

CONSTRUCTION SERVICES AGREEMENT FOR SURFACE DEPRESSION INJECTION GROUTING

THIS CONSTRUCTION SERVICES AGREEMENT FOR SURFACE DEPRESSION INJECTION GROUTING ("Agreement") is entered into by and between the **CITY OF OCALA**, a Florida municipal corporation ("City"), and **FOUNDATION SERVICES OF CENTRAL FLORIDA, INC.**, a for profit corporation duly organized and authorized to do business in the state of Florida (EIN: 59-3069253) ("Contractor").

RECITALS:

WHEREAS, on August 18, 2022, City issued an Invitation to Bid ("ITB") for the provision of surface depression injection grouting services, ITB No.: CIP/220645 (the "Solicitation"); and

WHEREAS, one (1) firm responded to the Solicitation and, after consideration of price and other evaluation factors set forth in the Solicitation, Foundation Services of Central Florida, Inc. was chosen as the intended awardee to provide surface depression injection grouting services (the "Project"); and

WHEREAS, Contractor certifies that Contractor is qualified and possesses the required licensure and skill to perform the work required for the Project; and

NOW THEREFORE, in consideration of the foregoing recitals, the following mutual covenants and conditions, and other good and valuable consideration, City and Contractor agree as follows:

TERMS OF AGREEMENT:

- 1. **RECITALS**. City and Contractor hereby represent, warrant, and agree that the Recitals set forth above are true and correct and are incorporated herein by reference.
- 2. CONTRACT DOCUMENTS. The Contract Documents which comprise the entire understanding between City and Contractor shall only include: (a) this Agreement; (b) those documents listed in this section as Exhibits to this Agreement; (c) the City's Solicitation for the Project and the bid submitted by Contractor in response to same (the "Solicitation Documents"); and (d) those documents identified in the Project Specifications section of this Agreement. Each of these documents are incorporated herein by reference for all purposes. If there is a conflict between the terms of this Agreement and the Contract Documents, then the terms of this Agreement shall control, amend, and supersede any conflicting terms contained in the remaining Contract Documents.
 - A. **Exhibits to Agreement**: The Exhibits to this Agreement are as follows:

Exhibit A: Scope of Work (A-1 through A-5)

Exhibit B: Price Proposal (B-1)

Exhibit C: Geotech Report No. 21 (C-1 through C-16) Exhibit D: Geotech Report No. 22 (D-1 through D-18)

If there is a conflict between the individual Exhibits regarding the scope of work to be performed, then any identified inconsistency shall be resolved by giving precedence in the following order: (1) Exhibit A, then (2) Exhibit B, then (3) Exhibit C, then (4) Exhibit D.

B. **Project Specifications**: This project will require the Contractor to have the following specifications and documents, which are incorporated by reference:

City of Ocala "Standard Specifications for Construction of Streets, Stormwater, Traffic, Water and Sewer Infrastructure" available at:

https://www.ocalafl.org/home/showdocument?id=20287.

"Florida Department of Transportation Standard Specifications for Road and Bridge Construction" (latest edition) available at:

http://www.fdot.gov/programmanagement/Implemented/SpecBooks/



Florida Department of Transportation Florida Greenbook (latest edition) can be obtained by downloading from:

https://www.fdot.gov/roadway/floridagreenbook/fgb.shtm

Manual on Uniform Traffic Control Devices (MUTCD), available at:

https://www.fdot.gov/traffic/trafficservices/mutcd.shtm

FDOT Design Standards available at: https://www.fdot.gov/design/standardplans/DS.shtm

In the event of a conflict between the individual Project Specifications regarding the scope of work to be performed, then the specification with the more restrictive provision shall take precedence over the others

- 3. SCOPE OF SERVICES. Contractor shall provide all materials, labor, supervision, tools, accessories, equipment, permits, fees, testing, inspections, certifications, and all other things necessary for Contractor to perform its obligations under this Agreement as set forth in the attached Exhibit A Scope of Work and the Solicitation Documents. The Scope of Work under this Agreement may only be adjusted by written amendment executed by both parties.
- 4. **COMPENSATION.** City shall pay Contractor a maximum limiting amount of **ONE HUNDRED FORTY-ONE THOUSAND, TWO HUNDRED FIFTY AND NO/100 DOLLARS (\$141,250)** (the "Contract Sum") as full and complete compensation for the timely and satisfactory completion of the work in compliance with the Contract Documents. This is a line-item project. City shall pay the Contractor only for the actual units that the Contractor provides, installed or constructs. The pricing under this Agreement may only be adjusted by written amendment executed by both parties.
 - A. **Monthly Progress Payments**: The compensation amount under this section shall be paid by City, monthly, based upon a percentage of completion of the work as invoiced by Contractor and approved by City. The compensation sought under this Agreement is subject to the express terms of this Agreement and any applicable federal and/or state laws.
 - B. **Project Schedule and Progress Reports**. A progress report and updated project schedule must be submitted with each pay request indicating the percent of services completed to date. This report will serve as support for payment to Contractor and the basis for payment in the event project is suspended or abandoned.
 - C. **Invoice Submission**. All invoices submitted by Contractor shall include the City Contract Number, an assigned Invoice Number, and an Invoice Date. Contractor shall be provided with a cover sheet for invoicing. This cover sheet must be filled out correctly and submitted with each invoice. Contractor shall submit the original invoice through the responsible City Project Manager at: **City of Ocala Engineer's Office,** Attn: **Brian Hutchinson**, **1805 NE 30th Avenue, Building 700, Ocala, Florida 34470**, E-Mail: <a href="whytherapycolor: whytherapycolor: whyther
 - D. **Payment of Invoices by City**. The City Project Manager must review and approve all invoices prior to payment. City Project Manager's approval shall not be unreasonably withheld, conditioned, or delayed. Payments by City shall be made no later than the time periods established in section 218.735, Florida Statutes.
 - E. **Retainage**. City shall withhold an amount equal to **FIVE PERCENT (5%)** of each monthly progress payment as retainage to secure Contractor's full and faithful performance of its obligations under this Agreement (the "Retainage"). Contractor shall not be entitled to any interest received by City on Retainage. The Retainage shall be payable to Contractor, subject to the provisions of this subsection, upon satisfaction of the following conditions precedent: (1) confirmation from the City Project Manager that Contractor has satisfactorily completed



- all work in accordance with the provisions of the Agreement; and (2) receipt of the Consent of Surety of the recorded bond for final payment.
- F. Withholding of Payment. City reserves the right to withhold, in whole or in part, payment for any and all work that: (i) has not been completed by Contractor; (ii) is inadequate or defective and has not been remedied or resolved in a manner satisfactory to the City Project Manager; or (iii) which fails to comply with any term, condition, or other requirement under this Agreement. Any payment withheld shall be released and remitted to Contractor within THIRTY (30) calendar days of the Contractor's remedy or resolution of the inadequacy or defect.
- G. Excess Funds. If due to mistake or any other reason Contractor receives payment under this Agreement in excess of what is provided for by the Agreement, Contractor shall promptly notify City upon discovery of the receipt of the overpayment. Any overpayment shall be refunded to City within <u>THIRTY (30)</u> days of Contractor's receipt of the overpayment or must also include interest calculated from the date of the overpayment at the interest rate for judgments at the highest rate as allowed by law.
- H. Tax Exemption. City is exempt from all federal excise and state sales taxes (State of Florida Consumer's Certification of Exemption 85-8012621655C-9). The City's Employer Identification Number is 59-60000392. Contractor shall not be exempted from paying sales tax to its suppliers for materials to fulfill contractual obligations with the City, nor will Contractor be authorized to use City's Tax Exemption Number for securing materials listed herein.
- 5. **TIME FOR PERFORMANCE**. Time is of the essence with respect to the performance of all duties, obligations, and responsibilities set forth in this Agreement and the Contract Documents.
 - A. Contractor shall mobilize and commence work no later than **TEN (10)** working days from the date of issuance of a Notice to Proceed for the project by City. At no time will the Contractor be allowed to lag behind.
 - B. The maximum acceptable lead time on materials is **TWO (2)** weeks. City shall issue a Notice to Proceed upon notification of receipt of materials by Contractor.
 - C. All work shall be substantially completed by Contractor and ready for final payment in a manner satisfactory to the City Project Manager within <u>THIRTY (30)</u> calendar days of the start date indicated on the Notice to Proceed.
 - D. **Weather Days**. Contractor shall submit a written request to the City Project Manager (e-mail is the preferred method) for additional days for which work is suspended or delayed by weather. Weather days shall be reconciled with each monthly pay application for the time period for which the application is submitted and shall be final. Contractor performance and execution of work shall be considered in the determination for granting additional days.
 - E. The Time for Performance under this Agreement may only be adjusted by Change Order, in the sole and absolute discretion of City. Any request for an extension of the Time for Performance must be submitted in a writing delivered to the City Project Manager, along with all supporting data, within **SEVEN (7)** calendar days of the occurrence of the event giving rise to the need for adjustment unless the City allows an additional period of time to ascertain more accurate data. All requests for adjustments in the Contract Time shall be determined by City.
 - F. As to any delay, inefficiency, or interference in this performance of this Agreement caused by any act or failure to act by City, the Contractor's sole remedy shall be the entitlement of an extension of time to complete the performance of the affected work in accordance with the Contract Documents. Contractor agrees to make no claim for extra or additional costs



- attributable to said delays, inefficiencies or interference, except as provided in this Agreement.
- G. None of the provisions of this section shall exclude City's right of recovery for damages caused by delays or inefficiencies caused by any act or failure to act by Contractor, to include costs incurred by City for the procurement of additional professional services.
- 6. LIQUIDATED DAMAGES FOR LATE COMPLETION. The parties agree that it would be extremely difficult and impracticable under the presently known facts and anticipated circumstances to ascertain and fix the actual damages that City and its residents would incur should Contractor fail to achieve Substantial Completion and/or Final Completion and readiness for final payment by the dates specified for each under the terms of this Agreement. Accordingly, the parties agree that should Contractor fail to achieve Substantial Completion by the date specified, then Contractor shall pay City, as liquidated damages and not as a penalty, the sum of EIGHT HUNDRED EIGHTY-TWO AND NO/100 DOLLARS (\$882) per day for each calendar day of unexcused delay in achieving Substantial Completion beyond the date specified for Substantial Completion in the Contract Documents. After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining work within the time specified in the Contract Documents for Final Completion and readiness for final payment or any proper extension thereof granted by City, Contractor shall pay City, as liquidated damages and not as a penalty, additional sum of TWO HUNDRED AND NO/100 DOLLARS (\$200.00) per day for each calendar day of unexcused delay in achieving completion and readiness for final payment.
 - A. **No Waiver of Rights or Liabilities**. Permitting Contractor to continue and finish the work, or any part thereof, beyond the dates specified for Substantial Completion and/or Final Completion and readiness for final payment shall not operate as a waiver on the part of the City of any of its rights under this Agreement. Any liquidated damages assessed pursuant to this section shall not relieve Contractor from liability for any damages or costs of other contractors caused by a failure of Contractor to complete the work as agreed.
 - B. **Right to Withhold or Deduct Damages**. When liquidated damages are due and owing, City shall have the right to: (1) deduct the liquidated damages from any money in its hands or from any money otherwise due or to become due to Contractor; or to (2) initiate any applicable dispute resolution procedure for the recovery of liquidated damages within the times specified under this Agreement.
 - C. Non-Cumulative. The parties agree and understand that the amounts set forth under this section for liquidated damages are not cumulative with one another. The amount set forth as liquidated damages for Contractor's failure to achieve Substantial Completion shall be assessed upon default and continue until Substantial Completion is attained. The amount set forth as liquidated damages for Contractor's failure to achieve Final Completion and readiness for payment shall be assessed after Substantial Completion is attained and apply until Final Completion is attained.
 - D. **Additional Costs.** In addition to the liquidated damages set forth under this section, Contractor agrees to pay all costs and expenses incurred by City due to Contractor's delay in performance to include inspection fees, superintendence costs, and travel expenses.
 - E. **Injunctive Relief.** The parties acknowledge that monetary damages may not be a sufficient remedy for Contractor's failure to achieve Substantial Completion or Final Completion in accordance with the terms of this Agreement, and that City shall be entitled, in addition to all other rights or remedies in law and equity, to seek injunctive relief.



