



KA 17-11

EXHIBIT "A"
SCOPE OF SERVICES
CONTINUING ENGINEERING SERVICES
Broward County Water Wastewater Services ("BCWWS") RFP R1404111P1
Septic Tank Elimination Program
Work Authorization KA 17-11, District 3A STEP
Area 3A-N Design/Procurement/Construction Services
BCWWS Project No. 104247 (the "Project")

1.0 PROJECT DESCRIPTION

The Project entails the construction of approximately three thousand feet (3,000') of eight-inch (8") gravity sanitary sewer main, eleven (11) maintenance access structures, one (1) pump station, one thousand two hundred feet (1,200') of six-inch (6") force main to the existing Stirling Road force main and associated service lines and cleanouts. The Project has the potential to eliminate thirty-six (36) septic tanks from the existing single family residential neighborhood on SW 33rd Avenue and SW 32nd Terrace in Hollywood. New utilities for the Project will be constructed within SW 33rd Avenue, SW 32nd Terrace, and Stirling Road.

2.0 SCOPE OF SERVICES

Consultant shall provide professional engineering services to County for the design, technical specifications, permitting, construction procurement, and construction phase engineering services for the Project.

Consultant shall perform the engineering services described in the tasks set forth below and prepare Construction Documents that show the character and extent of the Project, including procurement documents, technical specifications, and drawings. At each design milestone identified under tasks 2.3, 2.4, 2.5, and 2.6 of this Scope of Services Consultant shall provide County with four (4) copies of Construction Documents. At each design milestone, Consultant shall also meet with the Contract Administrator to receive and discuss County's review comments. Consultant must incorporate into the Construction Documents the review comments of County as discussed and resolved during the review meeting. Twenty one (21) calendar days of review time for County has been provided for in Consultant's time for performance for each design milestone.

Permitting agencies include, but are not limited to, Florida Department of Transportation ("FDOT"), Broward County Environmental Protection and Growth Management Department ("EPGMD"), Broward County Traffic Engineering

Division ("BCTED"), South Florida Water Management District ("SFWMD"), and the City of Hollywood.

2.1 LAND SURVEYING

Consultant shall collect survey data for approximately four hundred (400) feet along the force main and gravity main route on Stirling Road from SW 32nd Terrace east to the pump station site, as well as the area leading to and including the pump station. Consultant shall append the survey data to the existing survey data of SW 33rd Avenue and SW 32nd Terrace north of Stirling Road which includes the north half of Stirling Road.

Topographic Survey – Consultant shall produce a topographic survey base file as required for the completion of the Project's design effort. This survey will utilize and depict all known existing utility lines referenced from any current survey data that is available and will be field verified by Consultant as to the existing surface conditions. Consultant shall ensure that street right-of-way lines are depicted on the survey in accordance with the current instruments of record obtained. Consultant shall also ensure that the survey includes the utility designation and location described in task 2.2 below. Consultant shall provide County with topography in NAVD (1988) datum. Consultant shall ensure that the final deliverable includes a signed and sealed topographic survey and an AutoCAD base file suitable for use in the final design.

2.2 SUB-SURFACE UTILITY ENGINEERING

- a. Utility Designations – Consultant shall horizontally mark any known underground utilities along Stirling Road within the survey area described above in task 2.1. Consultant shall mark conductive utilities on the surface utilizing active geophysical prospecting techniques in conjunction with electromagnetic equipment utilizing passive radio and audio frequencies. Consultant shall also mark known non-conductive utilities and structures on the surface utilizing Ground Penetrating Radar, above ground feature references, professional judgment, utility plats, and as-built plans. This task does not include identifying drainage, irrigation, or overhead facilities.

- b. Location Services – Consultant shall perform up to twenty (20) test holes at locations where a utility is marked that may conflict with the proposed system or as needed for the design. Consultant must utilize test holes to expose utilities and to minimize any potential for damage. Consultant shall ensure that test holes are of minimum necessary size (usually 1'

by 1'). Consultant shall backfill test holes utilizing the removed material, if suitable. Consultant shall ensure that areas are restored back as close as possible to their original condition. Consultant shall ensure that an identifiable above ground marker is installed at each test hole location. Field markers will consist of a nail and disk in asphalt, or an iron rod and cap with survey stake in grassed areas. Consultant shall ensure that test holes that are in the street are patched using a cold patch. The test hole number and utility will be identified on the ground or on the stake, as appropriate. Consultant shall create a test hole summary report providing coordinates, depth of cover, type, size, and material, if applicable. The Consultant shall incorporate the test hole data onto the survey described under task 2.1.

