CONTRACT

	THIS CONTRACT ("Contract") is made and entered into this day of,
20	by and between the City of Orlando, Florida, a Florida municipal corporation (CITY) and
Tetra	Tech, Inc., a Delaware corporation doing business locally at 201 East Pine Street, Suite
1000,	Orlando, Florida 32801 (ENGINEER).

WHEREAS, the CITY intends to use the ENGINEER's professional engineering services as further described below, for the project to be known as the Wastewater Force Main System Evaluation Project (Project); and

WHEREAS, the CITY and the ENGINEER now wish to enter into this Contract for the ENGINEER's services for the Project; and

WHEREAS, the ENGINEER is willing and able to perform the engineering services for the CITY on the terms and conditions set forth below:

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and given one party to the other, the receipt and sufficiency of which is hereby acknowledged, the parties hereby agree as follows:

SECTION 1 SCOPE OF SERVICES

The scope of services (Basic Services) has been agreed to by the parties, and is attached hereto and incorporated herein, by reference, as Exhibit I. The ENGINEER may also provide additional services (Additional Services) for the CITY in all phases of the Project to which this Contract applies as hereinafter provided (Basic Services and Additional Services hereinafter collectively referred to as Services). ENGINEER's Services shall include serving as the CITY's professional engineering representative for the Project, providing professional consultation and advice, and by itself or with its Subconsultants. The ENGINEER shall perform any and all Project Services in a timely, efficient and cost effective manner and in accordance with the generally accepted standards of the engineering profession.

SECTION 2 FEE

The fee (Fee) for the Basic Services has been agreed to by the parties, and is attached hereto and incorporated herein, by reference, as Exhibit II. For the Basic Services rendered the CITY shall pay the ENGINEER a not to exceed Fee of \$521,778.21. The ENGINEER will invoice the CITY monthly, based upon the Services performed at the time of submission of the invoice, billed in accordance with the Fees set forth herein.

SECTION 3 TERM

The term of this Contract shall be completed by the end of business (5:00 p.m.) on March 31, 2018, as more fully set forth on Exhibit III attached hereto and incorporated herein by this reference. It is also agreed that the CITY shall have an option for extension of this Contract, as necessary to complete the present scope of Services or to provide Additional Services.

SECTION 4 CITY'S RESPONSIBILITIES

4.1. Requirements for the Project

The CITY shall provide all criteria and full information as to the CITY's requirements for the Project in a timely manner, including design objectives and constraints; space, capacity and performance requirements; flexibility and expandability matters; and any budgetary limitations; and furnish copies of all design and construction standards which the CITY will require to be included in the drawings and specifications.

4.2. Information Pertinent to the Project

The CITY shall assist the ENGINEER by placing at the ENGINEER's disposal all available information pertinent to the Project (including previous reports and any other data relative to design or construction of the Project), and the CITY shall advise the ENGINEER as to what information, if any, the CITY believes to be accurate. The ENGINEER is ultimately responsible for satisfying itself as to the accuracy of any information provided and, furthermore, the ENGINEER is responsible for bringing to the CITY's attention, for the CITY's resolution, any material inconsistencies or errors in such information which come to the ENGINEER's attention. If the CITY requires the ENGINEER's assistance in resolving any error or inconsistency, such Services may be provided by mutual agreement of the parties.

4.3. Access to Property.

The CITY shall arrange for access to and make provisions for the ENGINEER to enter upon public and private property as required for the ENGINEER to perform its Services.

4.4. City Project Manager

The CITY's Director of Public Works or his designee shall appoint a Project Manager for this Project. Except as otherwise expressly provided in this Contract, the Project Manager shall issue any and all written authorizations to the ENGINEER that the Project may require, or that may otherwise be defined or referred to in this Contract. The Project Manager shall also, 1) act as the CITY's representative with respect to the Services rendered hereunder; 2) transmit instructions to and receive information from the ENGINEER; 3) communicate the CITY's policies and decisions to the ENGINEER regarding the Services; 4) determine, initially, whether the ENGINEER is fulfilling its duties, responsibilities, and obligations hereunder; and 5) determine, initially, the

merits of any allegation by the ENGINEER respecting the CITY's non-performance of any Project obligation. All determinations made by the Project Manager, as outlined above, shall be final and binding upon the ENGINEER in regard to further administrative review, but shall not be binding upon the ENGINEER in regard to general appearances before or appeals to the CITY, or appearances before or appeals to a court of competent jurisdiction.

4.5. Notice and Extension of Term

The CITY shall give prompt written notice to the ENGINEER whenever the CITY observes or otherwise becomes aware of any development that affects the scope or timing of the ENGINEER's Services. If the ENGINEER has been delayed in completing its Services through no fault or negligence of its own, and, as a result, will be unable to complete performance fully and satisfactorily under the provisions of this Contract, then, in the Project Manager's sole and reasonable discretion, and upon the submission to the Project Manager of evidence of the causes of the delay, the ENGINEER shall be granted an extension of its Project schedule equal to the period the ENGINEER was actually and necessarily delayed.

4.6. Additional Services

The CITY shall furnish, or direct the ENGINEER to provide necessary Additional Services or other services as required, or as mutually agreed between the parties.

SECTION 5 PAYMENTS TO ENGINEER

5.1. General

- 5.1.1. The CITY will pay the ENGINEER for the Services as detailed in each of the ENGINEER's narrative monthly invoices (Invoices), and in accordance with the schedule of Fees (including reimbursable expenses) as further defined below in Exhibit II. The ENGINEER must submit with each Invoice a detailed description of the Services for which payment is sought, an updated CD-ROM of the design files and an updated Project schedule in detail and format acceptable to CITY.
- 5.1.2. The ENGINEER fully acknowledges and agrees that if, at any time, it performs Services on a Project contemplated by the parties, such Services which have not been, a) fully negotiated, reduced to writing, and formally executed by both the CITY and ENGINEER; b) or reduced to writing by the CITY and signed by the Project Manager; then the ENGINEER shall perform such Service without liability to the CITY, and at the ENGINEER's own risk.

5.2. Reimbursable Expenses

"Reimbursable Expenses" means the actual, necessary and reasonable expenses incurred directly or indirectly in connection with the Project for: transportation and subsistence incidental thereto for existing facility and Subconsultant visitation; toll telephone calls and telegrams; reproduction of reports, drawings and specifications, and similar Project-related items, all in accordance with the CITY's written procurement policies and directives.

5.3. Payments by Owner

- 5.3.1. All Services' payments (Payment) shall be made by the CITY to the ENGINEER within thirty (30) calendar days of the CITY's receipt of a proper Invoice, detailed description of Services performed updated design files in CD-ROM format and updated Project schedule (Payment Period) unless, within the Payment Period, the CITY, 1) notifies the ENGINEER of an objection to the Payment amount, and 2) either provides the ENGINEER with a determination of the proper Payment, or 3) requests further information from the ENGINEER so that a proper Payment can be derived and agreed upon by the parties.
- 5.3.2. The CITY's objection to the Payment amount shall be accompanied by the CITY's remittance of any undisputed portion of the Payment. If the objection is resolved in favor of the ENGINEER, then the CITY shall pay the ENGINEER the amount so determined, minus any Payment amount previously paid to the ENGINEER with respect to the objection, plus interest at one percent (1%) simple interest, per month on the unpaid amount. If it is determined that the CITY has overpaid the ENGINEER, then the ENGINEER shall, within thirty (30) calendar days, refund to the CITY the overpayment amount, and interest, at one percent (1%) simple interest, per month, and the ENGINEER shall not be held to be in breach of this Contract thereby.

5.4. Living Wage

The ENGINEER, as well as its Subconsultants (first tier only), shall pay to all of their employees providing services pursuant to a contract with the CITY, a living wage for the time spent providing services to the CITY. (This provision does not include general administrative personnel unless they are assigned to a CITY project.) "Living wage" means compensation for employment of not less than \$8.50 per hour for straight time, exclusive of FICA, unemployment taxes, and workers compensation insurance and employee benefits. Necessary payroll documentation shall be provided to confirm compliance with this provision or the ENGINEER shall allow the CITY to audit (at ENGINEER's place of business) its payroll records to determine if compliance has been achieved. Failure to comply with the provision may result in termination of the contract and/or preclusion from future CITY contracts at the sole option of the CITY. This provision shall apply to all bid and proposal awards for services which involve CITY expenditures that exceed \$100,000.00 per year.

5.5. Records

The ENGINEER also agrees to maintain, and to require each Subconsultant to maintain, complete and accurate books and records (Books) in accordance with sound accounting principles and standards, and relating to all Services, and the related costs and expenditures to the CITY that have been contracted for and paid during the life of this Contract. The Books shall identify the Services rendered during each month of the Contract, the date that each Project expense was incurred, and whether the expense was Service or reimbursable-related. Unless a longer time is required by any federal, state, or other governmental law, regulation, policy, or contractual or grant requirement or provision, ENGINEER and its Subconsultants shall retain all records related to the Contract for five (5) years after receipt of final payment under the Contract and all other pending matters related to the Contract are closed. If any litigation, claim, negotiation, audit or other action involving the

records has been started before the expiration of the 5-year period, the records must be retained until completion of the action and resolution of all issues which arise from it, or until the end of the regular 5-year period, whichever is later. To the extent applicable, Contractor shall comply with Florida public records laws, including Sections 119.0701(2) (b) 1 through 4 of the Florida Statutes. IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF THE PUBLIC CLERK. DEPUTY CITY RECORDS ATC/O RECORDS@CITYOFORLANDO.NET, TELEPHONE NUMBER (407) 246-3538, 400 S. ORANGE AVE., ORLANDO, FL 32801.

5.6. Late Payment

If the CITY fails to make any payment due the ENGINEER for Services and expenses within forty-five (45) days after the beginning of the Payment Period, the ENGINEER may, after giving seven (7) calendar days' prior written notice to the CITY, suspend Services under this Contract until the ENGINEER has been paid, in full, amounts due it for Services and expenses. Any portion of an Invoice that is objected to or questioned by the CITY in accordance with Subsection 5.3 shall not be considered due for the purposes of this Subsection.

5.7. Overtime

Overtime will be paid by the CITY only if authorized in advance by the CITY's Project Manager for work to be performed to meet a particular deadline for which there is insufficient time to accomplish the task during normal hours, through no fault of the ENGINEER.

5.8. Scope, Cost and Fee Adjustment

- 5.8.1. General. The CITY may at any time notify the ENGINEER of requested changes to the scope of Services as set forth in this Contract. The notification shall state the scope modification and an adjustment of the Fee specified in Exhibit II to reflect such modification. The Fee adjustment due to modification in the scope of Services may be calculated utilizing the same method of compensation applicable to the Contract prior to the scope modification. The ENGINEER and the CITY understand that, unless the Fee adjustment is within a previously approved budget, any change to the scope of Services must be approved or authorized by the CITY. If the Fee adjustment is within a previously approved budget to the scope of Services for the overall Project, the change may be approved in writing by the CITY's Project Manager.
- 5.8.2. Scope Reduction. The Project Manager shall have the right to reduce (or eliminate, in whole or in part) the scope of the Project at any time and for any reason, upon written notice to the ENGINEER specifying the nature and extent of the reduction. In such event the ENGINEER shall be fully compensated for the Services already performed. The ENGINEER shall also be compensated for the Services remaining to be done and not reduced or eliminated on the Project,

and payment to the ENGINEER for revising the Project documents shall be made pursuant to an amendment to this Contract.