- 7. **FORCE MAJEURE**. Neither party shall be liable for delay, damage, or failure in the performance of any obligation under this Agreement if such delay, damage, or failure is due to causes beyond its reasonable control, including without limitation: fire, flood, strikes and labor disputes, acts of war, acts of nature, terrorism, civil unrest, acts or delays in acting of the government of the United States or the several states, judicial orders, decrees or restrictions, or any other like reason which is beyond the control of the respective party ("Force Majeure"). The party affected by any event of force majeure shall use reasonable efforts to remedy, remove, or mitigate such event and the effects thereof with all reasonable dispatch.
 - A. The party affected by force majeure shall provide the other party with full particulars thereof including, but not limited to, the nature, details, and expected duration thereof, as soon as it becomes aware.
 - B. When force majeure circumstances arise, the parties shall negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution. Contractor performance shall be extended for a number of days equal to the duration of the force majeure. Contractor shall be entitled to an extension of time only and, in no event, shall Contractor be entitled to any increased costs, additional compensation, or damages of any type resulting from such force majeure delays.
- 8. **INSPECTION AND ACCEPTANCE OF THE WORK**. Contractor shall report its progress to the City Project Manager as set forth herein. All services, work, and materials provided by Contractor under this Agreement shall be provided to the satisfaction and approval of the Project Manager.
 - A. The Project Manager shall decide all questions regarding the quality, acceptability, and/or fitness of materials furnished, or workmanship performed, the rate of progress of the work, the interpretation of the plans and specifications, and the acceptable fulfillment of the Agreement, in his or her sole discretion, based upon both the requirements set forth by City and the information provided by Contractor in its Proposal. The authority vested in the Project Manager pursuant to this paragraph shall be confined to the direction or specification of what is to be performed under this Agreement and shall not extend to the actual execution of the work.
 - B. Neither the Project Manager's review of Contractor's work nor recommendations made by Project Manager pursuant to this Agreement will impose on Project Manager any responsibility to supervise, direct, or control Contractor's work in progress or for the means, methods, techniques, sequences, or procedures of construction or safety precautions or programs incident Contractor's furnishing and performing the work.
- 9. TERMINATION AND DEFAULT. Either party, upon determination that the other party has failed or refused to perform or is otherwise in breach of any obligation or provision under this Agreement or the Contract Document, may give written notice of default to the defaulting party in the manner specified for the giving of notices herein. Termination of this Agreement by either party for any reason shall have no effect upon the rights or duties accruing to the parties prior to termination.
 - A. **Termination by City for Cause**. City shall have the right to terminate this Agreement immediately, in whole or in part, upon the failure of Contractor to carry out any obligation, term, or condition of this Agreement. City's election to terminate the Agreement for default shall be communicated by providing Contractor written notice of termination in the manner specified for the giving of notices herein. Any notice of termination given to Contractor by City shall be effective immediately, unless otherwise provided therein, upon the occurrence of any one or more of the following events:



- (1) Contractor fails to timely and properly perform or complete any of the services set forth in the specifications of the Agreement;
- (2) Contractor provides material that does not meet the specifications of the Agreement;
- (3) Contractor fails to complete the work required within the time stipulated in the Agreement; or
- (4) Contractor fails to make progress in the performance of the Agreement and/or gives City reason to believe that Contractor cannot or will not perform to the requirements of the Agreement; or
- (5) Contractor fails to have available staff on site and prepared to begin work within two (2) hours notification of any work deemed to be an "emergency," to include all storm related emergencies.
- B. **Contractor's Opportunity to Cure Default**. City may, in its sole discretion, provide Contractor with an opportunity to cure the violations set forth in City's notice of default to Contractor.
 - (1) If granted an opportunity to cure, Contractor shall commence to cure the violations immediately and shall diligently and continuously prosecute such cure to completion within a reasonable time as determined by City.
 - (2) The City reserves the right to deduct from any monies due Contractor, or that may become due under the Agreement, any costs incurred by the City due to Contractor's delay, or from any reason attributable to Contractor's delay.
 - (3) If the violations are not corrected within the time determined to be reasonable by City or to the reasonable satisfaction of City, City may, without further notice, declare Contractor to be in breach of this Agreement and pursue all remedies available at law or equity, to include termination of this Agreement without further notice.
- C. **City's Remedies Upon Contractor Default**. In the event that Contractor fails to cure any default under this Agreement within the time period specified in this section, City may pursue any remedies available at law or equity, including, without limitation, the following:
 - (1) City shall be entitled to terminate this Agreement without further notice;
 - (2) City shall be entitled to hire another contractor to complete the required work in accordance with the needs of City;
 - (3) City shall be entitled to recover from Contractor all damages, costs, and attorney's fees arising from Contractor's default prior to termination; and
 - (4) City shall be entitled to recovery from Contractor any actual excess costs by: (i) deduction from any unpaid balances owed to Contractor; or (ii) any other remedy as provided by law.
- D. **Termination for Convenience**. City reserves the right to terminate this Agreement in whole or in part at any time for the convenience of City without penalty or recourse. The Project Manager shall provide written notice of the termination. Upon receipt of the notice, Contractor shall immediately discontinue all work as directed in the notice, notify all subcontractors of the effective date of the termination, and minimize all further costs to City including, but not limited to, the placing of any and all orders for materials, facilities, or supplies, in connection with its performance under this Agreement. Contractor shall be entitled to receive compensation solely for: (1) the actual cost of the work completed in conformity with this Agreement; and/or (2) such other costs incurred by Contractor as permitted under this Agreement and approved by City.



- 10. **DELAYS AND DAMAGES.** The Contractor agrees to make no claim for extra or additional costs attributable to any delays, inefficiencies, or interference in the performance of this contract occasioned by any act or omission to act by the City except as provided in the Agreement. The Contractor also agrees that any such delay, inefficiency, or interference shall be compensated for solely by an extension of time to complete the performance of the work in accordance with the provision in the standard specification.
- 11. **WARRANTY.** Contractor warrants that all labor, materials, and equipment furnished under the agreement are new, of the type and quality required for the Project, and installed in a good and workmanlike manner in accordance with the Contract Documents. Contractor shall guarantee that the work shall be free from any defects in workmanship for a period of not less than **ONE**(1) year from the date of Final Completion. Contractor shall guarantee that the materials provided shall be free from any defects for the longer of: (1) **ONE** (1) year from the date of Final Completion; or (2) the period of warranty provided by any supplier or manufacturer. All written manufacturers' warranties for materials supplied must be provided to the City Project Manager before final payment will be authorized.
- 12. **MANUFACTURER SERVICES.** Contractor shall furnish a manufacturer's representative as required to resolve assembly or installation problems with their products and/or systems. Contractor shall conduct, with the assistance of the manufacturer's/supplier's representative, start-up and operational tests on the equipment and system.
- 13. **PERFORMANCE EVALUATION**. At the end of the contract, City may evaluate Contractor's performance. Any such evaluation will become public record.
- 14. NOTICE REGARDING FAILURE TO FULFILL AGREEMENT. Any contractor who enters into an Agreement with the City of Ocala and fails to complete the contract term, for any reason, shall be subject to future bidding suspension for a period of ONE (1) year and bid debarment for a period of up to THREE (3) years for serious contract failures.
- 15. **CONTRACTOR REPRESENTATIONS**. Contractor expressly represents that:
 - A. Contractor has read and is fully familiar with all the terms and conditions of this Agreement, the Contract Documents, and other related data and acknowledges that they are sufficient in scope and detail to indicate and convey understanding of all terms and conditions of the work to be performed by Contractor under this Agreement.
 - B. Contractor has disclosed, in writing, all known conflicts, errors, inconsistencies, discrepancies, or omissions discovered by Contractor in the Contract Documents, and that the City's written resolution of same is acceptable to Contractor.
 - C. Contractor has had an opportunity to visit, has visited, or has had an opportunity to examine and ask questions regarding the sites upon which the work is to be performed and is satisfied with the site conditions that may affect cost, progress, and performance of the work, as observable or determinable by Contractor's own investigation.
 - D. Contractor is satisfied with the site conditions that may affect cost, progress, and performance of the work, as observable or determinable by Contractor's own investigation.
 - E. Contractor is familiar with all local, state, and Federal laws, regulations, and ordinances which may affect cost, progress, or its performance under this Agreement whatsoever.
 - F. **Public Entity Crimes.** Neither Contractor, its parent corporations, subsidiaries, members, shareholders, partners, officers, directors or executives, nor any of its affiliates, contractors, suppliers, subcontractors, or consultants under this Agreement have been placed on the convicted vendor list following a conviction of a public entity crime. Contractor understands that a "public entity crime" as defined in section 287.133(1)(g), Florida Statutes, is "a violation



of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States..." Contractor further understands that any person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime: (1) may not submit a bid, proposal, or reply on a contract: (a) to provide any goods or services to a public entity; (b) for the construction or repair of a public building or public work; or (c) for leases of real property to a public entity; (2) may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and (3) may not transact business with any public entity in excess of the threshold amount provided in section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

- 16. **CONTRACTOR RESPONSIBILITIES**. Except as otherwise specifically provided for in this Agreement, the following provisions are the responsibility of the Contractor:
 - A. Contractor shall competently and efficiently supervise, inspect, and direct all work to be performed under this Agreement, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents.
 - B. Contractor shall be solely responsible for the means, methods, techniques, sequences, or procedures of construction and safety precautions or programs incident thereto.
 - C. Contractor shall be responsible to see that the finished work complies accurately with the contract and the intent thereof.
 - D. Contractor shall comply with all local, state, and Federal laws, regulations, and ordinances which may affect cost, progress, or its performance under this Agreement, including, but not limited to obtaining all permits, licenses, and other authorizations necessary for the prosecution of the work and be responsible for all costs associated with same.
 - E. Contractor shall operate and cause all construction equipment and materials supplied for or intended to be utilized in the Project to be operated and stored in only those areas prescribed by City. This includes the operations of workmen.
 - F. Contractor shall be fully responsible for receipt, inspection, acceptance, handling, and storage of all construction equipment and materials supplied for or intended to be utilized in the Project, whether furnished by Contractor or City. Contractor shall be responsible for providing adequate safeguards to prevent loss, theft, damage, or commingling with other materials or projects.
 - G. Contractor shall continue its performance under this Agreement during the pendency of any dispute or disagreement arising out of or relating to this Agreement, except as Contractor and City may otherwise agree in writing.
- 17. **NO EXCLUSIVITY**. It is expressly understood and agreed by the parties that this is not an exclusive agreement. Nothing in this Agreement shall be construed as creating any exclusive arrangement with Contractor or as prohibit City from either acquiring similar, equal, or like goods and/or services or from executing additional contracts with other entities or sources.
- 18. RIGHT OF ACCESS AND OTHER WORK PERFORMED BY THIRD PARTIES. City may perform additional work related to the Project itself, or have additional work performed by utility service companies, or let other direct contracts therefore which shall contain General Conditions similar to these. Contractor shall afford the utility service companies and the other contractors who are parties to such direct contracts (or City, if City is performing the additional work with City's



employees) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work and shall properly connect and coordinate his work with theirs.

- A. If any part of Contractor's work depends for proper execution or results upon the work of any such other contractor or utility service company (or City), Contractor shall inspect and promptly report to City in writing any latent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. Contractor's failure to so report shall constitute an acceptance of the other work as fit and proper for integration with Contractor's work except for latent or non-apparent defects and deficiencies in the other work.
- B. Contractor shall do all cutting, fitting, and patching of work that may be required to make the parts come together properly and integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work, and will only cut or alter their work with the written consent of City.
- 19. STORAGE OF MATERIALS/EQUIPMENT. Contractor shall be fully responsible for receipt, inspection, acceptance, handling, and storage of equipment and materials (whether furnished by Contractor or City) to be utilized in the performance of or incorporated into the work.
- 20. **RESPONSIBILITIES OF CITY.** City or its representative shall issue all communications to Contractor. City has the authority to request changes in the work in accordance with the terms of this Agreement and with the terms in **Exhibit A Scope of Work.** City has the authority to stop work or to suspend any work.
- 21. **COMMERCIAL AUTO LIABILITY INSURANCE.** Contractor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement a policy of commercial auto liability insurance with a minimum combined single limit of One Million Dollars (\$1,000,000) per occurrence for bodily injury and property damage arising out of Contractor's operations and covering all owned, hired, scheduled, and non-owned automobiles utilized in said operations. If Contractor does not own vehicles, Contractor shall maintain coverage for hired and non-owned automobile liability, which may be satisfied by way of endorsement to Contractor's Commercial General Liability policy or separate Commercial Automobile Liability policy.
- 6. **COMMERCIAL GENERAL LIABILITY INSURANCE.** Contractor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement a policy of commercial general liability insurance with limits not less than:
 - A. One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate (or project aggregate, if a construction project) for bodily injury, property damage, and personal and advertising injury; and
 - B. One Million Dollars (\$1,000,000) per occurrence and Two Million Dollars (\$2,000,000) aggregate (or project aggregate, if a construction project) for products and completed operations.
 - C. Policy must include coverage for contractual liability and independent contractors.
 - D. The City, a Florida municipal corporation, and its officials, employees, and volunteers are to be covered as an additional insured with a CG 20 26 04 13 Additional Insured Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liabilities arising out of activities performed by or on behalf of Contractor. This coverage shall contain no special limitation on the scope of protection to be afforded to the City, its officials, employees, and volunteers.



22. WORKERS' COMPENSATION AND EMPLOYER'S LIABILITY COVERAGE. Contractor shall procure, maintain, and keep in full force, effect, and good standing for the life of this Agreement adequate workers' compensation and employer's liability insurance covering all of its employees in at least such amounts as required by Chapter 440, Florida Statutes, and all other state and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable. Contractor shall similarly require any and all of its subcontractors to afford such coverage for all of its employees as required by applicable law. Contractor shall waive and shall ensure that Contractor's insurance carrier waives, all subrogation rights against the City of Ocala and its officers, employees, and volunteers for all losses or damages. Contractor's policy shall be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or its equivalent. Exceptions and exemptions to this Section may be allowed at the discretion of the City's Risk Manager on a case-by-case basis in accordance with Florida Statutes and shall be evidenced by a separate waiver.

