

# CONTRACT

THIS CONTRACT made effective the \_\_\_\_\_ day of September, **2019** by and between City of Alachua, hereinafter referred to as COA and ElectriCom, LLC. hereinafter referred to as CONTRACTOR,

WITNESSETH:

**WHEREAS**, COA has prepared a Project Scope and Technical Specifications, Exhibit A, and CONTRACTOR has submitted to COA a bid, Exhibit B, in accordance with the terms of this Contract and the Contract Documents; and

**WHEREAS**, COA, has determined and declared CONTRACTOR has submitted the lowest responsive and responsible bid for the work specified herein and hereby awards to CONTRACTOR this contract for the sum or sums named in CONTRACTOR bid as set forth in Exhibit B; and

## 1. PARTIES

1. 1. The City of Alachua may be interchangeably referred to herein as COA, CITY, PURCHASER, OWNER, or like term.
1. 2. The terms CONTRACTOR, Bidder, or Vendor refer to the same party, i.e., the party responding to COA above-numbered RFB. The terms may be used interchangeably throughout the RFB, including throughout any associated Contract Agreement and Contract Documents, to refer to the party responding to COA above-numbered RFB.

## 2. CONTRACTOR OBLIGATION

2. 1. CONTRACTOR shall furnish the labor, equipment, materials, supplies and services as specified and required herein; and

## 3. COA PAYMENT

3. 1. COA shall pay, upon completion of all work and acceptance by COA, the sum or sums set forth in the specific Work Order, Exhibit C plus or minus the sum of any fully executed Change Order Exhibit D.

## 4. TERM

4. 1. This agreement shall run from the date of execution by the last party signing through and until September 30, 2019.
4. 2. This Contract will automatically renew on October 1, 2019 for a one year extension at the end of the first term and renew for two successive two year terms, October 1 to September 30 of the following two (2) calendar years, unless automatic renewal is canceled by either party by the delivery of written notice to the other on or before June 1 of any contract year.

## **5. WORK ORDER**

5. 1. Work can be and is only authorized by the COA issuing a completed Work Order, Exhibit C that has been submitted and executed by CONTRACTOR to the satisfaction of COA. COA approval must be evidenced by the affixed signature of the City Manager or Assistant City Manager. No Work can be authorized by any other means. Each Work Order must contain a Lump Sum or Not to Exceed Amount along with a date of completion.

## **6. CHANGE ORDER**

6. 1. The Scope of Work, Price or Time of Completion for each Work Order cannot be changed except by Change Order, Exhibit D, agreed to as evidenced by the signature of COA and CONTRACTOR.

## **7. SAFETY**

7. 1. CONTRACTOR shall have in place, implemented and enforced a Safety Plan consistent with the standard in the industry and to include all safety and vehicular regulations including safety lighting as defined by Florida Department of Transportation (FDOT) and Florida Division of Motor Vehicles.

## **8. CONTRACTOR TO EXERCISE CARE AND REPORT HAZARDS.**

8. 1. CONTRACTOR shall perform all work with the care expected and required on public grounds and places.
8. 2. CONTRACTOR shall, within a reasonable time as the situation or event demands and requires, report to by written notice as set forth in Article VI, any hazard observed on City public grounds or facilities. Any condition presenting an immediate hazard or threat of bodily injury or damage to property is to also be reported expeditiously to the Alachua Police Department.

## **9. TIME OF ESSENCE**

9. 1. COA and CONTRACTOR agree time is of the essence in the completion of each Work Order and the deadline for completion is binding unless CONTRACTOR obtains a Change Order extending the date. CONTRACTOR expressly agrees that, in undertaking to complete the work/services within the time specified, CONTRACTOR made allowances for all hindrances and delays which might usually be expected to occur in performing the work. No claims shall be made by CONTRACTOR or his sub-contractors for such hindrances and delays. If CONTRACTOR or his sub-contractors experience hindrances or delays that, in opinion of CONTRACTOR, are not usually to be expected in the performance of the work, and which affect the performance of the work, CONTRACTOR may request a Change Order for an extension of time. Such hindrances and delays may include, but not be limited to, acts or failure to act by COA or other CONTRACTOR employed by COA, fires, floods, labor disputes, epidemics, abnormal weather conditions or acts of God.

## **10. LIQUIDATED DAMAGES**

10. 1. The parties agree COA will suffer damages in the event work is not completed and accepted by a required completion date. Therefore, it is agreed, since the amount of damage from delay is not able to be specifically determined at this point, that a reasonable approximation of damage is \$100.00 per day past the scheduled completion date of any and all Work Orders. The parties agree the \$100.00 amount is not a penalty but is a reasonable approximation of actual damage that will be suffered by COA.

## **11. PUBLIC PROJECT**

11. 1. It is recognized and agreed that the Project that is the subject of this Contract is publicly funded as a part of the annual budget of COA and it is the responsibility of CONTRACTOR to inspect any work site, call for or seek permission from COA to conduct any tests contractor deems necessary or appropriate, and be familiar with all conditions or other factors that may affect the cost(s) or contract time(s) as set forth in any and all Work Orders. The Price is agreed and understood to be as set forth in each Work Order and completion time is of the essence. Any Change Order request submitted by CONTRACTOR shall be considered accordingly.

## **12. INDEMNIFICATION BY CONTRACTOR**

12. 1. CONTRACTOR hereby agrees to indemnify and save harmless COA for any loss caused directly or indirectly by CONTRACTOR, its subcontractor, agent, employee acting on its behalf or in its stead or caused by any product, service or work supplied pursuant to this contract.

## **13. WARRANTIES**

13. 1. CONTRACTOR warrants all work, products and services provided directly or indirectly, by CONTRACTOR a subcontractor, agent, employee acting on its behalf or in its stead and that any product, service or work supplied under the contract will be fit for all purposes intended and consistent with all commercial standards.
13. 2. CONTRACTOR warrants to COA that all work shall be free from defects in material or workmanship and that the services provided under the contract shall conform to all requirements of the contract and expectations of the COA. All materials and equipment furnished by CONTRACTOR are guaranteed to be new, unused and to conform in all respects to the requirements of this contract. After receipt of written notice thereof, CONTRACTOR shall promptly correct any defective work which may develop during the warranty period (one year following the date of final acceptance), and any damage to other work caused by such defects or the repairing of the same, all at CONTRACTOR's expense. CONTRACTOR hereby assigns to COA any and all rights under any warranties CONTRACTOR may have received or be entitled to from vendors of the materials and/or equipment incorporated into the work. The warranties set forth shall apply to all replacement materials, equipment and services associated therewith to the

same extent as it applies to original work provided and shall extend for a period of one (1) year beyond the date the replacement work is complete.

13. 3. CONTRACTOR agrees that materials furnished pursuant to the contract documents will come with a separate, all-encompassing and comprehensive warranty which will be furnished to COA at the time of the material's delivery. Warranty coverage shall commence on the first day of service to COA. Each product furnished shall be guaranteed by the successful CONTRACTOR to be free from adulterants or impurities which might cause hazards or stoppages in the operation of standard equipment using the specified products.
13. 4. COA will not accept any disclaimer of warranties of merchantability and fitness for a particular purpose for work, product or service(s) offered.

#### **14. CONTRACTOR VENDOR STATUS**

14. 1. CONTRACTOR will continue to maintain its status as and meet all requirements of an approved vendor of COA during the term of the contract.
14. 2. CONTRACTOR will provide at contract execution (before beginning any work) a certificate of insurance acceptable to COA reflecting COA as an additional insured and otherwise meeting all requirements set forth in Exhibit E.

#### **15. NON WAIVER OF SOVEREIGN IMMUNITY**

15. 1. Notwithstanding any express or implied term or language elsewhere in the contract or any document furnished by CONTRACTOR, COA has not and does not waive sovereign immunity and reserves the limits of liability as set forth in Section 768.28, Florida Statutes.

#### **16. PUBLIC WORK PROJECT**

16. 1. The Project is a Public Work. No Lien may be filed against COA. Any Claimant shall have a right of action against CONTRACTOR and against any required Payment or Performance Bonds in accordance with Chapter 255. Such action may not involve the City in any action or expense.