2.3 ENGINEERING DESIGN & PERMITTING

The design of the new gravity sewer, force main, and pump station in the Project area and permitting for the Project shall consist of the following:

- a. 60% Construction Documents – Consultant shall prepare the 60% Construction Documents. As part of this task, Consultant shall collect and evaluate data to finalize the gravity sewer, force main and pump station layout and prepare the preliminary plans. The 60% Construction Documents must address potential conflicts with existing utilities and connections to the existing system. The 60% Construction Documents must also provide plan views and profiles, construction details, pump station calculations, and an opinion of probable cost of the Project. The opinion of probable cost shall be to the “budget level” Class 3 as defined by the American Association of Cost Engineers (“AACE”) with a probable accuracy of -10% to +30%.
- b. 90% Construction Documents – Consultant shall prepare the 90% Construction Documents. As part of the 90% Construction Documents, Consultant shall provide the Contract Administrator with the following items:
 - Plan and profiles for the gravity sewer line, force main, and pump station;
 - Construction details and notes;
 - Technical specifications;
 - Preliminary dewatering plan; and
 - Opinion of probable cost (“bid level” Class 2 as defined by the AACE with a probable accuracy of -5% to 20%).

- c. Regulatory Agency Permitting – At the 90% stage of design, Consultant shall submit the 90% Construction Documents to the permitting agencies listed below for review or permit issuance. Consultant shall coordinate with the regulatory agencies and prepare submittal packages with the appropriate calculations and back-up for the Contract Administrator’s review, and shall then apply for approvals and permits from the governmental authorities with jurisdiction over the Project. Consultant shall identify the appropriate governmental authorities. Consultant’s assistance shall include participating in meetings, submissions, resubmissions, and negotiations with such authorities. The permits/approvals needed include, but are not limited to, the following:
- FDOT – Utility Permit;
 - EPGMD – License for Installation of Wastewater System License and Dewatering approval;
 - BCTED – Pavement Marking and Signage (as may be applicable);
 - City of Hollywood – Utility Provider Sign-off / Building permit Assistance; and
 - SFWMD – Consumptive Use Permit for Dewatering.
- d. Final Construction Documents (Final CDs) – Consultant shall provide County with Final Construction Documents that incorporate comments from County on the 90% Construction Documents as well as comments from the regulatory agencies. Additionally, Consultant shall provide information required from County to complete the front-end documents for the bid solicitation. The Final Construction Documents shall include:
- Plan and profiles for the gravity sewer line, force main, and pump station;
 - Erosion control plan;
 - Construction details and notes;
 - Technical specifications;
 - Preliminary dewatering plan; and
 - Opinion of probable cost (“bid level” Class 2 as defined by the AACE with a probable accuracy of -5% to 20%).

2.4 LANDSCAPE DESIGN

Consultant shall design and produce landscape plans for the Project area. Consultant must ensure that the landscape plans state the existing vegetation to remain, the proposed planting per the landscape screening standards for the City of Hollywood, and recommended adjustments by

Consultant's certified Landscape Architect to the existing irrigation system. Additionally, as requested by Contract Administrator, Consultant shall assist with the Stirling Road Branch Library entrance monument sign (paint color change) and minor landscape improvements (entrance hedge deficiencies). Consultant shall assist with any required mitigation resulting from damage or removal of existing trees in the Project area.

- a. 60% Construction Documents – Consultant shall prepare the 60% Construction Documents. Consultant shall review and assess all existing trees within the limits of the Project to confirm and assign each tree's common and scientific name, height, spread, and condition as well as research and verify existing site conditions and planting requirements. Consultant shall inventory the existing vegetation in the Project area. Consultant shall incorporate this information onto the landscape plans. Consultant shall ensure that the 60% Construction Documents address landscape screening requirements for the new pump station and minor adjustments to the Stirling Road Branch Library entrance monument sign. The 60% Construction Documents must also provide landscape plans, required details, and an opinion of probable cost for the landscape portion of the Project.
- b. 90% Construction Documents – The 90% Construction Documents must include:
 - Tree disposition plan;
 - Landscape and signage plans;
 - Construction details and notes;
 - Technical specifications; and
 - Opinion of probable cost for the landscape portion of the Project.
- c. Final Construction Documents (Final CDs) – Consultant shall provide County with Final Construction Documents that incorporate comments from County on the 90% Construction Documents and the regulatory agencies. The plans must include:
 - Tree disposition plan;
 - Landscape and signage plans;
 - Construction details and notes;
 - Technical specifications; and
 - Opinion of probable cost for the landscape portion.

2.5 ELECTRIC DESIGN AND UTILITY COORDINATION

Consultant shall assist County in coordinating electric service to the pump station and detailing the electrical design of the pump station. Consultant shall develop and submit the electrical plans for the 60%, 90% and Final Construction Documents including the technical specifications, construction details and notes, and opinion of probable cost for the electrical portion of the Project.

