

## PROFESSIONAL SERVICES AGREEMENT

This Professional Services Agreement (the "Agreement") is made this 28th day of May, 2019, (the "Effective Date"), by and between the City of Dripping Springs a municipal corporation, hereinafter called "City", with offices located at 511 Mercer Street, Dripping Springs, Texas 78620, and Surveying And Mapping, LLC and its wholly owned subsidiary SAM-Construction Services, LLC, a Texas limited liability company, hereinafter called "SAM", with offices located at 4801 Southwest Parkway, Parkway Two, Suite 100, Austin, Texas 78735; City of Dripping Springs and SAM being referred to herein collectively as the "Parties", and individually as a "Party".

1. **Purpose and Scope** - This Agreement is a master contract between City of Dripping Springs and SAM whereby in consideration of the covenants and provisions hereinafter provided, it shall include:
  - a. Aerial LiDAR and Wastewater Easement mapping services in connection with the Wastewater Capital Improvement Project, located in Dripping Springs, Hays County Texas as defined graphically on Exhibit A.
  - b. SAM will also produce 3 inch ground sample distance (GSD) orthometric imagery 2000 feet wide centered on the proposed centerline for the entire corridor.
  - c. Phases will include:
    - i. Aerial Acquisition Phase: The entire 7.5 mile corridor
    - ii. Phase 1A: The area shown as "PROPOSED WEST INTERCEPTOR"
    - iii. Phase 1B: The area shown as "PROPOSED FORCE MAIN EXTENSION"
    - iv. Phase 2: The area shown as "PROPOSED EAST INTERCEPTOR" and "PROPOSED SOUTH COLLECTOR"
  - d. Projects as outlined in the attached Scope of Services in Attachment "A".
2. **Responsibilities of SAM** - In the performance of any operations and Work hereunder, SAM shall furnish at its own expense any and all reasonably necessary labor and supervision, goods, machinery, equipment, tools, transportation, and whatever else is reasonably necessary for the performance and timely completion of the Work herein provided for at the job site (other than such items thereof as City of Dripping Springs specifically agrees in the Work Order to furnish), all in good condition and suitable for the Work to be performed hereunder, and shall perform the Work specified in the Work Order and/or described in the specifications and/or drawings that may be attached thereto. SAM hereby agrees that all Work will be performed by personnel who are trained in safety and in the Work to be performed. SAM agrees that any action undertaken in connection with performance of this Agreement shall be in reasonable compliance with all applicable laws, rules and regulations. The obligations of SAM and City of Dripping Springs under this Paragraph are subject to Paragraph 9 hereof.
3. **Property Protection** – SAM shall use reasonable efforts to perform the Work in a manner which causes the minimum of inconvenience, disturbance, and damage to the property of City of Dripping Springs and affected landowners. "Damage" shall be defined as any injury to property caused by SAM that exceeds normal and ordinary injury associated with surveying

operations. SAM shall reasonably restore all Damage to as good a condition as before any such Damage occurred and to the reasonable satisfaction of City of Dripping Springs. City of Dripping Springs reserves the right to specify additional conditions of restoration on a Work Order basis and agrees that SAM may be compensated for costs associated with such additional conditions of restoration.

4. **Independent Contractor** – SAM shall be deemed an independent contractor with respect to this Agreement and all Work done and services performed hereunder, and neither SAM nor anyone used or employed by or subcontracted by SAM shall be deemed for any purpose to be the agent, servant or representative of City of Dripping Springs in the performance of such Work or services or any part hereof, or in any matter dealt with herein, and City of Dripping Springs shall have no direction or control of SAM or its employees and agents, except in the results to be obtained. Neither SAM nor anyone used or employed by SAM will have any right to any pension or welfare plans, including, without limitation, savings, retirement, medical, dental, insurance, or vacation plans or any benefits sponsored by City of Dripping Springs. Furthermore, neither SAM nor anyone used or employed by SAM will have any authority to bind City of Dripping Springs to any Third Parties without specific written authority from City of Dripping Springs. It is understood that by this provision, neither Party is assuming any liability for the actions or omissions of the other Party. Neither shall City of Dripping Springs nor any of its employees be deemed a borrowed servant for any purpose hereunder or with respect to the Work or activities, whether incidental or otherwise, of SAM.
  
5. **Insurance** - As to all operations provided for herein by SAM and at SAM's sole expense, SAM shall carry and maintain at all times during the performance of services hereunder, for the benefit of City of Dripping Springs, the following minimum insurance coverage with policy territory sufficient to cover the Work hereunder. Upon request by City of Dripping Springs, SAM shall provide to City of Dripping Springs certificates of insurance and other evidence of such policies of insurance maintained by SAM and all subcontractors, in the event that any policies of insurance are modified in any respect, cancelled, or terminated for any reason, SAM agrees to immediately notify City of Dripping Springs of such. Also, in the event that SAM should use or engage any subcontractors, said subcontractors are also required to maintain the following minimum coverage:
  - a. **Workers Compensation** in accordance with the statutory requirements of the governmental entities with jurisdiction over personnel engaged by each Party who are performing Work, Services and **Employer's Liability** insurance with a limit of not less than \$1,000,000 each occurrence;
  - b. **Comprehensive Automobile Liability** insurance covering owned, non-owned and hired vehicles with limits of liability of not less than \$1,000,000 combined single limits for Bodily Injury and Property Damage claims;
  - c. **Comprehensive General Liability** insurance with limits of liability in a combined single limit of not less than \$1,000,000 each occurrence for Bodily Injury and Property Damage claims;
  - d. **Professional Liability** insurance with an aggregate limit of not less than \$1,000,000 covering City of Dripping Springs against any and all sums which SAM may be legally obligated to pay on account of any professional liability arising out of the performance of this Agreement;

- e. **Umbrella Excess Liability** insurance as to items a through d with a limit of not less than \$4,000,000 each occurrence and an aggregate limit of not less than \$4,000,000.
  - f. **Each Party** shall, upon request, furnish certificates showing that the above insurance is and will be in effect during the performance of Work hereunder, and shall specify that each Party must be given, in writing, thirty (30) days notice of cancellation, termination, or alteration of the policies evidenced by certificates.
7. **Indemnity** – SAM with respect to professional liability, shall indemnify, hold and save harmless City of Dripping Springs, their officers, agents and employees, from liability of any nature or kind, including costs and expenses, for or on account of any or all damages of any character whatsoever arising from negligent acts or omissions or misconduct of SAM, its employees and agents, and SAM's subcontractors, and suppliers, their employees and agents. SAM, with respect to all liability other than for professional acts, shall indemnify, defend, hold and save harmless City of Dripping Springs their officers and employees, from liability of any nature or kind, including costs and expenses, for or on account of any or all damages of any character whatsoever arising from acts, omissions or conduct of SAM, its employees and agents, and SAM's subcontractors, and suppliers, their employees and agents.
- SAM will carry insurance sufficient to support the indemnity agreements contained herein.
8. **Controlling Documents** - This Agreement does not obligate City of Dripping Springs to order work from SAM, nor does it obligate SAM to accept orders for work, but this Agreement shall control and govern all work accepted by SAM and shall define the rights and obligations of City of Dripping Springs and SAM during the term hereof, except as modified by any Work Order. The scope of the Work and required services may be changed upon written notice by City of Dripping Springs to SAM.
9. **Force Majeure** - Neither City of Dripping Springs nor SAM shall be liable for any delay due, occasioned or caused as a result of any applicable laws, orders, rules or regulations of governmental authorities or by causes beyond the control of a Party to overcome by the exercise of due diligence (herein called "**Force Majeure**").
10. **Commencement and Completion of Work** – SAM agrees to commence and complete said Work with due diligence and in a timely manner. SAM agrees to commence said Work at the time mutually agreed upon by both Parties unless SAM is prevented from commencing or continuing said Work by Force Majeure.
11. **Hiring of Employees** – City of Dripping Springs may not directly or indirectly, without the prior express written consent of SAM, offer or solicit for employment, employ, or otherwise engage the services of SAM's personnel during the term of this Agreement and for twenty-four (24) months after termination or expiration of this Agreement. For purposes of this clause, "**personnel**" includes (a) all individuals that SAM and its subsidiaries employ or (b) all independent contractors engaged by SAM to perform Work pursuant to this Agreement. City of Dripping Springs acknowledges that SAM's personnel have executed a fully enforceable restrictive covenant which forbids the former SAM's personnel from acceptance