#### **17. PAYMENT AND PERFORMANCE BONDS**

17. 1. COA reserves the right to require the posting of Payment and Performance Bonds for the amount of the total price of each Work Order in excess of \$50,000.00 or for amount of all outstanding Work Orders when the combined price, when added together, exceeds a combined total in excess of \$50,000.
17. 2. Bonds required by COA shall meet the requirements of and be posted in accordance with Chapter 255 of Florida Statutes. Further, when a Bond is required under this article, Contractor is required to insert the following in every related subcontract:

**“Notice: Claims for labor, materials and supplies are not assertable against City of Alachua, and are subject to proper prior notice to CONTRACTOR, pursuant to Chapter 255 of the Florida Statutes.”**

## **18. ASSIGNMENT**

CONTRACTOR shall not assign, subcontract or transfer any interest in this agreement without the written consent of COA. Nor shall CONTRACTOR assign any monies due or to become due to it under this agreement without the prior written consent of COA. Neither party shall have the power to assign any of the duties or rights or any claim arising out of or related to the agreement, whether arising in tort, contract or otherwise, without the written consent of the other party. These conditions and the entire agreement are binding on the heirs, successors and assigns of the parties.

## **19. INDEPENDENT CONTRACTOR**

- 19.1. It is understood and agreed that CONTRACTOR is an independent CONTRACTOR and not an employee of COA. COA will not withhold income taxes, social security or any other sums from the payments made to CONTRACTOR.
- 19.2. CONTRACTOR shall in no way hold CONTRACTOR out to any third person as an agent of COA.
- 19.3. CONTRACTOR and all subcontractors are solely responsible for all employee or agent wages. CONTRACTOR and subcontractor will be solely responsible for full payment to any outside employment agencies and/or sub-contractors. All persons furnished by CONTRACTOR or subcontractor shall be considered solely its employees or agents and each shall be responsible for payment of all unemployment, social security and other payroll taxes, including making contributions when required by law.

## **20. NON WAIVER OF RIGHTS**

- 20.1 No partial payment made under this agreement shall be evidence of the performance of the agreement either wholly or in part, and no payment shall be construed to be an acceptance of improper material or unsatisfactory performance. No act of COA in superintending, nor failure to disapprove or reject any material used, work performed, nor any extension of time for the completion shall be construed as acceptance of the work either wholly or in part. Acceptance shall be evidenced only by the final payment by COA.

## **21. INDEMNIFICATION**

- 21.1 CONTRACTOR covenants and agrees to indemnify and save harmless COA and to defend from all cost, expenses, damages, attorney fees injury or loss to which COA and/or its officials, directors, partners, consultants, agents or employees may be subjected by any person, firm, corporation or organization by reason of any wrongdoing, misconduct, want or need of care or skill, negligence or default or breach of contract, guaranty, or warranty, by the successful CONTRACTOR, sub-contractor, sub-supplier any person or organization directly or indirectly employed by any of them to perform or furnish any of the work or anyone for whose acts any of them may be liable.

## **22. WRITING REQUIRED**

- 22.1 No oral statement of any person shall modify or otherwise affect the terms, conditions or specifications stated in the Contract Documents.

- 22.2 All modifications, amendments or addenda to the Contract Documents must be made in writing and executed by CONTRACTOR and COA in order to be legally enforceable. See also Section 6 Change Orders

### **23. DESCRIPTIVE INFORMATION**

- 23.1 All equipment, materials and articles incorporated are to be of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the specifications. Reference to any equipment, material, article or process, by trade name or make, shall not be construed as to limit competition.
- 23.2 Substitutions shall be approved only if determined by COA to be equivalent to the specifications. A substitution is subject to disqualification if the substitution is not pre-approved by COA. Also see Section 23.3.
- 23.3 Any alternatives or substitutions to the attached specifications must be clearly delineated, set out, and submitted as an "Affidavit of Compliance", see Section 23.2, and be pre-approved by COA.

### **24. COMPLIANCE WITH LAWS AND REGULATIONS**

- 24.1. CONTRACTOR hereby certifies that it is aware of any and all applicable federal, state and local laws, regulations, orders of courts or governmental agencies (including the Occupational Safety and Health Act) ordinances and permitting requirements and further certifies that it has taken or will take all actions necessary to ensure full compliance with such requirements, including full compliance by any sub-contractors and/or material suppliers employed by CONTRACTOR to perform on this Contract. CONTRACTOR agrees to indemnify and hold COA harmless for any and all claims, losses, penalties, fines and expenses (including, without limitation, any and all reasonable attorney and expert fees) related to CONTRACTOR failure, and/or the failure of its sub-contractors and material suppliers, to abide by the terms of this Section.
- 24.2. CONTRACTOR hereby certifies that it is aware of any and all applicable federal immigration law requirements, including, without limitation, CONTRACTOR obligation to properly verify the legal work status of each of its employees by the filing of a complete and accurate Form I-9. CONTRACTOR also acknowledges the importance of ensuring that all personnel accessing any of COA property have been properly verified through the I-9 documentation process. Accordingly, CONTRACTOR further certifies that it has taken and will take all actions necessary to ensure full compliance with the Form I-9 requirements, and any other applicable immigration law requirements, and shall also ensure the compliance with such requirements by any sub-contractors and material suppliers employed by CONTRACTOR on this Contract. CONTRACTOR agrees to indemnify and hold COA harmless for any and all claims, losses, penalties, fines and expenses (including, without limitation, any and all reasonable attorney and expert fees) related to CONTRACTOR failure, and/or the failure of its sub-contractors and material suppliers, to abide by the terms of this Section.
- 24.3. All hazardous waste and used materials, such as containers, liquids, rags, filters, and solvents, etc. must be disposed of in accordance with all Federal, State and Local Laws and regulations.

- 24.4. Any violation of said statutes, laws, ordinances, rules or regulations shall entitle COA to terminate this Agreement immediately, for cause, upon written notice.

## **25. PUBLIC RECORDS**

- 25.1. CONTRACTOR shall allow public access to all documents, papers, letters or other material subject to the provisions of 119, Florida Statute (F.S.) made or received by CONTRACTOR in conjunction with this Contract. Specifically, CONTRACTOR must:
- A. Keep and maintain public records that ordinarily and necessarily would be required by COA in order for COA to perform the services being performed by CONTRACTOR.
  - B. Provide the public with access to public records on the same terms and conditions that COA would provide the records and at a cost that does not exceed the cost provided in 119, F.S., or as otherwise provided by law.
  - C. Ensure that public records that are exempt or confidential from public records disclosure requirements are not disclosed except as authorized by law.
  - D. Meet all requirements for retaining public records or transfer, at no cost to COA, all public records in possession of CONTRACTOR upon termination of the contract. All records stored electronically must be provided to COA in a format that is compatible with the information technology systems of COA.
- 25.2. CONTRACTOR must promptly provide COA with a copy of any request to inspect or copy public records in possession of CONTRACTOR and shall promptly provide COA a copy of CONTRACTOR response to each such request. Failure to grant such public access will be grounds for immediate termination of this Contract by COA.
- 25.3. This provision will apply to all services provided unless CONTRACTOR can demonstrate by clear and convincing evidence that it is not or was not acting on behalf of COA under Florida law. CONTRACTOR will be held liable for plaintiff attorney fees and costs if a suit is properly filed and the court finds that CONTRACTOR unlawfully refused to comply with a public records request within a reasonable time.
- 25.4. CONTRACTOR shall contact Deputy City Clerk Alan Henderson, Custodian of City Public Records, at (386) 418-6104 or [ahenderson@cityofalachua.com](mailto:ahenderson@cityofalachua.com), concerning any questions the CONTRACTOR may have regarding the duty of CONTRACTOR to provide Public Records.

## **26. SUBCONTRACTORS**

- 26.1. In the event that CONTRACTOR, during the course of the work under this Agreement, requires the services of any subcontractor or other professional associates in connection with services covered by this Agreement, CONTRACTOR must first secure the prior express written approval of COA. If

subcontractor or other professional associates are required in connection with the services covered by this Agreement, CONTRACTOR is fully responsible for the services of subcontractors or other professional associates.