7. MISCELLANEOUS INSURANCE PROVISIONS.

- A. Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by Contractor shall not be interpreted as limiting Contractor's liability or obligations under this Agreement. City does not in any way represent that these types or amounts of insurance are sufficient or adequate enough to protect Contractor's interests or liabilities or to protect Contractor from claims that may arise out of or result from the negligent acts, errors, or omissions of Contractor, any of its agents or subcontractors, or for anyone whose negligent act(s) Contractor may be liable.
- B. No insurance shall be provided by the City for Contractor under this Agreement and Contractor shall be fully and solely responsible for any costs or expenses incurred as a result of a coverage deductible, co-insurance penalty, or self-insured retention to include any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation.
- C. <u>Certificates of Insurance</u>. No work shall be commenced by Contractor under this Agreement until the required Certificate of Insurance and endorsements have been provided nor shall Contractor allow any subcontractor to commence work until all similarly required certificates and endorsements of the subcontractor have also been provided. Work shall not continue after expiration (or cancellation) of the Certificate of Insurance and work shall not resume until a new Certificate of Insurance has been provided. Contractor shall provide evidence of insurance in the form of a valid Certificate of Insurance (binders are unacceptable) prior to the start of work contemplated under this Agreement to: City of Ocala. Attention: Procurement & Contracting Department, Address: 110 SE Watula Avenue, Third Floor, Ocala Florida 34471, E-Mail: vendors@ocalafl.org. Contractor's Certificate of Insurance and required endorsements shall be issued by an agency authorized to do business in the State of Florida with an A.M. Best Rating of A or better. The Certificate of Insurance shall indicate whether coverage is being provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- D. <u>City as an Additional Insured</u>. The City of Ocala shall be named as an Additional Insured and Certificate Holder on all liability policies identified in this Section with the exception of Workers' Compensation and Professional Liability policies.



- E. Notice of Cancellation of Insurance. Contractor's Certificate of Insurance shall provide **THIRTY (30) DAY** notice of cancellation, **TEN (10) DAY** notice if cancellation is for non-payment of premium. In the vent that Contractor's insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of Contractor to provide the proper notice. Such notification shall be in writing by registered mail, return receipt requested, and addressed to the certificate holder. Additional copies may be sent to the City of Ocala at vendors@ocalafl.org.
- F. <u>Failure to Maintain Coverage</u>. The insurance policies and coverages set forth above are required and providing proof of and maintaining insurance of the types and with such terms and limits set forth above is a material obligation of Contractor. Contractor's failure to obtain or maintain in full force and effect any insurance coverage required under this Agreement shall constitute material breach of this Agreement.
- G. <u>Severability of Interests</u>. <u>Severability of Interests</u>. Contractor shall arrange for its liability insurance to include, or be endorsed to include, a severability of interests/cross-liability provision so that the "City of Ocala" (where named as an additional insured) will be treated as if a separate policy were in existence, but without increasing the policy limits.
- 23. **SAFETY/ENVIRONMENTAL.** Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Contractor shall make an effort to detect hazardous conditions and shall take prompt action where necessary to avoid accident, injury or property damage. EPA, DEP, OSHA and all other applicable safety laws and ordinances shall be followed as well as American National Standards Institute Safety Standards. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - A. All employees on the work and other persons that may be affected thereby;
 - B. All work, materials and equipment to be incorporated therein, whether in storage on or off the site; and
 - C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.
 - All, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, any subcontractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, shall be remedied by Contractor. Contractor's duties and responsibilities for the safety and protection of the work shall continue until such time as the work is completed and accepted by City.
- 24. **TRAFFIC CONTROL AND BARRICADES.** The Contractor shall mitigate impact on local traffic conditions to all extents possible. The Contractor is responsible for establishing and maintaining appropriate traffic control and barricades. The Contractor shall provide sufficient signing, flagging and barricading to ensure the safety of vehicular and pedestrian traffic at all locations where work is being done under this Agreement.
 - A. In addition to the requirements set forth in bid, the Contractor shall maintain at all times a good and sufficient fence, railing or barrier around all exposed portions of said work in such a manner as to warn vehicular and pedestrian traffic of hazardous conditions.
 - B. Should Contractor fail to properly barricade his work or stored material sites in the manner outlined above, the City may have the necessary barricading done, and all cost incurred for said barricading shall be charged to the Contractor.



- 25. **WORK SITE AND CLEANUP.** Daily, during the progress of the work, Contractor shall keep the premises free from accumulations of waste materials, rubbish, and all other debris resulting from the work. At the completion of the work, Contractor shall remove all waste materials, rubbish, and debris from and about the premises, as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by City. Contractor shall provide an inventory listing of all surplus materials in an area designated by City. Contractor shall restore to their original condition those portions of the site not designated or alteration by the Contract.
- 26. **CONSTRUCTION SURVEY LAYOUT.** The work to be performed pursuant to survey work provided by City shall be completed as necessary to establish all proper alignments, right of way, easements, benchmarks, elevations and grade stakes to complete all phases of this Contract. Contractor shall immediately bring to City's attention any survey issues that would impede the Contractor's completion of the work. The work performed pursuant to survey work at the Contractor's expense pursuant to this Agreement shall be prepared by a licensed surveyor and provided to the City. Any survey issues with these surveys that would impede the Contractor's completion of the work shall immediately be brought to the City's attention. If additional or corrective survey work is required, it shall be at Contractor's expense.

The City Engineer/City Project Manager shall establish a number of benchmarks on the project which in their opinion will enable the Contractor to perform the work. If Contractor shall remove or destroy any stake, marker or benchmark on the work without first having secured the approval of the City Engineer/City Project Manager, such stake, or benchmark shall be re-established by and at Contractor's expense. It shall be the responsibility of Contractor to preserve all adjacent property corner markers which might be affected by their operations, and replace same if undermined. Corner locations known by City will be made available to Contractor. All original field notes, calculations, and other documents developed by the surveyor in conjunction with this work shall be given to City and become City property. All surveying work must be in accordance with Chapters 177 and 472 of Florida Statutes and Chapter 6IG17 of the Florida Administrative Code.

- 27. **NON-DISCRIMINATORY EMPLOYMENT PRACTICES**. During the performance of the contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, ancestry, national origin, sex, pregnancy, age, disability, sexual orientation, gender identity, marital or domestic partner status, familial status, or veteran status and shall take affirmative action to ensure that an employee or applicant is afforded equal employment opportunities without discrimination. Such action shall be taken with reference to, but not limited to: recruitment, employment, termination, rates of pay or other forms of compensation and selection for training or retraining, including apprenticeship and on-the-job training.
- 28. **SUBCONTRACTORS.** Nothing in this Agreement shall be construed to create, impose, or give rise to any duty owed by City or its representatives to any subcontractor of Contractor or any other persons or organizations having a direct contract with Contractor, nor shall it create any obligation on the part of City or its representatives to pay or seek payment of any monies to any subcontractor of Contractor or any other persons or organizations having a direct contract with Contractor, except as may otherwise be required by law. City shall not be responsible for the acts or omissions of any Contractor, subcontractor, or of any of their agents or employees, nor shall it create any obligation on the part of City or its representatives to pay or to seek the payment of any monies to any subcontractor or other person or organization, except as may otherwise be required by law.



- 29. **EMERGENCIES**. In an emergency affecting the welfare and safety of life or property, Contractor, without special instruction or authorization from the City Project Manager, is hereby permitted, authorized and directed to act at its own discretion to prevent threatened loss or injury. Except in the case of an emergency requiring immediate remedial work, any work performed after regular working hours, on Saturdays, Sundays or legal holidays, shall be performed without additional expense to the City unless such work has been specifically requested and approved by the City Project Manager. Contractor shall be required to provide to the City Project Manager with the names, addresses and telephone numbers of those representatives who can be contacted at any time in case of emergency. Contractor's emergency representatives must be fully authorized and equipped to correct unsafe or excessively inconvenient conditions on short notice by City or public inspectors.
- 30. **INDEPENDENT CONTRACTOR STATUS.** Contractor acknowledges and agrees that under this Agreement, Contractor and any agent or employee of Contractor shall be deemed at all times to be an independent contractor and shall be wholly responsible for the manner in which it performs the services and work required under this Agreement. Neither Contractor nor its agents or employees shall represent or hold themselves out to be employees of City at any time. Neither Contractor nor its agents or employees shall have employee status with City. Nothing in this Agreement shall constitute or be construed to create any intent on the part of either party to create an agency relationship, partnership, employer-employee relationship, joint venture relationship, or any other relationship which would allow City to exercise control or discretion over the manner or methods employed by Contractor in its performance of its obligations under this Agreement.
- 31. **ACCESS TO FACILITIES.** City shall provide Contractor with access to all City facilities as is reasonably necessary for Contractor to perform its obligations under this Agreement.
- 32. **ASSIGNMENT.** Neither party may assign its rights or obligations under this Agreement to any third party without the prior express approval of the other party, which shall not be unreasonably withheld.
- 33. **RIGHT OF CITY TO TAKE OVER CONTRACT.** Should the work to be performed by Contractor under this Agreement be abandoned, or should Contractor become insolvent, or if Contractor shall assign or sublet the work to be performed hereunder without the written consent of City, the City Project Manager shall have the power and right to hire and acquire additional men and equipment, supply additional material, and perform such work as deemed necessary for the completion of this Agreement. Under these circumstances, all expenses and costs actually incurred by City to accomplish such completion shall be credited to City along with amounts attributable to any other elements of damage and certified by the Project Manager. The City Project Manager's certification as to the amount of such liability shall be final and conclusive.
- 34. **PUBLIC RECORDS.** The Contractor shall comply with all applicable provisions of the Florida Public Records Act, Chapter 119, Florida Statutes. Specifically, the Contractor shall:
 - A. Keep and maintain public records required by the public agency to perform the service.
 - B. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - C. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the



- contract term and following completion of the contract if the Contractor does not transfer the records to the public agency.
- D. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the Contractor or keep and maintain public records required by the public agency to perform the service. If the Contractor transfers all public records to the public agency upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

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 PUBLIC RECORDS AT: CITY OF OCALA, OFFICE OF THE CITY CLERK; 352-629-8266; E-mail: clerk@ocalafl.org; City Hall, 110 SE Watula Avenue, Ocala, FL 34471.

- 35. **AUDIT.** Contractor shall comply and cooperate immediately with any inspections, reviews, investigations, or audits relating to this Agreement as deemed necessary by the Florida Office of the Inspector General, the City's Internal or External auditors or by any other Florida official with proper authority.
- 36. **PUBLICITY.** Contractor shall not use City's name, logo, seal or other likeness in any press release, marketing materials, or other public announcement without City's prior written approval.
- 37. **E-VERIFY.** Pursuant to section 448.095, Contractor shall register with and use the U.S. Department of Homeland Security's ("DHS") E-Verify System, accessible at https://e-verify.uscis.gov/emp, to verify the work authorization status of all newly hired employees. Contractor shall obtain affidavits from any and all subcontractors in accordance with paragraph 2(b) of section 448.095, Florida Statutes, and maintain copies of such affidavits for the duration of this Agreement. By entering into this Agreement, Contractor certifies and ensures that it utilizes and will continue to utilize the DHS E-Verify System for the duration of this Agreement and any subsequent renewals of same. Contractor understands that failure to comply with the requirements of this section shall result in the termination of this Agreement and Contractor may lose the ability to be awarded a public contract for a minimum of one (1) year after the date on which the Agreement was terminated. Contractor shall provide a copy of its DHS Memorandum of Understanding upon City's request. Please visit www.e-verify.gov for more information regarding the E-Verify System.
- 38. **CONFLICT OF INTEREST.** Contractor is required to have disclosed, with the submission of their bid, the name of any officer, director, or agent who may be employed by the City. Contractor shall further disclose the name of any City employee who owns, directly or indirectly, any interest in Contractor's business or any affiliated business entity. Any additional conflicts of interest that may occur during the contract term must be disclosed to the City of Ocala Procurement Department.