Consultant shall assist County with coordination for the relocation and installation of franchised utility facilities within the Project area. Consultant's services must include site visits, preparation and coordination of exhibits, and submittal requirements including contacting and meeting with franchise utility companies to facilitate the utility relocation and installation work.

2.6 CONTRACT PROCUREMENT SERVICES

Consultant shall assist County during procurement of the Project. Such assistance includes reviewing cost estimate/proposal from Contractors, responding to Requests for Information ("RFIs"), and attending the pre-bid meeting held prior to the advertised bid date.

Consultant shall reproduce construction contract documents to provide six (6) sets to County. County shall submit a list to County of Contractors Consultant deems capable of construction project.

Consultant shall reproduce and distribute bid documents to construction Contractors requesting documents. Consultant can charge a reasonable fee to potential bidders and others that request bid documents.

Consultant shall provide timely responses to the inquiries of potential bidders through written addenda. Consultant shall send these queries to the Contract Administrator.

Consultant shall evaluate the bids for completeness, full responsiveness, and price, including alternative and unit prices, and shall make a formal recommendation to County regarding the award of Contract. County shall evaluate the bid for nontechnical requirements.

2.7 PUBLIC OUTREACH

Consultant shall perform all public outreach activities for the Project including:

- a. Public Involvement - Consultant shall prepare and maintain a database of the homeowners, residents, businesses, and other interested parties contact information. Consultant shall coordinate and attend public meetings as needed by the Project (at least 1 meeting must occur). Meeting coordination must include preparation of advertisements, notification letters and presentation material for County review and approval; assistance to Contract Administrator during the meeting; meeting equipment set up and tear down; preparation of draft responses to identified issues and meeting minutes for County review and approval within forty-eight (48) hours; finalize meeting minutes within seven (7) days. Consultant shall prepare public information materials such as project collateral brochures, flyers, factsheets, door hangers, notifications, letters, news articles, and public notices for County review and approval.
- b. Public Inquiry Response – Consultant shall coordinate responses to inquiries from residents during construction. Consultant shall establish, maintain, and monitor a call line and address complaints and inquiries within twenty-four (24) hours. Consultant shall verify the validity of the complaint and visit the complaint site with Contract Administrator or designee. Consultant shall ensure that all complaints are entered and tracked in a database. Consultant, County, and Contractor will coordinate to resolve the complaint.

2.8 CONSTRUCTION PHASE ENGINEERING SERVICES

Consultant shall provide field construction inspection services for this Project. Consultant shall assist the Contractor with completing the dewatering and building permits. Consultant shall provide the following services during the construction of the Project:

- RPR Construction Observation: Provide full time (up to 40 hrs. a week) RPR inspection services as construction remains active through final completion of the Project. Consultant is not responsible for the means, methods, techniques, sequences, or procedures of construction selected by the Contractor or the safety precautions and programs incident to the work of the Contractor. It is anticipated that the installation of all the sanitary sewer improvements will be completed by one Contractor with an anticipated construction duration of 32 weeks.

- Consultant, in its role as RPR, shall observe the utility installation and testing required in order to certify to the governing permitting agencies and Contract Administrator (the actual testing will be by others) that the utilities meet minimum requirements and specifications. Inspection reports and photographs will be completed daily using the Consultant's standard inspection form, and must include a report on the progress being made as well as photographs and notes documenting the equipment and staffing provided by the Contractor. Consultant shall provide Contract Administrator copies of the reports weekly. Furthermore, Consultant, in its role as RPR, shall attend all progress meetings with Contractor and Contract Administrator's designees, maintain a record of the installation measures of the sanitary sewer main and appurtenances to substantiate the Contractor's payment applications, review payment applications for sufficiency, and review and evaluate change order requests. If Consultant knows, or should reasonably know, of a construction issue, Consultant must immediately notify the Contract Administrator.
- Consultant shall not be responsible for the failure of the Contractor(s) to perform the work in accordance with the contract drawings; except, to the extent Consultant identifies, or should have reasonably identified such failure, and fails to notify the Contract Administrator, and/or fails to instruct Contractor(s) to correct such nonconformance.
- Shop Drawing Review: Consultant shall review and approve shop drawings, samples, and other data and reports that the Contractor is required to submit for review. Consultant's review shall focus on conformance with the design concept for the Project and compliance with the information provided on the Construction Documents. The Contractor will be expected to have the shop drawings revised/corrected in accordance with the comments provided by Consultant.
- Contractor's RFIs: Consultant must answer all RFIs from Contractor. Unless additional consultation outside of Consultant is required, Consultant shall provide County the draft response to RFIs within five (5) working days. Following County review and approval, the response will be issued to Contractor. Responses must include on-site observation/verifications of all conditions and situations which

may lead or have led to the Contractor's RFI. Consultant shall notify the Contract Administrator in a timely manner of the impending RFI. Consultant shall provide an estimate of the cost and time impacts from the RFI on the Project and document conditions and situation necessitating a request for a contract modification or change order.

