- Replacement and/or relocation of existing water services currently serving 153 PBCWUD customers, specifically:
 - Replacement of 122 existing water services
 - Relocation of 31 existing rear-lot water services and meters to the RW
- Removal/replacement of 800 LF of existing sanitary gravity main including the reconnection of 21 affected existing sanitary laterals in-place
- Removal/replacement of two (2) existing sanitary manholes
- Replacement of affected existing fire hydrants and addition of eight (8) new fire hydrants as required
- Replacement of affected existing valves and addition of new valves as required by PBCWUD
- Coordination with PBCWUD towards the strategic placement of three (3) new potable water system pressure and flow monitoring devices to be installed per details as provided by PBCWUD.

The following services will be provided by the CONSULTANT:

Task 1. Preliminary Design Services

1.1. Project Management, Research, Project Orientation and Kick-off:

The CONSULTANT shall actively manage its and sub-consultant personnel towards the successful execution of PBCWUD's project scope.

The CONSULTANT shall research, review and study record information, Geographic Information System (GIS) database information, and other pertinent information pertaining to the existing facilities within the road R/W.

The CONSULTANT shall conduct a project kick off meeting with PBCWUD. CONSULTANT shall chair this meeting, and generate agenda and provide meeting summary.

This task includes general correspondence, coordination and data exchange with PBCWUD as needed throughout this project.

This task also includes efforts required to compile reports, tables, receipts, and back-up records in general compliance with applicable accounting and SBE-M/WBE requirements.

1.2. Preliminary Meetings and Coordination with Regulatory Agencies:

CONSULTANT shall coordinate, and if necessary set up and attend meetings, with representatives of the City, FDOT, South Florida Water Management District (SFWMD), United States Army Corps of Engineers (USACE), various Palm Beach County engineering departments and divisions, Palm Beach County Fire Rescue (PBCFR), and Palm Beach County Health Department (PBCHD) to preliminarily discuss and determine the necessary permitting conditions, constraints and considerations related to this project.

The CONSULTANT shall also coordinate with the above-mentioned PBC Departments regarding any anticipated PBC improvement projects that may coincide or conflict with the subject PBCWUD project. The CONSULTANT shall discuss and explore project cost-sharing possibilities between PBCWUD and any other PBC Departments overlap. Work examples when cost sharing may be possible include: roadway resurfacing, sidewalk improvements, bike lane additions, and streetlight improvement projects.

The CONSULTANT shall meet, coordinate, correspond and exchange data relevant to this project with any requesting entity throughout the design, permitting and bid assistance stages of this project in a good faith effort to promote collaboration benefitting the residents of Palm Beach County (PBC) and the customers of PBCWUD.

In addition, during the Preliminary Design Stage of the project, the CONSULTANT shall coordinate directly with the PBCHD to confirm the assumption that the proposed sanitary replacements will not require a Florida Department of Environmental Protection (FDEP) Wastewater permit.

The CONSULTANT is not responsible for possible delays resulting from changes to the regulatory process and construction standards of the governing agencies during the design and permitting phases of this project.

This task does not include the CONSULTANT's ongoing general coordination assistance with the City's in-house consultant regarding the status, limits and anticipated scheduling of the City's FDOT-funded resurfacing projects and/or other upcoming improvement projects that may coincide or conflict with this project (See Supplemental/Hourly Services No. 1).

1.3. Field Visits and Coordination with O&M Staff:

The CONSULTANT shall perform up to three (3) field visits related to this project's design efforts. The CONSULTANT shall perform one (1) field visit to review the project's existing conditions and to identify possible conflicts or constraints visible and/or identifiable through a field visit. The CONSULTANT shall photograph and document these existing conditions for reference during design and coordination. These photographs shall be provided to PBCWUD as a part of the Final Deliverable.

The CONSULTANT shall also contact PBCWUD O&M staff for insight on any consistent challenges related to the project area's existing infrastructure. The CONSULTANT shall perform up to two (2) field visits with PBCWUD O&M staff, if necessary, to obtain this information or to review any additional concerns that arise during this project's duration. This task also includes coordination with O&M or other PBCWUD staff in soliciting input from the field, field crews, Inflow & Infiltration (I&I) teams, etc.

1.4. Utility Coordination:

The CONSULTANT shall identify all pertinent dry utility providers (electric, gas, phone, cable, traffic signal systems, etc.) within the project area by means of contacting "811 No-cuts". The CONSULTANT shall then prepare exhibits showing the proposed improvements and distribute request for existing facilities/data to these dry utility providers' facilities. The CONSULTANT shall coordinate and track the responses from the utility providers, incorporating the results onto the construction plans. This effort is intended to be preliminary in nature and will require additional verification via various methods as is typical of utility retrofit design practices.

Task 2. Infrastructure Replacement Surveying and Design Services:

The CONSULTANT shall perform the required field surveying services to prepare and furnish Route and Topographic Surveys that depict the appropriate land features, horizontal and vertical control points in plan view necessary to prepare the subject design. The horizontal survey data will be in

state plane coordinate system of North American Datum of 1983, 2007 adjustment (SPCS NAD/83-2007). The vertical datum shall be in the North American Vertical Datum of 1988 (NAVD88) to include a conversion factor to convert the vertical datum to the National Geodetic Vertical Datum of 1929 (NGVD29), unless PBCWUD stipulates otherwise, and shall be used as the basis of design.

The CONSULTANT will prepare and furnish construction plans and details on 24"x36" drawings at a 1:20 scale. The CONSULTANT shall submit 60%, 90% and 100% complete design drawings to PBCWUD. Assumptions:

- All record drawings for the existing water and wastewater facilities within the design corridor will be provided by PBCWUD, if available. The CONSULTANT will consider these Record Drawings to be accurate and complete.
- Any required hydraulic modeling for pipe sizing adjustments, fire flow analysis, or for permitting purposes is not included in this CSA. Should hydraulic modeling be required, the CONSULTANT will be responsible for notifying PBCWUD in a timely manner and providing any necessary data to PBCWUD to perform the hydraulic modeling in-house, and to provide the CONSULTANT with the results.
- In order to maintain the schedule of deliverables requested by PBCWUD, the consolidated review comments generated by all entities within PBCWUD shall be submitted to CONSULTANT for the 60% and 90% design submittals within two (2) weeks of receipt of submittal from the CONSULTANT.
- The proposed infrastructure replacement design will be depicted in plan view only when required for permitting. It is assumed that plan and profile views will only be prepared where improvements are within a SFWMD or PBC R/W. Alignments of profile views will generally be along the centerlines of the proposed water mains, unless specifically required otherwise by the R/W owner.
- The CONSULTANT may choose to not provide profile views directly beneath plan views on each sheet. In this instance, profile views will be provided as multiple profiles on a set of construction plan sheets following the plan view sheets, unless specifically required otherwise by the R/W owner.
- PBCWUD wishes to replace the existing fire hydrants within the water main replacement project limits. PBCWUD also wishes to install additional fire hydrants to address fire protection coverage gaps and to ensure fire hydrant spacing and fire protection coverage complies with current PBCFR requirements.
- PBCWUD does not wish to replace or relocate any existing front-lot single water meter boxes, or replace an existing pair of single water meter box with a double meter box.
- If existing front-lot water meter boxes are to remain, but appear to be located where it is reasonable to assume the boxes will be subject to traffic loading from passing or parked vehicles, the CONSULTANT shall propose the boxes be replaced with Tier 15, traffic-rated water meter boxes/lids. It is assumed that the locations of the replaced meter boxes will not change. It is also assumed that no significant work related to the private water service will be necessary for the meter box replacement, thus a licensed plumber will not be required.
- It is assumed that the existing sanitary gravity system including the existing two (2) manholes, will be removed and replaced in-place.

- It is assumed that the replacement gravity sanitary main will be replaced at a lower depth in order to improve the existing sub-standard slopes, and that all existing sanitary service laterals will be reconnected to the lowered gravity sanitary main at their existing points of connection only, by use of modified wye and service-to-main connection piping/fittings.
- It is assumed that the locations of proposed potable water system pressure and flow monitoring devices will be coordinated with PBCWUD staff based on a collectively agreeable set of design outcome goals and success factors regarding the placement within the greater potable water system.
- Prior to the 60% design stage beginning, it is assumed that all relevant/applicable details, specifications, design considerations and criteria related to the potable water system pressure and flow monitoring devices are provided by PBCWUD, include but are not limited to, details for each device being considered for installation, below-ground assembly/structure requirements, above-ground clearance requirements, service and maintenance access criteria.
- It is assumed that the potable water system pressure and flow monitoring devices that are included in the CONSULTANT's construction plans are to be installed per the details and specifications as provided by PBCWUD.
- Construction of the proposed improvements is to be phased in order to minimize access interruptions and reduce the size of areas left unrestored during construction. The construction plans will be prepared with phasing in mind, which will ultimately be reflected on phasing plan sheets and phasing notes within the construction plans.
- Assistance to Foresight Communications & Consulting, Inc. (Foresight), PBCWUD's public outreach consultant, is included in this CSA on an as needed basis where it relates to notifying and educating the property owners affected by the subject improvements (See Supplemental/Hourly Services No.1).

2.1 Coordination with Subsurface Utility Engineering (SUE) and Geotechnical Engineering Sub-Consultants for Field Investigations:

The CONSULTANT shall coordinate with the SUE Sub-Consultant, InfraMap Corp. (InfraMap) and the Geotechnical Sub-Consultant, Tierra South Florida, Inc. (Tierra) on a continual basis to schedule their respective services as needed in a timely manner.

The CONSULTANT shall prepare and provide utility scanning and soft dig exhibits to InfraMap to request the required work. InfraMap shall scan the limits of the proposed utility replacement corridors and designated road R/W using Ground Penetrating Radar (GPR) and other methods as indicated in their proposal.

During the design phase it may be determined that additional information is needed for specific utilities to confirm condition, material and location; and to acquire vertical elevations, confirm tie-in locations, navigate critical crossings, etc. The CONSULTANT shall prepare exhibits to provide to InfraMap depicting the location of the areas needing additional information for design purposes, whether via scanning or soft digs.

Further, the CONSULTANT shall coordinate with Tierra to perform Standard Penetration Test (SPT) soil borings and pavement cores at locations determined by Tierra based on its assessment of the proposed utility replacement corridor's existing conditions and geotechnical characteristics.

The CONSULTANT shall provide both InfraMap and Tierra with all available system information assembled in coordination with PBCWUD and utility providers at the time of the requested SUE and Geotechnical activities. InfraMap and Tierra shall be individually responsible for performing all

necessary activities prior to performing their respective work, such as but not limited to calling "811 No-cuts".

While not included in this task, the CONSULTANT shall also coordinate with the City and/or their in-house consultant to provide notification of anticipated scanning, soft dig and geotechnical exploration operations once scheduled, as well as the anticipated work locations, prior to those efforts being completed. Should notification of work within FDOT and PBC RW be required, the CONSULTANT shall provide the same notification of anticipated field work timing and approximate locations via writing or a phone call to a pre-coordinated representative from the appropriate regulatory agency (See Supplemental/Hourly Services No.3).

2.2 Field Acquisition of SUE Efforts and Depiction of Results on Construction Plans:

The CONSULTANT's survey field crews shall locate the results of the scanning efforts on the part of InfraMap within the limits of the road R/W. These located results shall be incorporated into the construction plans. The CONSULTANT shall locate each soft dig and shall depict the location and vertical elevation data of the utility into the construction plans. A spreadsheet-based soft dig inventory containing the results of all soft digs associated with the project will be compiled and included with the construction plans. All SUE results will be provided to PBCWUD in the final deliverable.

2.3 Route Survey:

The CONSULTANT shall depict the entire R/W limits of roughly 17,500 LF of the following roadways:

- South Main Street from West Avenue A to SE Avenue G
- SE 1st Street from East Canal Street South to SE Avenue E
- SE 2nd Street from East Canal Street South to SE Avenue E
- SE 3rd Street from East Canal Street South to SE Avenue E
- SE 4th Street from East Canal Street South to SE Avenue E
- SE Avenue B from South Main Street to East Canal Street South
- SE Avenue C from South Main Street to SE 3rd Street
- SE Avenue D from South Main Street to SE 2nd Street
- East Canal Street South from West Avenue A to SE Avenue G
- SE Avenue E from South Main Street to East Canal Street South

All of the above described routes shall have their R/W lines and property/lot line limits depicted based on information from a combination of recorded plats and/or deeds available on the Clerk of Court's Official Records web page or by Title Search. All known easements of record contiguous with the platted street R/W lines as shown on the recorded plats will be depicted (if any).

A baseline shall be created along the centerline of the road R/W for plan sheet stationing.