of employment with a client or competitor and that City of Dripping Springs agrees that it is precluded as a matter of law from interfering with such. City of Dripping Springs agrees that SAM has no adequate remedy at law to enforce this restrictive covenant and that SAM may pursue but is not obligated to pursue all equitable remedies including without limitation injunctive relief so as to enforce the terms of this restrictive covenant. Notwithstanding anything contained herein or elsewhere stated, City of Dripping Springs agrees that in the event of a breach of this Paragraph 11 (i) the calculation of damages would be difficult or unascertainable to any reasonable degree of certainty; (ii) the amount of the liquidated damages stated in this Paragraph 11 is a reasonable estimate of the actual damages that SAM would suffer if there were a breach by City of Dripping Springs; and (iii) the harm to SAM would be imminent as a result of City of Dripping Springs's breach of this Paragraph 11. Based on what the Parties presently know given the SAM personnel who will be providing the Work under this Agreement or any Work Order, the Parties hereto agree as follows: (i) an estimate of the damages that would accrue if a breach of this Paragraph 11 occurred in the future is that sum equal to 1.5 times the SAM employee's then-annual salary; (ii) this amount of liquidated damages is a fair and reasonable estimate of the damages that would accrue to SAM if such a breach occurred; and (iii) such liquidated damages would not act as a penalty to City of Dripping Springs. City of Dripping Springs agrees that SAM reserves to the fullest extent and may pursue all other remedies, whether legal or otherwise, which may be asserted by SAM. If this paragraph or any portion hereof is held to be unenforceable or requires reformation, then City of Dripping Springs agrees that the unenforceable provision shall be modified only to the extent necessary to cause such provision to be reasonable and to impose a restriction(s) that is not greater than necessary to protect the goodwill and business interests of SAM as reformed.

SAM may not directly or indirectly, without the prior express written consent of City of Dripping Springs, offer or solicit for employment, employ, or otherwise engage the services of City personnel during the term of this Agreement and for twenty-four (24) months after termination or expiration of this Agreement. For purposes of this clause, "personnel" includes (a) all individuals that City of Dripping Springs and its subsidiaries employ or (b) all independent contractors engaged by City of Dripping Springs to perform Work pursuant to this Agreement. SAM acknowledges that City personnel have executed a fully enforceable restrictive covenant which forbids the former City personnel from acceptance of employment with a client or competitor and that SAM agrees that it is precluded as a matter of law from interfering with such. SAM agrees that City of Dripping Springs has no adequate remedy at law to enforce this restrictive covenant and that City of Dripping Springs may pursue but is not obligated to pursue all equitable remedies including without limitation injunctive relief so as to enforce the terms of this restrictive covenant. Notwithstanding anything contained herein or elsewhere stated, SAM agrees that in the event of a breach of this Paragraph 11 (i) the calculation of damages would be difficult or unascertainable to any reasonable degree of certainty; (ii) the amount of the liquidated damages stated in this Paragraph 11 is a reasonable estimate of the actual damages that City of Dripping Springs would suffer if there were a breach by SAM; and (iii) the harm to City of Dripping Springs would be imminent as a result of SAM's breach of this Paragraph 11. Based on what the Parties presently know given the City of Dripping Springs personnel who will be providing services under this Agreement or any Work Order, the Parties hereto agree as follows: (i) an estimate of the damages that would accrue if a breach of this Paragraph 11 occurred in the future is that sum equal to 1.5 times the

City employee's then-annual salary; (ii) this amount of liquidated damages is a fair and reasonable estimate of the damages that would accrue to City of Dripping Springs if such a breach occurred; and (iii) such liquidated damages would not act as a penalty to SAM. SAM agrees that City of Dripping Springs reserves to the fullest extent and may pursue all other remedies, whether legal or otherwise, which may be asserted by City of Dripping Springs. If this paragraph or any portion hereof is held to be unenforceable or requires reformation, then SAM agrees that the unenforceable provision shall be modified only to the extent necessary to cause such provision to be reasonable and to impose a restriction(s) that is not greater than necessary to protect the goodwill and business interests of City of Dripping Springs as reformed.

12. **Term and Termination** - This Agreement shall be effective as of the Effective Date and shall continue in force until terminated in accordance with the provisions hereof. This Agreement may be terminated prospectively by either Party at any time, without cause and without liability, upon thirty (30) days' prior written notice to the other Party; provided, however, the terms and provisions of this Agreement shall continue to apply to all Work Orders then in existence, and neither Party shall by reason of such prospective termination of this Agreement be relieved of its respective obligations and liabilities theretofore or thereafter arising from or incident to the Work performed or services rendered under any existing Work Order.

13. **Property and Data** - Documents Provided by City of Dripping Springs - City of Dripping Springs agrees to provide SAM with any and all documents necessary to identify the ownership, location and condition of the property to be surveyed, including, but not limited to, deeds, maps, title information, and permits; and to obtain for SAM the authorization of the property owner and/or tenant to enter upon the property for the purpose of conducting Work thereon.

Ownership of Work Product – SAM acknowledges that all original papers, documents, maps, surveys, and other work product and copies thereof, produced by City of Dripping Springs pursuant to this Agreement shall remain the property of City of Dripping Springs except documents which are required to be filed with public agencies. SAM further acknowledges that City of Dripping Springs's right to utilize the services and work product performed pursuant to this Agreement will continue only so long as City of Dripping Springs is not in default pursuant to the terms and conditions of this Agreement and SAM has performed all obligations under this Agreement.

Use of Work Product – SAM acknowledges that City of Dripping Springs is requesting services to be performed under the applicable Work Order(s) for the purpose of providing such information to other parties including, but not limited to, clients, customers, and other interested persons. City of Dripping Springs agrees that the Work product prepared by SAM may not be altered in any way except for the addition of page numbers or exhibit captions necessary to incorporate the work product into other documents. SAM agrees to provide copies of the Work product mutually agreed upon by both Parties described in the Work Orders hereof.

14. **Permits and Licenses** – SAM shall not be responsible for any expenses or costs or liabilities whatsoever related to or for providing any permits, licenses, or similar legal instruments or

authorizations required to implement or accomplish projects, permit or license sites, related to its Work and services listed in Work Orders. SAM shall not be required to perform any Work under any Work Order which requires a local, state, or federal license to practice which it does not possess or which in SAM's sole judgment SAM is unqualified to perform, such as but not limited to: legal opinions, real estate brokerage or agency, certified public accounting, and certain professional engineering work in various states and localities.