## **27. PAYMENT AND BILLING**

- 27.1. As a condition precedent for any payment, CONTRACTOR shall submit monthly an invoice to COA detailing and requesting payment for work properly rendered and amounts due. CONTRACTOR invoices shall describe with reasonable particularity all work completed and shall be accompanied by such documentation or data in support of payment sought as COA may require. Each invoice shall constitute CONTRACTOR representation to COA that the work indicated in the invoice has reached the level stated, has been properly and timely performed as required herein, that all work was provided for a public purpose, that all obligations of CONTRACTOR covered by prior invoices have been paid in full, that the amount requested is currently due and owing and there is no reason known to CONTRACTOR that payment of any portion thereof should be withheld. Submission of CONTRACTOR invoice for final payment will be clearly marked Final Invoice and shall further constitute CONTRACTOR'S representation to COA that, upon receipt by CONTRACTOR of the amount invoiced, all obligations of CONTRACTOR to others, incurred in connection with the services provided are or will be paid in full.
- 27.2. If the Scope of Work to be performed pursuant to a Work Order is clearly defined in advance of the work effort, the Work Order shall be issued on a Lump Sum Basis. Upon CONTRACTOR acceptance of the Work Order, CONTRACTOR shall perform all work required by the Work Order, but in no event, shall CONTRACTOR be paid more than the negotiated amount stated therein.
- 27.3. If the Scope of Work to be performed by a Work Order is not clearly defined, the Work Order, at the sole discretion of COA, will be issued on a Unit Price Basis with Not to Exceed. Upon CONTRACTOR'S acceptance of the Work Order, CONTRACTOR shall perform all work required by the Work Order but, in no event, shall CONTRACTOR be paid more than the Not to Exceed amount.
- 27.4. For Work Orders issued on a Lump Sum Basis, CONTRACTOR may monthly invoice the amount due based on the percentage of total Work Order work actually performed and completed but, in no event, shall the invoice amount exceed a percentage of the Lump Sum Fee amount equal to a percentage of the total work actually completed.
- 27.5. For Work Orders issued on an Unit Price Basis with a Not to Exceed amount, CONTRACTOR may monthly invoice the amount due for work actually performed and completed, but in no event, shall the invoice amount exceed a percentage of the Not to Exceed amount equal to a percentage of the total work actually completed.
- 27.6. Each Work Order, whether issued on a Lump Sum Basis or a Unit Price Basis with a Not to Exceed amount, shall be treated separately.
- 27.7. COA shall make payments to CONTRACTOR when requested as work progresses for services furnished but, not more than once monthly. Each Work Order shall be invoiced separately. All invoice must be properly dated, titled "Invoice", describe any work rendered, the unit price of the work, the name and



address of CONTRACTOR, Work Order Number, Purchase Order Number and all other information required by COA.

- 27.8. Invoices shall be reviewed and approved by the Project Manager prior to processing for payment. The original invoice shall be hand delivered or sent by email to: ( Project Manager)

## **28. GENERAL TERMS OF PAYMENT, BILLING AND RIGHT TO AUDIT**

- 28.1. Payments for all sums properly invoiced shall be made upon satisfactory completion of work required hereunder. Upon final acceptance of all the work by COA, CONTRACTOR may invoice COA for the full amount of compensation provided for under the terms of this Agreement, less any amount already paid by COA. COA shall pay CONTRACTOR within thirty (30) days from receipt of a correct invoice.
- 28.2. COA shall have the right to audit the books and records of CONTRACTOR or its subcontractor(s) concerning any work performed under this Agreement. Such audit may occur during the term of the Agreement or at other such times as set forth herein. All such books and records shall be maintained by CONTRACTOR for a period of three years from the date of final payment under the contract and by any subcontractor of CONTRACTOR for three years after the final payment under the subcontract. Any such audit will take place at the office of CONTRACTOR or at the offices of COA and be held, as to time and place, based on mutual agreement of the parties. Total compensation due CONTRACTOR will be determined by COA during and subsequent to the described audit and payment due CONTRACTOR or refund due COA shall be paid to the other within thirty (30) days of written notice as provided in Section 33.
- 28.3. It is the intention of COA to make payment on acceptable invoices within thirty (30) days of receiving invoicing unless unusual circumstances arise. Invoices shall be fully documented by Unit Price as to materials, services and work provided. No payment shall be made on invoices not listing a purchase order number. Invoices which call for payment before thirty (30) days from receipt by COA, or cash discounts given on such payment, will be considered only if in the opinion of the Finance Department the review, inspection and processing procedures can be completed as to the specific purchases within the specified time.

## **29. HAZARDOUS MATERIALS PROVISION**

- 29.1. The CONTRACTOR is required to furnish COA with a current Material Safety Data Sheet (MSDS) on or before delivery of each and every hazardous chemical or substance purchased which is classified as toxic under Chapter 422, Florida Statutes. Appropriate labels and MSDSs shall be provided for all shipments. Send MSDSs and other pertinent data to Purchasing Representative, email to dsmith@cityofalachua.com.

## **30. CONTRACTOR REPRESENTATIVE**

- 30.1. The successful CONTRACTOR must have, at all times, one worker on site that can communicate by speaking, reading, and writing in the English language.

## **31. CONTRACTOR EMPLOYEE MINIMUM AGE**

- 31.1. Employees of the CONTRACTOR will at all times have identification with them to show age of employee. No person under the age of 18 will be permitted on any COA work site.

## **32. CONTRACTOR EMPLOYEE USE OF PERSONAL PROTECTIVE EQUIPMENT**

- 32.1. CONTRACTOR shall ensure all employees are provided and wear proper Personal Protective Equipment while working on COA property, right of way, or project.

## **33. NOTICE**

- 33.1. Any notice under this Agreement must be in writing, sent by email, addressed to the party for whom it is intended at the address last specified herein. The address for giving of notice shall remain until it has been changed by written notice in compliance with the provisions of this Section. For the present, the parties designate the following as the respective email addresses for giving of notice:

FOR CITY:

Adam Boukari, [aboukari@cityofalachua.com](mailto:aboukari@cityofalachua.com)

cc to William Shiskin, [bshiskin@cityofalachua.org](mailto:bshiskin@cityofalachua.org)

Anthony Lindsey, [alindsey@cityofalachua.org](mailto:alindsey@cityofalachua.org)

FOR CONTRACTOR:

Kevin Mason, [contracts@electricominc.com](mailto:contracts@electricominc.com)

cc: Lloyd Puente, [lpuente@electricominc.com](mailto:lpuente@electricominc.com)

Name, Email Address CONTRACTOR

## **34. THIRD PARTY BENEFICIARIES**

- 34.1. This Agreement does not create any relationship with, or any rights in favor of, any third party.

## **35. ATTACHMENTS**

- 35.1. All exhibits attached to this Agreement are incorporated into and made part of this Agreement by reference.

## **36. AMENDMENTS**

- 36.1. The parties may amend this Agreement only by mutual written agreement, of the same formality and of equal dignity herewith. See also Sections 22 and 6.

## **37. CAPTIONS AND SECTION HEADINGS**

- 37.1. Captions and section headings used herein are for convenience only and shall not be used in construing this Agreement.

## **38. CONSTRUCTION**

- 38.1. This Agreement shall not be construed more strictly against one party than against the other. It is recognized that both parties have substantially contributed to the preparation of this Agreement.

## **39. COLLUSION**

- 39.1. CONTRACTOR declares that this Agreement is made without any previous understanding, agreement or connections with any persons, contractors or corporations and that this Agreement is fair and made in good faith without any outside control, collusion or fraud.

**40. RIGHTS AT LAW RETAINED**

- 40.1. The rights and remedies of COA and CONTRACTOR provided for under this Agreement are in addition and supplemental to any other rights and remedies provided by law.

**41. VENUE AND GOVERNING LAW**

- 41.1. Any claim or cause of action arising under this contract, or related to performance herein, shall lie in the courts of competent jurisdiction of Alachua County, Florida.
- 41.2. All claims or causes of action arising under the contract shall be resolved in accordance with the laws of the State of Florida.

**42. COA POLICY AND REGULATIONS**

- 42.1. The current version of the COA Purchasing and Sales Policy and Regulations published at is herein incorporated by reference and made a part of this contract as if set forth in its entirety, and is posted at: [www.cityofalachua.com](http://www.cityofalachua.com)

**43. ENTIRE AGREEMENT**

- 43.1. This Agreement constitutes the entire Agreement and supersedes all prior written or oral agreements, understandings or representations.

EXECUTION PAGE TO FOLLOW

IN WITNESS WHEREOF, the parties hereto have executed this Contract as of the day and year of the last signature affixed.