The CONSULTANT shall review and draft the results of up to three (3) Title Searches and draft up to three (3) proposed utility easement sketches and legal descriptions (See Supplemental/Hourly Services No.2).

The CONSULTANT shall establish at least two (2) benchmarks within each roadway corridor for construction purposes within the project area and the locations shall be indicated on the horizontal control sheets of the construction plans.

2.4 Topographic Survey Corridors:

A topographic survey shall be prepared based on the above described route survey limits and shall include identification and location of pavement edges, driveways and turnouts, sidewalks, trees, signs, power poles, guy wire anchors, light poles, aboveground utility boxes, etc. within the R/W corridors. All existing water valves, fire hydrants, water meters, backflow preventers, double detector check valves, sanitary manholes, sanitary clean outs, storm manholes, catch basins shall be located within the relevant project areas and, if deemed necessary by the CONSULTANT, adjacent to the affected project areas, if required for the utility replacement design purposes. If accessible, identifiable, and required for design purposes, pipe sizes, material and inverts of storm water and sanitary sewer facilities located within or adjacent to the affected project area shall be acquired by means of accessing existing stormwater and sanitary structures.

Existing vertical grades shall be acquired within the proposed utility replacement corridors at a maximum of 100 foot intervals perpendicular to the centerline of the R/W extending to just beyond the R/W lines as deemed necessary by the CONSULTANT. The acquired field data will be reflected on the construction plans as referenced.

Available information on existing potable water and sanitary sewer mains (where applicable) will be provided by PBCWUD in the form of Record Drawings for field verification, as applicable and if possible, during topographic data acquisition efforts. Dry utility facilities locations (Florida Power & Light Company, AT&T Inc., Comcast Corporation, etc.) will be noted with paint marked by other. These locations will be included on the construction plans.

2.5 60% Design Stage:

Construction plans at a completion level of approximately 60% shall be submitted to PBCWUD for review. The 60% design plans shall depict the existing utility replacement/abandonment limits and the various proposed infrastructure replacement layout/corridor in plan view only. These design plans shall also include the proposed connections to the existing water mains and sanitary gravity mains or manholes that are to remain.

These plans shall include all existing utilities as acquired during the survey acquisition phase, the results of the utility coordination and shall include any record information of the existing water and wastewater facilities as provided by PBCWUD. The results of the subsurface utility targeting/scanning will also be depicted on the plans. Conflicts, crossings and deflections will be identified on the plans to the best of the CONSULTANT's abilities based on available data to date. A preliminary soft dig inventory sheet will also be included reflecting known soft dig data at the time of the submittal. The 60% submittal will also include proposed grading and restoration details, PBCWUD standard details and CONSULTANT's general details and general notes.

2.6 90% Design Stage:

Construction plans at a completion level of approximately 90% shall be submitted to PBCWUD. The 90% design plans shall include the 60% design as modified through PBCWUD's issued review comments and other data as deemed relevant by CONSULTANT. Where required for permitting of certain corridors, profile views will be provided in the 90% design plans on the profile view plan sheets with crossings calculated and detailed. Results of SUE soft digs will be depicted on the plans, known or discovered conflicts shall be addressed; deflections will be detailed and crossings calculated. The 90% submittal will include all necessary plans sheets, details and notes for permitting purposes.

2.7 100% / Final Design Stage:

Final construction plans will be prepared and shall include any modification from PBCWUD and/or modification requested by other regulatory agencies and approved by PBCWUD.

2.8 Preparation of Engineer's Opinion of Probable Construction Cost (OPCC):

Upon completion of the 60% and 90% design submittal, the CONSULTANT shall prepare an engineer's OPCC roughly in the format of the ultimate Bid Tabulation (Bid Tab) and based upon various related bid line item and construction cost unit price data. This OPCC estimate will be submitted to PBCWUD within one (1) week from the submittal of the 60% and 90% design. The OPCC will be updated to include any modifications during the final phases of the design and will be resubmitted with the 100% design.

If at any point, should PBCWUD choose not to advertise the project as a public bid and award it to a PBCWUD Pipeline Continuing Contractor, PBCWUD is to inform the CONSULTANT of the designated PBCWUD Pipeline Continuing Construction Contract that will apply to construction of the subject improvements and provide all current related data. All OPCCs provided by the CONSULTANT up to that point will remain and all forthcoming OPCCs will be per the applicable PBCWUD Pipeline Continuing Construction Contract. Should PBCWUD wish to have any previously provided OPCCs restructured to apply to a PBCWUD Pipeline Continuing Construction Contract, the CONSULTANT will provide these restructured and recalculated OPCCs and invoice the efforts under Task 4 upon approval by PBCWUD.

Task 3. Permitting Services with Regulatory Agencies for Proposed Infrastructure Replacements

At the completion of the 90% Design Stage, the CONSULTANT shall prepare applications for plan review/permit approvals from the following agencies:

- City
- SFWMD (R/W Permit)
- PBCLD (Utility Permit)
- FDOT (Utility Permit)
- PBCFR (Fire Protection)
- PBCHD (water distribution system improvements)

In addition to preparing the permit applications for appropriate regulatory agencies, CONSULTANT shall assist PBCWUD in consultations with the appropriate authorities as necessary and shall track and monitor the permitting process. Permitting status sheets will be distributed throughout the process at milestones or more frequently if requested by PBCWUD. The permitting status sheets will identify the schedule of events as to when applications, comments and responses are submitted and will also include the permit number, regulatory contact and expiration date.

CONSULTANT services during the permitting phase shall also include the following:

- Attend pre-application meetings with the staff of each regulatory agency as required beyond the preliminary meetings.
- Attend meetings with each of the regulatory agencies during review of the final permit applications as required.
- Respond to additional Requests for Information (RFI) from each regulatory agency.
- Provide PBCWUD with one (1) set of approved plans from each permitting agency in hard and electronic copies, as may be applicable.
- Request permit extensions from regulatory agencies as needed throughout the duration of the project leading up to commencement of construction.

- Associated permit application fees shall be determined by the regulatory agencies in coordination with the CONSULTANT and will be paid by PBCWUD.
- It is assumed that the L-14 Canal is considered a “levee system” canal by SFWMD and thus is under the shared oversight with the USACE. Due to this shared authority related to the “L-14 Levee R/W” it is assumed that the CONSULTANT will have to submit the proposed infrastructure improvements within East Canal Street South to the USACE for a 408 permit review simultaneous to submitting to SFWMD for an R/W permit. Beyond the preliminary permitting and regulatory agency coordination performed by the CONSULTANT under Task 1.2, all meetings, correspondence, submittals and permitting services related to the anticipated USACE 408 permitting review process shall be provided under Supplemental/Hourly Services No.6.

Task 4. Bidding Support Services:

Upon completion of the permitting phase, review and approval of the bid set of construction plans as provided by the CONSULTANT, PBCWUD shall draft and provide the front end documents for the bid package, including but not limited to, the contract, general conditions, invitation to bid, instructions to bidders, bond requirements, etc. PBCWUD shall advertise, print, sell, and maintain the bidders list related to the public bid of the subject potable water system replacement project. This project is assumed to be one (1) publically bid construction package.

Unless otherwise noted, the following Tasks will be performed by PBCWUD and the CONSULTANT, together in a collaborative manner, during the bidding or negotiating phases for the project’s construction package.

4.1 Review Front End Documents, Prepare Project Description, Summary of Work, Bid Tab, Summary of Pay Items:

Upon notice of securing permit approvals, providing PBCWUD with the bid set of construction plans, and notice from PBCWUD that the provided bid set was satisfactory, PBCWUD and the CONSULTANT shall collectively determine any applicable construction sequencing and restrictions/considerations during construction, including confirmation of the proposed construction phasing shown on the bid set of construction plans. The CONSULTANT shall review the project’s draft front end documents and advertisement for bid as provided by PBCWUD. The CONSULTANT shall not review the front end documents for legal sufficiency. The CONSULTANT will provide feedback and recommended revisions related to the front end documents within one (1) week of receipt, to be considered and ultimately decided by PBCWUD with the input of any appropriate PBC Department as required.

The CONSULTANT shall generate a Bid Tab to be included in the Bid Package. The Bid Tab will be based upon an updated final OPCC as revised to reflect any modifications resulting from the permitting process and final stages of design. The CONSULTANT shall draft the Summary of Pay Items/Measurement & Payment Section to match the provided Bid Tab. The CONSULTANT shall draft the Project Description and Summary of Work specifically for this project’s scope.

All drafted Sections shall be submitted by the CONSULTANT to PBCWUD in Microsoft Word format for review and approval prior to advertising the bid. It is assumed that ‘Tracked Changes’ will be utilized between the CONSULTANT and PBCWUD to facilitate efficient review and revisions.

4.2 Preparation of Technical Specifications:

The CONSULTANT shall review, discuss and modify, as needed, the standard PBCWUD Technical Specifications to be appropriately applied to this project’s scope. Supplemental Technical

Specifications will be developed if necessary. It is assumed that this will be a collaborative authorship effort, as the Technical Specifications must make many references to PBCWUD standard operating criteria and metrics which are not known by the CONSULTANT.

All drafted Technical Specifications will be submitted by the CONSULTANT to PBCWUD in Microsoft Word format for review and approval prior to advertising the bid. It is assumed that 'Tracked Changes' will be utilized between the CONSULTANT and PBCWUD to facilitate efficient review and revisions.

4.3 Pre-Bid and Bid Opening Meeting Attendance:

The CONSULTANT shall coordinate directly with PBCWUD staff regarding the scheduling of the project's Pre-Bid meeting, and shall make arrangements for the Designing Engineer or Construction Project Representative involved during design to be in attendance. PBCWUD is to conduct the Pre-Bid meeting and issue the Pre-Bid meeting minutes, if necessary, in the form of a Bid Addendum. The CONSULTANT shall take notes during the Pre-Bid meeting and will provide relevant information, answer questions posed by the prospective bidders at the meeting and/or assist PBCWUD in drafting the Pre-Bid meeting addendum if requested by PBCWUD.

Similarly, the CONSULTANT shall coordinate directly with PBCWUD staff regarding attendance of the project's scheduled Bid Opening meeting. Any representative of the CONSULTANT firm involved in the design of the project may attend the Bid Opening.

If a site visit is conducted in lieu of a Pre-Bid meeting, the CONSULTANT shall make similar arrangements to attend. Should both a site visit and a Pre-Bid meeting be deemed necessary by PBCWUD during the public bid process, the CONSULTANT may choose to attend both in lieu of attending the Bid Opening, upon approval by PBCWUD. CONSULTANT shall respond to Contractor RFI and Addendum Issuance Assistance to PBCWUD.

4.4 Respond to Contractor RFI and Addendum Issuance Assistance to PBCWUD:

The CONSULTANT shall coordinate with PBCWUD as questions from prospective Bidders are received directly by the CONSULTANT and/or PBCWUD. All received RFI and general questions from prospective Bidders will be compiled by PBCWUD and the CONSULTANT and answered by addendum(s) as necessary. The CONSULTANT shall provide additional information or supplemental information at PBCWUD's request if deemed necessary to effectively respond to the bidders' requests and questions. It is assumed that all drafted addendum(s) will be provided to PBCWUD by the CONSULTANT, and that PBCWUD will be issuing any addendum(s).

4.5 Review Compiled Bid Results, Verify Bid Package for Lowest Three (3) Bidders, Provide Summary of Findings to PBCWUD:

PBCWUD has preferred to compile received bid results in the past, thus it is assumed that PBCWUD will compile the received Bid results, check the compiled bids for mathematical or entry errors, and shall coordinate with the Palm Beach County Office of Equal Business Opportunity (OEBO) to provide a calculation/decision on any required adjustments to the rankings of the three (3) lowest Base Bidders as required per applicable Local, Small and Minority Business Enterprise preferences/requirements advertised in the Bid. PBCWUD shall then provide all submitted data to the CONSULTANT for the three (3) lowest Base Bidders in addition to the Bidder ranking adjustment calculation/decision by OEBO.

The CONSULTANT shall review the compiled bid results and verify responsiveness of the lowest bidder(s) bid packages by first verifying the provided facts. The CONSULTANT shall contact all listed references for at least five (5) consecutive business days in an effort to verify past project experience and effectiveness as listed by the three (3) lowest base bidders. The CONSULTANT shall take notes

on the conversations with responsive references in order to summarize these communications and resulting assessment of the applicability of the lowest three (3) bidders' provided past experience to the subject project. The CONSULTANT is not responsible for the lack of responsiveness by the Bidders listed references.

The CONSULTANT shall review the three (3) lowest base bidder's unit prices, bringing any significantly unusual unit prices to PBCWUD's attention. The CONSULTANT shall not be responsible for determining whether or not a bid is "unbalanced" or "front-loaded"; however, if requested by PBCWUD can provide an opinion based on numerical analysis related to the individual Bid Items and Measurement & Payment sections for PBCWUD's review and consideration.