5.8.3. Scope Suspension. The Project Manager may, at any time and for any reason, direct the ENGINEER to suspend work (in whole or in part) under this Contract. Such direction shall be in writing, and shall specify the period during which Services shall be stopped. The ENGINEER shall resume its Services upon the date specified, or upon such other date as the Project Manager may thereafter specify in writing. The period during which the Services are stopped by the CITY shall be added to the term; provided, however, that any work stoppage not approved or caused by the action or inaction of the CITY shall not give rise to any claim against the CITY by the ENGINEER. The CITY agrees to compensate the ENGINEER for his reasonable and provable costs, including demobilization, remobilization, and Subconsultant expenses incurred attributable to any delay approved or caused by the actions or inaction of the CITY.

5.9. Termination

Upon the termination of this Contract, the ENGINEER shall prepare a final and complete Payment Statement for all Services and Fees incurred since the posting of the last Payment Statement, and through the date of termination. The final Payment Statement shall be subject to all of the provisions described in this Section 5.

5.10. Final Payment

The acceptance by the ENGINEER, its successors, or assigns, of any final Payment due upon the termination of this Contract, shall constitute a full and complete release of the CITY from any and all claims or demands regarding further compensation for authorized Services rendered prior to such final Payment that the ENGINEER, its successors, or assigns have or may have against the CITY under the provisions of this Contract, unless otherwise previously and properly filed pursuant to the provisions of this Contract, or in a court of competent jurisdiction. This Subsection does not affect any other portion of this Contract that extends obligations of the parties beyond final Payment.

5.11 Consultant's Estimate of Probable Construction Cost.

5.11.1 General.

If the CITY requests that a Project construction cost estimate be given by the ENGINEER as part of preliminary or final design Services, then the ENGINEER shall develop an ENGINEER's estimate of probable construction cost at such points in the design phase as defined herein or in the Scope of Services. The construction cost of the Project (Construction Cost Estimate) means the estimated total cost to the CITY by contractors for the construction of those portions of the entire Project designed and specified by the ENGINEER. The Construction Cost Estimate shall only include construction costs from contractors for construction work and materials and will not include other non construction costs such as the ENGINEER's compensation and expenses, the cost of land rights-of-way, or compensation for or damages to properties, nor will it include the CITY's legal, accounting, insurance-counseling, or auditing services, or interest and financing charges incurred in connection with the Project, or the cost of other non-construction services to

be provided by others to the CITY. Since the ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractors' methods of determining prices, or over competitive bidding or market conditions, the ENGINEER's opinions of Construction Cost Estimate provided for hereinabove are to be made on the basis of the ENGINEER's experience and qualifications, and represent the ENGINEER's best judgment as an experienced and qualified professional which is familiar with the construction industry; but the ENGINEER cannot and does not guarantee that proposals, bids or actual Construction Costs will not vary from opinions of probable cost prepared by the ENGINEER.

5.11.2 Construction Cost.

- 5.11.2.1 The acceptance by the CITY at any time during the provision of Services of a revised opinion of Construction Cost Estimate in excess of the then established cost limit will constitute a corresponding revision in the Construction Cost Estimate limit to the extent indicated in such revised opinion.
- 5.11.2.2 If a Construction Cost Estimate is established, the ENGINEER will be permitted, with review and approval by the CITY, to determine what types of materials, equipment and component systems are to be included in the drawings and specifications and to make reasonable adjustments in the general scope, extent and character of the Project to bring it within the cost estimate.
- 5.11.2.3 If the lowest bona fide proposal or bid exceeds the established Construction Cost Estimate by 15%, but less than 25%, the CITY may, (1) give written approval to increase such Construction Cost Estimate, (2) authorize negotiating or rebidding of the Project within a reasonable time, or (3) cooperate in revising the Project's general scope, extent or character to the extent consistent with the Project's requirements and with sound professional practices. In the case of (3), the ENGINEER shall modify the drawings and specifications as necessary to bring the construction cost within the Construction Cost Estimate. In lieu of other compensation for Services in making such modifications, the CITY shall pay the ENGINEER's cost of such Services, all overhead expenses reasonably related thereto, and Reimbursable Expenses, but without profit to the ENGINEER on account of such Services; and the ENGINEER's providing these modification Services shall be the extent of the ENGINEER's cost-estimating liability as memorialized in this Subsection.
- 5.11.2.4 If the lowest bona fide proposal or bid exceeds the established Construction Cost Estimate by 25% or more, the CITY may, (1) give written approval to increase the Construction Cost Estimate, (2) authorize negotiations or rebidding of the Project within a reasonable time, or (3) cooperate in revising the Project's general scope, extent or character to the extent consistent with the Project's requirements and with sound professional practices. In the case of (3), the ENGINEER shall modify the drawings and specifications as necessary to bring the construction cost within the Construction Cost Estimate at no cost to the CITY.

SECTION 6 SETTLEMENT OF CLAIMS The location for settlement of any and all claims, controversies, or disputes, arising out of or relating to any part of this Contract, or any breach hereof, as well as the venue for any litigation between the parties, shall be Orange County, Florida.

SECTION 7 TERMINATION

7.1. General

This Contract may be terminated by the mutual agreement of the parties or as may otherwise be provided in Section 7.2 below. In the event of the termination of this Contract, any liability of one party to the other arising out of any Services rendered, or any act or event occurring prior to the termination, shall not be terminated or released.

7.2. Failure to Perform or for the Convenience of the CITY

In addition to any other termination provisions that may be provided in this Contract, the CITY may terminate this Contract in whole or in part if the ENGINEER substantially fails to perform any obligation under this Contract and does not remedy the failure within twenty (20) calendar days after receipt by the ENGINEER of written demand from the CITY to do so, unless, however, the nature of the failure is such that it cannot, in the exercise of reasonable diligence, be remedied within twenty (20) calendar days, in which case the ENGINEER shall have such time as is reasonably necessary to remedy the failure, provided the ENGINEER promptly takes and diligently pursues such actions as are necessary therefor. The CITY may also, at its convenience, terminate this Contract upon twenty (20) calendar days notice to the ENGINEER. ENGINEER may terminate this Contract if the CITY substantially fails to perform any obligation under this Contract, and does not remedy the failure within twenty (20) calendar days after receipt by the CITY of written demand from the ENGINEER to do so, unless, however, the nature of the failure is such that it cannot, in the exercise of reasonable diligence, be remedied within twenty (20) calendar days, in which case the CITY shall have such time as is reasonably necessary to remedy the failure, provided it promptly takes and diligently pursues such actions as are necessary therefor.

7.3. Payment Upon Termination

Upon the termination of this Contract, the CITY shall pay ENGINEER for Services actually rendered and contracted for under this Contract, and those reasonable and provable Fees actually incurred by ENGINEER for Services prior to the effective date of termination. Such payments, however, shall be, 1) reduced by an amount equal to any additional costs incurred by the CITY as a result of the termination if the Contract is terminated for cause by the CITY or 2) increased by an amount equal to the reasonable and provable expenses incurred by ENGINEER (lost profit and overhead shall not be included) to conclude its Services that are directly attributable to the termination, and for which ENGINEER is not otherwise compensated if the Contract is terminated for the convenience of the CITY.

7.4. Delivery of Materials Upon Termination

In the event of termination of this Contract by the CITY, prior to the ENGINEER's satisfactory completion of all the Services described or alluded to herein, the ENGINEER shall promptly furnish the CITY, at no additional cost or expense, with one (1) copy of the following items (Documents), any or all of which may have been produced prior to and including the date of termination: data, specifications, calculations, estimates, plans, drawings, construction documents, photographs, summaries, reports, memoranda, CD-ROM design files, record drawings; and any and all other documents, instruments, information, and materials (whether or not completed) generated or prepared by the ENGINEER, or by any Subconsultant, in rendering the Services described herein, and not previously furnished to the CITY by the ENGINEER pursuant to this Contract. The Documents shall be the sole property of the CITY, and the CITY shall be vested with all rights provided therein of whatever kind and however created. The ENGINEER shall also require that all such Subconsultants agree in writing to be bound by the provisions of this Subsection.

SECTION 8 MATERIALS, REUSE OF DOCUMENTS, AND CONFIDENTIALITY

8.1 General

One reproducible copy of all data, inspectors' reports, job files, test reports, copies of shop drawings, construction photographs, cost control and scheduling data, computer printouts, Contractors' submittals, summaries, memoranda, CD-ROM design files as modified by as-built information; and other documents, instruments, information, and materials (whether or not completed) generated or prepared by the ENGINEER (Written Work) especially for the Services rendered hereunder; shall be supplied to the CITY (at the CITY's request during the term of the Contract, upon termination, and with the ENGINEER's final payment Invoice) by the ENGINEER, and at the CITY's cost. The final work product of all such materials (e.g., signed and sealed plans and specifications which record design and/or as-built conditions in written and CD-ROM formats; studies; analyses; and so forth), along with all formal ENGINEER/CITY correspondence concerning the Project (e.g. letters, tapes, memoranda, etc.) shall be the sole property of the CITY. All materials described above shall be retained by the ENGINEER for the longer of the period set forth in Section 5.5 above or the statutory period for claims (§95.11, Fla. Stat., as it may be from time-to-time amended). The Written Work shall be a "work made for hire" and the CITY shall be vested with all rights of ownership of the Written Work whatever kind and however created that may be in existence thereto.

8.2 Reuse of Documents

Any use by the CITY of such materials described in Subsection 8.1 in connection with a project other than that for which such materials were prepared, without the prior written consent of the ENGINEER, shall be at the CITY's sole risk, and the ENGINEER shall have no responsibility or liability related thereto, except in those instances which the ENGINEER is re-employed by the CITY for that other project.

SECTION 9

NOTICES

All notices denominated as such by this Contract, or the City Code, or Florida law, required to be given to the ENGINEER hereunder shall be in writing, and shall be given by hand-delivery or United States mail, postage prepaid, addressed to:

ATTN: Gary ReVoir II, P.E. Tetra Tech, Inc. 201 East Pine Street, Suite 1000 Orlando, Florida 32801

All notices required to be given to the CITY shall be in writing, and shall be given by hand-delivery or United States mail, postage prepaid, to the Director <u>and</u> the City's Chief Procurement Officer, separately, at:

Richard Howard, P.E. Public Works Director City of Orlando City Hall, 8th Floor 400 South Orange Avenue Orlando, Florida, 32801

With a copy to:

David Billingsley, CPSM, C.P.M. Chief Procurement Officer City of Orlando City Hall, 4th Floor 400 South Orange Avenue Orlando, Florida, 32801

Either party may change its address, for the purposes of this Subsection, by written notice to the other party given in accordance with the provisions of this Subsection.

SECTION 10 CONFLICTS OF INTEREST

The ENGINEER represents and warrants unto the CITY that no officer, employee, or agent of the CITY has any interest, either directly or indirectly, in the business of the ENGINEER to be conducted hereunder. The ENGINEER further represents and warrants to the CITY that it has not employed (or retained for a commission, percentage, brokerage, contingent fee, or other consideration) any company or person, other than a bona fide employee working solely for the ENGINEER, to solicit or secure this Contract, and that it has not paid, or agreed to pay, or given or offered any fee, contribution, donation, commission, percentage, brokerage, consideration, gift, loan, or anything of value (Value) to any person, company, corporation, individual, organization, or firm, other than bona fide Personnel working solely for the ENGINEER, in connection with, consideration for, or contingent upon, or resulting from the award or making of this Contract.

Further, the ENGINEER also acknowledges that it has not agreed, as an expressed or implied condition for obtaining this Contract, to employ or retain the services of any person, company, individual or firm in connection with carrying out this Contract. It is absolutely understood and agreed by the ENGINEER that, for the breach or violation of this Subsection, the CITY shall have the right to terminate this Contract without liability and at its sole discretion, and to deduct from the contract price, or to otherwise recover, the full amount of any Value paid by the ENGINEER.