CONTRACTOR: ElectriCom, LLC

By: \_\_\_\_\_

Print Name: Kevin Mason

Its President  
Title

Date: \_\_\_\_\_

CITY OF ALACHUA

By: \_\_\_\_\_  
Adam Boukari

Its: City Manager

Date: \_\_\_\_\_

## **Exhibit A**

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### **PROJECT SCOPE OF WORK AND TECHNICAL SPECIFICATIONS**

#### **SCOPE OF WORK**

##### **PART 1                    GENERAL**

- A. The completed work will provide installation of electrical conduits, conductors, and ancillary items conforming to one of two methods:
  - 1) Horizontal Directional Drilling
  - 2) Open Cut Excavation
- B. CONTRACTOR shall perform all duties to become acquainted with the work, and perform pre-investigated survey of existing conditions affecting the work.
  - 1) Drawings shall be provided by the City of Alachua (COA) illustrating the extent of the work.
  - 2) Work Order shall be required and issued for all work.
  - 3) CONTRACTOR shall mobilize to jobsite within (5 days) of Work Order.
  - 4) CONTRACTOR shall be fully responsible for obtaining utility locates and spot dig to verify existing utility conflicts.
  - 5) CONTRACTOR shall exercise care when working in close proximity to existing utility facilities and shall restore area to original conditions.
  - 6) CONTRACTOR shall coordinate and meet with COA Electric Department throughout project. At a minimum, a Kick off meeting to review the Work Order and schedule.
  - 7) CONTRACTOR shall notify COA Electric Department for approval and assistance in the installation of conduit into energized enclosures.
  - 8) CONTRACTOR, upon demobilization, shall remove all materials, equipment and debris from the work site upon completion of the work.
  - 9) As required, CONTRACTOR shall replace sod to match existing.
  - 10) CONTRACTOR shall submit all complete boring log information along with each invoice.

##### **PART 2                    WORK LOCATION**

- A. Work location varies, as needed; within the Corporate City limits of Alachua, Florida; Electric Service Territory.

##### **PART 3                    SUPPLEMENTAL REQUIREMENTS**

- A. Damages to utilities during the progress of the work shall be the CONTRACTOR responsibility; all cost to repair shall be borne by the CONTRACTOR to the COA satisfaction.
- B. All work performed shall be in accordance with the COA Electric Construction Standards, NESC, NFPA 70E, whichever is more stringent.
- C. All electric primary raceway(s) shall be placed at a minimum depth of 48-inches.
- D. All electric secondary raceway(s) shall be placed at a minimum depth of 36-inches.
- E. Materials provided by the CONTRACTOR may be staged on COA property. CONTRACTOR shall coordinate with the COA for approved location(s).

- F. CONTRACTOR shall provide adequate work force to complete work in a timely manner.
- G. CONTRACTOR shall be responsible for any Federal, State or Local permits for this project.

**SECTION 31 23 16**  
**OPEN CUT EXCAVATION**

**PART 1                    GENERAL**

**1.01    QUALITY ASSURANCE**

- A.    Provide adequate survey control to avoid unauthorized over excavation.

**1.02    WEATHER LIMITATIONS**

- A.    Material excavated during inclement weather shall not be used as fill or backfill until after material drains and dries sufficiently for proper compaction.

**PART 2                    PRODUCTS (NOT USED)**

**PART 3                    EXECUTION**

**3.01    GENERAL**

- A.    Excavate to lines, grades, and dimensions as necessary to accomplish Work. Allow for forms, working space, granular base, topsoil, and similar items, wherever applicable.
- B.    Conduct excavation in accordance with OSHA Standards 29CFR Part 1926.650 Subpart P. Trenching and Excavation regulations and requirements.

**3.02    UNCLASSIFIED EXCAVATION**

- A.    Excavation is unclassified. Complete all excavation regardless of the type, nature or condition of the materials encountered.

**3.03    TRENCH WIDTH**

- A.    Minimum width of Trenches:
  - 1)    Single Pipes, Conduits, Direct-Buried Cables, and Duct Banks:
    - a.    Less than 4-inch Outside Diameter or Width: 18 inches.
    - b.    Greater than 4-inch Outside Diameter or Width: 18 inches greater than outside diameter or width of pipe, conduit, direct-buried cable, or duct bank.
  - 2)    Multiple Pipes, Conduits, Cables, or Duct Banks in Single Trench: 18 inches greater than aggregate width of pipes, conduits, cables, duct banks, plus space between.
- B.    B.    Maximum Trench Width: Unlimited, or unless excess width will cause damage to existing facilities, adjacent property, or completed Work.

**3.04    STOCKPILING EXCAVATED MATERIAL**

- A.    Stockpile excavated material that is suitable for use as fill or back fill until material is needed.
- B.    Confine stockpiles to within easements, rights-of-way, and approved work areas. Do not obstruct roads or streets.
- C.    Do not stockpile excavated materials near or over existing facilities, adjacent property, or completed Work, if weight or stockpiled material could induce excessive settlement.
- D.    Dispose of debris resulting from removal of organic matter, trash, refuse, and junk.

## SECTION 31 23 23 FILL AND BACKFILL

### **PART 1                    GENERAL**

#### **1.01    REFERENCES**

- B.     The following is a list of standards which may be referenced in this section:
- 1)     ASTM International (ASTM):
    - a.     C117, Standard Test Method for Materials Finer Than 75-Micrometers (No. 200) Sieve in Mineral Aggregates by Washing.
    - b.     C136, Standard Method for Sieve Analysis of Fine and Coarse Aggregates.
    - c.     D75, Standard Practice for Sampling Aggregates.
    - d.     D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
    - e.     D1556, Standard Test Method for density and Unit Weight of Soil in Place by the Sand-Cone Method.
    - f.     D1557, test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700kN-m/m<sup>3</sup>)).
    - g.     D4253, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
    - h.     D4254, Standard Test Method for Minimum Index Density and Unit Weight of Soils and Calculation of Relative Density.
    - i.     D6938, Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

#### **1.02    DEFINITIONS**

- A.     Relative Compaction:
- 1)     Ratio, in percent, of as-compacted field dry density to laboratory maximum dry
  - 2)     Density as determined in accordance with ASTM D1557.
  - 3)     Apply corrections for oversize material to either as-compacted field dry density or maximum dry density.
- B.     Optimum Moisture Content:
- 1)     Determined in accordance with ASTM Standard specified to determine Maximum dry density for relative compaction.
  - 2)     Determine field moisture content on basis of fraction passing ¾-inch sieve.
- C.     Prepared Ground Surface: Ground surface after completion of required demolition, clearing and grubbing, scalping of sod, stripping of topsoil, excavation to grade, and subgrade preparation.
- D.     Completed Course: A course or layer that is ready for next layer or next phase of Work.
- E.     Lift: Loose (uncompacted) layer of material.
- F.     Well-Graded:
- 1)     A mixture of particle sizes with no specific concentration or lack thereof    of one or more sizes.
  - 2)     Does not define numerical value that must be placed on coefficient of uniformity, coefficient of curvature, or other specific grain size distribution parameters.
  - 3)     Used to define material type that, when compacted, produces a strong and relatively incompressible soil mass free from detrimental voids.
- G.     Influence Area; Areas within planes slope downward and outward at 60-degree angle from horizontal measured from:
- 1)     1 foot outside outermost edge at base of foundations or slabs.



- 2) 1 foot outside outermost edge at surface of roadways or shoulder.
- 3) 0.5 foot outside exterior at spring line of pipes or culverts.
- H. Borrow Material: Material from required excavations or from designated borrow areas on or near Site.
- I. Selected Backfill Material: Materials available onsite that COA determines to be suitable for specified use.
- J. Imported Material: Materials obtained from sources offsite, suitable for specified use.
- K. Structural Fill: Fill materials as required under structures, pavements, and other facilities.
- L. Embankment Material: Fill materials required to raise existing grade in areas other than under structures.
- 1.03 QUALITY ASSURANCE
  - A. Notify COA when:
    - 1) Soft or loose sub grade materials are encountered.
    - 2) Fill material appears to be deviating from Specifications.

## **PART 2 PRODUCTS**

### **2.01 EARTHFILL**

- A. Excavated material from required open cut excavations free from rocks larger than 3 inches, from roots and other organic matter, ashes, cinders, trash, debris, and other deleterious materials.

### **2.02 GRANULAR FILL**

- A. Sand or sand with silt classified as SP or SP-SM in accordance with the Unified Soil Classification System (ASTM D2487),

### **2.03 WATER FOR MOISTURE CONDITIONING**

- A. Free of hazardous or toxic contaminates, or contaminants deleterious to proper compaction.

## **PART 3 EXECUTION**

### **3.01 GENERAL**

- A. Keep placement surfaces free of water, debris, and foreign material during placement and compaction of fill and backfill materials.
- B. Place and spread fill and backfill materials in horizontal lifts of uniform thickness, in a manner that avoids segregation, and compact each lift to specified densities prior to placing succeeding lifts. Slope lifts only where necessary to conform to final grades or as necessary to keep placement surfaces drained of water.
- C. If pipe, conduit, duct bank, or cable is to be laid within fill or backfill:
  - 1) Fill or backfill to an elevation 2 feet above top of item to be laid.
  - 2) Excavate trench for installation of item.
  - 3) Install bedding, if applicable, as specified in Section 31 23 23.15, Trench Backfill.
  - 4) Install item.
  - 5) Backfill envelope zone and remaining trench, as specified in Section 31 23 23.15, Trench Backfill, before resuming filling or backfilling specified in this section.
- D. Tolerances:
  - 1) Grade to establish and maintain slopes and drainage.
- E. Settlement: correct and repair any subsequent damage to structures, pavements, curbs, slabs, piping, and other facilities, caused by settlement of fill or backfill material.