It is assumed that minimum experience/qualifications will not be included in this project's advertised public Bid.

Following the evaluation of the three (3) lowest base bidders' submitted bid packages, the CONSULTANT shall summarize their verifications, findings, and conclusions and prepare a recommendation letter for consideration by PBCWUD in awarding the project to a prospective bidder.

Services in assistance to PBCWUD related to a Bid protest are not included in this CSA, but can be provided via a supplement to this CSA at PBCWUD's request and approval.

Task 5. Supplemental / Hourly Services

5.1 Assistance Towards Public Engagement / Coordination for Temporary and Permanent Easements (with Foresight):

The CONSULTANT shall assist Foresight efforts to communicate with and educate the property owners affected by this project's improvements. The CONSULTANT shall prepare exhibits to be provided to Foresight to facilitate communication with private property owners regarding agreements to provide PBCWUD with requested Temporary Construction Authorizations, as well as Permanent Utility Easements necessary per PBCWUD Standards. The CONSULTANT shall also prepare exhibits to be provided to Foresight for distribution to the property owners as a means of facilitating communication regarding the project's general timeline leading up to and at the onset of construction, as well as the general impacts that property owners can expect during the construction of the necessary improvements within the various project areas. The CONSULTANT shall review and comment on all related documents prepared by Foresight to submit to the property owners, and shall make every reasonable attempt to assist Foresights' efforts to provide informed answers to affected property owner's submitted or communicated questions.

All utilized public outreach exhibits produced by the CONSULTANT shall be included in the Final Deliverables as requested by PBCWUD staff.

The CONSULTANT shall assist PBCWUD in their efforts to maintain continual communication with the City regarding FDOT-funded city-wide resurfacing projects as they progress and as new projects are conceptualized. The CONSULTANT shall attempt to continually coordinate with the City's in-house consultant, to keep current on the status, limits and anticipated scheduling of the City's FDOT-funded city-wide resurfacing projects as well as any other upcoming improvement projects that may coincide or conflict with this project's improvements.

This effort on the part of the CONSULTANT is meant to be in aid to the greater effort on the part of the City and PBCWUD to exchange information related to each entity's ongoing projects. The CONSULTANT will not be held responsible for the accuracy or the timeliness of any information provided by the City's in-house consultant, nor for any deviations made on the part of the City's contractor while scheduling or performing the City's projects.

The CONSULTANT shall review data received from the City's in-house consultant. Regarding this CSA, the included CONSULTANT services related to this effort are limited to review of the provided

City Resurfacing project information and the potential impacts to this project's improvements. The review is not related to other and/or future PBCWUD projects. Generating exhibits related to this data is not included in this CSA; exhibits can be provided via supplement to this CSA upon request with prior authorization by PBCWUD.

No public meeting attendance by the CONSULTANT is included in this CSA.

Note: In the course of its services for this task the CONSULTANT is inevitably faced with situations the outcome of which directly impact this Task's pace or even success. However, the CONSULTANT, by the nature of the services introduced by this scope being acquisition of temporary/permanent easements from the property owners, has no control of the outcome. As such, as long as reasonable attempts have been made by the CONSULTANT, the outcome of these efforts, if unsuccessful, shall not be construed as CONSULTANT's failure or breach of the contract. CONSULTANT makes no expressed or implied guarantees of the successful acquisition of all easements needed.

5.2 Title Search Coordination and Review: Sketch and Legal Preparation for Permanent Easements:

Based on the CONSULTANT's current understanding of this project's scope, it is reasonable to anticipate a need for Title Search services, as well as Sketch and Legal preparation services related to necessary permanent utility easements. The extent to which these services will be required cannot currently be determined.

This CSA includes the following services related to coordinating and reviewing a Title Search performed on one (1) property, and the corresponding sketch and legal description services for one (1) permanent utility easement. This baseline assumption will allow PBCWUD and the CONSULTANT to easily and efficiently scale-up these efforts and services as necessary to meet the needs of the project via Supplement to this CSA, upon request and approval by PBCWUD.

Upon request and approval by PBCWUD, the CONSULTANT shall coordinate to have Title Search services performed as a direct expense and invoiced by a PBCWUD-approved Title Agency. The CONSULTANT shall review the provided title search results and reflect all shown encumbrances on the construction plans as a result of these efforts.

Upon approval from PBCWUD, the CONSULTANT shall prepare a sketch and legal description of any permanent utility easements necessary per PBCWUD Utility standards for official recordation. Currently, it is assumed that each utility easement will require a separate sketch and legal description prepared. The CONSULTANT shall also coordinate with PBCWUD, Foresight and any applicable private property owners to provide the digital sketch and legal description document for review and execution prior to recordation by PBCWUD.

All Sketch and Legal Descriptions produced by the CONSULTANT shall be included in the Final Deliverables as requested by PBCWUD staff. All Title Search results shall be included in the Final Deliverables if requested by PBCWUD staff.

5.3 Permitting and Notification Coordination for Sub-Consultant Efforts (As Needed):

Should FDOT, PBCLD, or the City require a R/W permit or MOT Application be submitted for work by the SUE or Geotechnical sub-consultants within their respective R/Ws, the CONSULTANT and sub-consultants shall coordinate with the appropriate individuals and/or departments to submit for the required R/W permit(s).

For FDOT, the sub-consultants shall prepare and submit necessary applications with all required information for permission to perform geotechnical soil borings and/or SUE activities within the FDOT R/W. If necessary, the CONSULTANT shall accompany the sub-consultants to one (1) meeting with

the local FDOT office to discuss submittal requirements for approval to perform exploratory work within the R/W. The Sub-consultants shall track the permit review and approval progress, and respond to additional RFI that must be provided for approval. This assumes the sub-consultants will provide all necessary information for the subject FDOT Utility Permit Application and will be responsible for any close-out requirements.

For PBCLD, the sub-consultants shall prepare one (1) MOT Application each, if required, and submit it to Palm Beach County Engineering and Public Works – Traffic Division (PBCTD) related to the performance of geotechnical soil borings and SUE activities within PBC R/W. The sub-consultant shall track the permit review and approval progress, and respond to additional RFI. This assumes the sub-consultants will provide all necessary accompanying information for the subject MOT Application and will be responsible for all close-out requirements.

For the City, the CONSULTANT shall coordinate with the City's Building Department and/or the City's In-House Consultant to submit up to one (1) R/W permit application, if a permit(s) is required, for the sub-consultants' work. The sub-consultants will provide all required information for the subject R/W permit.

Under this task, the CONSULTANT shall also notify FDOT, PBCLD and the City via call or in writing of the approximate scheduling for geotechnical and SUE activities.

The CONSULTANT shall not be responsible for any changes in the sub-consultants' field work schedules that does not give accurate prior notification to the R/W owner(s).

It is assumed that no notice or applications are required for sub-consultant's work within the FDOT and PBC R/W that is also shared with SFWMD and/or the USACE.

The CONSULTANT shall not be responsible for the preparation or submittal of signed and sealed MOT plans if required for permit application(s) related to geotechnical or SUE work within any R/W.

5.4 Subsurface Utility Exploration (InfraMap): (Proposal included in Attachment "E")

InfraMap shall scan the limits of specific strategic areas within the project limits using GPR and other methods, as described in their proposal, to identify the approximate horizontal location of wet and dry utilities. Located utilities will be painted or flagged in the field for acquisition by the CONSULTANT's field survey crew. The results of the targeting/scanning will be provided in the form of color-coded sketches identifying the various utilities detected in approximate location trend and configuration. Up to fifteen (15) days of scanning are included in this CSA. InfraMap's proposal also includes mileage expenses, and as needed administrative fees.

InfraMap shall perform soft digs to provide subsurface information at each of the designated locations and will provide exhibits of the results for each soft dig. Up to fifty-five (55) soft digs to a depth of six (6) feet are included with this CSA.

InfraMap's proposal also includes mileage, direct expenses, fees for traffic control flagging, and the use of an arrow board as supplemental fees to be billed as direct expenses should they be required to perform the above referenced soft digs. Implementation and maintenance of necessary MOT measures are covered under InfraMap's proposal. If the requested utilities are deeper than six (6') feet, InfraMap's proposal includes a contingent as needed fee per foot beyond the included six (6') foot deep soft digs. Should an application of some fashion be required for SUE work within any FDOT or PBC R/W, InfraMap will prepare and submit the applications for approval by the R/W owner.

5.5 Geotechnical Exploration (Tierra): (Proposal included in Attachment "E")

The Geotechnical Sub-consultant (Tierra) shall acquire nineteen (19) SPT borings to a depth of six

(6) feet below the surface, ten (10) SPT borings to a depth of ten (10) feet below the surface, and ten (10) asphalt cores within the limits of the project area, at pre-coordinated locations. Any encountered unsuitable soils will be identified for consideration during the design process. The results of the asphalt cores and SPT borings will be summarized in a report of findings and recommendations prepared by Tierra for consideration during the design process and inclusion in the public bid package. The report and AutoCAD software-generated plotted log of each boring profile will be submitted to PBCWUD as a Final Deliverable. The approximate locations of each bore and the respective bore profiles shall be incorporated onto a dedicated construction plan sheet of the construction drawings for reference by the contractor.

Tierra's proposal also includes optional supplemental fees to implement any MOT measures necessary for the performance of their work. Additionally, Tierra's proposal includes optional supplemental fees to prepare a MOT plan should it be required by the City in order to perform their work within the City R/W.

5.6 Correspondences, Meetings, Submittals, and Other Permitting Services for USACE 408 Permit (As Needed):

The CONSULTANT has been advised by SFWMD that the L-14 Canal is considered a "Levee System" canal and thus is under the shared authority oversight with the USACE. Due to this shared authority related to the "L-14 Levee R/W" it is assumed that the CONSULTANT will have to submit the proposed infrastructure improvements within East Canal Street South to the USACE for a 408 Permit review simultaneous to submitting to SFWMD for an R/W permit.

The CONSULTANT shall correspond with USACE's representative at SFWMD or the appropriate office towards submitting for a 408 permit review. The extent of this permit review is currently unknown, thus these services are being provided as hourly supplemental services to be invoiced as they are performed to the extent necessary to satisfy the USACE 408 Permit submittal requirements.

Deliverables

A summary of the project documents to be provided as deliverables includes:

1. Photos and/or videos of the site visits will be provided digitally;
2. Utility location exhibits provided by the utility providers will be provided in an electronic format and hard copies;
3. Meeting summaries from the kickoff meeting, and design review workshops will be provided digitally;
4. Two (2) 24" x 36", one (1) 11"x17" sets of the 60% design plans;
5. One (1) copy of the 60% OPCC (within one week of design submittal);
6. Two (2) 24" x 36", one (1) 11"x17" sets of the 90% design plans;
7. One (1) copy of the 90% OPCC (within one week of design submittal);
8. Four (4) 24" x 36" and two (2) 11"x17", signed and sealed, sets of the 100% design plans and specifications with two (2) hard copies of the Final OPCC;
9. One (1) Compact Disc (CD) containing copies of all permit applications and correspondence with permitting entities;
10. "Permit Book", including a hard copy of all acquired permits and a summary of all permits with expiration dates;
11. Copies of the SUE scanning and soft dig results will be provided digitally;
12. One (1) signed and sealed copy of the Geotechnical Engineer's report and one (1) digital copy of same;
13. Four (4) signed and sealed hard copy legal descriptions and sketches;

14. Digital copies of any title searches performed;
15. Microsoft word and PDF copies of Technical Specifications & Addendum prepared; and
16. One (1) CD containing all digital Final deliverables, AutoCAD files, PDFs, etc.