SECTION 11 WAIVER OF CLAIM

The ENGINEER and the CITY hereby mutually waive any claim against each other, their elected or appointed officials, agents, and employees, for any loss of anticipated profits caused by any suit or proceedings brought by any third party directly or indirectly attacking the validity of this Contract or any part thereof, or by any judgment or award in any suit or proceeding declaring this Contract null, void, or voidable, or delaying the same, or any part thereof, from being carried out.

SECTION 12 CITY REPRESENTATIVE

The CITY's Director of Public Works or any of his authorized designee(s) for the Project, including but not limited to the Project Manager, may act as the CITY's agent with respect to the Services to be rendered by the ENGINEER hereunder, and, except as expressly set forth below, shall have full authority to take all actions on behalf of the CITY related to this Contract, including but not limited to transmitting all instructions, receiving information, notifying ENGINEER of any breaches of this Contract or improperly performed work, and communicating the CITY's policies and decisions to the ENGINEER. The CITY's Director of Public Works authority to act shall be in addition to any authority granted to specific CITY employees in other sections of this Contract. Any action that may be taken by the CITY's Director of Public Works or his designee related to this Contract, may also be taken by the CITY's Chief Procurement Officer or his designee. Notwithstanding the preceding, any final action by the CITY to terminate this Contract in whole, whether for cause or convenience, may only be taken by the CITY's Chief Procurement Officer or his designee; provided, however, that nothing herein shall be deemed to preclude the Director of Public Works or his designee from suspending work or terminating work, in whole or in part, under a particular Services Authorization.

SECTION 13 ENGINEER'S PROJECT TEAM

The ENGINEER shall assign members of its staff as the ENGINEER's Principal-in-Charge, Project Manager and Key Personnel (Project Team), who shall collectively devote such working time and attention as may be reasonably required to ensure that the Services are properly, economically, and efficiently performed. The ENGINEER shall indicate to the CITY the authority and powers that the ENGINEER's Project Team shall possess during the life of the Project. The ENGINEER agrees that the CITY shall have the right to approve the ENGINEER's Project Team, and that the ENGINEER shall not change any member of its Key Personnel without written notice to the CITY. Furthermore, if any member of the ENGINEER's Project Team is removed from his

Project duties, or his employment is otherwise terminated or curtailed by the ENGINEER, or if the ENGINEER's Project Team member terminates his employment with the ENGINEER, then the ENGINEER shall promptly replace its Project Team member with a person of comparable experience and expertise, who shall also be subject to the CITY's approval. The CITY covenants that its approval shall not be unreasonably withheld.

SECTION 14 INDEMNIFICATION AND INSURANCE

14.1. Indemnification

14.1.1 ENGINEER's Indemnification of CITY. The ENGINEER shall indemnify and hold harmless the CITY, employees and officers, from liabilities, damages, losses and costs including, but not limited to, reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the ENGINEER and other persons employed or utilized by the ENGINEER in the performance of the Contract. This provision shall survive the expiration or termination of the Contract.

14.2. Insurance

14.2.1 General.

ENGINEER and its Subconsultants of all tiers will be required at their own expense to maintain in effect at all times during the performance of Services insurance coverages with limits not less than those set forth below with insurers and under forms of policies satisfactory to the CITY. It shall be the responsibility of the ENGINEER to maintain the required insurance coverages and to assure that Subconsultants maintain required insurance coverages at all times. Failure of ENGINEER to maintain adequate coverage shall not relieve it of any contractual responsibility or obligation. The requirements specified herein as to types, limits, and CITY's approval of insurance coverage to be maintained by ENGINEER and its Subconsultants are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the ENGINEER and its Subconsultants under a contract. Any insurance carried by the CITY that may be applicable shall be deemed to be excess insurance and the ENGINEER's insurance primary for all purposes despite any conflicting provision in the ENGINEER's policies to the contrary. Failure of the ENGINEER or its Subconsultants to maintain insurance as specified herein or to otherwise comply with the provisions of this Section 14.2 shall be grounds for termination of this Contract as specified in Section 7.

14.2.2 <u>Certificates of Insurance</u>.

Prior to commencing work, and as a condition precedent to the ENGINEER's and its Subconsultants' initiation of performance, the ENGINEER and its Subconsultants shall furnish the CITY with certificates of insurance as evidence that policies providing the required coverage and limits of insurance are in full force and effect. The certificates shall provide that any company issuing an insurance policy for the work under a contract shall provide not less than thirty (30) days advance notice in writing to the CITY prior to cancellation, termination, or material change of any policy of insurance (except for notice of non-payment of premium for which not less than

ten (10) days advance notice in writing shall be required). In addition, the ENGINEER shall immediately provide written notice to the CITY upon receipt of notice of cancellation of an insurance policy or a decision to terminate an insurance policy. All certificates of insurance shall clearly state that all applicable requirements have been satisfied, including certification that the policies are of the "occurrence" type (except the Errors and Omissions policy).

14.2.3. Additional Insureds.

All insurance coverages furnished except Professional Liability, Workers' Compensation and Employers' Liability shall include the CITY and its officers, elected officials, and employees as additional insureds with respect to the activities of the ENGINEER and its Subconsultants. The CITY shall not by reason of their inclusion under these policies incur liability to the insurance carrier for payment of premium for these policies.

14.2.4 Waiver of Subrogation.

The ENGINEER and its subconsulants shall require their insurance carriers, with respect to all insurance policies except the Errors and Omissions policy, to waive all rights of subrogation against the CITY, its officers, elected officials, agents and employees and against other contractors and subcontractors.

14.2.5 Types of Coverage to be Provided.

The ENGINEER (and its Subconsultants to the same extent and on the same terms as set forth below for ENGINEER) shall maintain the following coverages and furnish the certificate(s) of insurance on the policies and renewals thereof which indicate that insurance coverage has been obtained meeting the requirements of the contract:

14.2.5.1 Workers' Compensation and Employer's Liability.

This insurance shall protect the ENGINEER against all claims under applicable state workmen's compensation laws. The ENGINEER shall also be protected against claims for injury, disease, or death of employees that, for any reason, may not fall within the provisions of a workmen's compensation law. This policy shall include an "all states" or "other states" endorsement. Exemption certificates shall be accepted if valid during the term of the contract, but only for those eligible corporate officers pursuant to Chapter 440 of the Florida Statutes. Proof of workers' compensation coverage must still be provided for all employees, sub-contractors not eligible for exemption. The liability limits shall not be less than:

Workers' compensation: Statutory

Employer's Liability: \$100,000 each occurrence

14.2.5.2 Comprehensive Automobile Liability.

This insurance shall be written in comprehensive form and shall protect the ENGINEER and the additional insureds against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicle, and shall cover operation on or off the site of all motor vehicles licensed for highway use, whether they are owned, non-owned, or hired. The liability limits shall not be less than:

Bodily injury and \$1,000,000 combined single

Property damage:

limit each occurrence

14.2.5.3 Commercial General Liability.

This insurance shall be an "occurrence" type policy (excluding automobile liability) written in comprehensive form and shall protect the ENGINEER and the additional insureds against all claims arising from bodily injury, sickness, disease, or death of any person or damage to property of the CITY or others arising out of any act or omission of the ENGINEER or its agents, employees, or subcontractors. This policy shall also include protection against claims insured by usual bodily injury liability coverage, a "contractual liability" endorsement to insure the contractual liability assumed by the ENGINEER under this Contract with the City, and "completed Operations and Products Liability" coverage (to remain in force for 2 years after final payment and subsequent to project completion). If the ENGINEER's work, or work under its direction, requires blasting, explosive conditions, or underground operations, the comprehensive general liability coverage shall contain no exclusion relative to blasting, explosion, collapse of structures, or damage to underground property. The liability limits shall not be less than:

Bodily injury and

\$1,000,000 combined single

Property damage:

limit each occurrence

14.2.5.4 ENGINEER's Errors and Omissions Policy.

The ENGINEER shall also purchase, maintain, and keep in full force, effect, and good standing, a professional liability/errors and omissions insurance policy having minimum limits of \$1,000,000, with a maximum deductible of \$100,000, or the ENGINEER shall provide the CITY with policy coverage wherein the insurer agrees to pay claims (up to the limits of coverage), and will thereafter recover the deductible from the insured-ENGINEER. The errors and omissions policy shall be in effect and shall insure the ENGINEER's performance on CITY projects.

14.2.6 City's Right to Inspect Policies.

The ENGINEER shall, upon thirty (30) days' written request from the CITY, deliver copies to the CITY, or make copies available for the CITY's inspection in Orange County, Florida, of any or all insurance policies that are required in this Contract. If the ENGINEER fails to deliver or make such copies available to the CITY; or, if the ENGINEER fails to obtain new insurance or have a previous insurance policy reinstated or renewed; or, if the ENGINEER fails in any other regard to obtain coverage sufficient to meet the terms and conditions of this Contract; then the CITY may, at its sole option, terminate this Contract for cause pursuant to the terms and conditions of Section 7.

SECTION 15 MISCELLANEOUS PROVISIONS

15.1. Local, State and Federal Obligations

15.1.1. Discrimination. The ENGINEER, for itself, its successors-in-interest, and its assigns, and as a part of the consideration hereof, does hereby covenant and agree that, 1) in the furnishing of Services to the CITY hereunder, no person shall be excluded from participation in, denied the benefits of, or otherwise subjected to discrimination in regard to this Contract on the grounds of

such person's race, color, creed, national origin, disability, religion, sex, sexual orientation, gender identity, or marital status; and 2) the ENGINEER shall comply with all existing requirements concerning discrimination imposed by any and all applicable local, state, and federal rules, regulations, or guidelines, and as such rules, regulations, or guidelines may be from time to time amended. In the event of a breach of any of the nondiscrimination covenants described in this Subsection, the CITY shall have the right to terminate this Contract, for cause without liability, as described above.

- 15.1.2. Compliance with Law. The ENGINEER and its employees shall promptly observe, comply with, and execute the provision of any and all present and future federal, state, and local laws, rules, regulations, requirements, ordinances, orders, mandatory guidelines, and mandatory directions, which may pertain or apply to the Services that may be rendered hereto, or to the wages paid by the ENGINEER to its employees. All design plans and specifications prepared by the ENGINEER as part of its Services shall comply with the federal Americans With Disabilities Act, Florida Americans With Disabilities Accessibility Implementation Act, and regulations and guidelines applicable thereto, all as may be from time to time amended. The ENGINEER shall also require, by contract, that all Subconsultants shall comply with the provisions of this Subsection. The CITY shall also reimburse the ENGINEER for all reasonable costs related to such compliances as outlined in this Subsection.
- 15.1.3. Licenses. The ENGINEER shall, during the life of this Contract, procure and keep in full force, effect, and good standing all necessary licenses, registrations, certificates, permits, and other permits, and other authorizations as are required by local, state, or federal law, in order for the ENGINEER to render its Services or work as described herein. The ENGINEER shall also require all Subconsultants to comply by contract with the provisions of this Subsection.
- 15.1.4. Compliance With New Regulations. The ENGINEER agrees that at such time as the local, state, or federal agencies modify their grant procedures in order for the CITY or the ENGINEER to qualify for local, state, or federal funding for the Services to the rendered by the ENGINEER, then the ENGINEER shall consent to and make such modifications or amendments in a timely manner. If the ENGINEER is unable to comply with applicable local, state, or federal laws and regulations governing the grant of such funds for Services to be rendered herein, then the CITY shall have the right, by written notice to the ENGINEER, to terminate this Contract without liability, as outlined in Section 7, above. Furthermore, if the ENGINEER's compliance with such laws, regulations, rules, or procedures causes a material change to a term or condition of this Contract, then the CITY agrees, upon sufficient proof of material changes as may be presented to it by the ENGINEER, to attempt to negotiate an amendment to the Contract with the ENGINEER.
- 15.1.5. License Fee and Royalties. The ENGINEER agrees that any invention, design, process, product, device, proprietary system, or proprietary process for which an approval (of any type) may be necessary, shall be paid for by the CITY, but shall be secured by the ENGINEER (or, at the ENGINEER's direction, by the contractor or Subconsultant during the ENGINEER's construction phase services).