### **3.02 FILL**

- A. Outside Influence Areas beneath Pavements, Curbs, Slabs, and Piping:
  - 1) Allow for 4-inch thickness of topsoil.

- 2) Maximum 6-inch thick lifts.
- 3) Place and compact fill across full width of embankment.
- 4) Compact to minimum 95 percent relative compaction as determined in accordance with ASTM D1557
- 5) Dress completed embankment with allowance for topsoil, crest surfacing, and slope protection, where applicable.

## SECTION 31 23 23.15 TRENCH BACKFILL

### PART 1 GENERAL

#### 1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
  - 1) American Public Works Association (APWA): Uniform Color Code.
  - 2) ASTM International (ASTM):
    - a. C33/C33M, Standard Specification for Concrete Aggregates.
    - b. C94/C94M, Standard Specification for Ready-Mixed Concrete.
    - c. C117, Standard test Method for Materials Fine than 75 Micrometer (No.200) Sieve in Mineral Aggregates by Washing.
    - d. C136, Standard test Method for Sieve Analysis of Fine and Coarse Aggregates.
    - e. C150/C150M, Standard Specification for Portland Cement.
    - f. C618, Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for use in Concrete.
    - g. C1012/C1012M. Standard test Method for Length Change of Hydraulic-Cement Mortars Exposed to a Sulfate Solution.
    - h. D698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600kNm/m<sup>3</sup>)).
    - i. D1140, Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75 micrometer) Sieve.
    - j. D1557, Standard Test Methods for Laboratory Compaction Characteristics of Soil using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
    - k. D2487, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System).
    - l. D4253, Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.
    - m. D4254, Standard Test Methods for Minimum Index Density and Unit Weight of Soils and Calculation of relative Density.
    - n. D4318, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
    - o. D4832, Standard Test Method for Preparation and Testing of Controlled Low Strength Material (CLSM) Test Cylinders.
  - 3) National Electrical Manufacturers Association (NEMA): Z535.1, safety Colors.

#### 1.02 DEFINITIONS

- A. Bedding Material: Granular material upon which pipes, conduits, cables, or duct banks are placed.
- B. Imported Material: Material obtained by CONTRACTOR from source(s) offsite.
- C. Lift: Loose (uncompacted) layer of material.

- D. Pipe Zone: Backfill zone that includes full trench width and extends from prepared trench bottom to an upper limit above top outside surface of pipe, conduit, cable or duct bank.
- E. Prepared Trench Bottom: Graded trench bottom after excavation and installation of stabilization material, if required, but before installation of bedding material.
- F. Relative Compaction: The ratio, in percent, of the as-compacted field dry density to the laboratory maximum dry density as determined by ASTM D1557. Corrections for oversize material may be applied to either as-compacted field dry density or maximum dry density, as determined by COA.
- G. Selected Backfill Material: Material available onsite that COA determines to be suitable for specific use.
- H. Well-Graded: A mixture of particle sizes that has no specific concentration or lack thereof of one or more sizes producing a material type that, when compacted, produces a strong and relatively incompressible soil mass free from detrimental voids. Satisfying both of the following requirements, as defines in ASTM D2487:
  - 1) Coefficient of Curvature: Greater than or equal to 1 and less than or equal to 3.
  - 2) Coefficient of Uniformity: Greater than or equal to 4 for materials classified as Gravel, and greater than or equal to 6 for materials classified as sand.

#### 1.03 SUBMITTALS

- A. Action Submittals:
  - 1) Shop Drawings: Manufacturer's descriptive literature for marking tapes.
- B. Informational Submittals:
  - 1) Certified Gradation Analysis: Submit not less than 30 days prior to delivery for imported materials or anticipated use for excavated materials, except for trench stabilization material that will be submitted prior to material delivery to Site.

### **PART 2 PRODUCTS**

#### 2.01 MARKING TAPE

- A. Nondetectable:
  - 1) Inert polyethylene, impervious to known alkalis, acids, chemical reagents, and solvents likely to be encountered in soil.
  - 2) Thickness Minimum 5 mils.
  - 3) Width: 6 inches.
  - 4) Identifying Lettering: Minimum 1-inch high, permanent black lettering imprinted continuously over entire length.
  - 5) Manufacturers and Products:
    - a. Reef Industries; terra Tape.
    - b. Mutual Industries; Non-detectable Tape.
    - c. Presco; Non-detectable Tape.
    - d. or COA approved equal.
- B. Detectable:
  - 1) Solid aluminum foil, visible on unprinted side, encased in protective high visibility, inert polyethylene plastic jacket.
  - 2) Foil Thickness: Minimum 0.35 mils.
  - 3) Laminate Thickness: Minimum 5 mils.
  - 4) Width: 6 inches.
  - 5) Identifying Lettering: Minimum 1-inch high, permanent black lettering imprinted continuously over entire length.
  - 6) Joining Clips: Tin or nickel-coated furnished by tape manufacturer.
  - 7) Manufacturers and Products:

- a. Reef Industries; Terra Tape. Sentry Line Detectable.
    - b. Mutual Industries; Detectable Tape.
    - c. Presco; Detectable Tape.
    - d. or COA approved equal.
  - C. Color: In accordance with APWA Uniform Color Code.
 

Color	Facility
Red	Electric Power Lines. Cables, conduit, and lightening cables
Orange	Communicating alarm or signal lines, cables, or conduit
Yellow	Gas, oil, steam, petroleum, or gaseous materials
Green	Sewers and drain lines
Blue	Potable water
Purple	Reclaimed water, irrigation, and slurry lines

\*As specified in NEMA Z535.1, Safety Color Code
  - 2.02 TRENCH STABILIZATION MATERIAL
    - A. Granular Fill: As specified in Section 31 23 23, Fill and Backfill.
  - 2.03 BEDDING MATERIAL AND PIPE ZONE MATERIAL
    - A. Granular Fill: As specified in Section 31 23 23, Fill and Backfill.
  - 2.04 EARTH BACKFILL
    - A. Earthfill: As specified in Section 31 23 23, Fill and Backfill.
  - 2.05 CONTROLLED LOW STRENGTH MATERIAL (CLSM)
    - A. Select and proportion ingredients to obtain compressive strength between 50 psi and 150 psi at 28 days in accordance with ASTM D4832.
    - B. Materials:
      - 1) Cement: ASTM C150/C150M, Type I or Type II.
      - 2) Aggregate: ASTM C33/C33M, Size 7.
      - 3) Fly Ash (Pozzolan): Class F fly ash in accordance with ASTM C618, except as modified herein:
        - a. ASTM C618, Table 1, Loss on Ignition: Unless permitted otherwise, maximum 3 percent.
      - 4) Water: Clean, potable, containing less than 500 ppm of chlorides.
- PART 3 EXECUTION**
- 3.01 TRENCH PREPARATION
    - A. Water Control:
      - 1) Dewater; as needed.
      - 2) Remove water in a manner that minimizes soil erosion from trench sides and bottom.
      - 3) Provide continuous water control until trench backfill is complete.
    - B. Remove foreign material and backfill contaminated with foreign material that falls into trench.
  - 3.02 TRENCH BOTTOM
    - A. Firm Subgrade: Grade with hand tools, remove loose and disturbed material, and trim off high areas and ridges left by excavating bucket teeth. Allow space for bedding material if shown or specified.
    - B. Soft Subgrade: If subgrade is encountered that may require removal to prevent pipe settlement, notify COA. COA will determine depth of over excavation, if any required.
  - 3.03 TRENCH STABILIZATION MATERIAL INSTALLATION
    - A. Rebuild trench bottom with trench stabilization material.
    - B. Place material over full width of trench in 6-inch lifts to required grade, providing allowance for bedding thickness.

- C. Compact each lift so as to provide a firm, unyielding support for the bedding material prior to placing succeeding lifts.