ATTACHMENT B

SUMMARY AND STATUS OF CONSULTANT SERVICES AUTHORIZATIONS

| Auth. No. | PBCWUD Project No. | Title | Status | Project Total Amount | SBE Total Amount | SBE Participation % | Approved | |
|-----------|--------------------|---|---------|----------------------|------------------|---------------------|----------|---------|
| | | | | | | | By | Date |
| 1 | 21-033 | Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project | Pending | \$571,537.68 | \$496,050.00 | 86.79% | BCC | Pending |
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ATTACHMENT C

OEBO SCHEDULE 1

Office of Equal Business Opportunity Compliance Programs

OEBO SCHEDULE 1

LIST OF PROPOSED CONTRACTOR/CONSULTANT AND SUBCONTRACTOR/SUBCONSULTANT PARTICIPATION

SOLICITATION/PROJECT/BID NAME: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project **SOLICITATION/PROJECT/BID No.:** PBCWUD 21-033
NAME OF PRIME RESPONDENT/BIDDER: Keshavarz & Associates, Inc. **ADDRESS:** 711 N. Dixie Highway, Suite 201, West Palm Beach, FL 33401
CONTACT PERSON: Amir Keshavarz, P.E. **PHONE NO.:** (561) 689-8600 **E-MAIL:** Amir@keshavarz.com
SOLICITATION OPENING/SUBMITTAL DATE: 2/23/2021 **DEPARTMENT:** Palm Beach County Water Utilities Department

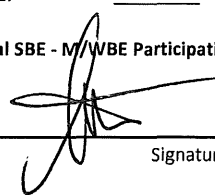
PLEASE LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY THE PRIME CONTRACTOR/CONSULTANT ON THIS PROJECT. PLEASE ALSO LIST THE DOLLAR AMOUNT OR PERCENTAGE OF WORK TO BE COMPLETED BY ALL SUBCONTRACTORS/SUBCONSULTANTS ON THE PROJECT.

| Name, Address and Phone Number | (Check all Applicable Categories) | | | DOLLAR AMOUNT OR PERCENTAGE OF WORK | | | | |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------|-------|--------------|---------------------------|
| | Non-SBE | M/WBE Minority/Women Business | SBE Small Business | Black | Hispanic | Women | Caucasian | Other (Please Specify) |
| 1. Keshavarz & Associates, Inc. 711 N. Dixie Hwy, #201, West Palm Beach, FL 33401 (561) 689-8600 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | _____ | _____ | _____ | _____ | \$ 496,050.00 (Asian) |
| 2. InfraMap Corp. 1860 Old Okeechobee Rd, #201, West Palm Beach, FL 33409 (561) 586-0790 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | _____ | _____ | \$ 57,913.68 | _____ |
| 3. Tierra South Florida, Inc. 2765 Vista Parkway #10, West Palm Beach, FL 33411 (561) 687-8536 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | _____ | _____ | _____ | \$ 17,574.00 (Asian) |
| 4. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | _____ | _____ | _____ | _____ |
| 5. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | _____ | _____ | _____ | _____ |

(Please use additional sheets if necessary)

Total \$ 57,913.68 **\$ 513,624.00**
Total Bid Price \$ 571,537.68 **Total SBE - M/WBE Participation** \$496,050.00 (Asian)

I hereby certify that the above information is accurate to the best of my knowledge:


 Signature

 Amir Keshavarz, P.E., Senior Project Manager
 Title

- Note:**
1. The amount listed on this form for a Subcontractor/subconsultant must be supported by price or percentage listed on the properly executed Schedule 2 or attached signed proposal.
 2. Firms may be certified by Palm Beach County as an SBE and/or an M/WBE. If firms are certified as both an SBE and/or M/WBE, please indicate the dollar amount under the appropriate category.
 3. Modification of this form is not permitted and will be rejected upon submittal.

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: PBCWUD 21-033
 SOLICITATION/PROJECT NAME: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project

Prime Contractor: Keshavarz & Associates, Inc. Subcontractor: Keshavarz & Associates, Inc.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): 10/4/2019 - 10/3/2022

The undersigned affirms they are the following (select one from each column **if applicable**):

| | | |
|--|--|-----------------------------------|
| Column 1 | Column 2 | Column 3 |
| <input checked="" type="checkbox"/> Male <input type="checkbox"/> Female | <input type="checkbox"/> African-American/Black <input checked="" type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American | <input type="checkbox"/> Supplier |
| | <input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American | |

S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

| Line Item | Item Description | Unit Price | Quantity/ Units | Contingencies/ Allowances | Total Price/Percentage |
|-----------|-------------------------|------------|-----------------|---------------------------|------------------------|
| 1 | Engineering / Surveying | | | | \$ 491,850.00 |
| 2 | Reimbursable Expenses | | | | \$ 4,200.00 |
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The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$ 496,050.00

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

N/A

Name of 2nd/3rd tier Subcontractor/subconsultant

Price or Percentage: _____

Keshavarz & Associates, Inc.

Print Name of Prime

By: _____

Authorized Signature

Amir Keshavarz, P.E.

Print Name

Senior Project Manager

Title

Date: 2/24/2021

Keshavarz & Associates, Inc.

Print Name of Subcontractor/subconsultant

By: _____

Authorized Signature

Amir Keshavarz, P.E.

Print Name

Senior Project Manager

Title

Date: 2/24/2021

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: PBCWUD 21-033
 SOLICITATION/PROJECT NAME: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project

Prime Contractor: Keshavarz & Associates, Inc. Subcontractor: InfraMap Corp.

(Check box(s) that apply)

SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): _____

The undersigned affirms they are the following (select one from each column if applicable):

| | | |
|--|--|-----------------------------------|
| Column 1 | Column 2 | Column 3 |
| <input checked="" type="checkbox"/> Male <input type="checkbox"/> Female | <input type="checkbox"/> African-American/Black <input type="checkbox"/> Asian American <input checked="" type="checkbox"/> Caucasian American | <input type="checkbox"/> Supplier |
| | <input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American | |

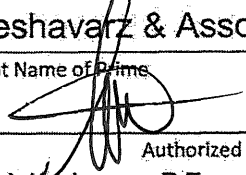
S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

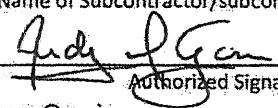
| Line Item | Item Description | Unit Price | Quantity/Units | Contingencies/Allowances | Total Price/Percentage |
|-----------|---|------------|----------------|--------------------------|------------------------|
| 1 | Subsurface Utility Engineering - Targeting | | | | \$ 26,169.33 |
| 2 | Subsurface Utility Engineering - Test Hole Services | | | | \$ 31,744.35 |
| | | | | | |
| | | | | | |
| | | | | | |

The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$ 57,913.68

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

N/A Price or Percentage: _____
 Name of 2nd/3rd tier Subcontractor/subconsultant

Keshavarz & Associates, Inc.
 Print Name of Prime
 By: 
 Authorized Signature
Amir Keshavarz, P.E.
 Print Name
Senior Project Manager
 Title
 Date: 2/24/2021

InfraMap Corp.
 Print Name of Subcontractor/subconsultant
 By: 
 Authorized Signature
Andres Garcia
 Print Name
Senior Utility Location Manager
 Title
 Date: 2/24/2021

OEBO LETTER OF INTENT – SCHEDULE 2

A completed Schedule 2 is a binding document between the Prime Contractor/consultant and a Subcontractor/subconsultant (for any tier) and should be treated as such. The Schedule 2 shall contain bolded language indicating that by signing the Schedule 2, both parties recognize this Schedule as a binding document. All Subcontractors/subconsultants, including any tiered Subcontractors/subconsultants, must properly execute this document. Each properly executed Schedule 2 must be submitted with the bid/proposal.

SOLICITATION/PROJECT NUMBER: PBCWUD 21-033

SOLICITATION/PROJECT NAME: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement

Prime Contractor: Keshavarz & Associates, Inc. Subcontractor: Tierra South Florida, Inc.

(Check box(s) that apply)
 SBE WBE MBE M/WBE Non-S/M/WBE Date of Palm Beach County Certification (if applicable): n/a

The undersigned affirms they are the following (select one from each column if applicable):

| | | |
|--|--|-----------------------------------|
| Column 1 | Column 2 | Column 3 |
| <input checked="" type="checkbox"/> Male <input type="checkbox"/> Female | <input type="checkbox"/> African-American/Black <input checked="" type="checkbox"/> Asian American <input type="checkbox"/> Caucasian American | <input type="checkbox"/> Supplier |
| | <input type="checkbox"/> Hispanic American <input type="checkbox"/> Native American | |

S/M/WBE PARTICIPATION – S/M/WBE Primes must document all work to be performed by their own work force on this form. Failure to submit a properly executed Schedule 2 for any S/M/WBE participation may result in that participation not being counted. Specify in detail, the scope of work to be performed or items supplied with the dollar amount and/or percentage for each work item. S/M/WBE credit will only be given for the areas in which the S/M/WBE is certified. A detailed proposal may be attached to a properly executed Schedule 2.

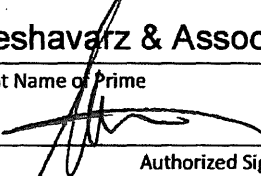
| Line Item | Item Description | Unit Price | Quantity/ Units | Contingencies/ Allowances | Total Price/Percentage |
|-----------|--|------------|-----------------|---------------------------|------------------------|
| 1 | 6.01 - Geotechnical Engineering Services | | | | \$ 17,574.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

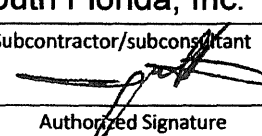
The undersigned Subcontractor/subconsultant is prepared to self-perform the above-described work in conjunction with the aforementioned project at the following total price or percentage: \$ 17,574.00

If the undersigned intends to subcontract any portion of this work to another Subcontractor/subconsultant, please list the business name and the amount below accompanied by a separate properly executed Schedule 2.

N/A Price or Percentage: _____

Name of 2nd/3rd tier Subcontractor/subconsultant

Keshavarz & Associates, Inc.
 Print Name of Prime
 By: 
 Authorized Signature
Amir Keshavarz, P.E.
 Print Name
Senior Project Manager
 Title
 Date: 2/24/2021

Tierra South Florida, Inc.
 Print Name of Subcontractor/subconsultant
 By: 
 Authorized Signature
Rajan Krishnasamy, P.E.
 Print Name
President
 Title
 Date: 2/24/2021

ATTACHMENT D

PROJECT SCHEDULE

The completion dates for this work will be as follows (starting from CONSULTANT'S receipt of Notice-to-Proceed).

| <u>Engineering Services</u> | <u>Completion Date from Notice to Proceed</u> (Calendar Days) |
|--|--|
| Task 1 Preliminary Design Services | |
| 1.1 Project Management, Research, Project Orientation and Kick-off | 480 |
| 1.2 Preliminary Meetings and Coordination with Regulatory Agencies | 180 |
| 1.3 Field Visits and Coordination with O&M Staff | 225 |
| 1.4 Utility Coordination | 90 |
| Task 2 Infrastructure Replacement Surveying and Design Services | |
| 2.1 Coordination with Subsurface Utility Engineering (SUE) and Geotechnical Engineering Sub-Consultants for Field Investigations | 255 |
| 2.2 Field Acquisition of SUE Efforts and Depiction of Results on Construction Plans | 270 |
| 2.3 Route Survey | 180 |
| 2.4 Topographic Survey Corridors | 180 |
| 2.5 60% Design Stage | 200 |
| 2.6 90% Design Stage | 270 |
| 2.7 100% / Final Design Stage | 330 |
| 2.8 Preparation of Engineer's Opinion of Probable Construction Cost (OPCC) | 330 |
| Task 3 Permitting Services with Regulatory Agencies for Proposed Infrastructure Replacements | 360 |
| Task 4 Bidding Support Services | 480 |
| TOTAL ANTICIPATED DURATION | 480 |

ATTACHMENT E

Palm Beach County Water Utilities Department

Contract for Consulting/Professional Services Utility Distribution & Collection System Engineering Services

Resolution No.: R2020-1898

Contract Dated: December 15, 2020

Construction Service Authorization: 1

Consultant: Keshavarz and Associates, Inc.