15. **Safety** – SAM agrees to maintain and abide by an Alcohol, Drug, and Safety Program and any other programs or certifications from any regulatory or oversight agencies, organizations or bodies that are required for the Work SAM will perform hereunder. SAM represents that it and its employees and subcontractors are familiar with safety policies and procedures with respect to the Work to be performed by SAM. SAM further represents that it and its employees and subcontractors will comply with safety policies and procedures while engaged in all work during the term hereof.

16. **Compensation** - Compensation to SAM for the services and work covered by the Scope of Services attached as Attachment "A" and the Fee Schedule attached as part of Attachment "A". The total services covered by this agreement shall not exceed two hundred sixty thousand four hundred forty-seven dollars (\$260,440).

SAM shall submit to City of Dripping Springs an invoice and City of Dripping Springs shall pay SAM all amounts due under such invoice within fifteen (15) days from date of receipt and approval by the City of each invoice.

18. **Assignment** - This Agreement shall not be assigned by either Party without the prior written consent of the other Party, except that a Party hereto may assign this Agreement to any parent or subsidiary without the prior written consent of the other Party.

19. **Notices** - All notices, Work Orders, and other communications required, permitted or desired to be given hereunder must be in writing and shall be sent to either Party at the addresses listed below or by hand delivery or by facsimile transmission or by email. Effective date is date notice is received by the addressee. Each Party may change its address by notifying the other Party in writing.

- a. City of Dripping Springs  
Attn: City Administrator  
511 Mercer Street  
Dripping Springs, Texas 78620  
Phone: (512) 858-4725  
Email: [mfischer@cityofdrippingsprings.com](mailto:mfischer@cityofdrippingsprings.com)

With copy to:

Laura Mueller  
Assistant City Attorney  
[laura@texasmunicipallawyers.com](mailto:laura@texasmunicipallawyers.com)

b. Surveying And Mapping, LLC  
Attn: Patrick A. Smith, Senior Vice President  
4801 Southwest Parkway  
Parkway Two, Suite 100  
Austin, Texas 78735  
Phone: (512) 447-0575  
Fax: (512) 326-3029  
Email: [psmith@sam.biz](mailto:psmith@sam.biz)

With copy to:  
Cookie F. Munson  
General Counsel  
[cmunson@sam.biz](mailto:cmunson@sam.biz)

- 20. Business Records** – SAM shall maintain books and records supporting all costs for the Consulting Services performed under this Agreement. During SAM normal business hours for the duration of this Agreement, and for a period of two (2) years thereafter, City of Dripping Springs shall have reasonable access to such books or records, which are non-proprietary and specifically and directly related to Work performed under this Agreement, reasonably required to either verify reimbursable costs or to otherwise ensure compliance with the terms of this Agreement.
- 21. Conflict in Terms/Order of Precedence** - In the event of any conflict between this Agreement and the express terms of a Work Order, the terms of the Work Order shall conclusively control as to all matters contained within the Work Order.
- 22. Jurisdiction and Compliance with Law** - This Agreement shall be governed by, and construed and interpreted pursuant to, the laws of the state of Texas, without regard to any choice of law rules or principles which may direct the application of the laws of another jurisdiction. Venue for any dispute related to the subject matter of this Agreement, its construction or interpretation, or enforceability, or any Work Order shall be in Hays County, Texas.
- 23. Enforceability of the Agreement** - If any part or provision of this Agreement is judicially declared invalid or unenforceable, such declaration shall not have the effect of invalidating or voiding the remainder of this Agreement, and the Parties agree that the part or parts of this Agreement so held to be invalid, void or unenforceable shall be modified to the extent to make it enforceable. Excluding paragraph 11 and only if such be necessary as to the remainder of the Agreement, the Agreement shall be deemed to be amended so as to delete or modify the unenforceable part or provision, and the remainder shall have the same force and effect as if such part or provision had never been included herein. City of Dripping Springs agrees that SAM is not liable to City of Dripping Springs and SAM is fully and completely released and discharged from any claim for attorneys' fees, costs, and damages which may be asserted by City of Dripping Springs related to any action for interpretation, enforcement, and reformation

of Paragraph 11.

- 24. Mandatory Disclosures:** Texas law requires that vendors make certain disclosures. Prior to the effective date of this Contract, the Contractor has submitted to the City a copy of the Conflict of Interest Questionnaire form (CIQ Form) approved by the Texas Ethics Commission (Texas Local Government Code Chapter 176). The Contractor must also fill out Form 1295, as required by the Texas Ethics Commission, and submit it to the City. The form may be found here: [https://www.ethics.state.tx.us/whatsnew/elf\\_info\\_form1295.htm](https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm)
- 25. Waiver of Contractual Right:** The failure of any party to enforce any provision of this Agreement shall not be construed as a waiver of that party's right to subsequently enforce and compel strict compliance with every provision of the Agreement.
- 26. Entire Agreement and Amendments** - This Agreement, together with any Work Order entered into pursuant to this Agreement, contains the entire agreement between the Parties hereto with respect to the subject matter hereof. No amendment to this Agreement or to any Work Orders shall be binding upon either Party hereto, unless it is in writing and executed on behalf of each Party hereto by a duly authorized representative and expressly specified as such. This Agreement supersedes all previous agreements, whether written or oral, entered into between the Parties.
- 27. Binding Authority** - Each of the persons executing this Agreement represents and warrants that he or she has full right and authority to execute this instrument on behalf of SAM or City of Dripping Springs, as the case may be, and to bind such Party to the fulfillment of all of the provisions hereof.
- 28. Counterparts.** This Agreement may be signed in counterparts, each of which may be deemed an original and all of which together constitute one and the same agreement.
- 29. Digital Copy.** This Agreement may be digitally copied and stored (the "Imaged Agreement"). The Imaged Agreement (once digitally regenerated to paper form), and any facsimile, and all computer records of the foregoing, if introduced as evidence in any judicial, arbitration, mediation or administrative proceedings, will be admissible as between the Parties to the same extent and under the same conditions as other business records originated and maintained in documentary form and neither Party shall object on the basis that such business records were not originated or maintained in documentary form under any rule of evidence.

[Signature Page Follows]



IN WITNESS WHEREOF, this Agreement is executed effective as of the day and year first above written.

Surveying And Mapping, LLC

By: Patrick A. Smith

Title: Senior Vice President

Signature: 

Date: 05/28/2019

City of Dripping Springs

By: 

Title: Mayor

Signature: Todd Purcell

Date: 6/14/19

11/11/12

11/11/12

11/11/12

**Attachment A**

**Scope of Services**



Surveying And Mapping, LLC  
4801 Southwest Parkway, Building Two, Suite 100, Austin, TX 78735  
Ofc 512.447.0575 Fax 512.326.3029  
info@sam.biz www.sam.biz TX Firm # 10064300



## EXHIBIT "A"

May 13, 2019

City of Dripping Springs  
Ginger Faught  
Deputy City Administrator  
511 Mercer Street  
Dripping Springs, TX 78620

Re: Waste Water Capital Improvement Project – Aerial LiDAR and Easement ROW Mapping  
City of Dripping Springs  
Hays County, Texas  
SAM Proposal 1018047232

Dear Ginger,

Surveying And Mapping, LLC (SAM) is pleased to provide City of Dripping Springs (the City) this proposed scope of services and fee estimate for professional surveying and mapping services in connection with the City Dripping Springs Wastewater Capital Improvements project. This proposal is based on information provided to us on April 9, 2018.

