308 Fountain Circle
Huntsville, AL 35801

Huntsville, Alabama

Cover Memo

Meeting Type: City Council Regular Meeting **Meeting Date:** 12/21/2023 **File ID:** TMP-3722

Department: Engineering

Subject: **Type of Action:** Approval/Action

Resolution authorizing the Mayor to enter into an Agreement between the City of Huntsville, Alabama and Garver, L.L.C., for Engineering Design Services for Limestone Creek Sanitary Sewer Interceptor and Pump Station, Project No. 71-24-SS02.

Resolution No.

Finance Information:

Account Number: 6040-71-00000-526000-00000000
City Cost Amount: $498,880.00
Total Cost: $498,880.00

Special Circumstances:

Grant Funded: N/A
Grant Title - CFDA or granting Agency: N/A
Resolution #: N/A

Location: (list below)

Address: N/A
District: District 1 ☐ District 2 ☐ District 3 ☐ District 4 ☐ District 5 ☐

Additional Comments:
Design contract with Garver for sanitary sewer service for newly annexed areas in Limestone County consisting of approx. 2 miles of 24-inch gravity sewer extension to include a new pump station along Old Hwy 20.

RESOLUTION NO. 23-

BE IT RESOLVED by the City Council of the City of Huntsville, Alabama, that the Mayor be, and is hereby authorized, to enter into an Agreement between the City of Huntsville, Alabama and Garver, L.L.C., in the amount of FOUR HUNDRED NINETY-EIGHT THOUSAND EIGHT HUNDRED EIGHTY AND NO/100 DOLLARS ($498,880.00) for Engineering Design Services for Limestone Creek Sanitary Sewer Interceptor and Pump Station, Project No. 71-24-SS02, in Huntsville, Alabama, on behalf of the City of Huntsville, a municipal corporation in the State of Alabama, which said Agreement is substantially in words and figures similar to that document attached hereto and identified as "Agreement between the City of Huntsville, Alabama and Garver, L.L.C., for Engineering Design Services for Limestone Creek Sanitary Sewer Interceptor and Pump Station, Project No. 71-24-SS02," consisting of a total of nineteen (19) pages, plus forty (40) additional pages consisting of Attachments 1-16, and the date of December 21, 2023, appearing on the margin of the first page, together with the signature of the President or President Pro Tem of the City Council, and an executed copy of said document being permanently kept on file in the Office of the City Clerk of the City of Huntsville, Alabama.

ADOPTED this the 21st day of December, 2023.

_____

President of the City Council of
the City of Huntsville, Alabama

APPROVED this the 21st day of December, 2023.

_____

Mayor of the City of Huntsville,
Alabama

AGREEMENT BETWEEN

CITY OF HUNTSVILLE, ALABAMA

AND

GARVER, L.L.C.

FOR

ENGINEERING DESIGN SERVICES

FOR

LIMESTONE CREEK SANITARY SEWER INTERCEPTOR AND PUMP

Project ID Number 71-24-SS02
December 21, 2023

President of the City Council of the City of Huntsville, Alabama
Date: December 21, 2023

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AGREEMENT BETWEEN

CITY OF HUNTSVILLE, ALABAMA
AND
GARVER, L.L.C.
FOR
ENGINEERING DESIGN SERVICES
FOR
LIMESTONE CREEK SANITARY SEWER INTERCEPTOR AND PUMP STATION
Project ID Number 71-24-SS02

THIS AGREEMENT made as of the 21st day of December in the year 2023, by and between the CITY OF HUNTSVILLE, ALABAMA (hereinafter called OWNER), and GARVER, L.L.C., (hereinafter called ENGINEER).

WITNESSETH, for the considerations hereinafter set forth, the parties hereto agree as follows:

ARTICLE 1 - ENGAGEMENT OF THE ENGINEER

The OWNER hereby engages the ENGINEER, and the ENGINEER hereby accepts the engagement to provide general engineering and consultation as a representative of the OWNER to include the following:

1.1 Professional Engineering Services for design of Limestone Creek Sanitary Sewer Interceptor and Pump Station, as further described in ARTICLE 2, and hereinafter called PROJECT.

1.2 By executing this Agreement, the ENGINEER represents to the OWNER that the ENGINEER is a professional qualified to act as the ENGINEER for the PROJECT and is licensed and certified to practice engineering by all public entities having jurisdiction over the ENGINEER and the PROJECT. The ENGINEER further represents to the OWNER that the ENGINEER will maintain all necessary licenses, certifications, permits or other authorizations necessary to act as ENGINEER for the PROJECT until the ENGINEER's remaining duties hereunder have been satisfied. The ENGINEER shall assign only qualified personnel to perform any service concerning the PROJECT. All services rendered by the ENGINEER for the PROJECT shall be performed by or under the immediate supervision of experienced and qualified professionals licensed, certified, and registered as appropriate in the State of Alabama possessing the expertise in the discipline of the service being rendered. The ENGINEER assumes full responsibility to the OWNER for the negligent acts, errors and omissions of its consultants or others employed or retained by the ENGINEER in connection with the PROJECT.

1.3 Execution of this Agreement by the ENGINEER constitutes a representation that the ENGINEER has become familiar with the PROJECT site and the local conditions under which the PROJECT is to be implemented. The ENGINEER agrees to provide all necessary engineering services required to professionally accomplish the ENGINEER's defined scope of services.

1.4 The engineering professionals performing work on this contract shall perform the services with the professional skill and care ordinarily provided by a competent engineering professional practicing under the same or similar circumstances and professional licenses as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineering professional.

ARTICLE 2 – DESIGN SERVICES OF THE ENGINEER

2.1 ENGINEER shall provide for OWNER professional engineering services for design of Limestone Creek Sanitary Sewer Interceptor and Pump Station.

2.2 These services shall include consultation and advice; customary civil, structural, mechanical and electrical engineering design services; and Architectural services incidental thereto, as outlined herein and further described in the SCOPE OF SERVICES, ATTACHMENT 1.

2.3 Upon the OWNERS authorization, the ENGINEER shall prepare construction documents consisting of drawings and specifications setting forth in detail the requirements for construction of the PROJECT. The ENGINEER warrants that such construction documents are accurate, coordinated and adequate for the construction and in conformity and comply with applicable laws, codes and regulations. Products specified for use shall be readily available unless written authorization to the contrary is given by the OWNER. Products or materials specified by the ENGINEER that are available from only one source shall be justified in writing by the ENGINEER in order to meet applicable federal, state, or local procurement or bid requirements.

2.4 A contract for the professional services of a design professional shall require the design professional to perform the services with the professional skill and care ordinarily provided by a competent design professional practicing under the same or similar circumstances and professional licenses as expeditiously as is prudent considering the ordinary professional skill and care of a competent design professional.

2.5 The ENGINEER shall prepare appropriate bid alternates as necessary in order to assure that the PROJECT can be awarded within the PROJECT budget limitations.

2.6 The ENGINEER shall serve as the OWNER's professional representative in those portions of the PROJECT to which this Agreement applies and shall consult with and advise the OWNER during the performance of these services.

2.7 The ENGINEER shall incorporate into its design, and into its final work products, the requirements contained within the OWNER's engineering standards, standard specifications, and design manuals referenced in ATTACHMENT 3. The ENGINEER shall also incorporate into its design, where applicable, Americans with Disabilities Act (ADA) grades, elevations and layout for each handicap ramp within the project. The requirements of the State of Alabama Department of Transportation design standards shall be reviewed for applicability and incorporated into portions of the work where joint participation between the OWNER and the State is applicable. When conflicts are noted between the OWNERS requirements and standards of others, the OWNERS standards shall take precedent. Discrepancies shall be brought to the attention of the OWNER. Deviations from OWNER's requirements shall be identified to the OWNER by the ENGINEER in writing prior to incorporating the changes.

2.8 The ENGINEER shall obtain all Planning Commission approvals with regard to location, character and extent, as required.

2.9 The ENGINEER shall obtain a Utility Project Notification Form (Attachment 10) from all affected utilities on the project by the 60% design review stage. Acceptance shall be provided as a signed original by all affected parties at the 90% design review stage.

2.10 The ENGINEER shall promptly correct, or have corrected, any errors, omissions, deficiencies or conflicts in the ENGINEER's work product or that of his sub-contractors/sub-consultants, without additional compensation for time, reproduction or distribution.

2.11 During the process of design and preparation of the construction documents, the ENGINEER shall review with the OWNER the construction documents, the estimate of probable construction cost, schedule, and other design services issues. Such review shall be, at a minimum, as outlined in ATTACHMENT 4 as 0%, 30%, 60%, and 90% completion stage. Following such reviews, the ENGINEER shall make any appropriate revisions thereto to assure compliance with the OWNER's requirements.

2.12 Field surveying work is required and shall be performed in accordance with "Standards of Practice for Surveying in the State of Alabama" as required by the Alabama Board of Registration for Engineering and Land Surveyors. Surveying shall include P.K. Nails or other permanent stationing markings as well as staking of right-of-way, easements and parcels of land acquired by the City of Huntsville. Property corners shall be set at the new right-of-way. Easements shall be staked as requested by the City of Huntsville. The above field work shall be performed as a minimum as needed at the time of right-of-way acquisition and one additional time near the 100% submittal stage as determined by the OWNER. The cost for these services is included in the fees for Basic Services.

Survey data shall be based on a US Public Land Survey System corner or quarter corner. Said corner or quarter corner shall be field verified by the surveyor and a state plane coordinate provided in deliverables submitted to the City of Huntsville. All survey work shall be based on the following datum's:

Coordinate System:	US State Plane
Zone:	Alabama East 0101
Vertical Datum:	The North American Vertical Datum of 1988 (NAVD 88)
Horizontal Datum:	The North American Datum of 1983 (NAD 83)
Geoid Model:	Geoid18
Units:	US Survey Feet

2.13 The ENGINEER shall comply with the City of Huntsville Tree Ordinance and carry the requirements referenced therein with deliverables (drawings, specifications, etc.) in accordance with Section 27-57 of the City of Huntsville Code of Ordinances (Ord. No. 04-45, §13, 2-12-2004).

2.14 The ENGINEER shall prepare the pre-bid agenda after obtaining comments from stakeholders such as affected utilities, City of Huntsville Construction Project Engineer and Inspector(s), and other City of Huntsville departments as applicable. The ENGINEER shall moderate the pre-bid meeting, prepare meeting minutes, make clarifications, prepare addendums, and distribute to bidders.

2.15 A valid City of Huntsville license shall be maintained throughout the term of this contract. Additionally, the engineering firm shall be required to obtain and pay for all other federal, state or local permits, licenses, and fees which may be necessary or required in order to perform the work detailed herein.

ARTICLE 3 - CONSTRUCTION ADMINISTRATION SERVICES OMITTED

ARTICLE 4 - ADDITIONAL SERVICES

The following services of the ENGINEER are not included in Article 2. Nevertheless, the ENGINEER shall provide such services if authorized in writing by the OWNER, and they shall be paid for by the OWNER as provided in Article 7, unless otherwise noted.

4.1 Making revision in drawings, specifications or other documents when such revisions are inconsistent with written direction by the OWNER previously given, are required by the enactment of revision of codes, laws or regulations subsequent to the preparation of such documents and not reasonably anticipated, or are due to other causes not within the control or responsibility of the ENGINEER, either in whole or in part.

4.2 Preparing drawings, specifications and supporting data in connection with change orders, provided that such change orders are issued by the OWNER due to causes not within the control or responsibility of the ENGINEER, either in whole or in part.

4.3 Providing additional services for repair or replacement of work damaged by acts of God or other cause during construction provided that such services are required by causes not the responsibility of the ENGINEER, either in whole or in part.

4.4 Providing services not otherwise required herein which are made necessary solely by the default of the ENGINEER or major defects or deficiencies in the work of the ENGINEER. These services shall be provided with no increase in the contract amount and will not be compensable on an hourly basis.

4.5 Providing expert witness services and other services arising out of claims.

4.6 Provide services to stake site during construction.

ARTICLE 5 - RESPONSIBILITIES OF OWNER

The OWNER, without cost to the ENGINEER, will perform the following in a timely manner so as not to delay the services of the ENGINEER:

5.1 Assist ENGINEER by placing at ENGINEER's disposal all available information pertinent to the PROJECT including previous reports and any other data relative to design or construction of the PROJECT.

5.2 Provide all criteria and full information as to OWNER's requirements for the PROJECT, including design objectives and constraints, space, capacity and performance requirements, flexibility and expendability, and any budgetary limitations. The OWNER shall also furnish copies of all design and construction standards, which OWNER will require to be included in the drawings and specifications.

5.3 Assist the ENGINEER as necessary in acquiring access to and making all provisions for the ENGINEER to enter upon public and private lands as required for the ENGINEER to perform the work under this agreement.

5.4 Designate in writing a person to act as the OWNER's representative with respect to the work to be performed under this Agreement, such person to have complete authority to transmit

instructions, receive information, interpret and define the OWNER's policies and decision with respect to materials, equipment elements and systems pertinent to the work covered by this Agreement. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by ENGINEER, obtain advice of an attorney, insurance counselor and other consultants as OWNER determines appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay the services of ENGINEER.

5.5 When requested by the ENGINEER, the OWNER will intercede on the ENGINEER's behalf when data from, or reviewed by third parties is not on schedule through no fault of the ENGINEER.

5.6 The OWNER's review of any documents prepared by the ENGINEER or its consultants shall be solely for the purpose of determining whether such documents are generally consistent with the OWNER's intent. No review of such documents shall relieve the ENGINEER of its responsibility for the accuracy, adequacy, fitness, suitability and coordination of its work product.

ARTICLE 6 - PERIOD OF SERVICES

6.1 The ENGINEER shall commence services pursuant to this agreement as of December 22, 2023. The final completion date for the completion of design services as outlined in Article 2 shall be August 22, 2024.

The ENGINEER shall perform these services with reasonable diligence and expediency consistent with sound professional practices. The ENGINEER shall include in his schedule an allowance for time required for OWNER's review of submissions and for approvals of authorities having jurisdiction over the PROJECT. When approved by the OWNER, the schedule shall not be exceeded by the ENGINEER, except for cause.