- 39. **WAIVER.** The failure or delay of any party at any time to require performance by another party of any provision of this Agreement, even if known, shall not affect the right of such party to require performance of that provision or to exercise any right, power or remedy hereunder. Any waiver by any party of any breach of any provision of this Agreement should not be construed as a waiver of any continuing or succeeding breach of such provision, a waiver of the provision itself, or a waiver of any right, power or remedy under this Agreement. No notice to or demand on any party in any circumstance shall, of itself, entitle such party to any other or further notice or demand in similar or other circumstances.
- 40. **SEVERABILITY OF ILLEGAL PROVISIONS.** Wherever possible, each provision of this Agreement shall be interpreted in such a manner as to be effective and valid under the applicable law. Should any portion of this Agreement be declared invalid for any reason, such declaration shall have no effect upon the remaining portions of this Agreement.
- 41. **INDEMNITY.** Contractor shall indemnify City and its elected officials, employees and volunteers against, and hold City and its elected officials, employees and volunteers harmless from, all damages, claims, losses, costs, and expenses, including reasonable attorneys' fees, which City or its elected officials, employees or volunteers may sustain, or which may be asserted against City or its elected officials, employees or volunteers, arising out of the activities contemplated by this Agreement including, without limitation, harm or personal injury to third persons during the term of this Agreement to the extent attributable to the actions of Contractor, its agents, and employees.
- 42. **NO WAIVER OF SOVEREIGN IMMUNITY.** Nothing herein is intended to waive sovereign immunity by the City to which sovereign immunity may be applicable, or of any rights or limits of liability existing under Florida Statute § 768.28. This term shall survive the termination of all performance or obligations under this Agreement and shall be fully binding until any proceeding brought under this Agreement is barred by any applicable statute of limitations.
- 43. **NOTICES.** All notices required or permitted under this Agreement shall be given in writing and shall be deemed sufficiently served on the date delivered if delivered by registered or certified mail, with return receipt requested; or delivered personally; or delivered via electronic mail (as provided below) and followed with delivery of a hard copy. All notices shall be addressed to the respective parties as follows:

If to Contractor: Foundation Services of Central Florida

Attention: Vickie Bissell 4265 NW 44th Avenue Ocala, Florida 34482 Phone: 352-622-9218

Email: vickieb@foundationservicescf.com

If to City of Ocala: Daphne M. Robinson, Esq., Contracting Officer

110 SE Watula Avenue, 3rd Floor

Ocala, Florida 34471

Phone: 352-629-8343 Fax: 352-690-2025

E-mail: notices@ocalafl.org



Copy to:

William E. Sexton, Esq., City Attorney

City of Ocala

110 SE Watula Avenue, Third Floor

Ocala, Florida 34471 Phone: 352-401-3972

Email: cityattorney@ocalafl.org

- 44. **ATTORNEYS' FEES.** If any civil action, arbitration or other legal proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party shall be entitled to recover reasonable attorneys' fees, sales and use taxes, court costs and all expenses reasonably incurred even if not taxable as court costs (including, without limitation, all such fees, taxes, costs and expenses incident to arbitration, appellate, bankruptcy and post-judgment proceedings), incurred in that civil action, arbitration or legal proceeding, in addition to any other relief to which such party or parties may be entitled. Attorneys' fees shall include, without limitation, paralegal fees, investigative fees, administrative costs, sales and use taxes and all other charges reasonably billed by the attorney to the prevailing party.
- 45. JURY WAIVER. IN ANY CIVIL ACTION, COUNTERCLAIM, OR PROCEEDING, WHETHER AT LAW OR IN EQUITY, WHICH ARISES OUT OF, CONCERNS, OR RELATES TO THIS AGREEMENT, ANY AND ALL TRANSACTIONS CONTEMPLATED HEREUNDER, THE PERFORMANCE HEREOF, OR THE RELATIONSHIP CREATED HEREBY, WHETHER SOUNDING IN CONTRACT, TORT, STRICT LIABILITY, OR OTHERWISE, TRIAL SHALL BE TO A COURT OF COMPETENT JURISDICTION AND NOT TO A JURY. EACH PARTY HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY. NEITHER PARTY HAS MADE OR RELIED UPON ANY ORAL REPRESENTATIONS TO OR BY ANY OTHER PARTY REGARDING THE ENFORCEABILITY OF THIS PROVISION. EACH PARTY HAS READ AND UNDERSTANDS THE EFFECT OF THIS JURY WAIVER PROVISION.
- 46. **GOVERNING LAW.** This Agreement is and shall be deemed to be a contract entered and made pursuant to the laws of the state of Florida and shall in all respects be governed, construed, applied and enforced in accordance with the laws of the State of Florida.
- 47. **JURISDICTION AND VENUE.** The parties acknowledge that a majority of the negotiations, anticipated performance and execution of this Agreement occurred or shall occur in Marion County, Florida. Any civil action or legal proceeding arising out of or relating to this Agreement shall be brought only in the courts of record of the State of Florida in Marion County or the United States District Court, Middle District of Florida, Ocala Division. Each party consents to the exclusive jurisdiction of such court in any such civil action or legal proceeding and waives any objection to the laying of venue of any such civil action or legal proceeding in such court and/or the right to bring an action or proceeding in any other court. Service of any court paper may be effected on such party by mail, as provided in this Agreement, or in such other manner as may be provided under applicable laws, rules of procedures or local rules.
- 48. **REFERENCE TO PARTIES.** Each reference herein to the parties shall be deemed to include their successors, assigns, heirs, administrators, and legal representatives, all whom shall be bound by the provisions hereof.



- 49. **MUTUALITY OF NEGOTIATION.** Contractor and City acknowledge that this Agreement is a result of negotiations between Contractor and City, and the Agreement shall not be construed in favor of, or against, either party because of that party having been more involved in the drafting of the Agreement.
- 50. **SECTION HEADINGS.** The section headings herein are included for convenience only and shall not be deemed to be a part of this Agreement.
- 51. **RIGHTS OF THIRD PARTIES.** Nothing in this Agreement, whether express or implied, is intended to confer any rights or remedies under or because of this Agreement on any persons other than the parties hereto and their respective legal representatives, successors and permitted assigns. Nothing in this Agreement is intended to relieve or discharge the obligation or liability of any third persons to any party to this Agreement, nor shall any provision give any third persons any right of subrogation or action over or against any party to this Agreement.
- 52. **AMENDMENT.** No amendment to this Agreement shall be effective except those agreed to in writing and signed by both parties to this Agreement.
- 53. **COUNTERPARTS.** This Agreement may be executed in counterparts, each of which shall be an original and all of which shall constitute the same instrument.
- 54. **ELECTRONIC SIGNATURE(S).** Contractor, if and by offering an electronic signature in any form whatsoever, will accept and agree to be bound by said electronic signature to all terms and conditions of this Agreement. Further, a duplicate or copy of the Agreement that contains a duplicated or non-original signature will be treated the same as an original, signed copy of this original Agreement for all purposes.
- 55. **ENTIRE AGREEMENT.** This Agreement, including exhibits, (if any) constitutes the entire Agreement between the parties hereto with respect to the subject matter hereof. There are no other representations, warranties, promises, agreements or understandings, oral, written or implied, among the Parties, except to the extent reference is made thereto in this Agreement. No course of prior dealings between the parties and no usage of trade shall be relevant or admissible to supplement, explain, or vary any of the terms of this Agreement. No representations, understandings, or agreements have been made or relied upon in the making of this Agreement other than those specifically set forth herein.
- 56. **LEGAL AUTHORITY**. Each person signing this Agreement on behalf of either party individually warrants that he or she has full legal power to execute this Agreement on behalf of the party for whom he or she is signing, and to bind and obligate such party with respect to all provisions contained in this Agreement.

[REMAINDER OF PAGE INTENTIONALLY BLANK. SIGNATURE PAGE TO FOLLOW.]



IN WITNESS WHEREOF , the parties hav	e executed t	this Agreement on <u>11 / 03 / 2022</u> .					
ATTEST:	CITY OF OCALA						
Angel B. Jacobs	Dre D	Bethea Sr.					
Angel B. Jacobs	Ire Beth						
City Clerk	City Co	uncil President					
Approved as to form and legality:	FOUND INC.	PATION SERVICES OF CENTRAL FLORIDA					
William E. Sexton	RSt	ephenson					
William E. Sexton, Esq.							
City Attorney	Ву:	Foundation Services of Central Florida, Inc.					
	,	(Printed Name)					
	Title:	GM/Owner					
	_	(Title of Authorized Signatory)					

BACKGROUND

- 1. Contractor shall provide Injection Grouting services. Contractor shall be responsible for furnishing all labor, equipment and materials and performing all work connected with the injection of the cementaceous grout to fill, seal and stabilize soft soils at the following locations:
 - NE 36th Avenue & NE 8th Place
 - SW 6th Place & SW 52nd Avenue
- 2. Contractor shall follow the Geotechnical Site Exploration Reports provided by Geo-Tech, Inc. for specifications and boring locations, attached hereto as **Exhibits C and D**.
- 3. This project is a line-item priced project. Contractor shall only be paid for units used.
- 4. Contractor shall be responsible for providing a MOT (Maintenance of Traffic) Plan, and to have the MOT Plan approved by City.
- 5. Contractor shall be responsible for providing its own water. Contractor may apply for a Hydrant Meter with the City of Ocala's Water Resources Department, at its own cost

PERMIT REQUIREMENTS

- 1. **Permits Required:** Contractor shall be responsible for obtaining the following City of Ocala permits at no additional cost to the City:
 - Right-of-Way (ROW) Utilization
- 2. **Permit Application:** The ROW Utilization Permit Application is available under "Documents" at: https://www.ocalafl.org/government/city-departments-a-h/city-engineer-s-office
- 3. **Permit Submission Requirements:**
 - a. **If Road/Lane Closure is Needed:** Contractor must submit a City of Ocala ROW permit and MOT/TTC Plan a minimum of two (2) weeks prior to the projected time the project will start.
 - b. **If Road/Lane Closure is not Needed:** Contractor must submit a City of Ocala ROW permit and MOT/TTC Plan a minimum of one (1) week prior to the projected time the project will start.
- 4. **Construction Permit Applications:** Construction permit information and related documents can be found at:

https://www.ocalafl.org/government/city-departments-a-h/growth-management/building/construction-permits

MOBILIZATION AND MAINTENANCE OF TRAFFIC

1. **Mobilization:** Contractor is responsible for obtaining required permits and moving of Contractors operations and equipment as required for construction. Contractor shall provide on-site construction power and wiring, as needed. Contractor shall provide on-site sanitary facilities as required by governing agencies. Contractor shall not be permitted to use the City sanitary facilities during

- construction. Contractor shall be responsible for posting of OSHA-required notices and establishing of safety programs and procedures.
- 2. **Maintenance of Traffic (MOT)/Temporary Traffic Control (TTC):** Contractor shall maintain traffic per FDOT 100 series index within the limits of the project for the duration of the construction period, including any temporary suspensions of the work. Contractor shall construct and maintain detours.
 - A. Contractor shall provide facilities for access to residences, businesses, etc., along the project. Contractor shall furnish, install, and maintain traffic control and safety devices during construction. Contractor must furnish and install work zone pavement markings for MOT/TTC in construction areas. Contractor shall provide any other special requirements for safe and expeditious movement of traffic specified in the plans.
 - B. MOT/TTC includes all facilities, devices and operations as required for safety and convenience of the public within the work zone. Contractor shall not maintain traffic over those portions of the project where no work is to be accomplished or where construction operations will not affect existing roads. Contractor shall not obstruct or create a hazard to any traffic during the performance of the work and shall repair any damage to existing pavement open to traffic. FDOT Design Standards are the minimum standards for the use in the development of all Traffic Control Plans (TCPs).
 - C. Contractor must have one (1) person that is MOT/TTC Advanced certified on site <u>at all times during</u> <u>construction</u>.
- 3. **Mobilization & Maintenance of Traffic Cost:** The cost for the mobilization of Contractor's equipment and MOT (Maintenance of Traffic) as required by the City and by FDOT Manual on Traffic Control and Safe Practices for Street & Highway Construction and Standard Index 600 is considered to be incidental to other items of related work and included in line item pricing as described in **Exhibit B Price Proposal.**

ANTICIPATED TASKS, DELIVERABLES AND HOURS

- 1. **Deliverables:** Contractor shall provide monthly reports of all work in progress. Deliverables shall be accepted by the City of Ocala Project Manager before payment for such work.
- 2. **Working Hours:** The normal/standard working hours for this project are 9:00 AM 3:00 PM Monday through Friday, excluding City-observed holidays. Contractor shall provide a 48 (forty-eight) hour advance notice to the City Project Manager for work outside normal shift hours. The city may decline this request.
- 3. **Emergency Work Hours:** Contractor must have available staff on site and prepared to begin work within two (2) hours notification of any work deemed "Emergency" (this includes all storm-related emergencies). If the work is not completed or staff is not on site by contract timelines, the contract shall be considered in default.

CONTRACTOR EMPLOYEES AND EQUIPMENT

- 1. An employee roster must be provided to the City Project Manager for all projects assigned.
- 2. Contractor must utilize competent employees in performing the work. Employees performing the work must be properly licensed or qualified as required by the scope/project.

- 3. Contractor shall provide an assigned project manager, who will be the primary point of contact. Contractor must provide a valid telephone number, email, and address at all times to the City Project Manager. The telephone must be answered during normal working hours or voicemail must be available to take a message.
- 4. At the request of the City, Contractor must replace any incompetent, unfaithful, abusive, or disorderly person in their employment. City and Contractor must each be promptly notified by the other of any complaints received.
- 5. Contractor's employees must wear suitable work clothes and personal protective equipment as defined by OSHA (hard hats, bucket harnesses, etc.) and meeting Manual on Uniform Traffic Control Devices (MUTCD) and National Electrical Safety Code (NESC) requirements as indicated for all work conducted and be as clean and in as good appearance as the job conditions permit.
- 6. Contractor shall operate as an independent contractor and not as an agent, representative, partner or employee of the City of Ocala, and shall control its operations at the work site, and be solely responsible for the acts or omissions of its employees.
- 7. No smoking is allowed on City property or projects.
- 8. Contractor must possess/obtain all required equipment to perform the work. A list of equipment shall be provided to the City upon request.
- 9. All company vehicles and uniforms must display a visible company name/logo.