After you have reviewed the attached proposed Scope of Services and Fee Estimate, please do not hesitate to call if you have any questions or comments. Thank you for the opportunity to be of service. We are looking forward to working with you on this project. This project will be completed under a master services agreement between City of Dripping Springs and SAM.

Sincerely,

Gordon N. Anderson, R.P.L.S.  
Senior Project Manager

**CITY OF DRIPPING SPRINGS  
WASTE WATER CAPITAL IMPROVEMENT PROJECT  
AERIAL AND EASEMENT MAPPING  
SCOPE OF SERVICES**

**UNDERSTANDING**

It is Surveying And Mapping, LLC's (SAM) understanding that the City of Dripping Springs is requesting aerial LiDAR and Wastewater Easement mapping services in connection with the above referenced project, located in Dripping Springs, Hays County Texas as defined graphically on *Exhibit A*. The project area includes acquisition of an approximate overall 7.5 mile long corridor from which 2D planimetric and 3D DTM data will be extracted to produce a 1' contour map, 200 feet wide, centered on proposed alignment(s). Additionally, SAM will produce 3-inch ground sample distance (GSD) orthometric imagery 2000 feet wide centered on the proposed centerline for the entire corridor. It is our understanding that the project will be broken into two phases. This scope will divide the areas into phases as follows:

**Aerial Acquisition Phase:** The entire 7.5 mile corridor

**Phase 1A:** The area shown as "PROPOSED WEST INTERCEPTOR"

**Phase 1B:** The area shown as "PROPOSED FORCE MAIN EXTENSION"

**Phase 2:** The area shown as "PROPOSED EAST INTERCEPTOR" and "PROPOSED SOUTH COLLECTOR"

**AERIAL ACQUISITION PHASE**

**LIDAR Acquisition and Truthing Survey**

Targeted and/or photo identifiable control points (6) will be used to calibrate the LiDAR point cloud and aerial imagery. Ground truthing check points on hard surfaces and vegetated surfaces will be used to then verify final surface accuracy.

*Digital data accuracy will be acquired and processed to American Society for Photogrammetry and Remote Sensing (ASPRS) Standards for Digital Geospatial Data as follows:*

*Horizontal: Absolute accuracy 0.3' RMSE in x or y (0.4' RMSEr) for well-defined features*

*Vertical: Absolute accuracy 0.33' RMSEz on open ground and non-vegetated surface*

Using the ground truthing data on vegetated surfaces, we will produce an RMSE report that will show the expected error within these areas.

**Acquisition**

SAM will collect aerial LiDAR and Imagery of the project site in one mobilization. The calibrated point cloud will be used to support the orthos and planimetric linework. The bare earth classified point cloud will be provided with the other deliverables to assist engineers with design work.

**Direct Image Geo-referencing**

SAM will begin the image processing immediately after receiving and accepting the imagery. All ABGPS/IMU data will be imported into the project, and control points will be measured on every photo on which they occur. We will then perform an analysis which will compare the given coordinates of the ground control points with their locations projected and adjusted on the individual photos and directly geo-reference the images to the point cloud.

### **Orthophoto Processing**

The digital orthophotos will be processed to have a 3-inch ground sample distance (GSD) resolution. The LiDAR bare earth filtered dataset will be used to rectify the aerial imagery. The digital orthophotos will be mosaicked and checked to insure color, tone and contrast is optimized across the project area. Mosaic lines will be manually placed and hidden along linear features to avoid cutting through buildings and other above ground structures. Individual tiles will be cut to limit the file size to less than 10 MB. Imagery will be provided in TIF/TFW or ECW/EWW formats.

### **LIDAR Mapping Assumptions**

In formulating this proposal, the following assumptions have been planned:

- LiDAR and Imagery acquisition for approximately 7.5 corridor miles, said corridor being no more than 2,000-feet wide throughout.
- Color digital imagery will be collected at 3-inch GSD.
- LiDAR will be collected at an approximate nominal density of 20 points per square meter.
- SAM will collect ground truthing shots spread among hard and vegetated surfaces for accuracy validation. All control and ground truthing will be performed simultaneously.
- Unless otherwise specified by the City, we will utilize the TxDOT CAD Standards.
- Supplemental survey of features that are obscured from aerial visibility is not included in this scope of work

### **PHASE 1A-SCOPE OF SERVICES**

Phase 1A is an approximate 1.97 mile corridor shown as "PROPOSED WEST INTERCEPTOR" beginning at Caliterra Parkway and continuing northwesterly along Onion Creek ending approximately 2000' northwesterly of Onion Road. For this area SAM will perform the following services:

#### **Project Control**

SAM will establish up to EIGHT (8) primary project control points. The survey control points (5/8" iron rods with SAM Control" plastic caps) will be set in locations that will likely be undisturbed by construction or County maintenance. The project control will be placed on horizontal and vertical datum, [NAD83 (2011)/NAVD88 values (Texas Coordinate System, South Central Zone)], or as provided by the City. All coordinates will be adjusted to surface by multiplying by a surface adjustment factor of 1.00011, or as provided by the City. Elevations will be derived from GPS observations using Geoid 2012A model.

- SAM will prepare a Survey Control Report listing adjusted coordinates of all horizontal and vertical control points.

#### **Right of Entry**

SAM will coordinate with HDR Engineering for right-of-entry (ROE) for the private properties, up to eleven (11) parcels, within Phase 1A limits for the purpose of establishing aerial LiDAR targets and to conduct topographic and Easement mapping surveys. SAM anticipates that HDR will handle problems regarding any and all refusal to grant ROE or communication with private property owners who are hostile with respect to the completion of this scope of services. SAM shall document any interactions with property owners while performing the work.

#### **Topographic Survey**

- SAM will utilize established project control and will supplement control as needed.
- Perform "on ground" design topographic survey within the limits of Phase 1A utilizing conventional survey

methods or Global Positioning Systems to collect natural ground shots at 100 foot intervals and at significant ground features for a corridor 200 feet wide centered on the proposed alignment received from the City.

- Manholes, if any, shall be located with flowline elevation information and rim elevations.
- Water valves, if any, shall be located and have elevations taken on the top of the nut within the valve box.
- Prepare a Digital Terrain Model and depict contours at 1' intervals. Include spot elevations to the nearest 0.01 foot on paved or hard surfaces, and to the nearest 0.10 foot on non-paved surfaces (i.e. grass, base of existing trees).
- Survey drawing will be submitted in electronic format, Civil 3D 2015 (.dwg).
- Imagery will be provided in 3-inch GSD orthophoto TIF and ECW formats.

#### **EASEMENT PLATTING SURVEY (up to 8 Parcels with plat descriptions)**

##### **Records Research and Deed Study**

SAM will perform a survey along the proposed alignment of the Proposed West Interceptor. SAM will conduct research in the Hays County Appraisal District offices to confirm property ownership for the 8 affected properties (subject properties). Concurrently, copies of the current deeds and any plats for all subject properties will be obtained from the County Clerks' records. **SAM anticipates that Title Commitments, Title Reports, and any other form of records research beyond obtaining current deeds and plats will be provided by others.** Obtaining any additional records (including easements, chain of title, or any encumbrances) is outside of this scope of services.

##### **Field Surveys**

SAM will recover monuments marking the existing property lines of the properties from which an Easement is to be obtained and will tie to the project control. SAM will recover the corner or angle point monuments nearest to the proposed Easement lines on the side line of each of the subject properties and these corners will be tied to the project control.