If the ENGINEER becomes aware of delays due to time allowances for review and approval being exceeded, delay by the OWNER, the OWNER's consultants, or any other reason beyond the ENGINEER's control, which may result in the schedule of performance of the ENGINEER's services not being met, the ENGINEER shall promptly notify the OWNER. If the OWNER becomes aware of any delays or other causes that will affect the ENGINEER's schedule, the OWNER shall promptly notify the ENGINEER. In either event, the ENGINEER's schedule for performance of its services shall be equitably adjusted.

ARTICLE 7 - PAYMENT TO THE ENGINEER

7.1 BASIC SERVICES

The OWNER shall compensate the ENGINEER for services rendered pursuant to this Agreement, excepting those services described as Additional Services in Article 4 of this Agreement, by payment of the LUMP SUM AMOUNT OF FOUR HUNDRED NINETY-EIGHT THOUSAND EIGHT HUNDRED EIGHTY AND NO/100 DOLLARS ($498,880.00) for design services as described in Article 2. Additional services of the ENGINEER as described in Article 4, if any, shall be compensated on an hourly basis in accordance with Attachment 5.

7.2 REIMBURSABLE EXPENSES

The scope of work for sub-contracted services is defined in the ENGINEER's scope of services, Attachment 1. The scope includes provisions for administration expenses for

subcontracted services and reimbursable direct expenses including but not limited to laboratory tests and analyses; computer services; word processing services; permit fees, bonds, telephone, printing, binding and reproduction charges; and other similar costs. Indirect costs will have administrative fee reimbursements limited to no more than 5%. Direct costs are also limited to no more than 5% reimbursement.

Reimbursable expenses shall be limited during the term of this agreement as stated in Art. 7.1 Basic Services.

7.3 EFFECTIVE DATE

This contract shall have no force or effect unless and until it is executed by the OWNER and the ENGINEER and a properly executed copy is mailed to the ENGINEER with a notice to proceed (NTP). If a NTP is not issued within sixty (60) days commencing from the last date of execution of this CONTRACT by the OWNER and the ENGINEER, then this CONTRACT shall be NULL AND VOID, the OWNER will not be obligated to any payment to the ENGINEER and the ENGINEER will not be obligated to perform any work under said CONTRACT.

PAYMENT SUMMARY

Engineering Design Services – LUMP SUM AMOUNT OF	$498,880.00
TOTAL CONTRACT AMOUNT:	**$498,880.00**

ARTICLE 8 - GENERAL PAYMENT PROCEDURE

8.1 INVOICES

8.1.1 The ENGINEER shall submit monthly invoices to the Administrative Officer in the Engineering Department, for the basic services described under Articles 2 and 4 for the design of the PROJECT. Invoices must include the City of Huntsville project name and number, dates of services, contract amount, previous billings and current billing. Additionally, invoices for services that are not contracted for as "lump sum" in Article 4 must also be itemized and include, as a minimum, a description of each task performed, the amount of time utilized performing each task, the name(s) of personnel who performed the task and the cost for each specific task. Along with each invoice, the ENGINEER must submit a consultant progress report in the format shown in Attachment 6 hereto. No payment will be made without the consultant progress report completed and attached. Monthly progress reports shall be submitted monthly even if no request for payment is made. If services under Article 4 are included in the invoice for additional services not included under the lump sum provisions, or services billed as time and material, the classification and hours of such persons rendering the services shall be attached to the invoice.

8.1.2 The signature of the ENGINEER on the invoice shall constitute the ENGINEER's representation to the OWNER that the services indicated in the invoice have progressed to the level indicated, have been properly and timely performed as required herein, that the reimbursable expenses included in the invoice have been reasonably incurred, that all obligations of the ENGINEER covered by prior invoices have been paid in full, and that, to the best of the ENGINEER's knowledge, information and informed belief, the amount requested is currently due and owing, there being no reason known to the ENGINEER the payment of any portion thereof should be withheld. Submission of the ENGINEER's invoice for final payment and

reimbursement shall further constitute the ENGINEER's representation to the OWNER that, upon receipt from the OWNER of the amount invoiced, all obligations of the ENGINEER to others, including its consultants, incurred in connection with the PROJECT, have been paid in full. ENGINEER must designate on Attachment 6 – Progress Report in the appropriate space provided that such action has been completed.

8.2 TIME FOR PAYMENT

The OWNER shall make payment for services in Articles 2 and 4 within 60 days of receipt of valid invoice.

8.3 OWNER'S RIGHT TO WITHHOLD PAYMENT

In the event the OWNER becomes credibly informed that any representations of the ENGINEER, provided pursuant to Article 8.1.2, are wholly or partially inaccurate, the OWNER may withhold payment of sums then or in the future otherwise due to the ENGINEER until the inaccuracy, and the cause thereof, is corrected to the OWNER's reasonable satisfaction. Additionally, failure by the ENGINEER to supply substantiating records shall be reason to exclude related costs from the amounts which might otherwise be payable by the OWNER to the ENGINEER.

8.4 REIMBURSABLE EXPENSES

8.4.1 In addition to the requirements set forth in 8.1 above, invoices for reimbursable expenses shall include such documentation as the OWNER may require. Reasonable expenses are limited to the following expenses:

(a) Transportation outside the immediate Huntsville area (50 mile radius) approved in advance by the OWNER in writing and incurred in connection with the PROJECT; (Per Department of Treasury, Internal Revenue Service Publication 1542, Per Diem Rates, for travel within the continental United States). Refer to website: www.irs.gov/pub/irs-pdf/p1542.pdf for more information.
(b) Charges for long-distance communications;
(c) Fees paid for securing approval of authorities having jurisdiction over the PROJECT,
(d) Actual costs of reproduction for items in excess of those included in the required services;
(e) Postage and handling charges incurred for drawings, specifications and other documents.

8.4.2 The ENGINEER shall set forth with particularity on its invoice the nature and cost of the expense item being billed, and attach to its invoice the written authorization, if any, required for such item; and shall bill expenses at actual cost or prevailing rate and without the addition of administrative charge, any multiple or surcharge.

8.5 W-9 TAXPAYER FORM

All ENGINEERING FIRMS are required to submit a Federal Tax Form W-9 to City of Huntsville at the time a contract is awarded. No payments of invoices can be made until this W-9 Tax Form has been properly submitted. A copy of the W-9 Tax Form can be requested from the OWNER or at the following website: www.irs.ustreas.gov/pub/irs-pdf/fw9.pdf

ARTICLE 9 - GENERAL CONSIDERATIONS

9.1 GENERAL

OWNER and ENGINEER agree that the following sections and provisions shall apply to the work to be performed under this Agreement and that such provisions shall supersede any conflicting provisions of this Agreement.

9.2 SUB-CONTRACTED SPECIALIZED SERVICES

The ENGINEER may sub-contract specialized services required of the PROJECT to competent and experienced sub-consultants approved by the OWNER in writing. As a prime professional, the ENGINEER shall act as OWNER's representative for contracting, directing, and managing the services of sub-consultants. The OWNER shall have the right to reject any consultant provided that the OWNER raises a timely objection. At the time of the execution of this Agreement, the parties anticipate that the consultants listed in Attachment "7" hereto will be retained by the ENGINEER to provide services with respect to the PROJECT. Expenses payable to the ENGINEER for subcontracted services are limited to no more than 5% of the cost of the subcontracted services.

9.3 PEER REVIEW

The OWNER reserves the right to conduct, at the OWNER's expense, peer review of designs and drawings prepared by the ENGINEER and/or sub-consultant(s) for the PROJECT. The ENGINEER and sub-consultant(s) agree that knowledge and consent to review of their work by other engineers of the OWNER's choosing is hereby given in accordance with the ADMINISTRATIVE CODE (RULES AND REGULATIONS) of the Alabama State Board of Licensure for Professional Engineers and Land Surveyors, Chapter 330-X-14-.06(a) (13) effective January 2008 and as may be amended now or in the future pertaining to the Code of Ethics for review of the work of another engineer.

9.4 CLARIFICATION OF WORK

If reviewing agencies raise questions regarding the work of ENGINEER, OWNER will participate in such meetings as deemed necessary to explain and clarify this work.

9.5 CHANGES

9.5.1 The OWNER may, at any time by written order, make changes within the general scope of the Agreement in the services to be provided. If such changes cause an increase or decrease in ENGINEER's cost of, or time required for performance of any services, whether or not changed by any order, an equitable adjustment shall be made and the Agreement shall be modified in writing accordingly. Upon notification of change, ENGINEER must assert any claim of ENGINEER for adjustment in writing within 30 days from the date of receipt unless OWNER grants a further period of time.

9.5.2 If findings in any phase of this PROJECT significantly alter the scope of work for subsequent phases, or if regulations are changed resulting in a scope of work change for any phase, engineering fees set forth in Article 7 may be renegotiated by the OWNER and ENGINEER.

9.6 ENGINEER'S RECORDS

Documentation accurately reflecting services performed and the time expended by the ENGINEER and his personnel and records of reimbursable expenses shall be prepared

concurrently with the performance of the services and shall be maintained by the ENGINEER. The ENGINEER shall maintain record copies of all written communications, and any memoranda of verbal communications related to the PROJECT. All such records and documentation shall be maintained for a minimum of five (5) years after the PROJECT date of final completion or for any longer period of time as may be required by law or good practice. If the ENGINEER receives notification of a dispute or of pending or commencement of litigation during this five-year period, the ENGINEER shall continue to maintain all PROJECT records until final resolution of the dispute or litigation. The ENGINEER shall make such records and documentation available to the OWNER upon notice and shall allow the authorized representative(s) of the OWNER to inspect, examine, review and copy the ENGINEER's records at the OWNER's reasonable expense.

9.7 SEAL ON DOCUMENTS

9.7.1 Final plans and drawings shall be marked "ISSUED FOR CONSTRUCTION". When a firm, partnership, or corporation performs the work, each drawing shall be sealed and signed by the licensed engineer or engineers who were in responsible charge of the work.

9.7.2 When plans and drawings issued for construction were not performed by a firm, partnership, or corporation, the first sheet or title page shall be sealed, dated, and signed by the engineer who was in responsible charge. Two or more licensed professional engineers may affix their signatures and seals provided it is designated by a note under the seal the specific subject matter for which each is responsible. In addition, each drawing shall be sealed and signed by the licensee or licensees responsible for each sheet.

9.7.3 When plans or drawings are a site adaptation of a standard design or plan or make use of a standard drawing of others, the ENGINEER shall take measures to assure that the site adaptation, standard drawing, or plan is appropriate and suitable for the use proposed by the ENGINEER including meeting the specific site conditions, functionality, design criteria, safety considerations, etc. After taking such measures, the ENGINEER shall seal the standard drawing or plan as shown above in sections 9.8.1 and 9.8.2. The ENGINEER shall not utilize standards of others without their written consent where written consent is required or implied.

9.7.4 Each sheet of documents, specifications, and reports for engineering practice and of maps, plats, charts, and reports for land surveying practice, shall be signed, sealed, and dated by the licensed engineer or land surveyor who prepared the documents or under whose responsible charge the documents were prepared. Where more than one sheet is bound together in one volume, including but not limited to reports and specifications, the licensee who prepared the volume, or under whose responsible charge the volume was prepared, may sign, seal, and date only the title or index sheet, provided that this sheet clearly identifies all of the other sheets comprising the bound volume, and provided that any of the other sheets which were prepared by, or under the responsible charge of, another licensee, be signed, sealed, and dated by the other licensee.

9.8 USE AND OWNERSHIP OF DOCUMENTS

All rights of ownership, copyrights, construction documents, including all drawings, specifications and other documents, electronic media, computer source code, or things prepared by or on behalf of the ENGINEER for the PROJECT are hereby transferred to the OWNER and shall be the sole property of the OWNER and are free of any retention rights of the ENGINEER. The ENGINEER hereby grants to the OWNER an unconditional right to use

or to refer to, for any purpose whatsoever, the construction documents and any other documents or electronic media, computer source code prepared by or on behalf of the ENGINEER for the PROJECT, free of any copyright claims, trade secrets or other proprietary rights with respect to such documents. The ENGINEER shall be permitted to retain copies thereof for its records. The ENGINEER's documents and other work products are not intended or represented to be suitable for re-use by OWNER or others on extensions of the PROJECT or on any other PROJECT. Any re-use without specific written verification or adaptation by ENGINEER will be at OWNER's sole risk and without liability or legal exposure to ENGINEER, and OWNER shall indemnify and hold harmless ENGINEER from all claims, damages, losses and expenses including attorneys' fees arising out of, or resulting from, such reuse by the OWNER; provided however, that this agreement to indemnify and save harmless shall not apply to any reuse of documents retained by, or through, the ENGINEER.

9.9 ESTIMATE OF CONSTRUCTION COST

Since ENGINEER has no control over the construction cost of labor, materials, or equipment, or over the construction contractor(s) methods of determining prices, or over competitive bidding or market conditions, his opinion of probable PROJECT cost or construction cost provided for herein are to be made on the basis of his experience and qualifications and represent his best judgment as a design professional familiar with the construction industry; but, ENGINEER cannot and does not guarantee that proposals, bids or construction costs will not vary from opinions of probable cost prepared by him. If OWNER wishes greater assurance as to the construction cost, he will employ an independent cost estimator.

9.10 TERMINATION FOR CAUSE

This Agreement may be terminated by either party upon seven (7) days written notice to the other should such other party fail substantially to perform in accordance with its material terms through no fault of the party initiating the termination.

9.11 TERMINATION BY THE OWNER WITHOUT CAUSE

The OWNER may terminate this Agreement without cause upon seven (7) days written notice to the ENGINEER. In the event of such a termination without cause, the ENGINEER shall be compensated for all services performed prior to termination, together with Reimbursable Expenses incurred. In such event, the ENGINEER shall promptly submit to the OWNER its invoice for final payment and reimbursement which invoice shall comply with the provisions of Paragraph 8.1.

ARTICLE 10 - INDEMNITY AND INSURANCE

10.1 INSURANCE

The ENGINEER shall carry insurance of the following kinds and amounts in addition to any other forms of insurance or bonds required under the terms of the contract specifications. The ENGINEER shall procure and maintain for the duration of the job until final acceptance by the OWNER, or as later indicated, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the ENGINEER, his agents, representatives, employees or subcontractor.