Project Name: Utility Rehabilitation for the City of Belle Glade Project

WUD Project No.: Zone 4
21-033

| Task Number | Task Description | Labor Classification & Hourly Rate | | | | | | | | | | Consultant Total Hours | Consultant Final Total Amount per Task | Sub Consultant Services InfraMap Corp. | Consultant Total | | |
|-------------|--|-------------------------------------|--------------------------------|---|---------------------|---|---|-------------------------------|--------------------------------------|--------------------------------|------------------|------------------------|--|---|------------------|-------------|-------------|
| | | Project Director /Principal (\$/hr) | Senior Project Manager (\$/hr) | Senior Project Engineer / Senior Surveyor (\$/hr) | Survey Crew (\$/hr) | Construction Project Representative (\$/hr) | Project Engineer / Project Surveyor (\$/hr) | GIS / CADD Specialist (\$/hr) | Utility / Permit Coordinator (\$/hr) | Contract Administrator (\$/hr) | Clerical (\$/hr) | | | | | | |
| 1 | Preliminary Design Services | | | | | | | | | | | | | | | | |
| 1.1 | Project Mangement, Research, Project Orientation and Kick-off | 52 | 80 | 52 | | | | 38 | | | 110 | 20 | 352 | \$52,656.00 | \$0.00 | \$52,656.00 | |
| 1.2 | Preliminary Meeting and Coordination with Regulatory Agencies | 8 | 16 | 6 | | | | 10 | | | 14 | 8 | 62 | \$9,096.00 | \$0.00 | \$9,096.00 | |
| 1.3 | Field Visits and Coordination with O&M Staff | 4 | 12 | 10 | | | | 12 | | | | | 38 | \$6,576.00 | \$0.00 | \$6,576.00 | |
| 1.4 | Utility Coordination | 1 | 6 | 10 | | | | 14 | 20 | | 40 | 4 | 103 | \$11,760.00 | \$0.00 | \$11,760.00 | |
| | Subtotal Task 1 | 65 | 114 | 78 | 0 | 0 | 74 | 20 | 54 | 118 | 32 | 555 | \$80,088.00 | \$0.00 | \$80,088.00 | | |
| 2 | Infrastructure Replacement Surveying and Design Services | | | | | | | | | | | | | | | | |
| 2.1 | Coordination with Subsurface Utility Exploration (SUE) and Geotechnical Engineering Sub-Consultants for Field Investigations | 4 | 20 | 12 | | | | 16 | 30 | | 6 | 4 | 2 | 94 | \$13,536.00 | \$0.00 | \$13,536.00 |
| 2.2 | Field Acquisition of SUE Efforts and Depiction of Results on Construction Plans | 1 | 12 | 14 | 90 | | | 22 | 32 | | | 4 | 2 | 177 | \$25,488.00 | \$0.00 | \$25,488.00 |
| 2.3 | Route Survey | 2 | 8 | 40 | 68 | | | 12 | 56 | | | 4 | 6 | 196 | \$27,648.00 | \$0.00 | \$27,648.00 |
| 2.4 | Topographic Survey Corridors | 1 | 6 | 24 | 220 | | | 36 | 146 | | | 4 | 8 | 445 | \$60,528.00 | \$0.00 | \$60,528.00 |
| 2.5 | 60% Design Stage | 14 | 66 | 130 | | | 8 | 80 | 310 | | 4 | 10 | 18 | 640 | \$87,564.00 | \$0.00 | \$87,564.00 |
| 2.6 | 90% Design Stage | 14 | 46 | 96 | | | 6 | 62 | 300 | | 4 | 8 | 14 | 550 | \$73,554.00 | \$0.00 | \$73,554.00 |
| 2.7 | 100% / Final Design Stage | 4 | 16 | 32 | | | | 32 | 76 | | 4 | 6 | 10 | 180 | \$23,796.00 | \$0.00 | \$23,796.00 |
| 2.8 | Preparation of Engineers's Opinion of Probable Construction Cost (OPCC) | 2 | 10 | 10 | | 12 | | 18 | 12 | | | 2 | 8 | 74 | \$10,128.00 | \$0.00 | \$10,128.00 |
| | Subtotal Task 2 | 42 | 184 | 358 | 378 | 26 | 278 | 962 | 18 | 42 | 68 | 2356 | \$322,242.00 | \$0.00 | \$288,318.00 | | |
| 3 | Permitting Services with Regulatory Agencies for Proposed Infrastructure Replacements | | | | | | | | | | | | | | | | |
| 3.1 | Permitting Services with Regulatory Agencies for Proposed Infrastructure Replacements | 12 | 24 | 36 | | | | 40 | 62 | | 80 | 8 | 22 | 284 | \$35,028.00 | \$0.00 | \$35,028.00 |
| | Subtotal Task 3 | 12 | 24 | 36 | 0 | 0 | 40 | 62 | 80 | 8 | 22 | 284 | \$35,028.00 | \$0.00 | \$35,028.00 | | |
| 4 | Bidding Support Services | | | | | | | | | | | | | | | | |
| 4.1 | Review Front End Documents, Prepare Project Description, Summary of Work, Bid Tab, Summary of Pay Items | 6 | 12 | 6 | | | 8 | 4 | | | | 8 | 44 | \$6,888.00 | \$0.00 | \$6,888.00 | |
| 4.2 | Preparation of Technical Specifications | 8 | 12 | 6 | | | | 8 | 4 | | | 8 | 46 | \$7,320.00 | \$0.00 | \$7,320.00 | |
| 4.3 | Pre-Bid and Bid Opening Meeting Attendance | | 2 | | | | | 2 | 1 | | | 1 | 6 | \$876.00 | \$0.00 | \$876.00 | |
| 4.4 | Response to Contractor RFI and Addendum Issuance Assistance to PBCWUD | 4 | 6 | 8 | | | | 8 | | | | 8 | 34 | \$5,028.00 | \$0.00 | \$5,028.00 | |
| 4.5 | Review Compiled Bid Results, Verify Bid Package for Lowest Three (3) Bidders, Provide Summary of Findings to PBCWUD | 10 | 16 | 10 | | 16 | | | | | | 16 | 68 | \$10,320.00 | \$0.00 | \$10,320.00 | |
| | Subtotal Task 4 | 28 | 48 | 30 | 0 | 42 | 9 | 0 | 0 | 0 | 41 | 198 | \$30,432.00 | \$0.00 | \$30,432.00 | | |

| | | | | | | | | | | | | | | | |
|---------------|---|--------------|--------------|-------------|-------------|------------|-------------|--------------|-------------|-------------|-------------|--------------|--------------|-------------|---------------------------------|
| 5 | Supplemental / Hourly Services | | | | | | | | | | | | | | |
| 5.1 | Assistance Towards Public Engagement / Coordination for Temporary and Permenet Easements (with Foresight) | 2 | 12 | 4 | | | 10 | 10 | | 4 | 6 | 48 | \$6,744.00 | \$0.00 | \$6,744.00 |
| 5.2 | Title Search Coordination and Review; Sketch and Legal Preparation for Permanent Easements | 1 | 2 | 4 | | | 2 | 4 | | 1 | 3 | 17 | \$2,286.00 | \$0.00 | \$2,286.00 |
| 5.3 | Permitting and Notification Coordination for Sub Consultant Efforts (As Needed) | 2 | 8 | 3 | | | 2 | 4 | 8 | 1 | 4 | 32 | \$4,374.00 | \$0.00 | \$4,374.00 |
| 5.4 | Subsurface Utility Exploration (Inframap Corp.) | | | | | | | | | | | 0 | \$ | \$57,913.68 | \$57,913.68 |
| 5.5 | Geotechnical Exploration (Tierra) | | | | | | | | | | | 0 | \$ | \$17,574.00 | \$17,574.00 |
| 5.6 | Correspondence, Meetings, Submittals, and Other Permitting Services for USACE 408 Permit | 4 | 16 | 10 | | | 10 | 18 | 10 | 2 | 6 | 76 | \$10,656.00 | \$0.00 | \$10,656.00 |
| | Subtotal Task 5 | 9 | 38 | 21 | 0 | 0 | 24 | 36 | 18 | 8 | 19 | 173 | \$24,060.00 | \$75,487.68 | \$99,547.68 |
| | Labor Sub-Total Hours | 156 | 408 | 523 | 378 | 68 | 425 | 1080 | 170 | 176 | 182 | 3566 | \$491,850.00 | \$75,487.68 | \$533,413.69 |
| | Labor Raw Cost | \$72.00 | \$70.00 | \$56.00 | \$50.00 | \$45.00 | \$42.00 | \$38.00 | \$30.00 | \$30.00 | \$20.00 | | | | |
| | Labor Multiplier | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | | |
| | Labor Sub Total | \$33,696.00 | \$85,680.00 | \$87,864.00 | \$56,700.00 | \$9,180.00 | \$53,550.00 | \$123,120.00 | \$15,300.00 | \$15,840.00 | \$10,920.00 | \$491,850.00 | | | |
| | Consultant Labor Raw Costs per Personnel | \$11,232.00 | \$28,560.00 | \$29,288.00 | \$18,900.00 | \$3,060.00 | \$17,850.00 | \$41,040.00 | \$5,100.00 | \$5,280.00 | \$3,640.00 | \$163,950.00 | | \$0.00 | \$491,850.00 |
| | Consultant Eng. (Fixed Price): | | | | | | | | | | | | | | |
| | Consultant Eng. (Not to Exceed Fee): | | \$491,850.00 | | | | | | | | | | | | |
| | Total Consultant Eng. Fee: | \$491,850.00 | | | | | | | | | | | | | |
| | Sub Consultants | | | | | | | | | | | | | | |
| Not to Exceed | InfraMap Corp. | \$57,913.68 | | | | | | | | | | | | | Subsurface Utility Engineering |
| Not to Exceed | Tierra South Florida, Inc. | \$17,574.00 | | | | | | | | | | | | | Geotechnical Engineering |
| | Sub consultant Total (Not to Exceed Price): | \$75,487.68 | | | | | | | | | | | | | |
| | Reimbursable Expenses (Not to Exceed) | \$4,200.00 | | | | | | | | | | | | | Printing, Reproduction, Mileage |
| | Consultant Labor Total: | \$496,050.00 | | | | | | | | | | | | | |
| | Project CSA Total: | \$571,537.68 | | | | | | | | | | | | | |

ATTACHMENT – E

Palm Beach County Water Utilities Department
 Contract for Consulting/Professional Services: Utility Distribution and Collection System Engineering Services
 Resolution #R2020-1898 Contract Dated December 15, 2020
 Consultant Service Authorization: 1
 Consultant: Keshavarz & Associates, Inc.
 Project name: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement Project
 WUD Project No.: 21-033

| <i>Reimbursable / Direct Expenses</i> | <i>Rates</i> |
|--|-----------------------|
| 8½" x 11" Prints / Copies (black/white) | \$ 0.25 |
| 8½" x 11" Prints / Copies (color) | \$ 1.00 |
| 11" x 17" Prints / Copies (black/white) | \$ 0.50 |
| 11" x 17" Prints / Copies (color) | \$ 1.00 |
| 24" x 36" Prints / Copies (black/white) | \$ 1.50 |
| 24" x 36" Prints / Copies (color) | \$ 3.50 |
| Mileage (in accordance with IRS Rates) | \$ 0.565 |
| Bond Copies By Vendor (Billed at Cost - Vendor invoices to be provided when billed) | As Invoiced by Vendor |
| Deliveries / Courier Service By Vendor (Billed at Cost - Vendor invoices to be provided when billed) | As Invoiced by Vendor |
| Title Search By Approved Vendor (Billed at Cost - Vendor invoices to be provided when billed) | As Invoiced by Vendor |

| Projected Reimbursable Expenses | Projected Quantity | Unit Cost | Projected Cost |
|---|--------------------|--------------------|-------------------|
| DIRECT EXPENSES | | | |
| 1 8½" x 11" Prints / Copies (black/white) | 80 | \$ 0.25 | \$ 20.00 |
| 2 8½" x 11" Prints / Copies (color) | 20 | \$ 1.00 | \$ 20.00 |
| 3 11" x 17" Prints / Copies (black/white) | 69 | \$ 0.50 | \$ 34.50 |
| 4 11" x 17" Prints / Copies (color) | 15 | \$ 1.00 | \$ 15.00 |
| 5 24" x 36" Prints / Copies (black/white) | 20 | \$ 1.50 | \$ 30.00 |
| 6 24" x 36" Prints / Copies (color) | 10 | \$ 3.50 | \$ 35.00 |
| 6 Mileage (in accordance with IRS Rates) | 4700 | \$ 0.565 | \$ 2,655.50 |
| 7 Bond Copies By Vendor (Billed at Cost - Vendor invoices to be provided when billed) | 1000 | Est. Invoiced Cost | \$850.00 |
| 8 Deliveries / Courier Service By Vendor (Billed at Cost - Vendor invoices to be provided when billed) | 6 | Est. Invoiced Cost | \$240.00 |
| 9 Title Search By Approved Vendor (Billed at Cost - Vendor invoices to be provided when billed) | 1 | Est. Invoiced Cost | \$300.00 |
| Total Projected As Needed Reimbursable Expenses | | | \$4,200.00 |

Revised 02/11/2021



Date: February 22, 2021

Presented to: Keshavarz & Associates
 711 North Dixie Highway, Suite 201
 West Palm Beach, FL 33401
 Phone No.: 561-689-8600

Attn: Amir Keshavarz, P.E.

Project name: Belle Glade Water Main Improvements; SE Zone 4 Water System Replacement; Utility Targeting and Test Hole Services

As requested, InfraMap Corporation (IMC) has prepared this proposal for utility infrastructure investigation services for the above referenced project. This proposal is based upon the best information available to InfraMap regarding site conditions at the time of writing. This proposal does not represent a lump sum fee to perform these services. The proposed fee will not be exceeded without the expressed consent of the client.

Project limits and description: Target utilities (excluding sanitary and storm) within the areas to be chosen by the client. Additionally, perform up to fifty-five (55) test holes. Location of test holes will be chosen by client.

Services to be provided: Utility Targeting and Test Hole services as described in attachments "A" & "B".