- **As-Built Review:** The as-built survey information collected and prepared by the Contractor shall be in accordance with technical specifications. Consultant shall review the as-builts to ensure substantial conformance to the approved plans. The Contractor shall have the as-built plans revised in accordance with the comments provided by Consultant.
- **Final Inspection and Punch list:** Before issuing a determination of substantial completion or final completion, Consultant shall attend an inspection with the Contract Administrator or designee and, based on such inspection, Consultant shall prepare a list of items requiring completion or correction (punch list) for approval by the Contract Administrator. Consultant shall provide Contractor with an approved copy of the punch list and update punch list as corrections are made. Consultant shall attend the final inspection with the Contract Administrator or designee and prepare a final inspection report for approval by the Contract Administrator.
- **Final Certification/Permit Close-outs:** Consultant shall prepare the final certification packages, prepare and process record drawings based on as-built survey information supplied by the Contractor, and submit final certification packages to the appropriate jurisdictional agencies. Consultant shall provide to County two (2) sets of 22" x 34" signed and sealed prints and PDF and AutoCAD electronic versions of the record drawings. The record drawings must meet the BCWWS Minimum Drawing Requirements.

3.0 DELIVERABLES

As requested by Contract Administrator, all deliverables will be submitted to the Project Manager. The deliverables shall include:

- Topographic survey and AutoCAD base file;
- Subsurface utility engineering report;
- 60% Construction Documents;
- 90% Construction Documents;



- Final Construction Documents;
- Regulatory agency permitting;
- Construction procurement documents;
- Project close-out records; and
- Opinion of probable costs.

4.0 SCHEDULE

Twenty-one (21) calendar days review time is included for BCWWS to examine and provide comments on the deliverable documents at each 60%, 90%, and Final Construction Document tasks.

Activity or Task		Duration
	Notice to Proceed	
2.1	Land Surveying	4 weeks after NTP (28 calendar days)
2.2	Subsurface Utility Engineering	3 weeks after NTP (21 calendar days)
2.3.a, 2.3.b	60% and 90% Engineering Design	30 weeks after NTP (210 calendar days)
2.3.c	Regulatory Agency Permitting	50 weeks after NTP (350 calendar days)(*)
2.4.a, 2.4.b, 25.a, 25.b, 25.c	60% and 90% Landscape Design and Electrical Design and Utility Coordination	30 weeks after NTP (210 calendar days) Concurrent with tasks 2.3.a, 2.3.b
2.3.d, 2.4.c, 2.5.d	Final Engineering, Landscape Design, and Electrical Design and Utility Coordination	50 weeks after NTP (350 calendar days) Concurrent with tasks 2.3.c
2.6	Contractor Procurement Services	62 weeks after NTP (434 calendar days) Concurrent with tasks 2.3.c, 2.3.d, 2.4.c, 2.5.d
2.7	Public Outreach	4 weeks after completion of task 2.6 and Construction Contractor NTP 1 issued, 32 weeks after Construction Contractor NTP 2 issued (252 calendar days)
2.8	Construction Phase Engineering Services	4 weeks after completion of task 2.6 and Construction Contractor NTP 1 issued, 32 weeks after Construction Contractor NTP 2 issued (252 calendar days)
	Total Duration	98 weeks (686 calendar days)

(*) The duration of task 2.3.c excludes city and building permit approvals, as a Contractor should be retained for the required applications to be complete.

END OF SCOPE



**WORK AUTHORIZATION
FEE PROPOSAL**

District 3A STEP, Area 3A-N

KA 17-11

Design/Procurement/Construction Services (the "Project")

1.0 COMPENSATION AND METHOD OF PAYMENT

This work will be completed as Lump Sum (LS) and Maximum Not-To-Exceed (NTE) work authorization in the amount of \$288,751.73 in accordance with the below breakdown:

TASK	FEE SUMMARY	LS or NTE	Total Team	DCS	METCO	K&A
Task 2.1	LAND SURVEYING	LS	\$5,108.90	\$0.00	\$0.00	\$5,108.90
Task 2.2	SUB-SURFACE UTILITY ENGINEER	LS	\$5,903.20	\$0.00	\$0.00	\$5,903.20
Task 2.3	ENGINEERING DESIGN & PERMITTING	LS	\$61,664.00	\$0.00	\$0.00	\$61,664.00
Task 2.4	LANDSCAPE DESIGN	LS	\$20,318.10	\$0.00	\$0.00	\$20,318.10
Task 2.5	ELECTRIC DESIGN AND UTILITY COORDINATION	LS	\$14,757.12	\$0.00	\$9,173.52	\$5,583.60
Task 2.6	CONTRACT PROCUREMENT SERVICES	LS	\$8,027.60	\$0.00	\$0.00	\$8,027.60
Task 2.7	PUBLIC OUTREACH	LS	\$25,404.12	\$21,597.12	\$0.00	\$3,807.00
Task 2.8	CONSTRUCTION PHASE ENGINEERING SERVICES	NTE	\$120,304.69	\$0.00	\$3,434.49	\$116,870.20
			\$261,487.73	\$21,597.12	\$12,608.01	\$227,282.60
	Reimbursable	NTE	\$27,264.00	\$0.00	\$0.00	\$27,264.00
	Total Fee		\$288,751.73	\$21,597.12	\$12,608.01	\$254,546.60