10.2 MINIMUM SCOPE OF INSURANCE:

A. General Liability:

Insurance shall be written on an "occurrence" basis. Claims-made coverage will be

accepted only on an exception basis after the OWNER's approval. The same insurance company should write General Liability Coverage and OWNERs ENGINEERs Protective Insurance.

B. Commercial General Liability

Products and Completed Operations
Contractual
Personal Injury
Explosion, Collapse and Underground
Broad Form Property Damage

C. Professional Liability:

Insurance may be written on a "claims-made" basis, providing coverage for negligent acts, errors or omissions in the performance of professional services. Coverage shall be maintained for a discovery and reporting period of no less than five (5) years after completion of the professional services and Certificates of Insurance shall be submitted to the OWNER on a yearly basis during this time frame. Coverage shall be no less comprehensive than that which is carried by at least 25% of the registered engineers or engineering firms contracting in the State of Alabama. Such coverage shall be carried on a continuous basis including prior acts coverage to cover the subject PROJECT. The professional liability insurance shall contain contractual liability coverage.

D. Automobile Liability:

Business Automobile Liability providing coverage for all owned, hired and non-owned autos. Coverage for loading and unloading shall be provided under either automobile liability or general liability policy forms.

E. Workers' Compensation Insurance:

Statutory protection against bodily injury, sickness or disease or death sustained by employee in the scope of employment. Protection shall be provided by a commercial insurance company or a recognized self-insurance fund authorized before the State of Alabama Industrial Board of Relations. "Waivers of Subrogation" in favor of the OWNER shall be endorsed to Workers' Compensation Insurance.

F. Employers Liability Insurance:

Covering common law claims of injured employees made in lieu of or in addition to a worker's compensation claim.

10.3 MINIMUM LIMITS OF INSURANCE:

A. General Liability:

Commercial General Liability on an "occurrence form" for bodily injury and property damage:

$ 2,000,000 General Aggregate Limit
$ 2,000,000 Products - Completed Operations Aggregate
$ 1,000,000 Personal & Advertising Injury
$ 1,000,000 Each Occurrence

B. Professional Liability:

Insurance may be made on a "claims-made" basis:

$ 500,000 Per Claim - Land Surveyors
$ 1,000,000 Per Claim - Other Professionals

C. Automobile Liability:

$ 1,000,000 Combined Single Limit per accident for bodily injury and property damage.

D. Workers' Compensation:

As required by the State of Alabama Statute. The coverage should include waiver of subrogation.

E. Employers Liability:

$ 1,000,000 Bodily Injury by Accident or Disease
$ 1,000,000 Policy Limit by Disease

10.4 OTHER INSURANCE PROVISIONS:

The OWNER is hereby authorized to adjust the requirements set forth in this document in the event it is determined that such adjustment is in the OWNER's best interest. If the insurance requirements are not adjusted by the OWNER prior to the OWNER's release of specifications with regard to the PROJECT in question, then the minimum limits shall apply. The City of Huntsville/OWNER shall be named on the policies of general liability and automobile insurance and on the certificate of insurance as an Additional Insured. Additional Insured status on the Commercial General Liability policy shall be through ISO Additional Endorsement CG 20 10 11 85 or equivalent and coverage shall be afforded on a primary basis. Liability is not necessarily limited to the minimum amounts of insurance required herein, especially where other insurance coverage is available.

The policies are to contain, or be endorsed to contain, the following provisions:

A. All Coverage:

The ENGINEER is responsible to pay all deductibles. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled, non-renewal or materially changed by either party, reduced in coverage or in limits except after thirty (30) days' prior written notice has been given to the OWNER. Cancellation of coverage for non-payment of premium will require ten (10) days written notice to the OWNER.

10.5 ACCEPTABILITY OF INSURERS:

Insurance is to be placed with insurers authorized by the State of Alabama with an A. M. Best rating of A-V or better.

10.6 VERIFICATION OF COVERAGE:

The OWNER shall be indicated as a Certificate Holder and the ENGINEER shall furnish the OWNER with Certificates of Insurance reflecting the coverage required by this document. The A. M. Best rating and deductibles, if applicable, shall be indicated on the Certificate of

Insurance for each insurance policy. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. Certificates signed using digital signatures will not be accepted unless accompanied by a written statement from the insurance/surety company indicating that their electronic signature is intended as their signature. All certificates are to be received and approved by the OWNER before work commences. The OWNER reserves the right to require complete, certified copies of all required insurance policies at any time.

10.7 CONSULTANTS AND/OR SUBCONTRACTORS WORKING FOR THE ENGINEER:

The ENGINEER shall furnish separate certificates and/or endorsements for each subcontractor and/or consultant showing insurance of the same type or types and to the extent of the coverage set forth in this Article 10.

10.8 HOLD HARMLESS AGREEMENT:

A. Professional Liability Exposures:

The ENGINEER, to the fullest extent permitted by law, shall indemnify and hold harmless the OWNER, its elected and appointed officials, employees, agents, and representatives against all claims, damages, losses, judgments and expenses, including, but not limited to, attorney's fees, arising out of or resulting from the performance of the work, caused by any negligent act, error or omission of the ENGINEER or any of their consultants, or anyone directly or indirectly employed by them or anyone for whose acts they are legally liable. Such obligation should not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity, which would otherwise exist as to any party or person, described in this paragraph.

To the fullest extent permitted by law, the ENGINEER shall defend, protect, indemnify, and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, costs, fees and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) for infringement of patent rights, copyrights, or other intellectual property rights, except with respect to designs, processes or products of a particular manufacturer expressly required by the OWNER in writing. If the ENGINEER has reason to believe the use of a required design, process or product is an infringement of a patent, the ENGINEER shall be responsible for such loss unless such information is promptly given to the OWNER

B. Other Than Professional Liability:

The ENGINEER agrees, to the fullest extent permitted by law, to defend, protect, indemnify and hold harmless the OWNER, its elected and appointed officials, officers, directors, employees, agents, and representatives from and against any and all liability, claims, demands, damages, loss, judgments, costs, fees, and expenses (including actual fees and expenses of attorneys, expert witnesses, and other consultants) attributable to personal injury, including bodily injury sickness, disease or death, or to injury to or destruction of tangible property, including loss of use resulting therefrom actually or allegedly caused by the ENGINEER or the ENGINEER's consultants, subcontractors, or suppliers, including, without limitation, any breach of contract or any negligent acts, errors, or omissions in the performance of the professional services provided pursuant to or as a result of this Agreement. Neither, the OWNER nor the ENGINEER shall be obligated to indemnify the other party in any manner whatsoever for the other parties own negligence.

ARTICLE 11- MISCELLANEOUS PROVISIONS

11.1 GOVERNING LAW

This Agreement shall be governed by the law of the State of Alabama.

11.2 INTENT AND INTERPRETATION

11.2.1 The intent of this contract is to require complete, correct and timely execution of the work. Any work that may be required, implied or inferred by the contract documents, or any one or more of them, as necessary to produce the intended result shall be provided by the ENGINEER.

11.2.2 This contract is intended to be an integral whole and shall be interpreted as internally consistent. What is required by any one contract document shall be considered as required by the contract.

11.2.3 When a word, term or phrase is used in this contract, it shall be interpreted or construed, first, as defined herein; second, if not defined, according to its generally accepted meaning in the engineering industry; and third, if there is no generally accepted meaning in the engineering industry, according to its common and customary usage.

11.2.4 The words "include", "includes", or "including", as used in this contract, shall be deemed to be followed by the phrase, "without limitation".

11.2.5 The specification herein of any act, failure, refusal, omission, event, occurrence or condition as constituting a material breach of this contract shall not imply that any other, non-specified act, failure, refusal, omission, event, occurrence or condition shall be deemed not to constitute a material breach of this contract.

11.2.6 Words or terms used as nouns in this contract shall be inclusive of their singular and plural forms, unless the context of their usage clearly requires a contrary meaning.

11.3 TIME IS OF THE ESSENCE

Time limitations contained herein, or provided for hereby, are of the essence of this Agreement. The ENGINEER understands and acknowledges that time is of the essence in completion of the PROJECT and that the OWNER will incur damages if the PROJECT is not completed on time.

11.4 SUCCESSORS AND ASSIGNS

The ENGINEER shall not assign its rights hereunder, excepting its right to payment, nor shall it delegate any of its duties hereunder without the written consent of the OWNER. Subject to the provisions of the immediately preceding sentence, the OWNER and the ENGINEER, respectively, bind themselves, their successors, assigns and legal representatives to the other party to this Agreement and to the successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be party hereof, nor shall it be construed as giving any rights or benefits hereunder to anyone other than OWNER and ENGINEER.

11.5 NO THIRD-PARTY BENEFICIARIES

This Agreement shall inure solely to the benefit of the parties hereto and their successors and assigns. Nothing contained herein is intended to or shall create a contractual relationship with, or any rights in favor of, or any cause of action in favor or, any third party, against the OWNER or the ENGINEER.

11.6 INTELLECTUAL PROPERTY/ CONFIDENTIALITY

All information, documents, and electronic media, computer source code furnished by the OWNER to the ENGINEER belong to the OWNER, are considered proprietary and confidential, unless otherwise indicated by the OWNER, and are furnished solely for use on the OWNER's PROJECT. Such information, documents, and electronic media, computer source code shall be kept confidential by the ENGINEER, shall only be released as necessary to meet official regulatory requirements in connection with the PROJECT, and shall not be used by the ENGINEER on any other PROJECT or in connection with any other person or entity, unless disclosure or use thereof in connection with any matter other than services rendered to the OWNER hereunder is specifically authorized in writing by the OWNER in advance. This Section 11.6 shall survive the expiration of this Agreement.

11.7 SUBCONTRACT REQUIREMENTS

The ENGINEER shall include the terms and conditions of this Agreement in every subcontract or agreement with a consultant for this PROJECT so that these terms and conditions shall be binding upon each subcontractor or consultant. The subcontractor(s)/consultant(s) will maintain all licenses and certifications to practice its profession or trade by all public entities having jurisdiction over the PROJECT. The subcontractor(s)/consultant(s) further represent to the OWNER that the subcontractor(s)/consultant(s) will maintain all necessary licenses, certifications, permits or other authorizations necessary for the PROJECT until the remaining duties hereunder have been satisfied.

11.8 NOTICES

Unless otherwise provided, all notices shall be in writing and considered duly given if the original is hand delivered; if delivered by facsimile to 256-427-5325, or is sent by U.S. Mail, postage prepaid to City of Huntsville Engineering, P. O. Box 308 (35804), 320 Fountain Circle (35801), Huntsville, AL. All notices shall be given to the addresses set forth above. Notices, hand delivered or delivered by facsimile, shall be deemed given the next business day following the date of delivery. Notices given by U.S. Mail shall be deemed given as of the second business day following the date of posting.

11.9 FEDERAL IMMIGRATION LAW

By signing this Agreement, the contracting parties affirm, for the duration of the agreement, that they will not violate federal immigration law or knowingly employ, hire for employment or continue to employ an unauthorized alien within the State of Alabama. Furthermore, a contracting party found to be in violation of this provision shall be deemed in breach of the agreement and shall be responsible for all damages resulting therefrom.

11.10 STRICT COMPLIANCE

No failure of the OWNER to insist upon strict compliance by the ENGINEER with any provision of this Contract for Professional Services shall operate to release, waive, discharge, modify, change or affect any of the ENGINEER's obligations.

11.11 WAIVER

No provision of this Agreement may be waived except by written agreement of the parties. A waiver of any provision on one occasion shall not be deemed a waiver of that provision on any subsequent occasion, unless specifically stated in writing. A waiver of any provision shall not affect or alter the remaining provisions of this Agreement.

11.12 SEVERABILITY

If any provision of this Agreement, or the application thereof, is determined to be invalid or unenforceable, the remainder of that provision and all other provisions of this Agreement shall remain valid and enforceable.

11.13 ETHICS

The ENGINEER shall not offer or accept any bribes or kickbacks from or to any manufacturer, consultant, trade contractor, subcontractor, supplier or any other individual or entity in connection with the PROJECT. The ENGINEER shall not confer on any governmental, public or quasi-public official having any authority or influence over the PROJECT any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised. The ENGINEER shall not, without the express written permission of the OWNER, engage or recommend to the OWNER engagement of any consultant, trade contractor, subcontractor, or supplier to provide services on behalf of the ENGINEER, OWNER or PROJECT in which the ENGINEER has a direct or indirect proprietary or other pecuniary interest; or call for the use of or by exclusion require or recommend the use of products, materials, equipment, systems, processes or procedures in which the ENGINEER or in which any consultant, trade contractor, subcontractor, or supplier of the ENGINEER has a direct or indirect proprietary or other pecuniary interest. Without prior notification and written approval of the OWNER, the ENGINEER and the ENGINEER'S sub-consultants shall not offer services to the OWNER'S contractor.

11.14 ENTIRE AGREEMENT

This Agreement represents the entire agreement between the OWNER and the ENGINEER and supersedes all prior communications, negotiations, representations or agreements, either written or oral. This agreement may be amended only by written instrument signed by both OWNER and ENGINEER.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

ENGINEER:
GARVER, L.L.C.

BY: _____
Ryan Patton

TITLE: Senior Project Manager

ATTEST: _____

Given under my hand this_____day

Of _____, 2023.

_____
Notary Public

My commission expires_____

OWNER:
CITY OF HUNTSVILLE

BY: _____
Tommy Battle

TITLE: Mayor

ATTEST: _____

Given under my hand this_____day

Of _____, 2023.

_____
Notary Public

My commission expires_____

ATTACHMENT 1-SCOPE OF SERVICES

(Refer to letter dated December 8, 2023, from Wes Cardwell to Kathy Martin and attachments).

GARVER

5125A Research Drive
Huntsville, AL 35805

TEL 256.534.5512
FAX 256.534.5544

www.GarverUSA.com

December 8, 2023

Ms. Kathy Martin, PE
City of Huntsville
1800 Vermont Road
Huntsville, AL 35802

Re: Proposal for Professional Engineering Services
Limestone Creek Sanitary Sewer Interceptor and Pump Station

Dear Ms. Martin:

Garver is pleased to provide this proposal for professional engineering services for the design and bid phase services of the Limestone Creek Sanitary Sewer Interceptor and Pump Station project. This project will include construction of a new triplex lift station and approximately two miles of new 24-inch gravity sewer line parallel to the Limestone Creek floodway in the Greenbrier area. The specific scope of services for this project is included as **Appendix A**. A supporting map depicting the approximate limits of the interceptor is included as **Appendix B**.