SAM will utilize the topographic survey planimetric file to show any visible improvements within the proposed Easement acquisition areas for each parcel. Building corners and visible improvements within 25 feet of the proposed Easement sidelines will be located in the field and dimensioned on Easement plats.

##### **Boundary Analysis**

Utilizing the deed study and the data from the field survey, SAM will analyze the results of the survey and perform computations related to the analysis. Location of the existing property lines adjacent to or within proximity of the proposed Easement on each of the subject properties will be determined by SAM.

##### **Preparation of Documents**

1. SAM will develop a base file showing ownership of the subject properties. Properties adjacent to the existing/proposed Easement within the project limits will be labeled with the owner's name and deed recordation information.
2. Utilizing the boundary surveys performed by SAM and the proposed Easement line or centerline location provided by the City, SAM will compute the boundaries of the Easement parcels for each of the subject properties.
3. SAM will draft plats for the 11 parcels for Easement acquisition. The plats will be prepared on 8 1/2" x 11" pages at a scale dependent upon parcel size. A closure computation will be prepared for each of the plats.
4. SAM will prepare a field note (metes and bounds) description for each of the 8 parcels. A closure computation will be prepared for each of the descriptions.

5. To assure the accuracy of the documents, SAM will read the descriptions while all details are compared to base maps bearings, distances, stations and offsets, deed references, etc. Final mark-ups will be made and corrections completed.
6. All of the above described survey documents (base maps, property descriptions parcel plats and closure computations) will be submitted to the City for a one time review. Upon the completion of review of all Easement survey documents, SAM will make necessary corrections. The final Easement documents will then be delivered to the City.

#### **Monumentation**

5/8-inch iron rod with "SAM" plastic caps will be set where the Easement sideline intersects property lines, PCs, PTs, and angle points at no greater than 1,000 foot intervals along tangents on the proposed Easement sidelines (up to 40 total).

#### **PROJECT DELIVERABLES**

SAM will provide all files via secure ftp site and/or on a portable hard drive.

- Control calibration and ground truthing accuracy reports
- 1-Foot Contour Map in Civil 3D 2015 (.dwg) format
- 1":30' Scale 2D Planimetric Mapping in Civil 3D 2015 (.dwg) Format
- Digital Terrain Model
- Geopak TIN files
- Orthophotography – 3 inch GSD (TIFF & ECW)
- PDF file of scanned field book copies.
- Three original signed and sealed legal descriptions for each parcel.
- Three original signed and sealed individual survey plats on 8 1/2"x11" for each parcel.
- One set of area computation sheets for legal descriptions and plats and Easement base map with all parcels.
- Digital files on CD for the right-of-way base file and reference files in Civil 3D 2015 (.dwg) format.

#### **ADDITIONAL SERVICES**

Services additional to those scoped herein may be provided at the written request of the City. After receipt of the request for additional services, SAM will generate and submit for the City's approval a scope and fee for the services to be provided. These may include, but are not limited to, the following:

- Extraction of additional planimetric and/or topographic features outside of those scoped herein.
- Acquisition of additional areas not scoped herein.
- Subsurface Utility Engineering (SUE) services
- ROW/Easement surveying and mapping services beyond that scoped herein.
- Obtaining right of entry from the adjoining landowners to survey on private property beyond that scoped herein.
- Staking of the proposed Engineers centerline/baseline or proposed Easement line.
- Title abstracting or courthouse records research beyond that scoped herein.
- Surveying and document preparation for Drainage easements, Temporary Construction Easements and Denial of Access Lines.
- Additional work due to changes in alignment project.
- Obtaining title reports and supporting documents
- Any other services not specifically outlined



## **PHASE 1B SCOPE OF SERVICES**

Phase 1B is an approximate 1.78 mile corridor shown as "PROPOSED FORCE MAIN EXTENSION" beginning approximately one mile southeasterly of the intersection of FM 150 and County Route 12, running northerly parallel with FM 150. For this area SAM will perform the following services:

### **Phase 1B Control**

SAM will utilize existing primary control points within or near the limits of Phase 1B and will supplement as needed to complete the survey tasks per the scope.

### **Right of Entry**

SAM will coordinate with HDR Engineering to obtain right-of-entry (ROE) for the private properties, up to fourteen (14) parcels, within Phase 1B limits for the purpose of establishing aerial LIDAR targets and to conduct topographic and ROW mapping surveys. SAM anticipates that the City will handle problems regarding any and all refusal to grant ROE or communication with private property owners who are hostile with respect to the completion of this scope of services. SAM shall document any interactions with property owners while performing the work.

### **AERIAL TOPOGRAPHIC SURVEY**

- A 2000 foot wide corridor of LIDAR and ortho imagery approximately 1.78 miles long will be collected and calibrated to provided control coordinates, 1000 feet left and right of the proposed centerline.
- A 200 foot wide corridor of LIDAR will be mapped accordingly to provide 1' contour mapping, 100 feet left and right of the centerline for the southerly first 1.0 mile. The remaining 0.78 miles is not a part of the final mapping at the time, to be held for processing at a later date.
- A report demonstrating accuracy of LiDAR data against observed control elevations will be provided.
- SAM will place and position 6 aerial mapping control locations along the length of the project corridor, and provide 10 additional ground truthing shots to verify the accuracy of the LIDAR data.
- Prepare a Digital Terrain Model and depict contours at 1' intervals. Include spot elevations to the nearest 0.01 foot on paved or hard surfaces, and to the nearest 0.10 foot on non-paved surfaces (i.e. grass, base of existing trees) for the southerly first 1.0 mile only.
- Survey drawing will be submitted in Civil 3D 2015 (.dwg) format
- Imagery will be provided in 3-inch GSD orthophoto TIF and ECW formats.

### **Digital Terrian Model (DTM) – (1.0 Corridor Miles)**

On the first 1.0 corridor miles acquired, SAM will produce a DTM derived from the LiDAR data acquired. For this purpose we will extract any major grade breaks within the project limits and generate a clean ground surface by removing apparent vegetation from the model. Using the resulting clean ground surface we will derive a 10-foot x 10-foot maximum grid of points (model keypoints) that, together with the extracted breaklines and major grade breaks, will serve as the basis of the DTM and TIN.

### **2D Planimetric Features**

2D Planimetric features within the 2,000-foot wide corridor will be extracted from both the LiDAR and imagery. These will be delivered in a separate 2D DGN.

### **Direct Image Georeferencing**

SAM will begin the image processing immediately after receiving and accepting the imagery. All ABGPS/IMU data will be imported into the project, and control points will be measured on every photo on which they occur. We will then perform an analysis which will compare the given coordinates of the ground control points with their locations projected and adjusted on the individual photos and directly geo-reference the images to the point cloud.

### **Orthophoto Processing**

The digital orthophotos will be processed for the 1.78 mile corridor to have a 3-inch ground sample distance (GSD) resolution. The LiDAR bare earth filtered dataset will be used to rectify the aerial imagery. The digital orthophotos will be mosaicked and checked to insure color, tone and contrast is optimized across the project area. Mosaic lines will be manually placed and hidden along linear features to avoid cutting through buildings and other above ground structures. Individual tiles will be cut to limit the file size to less than 10 MB. Imagery will be provided in TIF/TFW or ECW/EWW formats.