#### 3.04 BEDDING

- A. Furnish imported bedding material where, in the opinion of COA, excavated material is unsuitable for bedding or insufficient in quantity.
- B. Place over full width of prepared trench bottom in two equal lifts when required depth exceeds 8 inches.
- C. Hand grade and compact each lift to provide a firm, unyielding surface.
- D. Minimum Thickness:
  - 1) Piping: 4 inches.
  - 2) Conduit: 3 inches.
  - 3) Direct-Buried Cable: 3 inches.
  - 4) Duct Banks: 3 inches.
- E. Check grade and correct irregularities in bedding material. Loosen top 1 inch to 2 inches of compacted bedded material with a rake or by other means to provide a cushion before laying each section of pipe, conduit, direct-buried cable, or duct bank.
- F. Install to form continuous and uniform support except at bell holes, if applicable, or minor disturbances, resulting from removal of lifting tackle.
- G. Bell or Coupling Holes: Excavate in bedding at each joint to permit proper assembly and inspection of joint and to provide uniform bearing along barrel of pipe or conduit.

#### 3.05 BACKFILL PIPE ZONE

- A. Upper limit of pipe zone shall not be less than following:
  - 1) Pipe: 12 inches.
  - 2) Conduit: 3 inches.
  - 3) Direct-Buried Cable: 3 inches.
  - 4) Duct Bank: 3 inches.
- B. Restrain pipe, conduit, cables, and duct banks as necessary to prevent their movement during backfill operation.
- C. Place material simultaneously in lifts on both sides of pipe and, if applicable, between pipes, conduit, cables, and duct banks installed in same trench.
  - 1) Pipe 10-inch and Smaller Diameter: First lift less than or equal to  $\frac{1}{2}$  pipe diameter.
- D. Thoroughly tamp each lift, including area under haunches, with handheld tamping bars supplemented by “walking in” and slicing material under haunches with a shovel to ensure voids are completely filled before placing each succeeding lift.
- E. After the full depth of the pipe zone material has been placed as specified, compact the material by a minimum of three passes with a vibratory plate compactor only over the area between the sides of the pipe and the trench walls. Compact the material at least 95 percent relative compaction as determined by ASTM D1557.
- F. Do not use power-driven impact compactors to compact pipe zone material.

#### 3.06 MARKING TAPE INSTALLATION

- A. Continuously install marking tape along centerline of buried piping, on top of last lift of pipe zone material.
  - 1) Detectable Marking Tape: Install with nonmetallic piping and waterlines.
  - 2) Nondetectable Marking Tape: Install with metallic piping.

#### 3.07 BACKFILL ABOVE PIPE ZONE

- A. General:
  - 1) Process excavated material to meet specified gradation requirements.
  - 2) Adjust moisture content as necessary to obtain specified compaction.

- 3) Do not allow backfill to free fall into trench or allow heavy, sharp pieces of material to be placed as backfill until after at least 2 feet of backfill has been provided over top of pipe.
  - 4) Do not use power driven impact type compactors for compaction until at least 4 feet of backfill are placed over top of pipe.
  - 5) Backfill to grade with proper allowances for topsoil, crushed rock surfacing, and pavement thicknesses, wherever applicable.
- B. Backfill:
- 1) Backfill for Areas Outside of Facilities: Backfill trench above pipe zone with earth backfill in lifts not exceeding thickness of 6 inches. Mechanically compact each lift to a minimum of 95 percent relative compaction as determined by ASTM D1557 prior to placing succeeding lifts.
  - 2) Backfill for Areas under and Around Facilities: Backfill trench above pipe zone with granular fill in lifts not to exceed 6 inches. Compact each lift to a minimum of 95 percent relative compaction as determined by ASTM D1557 prior to placing succeeding lifts.
- 3.08 REPLACEMENT OF TOPSOIL
- A. Replace topsoil in top 4 inches of backfilled trench.
  - B. Maintain finished grade of topsoil even with adjacent area and grade as necessary to restore drainage.
- 3.09 MAINTENANCE OF TRENCH BACKFILL
- A. After each section of trench is backfilled, maintain surface of backfilled trench even with adjacent ground surface until final surface restoration is completed.
  - B. Topsoil: Add topsoil where applicable and as necessary to maintain surface of backfilled trench level with adjacent ground surface.
  - C. Other Areas: Add excavated material where applicable and keep surface of backfilled trench level with adjacent ground surface.
- 3.10 SETTLEMENT OF BACKFILL
- A. Settlement of Trench backfill, or of fill, or facilities constructed over trench backfill will be considered as a result of defective compaction of trench backfill.

## SECTION 33 05 23.13 UTILITY HORIZONTAL DIRECTIONAL DRILLING

### PART 1 GENERAL

#### 1.01 REFERENCES

- A. The following is a list of standards which may be referenced in this section:
  - 1) American Society for Testing and Materials (ASTM).
    - a. D638, Test Method for Tensile Properties of Plastics.
    - b. D1248, Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable.
    - c. D1599, Test Method for Short Time Hydraulic Failure Pressure of plastic Pipe, Tubing and Fittings.
    - d. D3350, Specification for Polyethylene plastic Pipe and Fittings Materials.
    - e. F477, Specification for Elastomeric Deals (Gaskets) for Joining Plastic Pipe.
    - f. F714, Standard Specification for Polyethylene Pipe Based on Outside Diameter.

#### 1.02 SUBMITTALS

- A. Shop Drawings:
  - 1) Certifications for pipe and drilling fluid.
    - a. Include additives and other expandable materials proposed for use.
    - b. Material Safety Data Sheets (MSDSs) on each material.
  - 2) Description of operation of the equipment to maintain and monitor pipe accuracy.
  - 3) Description of reaming and pull-back operation.

### 1.03 QUALITY ASSURANCE

- A. Minimum Qualifications:
  - 1) A minimum of 3 mini-horizontal directional drilling projects or a total of 500 feet completed in the past 5 years.
  - 2) Provide a list of references to the COA for projects of similar nature.
  - 3) Provide key personnel with a least three years' experience in mini-horizontal directional drilling and associated pipe installation.

## **PART 2 PRODUCTS**

### 2.01 DRILLING MACHINE

- A. Steerable, fluid-assisted, mechanical cutting machine with the drill head located to allow for steering corrections during boring operations.
- B. Complete with locating system, reaming assembly and pull-back operation, and control and measurement of drilling fluid.
- C. Provide tracking system for installation.

### 2.02 DRILLING FLUID

- A. Potable, clean water, suitable for drinking. Water should not contain excessive amounts of minerals or salts. If only hard water is available, treat with soda ash using 0.6 to 2.4 grams per liter of water.
- B. Water mixed with bentonite and/or polymer.
- C. Fluid flow rate: Variable to 10 gpm.
- D. Fluid Pressure:
  - 1) Maximum Pressure: 100 psi.

### 2.03 DRILL HEAD

- A. Sized and shaped for compaction or cutting, and steering, depending on soil conditions.
- B. Openings for fluid flow.

### 2.04 REAMING ASSEMBLY

- A. Complete with circular cutters, compactors and swivels.
- B. Two swivels, one between the cutter and compactor and one between the compactor and product pipe gripper. The swivel should be in good condition and sized to be compatible with the torsional resistance of the product pipe.

### 2.05 PULLERS

- A. Use pulling-eye type grippers or adapters for HDPE or PVC pipe.
- B. Use basket-type grippers for direct burial cable and inner duct.
- C. Use internal stiffeners for hollow plastic pipes when pulling with external-type pulling eye or basket grippers.

### 2.06 HDPE PIPE AND FITTINGS

- A. Polyethylene Encasement:
  - 1) Virgin polyethylene raw material conforming to requirements of ASTM D4976.
  - 2) Elongation: 800 percent minimum, in machine and transverse direction (ASTM D882).
  - 3) Tensile Strength: 3,600 psi, minimum,
  - 4) Dielectric Strength: 800V per mil-thickness, minimum.

- 5) Propagation Tear Resistance: 2,550-gram force (gf), minimum, in machine and transverse direction (ASTM D1922).
- 6) Tube Form: Conform to AWWA C105/A21.5.
- 7) Film: 0.008-inch (8 mil) thick, minimum.
- 8) Number of Film Layers: Two.

### **PART 3 EXECUTION**

#### **3.01 SURFACE INVESTIGATION**

- A. Coordinate site access and areas for rig set-up, staging and pipe fabrication with the COA. The rig working area should be level, firm and suitable for the movement of Rubber-tired vehicles.
- B. Locate surface obstructions that may interfere with the use of walk-over location systems and overhead wire lines that may be hazardous and/or interfere with construction.