Based upon the scope of services provided and the project information made available to us thus far, we propose to perform all tasks included in Appendix A for a lump sum amount of $498,880.00. A breakdown of the work tasks and associated hours is included as **Appendix C**. A copy of our current hourly rate schedule used to develop these costs is included as **Appendix D**.

We are prepared to begin work immediately upon your authorization and anticipate completing the design phase services within 240 days according to the schedule milestone dates included in Appendix A. If unforeseen delays beyond Garver's control occur, additional time may be required. Please contact us should you have any questions regarding this proposal or need additional information. We appreciate the opportunity to continue to be of service to the City of Huntsville.

Sincerely,

GARVER, LLC

Wes Cardwell, P.E.
Water Team Leader

In concurrence:

_____

Ms. Kathy Martin, P.E.
City Engineer

Attachments:
Appendix A – Scope of Services
Appendix B – Supporting Map
Appendix C – Task and Fee Breakdown
Appendix D – Current Hourly Rate Schedule
Appendix E – GTEC, LLC Geotechnical Proposal

APPENDIX A – SCOPE OF SERVICES

General

The Scope of Services details professional engineering services for design and bid phase services of the Limestone Creek Sanitary Sewer Interceptor project. This project will include construction of a new triplex lift station and approximately 24,300-LF of new 24-inch gravity sewer line parallel to the Limestone Creek floodway in the Greenbrier area. A supporting map depicting the approximate alignment is provided in Appendix B. The pump station will be designed according to the City of Huntsville Water Pollution Control standards for triplex pump stations. The new sewer interceptor will be constructed of 24-inch ductile iron pipe that has been pre-purchased by the OWNER. All other materials, equipment, and appurtenances will be provided by the Contractor.

Task 1 – Surveying Services

GARVER will provide field survey data for designing the Project. GARVER will conduct field surveys, utilizing radial topography methods, at intervals and for distances at and/or along the Project site as appropriate for modeling the existing ground, including locations of pertinent features or improvements. GARVER will locate buildings and other structures, streets, drainage features, trees over eight inches in diameter, visible utilities as well as those underground utilities marked by their OWNERs and/or representatives, and any other pertinent topographic features that may be present at and/or along the Project site. GARVER will establish control points for use during construction.

Survey services include acquisition survey for the purpose of obtaining a sanitary sewer easement for the entirety of the proposed sanitary sewer pipe. These easement acquisition services also include property/deed research using available land records and supporting property maps. It is anticipated that up to eight (8) tracts will require easement acquisition documents. The OWNER is responsible for coordinating and obtaining the sanitary sewer easements from the property OWNER's.

Task 2 – Geotechnical Services

GARVER will be responsible for obtaining, interpreting, and evaluating geotechnical data necessary for the design of this Project. Geotechnical services will be provided by a sub consultant (GTEC, LLC) for soil conditions at the proposed lift station and proposed sewer pipe alignment. It is estimated that two (2) bores will be taken at the proposed lift station site, and twenty two (22) bores will be taken at select intervals along the proposed pipe route. Soil bores along the pipe route will not be performed until the horizontal alignment design is accepted by the OWNER; this is assumed to be post 60% design review comments.

Task 3 – Preliminary Design Phase Services

The preliminary design phase will represent approximately 30% of final construction documents with a submittal to include preliminary plans and an Opinion of Probable Construction Cost (OPCC) estimate. This submittal will not include a preliminary design report, technical specifications, or "front end" contract documents. OWNER comments will be discussed at the Preliminary Design Workshop. GARVER will incorporate comments from the OWNER on the Preliminary Design in the Final Design Phase.

Specifically, GARVER shall complete the following efforts as part of the Preliminary Design Phase:

3.1 GARVER will perform the following project coordination tasks throughout the Preliminary Design Phase effort:

a. Maintain an overall schedule for the project and routinely advise the OWNER of critical path items affecting project progress versus schedule.

b. Monthly project progress and schedule updates.

c. Prepare and submit invoices for progress payments.

d. Coordination with subconsultants.

3.2 GARVER will prepare for and conduct project meetings to include:

a. GARVER will conduct one (1) Project Kick-Off Meeting. This effort will include meeting minutes that document project goals and objectives, discussions and action items identified during the meeting, and project schedule.

b. Conduct one field investigation to visually inspect existing conditions and to visit another lift station to review facility layout and equipment.

3.3 Preliminary Design Drawings

a. GARVER anticipates the preliminary design drawings will include the following:

(i.) Overall Layout
(ii.) Lift Station Site Plan
(iii.) Yard Piping Plan
(iv.) Preliminary Pump Station Mechanical Layout Plan and Sections
(v.) Preliminary Electrical One-Line Diagrams
(vi.) Sanitary Sewer Interceptor Horizontal Alignment and Junction Design
(vii.) Sanitary Sewer Interceptor Connections Points to Existing System
(viii.) Sanitary Sewer Interceptor Standard Construction Details

3.4 Preliminary Design OPCC

a. GARVER will prepare an OPCC based on information obtained during the preliminary design phase. For preliminary design, GARVER will consider these opinions as estimates and the expected range of accuracy for this type of estimate is -20 percent to +30 percent of the estimated construction cost. This accuracy level will be adjusted based on the detail of the preliminary design documents. The OPCC will be presented as part of the Preliminary Design Review Workshop.

3.5 Preliminary Design Review Workshop

a. GARVER will lead and participate in a Preliminary Design Review Workshop with the OWNER to deliver and review the preliminary design effort. GARVER will provide the OWNER with preliminary design deliverables to be submitted electronically. The workshop will be held at the OWNER's location and major items of discussion will include:

(i.) Review and refinement of lift station design criteria
(ii.) Review and refinement of preliminary electrical one-line drawings.
(iii.) Review and refinement of the preliminary site plan.
(iv.) Review and preliminary selection of major equipment items.
(v.) Review of proposed construction sequencing to identify any potential operational conflicts or interruptions that may occur during construction.
(vi.) Review of proposed sanitary sewer line horizontal alignment and connection points.
(vii.) Present Preliminary Design OPCC.

b. GARVER will prepare meeting minutes and distribute to all attendees following the workshop that document discussions and action items identified during the workshop along with an updated project schedule. Upon completion of the meeting, GARVER shall proceed with Final Design Phase Services with approval from OWNER.

3.6 Preliminary Design Deliverables

a. The following deliverables will be provided to OWNER during the preliminary design phase:

(i.) Electronic (PDF) and three (3) hard copies of the draft Preliminary Design Drawings (half size) and an OPCC.

Task 4 – Final Design Phase Services

For the Final Design phase of the project, GARVER will develop final designs to prepare construction plans and specifications for one (1) construction contract, including final construction details, special provisions, and an OPCC estimate. The Final Design phase is scheduled to have three major submittals: 60%, 90%, and 100%. At each submittal, an OPCC will be prepared with an appropriate bidding contingency and escalation to mid-point of construction based upon the level of design.

Specifically, GARVER will complete the following efforts as part of the Final Design phase:

4.1 GARVER will perform the following project coordination tasks throughout the Final Design Phase effort:

a. Maintain an overall schedule for the project and routinely advise the OWNER of critical path items affecting project progress versus schedule.

b. Monthly project progress and schedule updates.

c. Prepare and submit invoices for progress payments.

4.2 Drawings and Specifications

a. Based upon the results of the approved Preliminary Design by the OWNER, GARVER will develop detailed plans and specifications as part of the Final Design for a single construction contract, with up to three deductive alternates. Multiple design scenarios or bid packages and/or pre-purchase equipment packages are not included as part of the level of effort provided with this agreement.

b. Specifications will be prepared in general conformance with the fifty-division format of the Construction Specifications Institute. The specifications will include OWNER's standard front-end documents.

4.3 Final Design OPCC

a. GARVER will prepare updates to the OPCC based on information obtained and developed during the Final Design phase. For Final Design, GARVER will consider these opinions as estimates and the expected range of accuracy for this type of estimate for the 60% design stage and 90% design stage is +/- 20% and +/- 15%, respectively. The OPCC estimate updates will be presented at the Final Design Review Workshop.

4.4 Final Design Review Workshop

a. GARVER will lead and participate in one Final Design Review Workshop with the OWNER for the 90% final design phase submittal milestone. The workshops will be held at the OWNER's office or GARVER's office to solicit comments and feedback.

b. GARVER will prepare meeting minutes and distribute to all attendees following each workshop that document discussions and action items along with an updated project schedule.

4.5 Contract Documents

a. The Contract Documents represent bid-ready design drawings and specifications, signed and sealed. GARVER will combine drawings and specifications with OWNER's standard front-end documents and any other information as required by OWNER to competitively bid the work and to create a Contract Documents package.

4.6 Final Design Deliverables

a. The following final design deliverables will be provided to the OWNER:

(i.) Electronic (PDF) and three (3) hard copies of the draft 60% Design Documents (half-size drawings and technical specifications) and OPCC estimate.

(ii.) Electronic (PDF) copies of the 90% Design Documents (half-size drawings and technical specifications) and OPCC estimate.

(iii.) Electronic (PDF) copies of the 90% Design Workshop meeting minutes.

(iv.) Electronic (PDF) and three (3) hard copies of the final, bid-ready 100% Design Documents (half-size drawings and technical specifications) and OPCC estimate.

Task 5 – Bid Phase Services

Upon completion of the design services and approval of the final project documents by the OWNER, GARVER will provide the following services to the OWNER for a single bid phase:

5.1 Bidding Assistance

a. The bidding period for prospective bidders is anticipated to be a 45-day period. During the bidding period phase of the project, GARVER will:

(i.) Support the Contract Documents by preparing addenda, as appropriate. This effort includes receiving and answering questions from prospective bidders and, if necessary, addressing these questions via addenda.

(ii.) Participate in one mandatory pre-bid meeting.

Task 6 – Construction Phase Services

TO BE PROVIDED AS PART OF FUTURE CONTRACT AMENDMENT

Extra Work

Extra Work will be as directed by the OWNER in writing for an additional fee as agreed upon by the OWNER and GARVER. The following items are not included under this agreement but will be considered as extra work:

1. Permitting (beyond those required for typical creek crossings and at road crossings, as needed).
2. Easement acquisition services outside those described in Task 1 above.
3. Electrical aid-to-construction (ATC) expenses.
4. Design and/or deliverables beyond those noted herein.
5. Bid phase services, beyond those described herein, including preparation of prebid meeting documents (agenda, presentation, and meeting minutes), review of submitted bids, preparation of the certified bid tabulation, or conformed documents.
6. Construction phase services.
7. Construction materials testing.
8. Hydraulics and hydrology for floodway No-Rise Certification and Individual 404 permit.
9. Coordination with FEMA and preparation/submittal of a CLOMR and/or LOMR.
10. Redesign for the OWNER's convenience or due to changed conditions after previous alternate direction and/or approval.
11. Submittals or deliverables in addition to those listed herein.
12. Warranty assistance.
13. Operations and Maintenance manual.
14. Prequalification of Potential Bidders.

Compensation

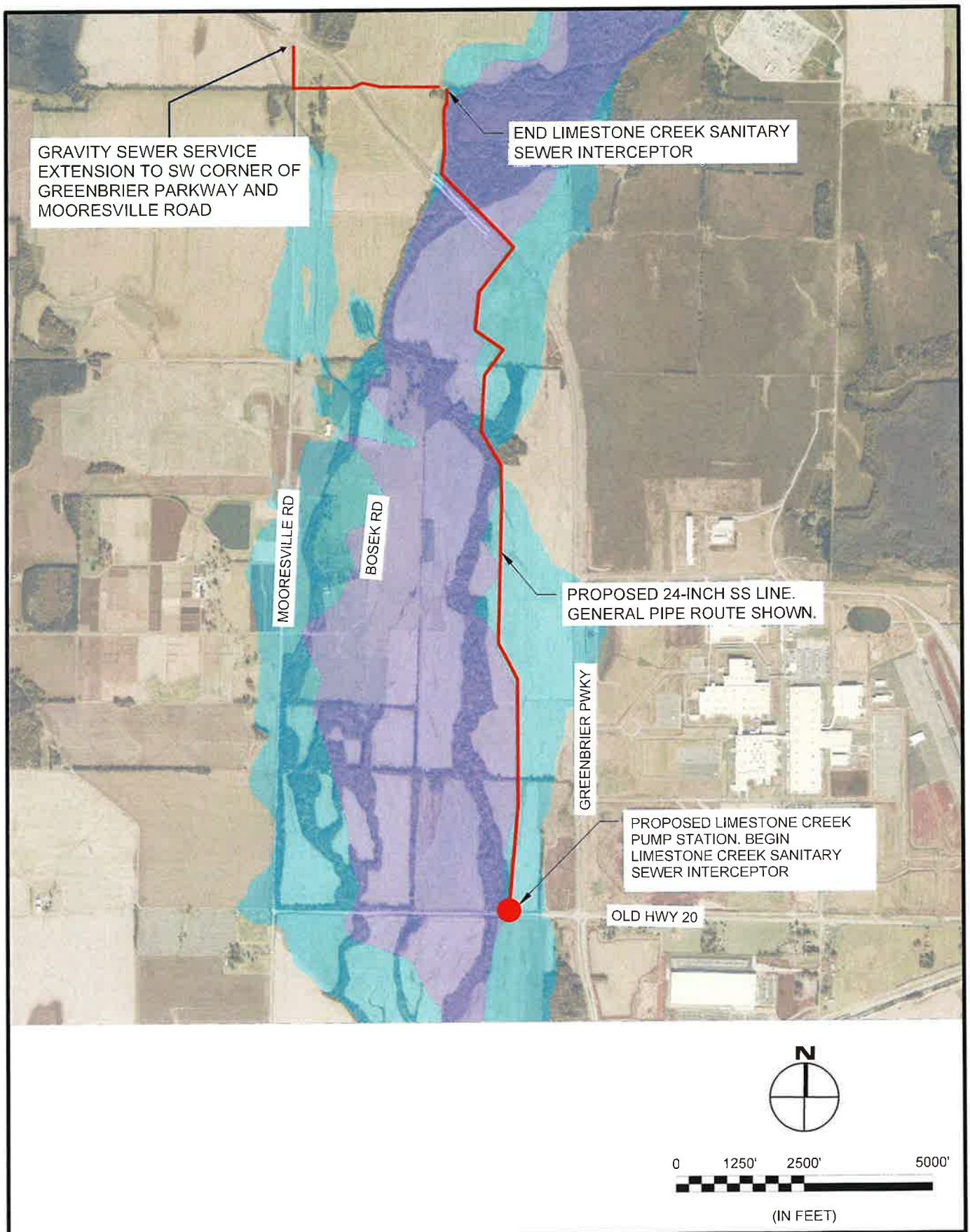
The compensation for services performed by GARVER for this Scope of Services as described herein shall be as follows:

Phase Description	Amount	Basis of Compensation
Task 1 – Survey Services	**$86,000**	Lump Sum
Task 2 – Geotechnical Services	**$44,180**	Lump Sum
Task 3 – Preliminary Design Phase Services	**$66,600**	Lump Sum
Common Project Design Tasks	*$30,600*	-
Limestone Creek Sanitary Sewer Interceptor Design	*$21,300*	-
Pump Station Design	*$14,700*	-
Task 4 – Final Design Phase Services	**$299,200**	Lump Sum
Common Project Design Tasks	*$12,100*	-
Limestone Creek Sanitary Sewer Interceptor Design	*$215,500*	-
Pump Station Design	*$71,600*	-
Task 5 – Bid Phase Services	**$2,900**	Lump Sum
Task 6 – Construction Phase Services	N/A	N/A
Total Contract Amount	**$498,880**	

Schedule

GARVER shall begin work under this Agreement within fourteen (14) days of a Notice to Proceed and shall complete the work in accordance with the schedule below:

Phase/Task Description	Calendar Days
Task 1 – Surveys & Easement Descriptions	45 days from Notice to Proceed
Task 2 – Preliminary Design Phase	45 days from receipt of Survey Data
Task 3 – Final Design Phase, 60% Submittal	60 days from approval of Preliminary Design Documents by OWNER
Task 3 – Final Design Phase, 90% Submittal	45 days from approval of 60% Design Documents by OWNER and receipt of Geotechnical Data
Task 3 – Final Design Phase, Contract Documents	30 days from approval of 90% Design Documents by OWNER
Task 4 – Bid Phase Services	Immediately upon completion of Final Design
Task 5 – Construction Phase Services	Not included as part of this Scope of Services



GARVER 5125A Research Drive NW Huntsville, AL 35805 (256) 534-5512	LIMESTONE CREEK SANITARY SEWER INTERCEPTOR HUNTSVILLE, ALABAMA	APPENDIX B SUPPORTING MAP	FIGURE NUMBER C-101 SHEET NUMBER 01

APPENDIX C

City of Huntsville

Limestone Creek Sanitary Sewer Interceptor and Pump Station

All Tasks

	WORK TASK DESCRIPTION	E-5	E-4	E-2	E-1	D-3	T-3	T-2	S-5	2-Man Crew (Survey)	T-1	GARVER	GARVER	SUBCONSULTANT	GARVER	SUB-CO TOTAL	TOTAL
		$240.00	$199.00	$149.00	$125.00	$160.00	$140.00	$116.00	$179.00	$216.00	$105.00	LABOR	ODC	GTEC	TOTAL		
		hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.	hr.			0%			
	Basic Services Section																
1.	**TASK 1 - Survey Services**																
	Coordination, Meetings, QAQC, Sign/Seal								30			$5,370	$4,000		$9,370	$0	$9,370
	Research Property Deeds and Land Records								16			$2,864			$2,864	$0	$2,864
	Process Survey Data - Create Surface										20	$2,100			$2,100	$0	$2,100
	Prepare Property Maps								16		15	$4,439			$4,439	$0	$4,439
	Acquisition surveys (8 Tracts)								8		30	$4,582			$4,582	$0	$4,582
	Topographic Survey Map								4		20	$2,816			$2,816	$0	$2,816
	Establish Project Control									35		$7,560			$7,560	$0	$7,560
	Property Boundary Survey (Corner Ties)									60		$12,960			$12,960	$0	$12,960
	Topo Survey									120		$25,920			$25,920	$0	$25,920
	Monument Missing Proposed Easement Corners									40		$8,640			$8,640	$0	$8,640
	Coordinate with Geotech Subconsultant									16	8	$4,296			$4,296	$0	$4,296
	Quality Control Review							4				$464			$464	$0	$464
	Subtotal - TASK 1 - Survey Services	0	0	0	0	0	0	4	74	271	93	**$82,011**	**$4,000**	**$0**	**$86,011**	**$0**	**$86,011**
2.	**TASK 2 - Geotechnical Services**																
	Subconsultant Charges											$0		$44,180	$0	$44,180	$44,180
	Subconsultant Coordination											$0			$0	$0	$0
	Review Report and Data											$0			$0	$0	$0
	Quality Control Review											$0			$0	$0	$0
	Subtotal - TASK 2 - Geotechnical Services	0	0	0	0	0	0	0	0	0	0	**$0**	**$0**	**$44,180**	**$0**	**$44,180**	**$44,180**
3.	**TASK 3 - Preliminary Design Phase Services**																
	45 Days to 30%											$0			$0	$0	$0
	3.1 Project Coordination Tasks											$0	$250		$250	$0	$250
	3.1.a. Maintain overall project schedule			2								$298			$298	$0	$298
	3.1.b. Monthly project progress and schedule updates			1	4							$649			$649	$0	$649
	3.1.c. Prepare and submit invoices for progress payments	2										$480			$480	$0	$480
	3.1.d. Coordination with Geotech Sub. Review Report	16	16	24	40							$15,600			$15,600	$0	$15,600
	3.2 Project Meetings											$0			$0	$0	$0
	3.2.a Project Kickoff Meeting	4		10	16							$4,450			$4,450	$0	$4,450
	3.2.b Site Visit following Project Kickoff Meeting	4		4	4							$2,056			$2,056	$0	$2,056
	Gravity Interceptor											$0			$0	$0	$0
	3.3 Preliminary Design Drawings	4		20	70		50					$19,690			$19,690	$0	$19,690
	3.4 Preliminary Design OPCC			4	8							$1,596			$1,596	$0	$1,596
	Lift Station											$0			$0	$0	$0
	3.3 Preliminary Design Drawings	2	8	8	16	8	40					$12,144			$12,144	$0	$12,144
	3.4 Preliminary Design OPCC			4	16							$2,596			$2,596	$0	$2,596
	3.5 Preliminary Design Review Workshop											$0			$0	$0	$0
	3.5.a Preliminary Design Review Workshop	4		8	12							$3,652			$3,652	$0	$3,652
	Quality Control Review	8		8								$3,112			$3,112	$0	$3,112
	Subtotal - TASK 3 - Preliminary Design Phase Services	44	24	93	186	8	90	0	0	0	0	**$66,323**	**$250**	**$0**	**$66,573**	**$0**	**$66,573**

WORK TASK DESCRIPTION	E-5	E-4	E-2	E-1	D-3	T-3	T-2	S-5	2-Man Crew (Survey)	T-1	GARVER	GARVER	SUBCONSULTANT	GARVER	SUB-CO TOTAL	TOTAL
	$240.00 hr.	$199.00 hr.	$149.00 hr.	$125.00 hr.	$160.00 hr.	$140.00 hr.	$116.00 hr.	$179.00 hr.	$216.00 hr.	$105.00 hr.	LABOR	ODC	GTEC 0%	TOTAL		
4. TASK 4 - Final Design Phase Services																
60 Days to 60%; 60 Days to 90%; 30 Days to 100%											$0			$0	$0	$0
4.1 Project Coordination Tasks											$0	$250		$250	$0	$250
4.1.a. Maintain overall project schedule	2		8								$1,672			$1,672	$0	$1,672
4.1.b. Monthly project progress and schedule updates	2		8	8							$2,672			$2,672	$0	$2,672
4.1.c. Prepare and submit invoices for progress payments	4										$960			$960	$0	$960
Gravity Interceptor											$0			$0	$0	$0
4.2 60% Drawings and Specifications	16										$3,840			$3,840	$0	$3,840
4.2.a Drawings	4	12	70	230	24	100					$60,368			$60,368	$0	$60,368
4.2.b Specifications	2	8	40	60			16				$17,388			$17,388	$0	$17,388
Quality Control Review	16		8								$5,032			$5,032	$0	$5,032
4.2 90% Drawings and Specifications											$0			$0	$0	$0
4.2.a Drawings	4	16	48	260	24	120					$64,436			$64,436	$0	$64,436
4.2.b Specifications	2	12	52	80			16				$22,472			$22,472	$0	$22,472
Quality Control Review	16										$3,840			$3,840	$0	$3,840
4.3 Final Design OPCC											$0			$0	$0	$0
60% Design Effort	1		8	24							$4,432			$4,432	$0	$4,432
90% Design Effort	1		12	40							$7,028			$7,028	$0	$7,028
100% Design Effort	1		4	8							$1,836			$1,836	$0	$1,836
Lift Station											$0			$0	$0	$0
4.2 60% Drawings and Specifications											$0			$0	$0	$0
4.2.a Drawings	1	4	4	20	16	40	16				$14,148			$14,148	$0	$14,148
4.2.b Specifications	1		4	24							$3,836			$3,836	$0	$3,836
Quality Control Review	16										$3,840			$3,840	$0	$3,840
4.2 90% Design											$0			$0	$0	$0
4.2.a Drawings	1	8	8	20	16	60	24				$19,268			$19,268	$0	$19,268
4.2.a Specifications	1		8	40							$6,432			$6,432	$0	$6,432
Quality Control Review	16										$3,840			$3,840	$0	$3,840
4.3 Final Design OPCC											$0			$0	$0	$0
60% Design Effort	1	1	2	4	2						$1,557			$1,557	$0	$1,557
90% Design Effort	1	1	2	4	2						$1,557			$1,557	$0	$1,557
100% Design Effort	1	1	2	4	2						$1,557			$1,557	$0	$1,557
4.4 90% Design Review Workshop											$0			$0	$0	$0
4.4.a Design Review Workshop	6	2	16	16	2						$6,542			$6,542	$0	$6,542
4.5 Bid Ready (100%) Contract Documents											$0			$0	$0	$0
Gravity Interceptor											$0			$0	$0	$0
4.5 100% Drawings and Specifications	1	8	40	60	8	40	24				$24,956			$24,956	$0	$24,956
Lift Station											$0			$0	$0	$0
4.5 100% Drawings and Specifications	1	8	8	24	16	16	40				$15,464			$15,464	$0	$15,464
Subtotal - TASK 4 - Final Design Phase Services	118	81	352	926	112	376	136	0	0	0	$298,973	$250	$0	$299,223	$0	$299,223
5. TASK 5 - Bid Phase Services																
5.1.a. Bidding Assistance											$0			$0	$0	$0
5.1.a.i.) Prepare and Submit Advertisement for Bids											$0			$0	$0	$0
5.1.a.ii.) Assist with Posting Bid Information to Huntsville Website											$0			$0	$0	$0
5.1.a.iii.) Addenda	1	1	4	8		4					$2,595			$2,595	$0	$2,595
5.1.a.iv.) Participate in Mandatory Pre-Bid Meeting			1	1							$274			$274	$0	$274
5.1.a.v.) Prepare Pre-bid Meeting Agenda and Meeting Minutes											$0			$0	$0	$0
5.1.a.vi.) Site Visit Following Pre-Bid Meeting											$0			$0	$0	$0
5.1.a.vii.) Attend and Manage Bid Opening Process											$0			$0	$0	$0
5.1.a.viii.) Prepare and Certify Bid Tabulation											$0			$0	$0	$0
5.1.a.ix.) Evaluate Bids and Prepare RTA											$0			$0	$0	$0
5.1.a.x.) Prepare Construction Contracts											$0			$0	$0	$0
5.1.a.xi.) Prepare Conformed Documents											$0			$0	$0	$0
Quality Control Review											$0			$0	$0	$0
Subtotal - TASK 5 - Bid Phase Services	1	1	5	9	0	4	0	0	0	0	$2,869	$0	$0	$2,869	$0	$2,869
Subtotal - Basic Services Section	163	106	450	1121	120	470	140	74	271	93	$450,176	$4,500	$44,180	$454,676	$44,180	$498,856

December 7, 2023

Garver
5215 Research Drive NW
Huntsville, Alabama 35805

ATTN: Mr. Wes Cardwell, P.E.

SUBJECT: Proposal for Geotechnical Engineering Study
Limestone Creek Gravity Line
Huntsville, Alabama
GTEC Proposal No. P-00114 Revision 1

Ladies and Gentlemen,

GTEC, LLC is pleased to provide this proposal for a Geotechnical Engineering Study for the above referenced project in Huntsville, Alabama. Project information was provided by Mr. Wes Cardwell during a telephone conversation on October 25, 2023. On December 7, 2023, Mr. Cardwell provided a revised layout which extends the alignment. This revised proposal describes the site and presents a planned scope of services, fee, and anticipated schedule.

PROJECT INFORMATION

GTEC, LLC understands that Garver is designing a gravity sewer line and triplex pump station in Huntsville, Limestone County, Alabama for the City of Huntsville Water Pollution Control. The sewer line will be approximately 20,000 feet in length and will run north to south adjacent to Greenbrier Parkway and Limestone Creek from Mooresville Road to Old Highway 20. The sewer line will cross under Limestone Creek where it intersects with Greenbrier Parkway. We anticipate horizontal direction drilling (HDD) will be used at the Limestone Creek crossing. The sewer line will also cross under Greenbrier Parkway near its northern end. We anticipate jack and bore will be used for the roadway crossing. The lift station dry well will be approximately 35 feet deep.

GTEC has experience drilling between Greenbrier Parkway and Limestone Creek in the middle portion of the proposed alignment and encountered rock between depths of 12 and 18.5 feet. Portions of the proposed alignment are heavily wooded.

SCOPE OF SERVICES

The purpose of our study is to explore the subsurface conditions and groundwater levels in order to provide recommendations for construction planning. To accomplish this objective, we have developed the following scope of services.

Utility Location and Site Access

We will contact Alabama One Call prior to the performance of our field services. The utility location services will only mark registered public utility lines; therefore, we will need assistance in locating private lines or underground structures.