CONTRACTOR RESPONSIBILITIES

- 1. Contractor shall complete all work performed under this contract in accordance with policies and procedures of the City of Ocala and all applicable State and Federal laws, policies, procedures, and quidelines.
- 2. Contractor shall obtain and pay for any and licenses, additional equipment, dumping and/or disposal fees, etc., required to fulfill this contract.
- 3. Construction/Installation shall be performed in compliance with all requirements and instructions of applicable manufacturers.
- 4. If the Contractor is advised to leave a property by the property owner or their representative, the Contractor shall leave at once without altercation. Contractor shall then contact the City Project Manager within 24 hours and advise of the reason for not completing the assigned project.
- 5. Contractor is responsible for any and all damages including but not limited to buildings, curbing, pavement, landscaping, or irrigation systems caused by its activity. Should any public or private property be damaged or destroyed, the Contractor, at its expense, shall repair or make restoration as acceptable to the City of destroyed or damaged property no later than one (1) month from the date damage occurred.
- 6. Data collected by the Contractor shall be in a format compatible with, or easily converted to, City's databases. A sequential naming convention shall be applied to the files and documentation provided to the City.
- 7. Contractor shall ensure that all documents prepared under this contract have been prepared on a Windows-based operating system computer using the most current version of Microsoft Office, which

- includes: Word, Excel, Power Point, Access or any other software as specified and approved by City staff.
- 8. **Erosion Sediment and Flood Control:** Contractor shall provide, maintain, and operate temporary facilities to control erosion and sediment, and to protect work and existing facilities from flooding during construction. Contractor must maintain drainage ways and construct temporary drainage facilities to allow runoff to flow properly.
- 9. **Testing Requirements:** Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required. Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Engineer. Results of all required testing and inspections shall be submitted to the City Engineer. For other requirements for tests and inspection, refer to Article 14 in the City of Ocala Standard Specifications for Construction of Streets, Stormwater, Traffic, Water and Sewer Infrastructure.

SUBCONTRACTORS

- 1. Contractor must perform a minimum of 100% of the work with its own forces.
- 2. Services assigned to subcontractors must be approved in advance by the City Project Manager.

CONSTRUCTION WORK AREAS

- 1. The City is not responsible for providing property or lay-down yards to the Contractor for its materials or equipment. If private property is used, the City requires a copy of the agreement between the property owner and the Contractor. **Utilizing private property without written permission is prohibited.**
- 2. Contractor shall provide on-site sanitary facilities as required by governing agencies.
- 3. Construction work area must be backfilled or protected by construction fencing at the end of each business day. Any work areas in roadways must at least be filled temporarily with asphalt millings or covered with a FDOT-approved steel road plate before the roadway can be opened to traffic. If millings are used, the Contractor must maintain the millings daily until the millings are replaced with permanent asphalt.

SITE HOUSEKEEPING AND CLEANUP

- 1. **Waste/Debris:** Contractor shall keep the premises free at all times from accumulation of waste materials and rubbish caused by operations and employees. Contractor shall provide approved containers for collection and disposal of waste materials, debris, and rubbish. Contractor shall dispose of debris in a legal manner. At least once weekly, Contractor shall dispose of such waste materials, debris, and rubbish off-site.
- 2. **Cleanup:** Contractor shall perform periodic cleanup to avoid hazards or interference with operations at the site, and to leave the site in a reasonable neat condition. Work site shall be completely cleaned after each day of work. Contractor shall sweep all roadways affected by the construction and where adjacent to work daily.
- 3. **Water Use:** The use of water to prevent the blowing of dust and debris during cutting operations and or cleaning operations is mandatory.
- 4. **Individual Project Cleaning:** At completion of each individual project, Contractor shall remove from the site all tools, equipment, surplus materials, debris, temporary facilities, scaffolding, and equipment.

The areas of work shall be swept thoroughly and all marks, stains, rust, dirt, paint drippings, and the like shall be removed from all new and existing work, to the satisfaction of the City.

- 5. **Final Cleaning:** Upon completion of work, Contractor shall clean entire work area/project site as applicable.
 - A. Contractor shall leave the work and adjacent areas affected in a cleaned condition satisfactory to the City Project Manager.
 - B. The Contractor shall clean and remove from the premises, all surplus and discarded materials, rubbish, and temporary structures, and shall restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the work and shall have the work in a neat and presentable condition. *Note: Any and all debris shall be removed from the premises. New construction debris, trash, etc., shall not be left or buried on site.*
 - C. Contractor shall broom clean exterior paved driveways and parking areas and hose clean sidewalks and concrete exposed surfaces if impacted by work or included in work area.
 - D. All furnishings and equipment shall be placed back in the original locations.
 - E. All work areas must be returned to original condition.

SUBMITTALS

- 1. Contractor shall submit copies of permits and approvals for construction as required by laws and regulations of governing agencies.
- 2. Contractor shall submit temporary construction parking area plans, storage yard, storage trailer location, staging area plan, and plan for disposal of waste materials.

SAFETY

- 1. Contractor is solely responsible for ensuring safety during construction, and for conformance to all applicable OSHA standards; and local, state, and national codes concerning safety provisions for their employees, sub-contractors, all building and site occupants, staff, public, and all persons in or around the work area.
- 2. Job site visits by City staff shall not constitute approval, awareness, or liability for any hazardous condition.
- 3. Contractor shall be responsible for securing their equipment, materials, clothing, and other property.
- 4. Prior to completion, storage and adequate protection of all material and equipment shall be the Contractor's responsibility.
- 5. In no event shall the City be responsible for any damages to any of the Contractor's equipment, materials, property, or clothing that is lost, damaged, destroyed or stolen.

Item #	Description	UOM	Unit Cost
1	Mobilization	LS	\$4,500
2	Maintenance of Traffic	LS	\$7,500
3	Grout Pining	LF	\$20
4	Compaction Grout	CY	\$245

GEO-TECH, INC.

Engineering consultants in geotechnical • environmental • construction materials testing

May 24, 2021 Project No. 21-3006.189.2

Mr. Noel Cooper c/o Mr. Brian Hutchinson Project Manager I City Engineer's Office, CIP Division 1805 NE 30th Avenue, Bldg. 700 Ocala, Florida 34470

Reference:

Existing Roadway Depression, SW 6th Place & SW 52nd Avenue, Ocala, Florida

Geotechnical Site Exploration

Dear Mr. Cooper:

As requested, Geo-Technologies, Inc. (Geo-Tech) has performed a site exploration at the project site. Services were conducted in accordance with our Proposal No. 11457 dated May 7, 2021.

The following report summarizes our findings, evaluations and recommendations. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

Geo-Tech appreciates the opportunity to provide our services for this project. Should you have any questions regarding the contents of this report or if we may be of further assistance, please do not hesitate to contact the undersigned.

Sincerely,

Grady N. Polk, E.I.

Staff Engineer

GNP/CAH/ca

CONTRACT# CIP/220645

Existing Roadway Depression SW 6th Place & SW 52nd Avenue, Ocala, Florida

May 24, 2021 Project No. 21-3006.189.2

Purposes

Purposes of this study were to explore the subsurface conditions in the existing roadway depression area and provide geotechnical engineering recommendations to guide remediation of the roadway depression.

Site Description

The roadway depression is located one hundred and twenty-five (125) feet east from the intersection at SW 54th Court and SW 6th Place in Ocala, Florida. At the time of our site exploration, the roadway depression was approximately three (3) feet in diameter and fourteen (14) feet in depth.

Exploration Program

Field exploration services for the geotechnical exploration consisted of the following:

• Three (3) Standard Penetration Test (SPT) borings (B-1 thru B-3) to depths ranging from approximately thirty-four (34) feet to thirty-seven (37) feet below existing site grade surrounding the roadway depression (ASTM D-1586). SPT borings were performed on May 12, 2021.

Sampling & Testing Descriptions

Standard Penetration Testing

A Standard Penetration Test (SPT) boring (ASTM D-1586) is defined as a standard split-barrel sampler driven into the soil by a one hundred and forty (140) pound hammer falling thirty (30) inches. The number of blows required to drive the sampler one (1) foot, after seating six (6) inches, is designated resistance, or "N"-Value is an index to soil strength and consistency.

Samples recovered during performance of our SPT borings were visually classified in the field and representative portions of the samples were placed in containers and transported to our laboratory for further analysis.

Findings

Boring locations and general subsurface conditions found in our soil borings B-1 thru B-3 are graphically presented on the soil profiles in Appendix I. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

Soils found at our boring location B-1 generally consisted of a surficial layer of limerock underlain by loose to medium dense fine sand, medium dense clayey sand, soft to medium stiff slightly sandy clay and limestone to the depth drilled.

Soils found at our boring location B-2 generally consisted of a surficial layer asphalt pavement underlain by medium dense fine sand, very loose to medium dense clayey sand and limestone to the depth drilled. A Weight-of-Hammer (WOH) zone was encountered at approximately thirteen and one-half (13½) feet to twenty-four and one-half (24½) feet below the existing site grade.

CONTRACT# CIP/220645

Existing Roadway Depression SW 6th Place & SW 52nd Avenue, Ocala, Florida

May 24, 2021 Project No. 21-3006.189.2

Soils found at our boring location B-3 generally consisted of a surficial layer of asphalt pavement underlain by medium dense fine sand, loose to medium dense slightly clayey sand and limestone to the depth drilled.

Ground water table levels were not found at our boring locations at the time of drilling. In Geo-Tech's opinion, groundwater levels are not expected to influence near surface construction. After periods of prolonged rainfall water may become perched above the clayey soils and deeper foundation systems may encounter a perched water condition.

Evaluations and Recommendations

Geo-Tech observed indications of sinkhole type activity in boring B-2 at depths of approximately thirteen and one-half (13½) feet to twenty-four and one-half (24½) feet below existing site grade. As a sinkhole develops the loose zones propagate upward to the ground surface. Upward movement can cause very loose zones such as those found at our boring locations. These very loose zones can cause settlement to structures found above them.

Most sinkhole activity in Florida is the result of subterranean erosion or "raveling" of the soils into solution channels and cavities in the underlying limestone formation. The process of internal erosion is generally caused by downward seepage of groundwater (recharge) into the limestone aquifer. Recharge occurs when there is a hydraulic connection through the confining beds and a difference in piezometer level between the surficial and limestone aquifers. Under certain circumstances, soil particles will migrate downward during the groundwater recharge process and a subsoil structure will erode. With time, "raveled" conditions can propagate upward and cause a sinkhole at the surface. In some instances, sinkhole activity is manifested at the surface as a shallow depression or minor settlement of the foundation soils which develop gradually rather than a sudden collapse. Typical indicators of sinkhole conditions encountered during the drilling of Standard Penetration Test borings are zones of abnormally soft and/or "raveled" subsoil generally accompanied by loss of drilling fluid circulation.

Geo-Tech recommends remediation of the sinkhole type activity found to consist of deep soil stabilization by means of low slump, sand-cement grout. Twelve (12) injection pipes should be installed on ten (10) foot centers on a four (4) by three (3) grout pin grid as indicated on the Grout Pin Injection Plan. Grout shall be utilized to seal the loose zones extending to the limestone strata to depths ranging from thirty (30) feet to thirty-five (35) feet below the existing site grade. Depending on grout intakes additional injection points may be added. Grout mix specifications, pumping procedures and the Grout Pin Injection Plan are presented in Appendix I and Appendix IV. The Grouting Contractor should make all submittals to Geo-Tech for approval.

Based on preliminary estimations, Geo-Tech would expect grout quantities for this project to range between one hundred and fifty (150) to two hundred (200) cubic yards.

Closure/General Qualifications

This report has been prepared in order to aid evaluation of the project site and to assist various design professionals in the remediation of the roadway depression. The scope is limited to the specific project and the location described herein, and our description of the project represents our understanding of the significant aspects relevant to soil and foundation characteristics. In the event that any changes in present project concepts as outlined in this report are planned, we should be

CONTRACT# CIP/220645

Existing Roadway Depression SW 6th Place & SW 52nd Avenue, Ocala, Florida

May 24, 2021 Project No. 21-3006.189.2

informed so the changes can be reviewed and the conclusions of this report modified as necessary in writing by the soils and foundation engineer.

Evaluations and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated on the Site Exploration Map, and from any other information discussed in this report. This report does not reflect any variations, which may occur between these borings. In the performance of subsurface investigations, specific information is obtained at specific locations at specific times. Variations in soil and rock conditions exist on most sites between boring locations. Groundwater levels may also vary from time to time. The nature and extent of variations may not become evident until the course of construction. If variations then appear evident, it will be necessary for a re-evaluation of the recommendations of this report after performing on-site observations during the construction period and noting the characteristics of any variations.

APPENDIX I COMPACTION GROUTING SPECIFICATIONS

Existing Roadway Depression SW 6th Place & SW 52nd Avenue, Ocala, Florida

May 24, 2021 Project No. 21-3006.189.2

APPENDIX I COMPACTION GROUTING SPECIFICATIONS

General

The following grouting specifications are for stabilization and improvement of deep subsurface soil conditions at the project site as indicated in the Recommendations section of this report.

Scope

The scope of work consists of furnishing all labor, equipment and materials and performing all work connected with the injection of the cementaceous grout to fill, seal and stabilize soft soils.

Subsurface Soil Stabilization

The subsurface soils stabilization program shall consist of pumping sand-cement grout with suitable chemical additives at the depths indicated and at pressures necessary to fill, stabilize and cement the soft soil to minimize the potential for future subsidence.

Contractor

The Pressure Grouting Contractor shall submit his qualifications to the Soil Engineer and Owner. The Contractor shall have at least five (5) years of experience in similar deep and shallow grouting jobs, and shall submit references of his activities. If requested by the Engineer, the resume of the field superintendent will also be provided. Prior to mobilization to the site and beginning work, the Contractor shall submit a project schedule and injection layout plan to Geo-Tech for approval. The Contractor shall also provide sufficient labor and equipment to ensure the project site is protected from pedestrians and non-essential construction vehicles by means of caution tape and/or protective fencing in order to provide a safe working environment for construction and non-construction personnel.