Notes: InfraMap does not prepare signed & sealed MOT plans. InfraMap will apply for all necessary FDOT and Palm Beach County right of way permits. Field sketches will be provided to client. Survey to be performed by others.

| <u>FEE SCHEDULE</u> | | <u>ESTIMATED FEE</u> |
|-------------------------------------|---------------------|---------------------------|
| <u>Targeting Services</u> | | |
| Targeting @ \$1,692.37/day | # Hours/Units 15 | \$s \$25,385.55 |
| Administrative: \$69.78/hr. | 1 | \$ 69.78 |
| | | |
| <u>Direct Expenses</u> | | |
| Mileage: \$0.56 per mile (IRS rate) | 1,275mi | \$ 714.00 |
| <u>TOTAL ESTIMATED FEE</u> | | <u>\$26,169.33</u> |

Complete Utility Infrastructure Surveying and Mapping Since 1987

| <u>Test Hole Services</u> | <u># Hours/Units</u> | <u>\$s</u> |
|--|----------------------|--------------------|
| 0' to 6': \$510.45/ea. | 55 | \$28,074.75 |
| Contingent feet: \$ 112.00/ft. (Test holes beyond 6' in depth) | 9 | \$ 1,008.00 |
| | | |
| <u>Direct Expenses</u> | | |
| Mileage: \$0.56 per mile (IRS rate) | 1,190mi | \$ 666.40 |
| | | |
| <u>Traffic Control (if/as needed)</u> | | |
| Arrow Board: \$80.00/day | 10 | \$ 800.00 |
| Permit: \$180.00 (estimate) | 1 | \$ 180.00 |
| Flagger: \$63.45/hr | 16 | \$ 1,015.20 |
| | | |
| TOTAL ESTIMATED FEE | | \$31,744.35 |

This estimate is not a lump sum fee and is valid for 90 days. This estimate is good for targeting and test hole services on utilities within the project limits as herein defined, and will not be exceeded without the expressed consent of the client.

PAYMENT TERMS

Terms of payment are subject to modification by seller (InfraMap). Buyer (client) agrees to make prompt payment of invoices due in accordance with Seller's approved terms, whether for complete or partial services. Terms: Net 30 days from completion of work and receipt of invoice. If payment is contingent upon Buyer being paid by a "Third Party" for services, InfraMap Corp. (InfraMap) must be notified immediately of the name and address of the "Third Party". Buyer will submit invoices to the "Third Party" in a timely manner and InfraMap will receive payments from Buyer within 15 days of Buyer being paid. If this is not the case then InfraMap reserves the right to modify this clause to reflect a revised payment schedule.

Late Charge: A late payment service charge equal to 1.5% per month or the maximum charge allowed by applicable law, whichever is lower, shall be assessed on all amounts not paid when due. All accounts are net 30 days unless specifically agreed upon in writing.

Delinquency Collections: In the event Buyer fails to pay for any services when due, or should Buyer's account become otherwise delinquent, or in the event of Buyer's bankruptcy or insolvency, or in the event of Buyer's breach of this Agreement, then in any such event Seller may, at its option: (i) terminate any or all existing contracts; (ii) refuse to perform services under this or any other order; and/or (iii) avail itself of any other further remedies available to it at law or in equity. Buyer agrees to pay all cost of collection, including reasonable attorney's fees.

This service will be provided with due diligence and in a manner consistent with standards of the professional utility infrastructure mapping profession. InfraMap does not guarantee that all existing utility systems can or will be detected. It may not be possible to detect all utilities, such as but not limited to systems that are not depicted on records available to us, and systems rendered undetectable due to unfavorable site conditions. Use of this service does not relieve interested parties from their responsibility to make required notifications prior to excavation. Use of this service does not relieve utility owners of their responsibility to mark the location of their facilities prior to excavation. InfraMap Corp. will not be responsible for damages to utilities caused by others.

Presented by:  February 17, 2021

Andres Garcia
Senior Utility Location Manager
InfraMap Corp. Date

Accepted:  2/24/2021

Authorized Signature Date

Attachment A

SUBSURFACE UTILITY TARGETING SERVICE SCOPE OF WORK

In the performance of subsurface utility targeting, InfraMap Corp. proposes to:

1. Utilize client provided records from utility companies, unless stated as an InfraMap function in the scope statement. Gathered materials will be used as an aid in the identification of the number, identity, size and material of utilities located in the field, and will not be used as a substitute for actual geophysical location unless the system cannot be verified electronically using industry standard techniques for this level of investigation.
2. Conduct a thorough electronic search of the site for the buried utility systems shown on records acquired. Also, conduct an electronic grid sweep of the site to search for utilities that do not appear on available records, and attempt to determine type. This investigation will be accomplished using active and passive type utility detection gear that detects induced or naturally occurring energy fields present on conductive utilities. This investigation is not a ground penetrating radar sweep, nor will ground penetrating radar be used, unless specifically requested. The targeting of subsurface utilities, although highly reliable, is expressly understood to represent an approximate location of the target facility as marked on the ground surface. The accuracy of this targeting is subject to certain factors beyond our control such as limitations of available technology and field conditions that may include, but are not limited to: depth of utility, electrical conductivity of utility, site conditions and access. Where nonconductive or nonlocatable utilities are present, we will attempt to use all available information to place targeting in the field for those systems and generate notes for each such utility.
3. Technicians will draft field sheets that show the approximate location, trend and configuration of utilities detected if requested by client.
4. Field sheets will be provided to the project surveyors. Survey and computer drafting will be performed by others.
5. If a part of the scope statement and if the client provides InfraMap with plots of the utility file with referenced topography, InfraMap will provide a final office and/ or field review.

Attachment B

SUBSURFACE UTILITY LOCATING BY AIR/VACUUM TEST HOLE SERVICE

The intent of the proposed test hole service is to provide the actual horizontal and vertical location of existing utilities or structures at the point of interest by air/ vacuum excavation to facilitate the identification and resolution of potential design conflicts and aid in the protection of these facilities during construction.

Tasks:

1. Request records from utility owning agencies as appropriate.
2. Supply qualified personnel and provide them with the resources, transportation and field supplies to perform the requested services.
3. Coordinate with the client to determine what test holes are needed and their expected locations.
4. Coordinate with inspectors, property owners, "ONE CALL" and others as required. Comply with all laws and regulations concerning excavation. Obtain all permits needed to perform the test holes.
5. Determine in the field the actual location of the proposed improvements in possible conflict with existing utilities. This shall be accomplished by using the plan supplied by the client.
6. At the approximate point of possible conflict with the proposed improvement, excavate a test hole using air/ vacuum excavation. Provide all measurements necessary to perform the work safely and to cause no damage to the utility structure. The test hole will be of the minimum size required to expose the utility of interest and record the following information:
 - a. Depth below grade (cover).
 - b. Utility material, shape and overall condition.
 - c. Approximate diameter of pipes, cables, conduits and the configuration of multiple conduit systems.
 - d. The general directional trend of the utility.
 - e. Thickness, type and condition of paving material.
 - f. General soil conditions.
7. Install a permanent survey marker directly over the centerline of pipes or edge of concrete structures or conduit banks at grade. Indicate on the Test Hole Form the placement of the marker relative to the utility cross section.
8. Backfill test hole with excavated material in 6" lifts by air pneumatic tamping. Soil placed within 1 foot of the exposed utility will be clean and tamped carefully. Backfill materials will be adequately compacted to prevent later subsidence of the test hole. Provide select backfill materials, such as insulating sands and gravels, when needed. Restore test hole area to original condition. Ribbon of appropriate APWA/ULCC color will be installed in the backfill from utility to grade.
9. Repair and restore all pavement cuts to insure a long lasting, permanent repair using our standard cold patch method. Guarantee patch for 1 year and return to repair within that time if test hole sinks more than 1/2" below original grade (permanent marker). In the event that the permitting agency does not accept cold patch as permanent repair, the cost to restore the pavement to the satisfaction of the permitting agency will become a cost over and above the estimate.
10. Record the location of the permanent marker with a minimum of three (3) swing tie measurements to convenient existing permanent structures on site.
- 10a. (Optional - See Scope Statement) Survey test hole locations with a total station survey instrument and data collector relevant to the client provided project control. Process survey locations to provide northing, easting and grade/ utility elevations. Generate stations and offset for the test holes if baseline geometry is provided.
11. Cad Test Hole Forms. Also, provide a Test Hole Inventory report to list numerically the test holes completed/ attempted.
12. Technical limitations of small hole Air/Vacuum excavation:

In order to provide a cost effective service that causes minimal disturbance to site amenities and utilities, and is acceptable to permitting agencies, the size of the test hole excavation is kept to a minimum. A nominal size of 64 square inches (8" x 8") is the assumed size of the average test hole. Given this size excavation, the following limitations are stated for the benefit of the designer in choosing test hole locations.

- a. The bottom/invert of pipes and large diameter cables and conduits is not directly available in most test holes. The point of measurement of these utilities is typically the crown or shallowest point on the utility. Invert information is derived from crown cover plus diameter.
- b. The diameter of most pipes greater than 24" cannot be recovered directly from a single test hole. The diameter of pipes less than 24" is determined by exposing half or the entire pipe, as needed, and directly

measuring the outside diameter with a rule to the nearest 1/2". If pipe diameter is critical on larger than 24" pipes, it may be necessary to perform additional holes. This type of investigation falls outside of the normal scope of test hole services.

- c. Encased systems and non-encased conduit banks are typically exposed on one edge. This allows the test hole to be excavated down the side of the utility until a discernable bottom edge can be evaluated. Although it is usually possible to determine the bottom edge of these systems, it is not possible to determine conditions under these or other utility systems, such as concrete overpour and other utilities. It is important for the designer to remember that the bottom edge of an encased system or unencased conduit bank may not represent its lowest point, and that the shape of the system may not be the same on both sides. The width of these systems may not be determined from a single test hole. Encased systems and unencased conduit banks may require two test holes to document the width (and both sides top and bottom elevations).



February 12, 2021, Rev 1

Keshavarz & Associates, Inc.
711 North Dixie Highway, Suite 201
West Palm Beach, Florida 33401
Attn: Mr. Amir J. Keshavarz, P.E.
email: Amir@keshavarz.com

RE: Proposal for Geotechnical Services
Belle Glade Water Main Improvements; SE Zone 4 Water
System Replacement;
Belle Glade, Florida
TSF Proposal No.: 2102-080

Dear Amir:

As requested, **TIERRA SOUTH FLORIDA, INC. (TSF)** is pleased to submit this proposal for the above-referenced project. This proposal includes an outline of our proposed scope of work, an estimate of the total fees, and our anticipated schedule for completion of the work.

PROPOSED SCOPE OF WORK

All work performed by TSF will be in general accordance with PBC and FDOT standards. We understand that utility installation and improvements is anticipated in the locations noted on the attached boring location plan graphic and summarized below.

- New WM on Main St from W. Ave A to SE Ave G (FDOT)
- R&R WM on DR MLK Jr Blvd from Main to E Canal St (FDOT)
- R&R WM on E Canal St from Main to MLK Blvd (FDOT)
- R&R WM on E Canal St from MLK Blvd to south of SE Ave G (PBC T-fare)
- Area bounded by the triangle formed with SR 80, MLK Blvd and Canal Street

Field services are proposed at the locations noted on the attached Boring Location Plan and summarized in Table 1 below. Required coordination with Palm Beach County or FDOT will be completed prior to roadway closures or Maintenance of Traffic (MOT) operations within the Right-Of-Way (ROW).

| Table 1 – Proposed Field Testing | |
|--|--|
| Location | Proposed Services |
| Utility Areas | Standard Penetration Test (SPT) Borings - Nineteen (19) SPT Borings to 6 feet - Ten (10) SPT Boring to 10 feet |
| Roadways | Ten (10) asphalt cores |
| Note – the total number of borings within the roadway is not known. However, SPTs within the roadway will be performed at the location of the 10 asphalt cores. It is estimated that at least ½ of the remaining 19 borings will need to be performed in the roadway due to site access or utility issues. | |

Boring locations will be approximately located and noted in the field by our personnel by measuring distances with a tape from known reference points. Elevations at boring locations can be interpreted from topographic plans if furnished by others. Prior to drilling at the project site, TSF will notify the local utility companies through the State's 811 Utility Clearance Service and request that underground utilities be marked. This service will review utilities within the roadway ROW only. Any borings required outside of the ROW will not have utility review by the 811 Service, as the utility companies will not mark privately owned utilities. Our proposal assumes that private property utility lines will be located in the field by others prior to mobilization of the drill rig if borings outside of the ROW are required. TSF will recommend a utility line locating service upon request.