Portions of the proposed alignment are in heavily wooded areas adjacent to Limestone Creek. GTEC will subcontract clearing services to clear paths for our drilling equipment to access these locations.

Boring locations will be marked using a hand-held GPS unit. If a topographic survey is provided, boring elevations can be estimated by interpolating between contour lines. If more accurate location and elevation are needed, we recommend our boring locations be surveyed.

Field Activities

GTEC proposes to explore the subsurface conditions with twenty two (22) soil test borings during this study. Sixteen (16) borings along the sewer line will be advanced to a depth of 30 feet, or auger refusal, whichever occurs first. Two (2) borings at the Limestone Creek crossing will be advanced to a depth of 40 feet, or auger refusal, whichever occurs first. Two (2) borings at the pump station will be advanced to a depth of 50 feet, or auger refusal, whichever occurs first. If auger refusal is encountered above the proposed termination depth in the borings at the Greenbrier Parkway crossing, the Limestone Creek crossing, or the pump station, we will advance one boring at each location to the planned termination depth or an additional 10 feet, whichever is less, using NQ rock coring techniques. Standard penetration tests (SPT) in accordance with ASTM D1586 will be conducted in conjunction with the soil test borings. The SPT tests will be performed at 2-½ foot intervals in the upper 10 feet and at 5-foot intervals thereafter to boring termination or auger or SPT refusal. Pocket penetrometer readings may be taken on each sample and recorded on the Boring Log. Upon completion, subsurface water will be measured and recorded in each borehole. Boreholes at the Greenbrier Parkway crossing and Limestone Creek crossing will be grouted to the surface using cement grout. The remaining borings will be backfilled with soil auger cuttings.

A member of our staff will supervise the drilling activities and visually classify the soil samples in general accordance with ASTM D2488, the Standard Practice for Description and Identification (Visual-Manual Procedure). Based on the anticipated conditions, we plan to perform the following laboratory tests on select samples:

- Natural Moisture Content (Soil), ASTM D2216
- Atterberg Limits, ASTM D4318
- Particle Size Analysis, ASTM D422
- Unconfined Compression of Soil, ASTM D2166
- Rock Core Unconfined Compression Strength, ASTM D7012 Method C

Engineering Evaluation and Report

After our analyses are complete, we will issue a written report describing the exploration and outlining our recommendations. The report will include the following:

- Our understanding of the planned project,
- A summary of existing site conditions, site geology, and topography,
- Records of field tests outlining the materials encountered at the test locations,
- Results of laboratory tests performed to provide information regarding the engineering characteristics of the subsurface materials,
- Recommendations for soil parameters correlations, including soil density, undrained shear strength for cohesive soils, internal angle of friction for cohesionless soils, hydraulic conductivity, Poisson's ration, and shear modulus,
- Recommendations for foundation type including bearing capacity and strata depth,
- Pavement thickness recommendations for the lift station access drive,
- Recommendation for seismic soil site class utilizing field and laboratory test results,
- Recommendations for soil and rock design parameters for uplift capacity,
- Values for lateral earth pressures for below grade walls,
- Groundwater concerns, if encountered, and
- If needed, recommendations for support of at grade structures at the pump station.

FEE AND SCHEDULE

At this time, we propose our services described for a lump sum fee of $44,180.00. Services not included in the scope can be added at our prevailing unit rates. We will schedule field activities upon receipt of this contract authorized by signature below and provide the planned dates of services. Final reports will be issued within seven to eight weeks of authorization. This proposal is valid if accepted within 60 days of issuance.

AUTHORIZATION

Should this proposal meet your objectives, please sign, date, and return. Signed authorization will constitute acceptance of the fee, schedule, and General Terms and Conditions, which are included with this proposal. Any modification to this proposal, the fee, schedule, or General Terms and Conditions must be accepted by both parties.

To Authorize this Proposal, please sign below:

Printed Name/Title	Company Name
Signature and Date	Billing Address
	Accounts Payable Email Address

CLOSING REMARKS

We appreciate this opportunity to be of service and look forward to working with you on this project. If you have any questions regarding this proposal or would like to discuss the proposed scope and budget, please do not hesitate to contact GTEC.

Respectfully,
GTEC

Caleb Russell
Caleb M. Russell, E.I.
Staff Engineer

Rachel T. Finch
Rachel T. Finch, P.E.
Senior Engineer

Attachments: General Terms and Conditions

ATTACHMENT 2 - ALABAMA IMMIGRATION ACT - REPORT OF OWNERSHIP FORM

CITY OF HUNTSVILLE, ALABAMA REPORT OF OWNERSHIP FORM

A. **General Information.** Please provide the following information:

- Legal name(s) (include "doing business as", if applicable): GARVER, LLC
- City of Huntsville current taxpayer identification number (if available): 4755
  (Please note that if this number has been assigned by the City and if you are renewing your business license, the number should be listed on the renewal form.)

B. **Type of Ownership.** Please complete the un-shaded portions of the following chart by checking the appropriate box below and entering the appropriate Entity I.D. Number, if applicable (for an explanation of what an entity number is, please see paragraph C below):

Type of Ownership (check appropriate box)	Entity I.D. Number & Applicable State
☐ Individual or Sole Proprietorship	Not applicable
☐ General Partnership	Not applicable
☐ Limited Partnership (LP)	Number & State:
☐ Limited Liability Partnership (LLP)	Number & State:
☐ Limited Liability Company (LLC) (Single Member)	Number & State:
☒ LLC (Multi-Member)	Number & State: 136653 - AL 01-0733400 - EIN
☐ Corporation	Number & State:
☐ Other, please explain:	Number & State (if a filing entity under state law):

711030983
AL TAX ID

C. **Entity I.D. Numbers.** If an Entity I.D. Number is required and if the business entity is registered in this state, the number is available through the website of Alabama's Secretary of State at: www.sos.state.al.us/, under "Government Records". If a foreign entity is not registered in this state please provide the Entity I.D. number (or other similar number by whatever named called) assigned by the state of formation along with the name of the state.

D. **Formation Documents.** Please note that, with regard to entities, the entity's formation documents, including articles or certificates of incorporation, organization, or other applicable formation documents, as recorded in the probate records of the applicable county and state of formation, ***are not required unless:*** (1) specifically requested by the City, or (2) an Entity I.D. Number is required and one has not been assigned or provided.

Please date and sign this form in the space provided below and either write legibly or type your name under your signature. If you are signing on behalf of an entity please insert your title as well.

Signature: _____ Title (if applicable): Regional Office Administrator

Type or legibly write name: JERRY D. McCARLEY Date: 1/6/12

Revised 12/7/2011

ATTACHMENT 3
CITY OF HUNTSVILLE STANDARDS AND DESIGN GUIDES

1. City of Huntsville Standard Specifications for Construction of Public Improvements. Contract Projects, 1991.

2. City of Huntsville Engineering Standards, 1991.

3. City of Huntsville Design and Acceptance Manual for Force Mains and Pump Stations, 2011.

4. City of Huntsville Design and Acceptance Manual for Sanitary Sewers, 2011.

5. Alabama Department of Transportation Standard Specifications for Highway Construction, Current Edition.

6. City of Huntsville Subdivision Regulations, 1991.

ATTACHMENT 4
DESIGN REVIEWS

0% COMPLETE – PRE-DESIGN CONFERENCE

The ENGINEER shall meet with the OWNER at a 0% complete - Pre-Design Conference. The OWNER's representative (Project Engineer) will be introduced.

CONFERENCE FORMAT

The pre-design meeting will we initiated by the OWNER. The purpose of the conference will be to give the ENGINEER an opportunity to discuss the design of the PROJECT, to visit the PROJECT site, to receive copies of OWNER -furnished documents, if applicable, and to meet the OWNER'S Project Engineer and other personnel working on the PROJECT.

ATTENDEES: (Required)

- ENGINEER
- ALDOT (as appropriate for the type of project)
- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning

DISCUSSION TOPICS :

- Authority of OWNERS representative (Written submittal made to the ENGINEER)
- Scope of Work
- Time Requirements
- Budget Restraints
- Testing Requirements
- Permit Responsibilities
- Design criteria
- LC&E requirements
- Plan Requirements
- Special Conditions
- Utility Project Notification and a list of all utilities that need to be contacted.
- Tree Ordinance

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

1. A Certificate of Insurance for the ENGINEER and the ENGINEER's sub-consultants shall be submitted to the OWNER's PROJECT ENGINEER per Section 10.6.

2. Prior to the Pre-Design Conference, a completed **draft** design criteria document shall be prepared to the best of the ENGINEER'S ability and in conformance with his fee proposal and will serve as the basis of a discussion topic during the Pre-Design Conference. A **final** version of the design criteria based upon discussion during the meeting shall be prepared by the ENGINEER and distributed with the meeting minutes. A copy of a design criteria format may be found on the City of Huntsville web site at http://www.huntsvilleal.gov/engineering/index.php.

3. Within seven (7) calendar days of the 0% Complete - Pre-Design Conference, the ENGINEER shall submit to the OWNER's Project Engineer two color copies and an electronic copy of a schedule in Microsoft Projects format showing the critical path and indicating the time frame for the required milestone events and submittals outlined in this document. The schedule shall support a PROJECT completion date in accordance with the Period of Services in Article 6. When approved, a baseline of the schedule shall be saved from which variances in the schedule can be measured and evaluated.

ATTACHMENT 4
DESIGN REVIEWS

30% COMPLETE – CONCEPTUAL DESIGN

This design review is to show the OWNER how the functional and technical requirements will be met, to indicate the ENGINEER's approach to the solution of technical problems, to show compliance with design criteria or to justify noncompliance and to provide an estimate of probable cost. A field review shall be conducted at this juncture with the OWNER's staff and the ENGINEER to review the proposed field alignment of the PROJECT.

CONFERENCE FORMAT

ATTENDEES: (Required)

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

DISCUSSION TOPICS:

- ENGINEER presents recommended design/solutions along with other options and alternatives considered.
- ENGINEER presents updates on progress of permitting requirements
- ENGINEER presents progress on coordination with other project participants such as the State of Alabama, sub consultants, etc.
- ENGINEER presents budgetary constraints

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

1. A preliminary list of all permits to be obtained with associated fees.
2. An updated schedule in Microsoft Projects format showing the critical path shall be submitted.
3. Two color copies and an electronic copy of an updated schedule in Microsoft Projects format showing the critical path shall be submitted.
4. One (1) complete set of all approved permits including Location, Character, and Extent.

ATTACHMENT 4
DESIGN REVIEWS

60% COMPLETE – PRELIMINARY DESIGN CRITERIA

The review of the PROJECT at this point is primarily to insure that funding limitations are not being exceeded and to insure that the contract documents, design analysis and cost estimates are proceeding in a timely manner, and that the design criteria and previous review comments are being correctly interpreted. An additional review may be required by the OWNER to review changes proposed from previous submittals.

CONFERENCE FORMAT

ATTENDEES: (Required)

- Real Estate
- Landscape Management
- Utilities
- Traffic Engineering
- Planning
- City of Huntsville Construction Project Manager
- City of Huntsville Inspector
- City of Huntsville Environmental Representative

DISCUSSION TOPICS:

- Additional land acquisition needs, as required.
- Utility Project Notification and a list of all utilities that need to be contacted.
- Technical specifications for special construction items not covered under standard specifications or deviations from standard specifications.
- Update on progress of permitting requirements.
- Erosion control plan requirements, if required by the OWNER.
- Budget constraints.
- Progress on coordination with other project participants such as the City of Huntsville Real Estate Officer (Engineering Department), State of Alabama, sub consultants, etc.

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Plan/Profile drawings shall be 75% complete. Right-of way drawings shall be 100% complete at this submittal (reference Real Estate Division Plan Requirements Section entitled DRAWINGS, included at the end of this proposal)

2. An update to the schedule in Microsoft Projects format showing the critical path shall be submitted.

3. Unless determined to be inapplicable by the OWNER, Hydraulic reports 75% complete, shall be submitted.

4. Three (3) copies of preliminary plans for utilities shall be submitted.

5. Legal descriptions for takings shall be submitted. The information shall be 100% complete. (reference Real Estate Division Plan Requirements Section entitled DESCRIPTIONS, included at the end of this proposal)

6. Traffic Control Plan, if required. Plan shall be 60% complete at this submittal.

7. Detailed preliminary construction cost estimate shall be submitted.

8. Results of geotechnical investigations shall be submitted.

9. A list of comments made at the 30% review and a summary of each resolution.

10. Two color copies and an electronic copy of an update to the schedule in Microsoft Projects format showing the critical path shall be submitted.

ATTACHMENT 4
DESIGN REVIEWS

90% COMPLETE – FINAL REVIEW

The review of this submittal is to ensure that the design is in accordance with directions provided the ENGINEER during the design process.

CONFERENCE FORMAT

DISCUSSION TOPICS

Discussion topics will be handled open forum.

REQUIRED SUBMITTALS TO THE PROJECT ENGINEER

1. One full size print copy and one ½ size print copy of all drawings that have incorporated previous comments shall be submitted. Submittals include Plan/Profile drawings, Construction Details, Detailed cross-sections with cut and fill quantities and storm and sanitary sewer crossings, Erosion control plan, if required, Technical specifications, Right-of way drawings, Traffic Control Plan, Plans for Utilities, Signed Acceptance of Utility Project Notification Form by all affected parties, Design Calculations, and a final cost estimate. All submittals shall be 100% complete.
2. Any changes to Land Acquisition needs shall be identified and Legal descriptions for the changes shall be submitted.
3. A list of comments made at the 60% review and a summary of each resolution.
4. Calculations showing how quantities were determined for each bid item and how the item is to be measured in the field and paid. Three bound copies of corrected quantity calculations to match bid quantities. The following shall be required for each item:
    - Item Number
    - Item Description with standard specification used
    - Detailed calculation to include all measurements, conversion factors, and "standard" weights used
    - Final "calculated" amount and any "increased" amounts
    - Notes to include any deviation from referenced standard specifications

ATTACHMENT 4
DESIGN REVIEWS

100% COMPLETE – READY TO ADVERTISE

After the 90% review, the ENGINEER shall revise the construction documents by incorporating any comments generated during the previous design reviews. The ENGINEER shall prepare final hard copy contract specifications, prepare a bid form, and update the cost estimate as necessary.