#### **3.02 SUBSERVICE INVESTIGATION**

- A. Identifying Existing Utilities:
  - 1) Where available, use a local utility locating service familiar with the area to mark and locate existing utilities.
  - 2) Locate and mark existing utilities 20 feet on either side of the bore path.
  - 3) The location and type of underground facility should be marked by the utility COA or their representative by color coded paint, flags, stakes or similar means.
  - 4) Color coding of existing utilities should be as follows:

<u>Utility</u>	<u>Color</u>
Communications	Orange
Power	Red
Natural Gas	Yellow
Sewer	Green
Water	Blue
Other (Identify)	White

- B. Identify and notify other utilities that do not subscribe to the local utility locating service, or all major utilities, if a local utility locating service is not available.

#### **3.03 POSITIONING THE DRILL RIG**

- A. Position drill rig to achieve a minimum cover at the required entry point.
- B. The entry angle shall be between 5 and 20 degrees. Entry angles above or below this range are not allowed without the approval of the COA.
- C. Anchor the drill rig with power stake-down augers or similar approved methods.

#### **3.04 BORING AND REAMING**

- A. Bore and ream hole in a single pass.
- B. Pre-ream hole if necessary to reduce pullback force and torque required to accommodate the pipe installation.
- C. Bore and ream to produce a borehole at least 50 percent larger than the outside diameter of the pipe to be installed.
- D. Accuracy:
  - 1) Depth: plus or minus 5 percent or 1 foot, whichever is less.
  - 2) Horizontal alignment: Plus or minus 1 foot.
  - 3) Tolerance window: the bore pipe shall exit within a 3 foot by 3 foot window surrounding the proposed exit point.
- E. Limit steering corrections to be greater than 800 times the bore pipe diameter.

#### **3.05 LOCATING**



- A. Use a walk-over surface locating system consisting of a down hole transmitter, or sonde, located inside the drill head housing, and an electric receiver unit to determine the location and depth of the drill head.
- B. Take locator readings at 10-foot intervals for straight bores where there are no known utilities or obstructions. Where other utilities or obstructions exist, take readings every 5 feet.

### 3.06 INSTALLATION OF HDPE PIPE AND FITTINGS

- A. General:
  - 1) Install polyethylene pipe in conformance with pipe manufacturer's recommendations.
  - 2) Joining: Butt-fuse pipes and fittings in accordance with pipe manufacturer's recommendation. Depending on Site conditions, perform butt-fusion joining in or outside of excavation.
  - 3) Polyethylene Encasement:
    - a. Encase all buried joints that contain metal backup rings, bolts, etc.
    - b. Cut polyethylene tube approximately 2 feet beyond all metal joints parts.
    - c. Slip tube around pipe and joint, centering on the joint.
    - d. Pull encasement to take out slack and wrap snug around pipe.
    - e. Secure overlap in place and fold at quarter points of pipe length.
    - f. Wrap and tape encasement snug around fittings and valves.
- B. Pull pipe or conduit in one continuous motion, without pause, until pipe or conduit extends a sufficient distance beyond exit and entrance points to allow for proper connection.
- C. Cables shall not be pulled. Contain cables inside pipe or conduit during pulling operations or carefully place cables inside conduit or pipe after pipe has been placed.
- D. When a basket grip is used, cover the end of the conduit to prevent intrusion of soil and water into the conduit.

### 3.07 CLEANUP

- A. Immediately clean and dispose of drilling fluid that has migrated or spilled.
- B. Backfill any excavations in accordance with Section 31 23 23.15, Trench backfill.

**\*\*\*\* END OF SECTION \*\*\*\***

## **EXHIBIT B**

Page 1 of 2

### **BID FORM**

Provide bid costs for each item listed below. Bidder is directed to include all costs to complete the work in the bids for the items listed. No additional compensation will be provided to complete the work. CONTRACTOR shall provide a Unit Price Bid in the format shown below. This price structure includes all materials, labor & equipment to install electrical conduit base on the following:

#### **Mobilization/Demobilization:**

MOBILIZATION AND DEMOBILIZATION: \$ 950.00 /EA

#### **Directional Bore Method:**

2" HDPE ELECTRICAL CONDUIT: \$ 11.25 /LF

4" HDPE ELECTRICAL CONDUIT: \$ 17.25 /LF

6" HDPE ELECTRICAL CONDUIT: \$ 28.50 /LF

2" & 4" HDPE ELECTRICAL CONDUIT: \$ 24.00 /LF

4" & 6" HDPE ELECTRICAL CONDUIT: \$ 37.00 /LF

#### **Open Cut Method:**

2" Sch.- 40 PVC ELECTRICAL CONDUIT: \$ 8.25 /LF

4" Sch.- 40 PVC ELECTRICAL CONDUIT: \$ 11.35 /LF

6" Sch.- 40 PVC ELECTRICAL CONDUIT: \$ 18.00 /LF

2" & 4" Sch. 40 PVC ELECTRICAL CONDUIT: \$ 19.50 /LF

4" & 6" Sch. 40 PVC ELECTRICAL CONDUIT: \$ 26.50 /LF

#### **Pull Box Installation: (PVC, Concrete, Fiberglass)**

Pull Box Sizes: (12"x17") (23"x16") (48" x 30"): \$ 1,500.00 /EA

#### **Pull Box Installation: (Concrete)**


Pull Box Sizes: (48" x 72" x 40") \$ 3,700.00 /EA

**NOTE: COA will furnish ONLY 2" , 4" , & 6" elbows, transformer pads, and pull boxes for the sizes shown above; CONTRACTOR to provide all other items required to complete the installation of the electrical conduits into transformer, switchgears and pull boxes.**

## Page 2 of 2

Bidder must acknowledge receipt, by the number and date of all addenda published by the City as part of this bid. See Section 5.

**Authorized Signature**

Name of Firm:	ElectriCom, LLC
Name of Authorized Representative:	Kevin Mason
Title of Authorized Representative:	President
Signature of Authorized Representative:	

**EXHIBIT C**

Page 1 of 2

**WORK ORDER**

**WORK ORDER NO.:** \_\_\_\_\_ (For tracking purposes only, to be assigned by CONTRACTOR after execution).

**PURCHASE ORDER (PO) NO.:** \_\_\_\_\_ (For billing purposes only, to be assigned by CITY after Contract execution.)

**PROJECT NAME:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ CITY OF ALACHUA, a municipality in Alachua County Florida

**PROJECT MANAGER:** \_\_\_\_\_

**CONTRACTOR:** \_\_\_\_\_

**CONTRACTOR ADDRESS:** \_\_\_\_\_

Execution of the Work Order and of a companion P.O. by CITY shall serve as authorization for CONTRACTOR to provide for the above project pursuant to that certain Agreement dated \_\_\_\_\_, 2019, between CITY and CONTRACTOR and further delineated in the specifications, conditions and requirements stated in the following listed documents which are attached hereto and made a part hereof as Exhibit A.

**ATTACHMENTS (Check all that apply):**

- ☐ DRAWINGS/PLANS/SPECIFICATIONS
- ☐ DETAILED SERVICES AND TASKS FOR PROJECT
- ☐ SPECIAL CONDITIONS
- ☐ \_\_\_\_\_

The CONTRACTOR shall provide services pursuant to this Work Order, its attachments and the above-referenced Agreement, which is incorporated herein by reference as if it had been set out in its entirety. Whenever this Work Order conflicts with the Agreement, the Agreement shall prevail.

**TIME FOR COMPLETION:** The work authorized by this Work Order shall be commenced upon receipt of a Purchase Order by and shall be completed by CONTRACTOR within (\_\_\_\_\_) calendar days.

**COMPENSATION (Select One)**

- (a) Compensation is based on a **LUMP SUM** and CONTRACTOR shall perform all work required by this Work Order for the sum of \_\_\_\_\_ DOLLARS (\$\_\_\_\_\_). In no event shall CONTRACTOR be paid more than the Lump Sum Amount.

**OR**

- (b) Compensation is based on a **UNIT BASIS WITH A NOT-TO- EXCEED AMOUNT**, CONTRACTOR shall perform all work required by this Work Order for a sum not exceeding \_\_\_\_\_ DOLLARS (\$\_\_\_\_\_).

CITY shall make payment to CONTRACTOR in strict accordance with the payment terms of the referenced Agreement.

It is expressly understood by CONTRACTOR that this Work Order, until executed by CITY and delivery of a P.O., does not authorize the performance of any services by CONTRACTOR and that CITY, prior to its execution of the Work Order and P.O., reserves the right to authorize a party other than CONTRACTOR to perform the services called for under this Work Order.