Equipment

- a. **Grout Injection Equipment**: A continuous flow, positive displacement model with a pugmill type mixing vat having a minimum shaft speed of sixty (60) rpm and incorporated as an integral part of the "mudjack" equipment. Alternate equipment may be used at the discretion of the Soil Engineer.
- b. **Mixer**: (If On-Site Mixing is Used) Machine driven rotary mixer with a minimum seven (7) cubic foot capacity; agitate during pumping operations.
- c. Injection Pipes: Minimum diameter two (2) inch I.D., Maximum Diameter four (4) inch I.D.
- d. **Pressure Gauge**: Sufficient size (4-inch face) in order to be legible while monitoring grouting pressures from a safe distance.

Grout Mixture

a. The mixture used for grouting shall be a creamy consistency which will permit the grout mixture, when set aside in a standard concrete test mold, to show less than one percent of the mixture height of free water on the surface after standing not less than twelve (12)

Existing Roadway Depression SW 6th Place & SW 52nd Avenue, Ocala, Florida

May 24, 2021 Project No. 21-3006.189.2

hours. The grout mixture shall have a time of efflux (ASTM C939-81) greater than thirty-five (35) seconds. Either of the following mixtures may be used, subject to minor variation of any of the constituents if found necessary to meet the above requirements.

For 1 c.y. yield					
		<u>M</u>	<u>ix A</u>	M	ix B
Fly Ash (Gs = 2.5)	-	500	pounds	===	
Cement ($Gs = 3.15$)	-	500	pounds	900	pounds
Water		55	gallons	55	gallons
Sand ($Gs = 2.65$)	-	2,300	pounds	2,300	pounds
Darex (or equal)		1	ounce	1	ounce
WRDA-79 (or equal)	9	45	ounces	45	ounces

b. One set of three (3) 4"x8" sample test cylinders shall be made for each mix preparation.

Grout Mixture and Placing

If on-site mixing is used, facilities shall be provided for accurately measured the ingredients in each batch of grout. Ingredients shall be thoroughly mixed and immediately pumped to the grouting needles through a flexible hose connection not more than two hundred fifty (250) feet long.

Pressure Grouting Procedure

- a. The scope of this stabilization program includes vertical and angled grout injections at locations on about ten (10) centers. However, the program may be modified by the Soil Engineer as dictated by the actual field conditions encountered. If directed by the Soil Engineer, some injection locations may be deleted and/or alternate locations may be added to the program.
- b. Grout needles shall be installed to a depth sufficient to encounter refusal conditions. The Contractor shall rotary drill (using a Bentonite slurry) the injection pipes to a minimum depth of fifteen (15) feet and then either drill or drive, at the discretion of the Soil Engineer, to the refusal depth. Any other method of installation shall not be accepted unless approved by the Engineer.
- c. Following satisfactory installation of the injection pipes, grouting operations may begin. The rate of pumping shall not exceed six (6) cubic feet per minute. Pumping pressures are planned to be in the range of one-hundred (100) to one-hundred fifty (150) psi at the tip of the casing. The in-line pressure gauge is to be of sufficient size, in order to be legible while monitoring grouting pressures from a safe distance (4-inch face).
- d. Upon completion of the deep stabilization, shallow grouting may be performed, at the discretion of the soil engineer, to re-level concrete slabs, footings, or other structures.
- e. All grouting operations shall be monitored by a representative of Geo-Technologies, Inc.

CONTRACT# CIP/220645

Existing Roadway Depression SW 6th Place & SW 52nd Avenue, Ocala, Florida

May 24, 2021 Project No. 21-3006.189.2

Monitoring by Soil Engineer

The Soil Engineer will monitor the pressure grouting operations and will represent the Owner to assure compliance with the specifications outlined above and the duties discussed below. The Soil Engineer (Geo-Technologies, Inc.) shall recommend intervals of grouting and shall decide if additional or less grout is necessary.

- a. The Soil Engineer can stop the grouting operation at any time, if, in his judgment, the operation does not comply with the specifications or the work is unsuitable and will not be responsible for damage to the lawn; landscape areas or structures due to grouting procedures.
- b. The Soil Engineer will make all measurements of grout heave, settlement, and quantity pumped. The Soil Engineer will maintain records of each day's grouting operation for the benefit of the Owner and Contractor. The quantity recorded by the Engineer shall be considered the final amount of grout pumped for pay purposes. The Contractor will be responsible for laser equipment necessary to monitor at least three (3) locations continuously during the grout procedure for each injection point.
- c. During grouting, the Soil Engineer shall observe any vertical movement of the ground. If a momentary downward movement is observed, the grouting operation shall cease and observations shall continue for thirty (30) minutes. If the ground does not return to its original grade, pumping shall be resumed at a lower rate of discharge. If upward movement is observed, the grouting operation shall cease.
- d. The Contractor shall exercise care when grouting beneath and adjacent to existing structures. The Contractor is responsible for ensuring that the grouting operation does not cause unnecessary damage to existing structures.
- e. When grout injection points are fifteen (15) feet or shallower, measured from existing grade, the Engineer should be notified. These points may be abandoned or relocated after meeting with the Engineer.
- f. Pressure grouting will continue until the bottom of the pin is within fifteen (15) feet of the existing ground surface. At this point, pressure grouting will be stopped unless otherwise directed by the Engineer or his representative.

Method of Payment

Unit prices per cubic yard of grout, per foot for pipe installation/removal, and per day of shallow grouting shall be applicable to quantities over or under the estimated amounts.

APPENDIX II

SOIL PROFILES

Exhibit C- Geotech Report No. 21 CONTRACT# CIP/220645

Log of Borehole: B-1

Project: EXISTING ROADWAY DEPRESSION, SW 6TH PLACE

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project No: 21-3006.189.2

Engineer: NJH/DAC

Enclosure: SITE PLAN

GEO-TECH, mc.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue Ocala, Florida 352.694.7711 WWW.GEOTECHFL.COM

							_		
Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Te N-Values 20 40 60 80 1	A
0-		Ground Surface		0.0					\dashv
1 2 3 4 4 5 5 1		LIMEROCK LIGHT BROWN LIMEROCK = 3" FINE SAND BROWN TO LIGHT BROWN FINE	HAND AUGER POSSIBLE UTILITIES						
6 7		SAND (SP)	MEDIUM DENSE		1		25	25	
7 10 11 12 13 14 15 16 17 18 19 19 19 19 19 19 19 19 19 19 19 19 19	7 7 8 8 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		MEDIUM DENSE		2		11	f ¹¹	
9-3			LOOSE		3	1	7	7	ı
11=						7			
13-				13.5					
14-1 15-1	~	CLAYEY SAND BROWN CLAYEY SAND (SC)	MEDIUM DENSE		4		13	13	1
16-		(00)							
18-									1
19 -	سر		MEDIUM DENSE		5	T	13	13	
21=									1
23-				23.5					1
25-		SLIGHTLY SANDY CLAY GREEN AND BROWN SLIGHTLY	MEDIUM STIFF		6		8	8	
26- 27-		SANDY CLAY (CH) WITH LIMESTONE							
28-									
29- 30-			MEDIUM STIFF		7		8	8	
31- 32-									
33-				l					
34- 35-			SOFT	35.5	8		4	4	
36- 37-		LIMESTONE LIGHT BROWN LIMESTONE	50 BLOWS - 0"	37.0	9		50	50	
38- 39-		LOSS OF CIRCULATION AT APPROX. 36.0 FEET							
40-		End of Borehole							

Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MAY 12, 2021

Drilled By: WH/CC/LE/JH
Drill Method: ASTM D-1586

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile: 1 OF 3

Exhibit C- Geotech Report No. 21 CONTRACT# CIP/220645

Log of Borehole: B-2

Project: EXISTING ROADWAY DEPRESSION, SW 6TH PLACE

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project No: 21-3006.189.2

Engineer: NJH/DAC

Enclosure: SITE PLAN

GEO-TECH, m.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue Ocala, Florida 352.694.7711 WWW.GEOTECHFL.COM

	==						_	
Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values 0 20 40 60 80 100
0 =		Ground Surface		0.0				
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 9 10 11 12 13 14 15 16 17 18 9 20 21 22 23 24 25 26 27 28 29 30 19 30		PAVEMENT SECTION ASPHALT = 1 1/2" LIMEROCK = 7" FINE SAND DARK BROWN TO LIGHT BROWN	HAND AUGER POSSIBLE UTILITIES					. 25
6		FINE SAND (SP)	MEDIUM DENSE	6.0	1		25	
7-F		CLAYEY SAND BROWN CLAYEY SAND (SC)	MEDIUM DENSE		2	Į.	11	/ 11
9			LOOSE		3	Î	6	6
11						M		
12- 13-	~	LOSS OF CIRCULATION AT APPROX. 12.0 FEET						
14= 15=			WOH		4		0	0
16-			13.5' - 24.5'					ž
17=								:
19=			WOH		5		0	0
21								
22-	-							
24-			WOH		6		0	0
26								
27- 28-	-							
29=			VERY LOOSE		7	T	3	3
31- 32-								
32 33 33		LIMESTONE	F0 D1 01015 - 51	32.5				50
34		LIGHT BROWN LIMESTONE	50 BLOWS - 3"	34.0	8		50	300
35- 36-		End of Borehole			ŀ		- 1	
37 - 38 -					-			
39-∄				ł				
40-								

Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MAY 12, 2021

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Drilled By: WH/CC/LE/JH
Drill Method: ASTM D-1586

Soil Profile: 2 OF 3

Exhibit C- Geotech Report No. 21 CONTRACT# CIP/220645

Log of Borehole: B-3

Project: EXISTING ROADWAY DEPRESSION, SW 6TH PLACE

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project No: 21-3006.189.2

Engineer: NJH/DAC

Enclosure: SITE PLAN

GEO-TECH, mc.

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue Ocala, Florida 352.694.7711 WWW.GEOTECHFL.COM

								<u> </u>
Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Type	Blows/ft	Standard Penetration Test N-Values 20 40 60 80 100
0		Ground Surface		0.0				
1-	* # * * * * * * * * * * * * * * * * * *	PAVEMENT SECTION ASPHALT = 1 1/2" LIMEROCK = 8" FINE SAND	HAND AUGER POSSIBLE UTILITIES					
5=	* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	LIGHT BROWN FINE SAND (SP)	MEDIUM DENSE	6.0	1		24	24
6- 7- 8-	Ш	SLIGHTLY CLAYEY SAND BROWN SLIGHTLY CLAYEY SAND	LOOSE	0.0	2		9	9
9-	11	(SP-SC)	LOOSE		3		6	6
14-11-11-11-11-11-11-11-11-11-11-11-11-1			MEDIUM DENSE		4	II	18	18
18- 19- 20-			MEDIUM DENSE		5		13	13
21 22 23 24 25 26 27		LIMESTONE LIGHT BROWN LIMESTONE	5 BLOWS = 12"	23.5	6		5	5
28 29 30 31 32			10 BLOWS - 12"		7		10	10
33 34			50 BLOWS - 3"	34.0	8	П	50	50
35-3 36-3 37-3		End of Borehole						
38- 39- 40-								

Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MAY 12, 2021

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Drilled By: WH/CC/LE/JH
Drill Method: ASTM D-1586

Soil Profile: 3 OF 3

APPENDIX III BORING LOCATION MAP

CITY ENGINEER'S OFFICE, CIP DIVISION

PROJECT NO.
21-3006:189.2

ME: N.T.S.
NE: 5-19-21

APPROXIMATE STANDARD PENETRATION 'EST (SPT) BORING LOCATION

EXISTING ROADWAY DEPRESSION SW 6TH PLACE AND SW 52ND AVENUE OCALA, FLORIDA

BORING LOCATION MAP

C-14

1018 SE SHE KYONEE DOMA, FLORIDA (3467) = (252) 894-7711

APPENDIX IV GROUT PIN INJECTION PLAN

Exhibit C- Geotech Report No. 21 • ① PROPESED COMPACTION GROUT VERTICAL INJECTION POINT APPROXIMATE STANDARD PENETRATION TEST (SPT) BORING LOCATION



CITY ENGINEER'S OFFICE, CIP DIVISION

31YO

2-48-51 SIL 21-3006,189.2 PROJECT NO.

EXISTING ROADWAY DEPRESSION SW 6TH PLACE AND SW 52ND AVENUE OCALA, FLORIDA

GROUT PIN INJECTION PLAN

1016 M. 3-d AMINUT. DCALA. FLORIDA. 3+871 ~ (252) 834-3711



ENGINEERING CONSULTANTS IN GEOTECHNICAL • ENVIRONMENTAL • CONSTRUCTION MATERIALS TESTING

March 24, 2022 Project No. 22-3006.199.1

Eric Smith City of Ocala Engineering Department 1805 NE 30th Avenue, Building 600 Ocala, Florida 34470

Reference: Surface Depression, NE 36th Avenue, Ocala, Florida

Geotechnical Site Exploration

Dear Mr. Smith:

Geo-Technologies, Inc. (Geo-Tech) performed a site exploration at the project site per your request. Services were conducted in accordance with our conversations.

Our findings, evaluations and recommendations are presented in the following report. Generally accepted soils and foundation engineering practices were employed in the preparation of this report.

Geo-Tech appreciates the opportunity to provide our services for this project. Should you have any questions regarding the contents of this report or if we may be of further assistance, please do not hesitate to contact the undersigned.

Sincerely,

Gerald W. Green, Jr. Soil & Water Scientist

GWG/CAH/lso

A STATE OF THE STA

No. 83240

Exhibit D- Geotech Report No. 22

CONTRACT# CIP/220645

Surface Depression, NE 36th Avenue Ocala, Florida

March 24, 2022 Project No. 22-3006.199.1

Purposes

Purposes of this exploration were to characterize subsurface soils conditions near the observed surface depression and to provide remediation recommendations to mitigate subsidence of the sidewalk and adjacent roadway area.