Notes:

CBE Participation: 13.1%



**WORK AUTHORIZATION
FEE PROPOSAL
District 3A STEP, Area 3A-N (the "Project")**

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DCS Salary Cost Public Outreach	Project Director		Sr. Project Coord.		-		-		-		Totals	
	Hr. Rate	\$217.26	Hr. Rate	\$85.83	Hr. Rate	\$0.00	Hr. Rate	\$0.00	Hr. Rate	\$0.00		
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Task 2.7 PUBLIC OUTREACH - Lump Sum												
2.7a - Public Involvement	20	\$4,345.20	40	\$3,433.20	0	\$0.00	0	\$0.00	0	\$0.00	60	\$7,778.40
2.7b - Public Inquiry Response	32	\$6,952.32	80	\$6,866.40	0	\$0.00	0	\$0.00	0	\$0.00	112	\$13,818.72
Subtotals	52	\$11,297.52	120	\$10,299.60	0	\$0.00	0	\$0.00	0	\$0.00	172	\$21,597.12
Total Salary Costs	52	\$11,297.52	120	\$10,299.60	0	\$0.00	0	\$0.00	0	\$0.00	172	\$21,597.12



**WORK AUTHORIZATION
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District 3A STEP, Area 3A-N (the "Project")**

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METCO Salary Cost Electrical Engineering	General Manager		Senior Project Engineer		Engineer		Designer/Drafter		Technician		Sr. Admin. Assistant		Totals	
	Hr. Rate	\$200.88	Hr. Rate	\$145.08	Hr. Rate	\$114.39	Hr. Rate	\$83.70	Hr. Rate	\$75.33	Hr. Rate	\$78.12	Hours	Cost
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Task 2.5 ELECTRIC DESIGN AND UTILITY COORDINATION - Lump Sum														
2.5a - Franchised Utility Coordination	2	\$401.76	10	\$1,450.80	16	\$1,830.24	0	\$0.00	0	\$0.00	0	\$0.00	28	\$3,682.80
2.5b - 60% Construction Documents	1	\$200.88	4	\$580.32	8	\$915.12	10	\$837.00	0	\$0.00	0	\$0.00	23	\$2,533.32
2.5c - 90% Construction Documents	0	\$0.00	4	\$580.32	4	\$457.56	10	\$837.00	0	\$0.00	0	\$0.00	18	\$1,874.88
2.5d - Final Construction Documents (Final CDs)	0	\$0.00	2	\$290.16	4	\$457.56	4	\$334.80	0	\$0.00	0	\$0.00	10	\$1,082.52
Subtotals	3	\$602.64	20	\$2,901.60	32	\$3,660.48	24	\$2,008.80	0	\$0.00	0	\$0.00	79	\$9,173.52
Task 2.8 CONSTRUCTION PHASE ENGINEERING SERVICES - Not to Exceed														
2.8a - RPR Construction Observation	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
2.8b - Shop Drawing Review	0	\$0.00	0	\$0.00	8	\$915.12	0	\$0.00	0	\$0.00	2	\$156.24	10	\$1,071.36
2.8c - Contractor's RFIs	0	\$0.00	0	\$0.00	6	\$686.34	4	\$334.80	0	\$0.00	1	\$78.12	11	\$1,099.26
2.8d - As-Built Review	0	\$0.00	0	\$0.00	2	\$228.78	6	\$502.20	0	\$0.00	1	\$78.12	9	\$809.10
2.8e - Final Inspection and Punch list	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	5	\$376.65	1	\$78.12	6	\$454.77
2.8f - Final Certification/Permit Close-outs	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00
Subtotals	0	\$0.00	0	\$0.00	16	\$1,830.24	10	\$837.00	5	\$376.65	5	\$390.60	36	\$3,434.49
Total Salary Costs	3	\$602.64	20	\$2,901.60	48	\$5,490.72	34	\$2,845.80	5	\$376.65	5	\$390.60	115	\$12,608.01