15.2. Engineer Not Agent of City

The ENGINEER is not authorized to act as the CITY's agent hereunder and shall have no authority, expressed or implied, to act for or bind the CITY hereunder, either in ENGINEER's relations with Subconsultants, or in any other manner whatsoever except as elsewhere provided for in this Contract.

15.3. Subconsultants

15.3.1. General. The ENGINEER shall have the right, conditioned upon the CITY's prior consent, which shall not be unreasonably withheld, to employ other firms, consultants, contractors, subcontractors, and so forth (Subconsultants); provided, however, that the ENGINEER shall, 1) inform the CITY as to what particular Services the Subconsultants shall be employed to do; 2) inform the CITY as to what extent (what percentage) of the total Project Services each Subconsultant shall be employed to do; 3) be solely responsible for the performance of all of its Subconsultants, including but not limited to their maintenance of schedules, correlation of Services, or both of these things, and the resolution of all differences between them; 4) promptly terminate the use and services of any Subconsultants upon written request from the CITY (which may be made for the CITY's convenience); 5) promptly replace each such terminated Subconsultant with a Subconsultant of comparable experience and expertise; 6) cause a Subconsultant to remove any employee(s) from a Project as the CITY shall request (again for the CITY's convenience); and 7) assure that such employee(s) shall be promptly replaced by other employee(s) of comparable experience and expertise and who are otherwise acceptable to the CITY. After the Subconsultant has received notice of the termination, or two (2) business days after the CITY has notified the ENGINEER in writing of the required termination of the Subconsultant or the Subconsultant's employee, whichever shall occur first, the CITY shall have no obligation to reimburse the ENGINEER for the Services subsequent to the notice of termination of any Subconsultant or employee who may be terminated pursuant to the provision of this Subsection; provided, however, that the CITY shall reimburse the ENGINEER for the ENGINEER's reasonable and provable Subconsultant demobilization or remobilization costs, as defined in Subsection 7.3 if the Subconsultant is terminated for convenience; and provided, further, that the ENGINEER shall receive no reimbursement for demobilization costs if a Subconsultant is terminated for cause. It is also understood that the CITY does not, by accepting a Subconsultant, warrant or guarantee the reliability or effectiveness of that entity's performance or become a party to any agreement between ENGINEER and a Subconsultant or become bound by the terms thereof.

15.3.2. Work Outside Scope and Time of Payment. The CITY shall have no obligation to reimburse the ENGINEER for the services of any Subconsultant that may be in addition to the Services, or for those Subconsultant Services not previously made known to the CITY, or that are otherwise outside of the scope of the Project unless and until the CITY has given written approval of such reimbursement. The CITY shall have no liability or obligation to the ENGINEER for Services rendered by a Subconsultant pursuant to any Engineer-Subconsultant agreement, and the ENGINEER also agrees to pay all such Subconsultants for their Project-related Services within thirty (30) calendar days after the ENGINEER's receipt of payment, from the CITY, for work performed by the Subconsultants, unless such payment is disputed by the ENGINEER, and the CITY receives written notice thereof.

15.3.3. Subconsultant Contracts. The ENGINEER shall provide a copy of all relevant provisions of this Contract to all Subconsultants hired by it, or for which it may have management responsibilities and shall inform all Subconsultants that all Services performed hereunder shall strictly comply with the Contract terms and provisions. The ENGINEER shall also furnish the CITY, upon demand, with a copy of all ENGINEER Subconsultant contracts.

15.4. Assignment and Delegation

The CITY and the ENGINEER bind themselves and their partners, successors, executors, administrators, and assigns, to the other party of this Contract in respect to all duties, rights, responsibilities, obligations, provisions, conditions, and covenants of this Contract; except that the ENGINEER shall not assign, transfer, or delegate its rights or duties, or both of these things, in this Contract without the prior consent of the CITY. The CITY has the absolute right to withhold such consent at its convenience, and, furthermore, if the ENGINEER attempts to assign, transfer, or delegate its rights or duties in violation of these provisions without the CITY's consent, then the CITY may terminate this Contract as a breach of contract by the ENGINEER and a failure by the ENGINEER to substantially perform its obligations hereunder, and any such assignment shall be null, void, and of no legal effect whatsoever. The CITY shall have the right to assign its rights (or any part of them) or to delegate its duties and obligations (or any part of them) to another entity that shall be bound by all applicable terms and conditions as provided in this Contract.

15.5. Audits

- 15.5.1. Periodic Auditing of ENGINEER'S Books. The Books may (but need not) be kept separate and apart from the ENGINEER's other books; but the CITY shall have the right, at any reasonable time and through any of its designated agents or representatives, to inspect and audit the Books for the purpose of verifying the accuracy of any Payment Statement or Completion Report. In lieu of the above and upon request of the CITY, the ENGINEER shall prepare an audit (for the most recent fiscal year) for the CITY, which shall include the ENGINEER's paid salary, fringe benefits, general and administrative overhead costs, and the total amount of money paid by the CITY to the ENGINEER. The Fiscal Report shall be certified as true and correct by, and shall bear the signature of, the ENGINEER's chief financial officer or its certified public accountant.
- 15.5.2. Overcharge. If it is established by the audit, or by any other means, that the ENGINEER has over-billed or overstated its Fees (Overcharge) to the CITY, then the amount of any Overcharge shall be refunded by the ENGINEER, together with the CITY's reasonable and provable costs (including the auditing expenses) in discovering the Overcharge and effecting its repayment.
- 15.5.3. Retention of Books. Unless a longer time is required by any federal, state, or other governmental law, regulation, policy, or grant requirement, the ENGINEER shall retain the Books, and make them available to the CITY as specified above, for the longer of (i) five (5) years following Final Payment or termination of this Contract, whichever is later, or (ii) the conclusion of all audits and litigation (including all appeals) related to this Contract.

15.6. Prohibition Against Contingent Fees

The ENGINEER warrants that he has not employed or retained any company or person, other than a bona fide employee working solely for the ENGINEER to solicit or secure this Contract, and that he has not paid or agreed to pay any person, company, corporation, individual or firm, other than a bona fide employee working solely for the ENGINEER, any fee, commission, percentage, gift or other consideration contingent upon or resulting from the award or making of this Contract.

15.7. Reimbursable Expenses

Reimbursable expenses are defined as actual out-of-pocket expenses incurred by ENGINEER or a Subconsultant necessary to perform or complete Services under this Contract. Unless otherwise expressly agreed herein or in a Services Authorization or amendment to this Contract, the City will not provide for reimbursement of traditional business operating expenses, including but not limited to, computer time, stamps for routine correspondence, phone calls, local tolls, local mileage, inhouse copying (routine b/w 8.5 x 11 and 11 x17 copies), word processing time, and bookkeeping. Invoices shall be required for reimbursement of expenses.

15.8. Local Travel

Unless otherwise expressly agreed herein or in a Services Authorization or amendment to this Contract, travel between locations within Orange, Osceola, Seminole, Volusia and Lake Counties will not be reimbursed.

15.9. Entire Agreement

This Contract, including the Exhibits hereto, constitutes the entire agreement between the parties with respect to the specific matters contained herein and supersedes all previous discussions, understandings, and agreements.

15.10. Truth-in-Negotiations

The ENGINEER shall execute a Truth-in-Negotiation Certificate in the form attached hereto and made a part hereof, by reference, as Exhibit IV. It is agreed by the ENGINEER that the Project Fee, and any additions thereto, shall be adjusted to exclude any significant sums [plus interest at one percent (1%) per month simple interest on the sums, from the date of payment by the CITY] by which the CITY determines that the Fee was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs.

15.11. Amendment

This Contract may be amended or modified only by a written instrument duly authorized and executed by the parties.

15.12. Validity

The validity, interpretation, construction, and effect of this Contract shall be in accordance with and governed by the laws of the State of Florida, only. In the event any provision hereof is determined to be unenforceable or invalid, such unenforceability or invalidity shall not affect the

remaining provisions of this Contract, which shall remain in full force and effect. To that extent, this Contract is deemed severable.

15.13. Headings

The headings of the Sections or Subsections of this Contract are for the purpose of convenience only, and shall not be deemed to expand, limit, or modify the provisions contained in such Sections or Subsections.

15.14. Timeliness

The City and the ENGINEER acknowledge and understand that time is of the essence in this Contract.

15.15. Force Majeure

The parties acknowledge that adverse weather conditions, acts of God, or other unforeseen circumstances of a similar nature, may necessitate modifications to this Contract, such modifications to include, but not limited to the Project's Services, term, and Fee. If such conditions and circumstances do in fact occur, then the CITY and ENGINEER shall mutually agree, in writing, to the modifications to be made to this Contract.

15.16. Rights Cumulative; No Waiver

No right or remedy herein conferred upon or reserved to either party hereto is intended to be exclusive of any other right or remedy, and each and every right and remedy shall be cumulative and in addition to any other right or remedy given hereunder, or now or hereafter legally existing upon the occurrence of a default hereunder. The failure of either party hereto to insist, at any time, upon the strict observance or performance of any of the provisions of this Contract, or to exercise any right or remedy as provided in this Contract, shall not impair any such right or remedy or be construed as a waiver or relinquishment thereof with respect to subsequent defaults. Every right and remedy given by this Contract to the parties hereof may be exercised from time to time and as often as may be deemed expedient by the parties hereto, as the case may be.

15.17. Public Entity Crime

Any person or affiliate, as defined in 287.133 of the *Florida Statutes*, shall not be allowed to contract with the CITY, nor be allowed to enter into a subcontract for work on this Contract, if such a person or affiliate has been convicted of a public entity crime within three (3) years of the date this Contract was advertised for proposals, or if such person or affiliate was listed on the State's convicted vendor list within three (3) years of the date this Contract was advertised, whichever time period is greater. A public entity crime means a violation of any state or federal law with respect to and directly related to the transaction of business with any public entity or agency (federal, state or local), involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, forgery, falsification of records, receiving stolen property or material misrepresentation. Any Contract with the CITY obtained in violation of this Section shall be subject to

termination for cause. A Subconsultant who obtains a subcontract in violation of this Section shall be removed from the Project and promptly replaced by a Subconsultant acceptable to the City.

15.18. MBE/WBE Participation

- 15.18.1. Chapter 57, Articles II and III, of the Orlando City Code, establishes goals of 18% and 6%, respectively, of the CITY's annual monetary value of contracts for supplies, services and construction to be awarded to Minority Business Enterprises (MBE) and Women-Owned Business Enterprises (WBE).
- 15.18.2. The ENGINEER agrees to make a good faith effort to provide that 18% of the dollar amount of the Contract is performed by MBEs and 6% of the dollar amount of the Contract is performed by WBEs. MBE and WBE participation is set forth in the exhibits hereto.
- 15.18.3. The ENGINEER may, under limited circumstances, substitute a MBE or WBE firm. However, substitution shall only be allowed upon good cause shown as determined by the CITY's MBE Coordinator. The ENGINEER must receive written approval of the MBE Coordinator before substitution will be allowed. Failure to comply shall result in the CITY imposing penalties on the ENGINEER; such penalties may include suspension or debarment from obtaining future CITY contracts.
- 15.18.4. The ENGINEER shall submit monthly reports in a form acceptable to the CITY to the MBE Office, 400 South Orange Avenue, 5th Floor, Orlando, Florida 32801, documenting compliance with this Contract. The initial report shall be submitted within ten (10) days after the execution of the Contract and shall include the names of participating MBE/WBEs and the MBE/WBE Subconsultant or joint venture dollar amounts. The initial report shall also include copies of all MBE/WBE Subconsultant or joint venture contracts. Subsequent reports shall include documentation on the number of hours worked and the tasks performed by the Subconsultants.
- 15.18.5. Should the scope of Services herein be increased, the ENGINEER agrees to make a good faith effort to include MBE/WBE participation in the increased Services. Such participation should be in accordance with the MBE/WBE percentages stated above.
- 15.18.6. There shall be no third party beneficiaries of the Minority Business Enterprise or Women-Owned Business Enterprise provisions of this Contract. The CITY shall have the exclusive means of enforcement of the MBE/WBE Ordinance and contract terms. No right of action for non-signatories of the Contract is intended or implied. The CITY is the sole judge of compliance and whether a good faith effort has been made under the Ordinance and the Contract.