Site Description

A surface depression was observed at the site in the sidewalk area on the east side of NE 36th Avenue south of the intersection at NE 8th Place in Ocala, Florida. The surface depression was approximately two (2) feet in diameter. However, a void approximately twelve (12) feet in diameter and ten (10) feet deep was observed beneath the pavement section of the right northbound lane of NE 36th Avenue. The affected sidewalk and roadway areas were subsequently excavated and backfilled by others.

Exploration Program

Field exploration services for the geotechnical exploration consisted of the following:

- Four (4) Standard Penetration Test (SPT) borings to depths ranging from approximately fourteen (14) to forty-five (45) feet below existing site grade adjacent to the observed surface depression (ASTM D-1586). SPT borings were performed on March 18 and 21, 2022.
- A Ground Penetrating Radar (GPR) survey in and around the observed surface depression. The GPR survey was performed on March 18, 2022.

Sampling & Testing Descriptions

Standard Penetration Test (SPT) Boring

A Standard Penetration Test (SPT) boring (ASTM D-1586) is defined as a standard split-barrel sampler driven into the soil by a one hundred and forty (140) pound hammer falling thirty (30) inches. The number of blows required to drive the sampler one (1) foot, after seating six (6) inches, is designated resistance, or "N"-Value is an index to soil strength and consistency.

Samples recovered during performance of our SPT borings were visually classified in the field and representative portions of the samples were placed in containers and transported to our laboratory for further analysis.

GPR

GPR is an electromagnetic geophysical method that detects interfaces between subsurface materials with differing dielectric constants. The GPR system consists of an antenna which houses the transmitter and receiver; a profiling recorder which processes the received signal and produces a graphic display of the data; and a video display unit which processes and transmits the output signal to a color video display unit that records the data in a file base in a portable computer.

Surface Depression, NE 36th Avenue Ocala, Florida

March 24, 2022 Project No. 22-3006.199.1

The transmitter radiates repetitive short-duration electromagnetic waves into the earth from an antenna moving across the ground surface. These radar waves are reflected back to the receiver by interfaces between materials with different dielectric constants. Travel times of the signal are used to estimate the depth of signal penetration. Intensity of the reflected signal is a function of the contrast in the dielectric constant between the materials, the conductivity of the material through which the wave is traveling, and the frequency of the signal. Subsurface features which commonly cause such reflections are: 1) natural geology such as changes in sediment composition, bedding and cementation horizons, voids, and water content; or 2) unnatural changes to the subsurface such as disturbed soils, soil backfill, buried debris, tanks, pipelines and utilities. Moisture contents of underlying soils will limit the depth of the transmitted signal. The profiling recorder processes the signal from the receiver and produces a continuous cross-section of the subsurface interface reflections, referred to as reflectors.

GPR data output from the recorder is transferred color printed charts, which present the data as a continuous profile. A GPR survey is conducted along transects which are measured paths along which the GPR antenna is moved. Calibrated survey wheel measurements are used to determine the position of the antenna during the field survey.

Normal geologic conditions in the subsurface, as viewed on a GPR profile, are frequently characterized by the occurrence of relatively continuous and horizontal GPR reflectors, representing soil horizons. Anomalous subsurface features, such as sinkholes, exhibit GPR reflectors, which, in the area of the sinkhole, dip down toward the center of the sinkhole. In the center of the sinkhole, the GPR reflectors associated with the suspected soil horizons either dip sharply downward or are discontinuous. Subsurface features such as water or air-filled voids are typically characterized by: 1) a relatively high-amplitude reflection of the GPR signals, and 2) a hyperbolic shape of the GPR signals. Fractures are typically characterized by an abrupt increase in the depth of penetration of the GPR signal and the occurrence of relatively high-angle reflectors near the boundaries of the suspected fracture.

Depth of investigation of the GPR signal is highly site-specific and is limited by signal attenuation (absorption) in the subsurface materials. Signal attenuation is dependent upon the electrical conductivity and moisture content of the subsurface materials. Signal attenuation is greatest in materials with relatively high electrical conductivities such as clays and brackish groundwater, and lowest in relatively low-conductivity materials such as dry sand or rock. Depth of investigation is also dependent on the antenna's transmitting frequency. Depth of investigation generally increases as transmitting frequency decreases; however, the ability to resolve smaller subsurface features is diminished as frequency is decreased.

GPR antennas used on the project are internally shielded from above ground interference sources. Accordingly, the GPR response is affected on minimally by overhead power lines, metallic buildings, or nearby objects.

Surface Depression, NE 36th Avenue Ocala, Florida

March 24, 2022 Project No. 22-3006,199,1

Findings

SPT Borings

General subsurface conditions found in our soil borings are graphically presented on the soil profiles in Appendix II. Horizontal lines designating the interface between differing materials found represent approximate boundaries. Transition between soil layers is typically gradual.

The pavement section at boring location B-1 generally consisted of approximately four (4) inches of asphalt and fourteen (14) inches of limerock. Soils found beneath the pavement section generally consisted of fine sand approximately three (3) feet thick underlain by medium dense clayey sand and limestone to the depth drilled. A loss of drilling fluid circulation occurred at approximately twenty-one (21) feet below existing site grade.

The pavement section at boring location B-2 generally consisted of approximately six (6) inches of asphalt. Soils found beneath the asphalt generally consisted of loose to medium dense clayey sand and limestone to the depth drilled. A weight-of-hammer (WOH) zone was found between depths of approximately thirty-one and one-half (31 ½) to thirty-three (33) feet below existing site grade.

Soils found in boring B-3 generally consisted of a surficial layer of fine sand approximately two (2) feet thick underlain by loose to medium dense clayey sand and limestone to the depth drilled. A loss of drilling fluid circulation occurred at approximately fifteen (15) feet below existing site grade. A WOH zone was found between depths of approximately twenty-three and one-half (23 ½) to twenty-five and one-half (25 ½) feet below existing site grade.

The pavement section at boring location B-4 generally consisted of approximately four and one-half (4 $\frac{1}{2}$) inches of asphalt and ten and one-half (10 $\frac{1}{2}$) inches of limerock. Soils found beneath the pavement section generally consisted of medium dense clayey sand and limestone to the depth drilled.

Ground water table levels were not found within ten (10) feet below existing site grade at the time of drilling.

GPR Survey

The GPR survey was performed utilizing a shielded one hundred sixty (160) MHz antenna and the GX HDR monitor manufactured by Mala Geoscience of Mala, Vasterbotten Municipality, Sweden.

GPR survey data was transferred from the GX HDR monitor to a desktop computer where processing was performed utilizing MALA Object Mapper Version 2.0.1804.102 software produced by Mala Geoscience of Mala, Vasterbotten Municipality, Sweden.

The GPR survey was performed by towing the antenna along each transect. GPR transect locations were determined in the field and were performed on five (5) to ten (10) foot centers in and around the observed surface depression. The antenna location was electronically marked along each transect in the GPR data to allow correlation to actual field locations. We refer you to the GPR Survey and Boring Location Map presented in Appendix I.

Surface Depression, NE 36th Avenue Ocala, Florida

March 24, 2022 Project No. 22-3006.199,1

GPR survey data indicates a maximum penetration depth of approximately fourteen (14) feet below existing site grade. The depth of investigation was based upon two-way travel times of the GPR signal traveling through unsaturated and saturated soils underlying the site. The depth was limited by attenuation of the GPR signal due to existing soil conditions at the site. Subsurface features located below the maximum depth of penetration would not have been detected by the GPR.

Results of our GPR survey indicate no downwarping and/or anomalous areas. We refer you to the GPR Survey Map presented in Appendix II.

Evaluations

Geo-Tech observed indications of sinkhole type activity in borings B-2 and B-3 between depths ranging from approximately twenty-three and one-half (23 ½) to thirty-three (33) feet below existing site grade.

Loose zones propagate upward to the ground surface as a sinkhole develops. Upward movement can cause WOH zones such as found in borings B-2 and B-3. These zones can cause settlement to structures found above them.

Most sinkhole activity in Florida is the result of subterranean erosion or "raveling" of the soils into solution channels and cavities in the underlying limestone formation. The process of internal erosion is generally caused by downward seepage of groundwater (recharge) into the limestone aquifer. Recharge occurs when there is a hydraulic connection through the confining beds and a difference in piezometer level between the surficial and limestone aquifers. Under certain circumstances, soil particles will migrate downward during the groundwater recharge process and a subsoil structure will erode. With time, "raveled" conditions can propagate upward and cause a sinkhole at the surface. In some instances, sinkhole activity is manifested at the surface as a shallow depression or minor settlement of the foundation soils which develop gradually rather than a sudden collapse. Typical indicators of sinkhole conditions encountered during the drilling of Standard Penetration Test borings are zones of abnormally soft and/or "raveled" subsoil generally accompanied by loss of drilling fluid circulation.

Recommendations

Geo-Tech recommends remediation of the sinkhole type activity found in borings B-2 and B-3 to consist of deep soil stabilization by means of low slump, sand-cement grout. Sixteen (16) injection pipes should be installed on a ten (10) feet by ten (10) feet grid pattern around borings B-2 and B-3. Additional injection points may be added depending on grout intakes. We refer the reader to the Grout Injection Plan presented in Appendix I for proposed grout injection locations.

Grout shall be utilized to seal loose zones to depths ranging from about twenty-five (25) to forty (40) feet below the existing site grade. Geo-Tech estimates grout quantities for this project to range between one hundred fifty (150) to two hundred (200) cubic yards. Grout mix specifications and pumping procedures are presented in Appendix I. The Grouting Contractor should present submittals to Geo-Tech for approval.

Surface Depression, NE 36th Avenue Ocala, Florida

March 24, 2022 Project No. 22-3006.199.1

Closure/General Qualifications

Evaluations and recommendations stated within this report are based upon data obtained from the soil borings and GPR survey performed. Variations may be adjacent to or between the borings and GPR transects which were not apparent in the boring logs and GPR radargrams. It will be necessary to reevaluate the recommendations made in this report if variations are encountered during remedial construction. Generally accepted soil and foundation engineering practices were employed in the preparation of this report.

APPENDIX I

COMPACTION GROUTING SPECIFICATIONS & GROUT INJECTION PLAN

Surface Depression, NE 36th Avenue Ocala, Florida

March 22, 2022 Project No. 22-3006.199.1

Compaction Grouting Specifications

General

The following grouting specifications are for stabilization and improvement of deep subsurface soil conditions at the project site as indicated in the Recommendations section of this report.

Scope

The scope of work consists of furnishing all labor, equipment and materials and performing all work connected with the injection of the cementaceous grout to fill, seal and stabilize soft soils.

Subsurface Soil Stabilization

The subsurface soils stabilization program shall consist of pumping sand-cement grout with suitable chemical additives at the depths indicated and at pressures necessary to fill, stabilize and cement the soft soil to minimize the potential for future subsidence.

Contractor

The Pressure Grouting Contractor shall submit his qualifications to the Soil Engineer and Owner. The Contractor shall have at least five (5) years of experience in similar deep and shallow grouting jobs, and shall submit references of his activities. If requested by the Engineer, the resume of the field superintendent will also be provided. Prior to mobilization to the site and beginning work, the Contractor shall submit a project schedule and injection layout plan to Geo-Tech for approval. The Contractor shall also provide sufficient labor and equipment to ensure the project site is protected from pedestrians and non-essential construction vehicles by means of caution tape and/or protective fencing in order to provide a safe working environment for construction and non-construction personnel.

Equipment

- a. **Grout Injection Equipment**: A continuous flow, positive displacement model with a pugmill type mixing vat having a minimum shaft speed of sixty (60) rpm and incorporated as an integral part of the "mudjack" equipment. Alternate equipment may be used at the discretion of the Soil Engineer.
- b. **Mixer**: (If On-Site Mixing is Used) Machine driven rotary mixer with a minimum seven (7) cubic foot capacity; agitate during pumping operations.
- c. **Injection Pipes**: Minimum diameter two (2) inch I.D., Maximum Diameter four (4) inch I.D.
- d. **Pressure Gauge**: Sufficient size (4-inch face) in order to be legible while monitoring grouting pressures from a safe distance.

Grout Mixture

a. The mixture used for grouting shall be a creamy consistency which will permit the grout mixture, when set aside in a standard concrete test mold, to show less than one percent of the mixture height of free water on the surface after standing not less than twelve (12) hours. The grout mixture shall have a time of efflux (ASTM C939-81) greater than

Surface Depression, NE 36th Avenue Ocala, Florida

March 22, 2022 Project No. 22-3006.199.1

thirty-five (35) seconds. Either of the following mixtures may be used, subject to minor variation of any of the constituents if found necessary to meet the above requirements.

For 1 c.y. yield						
• •		<u>M</u>	ix A	<u>M</u> :	ix B	
Fly Ash (Gs = 2.5)	-	500	pounds			
Cement (Gs = 3.15)	-	500	pounds	900	pounds	
Water	-	55	gallons	55	gallons	
Sand (Gs = 2.65)	-	2,300	pounds	2,300	pounds	
Darex (or equal)	-	1	ounce	1	ounce	
WRDA-79 (or equal)	-	45	ounces	45	ounces	

b. One set of three (3) 4"x8" sample test cylinders shall be made for each mix preparation.