**WORK AUTHORIZATION
FEE PROPOSAL
District 3A STEP, Area 3A-N (the "Project")**

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K&A Salary Cost	Sr. PM-JT		Sr. PM-TD		Engineer II		Engineer III (PE)		RPR Inspector II		Surveyor I		Surveyor III (PSM)		Sr. Utility Coord.		Arborist (ISA)		Landscape Arch (RLA)		CADD Designer		Totals	
	Hr. Rate	\$199.75	Hr. Rate	\$199.75	Hr. Rate	\$108.10	Hr. Rate	\$141.00	Hr. Rate	\$94.00	Hr. Rate	\$70.50	Hr. Rate	\$129.25	Hr. Rate	\$122.20	Hr. Rate	\$94.00	Hr. Rate	\$141.00	Hr. Rate	\$82.25	Hours	Cost
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
Task 2.1 LAND SURVEYING - Lump Sum																								
2.1a - Topographic Survey	0	\$0.00	0	\$0.00	4	\$432.40	4	\$564.00		\$0.00	40	\$2,820.00	10	\$1,292.50	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	58	\$5,108.90
Subtotals	0	\$0.00	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	40	\$2,820.00	10	\$1,292.50	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	58	\$5,108.90
Task 2.2 SUB-SURFACE UTILITY ENGINEER - Lump Sum																								
2.2a - Utility Designations	0	\$0.00	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	16	\$1,955.20	0	\$0.00	0	\$0.00	0	\$0.00	24	\$2,951.60
2.2b - Location Services	0	\$0.00	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	16	\$1,955.20	0	\$0.00	0	\$0.00	0	\$0.00	24	\$2,951.60
Subtotals	0	\$0.00	0	\$0.00	8	\$864.80	8	\$1,128.00	0	\$0.00	0	\$0.00	0	\$0.00	32	\$3,910.40	0	\$0.00	0	\$0.00	0	\$0.00	48	\$5,903.20
Task 2.3 ENGINEERING DESIGN & PERMITTING - Lump Sum																								
2.3a - 60% Construction Documents	24	\$4,794.00	8	\$1,598.00	100	\$10,810.00	54	\$7,614.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	186	\$24,816.00
2.3b - 90% Construction Documents	12	\$2,397.00	4	\$799.00	60	\$6,486.00	24	\$3,384.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	100	\$13,066.00
2.3c - Regulatory Agency Permitting	16	\$3,196.00	0	\$0.00	60	\$6,486.00	40	\$5,640.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	116	\$15,322.00
2.3d - Final Construction Documents (Final CDs)	8	\$1,598.00	4	\$799.00	30	\$3,243.00	20	\$2,820.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	62	\$8,460.00
Subtotals	60	\$11,985.00	16	\$3,196.00	250	\$27,025.00	138	\$19,458.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	464	\$61,664.00
Task 2.4 LANDSCAPE DESIGN - Lump Sum																								
2.4a - 60% Construction Documents	2	\$399.50	2	\$399.50	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	20	\$1,880.00	10	\$1,410.00	20	\$1,645.00	62	\$6,730.40
2.4b - 90% Construction Documents	2	\$399.50	2	\$399.50	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	8	\$752.00	10	\$1,410.00	20	\$1,645.00	50	\$5,602.40		
2.4c - Final Construction Documents (Final CDs)	2	\$399.50	2	\$399.50	8	\$864.80	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	8	\$752.00	18	\$2,538.00	30	\$2,467.50	72	\$7,985.30		
Subtotals	6	\$1,198.50	6	\$1,198.50	16	\$1,729.60	12	\$1,692.00	0	\$0.00	0	\$0.00	0	\$0.00	36	\$3,384.00	38	\$5,358.00	70	\$5,757.50	184	\$20,318.10		
Task 2.5 ELECTRIC DESIGN AND UTILITY COORDINATION - Lump Sum																								
2.5a - Franchised Utility Coordination	2	\$399.50	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	10	\$1,395.90
2.5b - 60% Construction Documents	2	\$399.50	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	10	\$1,395.90
2.5c - 90% Construction Documents	2	\$399.50	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	10	\$1,395.90
2.5d - Final Construction Documents (Final CDs)	2	\$399.50	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	10	\$1,395.90
Subtotals	8	\$1,598.00	0	\$0.00	16	\$1,729.60	16	\$2,256.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	40	\$5,583.60
Task 2.6 CONTRACT PROCUREMENT SERVICES - Lump Sum																								
2.6a - Construction Procurement	8	\$1,598.00	0	\$0.00	16	\$1,729.60	16	\$2,256.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	8	\$1,128.00	16	\$1,316.00	64	\$8,027.60
Subtotals	8	\$1,598.00	0	\$0.00	16	\$1,729.60	16	\$2,256.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	8	\$1,128.00	16	\$1,316.00	64	\$8,027.60
Task 2.7 PUBLIC OUTREACH - Lump Sum																								
2.7a - Public Involvement	4	\$799.00	0	\$0.00	0	\$0.00	4	\$564.00	4	\$376.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	4	\$564.00	0	\$0.00	16	\$2,303.00
2.7b - Public Inquiry Response	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	16	\$1,504.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	16	\$1,504.00
Subtotals	4	\$799.00	0	\$0.00	0	\$0.00	4	\$564.00	20	\$1,880.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	4	\$564.00	0	\$0.00	32	\$3,807.00
Task 2.8 CONSTRUCTION PHASE ENGINEERING SERVICES - Not to Exceed																								
2.8a - RPR Construction Observation	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	960	\$90,240.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	960	\$90,240.00



**WORK AUTHORIZATION
FEE PROPOSAL
District 3A STEP, Area 3A-N (the "Project")**

KA 17-11

K&A Salary Cost	Sr. PM-JT		Sr. PM-TD		Engineer II		Engineer III (PE)		RPR Inspector II		Surveyor I		Surveyor III (PSM)		Sr. Utility Coord.		Arborist (ISA)		Landscape Arch (RLA)		CADD Designer		Totals	
	Hr. Rate	\$199.75	Hr. Rate	\$199.75	Hr. Rate	\$108.10	Hr. Rate	\$141.00	Hr. Rate	\$94.00	Hr. Rate	\$70.50	Hr. Rate	\$129.25	Hr. Rate	\$122.20	Hr. Rate	\$94.00	Hr. Rate	\$141.00	Hr. Rate	\$82.25	Hours	Cost
	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
2.8b - Shop Drawing Review	0	\$0.00	0	\$0.00	16	\$1,729.60	8	\$1,128.00	0	\$0.00	0	\$0	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	24	\$2,857.60
2.8c - Contractor's RFIs	8	\$1,598.00	0	\$0.00	16	\$1,729.60	8	\$1,128.00	0	\$0.00	0	\$0	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	32	\$4,455.60
2.8d - As-Built Review	8	\$1,598.00	0	\$0.00	24	\$2,594.40	8	\$1,128.00	0	\$0.00	0	\$0	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	0	\$0.00	40	\$5,320.40
2.8e - Final Inspection and Punch list	4	\$799.00	0	\$0.00	4	\$432.40	4	\$564.00	0	\$0.00	0	\$0	0	\$0.00	0	\$0.00	0	\$0.00	4	\$564.00	4	\$329.00	20	\$2,688.40
2.8f - Final Certification/Permit Close-outs	8	\$1,598.00	4	\$799.00	32	\$3,459.20	16	\$2,256.00	0	\$0.00	0	\$0	0	\$0.00	0	\$0.00	8	\$752.00	8	\$1,128.00	16	\$1,316.00	92	\$11,308.20
Subtotals	28	\$5,593.00	4	\$799.00	92	\$9,945.20	44	\$6,204.00	960	\$90,240.00	0	\$0	0	\$0.00	0	\$0.00	8	\$752.00	12	\$1,692.00	20	\$1,645.00	1168	\$116,870.20
Total Salary Costs	114	\$22,771.50	26	\$5,193.50	402	\$43,456.20	242	\$34,122.00	980	\$92,120.00	40	\$2,820	10	\$1,292.50	32	\$3,910.40	44	\$4,136.00	62	\$8,742.00	106	\$8,718.50	2058	\$227,282.60
REIMBURSABLES	QTY		RATE		AMOUNT																			
Survey Crew - 3 Man	hrs	32	152.00	4,864.00																				
Subsurface Designation	hrs	24	200.00	4,800.00																				
Vaccum Excavations - Impervious	ea	40	440.00	17,600.00																				
Total				27,264.00																				
																						Total Labor and Reimbursables		\$254,546.60

**EXHIBIT A
SALARY COSTS**

Project No: R1404111P1
 Project Title: Continuing Engineering Services for Water Distribution,
 Wastewater Collection and Storm Water Collection
 Prime Consultant Name: KEITH AND ASSOCIATES, INC.
 Sub Consultant Name: Dickey Consulting Services, Inc.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE
			3.00		(\$/HR)
Project Director	\$72.42		3.00		\$217.26
Project Manager	\$39.33		3.00		\$117.99
Document Control	\$27.95		3.00		\$83.85
Senior Project Coordinator	\$28.61		3.00		\$85.83
Project Coordinator	\$25.00		3.00		\$75.00
Administrative Assistant	\$20.00		3.00		\$60.00

Multiplier of 3.00 is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (137.84)%

FRINGE = HOURLY RATE X FRINGE (39.27)%

PROFIT = (HOURLY RATE + OVERHEAD + FRINGE) X PROFIT (8.4)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + PROFIT) / HOURLY RATE = 3.00

Exhibit A - Salary Costs to:
 Continuing Engineering Services for Water Distribution, Wastewater Collection and Storm Water Collection

DKC

Exhibit "A" Salary Costs

Project No: R1404111P1
 Project Title: Continuing Engineering Services for Water Distribution,
 Wastewater Collection and Storm Water Collection
 Prime Consultant Name: KEITH AND ASSOCIATES, INC.
 Sub Consultant Name: **Metco Services Southeast, LLC**

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
			2.79		
General Manager	\$72.00		2.79		\$200.88
Associate	\$58.00		2.79		\$161.82
Senior Project Engineer	\$52.00		2.79		\$145.08
Engineer	\$41.00		2.79		\$114.39
Designer/ Drafter	\$30.00		2.79		\$83.70
Technician	\$27.00		2.79		\$75.33
Senior Administrative Assistant	\$28.00		2.79		\$78.12

Multiplier of **2.79** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (105.00)%

FRINGE = HOURLY RATE X FRINGE (49.00)%

PROFIT = (HOURLY RATE + OVERHEAD + FRINGE) X PROFIT (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + PROFIT) / HOURLY RATE = 2.79

**EXHIBIT A
SALARY COSTS**

Project No: R1404111P1
 Project Title: Continuing Engineering Services for Water Distribution,
 Wastewater Collection and Storm Water Collection
 Prime Consultant Name: KEITH AND ASSOCIATES, INC.

TITLE	MAXIMUM HOURLY RATE (\$/HR)	X	MULTIPLIER	=	MAXIMUM BILLING RATE (\$/HR)
			2.35		
Principal Project Manager	\$100.00		2.35		\$235.00
Senior Project Manager	\$85.00		2.35		\$199.75
Project Manager	\$66.00		2.35		\$155.10
Engineer I	\$35.00		2.35		\$82.25
Engineer II	\$46.00		2.35		\$108.10
Engineer III (PE)	\$60.00		2.35		\$141.00
Surveyor I	\$30.00		2.35		\$70.50
Surveyor II	\$45.00		2.35		\$105.75
Surveyor III (PSM)	\$55.00		2.35		\$129.25
Planner I	\$35.00		2.35		\$82.25
Planner II (AICP)	\$60.00		2.35		\$141.00
Landscape Architect (RLA)	\$60.00		2.35		\$141.00
Arborist (ISA)	\$40.00		2.35		\$94.00
CADD Designer	\$35.00		2.35		\$82.25
BIM/CIM Manager	\$70.00		2.35		\$164.50
Model Specialist	\$40.00		2.35		\$94.00
GIS Specialist I	\$40.00		2.35		\$94.00
GIS Specialist II	\$55.00		2.35		\$129.25
Construction Manager	\$65.00		2.35		\$152.75
RPR Inspector I	\$30.00		2.35		\$70.50
RPR Inspector II	\$40.00		2.35		\$94.00
RPR Inspector III	\$50.00		2.35		\$117.50
Administrative I	\$25.00		2.35		\$58.75
Administrative II	\$35.00		2.35		\$82.25
Subsurface Utility Engineer	\$65.00		2.35		\$152.75
Senior Utility Coordinator	\$52.00		2.35		\$122.20
Utility Coordinator	\$35.00		2.35		\$82.25
Utility Technician	\$28.00		2.35		\$65.80

Multiplier of **2.35** is calculated as follows:

OVERHEAD = HOURLY RATE X OVERHEAD (82.32)%

FRINGE = HOURLY RATE X FRINGE (30.75)%

PROFIT = (HOURLY RATE + OVERHEAD + FRINGE) X PROFIT (10.00)%

MULTIPLIER = (HOURLY RATE + OVERHEAD + FRINGE + PROFIT) / HOURLY RATE = **2.35**

Exhibit A - Salary Costs to:
 Continuing Engineering Services for Water Distribution, Wastewater Collection and Storm Water Collection

DK

**EXHIBIT A-1
REIMBURSABLE ITEMS**

Project No: R1404111P1
Project Title: Continuing Engineering Services for Water Distribution,
Wastewater Collection and Storm Water Collection
Prime Consultant Name: KEITH AND ASSOCIATES, INC.

ITEM	UNIT	UNIT PRICE
Survey Crew - 2 Person	Per Crew (\$/HR)	\$106.00
Survey Crew - 3 Person	Per Crew (\$/HR)	\$152.00
Survey Crew - 4 Person	Per Crew (\$/HR)	\$196.00
Survey Crew - Scanner	Per Crew (\$/HR)	\$300.00
Subsurface Designation	Per Crew (\$/HR)	\$200.00
Vacuum Excavations Pervious	Per Hole / Each	\$290.00
Vacuum Excavations Impervious	Per Hole / Each	\$440.00

Exhibit A-1 Reimbursable Items to:
Continuing Engineering Services for Water Distribution, Wastewater Collection and Storm Water Collection

DK