### **EASEMENT PLATTING SURVEY (up to 14 Parcels with plat descriptions)**

#### **Records Research and Deed Study**

SAM will perform a survey along the proposed alignment of the proposed west interceptor first mile. SAM will conduct research in the Hays County Appraisal District offices to confirm property ownership for the 14 affected properties (subject properties). Concurrently, copies of the current deeds and any plats for all subject properties will be obtained from the County Clerks' records. **SAM anticipates that Title Commitments, Title Reports, and any other form of records research beyond obtaining current deeds and plats will be provided by others.** Obtaining any additional records (including easements, chain of title, or any encumbrances) is outside of this scope of services.

#### **Field Surveys**

SAM will recover monuments marking the existing property lines of the properties from which an Easement is to be obtained and will tie to the project control. SAM will recover the corner or angle point monuments nearest to the proposed Easement lines on the side line of each of the subject properties and these corners will be tied to the project control.

SAM will utilize the topographic survey planimetric file to show any visible improvements within the proposed Easement acquisition areas for each parcel. Building corners and visible improvements within 25 feet of the proposed Easement sidelines will be located in the field and dimensioned on Easement plats.

#### **Boundary Analysis**

Utilizing the deed study and the data from the field survey, SAM will analyze the results of the survey and perform computations related to the analysis. Location of the existing property lines adjacent to or within proximity of the proposed Easement on each of the subject properties will be determined by SAM.

#### **Preparation of Documents**

1. SAM will develop a base file showing ownership of the subject properties. Properties adjacent to the existing/proposed Easement within the project limits will be labeled with the owner's name and deed recordation information.
2. Utilizing the boundary surveys performed by SAM and the proposed Easement line or centerline location provided by the City, SAM will compute the boundaries of the Easement parcels for each of the subject properties.
3. SAM will draft plats for the 15 parcels for Easement acquisition. The plats will be prepared on 8 1/2" x 11" pages at a scale dependent upon parcel size. A closure computation will be prepared for each of the plats.
4. SAM will prepare a field note (metes and bounds) description for each of the 14 parcels. A closure computation will be prepared for each of the descriptions.

5. To assure the accuracy of the documents, SAM will read the descriptions while all details are compared to base maps bearings, distances, stations and offsets, deed references, etc. Final mark-ups will be made and corrections completed.
6. All of the above described survey documents (base maps, property descriptions parcel plats and closure computations) will be submitted to the City for a one time review. Upon the completion of review of all Easement survey documents, SAM will make necessary corrections. The final Easement documents will then be delivered to the City.

#### **Monumentation**

5/8-inch iron rod with "SAM" plastic caps will be set where the Easement sideline intersects property lines, PCs, PTs, and angle points at no greater than 1,000 foot intervals along tangents on the proposed Easement sidelines (up to 40 total).

#### **PROJECT DELIVERABLES**

SAM will provide all files via secure ftp site and/or on a portable hard drive.

- Control calibration and ground truthing accuracy reports
- 1-Foot Contour Map in Civil 3D (.dwg) format
- 1":30' Scale 2D Planimetric Mapping in Civil 3D 2015 (.dwg) Format
- Digital Terrain Model
- Geopak TIN files
- Orthophotography – 3 inch GSD (TIFF & ECW)
- PDF file of scanned field book copies.
- Three original signed and sealed legal descriptions for each parcel.
- Three signed and sealed individual survey plats on 8 1/2"x11" for each parcel.
- One set of area computation sheets for legal descriptions and plats and Easement base map with all parcels.
- Digital files on CD for the right-of-way base file and reference files in Civil 3D 2015 (.dwg) format.

#### **ADDITIONAL SERVICES**

Services additional to those scoped herein may be provided at the written request of the City. After receipt of the request for additional services, SAM will generate and submit for the City's approval a scope and fee for the services to be provided. These may include, but are not limited to, the following:

- Extraction of additional planimetric and/or topographic features outside of those scoped herein.
- Acquisition of additional areas not scoped herein.
- Subsurface Utility Engineering (SUE) services
- ROW/Easement surveying and mapping services beyond that scoped herein.
- Obtaining right of entry from the adjoining landowners to survey on private property beyond that scoped herein.
- Staking of the proposed Engineers centerline / baseline or proposed Easement line.
- Title abstracting or courthouse records research beyond that scoped herein.
- Surveying and document preparation for Drainage easements, Temporary Construction Easements and Denial of Access Lines.
- Additional work due to changes in alignment project.
- Any other services not specifically outlined herein.
- Obtaining title reports and supporting documents

## **PHASE 2 SCOPE OF SERVICES**

Phase 2 is an approximate 3.7 mile corridor containing the areas shown as "PROPOSED SOUTH COLLECTOR" and "PROPOSED EAST INTERCEPTOR" beginning at existing WWTP site approximately 0.52 miles southerly of the of FM 150 and running north for 0.3 miles, east for 0.8 mile then north 2.3 miles to Highway 290. For Phase 2 SAM will perform the following services:

### **Project Control**

SAM will establish up to four (4) primary project control points within Phase 2 limits. The survey control points (5/8" iron rods with SAM Control" plastic caps) will be set in locations that will likely be undisturbed by construction or County maintenance. The project control will be placed on horizontal and vertical datums [NAD83 (2011)/NAVD88 values (Texas Coordinate System, South Central Zone)]. All coordinates will be adjusted to surface by multiplying by a surface adjustment factor of 1.00011, or as provided by the County. Elevations will be derived from GPS observations using Geoid 2012A model.

- SAM will prepare a Survey Control Report listing adjusted coordinates of all horizontal and vertical control points.

SAM will establish up to 3 aerial panels for the aerial LiDAR acquisition and tie them to the primary project control. Elevations will be derived from GPS observations using Geoid 2012A model.

### **Right of Entry**

SAM will coordinate with HDR Engineering to obtain right-of-entry (ROE) for the private properties, up to thirteen (13) parcels, within Phase 2 limits for the purpose of establishing aerial LiDAR targets and to conduct topographic and easement mapping surveys. SAM anticipates that HDR will handle problems regarding any and all refusal to grant ROE or communication with private property owners who are hostile with respect to the completion of this scope of services. SAM shall document any interactions with property owners while performing the work.

## **AERIAL TOPOGRAPHIC SURVEY**

- A 2000 foot wide corridor of LiDAR and ortho imagery approximately 3.7 miles long will be collected and calibrated to provided control coordinates, 1000 feet left and right of the proposed centerline.
- A 200 foot wide corridor of LiDAR will be mapped accordingly to provide 1' contour mapping, 100 feet left and right of the centerline.
- A report demonstrating accuracy of LiDAR data against observed control elevations will be provided.
- SAM will place and position 3 aerial mapping control locations along the length of the project corridor, and provide 10 additional ground truthing shots to verify the accuracy of the LiDAR data.
- Prepare a Digital Terrain Model and depict contours at 1' intervals. Include spot elevations to the nearest 0.01 foot on paved or hard surfaces, and to the nearest 0.10 foot on non-paved surfaces (i.e. grass, base of existing trees).
- Survey drawing will be submitted in electronic format Civil 3D 2015 (.dwg) format.
- Imagery will be provided in 3-inch GSD orthophoto TIF and ECW formats.

### **Digital Terrian Model (DTM) – (3.7 Corridor Miles)**

On the entire 3.7 corridor miles acquired, SAM will produce a DTM derived from the LiDAR data acquired. For this purpose we will extract any major grade breaks within the project limits and generate a clean ground surface by removing apparent vegetation from the model. Using the resulting clean ground surface we will derive a 10-foot x 10-foot maximum grid of points (model keypoints) that, together with the extracted breaklines and major grade breaks, will serve as the basis of the DTM and TIN.