Grout Mixture and Placing

If on-site mixing is used, facilities shall be provided for accurately measured the ingredients in each batch of grout. Ingredients shall be thoroughly mixed and immediately pumped to the grouting needles through a flexible hose connection not more than two hundred fifty (250) feet long.

Pressure Grouting Procedure

- a. The scope of this stabilization program includes vertical and angled grout injections at locations on about eight (8) to ten (10) centers. However, the program may be modified by the Soil Engineer as dictated by the actual field conditions encountered. If directed by the Soil Engineer, some injection locations may be deleted and/or alternate locations may be added to the program.
- b. Grout needles shall be installed to a depth sufficient to encounter refusal conditions. The Contractor shall rotary drill (using a Bentonite slurry) the injection pipes to a minimum depth of fifteen (15) feet and then either drill or drive, at the discretion of the Soil Engineer, to the refusal depth. Any other method of installation shall not be accepted unless approved by the Engineer.
- c. Following satisfactory installation of the injection pipes, grouting operations may begin. The rate of pumping shall not exceed six (6) cubic feet per minute. Pumping pressures are planned to be in the range of one-hundred (100) to one-hundred fifty (150) psi at the tip of the casing. The in-line pressure gauge is to be of sufficient size, in order to be legible while monitoring grouting pressures from a safe distance (4-inch face).
- d. Upon completion of the deep stabilization, shallow grouting may be performed, at the discretion of the soil engineer, to re-level concrete slabs, footings, or other structures.
- e. All grouting operations shall be monitored by a representative of Geo-Technologies, Inc.

Monitoring by Soil Engineer

The Soil Engineer will monitor the pressure grouting operations and will represent the Owner to assure compliance with the specifications outlined above and the duties discussed below. The

Exhibit D- Geotech Report No. 22

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Surface Depression, NE 36th Avenue Ocala, Florida

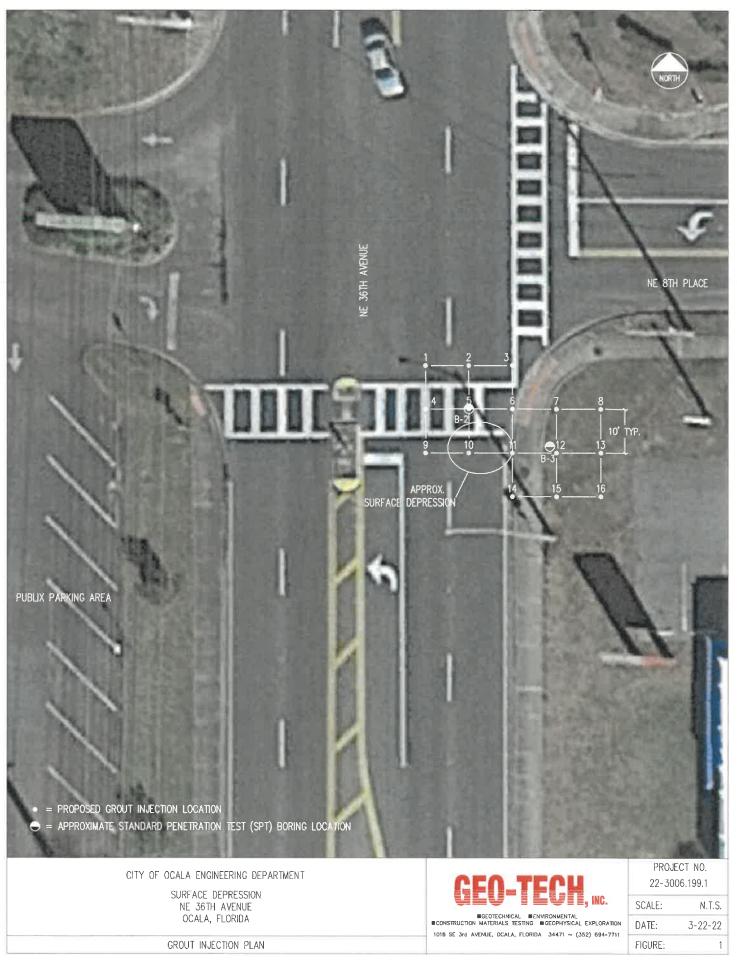
March 22, 2022 Project No. 22-3006.199.1

Soil Engineer (Geo-Technologies, Inc.) shall recommend intervals of grouting and shall decide if additional or less grout is necessary.

- a. The Soil Engineer can stop the grouting operation at any time, if, in his judgment, the operation does not comply with the specifications or the work is unsuitable and will not be responsible for damage to the lawn; landscape areas or structures due to grouting procedures.
- b. The Soil Engineer will make all measurements of grout heave, settlement, and quantity pumped. The Soil Engineer will maintain records of each day's grouting operation for the benefit of the Owner and Contractor. The quantity recorded by the Engineer shall be considered the final amount of grout pumped for pay purposes. The Contractor will be responsible for laser equipment necessary to monitor at least three (3) locations continuously during the grout procedure for each injection point.
- c. During grouting, the Soil Engineer shall observe any vertical movement of the ground. If a momentary downward movement is observed, the grouting operation shall cease and observations shall continue for thirty (30) minutes. If the ground does not return to its original grade, pumping shall be resumed at a lower rate of discharge. If upward movement is observed, the grouting operation shall cease.
- d. The Contractor shall exercise care when grouting beneath and adjacent to existing structures. The Contractor is responsible for ensuring that the grouting operation does not cause unnecessary damage to existing structures.
- e. When grout injection points are fifteen (15) feet or shallower, measured from existing grade, the Engineer should be notified. These points may be abandoned or relocated after meeting with the Engineer.
- f. Pressure grouting will continue until the bottom of the pin is within fifteen (15) feet of the existing ground surface. At this point, pressure grouting will be stopped unless otherwise directed by the Engineer or his representative.

Method of Payment

Unit prices per cubic yard of grout, per foot for pipe installation/removal, and per day of shallow grouting shall be applicable to quantities over or under the estimated amounts.



APPENDIX II

SOIL PROFILES

Log Exhibit Di Geotech Report No. 22

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project: SURFACE DEPRESSION, NE 36TH AVENUE, OCALA, FL

Project No: 22-3006.199.1

Engineer: NJH/CAH

Enclosure: SITE PLAN

CONTRACT# CIP/220645
GEO-TECH, IIC.

-3006.199.1

ENGINEERING CONSULTANTS

1016 SE 3rd Avenue Ocala, Florida 352.694.7711 WWW.GEOTECHFL.COM

Description									
PAVEMENT SECTION ASPHALT = 4" LIMEROCK = 14" FINE SAND FINE SAND (SP) CLAYEY SAND (SC) WITH LIMESTONE S.5.5	Depth (ft)	Symbol	Description	Consistency		Number	Туре	Blows/ft	▲ N-Values ▲
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Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MARCH 18, 2022

Drilled By: CC//EC/LE/CM
Drill Method: ASTM D-1586

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile 1 OF 4

Log Exhibit D. Geotech Report No. 22

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project: SURFACE DEPRESSION, NE 36TH AVENUE, OCALA, FL

Project No: 22-3006.199.1

Engineer: NJH/CAH

Enclosure: SITE PLAN

CONTRACT# CIP/220645
GEO-TECH, IIIC.
2-3006.199.1
ENGINEERING CONSULTANTS

1016 SE 3rd Avenue Ocala, Florida 352.694.7711 WWW.GEOTECHFL.COM

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Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MARCH 18, 2022

Drilled By: CC//EC/LE/CM
Drill Method: ASTM D-1586

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile: 2 OF 4

Log Exhibit D. Geotech Report No. 22

Project: SURFACE DEPRESSION, NE 36TH AVENUE, OCALA, FL

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project No: 22-3006.199.1

Engineer: NJH/CAH

Enclosure: SITE PLAN

CONTRACT# CIP/220645
GEO-TECH, mc

ENGINEERING CONSULTANTS
1016 SE 3rd Avenue
Ocala, Florida
352.694.7711
WWW.GEOTECHFL.COM

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Туре	Blows/ft	Standard Penetration Test N-Values 20 40 60 80 100
0 =		Ground Surface FINE SAND		0.0				
1 2		BROWN FINE SAND (SP)	HAND AUGERED	2.0				
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9 10 -	/		MEDIUM DENSE		2		15	15
11 12 13	~			13.5				40
14 15	1	CLAYEY SAND BROWN CLAYEY SAND (SC)	MEDIUM DENSE		3	Ш	12	12
16- 17- 18-	/	LOSS OF DRILLING FLUID CIRCULATION AT APPROX. 15.0 FEET		18.5				6
20 21 21	<i>></i>	CLAYEY SAND YELLOWISH BROWN AND GREY CLAYEY SAND (SC) WITH	LOOSE	:	4	11	6	
23 24	/	LIMESTONE	WOH (23.5'-25.5')		5	П	0	- 0
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30-	出异	LIMESTONE LIGHT BROWN LIMESTONE	50 BLOWS - 4"	30.5	6	Ш	50	50
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Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MARCH 21, 2022

Drilled By: CC//EC/LE/CM

Drill Method: ASTM D-1586

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile: 3 OF 4

Log Exhibit Da Geotech Report No. 22

Project: SURFACE DEPRESSION, NE 36TH AVENUE, OCALA, FL

Boring Location: (SEE SITE PLAN)

Client: CITY OF OCALA ENGINEERING DEPARTMENT

Project No: 22-3006.199.1

Engineer: NJH/CAH

Enclosure: SITE PLAN

CONTRACT# CIP/220645 GEO-TECH, III. 2-3006.199.1 ENGINEERING CONSULTANTS 1016 SE 3rd Avenue

1016 SE 3rd Avenue Ocala, Florida 352.694.7711 WWW.GEOTECHFL.COM

Depth (ft)	Symbol	Description	Consistency	Depth/Elev.	Number	Туре	Blows/ft	Standard Penetration Test N-Values 20 40 60 80 100
0 1 2 3 4 5 6 7 8 9 10 1 1 2 1 3 1 4 1 5 6 7 8 9 10 1 1 2 1 3 1 4 1 5 6 7 8 9 10 1 1 2 1 3 1 4 1 5 6 7 8 9 10 1 1 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3		Ground Surface PAVEMENT SECTION ASPHALT = 4 1/2" LIMEROCK = 10 1/2" CLAYEY SAND BROWN CLAYEY SAND (SC) WITH LIMESTONE LIGHT BROWN LIMESTONE End of Borehole	HAND AUGERED POSSIBLE UTILITIES MEDIUM DENSE MEDIUM DENSE 50 BLOWS - 1"	13.0 14.0	3		10 28 50	10 28 50

Ground Water Depth: GREATER THAN 10.0 FEET

Drill Date: MARCH 21, 2022

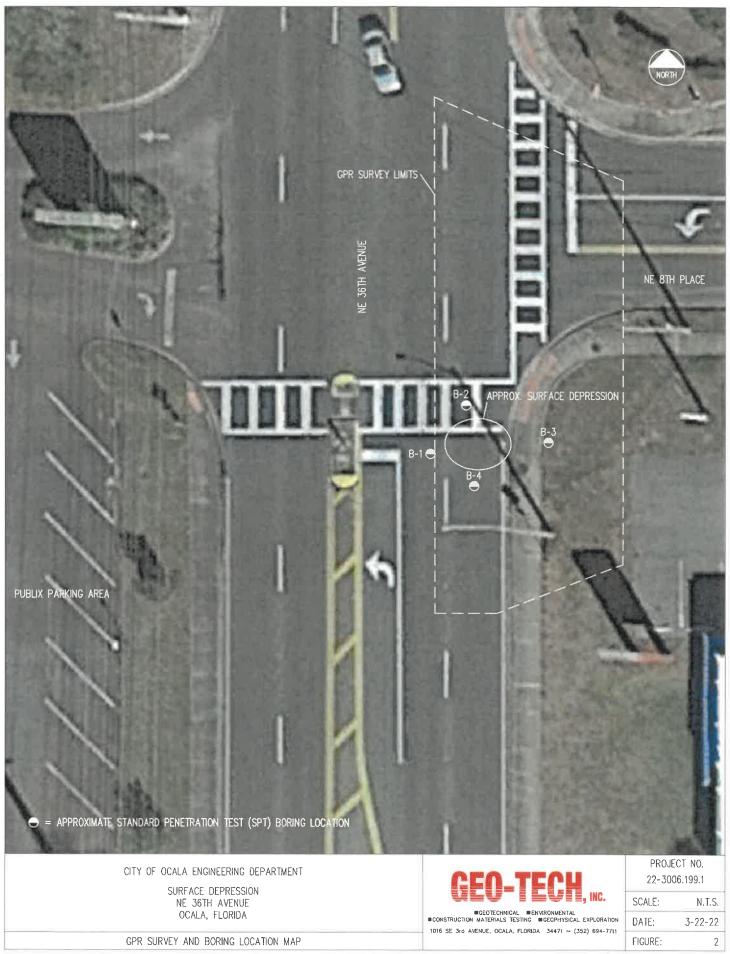
Drilled By: CC//EC/LE/CM Drill Method: ASTM D-1586

Remarks: (SP) UNIFIED SOIL CLASSIFICATION SYMBOL AS DETERMINED BY VISUAL REVIEW

Soil Profile 4 OF 4

APPENDIX III

BORING LOCATION MAP





TITLE Agreement for Surface Depression Injection Grouting...

FILE NAME FOR COUNCIL - Con...ting (CIP 220.pdf

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