Upon completion of the field exploration, laboratory testing will be performed on selected samples. A geotechnical engineer will evaluate the results of all drilling and laboratory testing. A report will be issued that contains the exploration data, a discussion of the site and subsurface conditions, evaluation, and recommendations of soil parameters for mast utility installation, and a discussion of some construction considerations.

ESTIMATED FEES

It is proposed that the fee for the performance of the services outlined above is determined on a unit price basis in accordance with the attached Fee Schedule. On the basis of the proposed quantities, it is estimated that the total fee will be as noted below. The total budget amount will be considered a Not To Exceed (NTE), without prior authorization from the Client.

| | |
|--|--------------------|
| I. SOIL TESTING | \$640.00 |
| II. CONCRETE & MASONRY MATERIALS | \$0.00 |
| III. AGGREGATE TESTING | \$300.00 |
| IV. ASPHALT TESTING | \$1,300.00 |
| V. INSPECTION SERVICES | \$0.00 |
| VI. FIELD EXPLORATIONS / INVESTIGATIONS | \$6,614.00 |
| VII MISCELLANEOUS SERVICE | \$1,200.00 |
| VII ENGINEERING AND PROFESSIONAL SERVICES | \$7,520.00 |
| | \$17,574.00 |

Note – as this is the first Task for the Master Contract, the proposed fee schedule for the Contract is attached.

Our estimate covers the work needed to present our findings in a formal report. Not included are reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report.

Boring, sampling, and testing requirements are a function of the subsurface conditions encountered. Therefore, the estimated fee previously indicated is approximate, and compensation for the exploration will be based on the actual work and tests performed. We will endeavor to keep the exploration cost at a minimum consistent with good engineering practice.

SCHEDULE AND AUTHORIZATION

TSF will proceed with the work after receipt of a signed copy of this proposal. With our present schedule, we can commence work within a few days of project approval (weather permitting and utility clearance). The fieldwork is expected to take about one to two days to complete. The written report can be submitted about two weeks after completion of the field exploration, depending on the extent of the laboratory-testing program. Verbal preliminary recommendations can be made to appropriate parties prior to submittal of the written report. The report will include soil profiles, asphalt core data in the form of photos and layer identification estimates, a summary

of recommendations for construction, and formal plan sheets for the boring location plan sheet and soil profile sheets to be incorporated into the construction plan set.

We at TSF appreciate the opportunity to submit this proposal and look forward to working with you on this project. If you should have any questions concerning our proposal, please contact our office.

Respectfully submitted,

TIERRA SOUTH FLORIDA, INC.



Harmon C. Bennett, P.E.
Principal Engineer
FL Reg. No. 53130
Attachments:

Fee Estimate
Boring Location Plan



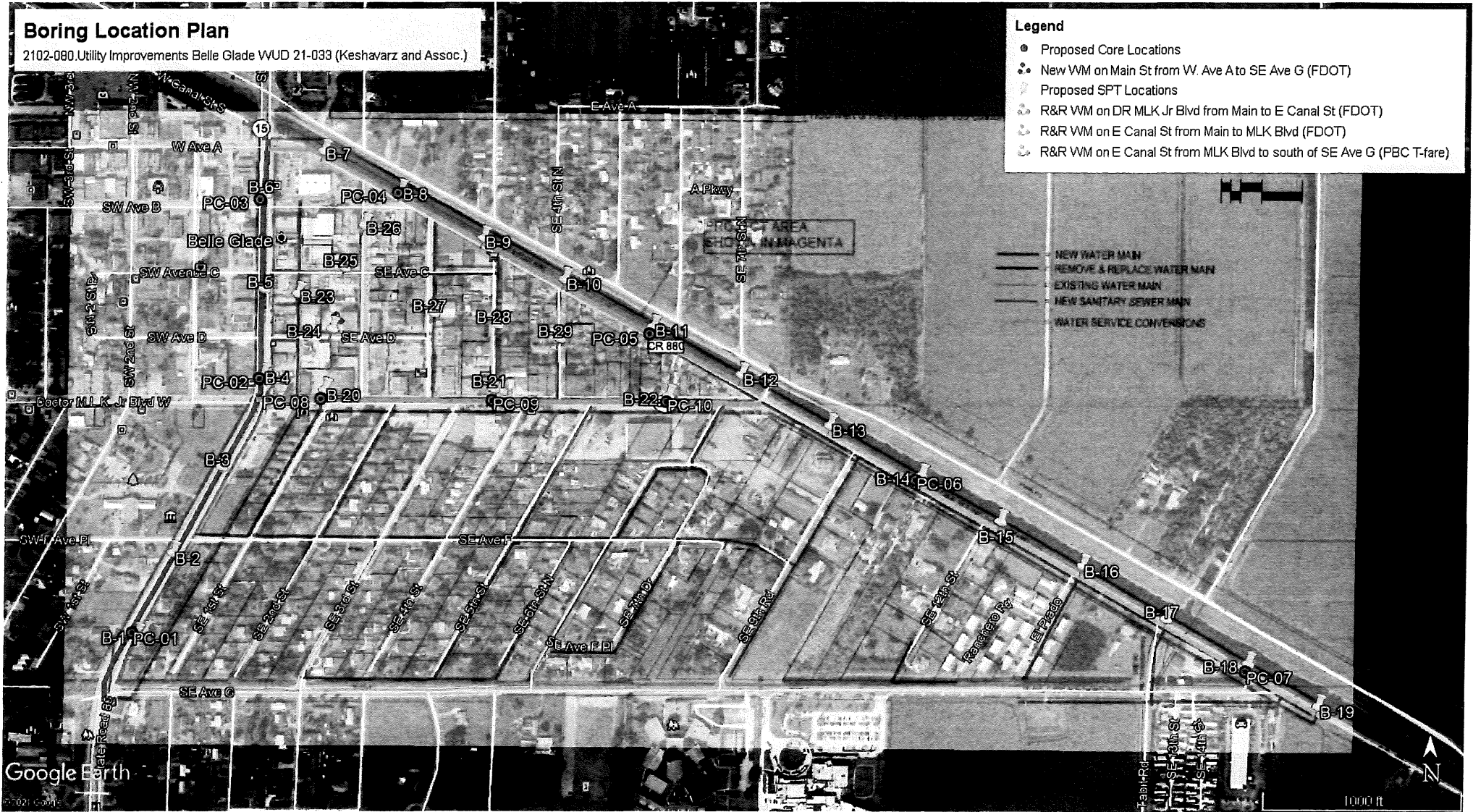
Raj Krishnasamy, P.E.
President
FL Reg No. 53567

| | Unit | Rate | Quantity | Fees |
|--|-------|------------|----------|-------------|
| I. SOIL TESTING | | | | |
| 1 Field Density Test (five [5] minimum) | test | \$30.00 | | |
| 2 Proctors | test | \$100.00 | | |
| 3 Florida Bearing Value Test | test | \$45.00 | | |
| 4 Limerock Bearing Ratio Test | test | \$300.00 | | |
| 5 Atterberg Limit Test | test | \$80.00 | 2 | \$160.00 |
| 6 Carbonate Content Test | test | \$100.00 | | |
| 7 Organic Content Test | test | \$50.00 | 2 | \$100.00 |
| 8 Corrosion Series | test | \$190.00 | 2 | \$380.00 |
| 9 Soil Observation (On Site) | hr. | \$60.00 | | |
| 10 Natural Sample Moisture Content | test | \$20.00 | | |
| 11 Unit Weight and Moisture Content (Undisturbed Sample) | test | \$50.00 | | |
| II. CONCRETE & MASONRY MATERIALS | | | | |
| 1 Concrete Compression test (Min four [4] cylinders per trip) -Prepare cylinders & slump test on site, and deliver to lab | set | \$150.00 | | |
| 2 Additional Concrete cylinders | cyl | \$18.00 | | |
| 3 Concrete Compression test only [delivered to lab] | cyl | \$18.00 | | |
| 4 Slump test | ea. | \$18.00 | | |
| 5 Air Content Test | ea. | \$25.00 | | |
| 6 Stand-by | hr. | \$65.00 | | |
| 7 Grout Prism (Six [6] per set) - Includes preparation of Prism on site | set | \$80.00 | | |
| 8 2" x 2" Mortar Cubes (Six [6] per set) - Includes preparation of Cubes on site.. | set | \$80.00 | | |
| 9 Additional Mortar cubes | ea. | \$18.00 | | |
| 10 Masonry Units A. Compressive Strength | unit | \$80.00 | | |
| B. Absorption | unit | \$50.00 | | |
| 11 Concrete Cores (Min 3); A. Secure, trim & test | core | \$80.00 | | |
| B. Testing of core [delivered to lab (Incl Trim)] | core | \$50.00 | | |
| 12 Swiss Hammer Testing. | hr. | \$65.00 | | |
| 13 Windsor Probe Test (Min. 3 shots) | test | \$150.00 | | |
| 14 Additional Windsor Probe Tests... | test | \$100.00 | | |
| III. AGGREGATE TESTING | | | | |
| 1 Grain size determination: A. Full grain size (8 sieves) | test | \$75.00 | 4 | \$300.00 |
| B. Wash through (#200) | test | \$45.00 | | |
| 2 Sieve Analysis - Course Aggregate | test | \$45.00 | | |
| 3 Specific Gravity & Absorption of Fine or Course Aggregate | test | \$70.00 | | |
| IV. ASPHALT TESTING | | | | |
| 1 Asphalt Cores (obtaining core samples) | ea.* | \$130.00 | 10 | \$1,300.00 |
| 2 Asphalt Extraction & Gradation | ea. | \$150.00 | | |
| 3 Asphalt Density and Thickness | ea. | \$25.00 | | |
| 4 Marshall Stability (Incl density, flow and stability of 3 specimens) (50 blows) | ea. | \$150.00 | | |
| 5 Coring Machine plus Generator Rental | trip | \$400.00 | | |
| 6 Superpave Resolution Testing A. Gyatory Compaction, bulk specific gravity | ea. | \$175.00 | | |
| B. Rice Testing | ea. | \$120.00 | | |
| V. INSPECTION SERVICES | | | | |
| 1 Concrete Inspection (on job-site or plant) | hr. | \$65.00 | | |
| 2 Pile Driving Inspection | hr. | \$70.00 | | |
| 3 Pre-Stress Yard Inspection | hr. | \$70.00 | | |
| 4 Steel Inspection | hr. | \$70.00 | | |
| 5 Threshold Inspection | hr. | \$70.00 | | |
| 6 Asphalt Inspection (Plant or Roadway) | hr. | \$85.00 | | |
| 7 Helical Pile Inspection | hr. | \$70.00 | | |
| 8 Drilled Shaft Logging / Inspection Services | hr. | \$70.00 | | |
| VI. FIELD EXPLORATIONS / INVESTIGATIONS | | | | |
| 1 Auger Borings | ft. | \$10.00 | | |
| 2 Hand Augers | hr.** | \$130.00 | | |
| 3 Standard Penetration Test Borings - Truck Rig A. 0' - 50' | ft. | \$13.00 | 214 | \$2,782.00 |
| B. 1' - 100' | ft. | \$15.00 | | |
| 4 Grout-Seal Boreholes A. 0' - 50' | ft. | \$6.00 | 214 | \$1,284.00 |
| B. 1' - 100' | ft. | \$7.00 | | |
| 5 Casing Allowance A. 0' - 50' | ft. | \$7.00 | 214 | \$1,498.00 |
| B. 1' - 100' | ft. | \$9.00 | | |
| 6 Muck Probing (4 hr min) (2-man crew) | hr.** | \$130.00 | | |
| 7 Mobilization of drilling equipment to project (Min Charge) A. 50-mile travel | ea. | \$350.00 | 3 | \$1,050.00 |
| B. 100-mile travel | ea. | \$450.00 | | |
| VII. MISCELLANEOUS SERVICE | | | | |
| 1 Foundation Analysis and Recommendation | | | | |
| 2 Percolation Test | test | \$300.00 | | |
| 3 Install Monitoring Well, 25' Depth (per PBCWUD Standards & Details) | LF | \$50.00 | | |
| 4 Plug & Abandon Monitoring Well, 25' depth | hour | \$150.00 | | |
| 5 Maintenance of Traffic | Day | \$1,200.00 | 1 | \$1,200.00 |
| VIII. ENGINEERING AND PROFESSIONAL SERVICES | | | | |
| 1 Principal Engineer/PM, PE | hour | \$185.00 | 2 | \$370.00 |
| 2 Senior Geotechnical Engineer, PE | hour | \$175.00 | 4 | \$700.00 |
| 3 Project Engineer | hour | \$145.00 | 8 | \$1,160.00 |
| 4 Staff Engineer | hour | \$110.00 | 16 | \$1,760.00 |
| 5 Senior Engineering Technician | hour | \$110.00 | 12 | \$1,320.00 |
| 6 Engineering Technician | hour | \$65.00 | 24 | \$1,560.00 |
| 7 Drafter/CADD | hour | \$65.00 | 10 | \$650.00 |
| | | | | \$17,574.00 |

* / **2 technicians @ \$65/hr involves access, carrying equipment, setup & etc

Boring Location Plan

2102-080 Utility Improvements Belle Glade WUD 21-033 (Keshavarz and Assoc.)