## **EASEMENT PLATTING SURVEY (up to 13 Parcels with plat descriptions)**

### **Records Research and Deed Study**

SAM will perform a survey along the proposed alignment of the proposed East Interceptor. SAM will conduct research in the Hays County Appraisal District offices to confirm property ownership for the 13 affected properties (subject properties). Concurrently, copies of the current deeds and any plats for all subject properties will be obtained from the County Clerks' records. **SAM anticipates that Title Commitments, Title Reports, and any other form of records research beyond obtaining current deeds and plats will be provided by others.** Obtaining any additional records (including easements, chain of title, or any encumbrances) is outside of this scope of services.

### **Field Surveys**

SAM will recover monuments marking the existing property lines of the properties from which an Easement is to be obtained and will tie to the project control. SAM will recover the corner or angle point monuments nearest to the proposed Easement lines on the side line of each of the subject properties and these corners will be tied to the project control.

SAM will utilize the topographic survey planimetric file to show any visible improvements within the proposed Easement acquisition areas for each parcel. Building corners and visible improvements within 25 feet of the proposed Easement sidelines will be located in the field and dimensioned on Easement plats.

### **Boundary Analysis**

Utilizing the deed study and the data from the field survey, SAM will analyze the results of the survey and perform computations related to the analysis. Location of the existing property lines adjacent to or within proximity of the proposed Easement on each of the subject properties will be determined by SAM.

### **Preparation of Documents**

1. SAM will develop a base file showing ownership of the subject properties. Properties adjacent to the existing/proposed Easement within the project limits will be labeled with the owner's name and deed recordation information.
2. Utilizing the boundary surveys performed by SAM and the proposed Easement line or centerline location provided by the City, SAM will compute the boundaries of the Easement parcels for each of the subject properties.
3. SAM will draft plats for the 13 parcels for Easement acquisition. The plats will be prepared on 8 1/2" x 11" pages at a scale dependent upon parcel size. A closure computation will be prepared for each of the plats.
4. SAM will prepare a field note (metes and bounds) description for each of the 13 parcels. A closure computation will be prepared for each of the descriptions.
5. To assure the accuracy of the documents, SAM will read the descriptions while all details are compared to base maps bearings, distances, stations and offsets, deed references, etc. Final mark-ups will be made and corrections completed.
6. All of the above described survey documents (base maps, property descriptions parcel plats and closure computations) will be submitted to the City for a one time review. Upon the completion of review of all Easement survey documents, SAM will make necessary corrections. The final Easement documents will then be delivered to the City.

## **Monumentation**

5/8-inch iron rod with "SAM" plastic caps will be set where the Easement sideline intersects property lines, PCs, PTs, and angle points at no greater than 1,000 foot intervals along tangents on the proposed Easement sidelines (up to 40 total).

## **PROJECT DELIVERABLES**

SAM will provide all files via secure ftp site and/or on a portable hard drive.

- Control calibration and ground truthing accuracy reports
- 1-Foot Contour Map in Civil 3D 2015 (.dwg) format
- 1":30' Scale 2D Planimetric Mapping in Civil 3D 2015 (.dwg) Format
- Digital Terrain Model
- Geopak TIN files
- Orthophotography – 3 inch GSD (TIFF & ECW)
- PDF file of scanned field book copies.
- Three signed and sealed legal descriptions for each parcel.
- Three signed and sealed individual survey plats on 8 1/2"x11" for each parcel.
- One set of area computation sheets for legal descriptions and plats and Easement base maps with all parcels.
- Digital files on CD for the right-of-way base file and reference files in Civil 3D 2015 (.dwg) format.

## **ADDITIONAL SERVICES**

Services additional to those scoped herein may be provided at the written request of the City. After receipt of the request for additional services, SAM will generate and submit for the City's approval a scope and fee for the services to be provided. These may include, but are not limited to, the following:

- Extraction of additional planimetric and/or topographic features outside of those scoped herein.
- Acquisition of additional areas not scoped herein.
- Subsurface Utility Engineering (SUE) services
- ROW/Easement surveying and mapping services beyond that scoped herein.
- Obtaining right of entry from the adjoining landowners to survey on private property beyond that scoped herein.
- Staking of the proposed Engineers centerline/baseline or proposed Easement lines.
- Title abstracting or courthouse records research beyond that scoped herein.
- Surveying and document preparation for Drainage easements, Temporary Construction Easements and Denial of Access Lines.
- Additional work due to changes in alignment project.
- Any other services not specifically outlined herein.
- Obtaining Title reports and supporting documents

**FEE SCHEDULE - ALL PHASES**

The services described herein will be invoiced on a **Time and Materials, not to exceed**, according to the following for each phase:

**ACQUISITION PHASE**

Aerial acquisition (planning and flight)	\$10,505.00
Calibration	\$3,182.00
Aerial Survey Control (20 points)	\$7,308.00
Ground truthing, verification	\$3,312.00
Sub Total	\$24,307.00

**PHASE 1A**

Easement Survey:	
Base mapping, Horizontal and Vertical Control	
Survey exhibits for easements (8 documents)	\$38,800.00
Aerial Imagery (orthos, QA/QC)	\$4,860.00
Ground Topographic Survey	\$22,428.00
Reimbursable costs	\$5,138.00
Sub Total	\$71,226.00

**PHASE 1B**

Easement Survey:	
Base Mapping, Horizontal and Vertical Control	
Survey exhibits for easements (14 documents)	\$57,574.00
Aerial Mapping	\$7,900.00
Supplemental Topographic Survey	\$10,373.00
Reimbursable costs	\$4,193.00
Sub Total	\$80,040.00