15.19. Non-Exclusive Contract.

This Contract is non-exclusive agreement between the parties. It is understood and acknowledged that the rights granted herein to the ENGINEER are non-exclusive, and the CITY shall have the right, at any time, to enter into similar agreements with other engineers, architects, landscape architects, planners, consultants, contractors, subconsultants, and so forth, to have them perform such professional services as the CITY may desire.

IN WITNESS WHEREOF, this Contract has been fully executed on behalf of the parties hereto and by its duly authorized representatives, as of the date first written above.

City	of Orlando, Florida
Ву: _	David Billingsley, CPSM, C.P.M. Chief Procurement Officer
	Approved as to Form and Legality for the use and reliance of the City of Orlando, Florida, only.
	Michael S. O'Dowd Assistant City Attorney Orlando, Florida

	Company
	By:
	Print Name:
	Title:
STATE OF FLORIDA }	
COUNTY OF}	
	PPEARED before me, the undersigned authority, ,[] well known to me or [] who has produced a as identification, and known by me to be the of the corporation named above, and acknowledged before
me that he/she executed the forego deed, and that he/she was duly auth	ing instrument on behalf of said corporation as its true act and
WITNESS my hand 20	and official seal this day of,
_	
	NOTARY PUBLIC
·	My Commission Expires:



Exhibit I Scope of Services and Compensation Summary

EXHIBIT I

SCOPE OF SERVICES

WASTEWATER FORCE MAIN SYSTEM EVALUATION PHASE 1, PRELIMINARY DESIGN AND ENGINEERING

CITY OF ORLANDO, FLORIDA

A. BACKGROUND AND PROJECT DESCRIPTION

The City of Orlando's wastewater transmission system serving the Downtown and East Orlando service area was initially constructed in 1949 to direct wastewater to the then Wastewater Treatment Plant (WWTP) located at Bennett Road, north of Colonial Drive. The system constructed in 1949 included Lift Stations 1, 2, 3 and 4 and is the backbone transmission system that has served the City for over 66 years. The wastewater was collected at Lift Stations 1, 2 and 3 and pumped through 20-inch cast iron force mains to Lift Station 4 where the flows would be re-pumped through a 30-inch cast iron force main to the Bennett Road WWTP for treatment and ultimate discharge to the Econlockhatchee River.

In 1957, Lift Station 7 (FKA Lift Station 1-a) was constructed on the same site as Lift Station 1 and the flows from the combined Lift Station 1/7 were directed through a 30-inch cast iron force main to Lift Station 23 located at Central Boulevard and Crystal Lake Drive where flows were repumped through a 36-inch cast iron force main to the Bennett Road WWTP.

Over the years, some equipment was replaced at the lift stations. However, the cast iron force mains constructed in 1949 and the 1957 are still in use. In 1987, the Bennett Road WWTP was removed and Lift Station 248 constructed to pump the flows from the downtown and east Orlando area to the Iron Bridge Water Reclamation Facility (WRF) through the Dean Road Interceptor Sewer. Lift Station 1/7 also has the capability to receive flows from Lift Station 5 or to send flows to Lift Station 5 for treatment at the Water Conserv II WRF.

The 20-inch cast iron force mains from Lift Stations 2 and 3 currently bypass around Lift Station 4 except in very extreme flow events. These force main flows can be re-pumped at Lift Station 4. However, Lift Station 4 is normally not in use. The 20-inch cast iron force main between Lift Stations 1 and 4 has been relegated to an emergency interconnect, however its condition is unknown and there is significant concern that this 66 year old cast iron main is no longer a viable conduit for the system. Lift Station 23 was also removed and the 30-inch force main connected directly to the 36-inch cast iron force main so that the flows from Lift Station 1/7 currently pump directly to Lift Station 248. Construction of the replacement lift station for Lift Station 3 is

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currently underway and the design for the replacement of Lift Station 1/7 is at 60% completion level.

The existing major force mains in the system are shown in Figure 1 and listed below.

Description	Length (Ft)	Size (In)	Material
Lift Station 1/7 to Lift Station 4	7,300	20	Cast Iron
Lift Station 2 to Lift Station 4	7,350	20	Cast Iron
Lift Station 3 to Lift Station 4	7,300	20	Cast Iron
Lift Station 4 to Lift Station 248	9,950	30	Cast Iron
Lift Station 1/7 to Lift Station 248	8,000	30	Cast Iron
	7,900	36	Cast Iron
	47,800		

The Downtown and East Orlando service area is experiencing significant growth and wastewater flows from this area are projected to grow by almost 40% over the next 25 years. The growth and currently planned upgrades at the lift stations in the project area will result in increased operating pressures in the old cast iron force mains. Since there are no alternate flow paths for transmitting wastewater generated in the area, shutting down these mains and providing extended by-pass pumping for inspection, maintenance or rehabilitation is not feasible. In addition, there are very few operating isolation valves in the existing system. A break in the force main system could result in significant public health, environmental, and economic impacts to the Downtown and East Orlando service area.

The objective of the project is to provide increased level of reliably and protection against the health and economic impacts that would result from a break and spill in the force main system. By installing new force mains, the existing force mains can then be inspected and rehabilitated to extend the useful life of these important assets. By developing a renewal and replacement plan for this system, the City will significantly reduce the potential for breaks and spills while identifying where savings can occur in energy use and maintenance.

The overall project includes preliminary engineering, final design, permitting, bidding, and construction phase services. However, this Phase 1 scope only addresses the initial preliminary engineering phase of the project. Under this phase of work, there are four (4) major tasks, which are generally described below:

- Service Area Growth and Flow Analysis: Evaluation of the project service area characteristics and flows, identification of growth/redevelopment areas, and establishment of design flows for a 50 year planning period.
- Alternative Route Analysis: development of routes, consideration of long term maintenance issues (traffic impact, environmental affect and difficulty of repair), consideration of constructability issues, and preparation of documentation that presents the size, routes, and anticipated cost of the proposed facilities. The Lift Station 2 Force Main route analysis will be an early output item for this task.

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- Hydraulic Analysis: Development of a hydraulic model to address conveyance of wastewater flow to LS No. 248. This task addresses pipeline sizing, review of current and future planned improvements at the lift stations, development of initial routes and evaluations of operation scenarios in the Project Service Area.
- Preliminary Design Report: Present the results of the previous tasks in a comprehensive report. Develop and present a rehabilitation plan to consider the reuse of the existing force mains. Prioritize the force main improvements and develop an implementation and funding plan. Develop the public information/awareness program.
- All text submittals in the Scope of Services will include five (5) paper copies and CD of electronic files in Word Doc or Excel, as appropriate, and Adobe pdf formats. All drawing submittals in the Scope of Services will include five (5) paper copies and CD of electronic files in AutoCAD and Adobe pdf formats.

B. WORKTASK DESCRIPTIONS

1. Task 1 - Service Area, Flow Analysis and R/R Program

- a. Attend a kick-off meeting to discuss configuration of the existing system, sources of existing data, flow trends, future projects, schedules, and deliverables. Transcribe and distribute meeting summaries and an action item list to attendees.
- b. Collect the following documents and data:
 - The most recent system maps from the City's GIS Department
 - Existing aerials, surveys, easements, ROW records, plans, record drawings, soils investigation reports and standards that may be pertinent to execution of the Project.
 - Previously prepared reports for the Lift Station 3 improvements and the service area studies for Lift Station 2 and Lift Stations 1/7. Tetra Tech has copies of the force main route study for Lift Station 2, the Downtown Sewer District Sewer Master Plan and Lift Station 1/7 Preliminary Design Report (PDR).
 - Hydraulic models and results for the Lift Station 3 improvement project.
 - Rainfall Data from NOAA and the City's records for the Service Area (3 years).
 - Location and maintenance records of air release valves.
 - Flows, pump run-time and pressure data for existing connected lift stations.
 - Force main maintenance records including history of breaks and damage.
 - Pump curves or pump model number for all pumps in the Service Area and connected to the downstream force main system.
 - Existing and Future Land Use Maps from City's Planning or GIS Departments.
 - Population Data and Projections from the City's Planning Department.

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c. Develop a base map from the City's GIS data that depicts the project service area and the sub-areas served by the lift stations. Divide the overall study area into smaller sub-areas based on the system configuration, topography, roadway alignments, locations of anticipated development or redevelopment, and other similar factors as appropriate.

- d. Meet with City Planners and other City staff to discuss existing population and land use data for the service area. Subsequently, utilize GIS mapping to summarize the existing population and land uses and tributary lift station sub-areas.
- e. Coordinate and attend one (1) workshop with City staff to review the planned developments and redevelopments.
- f. Review existing projected flows. Perform flow projections based on the projected population and redevelopment growth for the 50 year study period. Estimate average, wet season, dry season and buildout wastewater flows for the lift station service areas and tributary lift station sub-areas.
- g. Estimate the total average daily design flow for each lift station (1/7, 2 and 3) service area at buildout conditions based on the existing flow data, projected I/I reductions and expected redevelopments.
- h. Perform flow and pressure analysis at the lift stations to document and evaluate hydraulic conditions based on the data provided by the City.
- i. Review existing reports, flow data, City Standards, and design guidance recognized by FDEP and establish peaking factors for the lift stations connected to the force main network
- j. Develop a renewal and replacement plan for the existing force main system including an evaluation of inspection technologies, risk of failure analysis, criticality, estimated costs and implementation plan.
 - (1) Develop profiles to identify record locations of high points and above ground pipes.
 - (2) Identify components and/or segments of the force mains that may be suspect of damage due to corrosion and would represent potential failure points. The components may include air release valves (ARV's), isolation valves, and other components accessible through valve vaults, boxes, manholes or other types of structures. The subject pipe segments may include possible unprotected high points without ARV protection, dissimilar metal pipe crossings (cathodically protected gas mains or other utility lines) and overhead power transmission lines.
 - (3) Inspect and evaluate existing ARV's, structures, existing isolation valves and/or valve boxes, and ditch or canal crossings.
 - (4) Force Main Criticality and Strategy: Develop criticality criteria and recommend the force main system categorization to identify high, medium and low criticality force main segments. Identify consequence of failure. The criticality criteria and weighting will be established during a workshop with the City. Once established, criticality rankings will be assigned to the force main segments and the results presented in a draft technical memorandum.
 - (5) Inspection and Testing Plan: Review available technologies for inspecting the force mains and meet with the City to discuss current options and costs for using these technologies. Based on the data reviewed, the potential failure point

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analysis and criticality; prepare a recommended inspection/testing plan for the force main segments. The plan will include access requirements, data management plan, inspection/testing guidelines and protocols, inspection/testing schedule, risks associated with inspection and testing, and initial estimates for the inspection/testing of the force main segments. Present the inspection and testing plan in a draft technical memorandum. Meet with the City to finalize the plan. Prepare and submit the final technical memorandum to the City.