Google Earth

ATTACHMENT F

Palm Beach County Water Utilities Department

Utility Distribution & Collection System Engineering Services

Resolution No. R2020-1898 Contract Dated December 15, 2020

SUMMARY OF SBE-M/WBE BUSINESS TRACKING

| Master Contract Goals | SBE: <u>85.00%</u> | M/WBE: <u>85.00%</u> | MBE (B): <u>3.00%</u> | MBE (A): <u>82.00%</u> |
|---|-----------------------|-------------------------|-----------------------------|------------------------------|
| Current Proposal | | | | |
| Value of Authorization No. <u>1</u> | \$571,537.68 | | | |
| Value of SBE-M/WBE Letters of Intent | \$496,050.00 | \$496,050.00 | \$00.00 | \$496,050.00 |
| Actual Percentage | 86.79% | 86.79% | 0.00% | 86.79% |
| Signed/Approved Authorizations | | | | |
| Total Value of Authorizations | \$0.00\$ | | | |
| Total Value of SBE-M/WBE Signed Subcontractors | \$0.00\$ | \$0.00 | \$0.00 | \$496,050.00 |
| Actual Percentage | 0.00% | 0.00% | 0.00% | 86.79% |
| Signed/Approved Authorizations Plus Current Proposal | | | | |
| Total Value of Authorization | \$571,537.68 | | | |
| Total Value of Subcontractors & Letters of Intent | \$496,050.00 | \$496,050.00 | \$00.00 | \$496,050.00 |
| Actual Percentage | 86.79% | 86.79% | 0.00% | 86.79% |

Revised 02/11/2021

ATTACHMENT G

Location Map

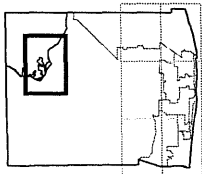
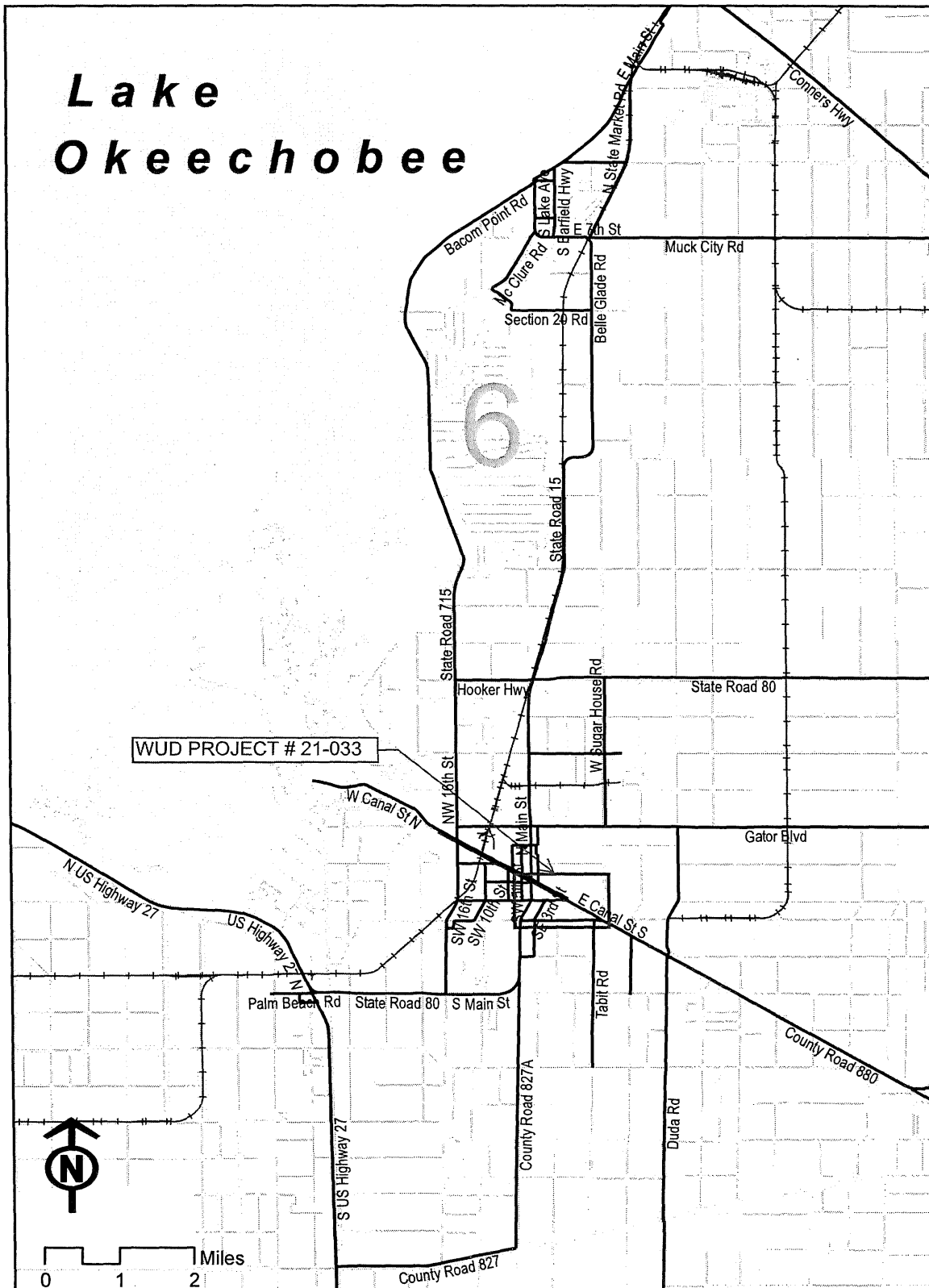
Revised 02/11/2021

| | | | | | | |
|--|--|--|--|--|--|--|
| | | | | | | |
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ATTACHMENT G

LOCATION MAP

WUD NO. 21-033



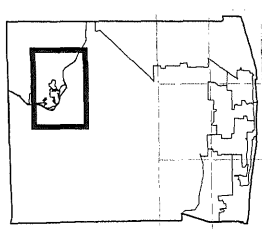
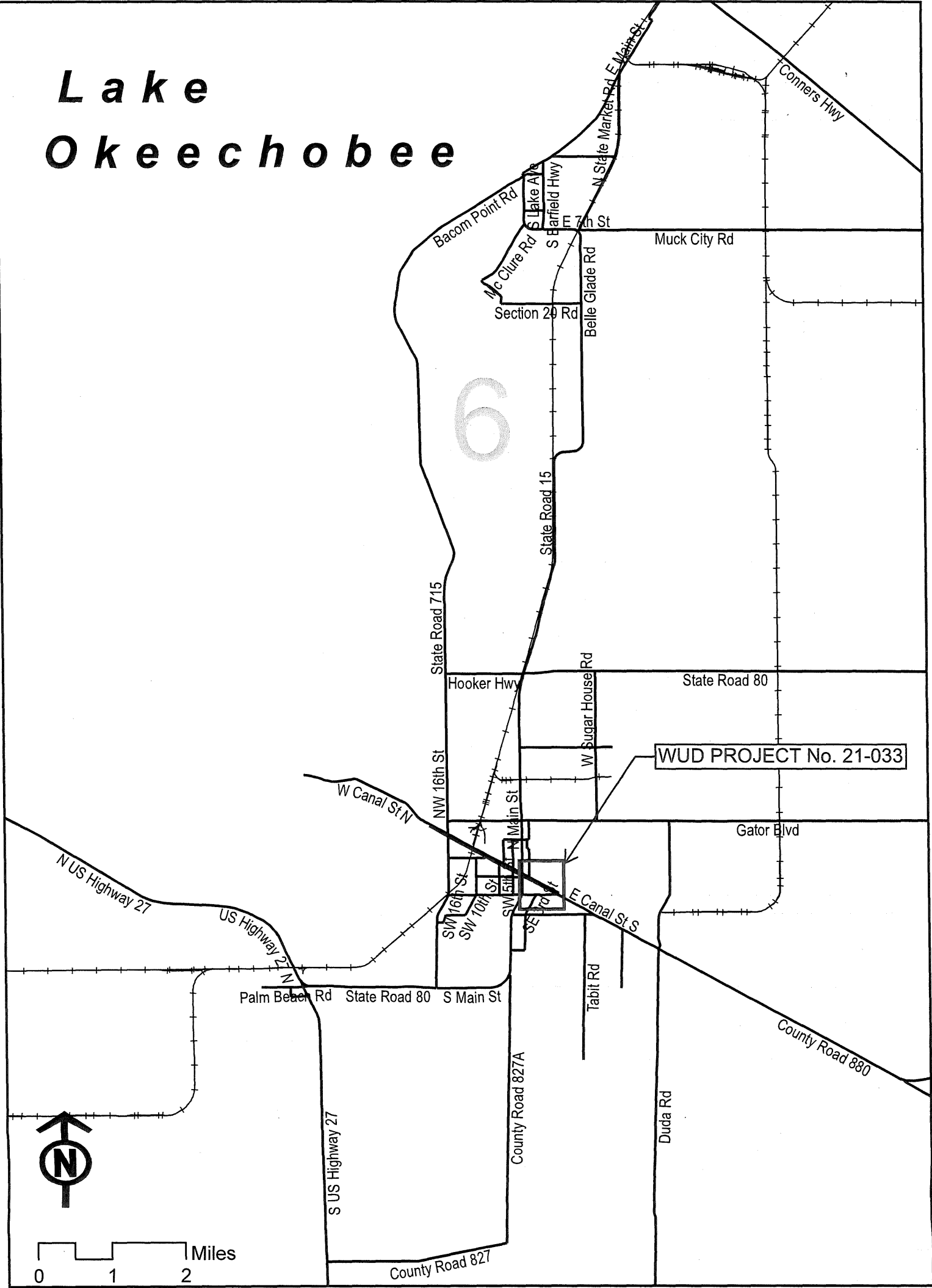
Revised 02/11/2021

ATTACHMENT 2
LOCATION MAP
AGENDA ITEM
WUD PROJECT No. 21-033
CONSULTANT SERVICE AUTHORIZATION No. 1
KESSHAVARZ AND ASSOCIATES, INC.

Lake Okeechobee

6

WUD PROJECT No. 21-033





ATTACHMENT 3

KESH&AS-01

HAZELWOODM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 7/8/2020

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

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

PRODUCER License # 0E67768 Insurance Office of America Abacoa Town Center 1200 University Blvd, Suite 200 Jupiter, FL 33458 CONTACT NAME: Stephanie Chase PHONE (A/C, No, Ext): (561) 721-3741 FAX (A/C, No): (561) 776-0670 E-MAIL ADDRESS: Stephanie.Chase@ioausa.com INSURER(S) AFFORDING COVERAGE INSURER A: Travelers Indemnity Company NAIC # 25658 INSURER B: Travelers Property Casualty Insurance Company 36161 INSURER C: Travelers Casualty & Surety Company 19038 INSURER D: QBE Insurance Corporation 39217 INSURER E: INSURER F:

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

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

Table with columns: INSR LTR, TYPE OF INSURANCE, ADDL INSD, SUBR WVD, POLICY NUMBER, POLICY EFF (MM/DD/YYYY), POLICY EXP (MM/DD/YYYY), LIMITS. Rows include Commercial General Liability, Automobile Liability, Umbrella Liab, Workers Compensation and Employers' Liability, and Professional Liabil.

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Contract for Consulting/Professional Services Utility Distribution and Collection System Engineering Services Project No. WUD Palm Beach County Board of County Commissioners, a political Subdivision of the State of Florida, its officers, employees and agents are Additional Insured with respect to General Liability when required by written contract per form CG D3 81 09 15 on a Primary Non-Contributory basis. Waiver of Subrogation with respect to General Liability per form CGD379 02/19. Palm Beach County Board of County Commissioners, a political Subdivision of the State of Florida, its Officers, Employees and Agents are Additional Insureds with respect to Auto Liability with waiver of subrogation when required by written contract per form CAF219 08/17. Waiver of Subrogation also applies to Workers Compensation where required by written contract per WC 00 03 13.

CERTIFICATE HOLDER CANCELLATION

Form containing Certificate Holder information (Palm Beach County Water Utilities Dept) and Cancellation notice (SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE C. Ray Dorsey)