Work shall not be conducted on Fridays, Saturdays, Sundays, or on holidays observed by the City, or outside the regularly scheduled work days defined as Monday to Thursday from 8:00 a.m. to 4:30 p.m. unless the City, in its discretion, determines the interests of the public otherwise so demand or require. Should the Contractor find it necessary to work outside the regularly scheduled work days or time, the Contractor shall submit written notice and obtain City approval a minimum of 48 hours in advance.

IN **WITNESS WHEREOF**, the parties hereto have made and executed this Change Order on this \_\_\_\_\_ day of \_\_\_\_\_, 2019, for the purposes stated herein.

(CONTRACTOR)

\_\_\_\_\_  
Witness

By: \_\_\_\_\_

Title: \_\_\_\_\_

CITY OF ALACHUA, FLORIDA

\_\_\_\_\_  
Witness

By: \_\_\_\_\_  
Adam Boukari City Manager

Date: \_\_\_\_\_

**EXHIBIT D**

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CHANGE ORDER #

**PURCHASE ORDER(PO) NO.:** \_\_\_\_\_

**PROJECT NAME:** \_\_\_\_\_

**CITY:** \_\_\_\_\_ **City of Alachua**, a municipality in Alachua County Florida \_\_\_\_\_.

**PROJECT MANAGER:** \_\_\_\_\_

**CONTRACTOR:** \_\_\_\_\_

**CONTRACTOR ADDRESS:** \_\_\_\_\_

Execution of this Change Order by CITY shall serve as authorization for the CONTRACTOR to modify the price, scope of work and/or Contract time for the above project, as set out in the Change Order Request attached as Exhibit "A". This Change Order shall be an addendum to the CONTRACT DATED \_\_\_\_\_, **2019**, between CITY and CONTRACTOR.

CONTRACTOR shall perform pursuant to this Change Order, Exhibit A and any attachments. All other provisions of the CONTRACT shall continue in full force and effect.

Any change authorized by this Change Order shall be effective upon full execution by both parties and its delivery by email to CONTRACTOR.

\_\_\_ Change in Contract Time.

\_\_\_ Change in Scope of Work

\_\_\_ Change in Price (Select One)

\_\_\_ If compensation is **LUMP SUM**, CONTRACTOR shall perform all work required by this Change Order for the sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_). In no event shall CONTRACTOR be paid more than the Lump Sum Amount.

\_\_\_ **Contractor Initial** \_\_\_ **COA Initials**

**OR**

\_\_\_ If compensation is on a **UNIT BASIS WITH A NOT-TO-EXCEED** Amount, CONTRACTOR shall perform all work required by this Change Order for a sum not exceeding \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_).

\_\_\_ **Contractor Initial** \_\_\_ **COA Initials**

CITY shall make payment to CONTRACTOR in strict accordance with the payment terms of the above-referenced CONTRACT and this Change Order.

Work shall not be conducted on Fridays, Saturdays, Sundays, or on holidays observed by the City, or outside the regularly scheduled work days defined as Monday to Thursday from 8:00 a.m. to 4:30 p.m, unless the City, in its discretion, determines the interests of the public otherwise so demand or require. Should the Contractor find it necessary to work outside the regularly scheduled work days or time, the Contractor shall submit written notice and obtain City approval a minimum of 48 hours in advance.

IN WITNESS WHEREOF, the parties hereto have made and executed this Change Order on this day of \_\_\_\_\_, 2019, for the purposes stated herein.

(CONTRACTOR)

\_\_\_\_\_  
Witness

By: \_\_\_\_\_

Title: \_\_\_\_\_

CITY OF ALACHUA, FLORIDA

\_\_\_\_\_  
Witness

By: \_\_\_\_\_  
Adam Boukari City Manager

Date: \_\_\_\_\_

## **EXHIBIT E**

Page 1 of 3

### **INSURANCE REQUIREMENTS**

#### **1. Insurance**

Except as otherwise specified in this contract, Contractor and any sub-contractors of any tier will be required at their own expense to maintain in effect at all times during the performance of the work insurance coverages with limits not less than those set forth below with insurers and under forms of policies satisfactory to COA. It shall be the responsibility of Contractor to maintain adequate insurance coverage and to assure that sub-contractors are adequately insured at all times. Failure of Contractor to maintain adequate coverage shall not relieve Contractor of any contractual responsibility or obligation.

The requirements specified herein as to types, limits and COA approval of insurance coverage to be maintained by Contractor and sub-contractors are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by Contractor and sub-contractors under this contract.

Any insurance carried by COA which may be applicable shall be deemed to be excess insurance and Contractor insurance primary for all purposes despite any conflicting provision in Contractor policies to the contrary.

For insurance purposes, the title of Ownership of materials furnished under this contract shall remain with Contractor until COA receives such materials at the specified destination.

##### **1.1 Additional Insured**

Upon award, all insurance coverages furnished under this contract, except for Workers Compensation and Employers Liability, shall include COA, officials, directors, partners, CONTRACTOR, agents and employees as additional insured with respect to the activities of Contractor and sub-contractors. These policies shall contain a "cross-liability" or "severability of interest" clause or endorsement. Notwithstanding any other provision of these policies, the insurance afforded shall apply separately to each insured, named insured or additional insured with respect to any claim, suit, or judgment made or brought by or for any other insured, named insured or additional insured as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount or amounts for which the insurer would have been liable had only one insured been named. COA shall not by reason of their inclusion under these policies incur liability to the insurance carrier for payment of premium.

##### **1.2 Waiver of Subrogation**

Contractor and sub-contractors shall require their insurance carriers, with respect to all insurance policies, to waive all rights of subrogation against COA, officials, directors, partners, consultants, agents and employees.

COA shall be exempt from, and in no way liable for, any sums of money which may represent a deductible in any insurance policy. The payment of such deductible shall be the sole responsibility of Contractor and/or sub-contractor providing such insurance.



## **EXHIBIT E**

Page 2 of 3

### **1.3 Certificates of Insurance**

The Certificate(s) of Insurance will be furnished by Contractor upon notice of award. It shall be completed by an authorized representative of insurer and presented to the Purchasing Division. The certificate shall be dated and show the following:

- 1.3.1 The name of the insurer, the effective and termination date, name of the insured Contractor and the policy number.
- 1.3.2 Statement that the insurer will mail notice to COA at least thirty (30) days prior to any material deviations or cancellations of the policy.
- 1.3.3 Shall include all deductibles and/or self insurance retentions for each line of insurance coverage.
- 1.3.4 The Certificate(s) of Insurance shall designate COA as additional insured as follows:

City of Alachua  
Attention: Purchasing Division  
15100 NW 142nd Terrace  
Alachua, Florida 32615

### **2. Workers Compensation and Employers Liability**

This insurance shall protect Contractor against all claims under applicable state workers compensation laws. The insured shall also be protected against claims for injury, disease or death of employees which, for any reason, may not fall within the provision of a workers compensation law. The policy shall include an "all states" or "other states" endorsement.

- 2.1 The liability limits shall not be less than required by Florida Law.

<b><i>Insurance:</i></b>	<b><i>Description:</i></b>
Workers Compensation Employer Liability	Statutory \$1,000,000 each occurrence

## **EXHIBIT E**

Page 3 of 3

### **3. Business Automobile Liability**

This insurance shall be written in comprehensive form and shall protect Contractor and the additional insured against all claims for injuries to members of the public and damage to property of others arising from the use of motor vehicles, 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.

3.1 The liability limits shall not be less than:

<b><i>Insurance:</i></b>	<b><i>Description:</i></b>
Bodily injury Property damage	\$1,000,000 combined single limit Each occurrence

### **4. Comprehensive General Liability**

This insurance shall be an "occurrence" type policy written in comprehensive form and shall protect Contractor and the additional insured against all claims arising from bodily injury, sickness, disease or death of any person or damage to property of COA or others arising out of any act or omission of Contractor or his agents, employees or sub-contractors. This policy shall also include protection against claims insured by usual personal injury liability coverage and a "protective liability" endorsement to insure the contractual liability assumed by Contractor.

4.1 The liability limits shall not be less than:

<b><i>Insurance:</i></b>	<b><i>Description:</i></b>
Personal injury and Property damage	\$1,000,000 combined single limit each occurrence and \$1,000,000 aggregate

### **5. Umbrella Liability Policy**

This insurance shall protect Contractor and the additional insured against all claims in excess of the limits provided under the employer liability, comprehensive automobile liability, and the comprehensive general liability policies. The liability limits of the umbrella liability policy shall not be less than \$1,000,000. The policy shall be an "occurrence" type policy.

**\*\*\*\* END OF SECTION \*\*\*\***