ATTACHMENT 5 - ENGINEERS PERSONNEL FEE SCHEDULE

Appendix D
City of Huntsville
Limestone Creek Sanitary Sewer Interceptor and Pump Station
Garver Hourly Rate Schedule: July 2023 - June 2024

Classification	Rates
Engineers / Architects	
E-1	$ 125.00
E-2	$ 149.00
E-3	$ 175.00
E-4	$ 199.00
E-5	$ 240.00
E-6	$ 275.00
E-7	$ 380.00
Planners	
P-1	$ 145.00
P-2	$ 175.00
P-3	$ 215.00
P-4	$ 250.00
P-5	$ 290.00
Designers	
D-1	$ 120.00
D-2	$ 142.00
D-3	$ 160.00
D-4	$ 189.00
Technicians	
T-1	$ 105.00
T-2	$ 116.00
T-3	$ 140.00
T-4	$ 169.00
Surveyors	
S-1	$ 57.00
S-2	$ 74.00
S-3	$ 99.00
S-4	$ 125.00
S-5	$ 179.00
S-6	$ 215.00
2-Man Crew (Survey)	$ 216.00
3-Man Crew (Survey)	$ 265.00
2-Man Crew (GPS Survey)	$ 237.00
3-Man Crew (GPS Survey)	$ 289.00
Construction Observation	
C-1	$ 115.00
C-2	$ 149.00
C-3	$ 205.00
C-4	$ 260.00
C-5	$ 270.00

Classification	Rates
Resource Specialists	
RS-1	$ 100.00
RS-2	$ 139.00
RS-3	$ 196.00
RS-4	$ 256.00
Environmental Specialists	
ES-1	$ 100.00
ES-2	$ 133.00
ES-3	$ 161.00
ES-4	$ 199.00
ES-5	$ 250.00
ES-6	$ 293.00
ES-7	$ 376.00
ES-8	$ 425.00
Project Controls	
PC-1	$ 103.00
PC-2	$ 142.00
PC-3	$ 180.00
PC-4	$ 231.00
PC-5	$ 282.00
Administration / Management	
AM-1	$ 72.00
AM-2	$ 97.00
AM-3	$ 136.00
AM-4	$ 172.00
AM-5	$ 212.00

ALL RATES WILL REMAIN IN EFFECT THROUGH THE DURATION OF THE PROJECT. RWC

ATTACHMENT 6 - PROGRESS REPORT
(Article 8)

PROGRESS REPORT NO. _____ FOR MONTH AND YEAR _____

PROJECT _____ PROJECT NO. _____

DATE _____ CITY'S PROJECT ENGINEER _____

CONSULTANT _____CONSULTANT'S PROJ. MAN. _____

CURRENT MONTH % COMPLETE: _____ PREV. MONTH % COMPLETE: _____

ATTACH A "SHOULD HAVE STARTED TASKS REPORT" AND A "SLIPPING TASKS REPORT" FROM MICROSOFT PROJECTS THAT LISTS ALL ACTIVITY THAT IS BEHIND SCHEDULE.

ATTACH A "TASKS STARTING SOON" REPORT FROM MICROSOFT PROJECTS WITH A DATE RANGE OF THIRTY (30) DAYS AFTER THE DATE OF THIS PROGRESS REPORT.

STATE WHAT ACTION IS BEING TAKEN TO BRING PROJECT BACK TO SCHEDULE:

_____
_____
_____

MILESTONE SUBMITTALS	SCHEDULED DATE	ACTUAL DATE
30%	_____	_____
60%	_____	_____
90%	_____	_____
100%	_____	_____
"FINAL" INVOICE SUBMITTED		_____
SUBCONSULTANTS PAID IN FULL		_____
CONTRACTED COMPLETION DATE:	August 22, 2024	_____

(These scheduled dates shall be agreed upon at the beginning of the project (Attachment 4) with the Project Engineer and noted monthly on each progress report. The scheduled contract completion date shall not be changed except by contract change order. Changes to the scheduled milestone submittal dates shall be accompanied by a new project schedule approved by the OWNER'S Project Engineer.)

UPDATED SCHEDULE ATTACHED? _____ YES _____ NO
*If yes, send an electronic copy to the Project engineer

COMMENTS:

_____
_____
_____

This progress report (4 copies) shall be submitted monthly. Scheduled completion dates will not be extended without a contract modification.

CERTIFICATION: I certify that the stated information is true and accurate to the best of my knowledge.

_____ _____

CONSULTANT DATE CITY PROJECT ENGINEER DATE

ATTACHMENT 7 - SUB CONSULTANTS ENGAGED BY THE ENGINEER

(Article 9.2)

CONSULTANT NAME AND ADDRESS	DESCRIPTION OF SERVICES	FEE
GTEC, L.L.C. 4890 University Square Suite 2 Huntsville, AL 35816	Geotechnical Engineering Study	$44,180.00
	SUB-TOTAL	$44,180.00
	5% Administrative Fee	$2,209.00
	TOTAL	$46,389.00

ATTACHMENT 8 - CONTRACT DOCUMENT REQUIREMENTS LIST

REQUIREMENT	SUBMIT TO	SUBMITTAL REQUIREMENT DATE	NUMBER OF COPIES	REFERENCE SECTION OF CONTRACT AND COMMENTS
Deviations from OWNER's standards.	OWNER	Prior to incorporating deviations.	2	Article 2.5
Products or materials specified by the ENGINEER that are available from only one source.	OWNER	Prior to 100% submittal.	2	Article 2.2
ADA grades, elevations and layout	OWNER	90% review, 100% complete	2	Article 2.6
Approval of ENGINEER's Request for Payment.	OWNER	Within ten (10) days of receipt of the request from the ENGINEER.	N/A	Article 3.4
Approval of ENGINEER submittals	OWNER	So as to cause no delay to the ENGINEER or the PROJECT.	N/A	Article 3.8
Change order changes that reduce construction requirements.	OWNER	Prior to authorizing a change.	N/A	Article 3.11
Any information pertaining to any claim.	OWNER	Immediately	2	Article 3.12
Information pertinent to the PROJECT, all criteria and full information as to OWNER's requirements, copies of all design and construction standards.	ENGINEER	So as to not delay the services of the ENGINEER.	2	Article 5.1, 5.2
Notification of delays.	ENGINEER; OWNER	Promptly	4	Article 6.1
ENGINEER's monthly invoices.	OWNER	Monthly	4	Article 8.1.1
Consultant progress report.	OWNER	Monthly	4	Article 8.1.1
Records, data, parameters, design calculations and other information.	OWNER	Cancellation of contract.	2	Article 9.7
Documentation, records of reimbursable expenses, record copies of all written communications, and any memoranda of verbal communications related to the PROJECT.	OWNER	Upon notice from the OWNER.	2	Article 9.4
Termination notification.	OWNER or ENGINEER	7 days prior to termination.	2	Article 9.10 & 9.11
Certificate of Insurance for ENGINEER.	OWNER	At 0% design conference	1	Article 10.2(B), 10.6, and Attachment 4.

Insurance cancellation, suspension, or reduction in coverage or limits.	OWNER	30 days prior to effective date except for cancellation which is 10 days notification.	1	Article 10.4(A)
Certificate of insurance for sub consultants/subcontractors.	OWNER	At 0% design conference.	1	Article 10.7
A schedule in Microsoft Projects format showing the critical path.	Project Engineer	Within 7 calendar days of Pre-design conference, 30% complete design review. 60% design review. Attachment 6	1 hard; 1 digital	Attachment 4
Drawings.	Project Engineer	30% complete design review, 60% design review, 90% review, and 100% complete.	3	Attachment 4
Cost estimate.	Project Engineer	30% complete design review, 60% review, 90% review, and 100% complete.	3	Attachment 4
Hydraulic reports.	Project Engineer	60% design review.	2	Attachment 4
Preliminary plans for utilities.	Project Engineer	60% design review.	3	Attachment 4
Real Estate Deliverables	Project Engineer	60% design review, 90% review, 100% complete.	Reference Real Estate Division Plan Requirements	Attachment 4, 14 Real Estate Plan Requirements at end of this proposal document
Traffic Control plan.	Project Engineer	60% design review.	N/A	Attachment 4
Results of geotechnical investigations.	Project Engineer	30% design review.	2	Attachment 4
Technical specifications.	Project Engineer	90% review, 100% complete.	N/A	Attachment 4
Relocation of Utilities	Project Engineer	0% review – list of all utilities that need to be contacted 60% review – from all affected parties 90% review – Signed Acceptance Utility Project Notification Form	2	Attachment 4, 10
Design Calculations	Project Engineer	90% review, 100% complete	1	Attachment 4
Digital copy of drawings.	Project Engineer	100% complete – 1 in .dgn format; 1 in .tiff or .pdf format	2	Attachment 4
Digital text files.	Project Engineer	100% complete.	1	Attachment 4
Bid Quantities.	Project Engineer	100% complete. Digital in Excel 2003 format and hard copy	3	Attachment 4
Permits and Permit Applications	Project Engineer	100% complete.	1	Attachment 4
Field notes.	Project Engineer	100% complete.	1	Attachment 4
Digital aerial photography.	Project Engineer	100% complete.	1	Attachment 4

Progress Report (Art. 8)	Project Engineer	30% complete design review, 60% design review, 90% design review, 100% completion stage.	4 hard; 1 digital monthly	Attachment 4

ATTACHMENT 9 - REQUIREMENTS FOR DOCUMENT SUBMITTALS

DRAWINGS

All drawings shall be sized 24" x 36", unless otherwise approved by the OWNERS Project Engineer.

Title blocks shall as a minimum, contain the name of the project, date, city project number, and ENGINEER's name. The title block of drawings shall contain a space for the names of the preparer and the reviewer and/or checker. These blocks shall be signed on each submittal (See Attachment "11" for sample standard drawing format). Drawings shall contain alphanumeric revision designations. Drawings issued for review shall be issued with alpha revision designation and the revision letter shall be changed for each submittal containing drawing changes. Drawings issued for construction shall be issued with numeric designation at revision level "0" and described as "Issued for Construction" in the revision description block. Subsequent drawing changes require the revision level to be raised using successively higher numbers and the changes to be marked by circling and briefly described in a revision block.

All drawings shall be prepared in Micro station .DGN format, unless otherwise approved by the OWNERS Project Engineer. Transmittal letters shall consist of a list of files being submitted, a description of the data in each file, and a level/layer schematic of each design file. DGN design files shall have working units as follows: master units in feet, no sub-units, and 1,000 positional units. All data submitted shall use NAD 1983 Alabama East Zone horizontal datum and NAVD 88 vertical datum coordinates.

Unless otherwise specified by the Owners Project Engineer, all drawings for review submittals shall be full or half-size copies. All documents shall be clearly marked in a revision block indicating the applicable submittal milestone, i.e. 30%, 60%, 90%, etc.

OTHER DOCUMENTS

Submittals required by the State of Alabama for their review, bidding, etc., shall be of the size, form and numbers of copies as the state may require even though such submittals may differ from the submittals set forth as being required elsewhere in this Agreement.

Digital files shall be submitted by 4-3/4" CD ROM, DVD, 3 and 1/2 inch floppy disk, flash drive, or to the City of Huntsville F.T.P. site.

All print copies shall be first generation copies.

All text documents shall be prepared in Microsoft Word 2010 format.

All spreadsheets shall be in Microsoft Excel 2010 format.

All PDF files shall be searchable.

Schedules shall be in Microsoft Projects format, unless otherwise approved by the OWNERS Project Engineer.

Aerial photography files shall be in Intergraph (.COT) or (.tiff) format.

All mapping shall meet National Map Accuracy Standards unless otherwise noted. If National Map Accuracy Standards are not met, the accuracy of the map shall be identified to the Owners Project Engineer and on the maps derived from the aerial survey. National Map Accuracy Standards are shown below. This and other map standards are shown in Department of the Army, US Army Corps of Engineers standard, "EM 1110-1-1000, Engineering and Design - Photogrammetric Mapping."

All final drawings, specifications, plans, calculations, letters containing Engineering or Surveying recommendations or other Engineering or Land Surveying papers or documents involving the practice of engineering or land surveying as defined by Code of Alabama, Title 34, Chapter 11 shall be sealed, dated, and bear the signature of the person who prepared or approved them.

Working drawings or other documents shall contain a statement to the effect "Preliminary-Not for construction, recording purposes or implementation."

ATTACHMENT 10 – UTILITY PROJECT NOTIFICATION FORM

NAME:_____
(Utility Name)

PROJECT NAME: _____ **PROJECT NUMBER:**_____

CONSULTING ENGINEER: _____
(Name)

ENGINEERING REPRESENTATIVE_____**PHONE:**_____

I have reviewed design drawings or other information as available, and:

DO _____ **DO NOT** _____

have facilities that will require relocation. If relocation is required, a construction duration of _____ calendar days from the Notice to Proceed, is anticipated to be required for relocation.

LIST NAME(S) OF OTHER UTILITY(S) that share poles or facilities that have to be relocated prior to YOU starting your work:

NAME OF UTILITY:_____

NAME OF UTILITY:_____

NAME OF UTILITY: _____

OTHER: _____

COMMENTS: _____

BY: _____
AUTHORIZED REPRESENTATIVE

FIELD CONTACT PERSON: _____ **PHONE:** _____
OFFICE CONTACT PERSON: _____ **PHONE:**_____

DATE:_____

CONSTRUCTION PLANS FOR

PROJECT NAME

PROJECT INFORMATION

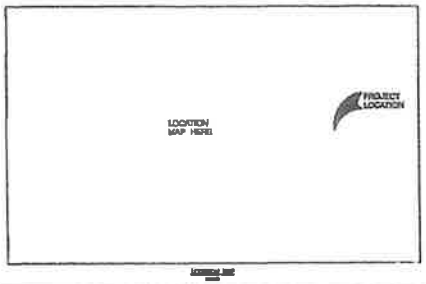
FOR THE

CITY OF HUNTSVILLE

HUNTSVILLE, ALABAMA

(PROJECT NO. XXXXXXXXX)

SAMPLE STANDARD DRAWING FORMAT



HUNTSVILLE
The Star of Alabama

INDEX OF DRAWINGS

SHEET NO. TITLE

INDEX TO DRAWINGS SHALL BE PLACED ON COVER SHEET IF POSSIBLE, OTHERWISE IT SHALL BE THE SECOND SHEET IN THE SET.