- (6) Renewal (Rehabilitation) Plan: Review and summarize the available technologies for renewal of the existing force mains. Meet with the City to present and discuss the current options and estimated costs for implementing these technologies. Develop a plan for renewal of the force mains including implementation plan and estimated costs. Present the plan in a draft technical memorandum. Meet with the City to finalize the plan. Prepare and submit the final technical memorandum to the City.
- k. Summarize the findings, conclusions and recommendations resulting from the above tasks in a draft report and submit to the City.
- 1. Meet with the City to discuss the draft report, finalize the document pursuant to City comments, and submit to the City.

2. Task 2 - Alternative Routing Analysis

a. General

The routing analysis is anticipated to include force mains from LS 1, LS 2, and LS 3 to approximately LS 4 and from the LS 4 area to LS 248. The total distances for these routes is approximately 32,000 feet (6 miles).

- b. Perform Alternative Routing Analysis considering the following factors:
 - Available right-of-ways, easements and City owned property
 - Potential conflicts with existing utilities and stormwater facilities
 - Impacts to residents and businesses
 - Available space for pipeline installation and required work areas
 - Vehicle and pedestrian traffic disruption
 - System reliability
 - Current and planned roadway improvements
 - Construction easement and property acquisition costs

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- Access for maintenance
- Environmental impacts.
- c. Review as-built documents, GIS data, property ownership, plats, and existing survey information for the existing corridors and potential corridors for the pipelines.

- d. Request utility locates from the Sunshine State One Call Service to identify the utilities along each corridor. Obtain record drawings from the utility companies, if available.
- e. Perform site visits along the potential force main routes to observe existing conditions and constraints in the corridors.
- f. Coordinate with FDOT, Orange County and City roadway and transit agencies to understand the current and future roadway and transit projects.
- g. Up to 40 soft digs are included to identify the vertical and horizontal location of the major utilities in the project corridors that may impact the routes. Any soft digs not used in this preliminary design phase will be used during the final design phase of the project.
- h. Consider alternative construction methods including horizontal direction drilling, close tolerance direction drilling, pipe bursting, bore and jack, and open trench for the routes being considered.
- i. Evaluate the project corridors based on the information gathered, coordination meetings, agency(s) design criteria and permitting requirements, methods of construction, and provide a recommend route for alignment of the proposed pipelines within the existing and planned ROWs and easements.
- j. Identify right of way, easement and property acquisition requirements including potential temporary construction easements.
- k. Review with the City and consider shorter lengths of interconnect improvements that would provide more immediate reliability benefits to the force. Also evaluate alternatives that would provide temporary repair should breaks occur in the system. This will include a detailed listing of all piping materials of the appropriate sizes and types for City acquisition and storage for potential immediate use, if needed, prior to the completion of this project.
- 1. Prepare preliminary layouts of the proposed alignment of the force mains which indicates major conflicts with existing utilities and areas where special construction techniques must be considered, based on the information available to date. Additionally, present other pertinent information necessary for the City to evaluate the proposed alignments. The alignment will be shown graphically on GIS .maps.
- m. Prepare a preliminary opinion of probable construction costs for each route based on the preliminary GIS alignment figures.
- n. Prioritize force main routes so that more critical force mains could be rehabilitated or replaced in advance of the less critical mains. Prepare a schedule and scope for implementing the selected early output projects.
- o. Develop a public participation plan for the selected routes for inclusion in the Preliminary Design Report.
- p. Prepare and submit a draft technical memorandum which presents the findings and conclusions resulting from the alternate route analysis efforts; at a minimum, include

-6-

illustrative GIS sketches/plans (pipe alignment layout), permit requirements, future plans identified by other utilities and agencies that may affect the project (if applicable) and the conclusions and recommendations concerning implementation of the selected routes.

q. Meet with the City to discuss the draft technical memorandum, finalize the document pursuant to City comments, and submit to the City.

3. Task 3 - Hydraulic Analysis

- a. Construct a steady state model of the force main network using the ArcGIS based computer modeling program, H2OMAP software package. Also, the model files will be exported to in a file format that is compatible with public domain modeling software such as EPANET. Include pump sizes based on the current plans for LS 1/7 and LS 3 and the existing pumps at LS 2, LS 46 and other connected lift stations. The model will include all force mains connected to the force main network. A draft map of the pipes and lift stations to be included in the model will be submitted to the City for review and comment. Subsequently, the model will be adjusted pursuant to the City's comments by adding and deleting pipes and lift stations as required.
- b. Meet with the City staff to develop system alternatives and flow diversion strategies, and confirm modeling factors.
- c. Run simulations reflecting flows from the lift stations to LS 248. Develop, evaluate and perform model runs that consider the following:
 - (1) Pumping requirements of the lift stations that are tributary to the manifolded force main network.
 - (2) System design conditions considering flows, pressures, velocities, TDH, power costs, reliability, flexibility, ease of operation, and other nonmonetary factors.
 - (3) System operation concepts based on current and potential flow diversion strategies for system reliability.
 - (4) Alternatives for consideration will include replacement force mains and rehabilitation and reuse of the existing force mains.
 - (5) Meet with the City staff to review system alternatives, flow diversion strategies, and force main design criteria.
- d. Summarize the findings, conclusions and recommendations resulting from the above tasks in a brief technical memorandum and submit to the City.
- e. Meet with the City to discuss the draft technical memorandum, finalize the document pursuant to City comments, and submit to the City.

4. Task 4 - Preliminary Design

a. Combine the previous technical memorandums into the preliminary design report.

-7-

b. Present pipe design criteria and material selection.



- c. Develop and present preliminary maintenance of traffic and pedestrian plans and costs for the more complex portions of the routes. This will only be developed and costs estimated for open cut construction areas along or across major roadways or where school traffic may require significant traffic/pedestrian rerouting. The goal will be to identify significant costs that may impact the selection of a route. Review and present permit requirements and jurisdictional reviews.
- d. Attend at least one (1) workshop with City Wastewater Division Staff to discuss and refine the preliminary plan.
- e. Estimate the probable construction cost for the proposed improvements and renewals.
- f. Summarize the findings, conclusions and recommendations resulting from the above tasks in a draft report and submit the draft report to the City.
- g. Meet with the City to discuss the draft report, finalize the document pursuant to City comments, and submit the final report to the City.

C. SERVICES NOT INCLUDED

- 1. Surveying and SUE services necessary for final design.
- 2. Final design services.
- 3. Permitting.
- 4. Construction services.
- 5. Public Participation.
- 6. Services related to applications for variances, rezoning, or special exceptions.
- 7. Services for acquisition of ROW, utility easements and temporary construction easements.
- 8. The procurement of inspection/testing contractors or subconsultants is not included and will be scoped and budgeted as a separate task.

D. CONTINGENCY

An Owner controlled contingency budget of \$47,000 is included in this authorization for unforeseen additional services needs as identified by the City. This contingency will not be used without prior written authorization from the City.

E. COMPENSATION SUMMARY

Exhibit II presents a detailed breakdown of the estimated hours and compensation for the Scope of Services. This fee reflects a multiplier of 2.95. Proposals from the various subconsultants that will provide services for this project are provided in Attachment A.

-8-

Wastewater Force Main System Evaluation, Phase 1, Preliminary Design

	TOTAL(Fee Not To Exceed)	\$ 521,778.21
E.	Contingency	\$ 47,000.00
D.	Preliminary Design Report	\$ 51,336.58
C.	Hydraulic Analysis	\$ 45,250.26
B.	Alternative Routing Analysis	\$ 222,750.66
A.	Service Area, Flow Analysis and R/R Program	\$ 155,440.71

Wastewater Force Main System Evaluation, Phase 1, Preliminary Design

Firm Participation	Fee	Percentage
Tetra Tech	\$392,146.84	75.2%
Owner controlled Contingency	\$47,000.00	9.0%
CSEI (WBE)	\$49,139.97	9.4%
BFA (MBE)	\$33,491.40	6.4%
TOTAL	\$521,778.21	
	•	,
Total MBE Participation =		6.4%
Total WBE Participation =		9.4 %
Total MBE/WBE Participation =		15.8%

As indicated in the above scope of work, this represents Phase 1 of the overall project. Tetra Tech is committed to meeting or exceeding the M/WBE goal of 26% for this project.



Attachment A Subconsultant Proposals

Page 1 of 2



Scope of Services

Client Information: Tetra Tech, Inc. (US Based Operations)

201 East Pine Street, Suite 1000, Orlando, FL 32801

Date: October 10, 2016

CSEI Proj #: 16011

Project Name: City of Orlando Wastewater FM System Evaluation

Planning Level MOT Concepts & Estimates Proposal

Engineering Consultant: Civil/Site Engineering, Inc.

1645 N. Maitland Avenue

Maitland, FL 32751

I. DESCRIPTION OF PROJECT:

Civil/Site Engineering, Inc. (CSEI) understands this project consists of evaluating the City of Orlando wastewater force main systems and providing the City with system replacement/upgrade recommendations. The scope of the wastewater force main system evaluations will include the following transmission trunk lines:

- LS 2 to LS 4 20" FM Replacement
- LS 3 to LS 4 20" FM Replacement
- LS 1/7 to LS 4 Proposed FM
- LS 4 to LS 248 Proposed FM

This proposal is for the preparation of planning level maintenance of traffic (MOT) design concept and associated cost estimate for critical MOT segments requiring special attention along the selected route for each of four transmission trunk lines as listed above to support the CLIENT in the overall force main system replacement/upgrade recommendations. It is assumed that the CLIENT will conduct the corridor analysis and provide Civil/Site Engineering, Inc., with one selected route for each transmission trunk line for the development of the aforementioned critical MOT segment concepts. The CONSULTANT will review the selected routes. Based on input regarding anticipated construction methods from the CLIENT, the CONSULTANT will provide the CLIENT a list of the critical MOT segments. Once approved by the CLIENT the CONSULTANT will develop concept level MOT plans for the critical MOT segments. For the purpose of this proposal it is assumed that less than 30% of the selected routes will be considered to be critical MOT segments.

The attached Scope and Fee proposal are based on the route exhibit provided by the CLIENT via e-mail on 09/29/16.

Civil/Site Engineering, Inc. 1645 N. Maitland Ave Maitland, FL 32751 Phone: 407.644.6570, Fax: 407.644.8945

II. DESCRIPTION OF SCOPE: PLANNING LEVEL MOT CONCEPTS AND COST ESTIMATES

Civil/Site Engineering, Inc. shall provide the **CLIENT** with the following preliminary engineering services:

- Conduct a field reconnaissance for each pipeline route to identify MOT opportunities and constraints such as:
 - o Roadway traffic characteristics that affect the level of MOT requirements.
 - o Identifying segments requiring approvals from other agencies such as state, county and other permitting authorities having jurisdiction on traffic control.
 - o Identify a list of critical MOT segments
- Prepare planning level MOT concept plans for the critical MOT segments for the four pipeline
 routes listed in the Description of Project above. The concept plan for each critical MOT segment
 shall include an overall aerial map identifying critical MOT segments with a concept narrative
 referencing appropriate FDOT MOT Design Indices (FDOT Design Standards 600 series).
- Prepare preliminary cost estimates for the critical MOT segments for which concept plans are developed. These estimates will be developed using the City of Orlando's bids or final construction data on recent MOT efforts for similar wastewater utility projects and will be supplemented by the data from other local municipalities to the extent available.
- Information to be provided by Tetra Tech:
 - Base files in AutoCad and PDF format.
 - o Assist Civil/Site Engineering, Inc., with obtaining historical MOT construction cost data from the City on similar wastewater utility projects.
 - o Provide MOT cost estimates for all non-critical MOT segments

III. FEE SCHEDULE:

Planning Level MOT Concepts and Cost Estimates Services: Not-To-Exceed Fee \$49,139.97

IV. ADDITIONAL SERVICES

In the event additional services beyond the Scope of Services specified herein are requested and authorized by the Client, the work will be conducted as Additional Services and the fees will be based on hourly charges plus direct costs.