**PHASE 2**

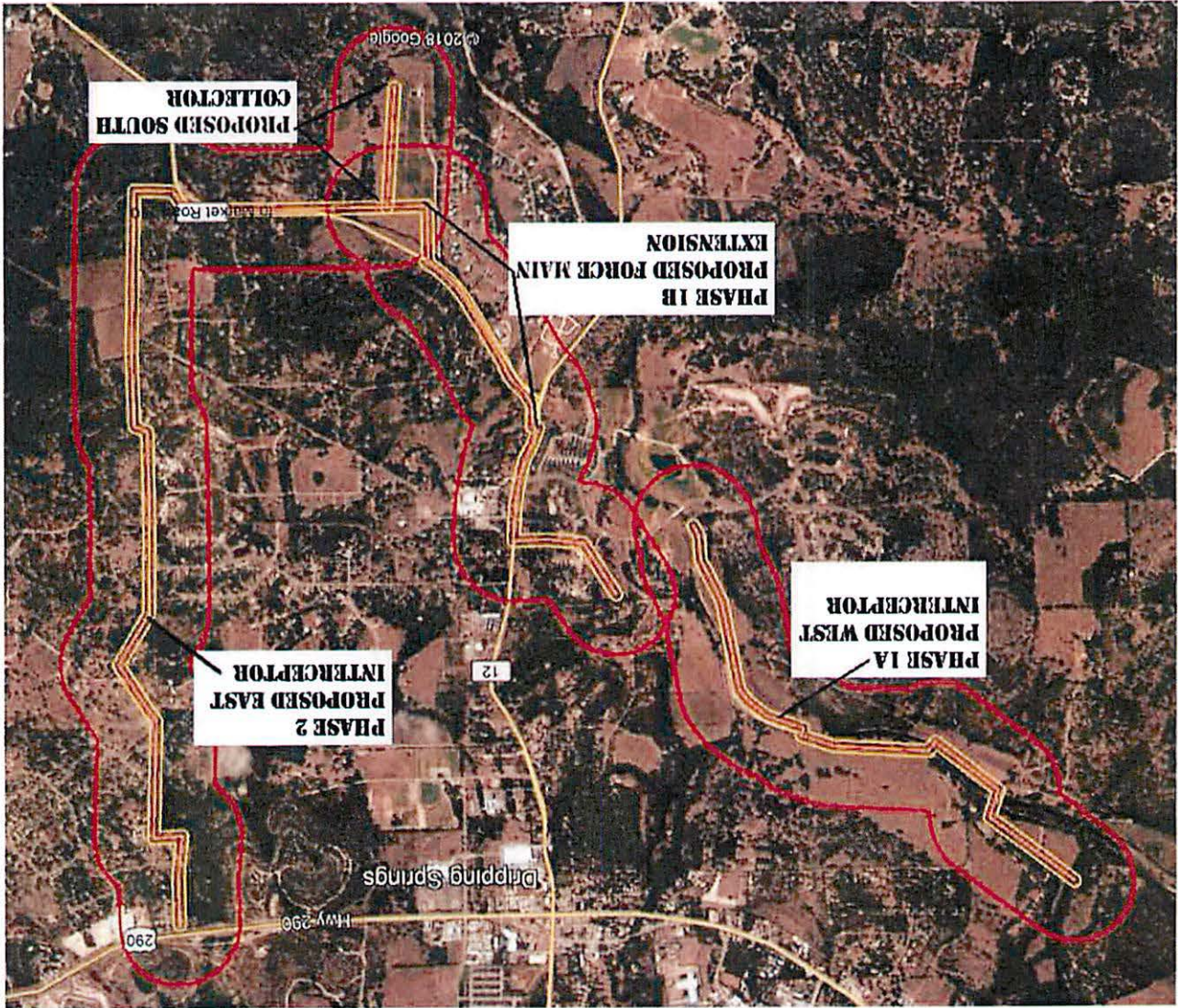
Easement Survey:	
Base Mapping, Horizontal and Vertical Control	
Survey exhibits for easements (15 documents)	\$57,964.00
Aerial Mapping	\$9,570.00
Supplemental Topographic Survey	\$12,593.00
Reimbursable costs	\$4,747.00
Sub Total	\$84,874.00

<b>GRAND TOTAL</b>	<b>\$260,447.00</b>
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Invoices for services will be sent on a monthly basis, Net 30 terms.



# EXHIBIT "A"







# CERTIFICATE OF LIABILITY INSURANCE

11/1/2019

DATE (MM/DD/YYYY)  
5/22/2019

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

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

<b>PRODUCER</b> LOCKTON COMPANIES 3657 BRIARPARK DRIVE, SUITE 700 HOUSTON TX 77042 866-260-3538	<b>CONTACT NAME:</b>	<b>FAX (A/C, No):</b>	
	<b>PHONE (A/C, No, Ext):</b>	<b>E-MAIL ADDRESS:</b>	
<b>INSURED</b> 1402612 Surveying And Mapping, LLC SAM-Construction Services, LLC So-Deep   SAM NC, Inc. SAM Surveying And Mapping, LLC 4801 Southwest Parkway Austin TX 78735	<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
	<b>INSURER A:</b> The Phoenix Insurance Company		25623
	<b>INSURER B:</b> Travelers Indemnity Company of America		25666
	<b>INSURER C:</b> The Travelers Indemnity Company of Connecticut		25682
	<b>INSURER D:</b> Travelers Property Casualty Co of America		25674
	<b>INSURER E:</b>		
<b>INSURER F:</b>			

**COVERAGES \*USE\*****CERTIFICATE NUMBER:** 16102965**REVISION NUMBER:** XXXXXXXX

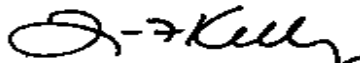
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATION MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> S&A Pollution GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	Y	Y	P-660-4G642484-PHX-18	11/1/2018	11/1/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	Y	Y	P-810-4G642484-IND18	11/1/2018	11/1/2019	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ XXXXXXXX BODILY INJURY (Per accident) \$ XXXXXXXX PROPERTY DAMAGE (Per accident) \$ XXXXXXXX
C	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$	Y	Y	CUP 9H900185 18	11/1/2018	11/1/2019	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$ XXXXXXXX
B	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	UB0L51761418	11/1/2018	11/1/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
D	Excess Liability	Y	Y	ZUP21N2483018	11/1/2018	11/1/2019	\$5,000,000 each occurrence \$5,000,000 each aggregate

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

Project: Aerial LiDAR and Wastewater Easement mapping services in connection with the Wastewater Capital Improvement Project, located in Dripping Springs, Hays County Texas

**CERTIFICATE HOLDER****CANCELLATION** See Attachment

<b>16102965</b> City of Dripping Springs 511 Mercer Street Dripping Springs TX 78620	<b>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.</b>  <b>AUTHORIZED REPRESENTATIVE</b>  
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**Commercial Vessel Policy**

Carrier: Travelers Property Casualty Co. of America  
Policy Number: ZOW41M3950518ND  
Policy Term: 11/1/18 - 11/1/19  
Hull & Machinery Limit: Agreed Value  
Protection & Indemnity Limit: \$1,000,000 CSL

**Stop Gap Coverage**

Policy #:UB0L51761418  
Insurer: Travelers Indemnity Co. of America  
Policy Term: 11/1/18 - 11/1/19

\$1,000,000 Each Accident  
\$1,000,000 Bodily Injury by Disease Total Limit.  
\$1,000,000 Bodily Injury by Disease Each Employee.

**Non-owned Aircraft Liability**

Policy #: NAQ6020338  
Insurer: Endurance American Insurance Co.  
Policy Term: 11/1/18 - 11/1/19

\$25,000,000 Occurrence

**Unmanned Aerial Vehicle (UAV)**

Policy #:A3GA000739418AM  
Insurer: Allianz Global Risks US Insurance Company  
Policy Term: 11/1/18 - 11/1/19

\$20,000,000 Occurrence

**Professional Liability**

Policy #0310-4004  
Insurer: Allied World Surplus Lines Ins Co  
Policy Term: 10/31/2018 - 10/31/2019

\$5,000,000 each claim limit  
\$5,000,000 Aggregate

**Professional Excess Coverage**

Policy #DXS7100125  
Insurer: Indian Harbor Insurance Co.  
Policy Term: 10/31/2018 - 10/31/2019

\$10,000,000 Per claim  
\$10,000,000 Aggregate

All policies (except Professional Liability, and Workers' Compensation/EL) include a blanket automatic additional insured endorsement [provision] that confers additional insured status to the certificate holder only if there is a written contract between the named insured and the certificate holder that requires the named insured to name the certificate holder as an additional insured. In the absence of such a contractual obligation on the part of the named insured, the certificate holder is not an additional insured under the policy.

All policies include a blanket automatic waiver of subrogation endorsement [provision] that provides this feature only when there is a written contract between the named insured and the certificate holder that requires it. In the absence of such a contractual obligation on the part of the named insured, the waiver of subrogation feature does not apply.

All policies (except Non-owned Aircraft Liability, Professional Liability, Unmanned Aerial Vehicle (UAV) and Workers' Compensation/EL) contain a special endorsement with "primary and noncontributory" wording.