SPACE RESERVED FOR "AS" DATA, LOCO, FILE NUMBER, ETC.

AREA RESERVED FOR "PE" SEAL

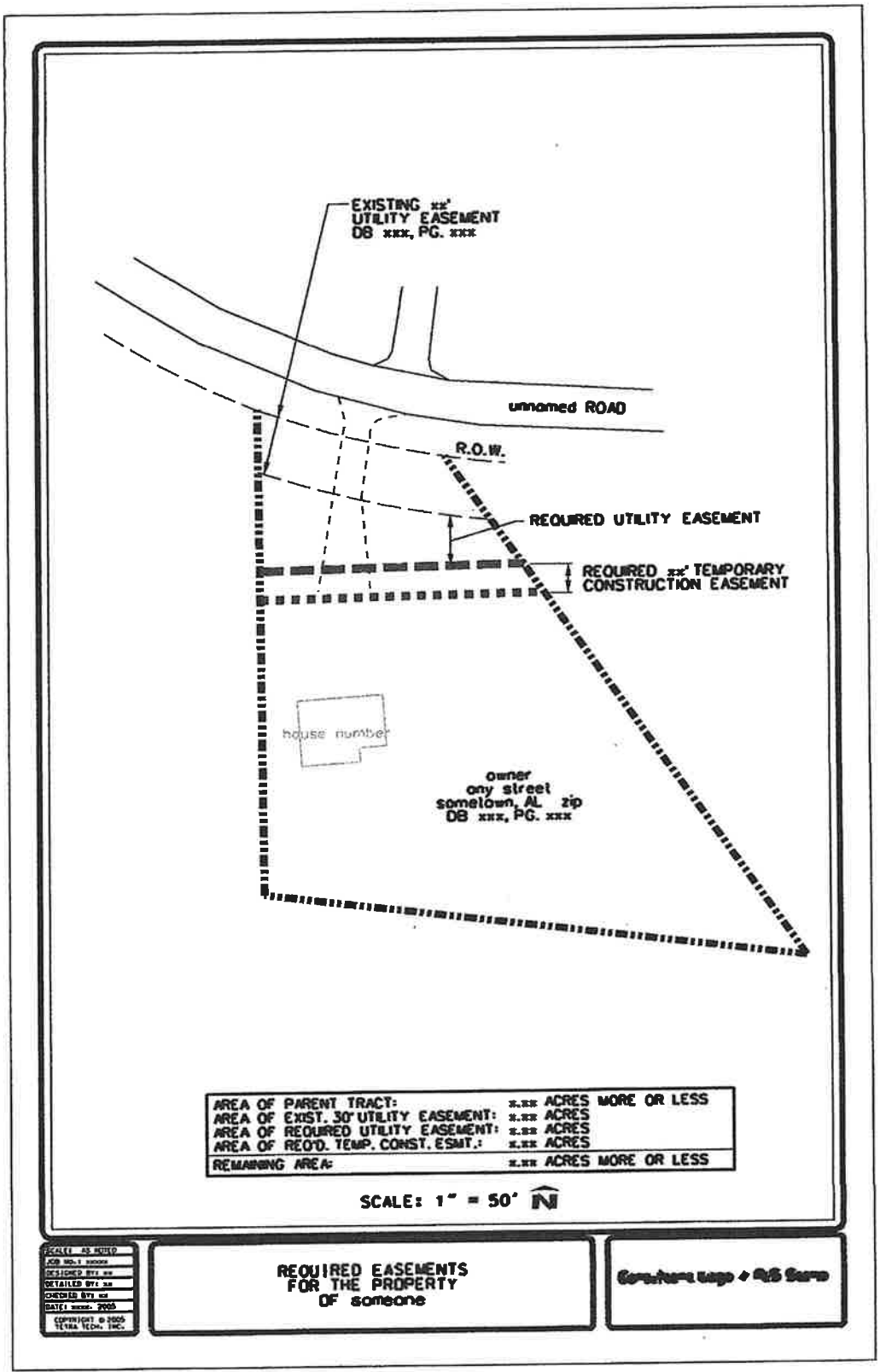
TITLE SHEET

PROJECT NAME AND INFORMATION
CITY OF HUNTSVILLE
HUNTSVILLE, ALABAMA

SH OF SH

ATTACHMENT 11

ATTACHMENT 12
SAMPLE



...\easementtemplate_V7.dgn 3/17/2006 12:11:14 PM

ATTACHMENT 13

United States National Map Accuracy Standards

With a view to the utmost economy and expedition in producing maps which fulfill not only the broad needs for standard or principal maps, but also the reasonable particular needs of individual agencies, standards of accuracy for published maps are defined as follows:

1. ***Horizontal accuracy.*** *For maps on publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: monuments or markers, such as bench marks, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc. In general what is well defined will be determined by what is plottable on the scale of the map within 1/100 inch. Thus while the intersection of two road or property lines meeting at right angles would come within a sensible interpretation, identification of the intersection of such lines meeting at an acute angle would obviously not be practicable within 1/100 inch. Similarly, features not identifiable upon the ground within close limits are not to be considered as test points within the limits quoted, even though their positions may be scaled closely upon the map. In this class would come timber lines, soil boundaries, etc.*

2. ***Vertical accuracy,*** *as applied to contour maps on all publication scales, shall be such that not more than 10 percent of the elevations tested shall be in error more than one-half the contour interval. In checking elevations taken from the map, the apparent vertical error may be decreased by assuming a horizontal displacement within the permissible horizontal error for a map of that scale.*

3. ***The accuracy of any map may be tested*** *by comparing the positions of points whose locations or elevations are shown upon it with corresponding positions as determined by surveys of a higher accuracy. Tests shall be made by the producing agency, which shall also determine which of its maps are to be tested, and the extent of the testing.*

4. ***Published maps meeting these accuracy requirements*** *shall note this fact on their legends, as follows: "This map complies with National Map accuracy Standards."*

5. ***Published maps whose errors exceed those aforestated*** *shall omit from their legends all mention of standard accuracy.*

6. ***When a published map is a considerable enlargement*** *of a map drawing (manuscript) or of a published map, that fact shall be stated in the legend. For example, "This map is an enlargement of a 1:20,000-scale map drawing," or "This map is an enlargement of a 1:24,000-scale published map."*

7. ***To facilitate ready interchange and use of basic information for map construction*** *among all Federal mapmaking agencies, manuscript maps and published maps, wherever economically feasible and consistent with the uses to which the map is to be put, shall conform to latitude and longitude boundaries, being 15 minutes of latitude and longitude, or 7.5 minutes, or 3-3/4 minutes in size.*

U.S. BUREAU OF THE BUDGET

ATTACHMENT 14

ENGINEERING DEPARTMENT - REAL ESTATE DIVISION
PLAN REQUIREMENTS

DRAWINGS:
Individual Parcels

- Each individual parcel 8 ½" x 14" (dgn or dxf format)
- Show Calculations
  - Before
  - After
  - Taking
- ***All Parcels shall be closed shapes (polygons).***
- Show Existing and Proposed Right-of-Way on each individual parcel map.
- Property Ownership

Overall Project Land Acquisition Maps

- Total project drawing in dgn or dxf format
- Indicate the following:
  - Stationing on Centerline
  - Existing Right-of-Way
  - Proposed Right-of-Way
  - Existing Easements
  - Proposed Easements
  - Existing Pavement
  - Proposed Pavement/Sidewalks/Structures
  - Existing Structures
  - Property Ownership

Color Standards *(SAMPLE)*

Description	Color	Line Style	Type
Existing ROW	Red	Medium Dashed	
Proposed ROW	Red	Solid	Closed Polygon
Existing Easements	Orange	Medium Dashed	
Proposed Easements	Orange	Solid	Closed Polygon
TCE	Pink	Solid	Closed Polygon

DESCRIPTIONS:

- Microsoft Word on 3.5" Diskette or CD
- Each Description shall be complete and independent (separate file).
- Hard Copies signed and stamped by PLS.

GENERAL:

- P.K. Nails or other permanent stationing markings shall be required.
- Re-staking of right-of-way or easements may be required (See Article 4).
- All survey plats to be on Alabama State Plane Datum. Strip Maps shall indicate at least 2 monuments in place with Alabama State Plane Coordinate values shown on each.
- Parcel plats and legal descriptions shall indicate the Alabama State Plane Coordinate NAD83 Alabama East Zone Value of the point of beginning.

ATTACHMENT 15 - GIS BASE MAP

DESIGN LEVEL	CONTENTS	LINE CODE	COLOR	WEIGHT	TEXT SIZE	FONT	CELL NAME
1	State Plane Coordinate Grid	0	0	0	20	0	
2	Benchmarks	0	0	0			
3	Private Street Text	0	105	0	20	0	
3	Street Text	0	3	0	20 (or 18)	0	
4	Street R/W	7	0	0			
5	Street Centerline	7	0	0			
6	Street Pavement	0	3	0			
6	Proposed Street Pavement	3	16	0			
6	Private Streets	0	105	0			
6	Proposed Private Road	3	105	0			
7	Parking Lots	1	3	1			
7	Private Lots used as Roads	1	105	1			
8	Secondary Roads--Private	2	105	0			
8	Secondary Roads	2	3	0			
8	Trails	3	3	0			
9	Secondary Roads/Trails Text	0	3	0	20	0	
10	Sidewalks	5	3	0			
11	Bridges/Culverts/Paved Ditches	0	0	0			
12	Hydrology - Major	6	1	0			
12	Hydrology – Minor, Ditches	7	1	0			
13	Hydrology - Text	0	1	0	25	23	
14	Tailings & Quarries, Athletic Fields/Text, misc. areas	0	1	0			
15	Greenways	3	48	0			
16	Speed Tables	0	3	0			TCALM
17	Railroad Tracks (Patterned)	0	2	0			RR
18	Railroad Text	0	2	0	25	0	
19	Railroad R/W	2	2	0			
20	Utility Poles (Cell)	0	5	0			P POLE
21	Utility Easements	3	5	0			
22	Utility Text	0	5	1			
23	Geographic Names	0	3	1			
24	Building Structures	0	0	0			
24	Pools and Text	0	1	0	10	1	
24	Future Site of Structures	2	0	0			STRUCT
24	Existing Structures (exact location and shape unknown)	2	0	0			STRCEX
25	Property Lines/ refuge bdy.	6	6	1	30	1	
26	Cadastral Polygons	6	6	0			
27	Ownership Text	0	6	1			
28	Cemeteries/Text	4	6	0	10	1	
29	Lot Numbers				25	0	
30	Block Numbers				30	0	
31	Addition Names	0	0	0	35	0	
32	Open						
33	Lot Ticks						
34	Lot Lines/Property Lines	6	6	0			
35	Trees/Hedge Rows	0	6	0	AS=1		TREES
36	GPS Monuments	0	5	0	18	23	CONTRL

37	2' Topo Contour						
38	5' Topo Contour	0	7	0			
39	25' Major Topo Contour	0	7	0			
40	X Spot Elevation	0	7	0			
41	FEMA Monuments/Labels	0	3/0	0	18	1	FEMA
42	Quarter Sections						
43	Section Lines	0	5	0			
44	Features	0	2	0			
44	Cell Towers	0	12	0	AS=1		CELTWR
45	Fences (Pattern)	0	8	0	AS=1		FENCE
46	Format/Legend	0	0	0			Limleg Madleg
47	Mass Points	0	7	2			
48	Break Lines	0	7	2			
49	Open						
50	Billboards	0	37	1			BBOARD
51	Sanitary Sewer	0		3			
52	Sanitary Sewer Text						
53	Storm Water Features	0		3			
54	Storm Water Text						
55	Open						
56	Property Address	0	1	0			
57	Text Tag for Buildings	0	1	0	10-20	1	
58	One Way Arrows	1	3	1			
59	Open						
60	Open						
61	Open						
62	Monuments for Setup (point cell)						
63	Open						

ATTACHMENT 16 – REQUIRED DELIVERABLES

Checklist must be submitted at 100% review and with final invoice.

This is a submittal only. **Return this sheet with submittal**

YES	NO		REQUIRED SUBMITTALS TO THE PROJECT ENGINEER
☐	☐	1.	Two (2) sets of complete construction drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system, NAD1983 Alabama East Zone as described in the Code of Alabama (1975), Section 35-2-1. Surveys shall be tied to a minimum of two accepted GPS monuments or one GPS tie point plus an astronomic observation to determine grid north or GPS Survey.
☐	☐	2.	One (1) Micro station digital and One (1) digital file in either .tiff or .pdf format of construction drawings (must be signed and sealed) – sized 11" x 17".
☐	☐	3.	Two (2) sets of right-of-way drawing prints sized 24" x 36" sealed and marked "ISSUED FOR CONSTRUCTION". Drawings information shall be referenced to Alabama State Plane Coordinate system. NAD1983 Alabama East Zone
☐	☐	4.	One (1) Micro station digital file of right-of-way drawings.
☐	☐	5.	Two (2) print sets of 8-1/2" x 11" legal descriptions for right-of-way (REVISED SETS ONLY)
☐	☐	6.	One (1) digital text file of legal descriptions for right-of-way (REVISED FILE ONLY)
☐	☐	7.	One (1) print copy of Final Construction Cost Estimate.
☐	☐	8.	One (1) digital spread sheet file of Final Construction Cost Estimate.
☐	☐	9.	Three (3) printed and bound copies of corrected quantity calculations to match Final Bid Quantities.
☐	☐	10.	One (1) digital spread sheet file (Excel 2003 format) of Final Bid Quantities.
☐	☐	11.	Two (2) print sets of contract specifications.
☐	☐	12.	One (1) digital text file of contract specifications.
☐	☐	13.	One (1) complete set of signed and sealed calculations.
☐	☐	14.	One (1) complete set of permits for COH signature and Engineer's submittal to include but not limited to USACE, ADEM NPDES NOI, ETC. This package will also include CBMPP, ALDOT Maintenance, ROW and utility permit Applications for ALDOT Funded Projects as required.
☐	☐	15.	One (1) complete set of all field notes.
☐	☐	16.	One (1) copy of digital aerial photography obtained for this PROJECT in (.tif) format, as necessary.
☐	☐	17.	Utility Project Notification forms and a list of all utilities that need to be contacted.

_____ Engineer