APPROVED AND ACCEPTED THIS	DAY OF	_, 2016
CIVIL / SITE ENGINEERING, INC.	TETRA TECH, INC.	
By	Ву	· ———
Andrea Marlea Jernigan-Gwinn, President	Mr. Daniel Allen, P.E., Senio	or PM

Civil/Site Engineering, Inc. 1645 N. Maitland Ave Maitland, FL 32751 Phone: 407.644.6570, Fax: 407.644.8945 EXHIBIT !

City of Orlando Orlando East Wastewater Force Main Systems Evaluation

CSEI Labor Costs

Preliminary Engineering Labor Rate \$62.50 Labor Rate \$164.38 Enlling Rate Floars Hours Costs Hours	Labor Rate \$52.50 Billing Rate \$138.08 Hours Costs	0 Labor Rate 18 Billing Rate s Hours	\$39.38 \$103.57	T with 2.6	Totals with 2.63 Multiplier
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LS 1/7 to LS 4 - Proposed 36" FM					
1.2. Pipeline Route Reconnaissance & Traffic Characteristics 2.0 \$328.75	12.0 \$1,6	\$1,656.90 4.0	\$414.28	18.0	\$2.399.93
1.3 Develop Planning Level MOT Concepts 4.0 \$657.50	28.0 \$3,8	\$3,866.10 20.0	\$2,071,39	52.0	\$6.594.99
1.4 Develop Planning Level MOT Cost Estimates 2.0 \$328.75	8.0	\$1,104.60	\$310.71	13.0	\$1,744.06
Subtotal 8.0 \$1,315.00	48.0 \$6,6	\$6,627.60 27.0	\$2,796.37	83.0	\$10,738.97
I.S. d. t. I.S. 748 - Promocad All Plut					
1.2. Pipeline Route Reconnaissance & Traffic Characteristics	074				
			\$217.85	21.0	\$2,779.65
Levelup Figuring Level MOT Concepts	36.0 \$4,9	\$4,970.70	\$3,314.22	72.0	\$8,942.42
1.4 Develop Planning Level MOT Cost Estimates 2.0 \$328.75	8.0 \$1,1	\$1,104.60 3.0	\$310.71	13.0	\$1,744.06
Subtotal 8.0 \$1,315.00	58.0 \$8,0	\$8,008.35 40.0	\$4,142.78	106.0	\$13,466.13

SEEL Fee _ Estimate-Orlando Wastawater System Evaluation 10-10-16 10/4



October 3, 2016

Mr. Daniel Allen, PE Senior Project Manager Tetra Tech Water, Environment, and Infrastructure Group 201 East Pine Street, Suite 1000 Orlando, Florida 3280

Re: City of Orlando - Orlando Eastern Force Main System

Dear Mr. Allen,

Pursuant to your request, Barnes, Ferland & Associates, Inc. (BFA) is pleased to submit our proposal for subsurface utility exploration (SUE) services. As we understand your request, BFA will provide up to 40 utility excavations along the routes as shown on the attached "BFA – Work Area Exhibit" all being in the City of Orlando.

Scope of Services:

Utility Location: A total of 40 utility excavations are estimated for this proposal with 30 excavations taking place in grass or dirt and 10 within brick or paved roadways. Utility excavations will be performed to positively locate and identify the underground utility lines. Excavations will provide the horizontal and vertical location of the utility as well as the size, type, material and general condition of the utility. A detailed Test Hole Report will be made for the excavation that will show a semi-permanent mark set directly above the water line for survey location. The sketch will show the measurement from the mark to the top of the utility with reference ties to nearby features to aid in the recovery of the mark. All other information obtained will also be on the sketch.

A Locate Ticket will be acquired from Sunshine State One Call prior to excavation on utilities to have utility companies mark their lines. As required by law 2 full business days are required to allow utility companies mark utilities prior to excavation.

Designation: Marking of utilities is not a part of this proposal.

Survey: Survey services will be provided in a separate proposal...

Maintenance of Traffic (MOT): Dependent on the locations of the 10 excavations that fall within active roadways, MOT will be required to close a lane of the traffic to allow our vehicle and excavation trailer a safe place to work. BFA will provide MOT where possible however, in those roadways that may require additional MOT we will utilize the services of Flash-Rite to set up and provide the MOT.

<u>Right of Way Permits:</u> Generally the City of Orlando does not require a right of way permit for city projects. An FDOT Standard Index appropriate for the closure will be submitted to Mr. Scott Walker for review prior to setting up MOT within roadways. Should a permit be required it will be considered extra services and a separate proposal will be provided.

1230 Hillcrest Street • Orlando, Florida 32803 Office (407) 896-8608 • Fax (407) 896-1822

Fee Estimate

See the attached spread sheet for a breakdown of the man hours and our **Not to Exceed** fee to provide you with the requested services.

Schedule

We are prepared to commence work within 5 working days of written notice to proceed for each excavation or groups of excavations. Test Hole Reports will be provided as available.

If you should have any questions or need more information, please give me a call.

Sincerely,

William Miller, PLS Survey Division Manager

Encl: Man hour and Fee estimate spread sheet

BFA – Work Area Exhibit Exhibit "A" Limitations Flash-Rite Estimate for MOT



Project: Orlando Eastern Force Main System

Date: October 3, 2016

Barnes, Ferland and Assoc.

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Orlando Eastern Force Main System - Subsurface Utility Exploration (Not to Exceed Fee)

	Maintenan (Flasi	Maintenance of Traffic (Plasit-Rite)	Senior Surveyor a	Surveyor and Mapper	Surveyors	Surveyor and Mapper	Survey Tech.	Tech.	Utility Co	Utility Coordinator	SUE Craw	SUE Crew (2 person in Pavement or brick dirt or grass)	SUE Crew (3 Person pavement or brick	Person in or brick	Total Salary	Total	3
	\$880.00	(Daily Rate) \$131.56	\$131.56	(Rate)	\$97.17	(Rate)	\$67.27	(Rate)	\$78.48	(Rate)	\$ 139.78	(Rate)	\$175.21	(Rate)	Costs	Hours	Nemarks
Task	Days	Cost	Hrs	Cost	Frs	Cost	Hrs	Çeşt	Hrs	Cost	Tis	Cost	£	Cost			-
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a. MOT (Flash-Rite)	10	\$8,800.00		\$0.00	ø	\$0.00	ó	20.00		\$0.00	-	30.00		20,00	\$8,800.00		Rite: Fee shown is oer
Sub Total	Q.	\$8,800,00	0	\$0.00	0	\$0.00	0	\$0.00		\$0.00		30.00			\$8,800.00	175	roadway closure per day
												:			\$0.00		(sample estimate attached)
Total Fee Not to Exceed	2	58,800.00	20:	\$2,631,20	0	\$0.00	0	\$0.00	40	\$3,139.20	75	\$10,483,50	æ	\$5,258,30	\$5,258,30 \$30,310.20	17.5	



FLASH-RITE, INC.

115 Atlantic Drive Maitland, Florida 32751

Phone #407-834-0408 Fax #866-941-6695

Estimate

Date	Estimate #
5/3/2016	14832

Name / Address	Shìp To	
BARNES, FERLAND & ASSOCIATES, INC. 1230 HILLCREST STREET ORLANDO, FLORIDA 32803	WEST GORE SREET BETWEEN WOODS & WESTMORELAND	

	P.O. No.	Terms	Project
	BILL MILLER	UPON RECEIPT	
Description	Qiy	Rate	Total
INDEX #613 - RIGHT LANE CLOSURE/WESTBOUND MAINTENANCE OF TRAFFIC DELIVERY CHARGE PICK-UP CHARGE	reignegener 1 Leiferherber	600.00 40.00 40.00	40.00
INDEX #660 - SIDEWALK CLOSURE MAINTENANCE OF TRAFFIC *DELIVERY CHARGES DO APPLY @\$40.00 - SWC/NO DELIVERY CHARGE IF SAME LOCATION DONE IN CONJUNCTION WITH OTHER CLOSURE		200,00	200.00
*PLEASE NOTE L'HIS ESTIMATE IS PER CLOSURE/PER WEEKDAY			
Estimate 1 of 1		受制器的制度	
ESTIMATES ARE GOOD FOR THIRTY DAYS, QUANTITIES COU TO SCOPE OF WORK	JLD CHANGE DUE	Subtotal	\$880.00
ACCEPTANCE OF ESTIMATE & LEASE TERMS PLEASE SIGN	& RETURN:	Sales Tax (6.5%	\$0.00
Signature		Total	\$880.00

unless noted. Flash-Rite, Inc. shall not perform, or deemed to perform as at/the "Worksite Traffic Supervisor (FDOT) specification 102.3.2 This quotation shall be part of any future contract for work quoted above.



October 3, 2016

Mr. Daniel Allen, PE Senior Project Manager Tetra Tech Water, Environment, and Infrastructure Group 201 East Pine Street, Suite 1000 Orlando, Florida 3280

Re: City of Orlando – Orlando Eastern Force Main System Survey Services

Dear Mr. Allen,

Pursuant to your request, Barnes, Ferland & Associates, Inc. (BFA) is pleased to submit our proposal for professional survey and mapping services. As we understand your request, BFA will field locate utility excavations along the routes as shown on the attached "BFA – Work Area Exhibit" all being in the City of Orlando.

Scope of Services:

<u>Survey:</u> Survey crews will locate up to 40 subsurface utility excavations (SUE) using GPS receivers to provide the horizontal and vertical location of each of the excavations.

<u>Control:</u> Horizontal datum will be in the Florida State Plane Coordinate System, East Zone, NAD 83/90. Elevations will be NAVD 88 with ties to City of Orlando benchmarks throughout the area.

<u>Deliverables:</u> Each excavation will have a Test Hole Report prepared that will be surveyed and located horizontally and vertically. The AutoCAD drawing will be prepared showing each of the excavations with appropriate text to identify each excavation.

Fee Estimate

See the attached spread sheet for a breakdown of the man hours and our **Not to Exceed** fee to provide you with the requested services.

Schedule

We are prepared to commence work within 5 working days of written notice to proceed for each excavation or groups of excavations. Test Hole Reports will be provided as available.

1230 Hillcrest Street • Orlando, Florida 32803 Office (407) 896-8608 • Fax (407) 896-1822 If you should have any questions or need more information, please give me a call.

Sincerely,

William Miller, PLS Survey Division Manager

Encl: Man hour and Fee estimate spread sheet BFA - Work Area Exhibit

6.1 of 1

Project: Orlando Eastern Force Main System

October 3,2016

Firm: Barnes, Ferland and Assoc.

Orlando Eastern Force Main System - Survey of Subsurface Utility Exploration (Not-to-Exceed Fee)

	Survey Park Person)	Survey Party (2 Person)	Senior Sur Maj	Senior Surveyor and Mapper	Surveyora	Surveyor and Mapper	Savins	Survey Tech.	Utility Co	Utility Coordinator	SUE Crew:	Crew (2 person in dirt or grass)	SUE Grew (2 person in SUE Grew (3 Person in dirt or gress) pavement or brick froad)	erson in r brick	Total Salary	Total	Remarks
	\$109.13	(Rate)	\$131,56	(Rate)	11.76\$	(Rate)	\$67.27	(Rate)	\$78,48	(Rate)	\$ 139.78	(Rate)	\$175.21	(Rate)	Specific	Hours	
Task	ΞE	Cost	Hrs	Cost	Hrs	Cost	FIS	Cost	지도	Cost	Hrs	Cast	Hrs	Cost			
Excavation																	
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Exhibit II Budget

EXHIBIT IIA City of Orlando Wastewater Force Main System Evaluation

Cost Summary

LABOR CLASS	Billing Rate	Task 1	Task 2	Task 3	Task 4	Total Hours	Total
		Tetra T	ech Labor Cos	ts			
QA/QC Manager	\$230.80	18	6	12	10	46	\$10,616.80
Senior Project Manager	\$218.16	102	47	24	25	198	\$43,195.68
Project Manager	\$163.62	340	126	88	44	598	\$97,844.76
Project Engineer IV	\$160.61	12	252	0	96	360	\$57,819.60
Project Engineer II	\$85.71	20	0	164	48	232	\$19,884.72
Project Engineer II	\$85.47	508	492	0	116	1116	\$95,384.52
Sr GIS Analyst	\$111.02	37	27	11	8	83	\$9,214.66
GIS Analyst 2	\$84.13	192	128	68	48	436	\$36,680.68
Sr Admin Assistant	\$76.99	79	43	24	26	172	\$13,242.28
Sub-Total Hours		1308	1121	391	421	3241	
Sub-Total Labor		\$155,440.71	\$131,856.15	\$45,250.26	\$51,336.58		\$383,883.70

Sub-consultants Costs

CSEI (WBE)		\$49,139.97			\$49,139.97
BFA (MBE)		\$33,491.40			\$33,491.40
10% Fee for Admin. of Sub- consultants by Tetra Tech		\$8,263.14			\$8,263.14
Sub -Total Subconsultant	\$0.00	\$90,894.51	\$0.00	\$0.00	\$90,894.51

Project Contingency¹

	Contingency					\$47,000.00
		Total Proje	ct Fee Not To E	xceed		
	Total Fee Not to Exceed	\$155,440.71	\$222,750.66	\$45,250.26	\$51,336.58	\$521,778.21
•		1	Total without co	ntingency =		\$474,778.21

Notes:

1.Contingency requires written approval from the City.

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al and P	
Confident	
Tech - C	֡
4	

Tat Exhibit IIB Price Proposal					Lab	Labor Plan	 						
Wastewater Force Main Evaluation	Bill Rate >	230.80	218.16	163.62	160.61	85.71	85.47	111.02	84.13	76.99			,
Downtown and East Orlando WW FM Evaluation. Phase 1 Preliminary Design			_										
Submitted to: Orlando Wastewater Department		-											
		uqor)	ausgeu	nein8)		II	II		ţţÀ	ţı			
Contract Type: Fee Not To Exceed		nager		nager					: Z (Bei				
	Total Labor Hrs	QA/QC Mai	Senior Proj. ellA lainsQ)	Project Mai Foulkes)	Project Eng (Janine Alex	Project Eng (Kuziak, Bre	Project Eng LaBerge, E	Sr GIS Anaig (Montalvo,	GIS Analyst Morris)	Sr Admin A. (Backet, An	Labor	Subs	Task Subtotals
Project Phases / Tasks	3,241	46	198	598	360	232	5.30	€ 83		172	383,883.70	51	474,778,21
Service Area, Flow Analysis and R/R Program	1,308	18	102	340	.12	20	508	37	793	62	155,440.71		155,440.71
Kickoff Meeting	26	2	4	8	4		4			4	3,935.48		3,935.48
Data Collection and Review	.99		æ	20	8	12	20			3	8,180.65		8,180.65
Service Area and Subarea Maps	97		3	12		×	24	8	40	2	9,762.22		9,762.22
Mtg. w City Planners and Staff	20		m	8	-		∞			1	2,724.19		2,724.19
Population Projections	127		9	24			48	œ	40	1.	13,668.75		13,668.75
Wastewater Flow Projections	109	2	9	24			29	4	16	1	12,350.91		12,350.91
Lift Station Flow and Pressure Analysis	34		2	∞			24				3,796.56		3,796.56
Peaking Factors for LSs and FMs	27	,	m į	00	-		16	,	į	i	3,330.96		3,330.96
Surban Braffler	6/9	*	አ .	39 5	•	•	9/7	77	77	21	81,693.17	•	81,693.17
System Fromes Identify notential failure points	20 CB		1	16		\dagger	22	7	3	7	5,8/2.63		5,872.63
Field Inspections	26			17			12			2	3,143.06		3.143.06
Force Main Criticality and Strategy	158	9	16	52	-		89	t	•	16	20,427.40	1	20,427.40
Develop criteria and catagories.	54	2	9	20			24			2	7,248.22		7,248.22
Workshop	26	4	4	∞			∞			2	3,942.54		3,942.54
Present rankings in TM	50		7	16		\dagger	24			∞ •	5,721.44		5,721.44
Inspection and Texting Plan	148	ľ	12	48 0			3 2		i	11	18 563 21	•	18 563 21
Review technologies	28		9	202			32			-	7,316.40		7,316.40
Mtg to discuss technologies	24		m	\$0			12			7	3,066.07		3,066.07
Inspection and Testing Plan TM	38	•	4	12			16			9	4,665.54		4,665.54
Mtg and Final TM	28		4	00			12			4	3,515.20		3,515.20
Renewal Plan	247	2	20	09	•	•	84	10	52	19	28,769.25	L	28,769.25
Review and summarize technologies	29	7	9	24		+	32			æ	8,663.45		8,663.45
Mtg with City	28		4	∞			12			4	3,515.20		3,515.20
Renewal Plan TM	104		4	20			24	8	40	8	11,065.60		11,065.60
Mtg and Final TM	48	,	9 ;	∞ 6		†	16	7	12	4 (5,525.00		5,525.00
Draft Report	35	4 (71	0,	\dagger		b7	4 +	Q a	77	441898		4418 98
Meeting and Final Keport	cc	7	1	3		-	>	4	3	٦			

Alternative Routing Analysis	1,121	9	47	126	252	40 No. (\$100) 100 (\$1)	492	22	128	43	131,856.15	5 90,894.51	222,750.66
Prepare Map with Base Alternatives	86		9	12	20		54	4	32		11,672.12	2	11,672.12
Identify Exist Utilities	65			8	24		32			П	7,975.63	3	7,975.63
Site Visits	98		4	80	32		40			2	10,893.90	0	10,893.90
Coordination w/Roadway and Transit Agencies	29		7	4	2		32			4	7,346.00	0	7,346.00
Route Evaluations	206		00	12	64		120			2	24,398.14	4	24,398.14
Evaluate and prioritize early out put FM Segments	88		4	16	16		32	4	12	4	10,556.96	9	10,556.96
Small interconnect improvements and repair materials	55		m	16	œ		24			4	6,916.52	2	6,916.52
Prel. Cost Estimates	26		7	9	12		32			4	6,388.36	9	6,388.36
Preliminary Layouts	212		4	12	24		35	16	64		21,714.60	0	21,714.60
Public Participation Plan	34		7	12			16			4	4,075.24	4	4,075.24
Draft Tech Memo	122	4	∞	12	32		4	2	12	12	15,345.72	2	15,345.72
Mtg and Final Tech Memo	37	7	4	∞			∞	ı	8	9	4,572.96	9	4,572.96
Prel. MOT Plans (Subconsultant CSEI)	1	_										54,053.97	54,053.97
Prel. SUE (Subconsultant BFA)	1					-						36,840.54	36,840.54
Hydraulic Analysis with the second of the se	391	12	24	88		164	(a)	Tiese	89	24	45.250.26	9	45.250.26
Build Base Model and System Map	71		m	12		36	And the second second second	4	16		7,493,64		7,493.64
Mtg. for Sys. Alt. and Flow Diversion Stategies	29	Э	4	16		16		2	24	2	7,949.46	9	7,949.46
Model Simulations	110.		4	2		72		2	12		11,547.76	9	11,547.76
Mtg. with City on modeling results	30	3	33	12		∞				4	4,303.96	9	4,303.96
Draft Tech Memo	76	4	Q	20		24		2	œ	12	9,380.56	9	9380.56
Review Mtg. and Final Tech Memo	37	2	4	8		80		1	8	9	4,574.88	8	4,574.88
Preliminary Design Report	421	10	25	4	96	48	116	80	48	26	51,336.58		51,336.58
Pipe Design Criteria and Mat'l Selection	37		4	4	20		∞			7	5,500.07	7	5,500.07
Permit Requirements	45		2	2	16		74			П	5,461.59	6	5,461.59
Workshop	59	3	4	4	12		16	2	16	2	7,236.46	·	7,236.46
Prel. Estimate of Costs	99		2	2	20	32	8			2	7,556.22	2	7,556.22
Draft Report	128	4	82	16	16	16	32	4	24	00	15,041.68	∞	15,041.68
Review Mtg.	34	. 3	3	œ	4		12			4	4,631.88	æ	4,631.88
Final Report	52		2	80	8		16	2	8	8	5,908.68	89	5,908.68
					\top	-							



Exhibit III Schedule

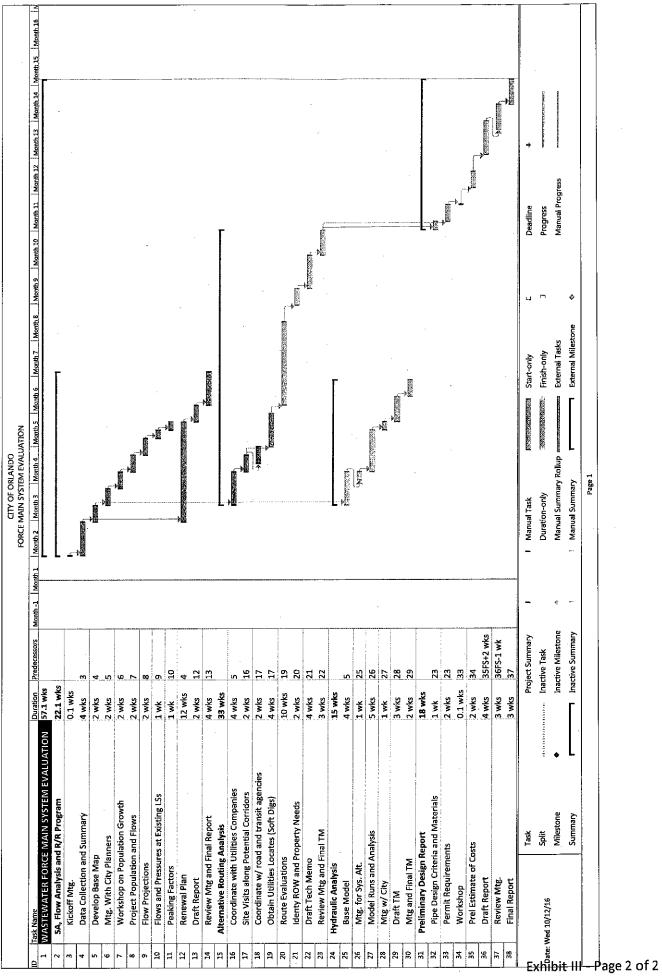


EXHIBIT IV

TRUTH-IN-NEGOTIATION CERTIFICATE

ENGINEER hereby certifies that all wage rates, and any and all other unit costs supporting the compensation to be paid to the ENGINEER pursuant to this Contract for the Work and Services as set forth herein, are accurate, complete, and current at the date of the Contract's execution.

	Tetra Tech, Inc.
	Ву:
	(Type or Print Name)
	(Title)
STATE OF FLORIDA	}
COUNTY OF	}
PERSONALLY	APPEARED before me, the undersigned authority,,[] well known to me or [] who has produced a
	as identification, and known by me to be the of the corporation named above, and acknowledged before me
that he/she executed the foregoi and that he/she was duly author	ng instrument on behalf of said corporation as its true act and deed,
	and and official seal this day of,
20	
	NOTARY PUBLIC
	My Commission Expires: