

County of Georgetown, South Carolina

129 Screven Street, Suite 239 · Georgetown, SC 29440-3641
Post Office Box 421270, Georgetown, SC 29442-4200
(843)545-3083 · Fax (843)545-3500 · purch@gtcounty.org

Request for Design-Build Qualifications

BID NUMBER: 16-076

ISSUE DATE: Friday, January 13, 2017

OPENING DATE: Wednesday, February 15, 2017 **OPENING TIME: 3:00 PM (Eastern NIST)**
Bid Opening Location: Georgetown County Courthouse, Suite #239, (Purchasing Conference Room)

Pre-Bid Conference/Site Inspection: MANDATORY, Wednesday, January 25, 2017 at 10:30AM

PROCUREMENT FOR: Design-Build Services for Department of Social Services (DSS) Facility
Commodity Code(s): 15510, 96820, 90638, 90610

Subject to the conditions, provisions and the enclosed specifications, sealed bids will be received at the location and time stated herein and will be publicly opened and read.

MAILING ADDRESS:

County of Georgetown
Post Office Drawer 421270
Georgetown SC 29442-2400
Attn: Purchasing

STREET ADDRESS:

Georgetown County Courthouse
129 Screven Street, Suite 239
Georgetown SC 29440-3641
Attn: Purchasing

IMPORTANT OFFEROR NOTES:

- a) The Bid Number & Title must be shown on the OUTSIDE of the delivery package.
- b) Federal Express will NOT guarantee delivery to Georgetown, SC before 4:30 PM Eastern Time on Next Day Service.
- c) UPS WILL guarantee delivery to Georgetown, SC before 10:30 AM Eastern Time on Next Day "Early AM" Service.
- d) CAUTION: The only official source for this document is the one cited in this solicitation. Not getting this document directly from that source could mean that this document has been superseded by a later version or altered by addenda. Only those requesting this document from the advertised source will be included on a mailing list for updates. The Owner is not responsible for any reader's failure to heed this warning.

Purchasing Contacts:

Ann Puckett

Phone (843)545-3083

Fax: (843)545-3500

E-mail: apuckett@gtcounty.org

Kyle Prufer

(843)545-3082

(843)545-3500

kprufer@gtcounty.org

This solicitation does not commit Georgetown County to award a contract, to pay any cost incurred in the preparation of the bid, or to procure or contract for goods or services. It is the responsibility of each bidder to see that the Georgetown County Purchasing Office receives bids on, or before, the date and time specified for the bid opening. No bid will be accepted thereafter. The County assumes no responsibility for delivery of bids that are mailed. Georgetown County reserves the right to reject any or all bids and to waive any informalities and technicalities in the bid process.



Intent to Respond

REF: Procurement #16-076, Design-Build Services for Department of Social Services (DSS) Facility

If your company intends to respond to this solicitation, please complete and promptly return this form to assure that you can be included on the mailing list to receive all addenda regarding this project.

It is not necessary to return any other portion of the bid documents if you are not bidding.

Failure to return the Intent to Respond shall not be sufficient cause to rule a submittal as non-responsive; nor does the return of the form obligate an interested party to submit a response. Georgetown County's efforts to directly provide interested parties with addenda or additional information are provided as a courtesy only, and do not alleviate the respondent from their obligation to verify they have received and considered all addenda. All addenda are published and available on the county website at www.gtcounty.org select "purchasing" and "current bids".

Our firm **does** intend on responding to this solicitation.

Our firm **does not** intend on responding to this solicitation.

Company Name: _____

Address: _____

Contact Person: _____

Telephone: _____

FAX: _____

E-Mail: _____

Please return this completed form to Kyle Prufer, Purchasing Officer:

- by e-mail to purch@gtcounty.org
- or by FAX to (843)545-3500.

[End of Intent to Respond]

Time Line: RFQ #16-076

Item	Date	Time	Location*
Advertised Date of Issue:	Friday, January 13, 2017	n/a	n/a
MANDATORY Pre-Bid & Site Inspection:	Wednesday, January 25, 2017	10:30 AM ET	Beck Rec†
Deadline for Questions:	Wednesday, Feb. 08, 2017	3:00 PM ET	Suite 239
Submittal Must be Received on/or Before:	Wednesday, Feb. 15, 2017	3:00 PM ET	Suite 239
RFQ Opening & Tabulation:	Wednesday, Feb. 15, 2017	3:00 PM ET	Suite 239
Owner Establishes Shortlist Firm Ranking	Wednesday, March 01, 2017	n/a	n/a
Owner Establishes Top Ranked Offeror	Friday, March 24, 2017	n/a	n/a
County Council Consideration	Tuesday, April 11, 2017	5:30 PM ET	Chambers
Notice to Proceed May be Issued After:	Monday, April 24, 2017	n/a	n/a
Final Completion	365 Days from NTP	n/a	n/a

*All locations in the Old County Courthouse, 129 Screven Street, Georgetown, SC unless otherwise stated.

†Beck Recreation Center, 2030 W Church St, Georgetown, SC 29440 (See Page 8, No. 3).

RFQ #16-076

Design-Build Services for Department of Social Services (DSS) Facility

I) Introduction

1) Purpose of Procurement

- (a) Georgetown County hereinafter referred to as “Owner”, will undertake the design and construction of a new Department of Social Services (DSS) Facility to be located on three parcels acquired for the purpose located at NW Corner of West Church Street and Lafayette Circle within the Georgetown City limits, (TMS #05-0007-003-00-00, TMS #05-0007-004-00-00, and TMS #05-0007-005-00-00), and bounded by Dekalb Street in the rear. The facility site is not inside the Georgetown City historic overlay zone.

This new, approximately 15,000 (+/-) sq ft facility, is to be built to replace the current facility located at 330 Dozer Street. The existing facility will remain in use until completion of the new building.

The project will be a one story structure approximately 15,000 sf to accommodate a projected 72 employees. The site is located with-in the City of Georgetown in the existing “Georgetown County Human Resources Complex Planned Development” (PD) at the intersection of Lafayette, and West Church. The project is part of this previously approved PD in which the retention pond is designed to accommodate the storm water runoff. All moveable furniture will be provided by the Lessee to include all chairs, desks, workstations.

- (b) There will be a single solicitation and procurement of one Design-Build firm (Design-Builder) to design and construct the facility.
- (c) Cost estimates indicate a preliminary budget figure of approximately \$2,250,000. This will include the total cost of the entire project with all costs and fees for architectural, design, permitting and construction services.
- (d) Construction substantial completion date desired is approximately 360 days from NTP.

- (e) The delivery method for this project shall be Design-Build. There will be a single contract from the Owner with a Design-Builder who will be expected to fulfill the terms of the contract through delivery of a finished, fully usable facility, on a turnkey basis, that satisfies the Owner's Project Requirements. The Design-Builder, as the sole responsible entity architectural design, and construction services, will have a fiduciary role and responsibility to the Owner. The Design-Builder must act in the best interests consistent with the Owner's Project Requirements and budget. The Design-Builder will be under contract to provide architectural design, and construction services necessary to deliver a completed facility, in a "turnkey" fashion, to the Owner for occupancy. The Design-Builder shall hold all design professional, trade contractor, and trade supplier contracts. The Design-Builder will be responsible for methods of construction and safety, as well as for the scheduled and coordination of the work of all construction and miscellaneous contracts required for completion of the project within its predetermined budget and schedule.
- (f) Selection of professional construction services will be by Requests for Qualifications (RFQ) selection. No formal design competition will be included. Based on submitted qualifications, the Owner may establish a shortlist of firms deemed most qualified. The Owner will designate a top-ranked firm based upon the submitted qualifications and, if deemed necessary by a formal interview. (See Selection Process, II a).
- (g) The Owner's Project Requirements express, in general, non-technical, and non-design terms the nature of the desired facility, its functions, its users' performance expectations, and other information useful to a design professional for architectural design purposes.
- (h) Although the Owner will request separate sealed fee proposals from the firms, the fee proposals will not be opened during the selection process and, therefore, will not enter into the initial selection. The procurement process will take fees into consideration during negotiations following the ranking ordering of the firms.
- (i) Award shall be made to the responsive offeror whose proposal is determined to be the most advantageous to the Owner, taking into consideration price and the other evaluation factors set forth in this request. No other factor or criteria will be used in evaluation. The Selection Committee will adhere to the weightings specified for each evaluation factor stated in this request. If Owner should determine that none of the proposals is advantageous to the Owner, the Owner shall have the absolute right to reject any and all proposals.

2) **Project Objectives**

- (a) The Design-Builder will be responsible for comprehending and programming the Owner's Project Requirements, accurately translating those requirements into a Basis of Design, and incorporating all into complete construction documents. With these, the Design-Builder will deliver a finished facility in satisfaction of the Owner's Project Requirements.
- (b) The Design- Builder will be responsible for pricing and value engineering issues. At an appropriate point during the projects, the Owner anticipates asking the Design-Builder to commit to a Guaranteed Maximum Price (GMP) for all its design and construction services.
- (c) The Design-Builder shall competitively select all construction subcontracts and other work appropriate for competitive selection but is free to use qualification factors other than price

of work to select construction subcontractors that will deliver the greatest value to the Owner.

- (d) In selecting a firm, the Owner will emphasize experience of the firm and of assigned personnel in providing like functions on projects of similar magnitude and complexity as the proposed project. Selection preference will be toward firms that have depths of knowledge and resources for facility design, for general contracting, for scheduling, contract coordination and compliance, and budget control, as well as familiarity with laws, ordinances, and codes applicable to this project.
- (e) It is the responsibility of each submitter to examine the entire solicitation, seek clarification in writing, and review its submittal for accuracy before submitting their qualifications and their proposal. Once submission deadlines have passed, all submissions will be final. The Owner will not request clarification from any individual submitter relative to their submission but reserves the right to ask for additional information from all parties that have submitted qualifications. If there are multiple firms proposed as one team, each firm must describe itself according to the solicitation requirement.
- (f) The construction opportunity requires the Owners to make, as an important selection criterion, the ability of firms to place quality personnel on this job ready to work within an effective timeframe.

3) Project Assumptions

- (a) The Owner does not desire to enter into “joint-venture” agreements with multiple firms. At the same time, the Owner recognizes that the Design-Build delivery method often involves partnerships between and among firms to combine design and construction management capabilities. In the event that two or more firms desire to establish a joint venture, it is expected that one firm shall become the Design-Build firm for the purpose of contract execution, with the remaining firms being consultants to it.
- (b) The Owner expects all parties to this project to work closely together and deal appropriately with project conditions to finish the job successfully. A spirit of cooperation and collaboration among professional construction services providers is of utmost importance.
- (c) The Design-Builder, as part of its design and its preconstruction services, will assist with developing a strategy for the best approach for the successful completion of the project. For example, without limitation, the Design-Builder will provide guidance and assistance in preparation of a schedule and a reliable cost estimate.
- (d) The Design-Builder, as a part of its design and preconstruction services will assist with developing a strategy for the best approach for the successful completion of the project. For Example without limitation, the Design-Builder will provide guidance and assistance in the preparation of a schedule and a reliable cost estimate.
- (e) It is the sincere intention of the Owner to make every effort to be fair and equitable in its dealings with all candidates for selection.

4) Definitions of Terms

- (a) Whenever the terms “RFQ”, “proposal”, and “solicitation” are used, the reference is to this Request for Qualifications or portions thereof, together with any exhibits, attachments, or addenda it may contain.
- (b) Whenever the terms “shall”, “will”, “must”, or “is required” are used, the reference task is a mandatory requirement of this RFQ. Failure to meet any mandatory requirements will be cause for rejection of a submittal.
- (c) Whenever the terms “can”, “may”, or “should” are used, the referenced specification is discretionary. Therefore, although the failure to provide any items so termed will not be cause for rejection, the Selection Committee may consider such failure in evaluating the submittal.
- (d) Whenever the terms “apparent successful” or “top-ranked” or “highest-ranking” firm or offeror are used in this document, the reference is to the firm that the Selection Committee ultimately judges to have submitted the case best satisfying the needs of the Owner in accordance with the RFQ. The selection of an apparent successful firm does not necessarily mean the Selection Committee accepts all aspects of the firm’s submittal or proposal.
- (e) Whenever the term “submittal” is used in the RFQ, the reference is to the response offered by a firm in accordance with the RFQ. The initial submittal responds only to the RFQ portion of this document. Subsequently, only firms shortlisted based on their initial submittal will be invited to respond with technical proposal submittals to the RFQ portion of this document.
- (f) Whenever the term “Selection Committee” is used in the RFQ, the reference is to the Owner’s representatives responsible for administering and conducting the evaluation and selection process of the RFQ.
- (g) The use of a brand name shall be interpreted as a “**brand name or equal**” specification and is for the purpose of describing the standard of quality, performance and characteristics desired. It is not intended to limit or restrict competition. An item shall be considered to be substantially equivalent, or “equal” to the specified brand in the opinion of the Chief Procurement Officer, the County can reasonably anticipate sufficiently similar quality, capacity, durability, performance, utility and productivity as provided by the specified brand.
- (h) “Design-Build” refers to the construction project delivery method in which, among other things, the Owner holds a single contract with a business entity that has a responsibility both to design and to construct a project, and that holds the trade contracts.
- (i) “Design Professional” and “Designer of Record” both refer to the project’s architect or design engineer, whose responsibilities generally include programming of the facility. Under the Design-Build delivery methodology, the Design Professional is an integral part of the Design-Builder entity under single contract with the Owner.
- (j) “Owner’s Project Requirements” is a written document that details the functional requirements of a project and the expectations of how it will be used and operated.

- (k) “Qualifications Submittal” and “Initial Written Submittal” both refer to a firm’s initial response to the RFQ.
- (l) “Technical Proposal” refers to a shortlisted firm’s response to the final selection process upon request.
- (m) “Qualifications-Based Selection” and “QBS” both refer to a procurement process for the selection of professional construction services for public projects. It is a competitive contract procurement process whereby consulting firms submit qualifications to a procuring entity (owner) who evaluates and selects the most qualified firm, and then negotiates the project scope of work, schedule, budget, and consultant fee. In Georgetown County, this is termed “Multi-Step” bidding.
- (n) “Firm” shall be interpreted as referencing the design entity, the construction entity, of the combined (e.g., joint venture) entity, as is reasonable.

II. General Instructions

1) Building Program

(a) General

The project will be designed and constructed to a level of quality and timeliness.

(b) Owner / Design-Builder Contract

The final contract will be Actual Cost Plus a Fixed Fee not to exceed the Guaranteed Maximum Price (GMP). The project will be Open Book. All savings, including unused contingency, will be returned to the Owner. Contract documents will be based on AIA Doc. #A141-2004, Standard Form of Agreement Between Owner and Design-Builder.

2) Selection Process

(a) Request for Qualifications

This document is a Request for Qualifications (RFQ). An interested firm’s initial response will be **only** to this RFQ portion of this solicitation. If a firm is subsequently shortlisted, it will then be invited to respond in a separate technical proposal.

(b) Selection Committee

The selection of professional service providers will be by a Selection Committee comprising representatives of the Owner. Offeror contact for information and clarification about the Project must be limited to Georgetown County Purchasing Officer, Kyle Prufer, as identified in Instructions for Bidders below (page 7, item #1).

(c) Shortlisting, Proposals, Interviews

Selection of the Design-Builder

i) Initial Written Submittal (Qualifications Statements)

The selection Committee will receive and review statements of qualifications and performance data in response to the RFQ. The Selection Committee will evaluate all firms first against a set of criteria, provided in Section 3a below, to determine those firms most qualified and suited for this particular project. Qualifications will narrow the field to

a shortlist of firms if required and deemed necessary. The Owner has the right to select a single firm after review of the RFQ thus choosing not to conduct interview, therefore moving directly to the fee proposals.

ii) Interview & Final Evaluation (If Required and deemed necessary by the Owner)

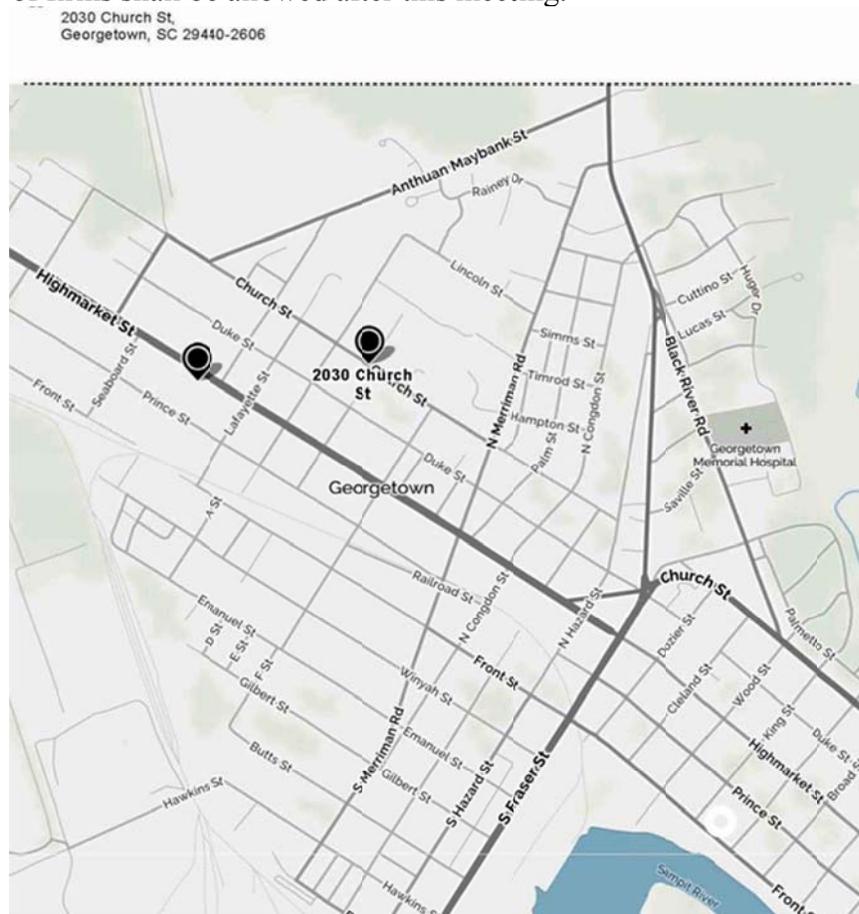
As part of the evaluation of the technical proposals, proposing firms will be invited to a formal interview to explain firm and to answer questions from the Selection Committee. From the evaluation of the RFQ, combined with the interview, the Selection Committee will rank the shortlisted firms in order of suitability and appropriateness for the present project.

iii) Fee Proposals to be Submitted with the RFQ

Each firm submitting an offer shall prepare and include a separate, sealed fee proposal to the Owner with their proposal. After final ranking of the shortlisted firms and following all interviews, the Selection Committee will open only the fee proposal from the highest-ranked offeror. This fee proposal will provide part of the basis for initial negotiations subsequently conducted with the highest-ranked offeror. If negotiations with the highest-ranked offeror are not successful, the Owner will then invite the second-ranked firm to negotiate, and so on.

3) MANDATORY Pre-submittal Conference

There will be a pre-submittal conference for all interested parties to take place at the time and place listed on the Project Timeline (page 3). Anyone may attend but attendance is mandatory for firms desiring to be considered in this competition. The design build firm must be identified at this time and no change of firms shall be allowed after this meeting.



4) Proposal Validity

Any submitted proposal shall remain valid for ninety days after the proposal due date or until the Owner executes a contract, whichever is sooner. In the event the selected proposer fails to perform and/or the contract is terminated, within forty-five days of its initiation, the Owner may request the proposer submitting the next acceptable proposal to honor its proposal.

5) Scope of Work Overview

The Design-Builder's services shall conform to recognized standards of professional practice. The contract will outline the scope of work. The work shall include a Schematic Design Phase, a Construction Documents Phase, and a Construction Phase. Duties during these phases will include but not be limited to activities mentioned in this solicitation.

- (a) During the Schematic Design Phase, the Design-Builder will consult with the Owner's team to comprehend the Owner's Project Requirements, which shall be a written document and may be subject to change.
- (b) During the Construction Documents Phase, the Design-Builder will take full professional responsibility, through its Designer of Record, to create construction documents that satisfy the Owner's Project Requirements. The Design-Builder will provide cost estimates and cost evaluation, value engineering recommendations, design analysis, constructability reviews, and technical input on methods of construction, materials, details, bidding formats, and types of separate bidding packages. At an appropriate point in the project and subject to contractual negotiations, the Design-Builder shall issue a Guaranteed Maximum Price (GMP) backed by a surety bond. The project shall be constructed within this GMP. The Design-Builder will coordinate applicable permits with permit fees to be paid by Georgetown County (Owner). To the extent professionally responsible, the Design-Builder will overlap the Design Development and Construction Phases when components are conducive to early construction starts. The Design-Builder shall also develop and maintain a master project schedule.
- (c) During the construction phase, which includes any previously awarded early bid packages, Design-Builder will be responsible for the following things, without limitation:
 - i) Methods of construction
 - ii) Safety programs
 - iii) General conditions
 - iv) Prequalification of potential subcontractors
 - v) Procurement of all work
 - vi) Certification of work-in-place
 - vii) Monthly payment applications
 - viii) Coordination and scheduling of all work of all construction contracts and miscellaneous contracts required for the completion of the project within the predetermined budget and schedule
- (d) Design-Builder shall assist the Owner, the Owner's Project Manager, and Owner's Commissioning Provider, if any and as applicable, in management and administration of the project, except that the Owner at all times shall retain complete control of project funds and disbursements.

6) Schedule of Events

The Schedule of Events Timeline on page three (3) represents the Owner's best estimate of the schedule that will be followed. The Owner reserves the right, at its sole discretion, to adjust this schedule as it deems necessary. Notification of any adjustment to the Schedule of Events shall be provided to all who have requested this RFQ.

III. Initial Written Submittal - Qualifications Submission Format and Requirements (Response to Request or Qualifications or "RFQ")

1) Physical Submittal

Five copies of the information shall be submitted. Each submittal shall be identical and include a transmittal letter. The transmittal letter (or cover letter) will not count toward the twenty (20) page limit. The table of contents sheet and the tabs sheets, if used, also do not count toward the page limit. The covers of bound documents do not count and should not be used to convey your response to the RFQ by means of printing on them. Submitters are encouraged to follow in their responses the sequence of the Initial Written Submittal outlined here. Responses should be concise, clear and relevant. Submitter's cost incurred in responding to this RFQ is submitter's along and the owner does not accept liability for any such cost.

- (a) Responses are limited to twenty (20) standard (8.5" x 11") pages (may be fewer) using a minimum of a 10-point font. The pages of the qualification submittals must be numbered.
- (b) Submittals of qualifications will be accepted until time and date shown in the Timeline/ Schedule of Events (page 3). This is a firm deadline. The Owner is not responsible for the property or timely delivery of submittals. Failure to meet the deadline for receipt of submittals will result in rejection of the submittal. Submittals received after the deadline will not be considered whether delayed in transit or for any other cause whatsoever. Each firm is solely responsible for the accuracy and completeness of its submittal. Errors and omissions may constitute grounds for rejection.
- (c) The Owner intends to limit the cost that submitters incur to respond to this solicitation. Therefore, submitters are encouraged to be brief and succinct. Thick volumes of background and general marketing material are not desired. A firm should highlight instead its responsiveness to the evaluation criteria. If there are multiple firms proposed as one team, each component firm should describe its own relevant qualifications within the same submittal.
- (d) Firms should deliver their submittals in a sealed package. The name and address of the firm should appear on the outside of the package, and the package should reference the project, i.e., "RFQ for Design-Build Services, – Department of Social Services (DSS) Facility."
- (e) All follow-up questions from the pre-submittal conference, as well as any questions that have been submitted in writing before the deadline, will be compiled and answered in writing. The deadline for submission of questions relating to the RFQ is the time and date shown in the Timeline / Schedule of Events (page 3). Answers will be distributed simultaneously by email to the contact person in those firms that attended the pre-submittal conference.

2) Initial Written Submittal Prerequisite Criteria

Firms must meet the criteria in the bullet points immediately below. Firms that do not meet these criteria are automatically disqualified from further evaluation:

- Firm’s “Designer” MUST have current South Carolina Architectural and/or Engineering license(s) as appropriate for their portion of the design work.
- Firm’s “Builder” MUST have current South Carolina Contractor’s license with classification BD and group limitation Group 5.
- Builder MUST have a safety Experience Modification Rate average of less than 1.0 over the last three years.
- Firm MUST have bonding capacity to provide a payment and performance bond with coverage equal to the total cost of the project.
- Firm MUST be able to get a Builder’s Risk Insurance Policy for this project with coverage equal to the total cost of the project.
- Firm MUST obtain and maintain liability insurance coverages and must be insurable for a total of \$1 million for commercial general liability and automotive liability, and include coverage for errors and omissions.

In order to be deemed eligible for evaluation, the submitting firm must create, officially sign, and place in its submittal a signed statement that contains the following declarations:

- *We certify that our Design-Build entity’s “Designer” has current South Carolina Architectural and/or Engineering license(s) as appropriate for their portion of the design work.*
- *We certify that our Design-Build entity’s “Builder” has a current South Carolina Contractor’s license with classification BD and group limitation Group 5.*
- *Our building firm has a safety Experience Modification Rate average of less than 1.0 over the last three years.*
- *We certify that our firm has sufficient bonding capacity to provide a payment and performance bond with coverage equal to the total cost of the project.*
- *We certify that our firm will obtain a Builder’s Risk Insurance Policy for this project with coverage equal to the total cost of the project.*
- *We certify that our firm will have and maintain liability insurance coverage for a total of \$1 million for commercial general liability and automotive liability, and that we will include coverage for errors and omissions.*

Such signed statement may be placed in an appendix and will not count toward your page limit.

3) Initial Written Submittal Evaluation

- (a) Evaluative Criteria – The Selection Committee will evaluate the submittals uniformly based upon the criteria listed in the table below. The Owner has listed each major category of criteria in order of importance. The services being sought under this RFQ are considered professional in nature. Consequently, the evaluation of submittals will be based upon consideration of the demonstrated qualifications and capabilities of the offerors. Absent

modification by addendum, factors to be considered in the evaluation will be limited to the following:

Major Category	Criteria Summaries
Depth or Resources / Personnel Capability with Relevant Experience (POINT VALUE = 25)	<ul style="list-style-type: none"> • Depth of resources with experience ability, qualified and available for Architect / Engineer / Design Professional role. • Depth of resources with experience and ability, qualified and available for Project Superintendent role • Depth of resources with experience and ability, qualified and available for Design-Builder Project Manager role.
Firm’s relevant project experience (POINT VALUE = 25)	<ul style="list-style-type: none"> • Firm’s experience with preconstruction and construction services as a design build team. • Firm’s litigation record – past ten (10) years.
Responsiveness of Submittal (POINT VALUE = 20)	<ul style="list-style-type: none"> • Extent to which the instructions in the RFQ were followed. • Accuracy in reflecting the project’s assumptions & requirements
Financial Information (POINT VALUE = 15)	<ul style="list-style-type: none"> • Firm’s financial stability
Statement of Why the Firm Should be Selected (POINT VALUE = 5)	<ul style="list-style-type: none"> • Firm’s unique ability to provide Design-Build services at least to the extent described in this document.
Local Vendor Preference (POINT VALUE = 10)	<ul style="list-style-type: none"> • Local / Resident Vendor Preference – Location of Main Office

4) Submittal Contents

The qualification submittal should contain the following information in the following order:

- (a) Statement of Interest. Briefly tell why your firm is interested in this project.
- (b) Firm Description
- (c) Basic company information
 - i) Company Name
 - ii) Address & Zip Code
 - iii) Email address & Name of Primary Contact
 - iv) Telephone Number
 - v) Number of Years in Business

- (d) Form of ownership, including state of residency or incorporation: Is the offeror a sole proprietorship, partnership, corporation, Limited Liability Company (LLC), joint venture, or other structure?
- (e) Succinctly describe the history and growth of your firm(s).
- (f) Regarding litigation with owners, subcontractors, and other construction-related entities, list any active or pending litigation and explain. List, and briefly describe any and all legal actions for the past three (3) years in which respondent has been a debtor in bankruptcy, a defendant in a lawsuit for deficient performance under a contract or agreement; a respondent in an administrative action for deficient performance, or a defendant in a criminal action.
- (g) List and briefly describe projects that your firm has completed in the past five (5) years that also required design-build services and were valued at or above \$1,000,000. Also briefly describe the largest project your firm has completed within the past ten (10) years regardless of delivery method, but indicate the delivery method used on that largest project.
- (h) Has the firm ever failed to complete any work awarded to it or has it been removed from any project awarded to the firm? Explain.
- (i) Give three references to whom your company has provided professional services of a nature and quality similar to those required herein. This reference information should include a short paragraph describing the service(s) provided, together with the following:
 - i) The name of the organization to which the services were provided
 - ii) Project location
 - iii) Dates during which services were performed
 - iv) Brief description of project
 - v) A current contact name, together with organization title, at the firm
 - vi) The contact's current address and telephone number (The Selection Committee will not appreciate obsolete contact information).
- (j) Office Submitting Qualifications
 If the firm has multiple offices, the qualification statement should include information about the parent company and branch office separately. Identify the office from which project will be managed and that office's proximity to the project site. Parent company (or general office) financial information as totals will be acceptable IF "parent" (or "general office") means that it is financially responsible for the liabilities of the branch office. If the parent company is not so responsible, meaning that its financial resources are not available to the office that will perform the contract, it will be misleading to the Owner to offer the financial of any office other than the one with the prospect of contract with the Owner.
- (k) Financial Responsibility
 - i) List your total annual billings for each of the past three (3) calendar years. If forming a partnership, list separately by firm.
 - ii) List the contact persons, addresses, and telephone numbers for your insurance carrier and agent.
 - iii) List the contact persons, addresses, and telephone numbers for your firm's bonding company and agent.
 - iv) What percentage of your firm's work has been negotiated and/or design build during the past three (3) years?
 - v) Supply firm's Current Ratio (Current Assets / Current Liabilities) experience for the last five (5) years.

(l) Personnel Capability

Provide general information about the firm's personnel resources, including classifications and numbers of employees and the locations and staffing of relevant offices. Provide list of

qualified and available personnel resources, identifying experience and ability for key personnel. The key personnel, at a minimum, are the proposed Designer of Record, supporting project architects and engineers, project superintendent and the Design-Builder's project manager. At this stage, firms may list more than one person qualified and available for the proposed project.

(m) Relevant Project Experience of the Designer

Relevant project experience refers especially to buildings comparable to this project in relevant ways. The most relevant experience will be on other Design-Build projects as designer. Describe no fewer than four (4) projects in order of most relevant to least relevant that demonstrate the firm's capabilities to provide design services on the project at hand. For each project, the following information should be provided:

- (i) Project Name
- (ii) Project Location
- (iii) Dates during which services were performed
- (iv) Physical description (e.r., square footage, number of stories, site area)
- (v) Brief description of project
- (vi) Services performed as Designer
- (vii) Statement of performance versus owner expectations in the areas of cost, quality, and schedule
- (viii) Owner reference

(n) Relevant Project Experience of the Builder

Relevant project experience includes similar building type and delivery method relevant to the type of project to be constructed using the Design-Build delivery method or performing as a general contractor on comparable types and sizes of projects. Describe no fewer than four (4) projects in order of most relevant to least relevant that demonstrate the firm's capabilities to perform the project at hand. For each project, the following information should be provided:

- Project Name
- Project Location
- Dates during which services were performed
- Physical description (e.g., square footage, number of stories, site area)
- Brief description of project
- Services performed as Designer
- Statement of performance versus owner expectations in the areas of cost, quality, and schedule
- Owner reference

(o) Safety Information

Provide a letter on the letterhead of the building firm's insurance company stating the Worker's Compensation Experience Modification Rate (EMR) for the past three (3) years. This letter may be placed in the appendix and will not count toward the page limit.

(p) Resident (Local) Business Presence

Indicate whether the offeror is a "local vendor" as indicated by one of more of the following three (3) criteria: a) the vendor has a valid business license issued by one of the municipalities within the county that was issued at least twelve (12) months prior to qualifications submission date; b) the vendor has a physical business address located and operating within the limits of the county and has been doing business in the county for a

period of twelve (12) months or more; c) the vendor can prove payment of all applicable county taxes and fees if so requested. The **Residence Certification for Local Preference** submittal form enclosed shall be used for this purpose. This form will not contribute to the twenty (20) page maximum submittal total.

(q) Statement of “Why the Proposing Firm Should Be Selected”

This section provides each firm the opportunity to provide specific information that differentiates them from others in the competition. This statement is limited to two (2) pages of the allowed total

III. Preliminary Considerations

1) Superior Technical Proposal

Final selection of the Design-Build firm for this project shall be made using the Superior Technical Proposal (Pure QBS) method: the cost of the work (price) is not considered when making the initial selection of the best or most appropriate provider of the professional services required. Fees for services will be negotiated, however, following selection and before contracting.

2) Role of Fee Proposal

Fee proposals will be collected at the time of RFQ submittal. A fee proposal shall be submitted in a sealed envelope, which the Selection Committee will not open until a top-ranked firm is determined and, then, only the envelope from the top-ranked firm will be opened. Other fee proposal envelopes will remain sealed, ensuring that no selection is based on fees. The fee proposal will be used as a basis for subsequent negotiations with the top-ranked firm.

(a) Fees included in the fee proposal shall cover proposed, anticipated, or estimated compensation to the Design-Builder exclusive of the Cost of the Work. Following successful negotiations with the top-ranked firm, during which proposed fees can be adjusted, the Design-Builder’s contractual fee will be the amount established by and agreed to by both parties that is the full amount of compensation due to the Design-Builder as gross profit and for any and all expenses of the project not included and identified as a Cost of the Work or the Design-Builder’s Overhead Cost, provided that the Design-Builder performs all the requirements of the contract documents within the time limits established. The Design-Builder’s Fee consists of the following:

- i) Design Fee. For design services, including the Design Professional’s construction contract administration services, the Owner shall pay a Design Fee representing the gross profit relative to the design and construction contract administration services.
- ii) Construction Fee. For the construction services provided by the Design-Builder a Construction Fee representing the gross profit relative to the construction services.

(b) This RFQ includes a format for the fee proposal. The “Design-Builder Fee Proposal” Form contains a Project Cost Matrix that should be used to list and calculate projected overhead.

Contract Negotiation

Soon after notification of the evaluation outcome, the Owner will initiate negotiations with the top-ranked firm to understand assumptions and to determine the Design-Builder’s fixed fees and the proposed costs for general conditions and overhead. In the event that a satisfactory fee cannot be agreed upon with the highest-

ranking firm, the Owner will formally terminate the negotiations in writing and enter into negotiations in turn with the second-ranked firm and so-on until a mutually agreed-upon contract is established. Contract documents will be based on AIA Doc. #A141-2004, Standard Form of Agreement Between Owner and Design-Builder on the basis of Actual Cost Plus a Fixed Fee not to exceed the Guaranteed Maximum Price (GMP), or other such format as may be found acceptable to both parties by mutual agreement.

Additional Information

- The Owner reserves the right to withdraw this RFQ or to reject any and all submittals at any time and cancel the project if, in the sole discretion of the Owner, continuation is deemed not to be in the best interest of the Owner.
 - In addition to the Owner's general right to reject all submittals, a submittal may be rejected if the submittal contains false or misleading statements or references that, in the sole judgment of the Selection Committee, do not support an attribute or condition contended by the firm and, in the sole judgment of the Selection Committee, such statements were intended to mislead the Selection Committee in its evaluation of the submittal.
 - The Selection Committee's identification of an apparent successful firm does not necessarily mean the Selection Committee accepts all aspects of the firm's submittal or proposal.
 - All submittals, together with any supporting material submitted by the firm, become the property of the Owner and may be retained, destroyed, or otherwise disposed of at the convenience of the Owner. All submittals, if retained by the Owner, become a matter of public record when final negotiations are completed except, however, that unopened fee proposal envelopes will be returned unopened to the shortlisted firms not selected. The submittal received from the selected firm will become part of the agreement reached by the Owner and the firm.
 - By providing a submittal, each firm agrees not to request access to another firm's submittals until after a contract has been executed.
 - By providing a submittal, each firm agrees that the Owner will have the right to use any or all ideas or concepts presented in any submittal without restriction and without compensation to the firm.
- VI. Bid Security will be required from only the highest ranked design-builder with whom the Owner begins negotiations. At the appropriate time and upon request the design-builder shall be prepared to submit:
- 1) A Bid Bond, or a certified check payable to Georgetown County, SC, for \$112,500.00 [an amount equal to five per-cent (5%) of the total base bid budget] as a guarantee that if the bid is accepted, the required Contract will be executed within fifteen (15) days after receipt of written notice of formal award of Contract.
 - 2) The successful offeror must provide a Performance Bond from a surety company qualified to do business under the laws of the State of South Carolina in the amount of 100 percent (100%) of the contract amount, within fifteen (15) days the after receipt of written notice of formal award of the Contract. Pricing for such Performance Bond should be indicated separately on the Vendor Bid Submission Form.
 - 3) The successful offeror must provide a Payment and Material Bond from a surety company qualified to do business under the laws of the State of South Carolina in the amount of 100 percent (100%) of the contract amount, within fifteen (15) days after receipt of written notice of formal award of Contract.

OWNER'S PROJECT REQUIREMENTS

Based on the initial assessment, the building as submitted by DSS has a rough footprint of 180'x80' or 15,000 SF. The available lots are a combined 322' (along Dekalb) x 284' (along Church) or 94,288 SF (± 1.76 acre). Assume a 40-foot buffer/setback along Dekalb and Church, and a partial shared driveway with the Department of Mental Health.

DIVISION 1 – GENERAL CONDITIONS

1.1 PROJECT DESCRIPTION:

SUMMARY PROJECT SCOPE

- A. General Conditions are direct cost associated with the project including supervision, general labor, temporary (toilets, water and power), debris control, rental equipment and final cleaning.
- B. Overhead expenses are indirect costs that are not readily chargeable to a particular project. They constitute cost of doing business and any fixed expenses including: project manager, Accounting, insurance, legal, utilities, office and taxes.
- C. Fee is the amount of profit expected as a percentage of the total costs of the project
- D. Testing and/or general inspections: Will be part of the Base Bid
- E. All regulatory permit fees are by the General Contractor as per the RFQ to include water and sewer tap fees, REU fees (REU = Residential Equivalent Unit) and City of Georgetown business license.
- F. Performance/payment bonds are to be required.
- G. The project shall comply with all current International building codes.
- H. Provide a minimum clear interior corridor width of 6'-0" throughout the building.
- I. The entire project shall comply with all current ADA regulations.
- J. Minimum roof overhang shall be 14" from the face of brick.
- K. Provide fire proof drop box at the front entry.
- L. All appliances shall be by Owner. DB team shall coordinate selection to fit in casework.

Other considerations:

- (a) Appropriate mechanical, electrical, etc space as required.
- (b) Appropriate circulation space (hallways, etc.) as required.
- (c) While the original plans as proposed by DSS do not include a janitor closet with mop sink, this will need to be incorporated at the discretion of the design-build team.

The design/build team will provide:

- Construction plans and specifications that will be approved by the Owner;
- On-site supervision of all construction activities;
- All applicable permits;
- Builder's Risk insurance, and;
- Minimum Liability and comprehensive insurance as required by the County and listed in the Bidder's Instructions.

Temporary site improvements also shall be provided by the design/build team and shall include but not be limited by:

- Temporary power for construction
- Temporary water for construction

- Temporary phones for construction
- Temporary toilets and proper cleaning
- Temporary storage space and enclosures
- Temporary office space for use of contractor's on-site personnel
- Trash disposal and removal for construction debris
- Temporary lighting to maintain minimum OSHA standards and as required for specific tasks.

The design/build team shall provide all safety systems and equipment necessary for the project including, but not limited to:

- Site barricades and project sign as approved by owner;
- Personal protective equipment (hard hats, safety glasses, etc.), and;
- First aid stations and supplies.

1.2 TESTING

The design/build team shall provide materials testing services (i.e. additional soil test borings, geotechnical analyses and reports, concrete sampling and testing, soil compaction testing, soil bearing capacity evaluations, structural steel and welding inspections, etc.)

1.3 COORDINATION

The design/build team shall provide construction coordination: Coordination of site work, utilities, and building construction Schedule: Critical path method project schedule updated monthly

1.4 FIELD ENGINEERING

The design/build team shall verify and locate existing improvements, underground utilities, facilities, and equipment using, within reason, readily available information (existing drawings, locating services, site landmarks, etc).

The design/build team shall provide layout for all proposed site improvements, utilities, drives and structures.

1.5 PROJECT MEETINGS

Pre-Construction Conference: Attendance by Owner, Contractor, major subcontractors, and suppliers

Progress Meetings: Once every two weeks, attendance by Owner, contractor, applicable subcontractors, and suppliers

1.6 SUBMITTALS

Project Submittals: The design/build team shall provide two copies of shop drawings, two copies for product data and warranties, two representative units for samples.

Record Documents: The design/build team shall provide record drawings (6 sets), record specifications, maintenance manuals, and final property survey.

1.7 SCOPE

The above items are the responsibility of the design/build team, and shall be included their costs.

DIVISION 2 – SITEWORK

(see attached record drawing as provided to assist in location of the existing utilities)

- A. Earthwork: Grading at building pad. Imported engineered fill to establish finish floor elevation at approximately 1'-0" above existing adjacent parking lot.
- B. Termite Control to be provided under the slab and at footings.
- C. Concrete Paving: 4" concrete sidewalks
Pavement: 2" inch asphalt light duty asphalt pavement on 6" inch aggregate base
- D. Water Distribution System: 2" domestic water service and appurtenances to connect to existing water line as indicated on the record documents for the human resources PD.
- E. Sanitary Sewer System: Connect building to the exiting 6" sanitary sewer connections as indicated on the record documents for the human resources PD.
- F. Landscaping: to meet the city of Georgetown requirements.
- G. Erosion Control: Temporary only, as required by local ordinance.
- H. Fire Suppression System: throughout the building, NFPA 13 with 6" fire service line to connect to existing fireline with new fire hydrant as indicated on the record documents for the human resources PD.
- I. Signage for the building and a site identification sign. Must comply with ADA standards.
- J. Parking lot lighting: 16'-0" high on concrete base led lights on a photo cell to provide full coverage for the entire parking lot area and accessible route into the building
- K. Storm drainage: connect new catch basins to existing drainage system as indicated on the record documents for the human resources PD.
- L. Parking requirements will be spaces for 110 cars. The parking lot will require a secure area on the site for 8 state owned cars that have direct proximity to the rear entrance, therefore providing a separate staff entry from the public entry for 24/7 activity. This area and path will require security lighting.

DIVISION 3 – CONCRETE

3.1 WALL AND COLUMN FOOTINGS AS REQUIRED

3.2 CONCRETE SLAB ON GRADE

- A. Concrete: Spread footings; 4" thick reinforced concrete slab on grade on block foundation walls or turned down slab in accordance with Geotechnical Report.

DIVISION 4 – MASONRY

4.1 MASONRY FAÇADE

- A. Unit Masonry: At entire exterior 4” brick veneer for a brick veneer height of 32” (2’-8) above finished grade. Adjustable masonry anchors to attach to backup metal stud walls. The metal stud walls will be sheathed with ½” plywood and incorporate thru-wall flashings for the brick veneer.

DIVISION 5 – STRUCTURAL & MISCELLANEOUS STEEL

5.1 MISCELLANEOUS STEEL FRAMES

- A. Metal Fabrications:
 - 1. Rough hardware
 - 2. Miscellaneous framing and supports
 - 3. Steel pipe railings and handrails
- B. Light gauge load bearing metal stud walls at the exterior and light gauge non load bearing studs at the interior

DIVISION 6 – CARPENTRY

- 6.1 Rough Carpentry - Prefabricated wood trusses: Grounds, nailers, blocking, furring, rough framing and plywood for decking and sheathing.
- 6.2 HardiePlank® “Brand Name or Equal” siding and soffits.
- 6.3 Architectural Woodwork:
 - 1. Casework with Plastic Laminate
 - a. Scope: All casework except noted otherwise.
 - b. Casework to be solid wood, custom shop built with plastic laminate veneer
 - c. See attached conceptual floor plan for casework locations.
 - d. All shelving shall be solid plywood 16” deep shelving with adjustable brackets.
 - 2. Countertops and Cabinet Tops
 - a. Scope: Locate countertops at public toilets and associated rooms.
 - b. Material: Plastic Laminate.

DIVISION 7 – MOISTURE PROTECTION

- 7.1 Building Insulation: Batt Insulation: R-30 Attic; R-19 Wall. Locate soundproofing at interior drywall partitions enclosing toilets, offices, and meeting rooms.

- 7.2 Roofing: Prefinished standing seam metal roof equal to Englert 2000 series on self adhering waterproofing membrane on plywood sheathing with continuous ridge vent. Ribbed at 16" on center. Color to be selected from standard colors
- 7.3 Flashing and sheet Metal: .032 Coated aluminum (rigid and flexible).
- 7.4 Sealants and Caulking: Exterior: Silicone; Interior: Polyurethane.

DIVISION 8 – DOORS & WINDOWS

- 8.1 Steel Doors and Frames: All exterior doors (solid, flush) and frames (galvanized). 16 gauge knock down frames.
- 8.2 Flush Wood Doors: All interior non-rated doors and 20 min, rated doors. Material: Solid core with natural birch veneer (stain grade) pre finished doors. Some will have lites, refer to plans.
- 8.3 Windows: Scope: Hurricane Resistant Impact Aluminum storefront equal to Kawneer Tri-Fab 501IR with impact glazing with Solarban 60 tempered insulated impact resistant glazing. Minimum window size per room is 16 sf.
- 8.4 Builders Hardware:
 - a) Locksets: Cylindrical locksets with lever trim.
 - b) Cylinders: Removable 7 pin core, Master-keyed.
 - c) Closers: Surface mounted heavy-duty modern type.
 - d) Hinges: Exterior; Ball bearing, plated brass or bronze, heavy duty.
 - e) Hinges: Interior; Prime steel standard duty.
 - f) Electric doors operations:
 - W/L = with lock
 - W/MLCRRB = mechanical cipher lock w/ key and override cylinder
 - CR = card reader system will be provided at each exterior door and the server room.
- 8.5 1/2 inch Lexan glass at the pass thru windows as defined at the front lobby.
- 8.6 Operable Partition wall by Modernfold or equal with a STC 54 rating of NRC of .70 rating for the full length of the room. The folding door shall fold into a closet, with a door.

DIVISION 9 – FINISHES

9.1 PAINT

A. Finish Schedule

- 1. Interior Rooms:
 - a. Floor: Carpet 20 oz level loop carpet
 - b. Walls: Paint on gypsum board.
 - c. Ceiling: Acoustical tile (2 x 2) Radar ClimaPlus. Ceiling heights 9'-0".
- 2. Bathroom:
 - a. Floor: VCT: equal to Armstrong Stonetex

- b. Walls: Ceramic Tile (4 x 4) on backer board to 48" aff on all walls
 - c. Ceiling: Acoustical tile (2 x 2) Radar ClimaPlus.
3. Entry:
- a. Floor: VCT: equal to Armstrong Stonetex
 - b. Walls: Paint on gypsum board.
 - c. Ceiling: Acoustical tile (2 x 2) Radar ClimaPlus.

All gypsum board shall be 5/8" thick with level 5 finish, to be painted with latex primer and two coats of Sherman Williams Cashmere paint.

DIVISION 10 – SPECIALTIES

- A. Specialty Signs: Scope: Throughout building, in accordance with ADA.
- B. Fire Extinguishers and Cabinets: Scope: As required.
- C. Toilet Accessories: Grab bars; toilet tissue dispenser; napkin/tampon dispensers and disposal containers; towel dispensers and disposals, mirrors.
- D. Security system – provide an addressable security system with keypad at side entry and main entry. Provide duress button at front desk.
- E. Card access – provide card access as indicated on conceptual floor plan. Provide 50 cards to Owner.
- F. Cameras – will be required at building perimeter and parking lot. Allowance: \$20,000
- G. Toilet Partitions: Plastic Laminate overhead braced.

DIVISION 11 – EQUIPMENT – NOT USED

DIVISION 12 – FURNISHINGS – NOT USED

DIVISION 13 – SPECIAL CONSTRUCTION – NOT USED

DIVISION 14 – CONVEYING SYSTEMS – NOT USED

DIVISION 15 – MECHANICAL

15.1 PLUMBING

- A. Floor mounted toilet fixtures.
- B. Hot water system standard piping with recirculating pump.

15.1 FIRE PROTECTION

- A. The entire building is on a fire sprinkler system. System shall be an addressable, wet system per NFPA 13, Underwriting and Local Fire Marshall requirements.
- B. Fire hydrants as required by NFPA, Underwriting and Local Fire Marshall requirements.
- C. Fire alarm system as required by code.

15.2 HEATING, VENTILATION & AIR CONDITIONING & PROCESS PIPING INSULATION

- A. Split system HVAC zoned. Assume 1 ton per 300 sf minimum.
- B. Mechanical system is located in the attic mezzanine with outdoor units around the perimeter. Ductwork shall be located above the acoustical ceiling tile. Ductwork shall be metal with mastic at joints, and wrapped with insulation in accordance with current codes. Provide return and supply in every room. Provide programmable thermostats for each unit.
- C. Mechanical Contractor Requirements
The Mechanical Contractor shall hold all state and local contractors' licenses required for the installation of mechanical systems for this facility, and shall have a minimum of ten years experience in the design and installation of mechanical systems of the capacity and type required for this facility. In addition, the Mechanical Contractor shall observe all codes, laws, and ordinances applicable to the project. The Mechanical Contractor is also responsible for providing qualified field supervisory and installation personnel, for providing necessary job-site tools, equipment, and facilities required to satisfactorily complete the project, coordinating mechanical work with that of all other trades, and for scheduling work in order to maintain established schedules and prevent delays.
- D. Project Drawings
Detailed drawings shall be prepared by a Registered Professional Engineer who shall be the supervising professional for this division of the work.
- E. Submittals
Shop drawings for all equipment and material proposed under this division shall be submitted to the Owner for approval prior to release of these items for shipment and prior to commencement of any fieldwork.
- F. Operating & Maintenance Instructions
Operations and maintenance manuals shall be assembled and presented to the owner at the completion of the project. These manuals shall be of the three ring binder type with an index at the front of each binder and tabs for each system or type of equipment. These manuals shall include the following information:
 - a) Copies of all approved shop drawings.
 - b) Manufacturer's wiring diagrams for electrically powered equipment.
 - c) Records of tests performed to certify compliance with system requirements (system start-up reports).
 - d) Temperature control record drawings and control sequences.
 - e) Parts list for manufactured equipment.

- f) Valve schedules.
- g) Lubrication instructions, including list/frequency of lubrication done during construction.
- h) Warranties.
- i) Testing, adjusting, and balancing data.

Owner personnel shall be instructed in the proper operation and maintenance of all systems and equipment provided as part of this project, using the Operation and Maintenance Manuals during this instruction. Start-up, operation, control, shutdown, and maintenance procedures for all equipment shall be demonstrated. All training shall be during normal work hours.

G. Warranties

The Mechanical Contractor shall guarantee the HVAC system to be free of defects in equipment, material, and workmanship for a period of one year from owner acceptance or start-up for owner usage (whichever comes first). Any defect shall be remedied in a timely manner at no cost to the owner.

H. Quality Assurance Standards

- a) The heating, ventilation, air conditioning, and piping systems shall be designed and installed within generally accepted industry standards.
- b) Guidelines set forth by the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) and the Sheet Metal and Air Conditioning Contractors' National Association (SMACNA) shall be observed.
- c) Testing and Balancing:
 - Start-up and check out by trained service personnel.
 - Testing and balancing by an independent testing company certified by NEBB or AABC.

I. Miscellaneous Items Included

- a) Permit fees
- b) Control wiring
- c) Start-up and testing of all equipment and systems
- d) Air balancing of all systems
- e) Support for all piping and equipment including miscellaneous steel

J. Miscellaneous Items Excluded

- a) Power wiring
- b) Starters
- c) Disconnect switches
- d) Concrete curbs and pads
- e) Prime time labor
- f) Process ventilation systems and ductwork
- g) Purchase and installation of air compressors and related equipment

DIVISION 16 – ELECTRICAL

16.1 SCOPE

The following is a preliminary list of material needed for the design and installation of a complete electrical system.

The intent of this scope is to provide design criteria for a complete electrical system as specified herein. However, these specifications do not limit themselves to a complete design. It is the responsibility of the designer/builder to verify the adequacy of any and all systems, wire sizes, conduit sizes, disconnects, etc., with respect to all national, state, and local codes, and good practices of the industry.

This scope includes the following:

- A. Data boxes, blank conduit to extend to above the ceiling with a bushing and a pull string. The data wiring is not included in base bid (by Owner). Provide data boxes minimum 1 per each desk, 1 per each room, a floor box at the conference room and at each power pole to serve each cubicle. Minimum conduit size shall be 1". An outlet shall be provided at every data outlet.
- B. 2 x 4 LED lay in energy efficient lights.
- C. Fire alarm system (addressable) with pole stations.
- D. Generator for the entire building
- F. Separate telephone entries.
- G. Minimum of 1200 amp service with grounding as required by code.
- H. Provide power and connections to all workstations.

16.2 MAIN SERVICE

- 1) Install 1200 Amp 3-phase Service and Service Entrance rated panel board, 208/120 Volt, with copper bus.
- 2) Provide all required starters, disconnects and boxes.
- 3) All lighting, ventilation and misc. power shall be connected to the Amp service panel.
- 4) Additional Conditions:
 - (a) Install exit lights at all exits with battery backup,
 - (b) Install emergency lights as required by code, and
 - (c) Install one 110 Volt, quad receptacle at panel board.
- A. Grounding
 - a. Install per NEC 250. (1) 10' copper clad steel ground rod, (1) #1/0 ground.

- B. Site Lighting
 - a. Install LED Wall pack fixtures around the outside of the building as needed.
 - b. Install electrical conduit, foundation piers, controls, wiring and LED pole mounted parking lot lights as needed.

- C. Miscellaneous Items
 - a. All connections for ventilation per mechanical scope and drawings.
 - b. Complete, engineered electrical drawings.
 - c. Permit
 - d. Break room plumbed for icemaker and sink
 - e. Fiber optic cable to central mechanical room location.

Support Documentation

The following support documentation is included in this RFQ and is also available for download or printing from the county website at www.gtcounty.org select "Bid Opportunities" from the *Quick Links* box on the homepage.

Description	Source	Date
DSS Recommended Programmatic Drawing	DSS-Clay Watts	08/18/2014
DSS Annotated Programmatic Drawing	Owner Consultant	07/22/2016
DSS Annotated Programmatic Drawing II	Owner Consultant	07/22/2016
“GG Human Resources Complex” PD Utility Record Drawing	ETS	07/17/1998
Report Of Geotechnical Exploration, Dept. of Social Services	S&ME	08/25/2016

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK.]



General Instructions for Providers
Bid #16-076
Design-Build Services for Department of Social Services (DSS) Facility

1. **Submission of Questions**

Questions must be submitted in writing via electronic mail, facsimile or postal mail to the Issuing Officer no later than the "Deadline for Questions" cutoff identified in the Bid Timeline on page two (2) in order to generate an official answer. All written questions will receive an official written response from the Georgetown County Purchasing Office (GCPO) and will become addenda to the solicitation.

GCPO reserves the right to reject or deny any requests made by the provider.

Impromptu, unwritten questions are permitted and verbal answers may be provided, but are only intended as general direction and will not represent the official GCPO position. The only official position of GCPO is that which is stated in writing and issued in the solicitation as addenda thereto.

No other means of communication, whether oral or written, shall be construed as a formal or official response/statement and may not be relied upon. SEND QUESTIONS TO:

Kyle Prufer, Purchasing Officer
Post Office Box 421270, Georgetown, SC 29442-4200
Fax: (843) 545-3500
Email: kprufer@gtcounty.org or purch@gtcounty.org

2. **IMPORTANT OFFEROR NOTES:**

- a) Bid Number & Title must be shown on the OUTSIDE of the delivery package.
- b) Federal Express does NOT guarantee delivery to Georgetown, SC before 4:30 PM Eastern Time on Next Day Service.
- c) UPS WILL guarantee delivery to Georgetown, SC before 10:30 AM Eastern Time on Next Day "Early AM" Service.

3. **Inclement Weather/Closure of County Courthouse**

If the County Courthouse is closed for business at the time scheduled for bid opening, for whatever reason, sealed bids will be accepted and opened on the next scheduled business day, at the originally scheduled time.

4. This solicitation does not commit Georgetown County to award a contract, to pay any cost incurred in the preparation of the bid, or to procure or contract for goods or services. It is the responsibility of each bidder to see that the Georgetown County Purchasing Office receives bids on, or before, the date and time specified for the bid opening. No bid will be accepted thereafter. The County assumes no responsibility for delivery of bids that are mailed. Georgetown County reserves the right to reject any or all bids and to waive any informalities and technicalities in the bid process.
5. One (1) unbound, reproducible, single sided ORIGINAL of your proposal must be submitted in a sealed envelope and clearly marked on the outermost container as follows:

OFFEROR'S NAME
BID ITEM NAME
BID NUMBER

6. No offeror may submit more than one response.

7. Correction or Withdrawal of Bids; Cancellation of Awards

An offeror must submit in writing a request to either correct or withdraw a bid to the Procurement Officer. Each written request must document the fact that the offeror's mistake is clearly an error that will cause him substantial loss.

- a) Correction of awards : An offeror shall not be permitted to correct a bid mistake after bid opening that would cause such offeror to have the low bid unless the mistake in the judgment of the Procurement Officer is clearly evident from examining the bid document; for example, extension of unit prices or errors in addition.
- b) Cancellation of awards prior to performance: When it is determined after an award has been issued but before performance has begun that Georgetown County's requirements for the goods or services have changed or have not been met, the award or contract may be canceled and either reawarded or a new solicitation issued.

8. Faxed or E-mailed bids will not be accepted by Georgetown County.

9. If you need any reasonable accommodation for any type of disability in order to participate in this procurement, please contact the purchasing office as soon as possible.

10. Any deviations from the specifications or modification of this bid and any extra or incidental work or reductions in work shall be set forth in writing and signed by both parties prior to making such change. Any increase or decrease in the bid price resulting from such change shall be included in writing.

11. Exceptions: The bidder shall list on a separate sheet of paper any variations from, or exceptions to, the conditions and specifications of this bid. This sheet shall be labeled "Exception(s) to Bid Conditions and Specifications," and shall be attached to the bid. When Proposers find instances where they must take exception with certain requirements or specifications of the bid, all exceptions shall be clearly identified. Written explanations shall include the scope of the exceptions, the ramifications of the exceptions for the County of Georgetown, and a description of the advantage to be gained or disadvantages to be incurred by the County as a result of these exceptions. If no exceptions, write "No Exceptions".

12. The County reserves the right to reject any or all bids, waive any informality in bids and accept in whole or in part such bid or bids as may be deemed in the best interest of the County. Georgetown County reserves the right to reject any bid submitted, at sole option that the vendor may not be able to meet the service requirements of the bid.

13. Publicity releases: contractor agrees not to refer to award of any resulting contract in commercial advertising in such a manner as to state or imply that the products or services provided are endorsed or preferred by the user.

14. Material Safety Data Sheets: The County of Georgetown will not receive any materials, products, or chemicals which may be hazardous to an employee's health unless accompanied by a Material Data Sheet when received.

15. The contractor will be responsible for disposal of any and all removed, unused and surplus materials and any fees and transportation costs associated with the disposal.

16. Ownership of Copyright: All right, title and interest in all copyrightable materials which vendor shall create in the performance of its obligations hereunder shall be the property of the procurer. Vendor agrees to assign and hereby does assign any and all interest it has in and to such material to procurer. Vendor agrees, upon the request of procurer to execute all papers and perform all other such acts necessary to assist procurer to obtain and register copyrights on such materials. Where applicable, works of authorship created by the vendor in the performance of its obligations hereunder, shall be considered "works for hire" as defined in the U.S. Copyright Act.
17. Ownership of Documents: Any reports, studies, photographs, negatives or other documents prepared by vendor in the performance of its obligations shall be the exclusive property of the procurer and all such material shall be remitted to the procurer by the vendor upon completion, termination or cancellation of this order. Vendor shall not use, willingly allow or cause to have such material used for any purpose other than performance of its obligations under this order without the prior written consent of the procurer.
18. Affirmative Action: The contractor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of the handicapped, and concerning the treatment of all employees, without regard or discrimination by reason of age, race, color, religion, sex, national origin or physical handicap. The following are incorporated herein by reference: 41 C.F.R. 60-1.4, 60-250.4 and 60-741.4.
19. ETHICS ACT (JAN 2004): By submitting an Offer, you certify that you are in compliance with South Carolina's Ethics, Government Accountability, and Campaign Reform Act of 1991, as amended. The following statutes require special attention: (a) Offering, giving, soliciting, or receiving anything of value to influence action of public employee – Section 8-13-790, (b) Recovery of kickbacks – Section 8-13-790, (c) Offering, soliciting, or receiving money for advice or assistance of public official – Section 8-13-720, (d) Use or disclosure of confidential information – Section 8-13-725, and (e) Persons hired to assist in the preparation of specifications or evaluation of bids – Section 8-13-1150.
19. TITLE VI COMPLIANCE:
Georgetown County hereby gives public notice that it is the policy of the agency to assure full compliance with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898 on Environmental Justice, and related statutes and regulations in all programs and activities. Title VI requires that no person in the United States of America shall, on the grounds of race, color, or national origin, be excluded from the participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which Georgetown County receives federal financial assistance. Any person who believes they have been aggrieved by an unlawful discriminatory practice under Title VI has a right to file a formal complaint with Georgetown County. Any such complaint must be in writing and filed with Georgetown County's Title VI Coordinator within one hundred and eighty (180) days following the date of the alleged discriminatory occurrence. For more information, or to obtain a Title VI Discriminatory Complaint Form, please see our website at <http://www.gtcounty.org>.
20. Bidders must clearly mark as "confidential" each part of their bid which they consider to be proprietary information that could be exempt from disclosure under section 30-4-40, Code of Laws of South Carolina 1976, as amended (Freedom of Information Act). If any part is designated as confidential, there must be attached to that part an explanation of how this information fits within one or more categories listed in section 30-4-40. The County reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the County or its agents for its determination in this regard.

21. CERTIFICATION REGARDING DRUG-FREE WORKPLACE:

The contractor certifies that the vendor(s) will provide a “drug-free workplace” as that term is defined in Section 44-107-30 of the Code of Laws of South Carolina, 1976, as amended, by the complying with the requirements set forth in title 44, Chapter 107.

22. Nothing herein is intended to exclude any responsible vendor, his product or service or in any way restrain or restrict competition. On the contrary, all responsible vendors are encouraged to bid and their bids are solicited.

23. Acknowledgement of Addenda

Each contractor is responsible to verify the number of total addenda issued prior to bid. **Failure to acknowledge all addenda shall disqualify the bidder.** All addenda are posted by the County at the website located at www.gtcounty.org, select “Bid Opportunities” from the Quick Links box on the homepage. It is each proposer’s responsibility to verify that all addenda have been received and acknowledged.

24. Responses must be made in the format specified or will be rejected. Proposals shall be typewritten or written in ink. The person signing the bid shall initial all corrections or erasures.

25. **Builders' Risk Insurance.** Contractor shall provide and maintain, during the progress of the work and until execution of the Certificate of Contract Completion, a Builder's Risk Insurance policy to cover all work in the course of construction including false work, temporary buildings, scaffolding, and materials used in the construction process (including materials designated for the project but stored off site or in transit). The coverage shall equal the total completed value of the work and shall provide recovery at replacement cost.

- a) Such insurance shall be on a special cause of loss form, providing coverage on an open perils basis insuring against the direct physical loss of or damage to covered property, including but not limited to theft, vandalism, malicious mischief, earthquake, tornado, lightning, explosion, breakage of glass, collapse, water damage, and testing/startup.
- b) Coverage shall include coverage for "soft costs" (costs other than replacement of building materials) including, but not limited to, the reasonable extra costs of the architect/engineer and reasonable Contractor extension or acceleration costs. This coverage shall also include the reasonable extra costs of expediting temporary and permanent repairs to, or permanent replacement of, damaged property. This shall include overtime wages and the extra cost of express or other means for rapidly transporting materials and supplies necessary to the repair or replacement.
- c) The policy shall specifically permit and allow for partial occupancy by the owner prior to execution of the final Certification of Contract Completion, and coverage shall remain in effect until all punch list items are completed.
- d) The Builder's Risk deductible may not exceed \$5,000. The Contractor or subcontractor experiencing any loss claimed under the Builder's Risk policy shall be responsible for that loss up to the amount of the deductible.
- e) If Contractor is involved solely in the installation of material and equipment and not in new building construction, the Contractor shall provide an Installation Floater policy in lieu of a Builder's Risk policy. The policy must comply with the provisions of this paragraph.

26. **Comprehensive Insurance**

The successful bidder shall procure, maintain, and provide proof of, insurance coverage for injuries to persons and/or property damage as may arise from or in conjunction with, the work performed on behalf of the County by the bidder, his agents, representatives, employees or subcontractors. Proof of coverage

as contained herein shall be submitted fifteen (15) days prior to the commencement of work and such coverage shall be maintained by the bidder for the duration of the contract period; for occurrence policies.

a. General Liability

Coverage shall be as broad as: Comprehensive General Liability endorsed to include Broad Form, Commercial General Liability form including Products/Completed Operations.

1. Minimum Limits

General Liability:

\$1,000,000 General Aggregate Limit

\$1,000,000 Products & Completed Operations

\$1,000,000 Personal and Advertising Injury

\$1,000,000 Each Occurrence Limit

\$50,000 Fire Damage Limit

\$5,000 Medical Expense Limit

b. Automobile Liability

Coverage sufficient to cover all vehicles owned, used, or hired by the bidder, his agents, representatives, employees or subcontractors.

1. Minimum Limits

Automobile Liability:

\$1,000,000 Combined Single Limit

\$1,000,000 Each Occurrence Limit

\$5,000 Medical Expense Limit

c. Workers' Compensation

Limits as required by the Workers' Compensation Act of SC. Employers Liability, \$1,000,000.

d. Owners' & Contractors' Protective Liability

Policy will be in name of County. Minimum limits required are \$1,000,000.

e. Professional Liability

Minimum limits are \$1,000,000 per occurrence.

f. Coverage Provisions

1. All deductibles or self-insured retention shall appear on the certificate(s).
2. The County of Georgetown, its officers/ officials, employees, agents and volunteers shall be added as "additional insured" as their interests may appear. This provision does not apply to Professional Liability or Workers' Compensation/Employers' Liability.
3. The offeror's insurance shall be primary over any applicable insurance or self-insurance maintained by the County.
4. Shall provide 30 days written notice to the County before any cancellation, suspension, or void of coverage in whole or part, where such provision is reasonable.
5. All coverage for subcontractors of the bidder shall be subject to all of the requirements stated herein.

6. All deductibles or self-insured retention shall appear on the certificate(s) and shall be subject to approval by the County. At the option of the County, either; the insurer shall reduce or eliminate such deductible or self-insured retention; or the bidder shall be required to procure a bond guaranteeing payment of losses and related claims expenses.
7. Failure to comply with any reporting provisions of the policy(s) shall not affect coverage provided the County, its officers/officials, agents, employees and volunteers.
8. The insurer shall agree to waive all rights of subrogation against the County, its' officers/officials, agents, employees or volunteers for any act, omission or condition of premises which the parties may be held liable by reason of negligence.
9. The bidder shall furnish the County certificates of insurance including endorsements affecting coverage. The certificates are to be signed by a person authorized by the insurance company(s) to bind coverage on its' behalf, if executed by a broker, notarized copy of authorization to bind, or certify coverage must be attached.
10. All insurance shall be placed with insurers maintaining an A.M. Best rating of no less than an A:VII. If A.M. Best rating is less than A:VII, approval must be received from County's Risk Officer.

27. Workman's Compensation Coverage

Georgetown County, SC will require each contractor and service provider to maintain on file with the purchasing officer, a current Certificate of Insurance showing limits as required by the Workers' Compensation Act of SC: Employers Liability, \$1,000,000.

The law also recognizes "statutory employees." These are employees who work for a subcontractor who may be working for a business or another contractor. Employers should inquire whether or not a subcontractor working for them has workers' compensation insurance, regardless of the number of employees employed by the subcontractor. If the subcontractor does not, the subcontractor's injured employees would be covered under the employer's workers' compensation insurance. If the subcontractor does not carry workers' compensation insurance, then the owner or the principal contractor would be liable just as if the subcontractor's employee was one of their employees.

For answers to additional questions, visit the SC Worker's Compensation Commission website, at:

<http://www.wcc.state.sc.us/Frequently%20Asked%20Questions/FAQ.htm>

28. Hold Harmless Clause

The Contractor shall, during the term of the contract including any warranty period, indemnify, defend, and hold harmless the County, its officials, employees, agents, and representatives thereof from all suits, actions, or claims of any kind, including attorney's fees, brought on account of any personal injuries, damages, or violations of rights, sustained by any person or property in consequence of any neglect in safeguarding contract work or on account of any act or omission by the contractor or his employees, or from any claims or amounts arising from violation of any law, bylaw, ordinance, regulation or decree. The vendor agrees that this clause shall include claims involving infringement of patent or copyright.

29. Condition of Items

All items shall be new, in first class condition, including containers suitable for shipment and storage, unless otherwise indicated herein. Verbal agreements to the contrary will not be recognized.

30. Workmanship and Inspection

All work under this contract shall be performed in a skillful and workmanlike manner. The County may, in writing, require the Contractor to remove any employee from work that the County deems incompetent or careless.

Further, the County may, from time to time, make inspections of the work performed under this contract. Any inspection by the County does not relieve the Contractor from any responsibility regarding defects or other failures to meet the contract requirements.

31. Progress Payments

Contractor's Application for Payment shall be submitted to the Owner on AIA Document G702 and G703--1992 Edition, or such other form as may be mutually agreed upon. The period covered by each Application for Payment shall be not less than one calendar month. The Owner shall make progress payments to the Contractor on undisputed amounts certified by the Architect within twenty-one (21) days from receipt of the Application for Payment by the Owner in accordance with Title 29, Chapter 6 of the Code of Laws of South Carolina, 1976, as amended. Individual contractors shall provide their social security numbers, and proprietorships, partnerships, and corporations shall provide their federal employer identification number on the pricing form.

32. South Carolina Sales Tax

The County of Georgetown, SC is not exempt and pays the appropriate SC sales tax on all applicable purchases.

33. Assignment of Contract

This contract may not be assigned in whole or part without the written consent of the Purchasing Officer.

34. Termination

Subject to the provisions below, the contract may be terminated by the County upon thirty (30) days advance written notice to the other party; but if any work or service hereunder is in progress, but not completed as of the date of termination, then this contract may be extended upon written approval of the County until said work or services are completed and accepted.

a. Termination for Convenience

In the event that this contract is terminated or canceled upon request and for the convenience of the County, without the required thirty (30) days advance written notice, then the County shall negotiate reasonable termination costs, if applicable.

b. Termination for Cause

Termination by the County for cause, default or negligence on the part of the contractor shall be excluded from the foregoing provision; termination costs, if any, shall not apply. The thirty (30) days advance notice requirement is waived in the event of Termination for Cause.

c. Non-Appropriation:

It is understood and agreed by the parties that in the event funds are not appropriated in the current fiscal year or any subsequent fiscal years, this contract will become null and void and the County will only be required to pay for services completed to the satisfaction of the County.

35. Default

In case of default by the contractor, for any reason whatsoever, the County may procure the goods or services from another source and hold the contractor responsible for any resulting excess cost and may seek other remedies under law.

36. Severability

In the event that any provision shall be adjudged or decreed to be invalid, such ruling shall not invalidate the entire Agreement but shall pertain only to the provision in question and the remaining provisions shall continue to be valid, binding and in full force and effect.

37. Applicable Laws

This Agreement shall be governed by and construed in accordance with the laws of the State of South Carolina, U.S.A.

38. Claims and Disputes:

All claims, disputes and other matters in question between parties arising out of, or relating to, this Agreement, or the breach thereof, shall be decided in the Circuit Court of the Fifteenth Judicial circuit in Georgetown County, South Carolina. By executing this Agreement, all parties specifically consent to venue and jurisdiction in Georgetown County, South Carolina and waive any right to contest jurisdiction and venue in said Court.

39. Rights of County

The County reserves the right to reject all or any part of any bid, waive informalities and award the contract to the lowest responsive and responsible bidder to best serve the interest of the County.

40. Notice of Award

A *Notice of Intent to Award* will be mailed to all respondents.

41. Protest

Bidders may refer to Sections 2-67, 2-73, and 2-74 of Ordinance #2008-09, also known as the Georgetown County, South Carolina Purchasing Policy to determine their remedies concerning this competitive process. The failure to be awarded a bid shall not be valid grounds for protest.

42. Debarment

By submitting a bid, the offeror certifies to the best of its knowledge and belief, that it and its principals, sub-contractors and assigns are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal, State or local department or agency. A copy of the County's debarment procedure in accordance with Section 2-68 of Ordinance #2008-09, also known as the Georgetown County, South Carolina Purchasing Policy is available upon request.

43. Firm Pricing for County Acceptance

Bid price must be firm for County acceptance for 90 days from bid opening date.

44. Unit Prices and Extension

If required, bid unit price on quantity specified -- extend and show total. In case of errors in extension, unit prices shall govern. Bids subject to unlimited price increases will not be considered.

45. Use of Brand Names (If Appropriate)

Unless otherwise stated in an Invitation for Bid, the name of a certain brand, make or manufacturer does not restrict bidders to the specific brand, make or manufacturer named; it conveys the general style, type,

character, and quality of the article desired, and any article which the County in its sole discretion determines to be the equal of that specified, considering quality, workmanship, economy of operation, and suitability for the purpose intended, shall be accepted. Any catalog, brand name or manufacturer's reference used in bid invitation is descriptive - NOT restrictive - it is to indicate type and quality desired. Bids on brands of like nature and quality will be considered. If bidding on other than reference or specifications, bid must show manufacturer, brand or trade name, catalog number, etc. of article offered. If other than brand(s) specified is offered, illustrations and complete description must be submitted with bid. Samples may be required. If bidder makes no other bid and takes no exception to specifications or reference data, he will be required to furnish brand names, numbers, etc., as specified. Bidders must certify that item(s) bid upon meet and/or exceed specifications.

46. Permits

The successful Offeror must be responsible for obtaining all necessary city, county, and state permits/licenses and must comply with all local codes and ordinances. Copies of such permits/licenses shall be made available to the County upon request. Building contractors working within Georgetown County must also secure a Contractor's License from the Building Department. Work within the Georgetown City Limits may require a City Business License. For additional information, please review the "Forms and Fees" section of the Building and Planning web page at the link below:

<http://www.gtcounty.org/building/default.html>

47. Environmental Management:

Vendor/Supplier/Contractor will be responsible for complying with all federal, state and local environmental regulations relating to transportation, handling, storage, spillage and any other aspect of providing the services specified herein, as applicable.

48. Bid Tabulation Results

Vendors wishing to view the bid tabulation results may visit the Georgetown County, SC web-site at: <http://www.gtcounty.org>. Select "Purchasing", then "Bids Information" and double click the link under the individual bid listing.

49. The Bidder hereby certifies that he or she has carefully examined all of the Documents for the project, has carefully and thoroughly reviewed this Request for Bid/Quotation, has inspected the location of the project (if applicable), and understands the nature and scope of the work to be done; and that this Bid is based upon the terms, specifications, requirements, and conditions of the Request for Bid/ Documents. The Bidder further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope of the project as aforesaid.

50. Any attempt by the vendor to influence the opinion of County Staff or County Council by discussion, promotion, advertising, misrepresentation of the submittal or purchasing process or any procedure to promote their offer will constitute a violation of the vendor submittal conditions and will cause the vendor's submittal to be declared null and void.

51. Apparent omission of a detailed description concerning any point, shall be regarded as meaning the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used.

52. Response Clarification

Georgetown County reserves the right to request additional written or oral information from Bidders in order to obtain clarification of their Responses.

53. Georgetown County, SC has a Local Vendor Preference Option by code (Ordinance #2010-45):

Sec 2-50. Local Preference Option

1. A vendor shall be deemed a Local Georgetown County vendor for the purposes of this Section if such vendor is an individual, partnership, association or corporation that is authorized to transact business within the State, maintains an office in Georgetown County, and maintains a representative inventory or commodities within the County on which the bid is submitted, and has paid all taxes duly assessed.
2. This option allows the lowest local Bidder whose bid is within five-percent (5%) of the lowest non-local Bidder to match the bid submitted by the non-local Bidder and thereby be awarded the contract. This preference shall apply only when (a) the total dollar purchase is \$10,000 or more; (b) the vendor has a physical business address located and operating within the limits of Georgetown County and has been doing business in the County for a period of twelve (12) months or more; and (c) the vendor provides proof of payment of all applicable Georgetown County taxes and fees if so requested.
3. Should the lowest responsible and responsive Georgetown County bidder not exercise its right to match the bid as granted herein, the next lowest qualified Georgetown County bidder shall have that right and so on. The right to exercise the right to match the bid shall be exercised within 24 hours of notification of the right to match the non-Georgetown County bidder's bid.
4. In order to qualify for the local preference authorized by this Section, the vendor seeking same shall be required to submit with its bid a statement containing relevant information which demonstrates compliance with the provisions of this Section. This statement shall be on a form provided by the County purchasing department and shall be signed under penalty of perjury. Failure to provide such affidavit at the time the bidder submits its bid shall constitute a waiver of any claim for preference.
5. For all contracts for architecture, professional engineering, or other professional services governed by § 2-56, Architect-Engineer and Land Surveying Services – Public Announcement and Selection Process, the county shall include the local business status of a firm among the factors considered when selecting which firms are “most highly qualified.” In determining which firm is the “most qualified” for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.
6. Local preference shall not apply to the following categories of contracts: (a) Goods or services provided under a cooperative purchasing agreement or similar “piggyback” contract; (b) Contracts for professional services except as provided for in section five (§5) above; (c) Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference; (d) Purchases or contracts made pursuant to a noncompetitive award process, unless otherwise provided by this section; or (e) Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county council or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.

See the RESIDENCE CERTIFICATION FOR LOCAL PREFERENCE form attached for details.

54. Vendor Checklist

The items indicated below must be returned as a part of the Bid Submission package:

- (a) Twenty (20) Page (maximum) Formatted Response
- (b) Mandatory Vendor Agreement & Declaration Form*
- (c) Resident Certification for Local Preference (2 pgs)*
- (d) Substitute for W-9*
- (e) Mandatory Exceptions Page*
- (f) SEPARATELY SEALED Design-Builder Fee Proposal*

*These forms do not constitute part of the 20-page limit.

The successful proposer will be required to provide a Certificate of Insurance naming Georgetown County, SC as an additional insured. This must be on file prior to any final award.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK.]



MANDATORY BID SUBMITTAL FORM
Design-Build Services for Department of Social Services (DSS) Facility
RFQ #16-076

The undersigned, on behalf of the vendor, certifies that: (1) this bid is made without previous understanding, agreement or connection with any person, firm or corporation making a bid on the same project; (2) is in all respects fair and without collusion or fraud; (3) the person whose signature appears below is legally empowered to bind the firm in whose name the bid is entered; (4) they have read the complete Request for Bid and understand and accept all provisions; (5) if accepted by the County, this bid is guaranteed as written and amended and will be implemented as stated; and (6) mistakes in writing of the submitted bid will be their responsibility.

1. Name of Company submitting bid _____
2. Name of Architectural/Design Firm: _____
3. Architect's License No.: _____
4. Name of General Contractor Firm: _____
5. GC LLR License No. & Endorsement: _____
6. Name of Engineering Firm: _____
7. Engineer's License Number: _____
8. Submitter's Contact Address: _____

9. Contact Person _____
10. Telephone Number _____ Fax Number _____
11. E-Mail address _____
12. Remittance Address: _____

13. Accounting Contact _____
14. Telephone Number _____ Fax Number _____
15. E-Mail address _____
16. FEIN or Social Security Number: _____

17. Suspension and Debarment

Federal guidelines require grant recipients to obtain sufficient assurance that vendors are not suspended or debarred from participating in federal programs when contracts exceed \$25,000. By

signing below you verify that no party to this agreement is excluded from receiving Federal contracts, certain subcontracts, and certain Federal financial and nonfinancial assistance and benefits, pursuant to the provisions of 31 U.S.C. 6101, note, E.O. 12549, E.O. 12689, 48 CFR 9.404, and each agency's codification of the Common Rule for Nonprocurement suspension and debarment. [See <https://www.epls.gov/> for additional information.]

18. If the bid is accepted, the required Contract must be executed within fifteen (15) days after receipt of written notice of formal award of Contract.

19. Acceptance of Invitation for Bid Content: The contents of the successful IFB/RPS are included as if fully reproduced herein. Therefore, the selected contractor must be prepared to be bound by his/her proposal as submitted.

20. RENEWAL OF CONTRACT

The continuation of the terms, conditions, and provisions of any resulting contract beyond the fiscal year is subject to approval and ratification by the Georgetown County Council and appropriation by them of the necessary money to fund said contract for each succeeding year.

21. CERTIFICATION REGARDING DRUG-FREE WORKPLACE:

The undersigned certifies that the vendor listed below will provide a “drug-free workplace” as that term is defined in Section 44-107-30 of the Code of Laws of South Carolina, 1976, as amended, by the complying with the requirements set forth in title 44, Chapter 107.

Yes No

22. Any attempt by the vendor to influence the opinion of County Staff or County Council by discussion, promotion, advertising, misrepresentation of the submittal or purchasing process or any procedure to promote their offer will constitute a violation of the vendor submittal conditions and will cause the vendor’s submittal to be declared null and void.

23. The lowest or any proposal will not necessarily be accepted and the County reserves the right to award any portion thereof. I/We, the undersigned, hereby confirm that all the above noted documents for Bid/Request for Proposal No. 16-076 were received.

24. ILLEGAL IMMIGRATION: Non-Construction (NOV. 2008): (An overview is available at www.procurement.sc.gov) By signing your offer, you certify that you will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agree to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable to you and your subcontractors or sub-subcontractors; or (b) that you and your subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." You agree to include in any contracts with your subcontractors language requiring your subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. [07-7B097-1].

25. ILLEGAL IMMIGRATION: Construction

By signing its bid or proposal, Contractor certifies that it will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agrees to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable both to Contractor and its subcontractors or sub-subcontractors; or (b) that Contractor and its subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." Contractor agrees to include in any contracts with its subcontractors language requiring its subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. (An overview is available at www.procurement.sc.gov)

24. Printed Name of person binding bid _____

25. Signature (X) _____

26. Date _____

NOTE: THE ENTIRE IFB PACKET NEED NOT BE RETURNED. Please be sure to provide the requested number of copies of all offeror provided attachments. Thank you.

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK.]



RESIDENCE CERTIFICATION FOR LOCAL PREFERENCE

MANDATORY VENDOR SUBMITTAL FORM

WHEREAS, Georgetown County Council desires to further its support of local businesses when awarding contracts for the provision of supplies and construction services to the County through its established procurement procedures.

THEREFOR pursuant to Georgetown County, SC Ordinance #2014-02 as adopted, §2-50 Local Preference Option, the Georgetown County Purchasing Officer requests each offeror provide Residence Certification. The Local Preference Option provides some restrictions on the awarding of governmental contracts; provisions of which are stated below:

Sec 2-50. Local Preference Option

1. A vendor shall be deemed a Local Georgetown County vendor for the purposes of this Section if such vendor is an individual, partnership, association or corporation that is authorized to transact business within the State, maintains an office in Georgetown County, and maintains a representative inventory or commodities within the County on which the bid is submitted, and has paid all taxes duly assessed.
2. This option allows the lowest local Bidder whose bid is within five-percent (5%) of the lowest non-local Bidder to match the bid submitted by the non-local Bidder and thereby be awarded the contract. This preference shall apply only when (a) the total dollar purchase is \$10,000 or more; (b) the vendor has a physical business address located and operating within the limits of Georgetown County and has been doing business in the County for a period of twelve (12) months or more; and (c) the vendor provides proof of payment of all applicable Georgetown County taxes and fees if so requested.
3. Should the lowest responsible and responsive Georgetown County bidder not exercise its right to match the bid as granted herein, the next lowest qualified Georgetown County bidder shall have that right and so on. The right to exercise the right to match the bid shall be exercised within 24 hours of notification of the right to match the non-Georgetown County bidder's bid.
4. In order to qualify for the local preference authorized by this Section, the vendor seeking same shall be required to submit with its bid a statement containing relevant information which demonstrates compliance with the provisions of this Section. This statement shall be on a form provided by the County purchasing department and shall be signed under penalty of perjury. Failure to provide such affidavit at the time the bidder submits its bid shall constitute a waiver of any claim for preference.
5. For all contracts for architecture, professional engineering, or other professional services governed by § 2-56, Architect-Engineer and Land Surveying Services – Public Announcement and Selection Process, the county shall include the local business status of a firm among the factors considered when selecting which firms are “most highly qualified.” In determining which firm is the “most qualified” for purposes of negotiating a satisfactory contract, preference shall be given to a local business where all other relevant factors are equal.

6. Local preference shall not apply to the following categories of contracts:

- (a) Goods or services provided under a cooperative purchasing agreement or similar “piggyback” contract;
- (b) Contracts for professional services except as provided for in section five (§5) above;
- (c) Purchases or contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference;
- (d) Purchases or contracts made pursuant to a noncompetitive award process, unless otherwise provided by this section; or
- (e) Any bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the county council or county administrator, or where such suspension is, in the opinion of the county attorney, required by law.

I certify that [Company Name] _____ is a

Resident Bidder of Georgetown County as defined in Ordinance #2014-02, and our principal place of business is _____ [City and State].

I certify that [Company Name] _____ is a

Non-Resident Bidder of Georgetown County as defined in Ordinance #2014-02, and our principal place of business is _____ [City and State].

(X) _____

Signature of Company Officer

[The remainder of this page intentionally left blank.]



Georgetown County
DESIGN-BUILDER FEE PROPOSAL
MANDATORY VENDOR SUBMITTAL FORM

(Submit in a SEPARATELY Sealed Envelope as Project Cost Matrix with back-up materials as necessary)

1. DESIGN-BUILDER’S FEE:

Basis of Fee: The Design-Builder’s fee is the amount, established by and agreed to by both parties, which is the full amount of compensation due to the Design-Builder as gross profit, and for any and all expenses of the Project not included and identified as a Cost of Work, provided that the Design-Builder performs all the requirements of the Contract Documents within the time limits established. If applicable, the fees and costs should be broken down by each site within the project.

For the purpose of responding to the RFQ and for potential negotiations subsequent to final selection, candidate Design-Builder may express Fees A, B and C, below, in terms of percentages of this project’s Guaranteed Maximum Price Limitation, which is \$2,250,000.00.

A. DESIGN FEE:

Design Fee: For the design services provided by the Design-Builder, the Owner shall pay to the Design-Builder a Design Fee.

Design Fee - FIXED FEE	\$
------------------------	----

B. CONSTRUCTION FEE:

Construction Fee: For the construction services provided by the Design-Builder, the Owner shall pay to the Design-Builder a Construction Fee.

Construction Fee - FIXED FEE	\$
------------------------------	----

2. DESIGN-BUILDER’S OVERHEAD COSTS (Construction):

The Design-Builder’s Overhead Costs: The maximum amount in dollars projected for the Design-Builder’s Expenses and Construction Overhead Costs and Expenses are inclusive of all direct and incidental expenses. For this Fee Proposal, project these costs and expenses to include field office furniture/furnishing and utilities, office supplies – construction, superintendent truck/phone/cell/phone, temporary construction facilities, workers compensation insurance, liability and property insurance for project and miscellaneous insurance.

Construction Overhead Costs and Expenses – FIXED FEE	\$
--	----

Proposer (Firm): _____

Signature: _____

Printed Name: _____

Title: _____



Vendor Agreement & Declaration **Mandatory Vendor Submittal Form**

Each vendor submitting a bid proposal to Georgetown County shall agree to the conditions listed below. If a vendor cannot agree to these terms, or in any way violates the conditions, the response will be judged Non-Responsive and not considered for award. If the conditions are violated during the evaluation process for proposals prior to the execution of a contract by Georgetown County, the proposal of the vendor violating the conditions will become null and void and the vendor's submittal withdrawn from consideration for the award.

The Mandatory Conditions are:

- 1) We certify that our Design-Build entity's "Designer" has current South Carolina Architectural and/or Engineering license(s) as appropriate for their portion of the design work.
- 2) We certify that our Design-Build entity's "Builder" has a current South Carolina Contractor's license with classification BD and group limitation Group 5.
- 3) Our building firm has a safety Experience Modification Rate average of less than 1.0 over the last three years.
- 4) We certify that our firm has sufficient bonding capacity to provide a payment and performance bonds with coverage equal to the total cost of the project.
- 5) We certify that our firm will obtain a Builder's Risk Insurance Policy for this project with coverage equal to the total cost of the project.
- 6) We certify that our firm will have and maintain liability insurance coverage for a total of \$5 million for commercial general liability, and not less than \$1 million per claim for commercial business automobile liability, and that we will include coverage for errors and omissions of not less than \$1 million per claim. We further pledge that Georgetown County will be named as an additional insured party and loss payee on the insurance policies just described.
- 7) Such signed statement shall be placed in an appendix and will not count toward your page limit.

FIRM NAME

DATE

SIGNATURE OF PERSON AUTHORISING BID

[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK.]



SUBSTITUTE FOR FORM W-9
MANDATORY BID SUBMISSION FORM

Pursuant to Internal Revenue Service Regulations, you must furnish your Taxpayer Identification Number (TIN) to Georgetown County. If this number is not provided, you may be subject to a 28% withholding on each payment.

INDIVIDUAL OR OWNER'S NAME _____
(Sole Proprietor Must Provide Individual Name along with Business Name)

LEGAL BUSINESS NAME (d/b/a): _____

ADDRESS: (_____
(_____
(_____

9 DIGIT TAXPAYER IDENTIFICATION NUMBER (TIN)
(Individual Must Provide SS#; Sole Proprietorship may provide SS# or EIN#)

Social Security Number _____ - _____ - _____

Employer Identification Number _____ - _____

BUSINESS DESIGNATION

- Individual, Sole Proprietor, or Single-Member LLC
- S-Corporation
- Trust/Estate
- Non-Profit Organization/501(a)
- Limited Liability Company: C = Corporation S = S Corporation P = Partnership
(Must Circle the appropriate Tax Classification)
- C-Corporation
- Partnership
- Governmental Entity
- Other: _____

Exempt Payee Code (if any): _____
(Exemption codes apply only to certain entities, not individuals; IRS W-9 instructions, page 3):

PRINCIPAL BUSINESS ACTIVITY (List Type of Service or Product Provided):

MEDICAL SERVICES PROVIDER ATTORNEY/LEGAL SERVICES PROVIDER

CERTIFICATION Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person; and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. *The Internal Revenue Service does not require your consent to any provision of this document other than the certifications required to avoid back-up withholding.*

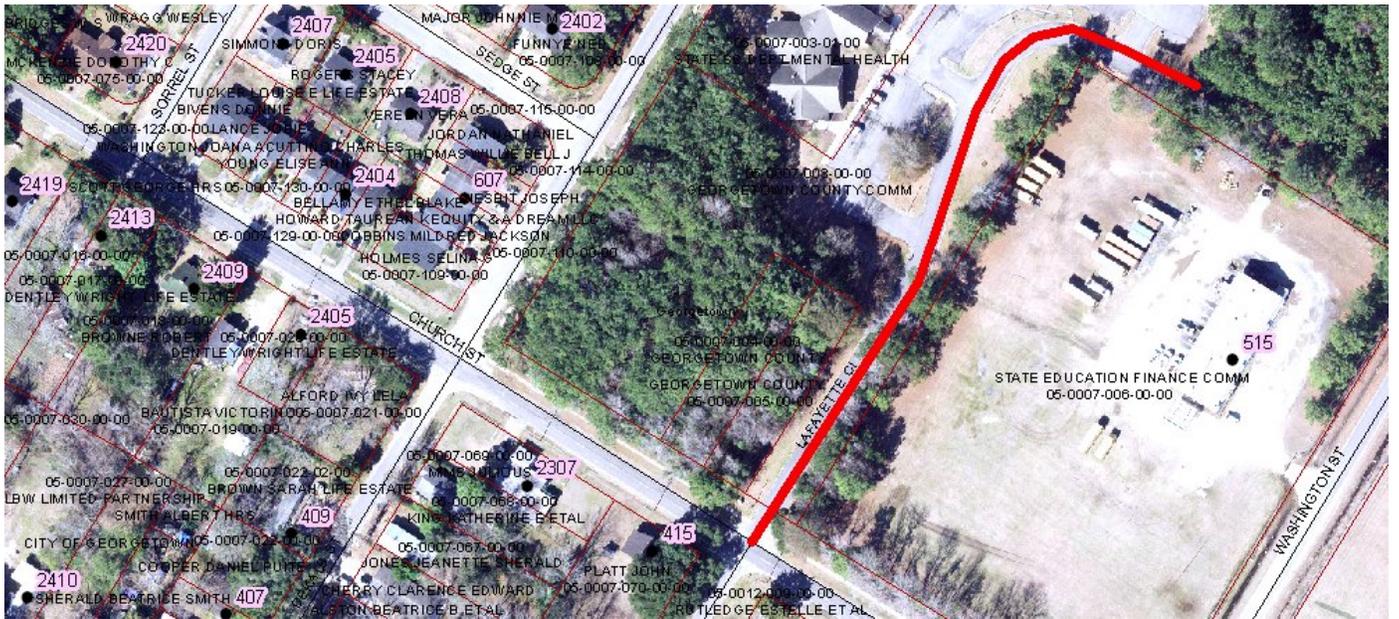
Signature: _____

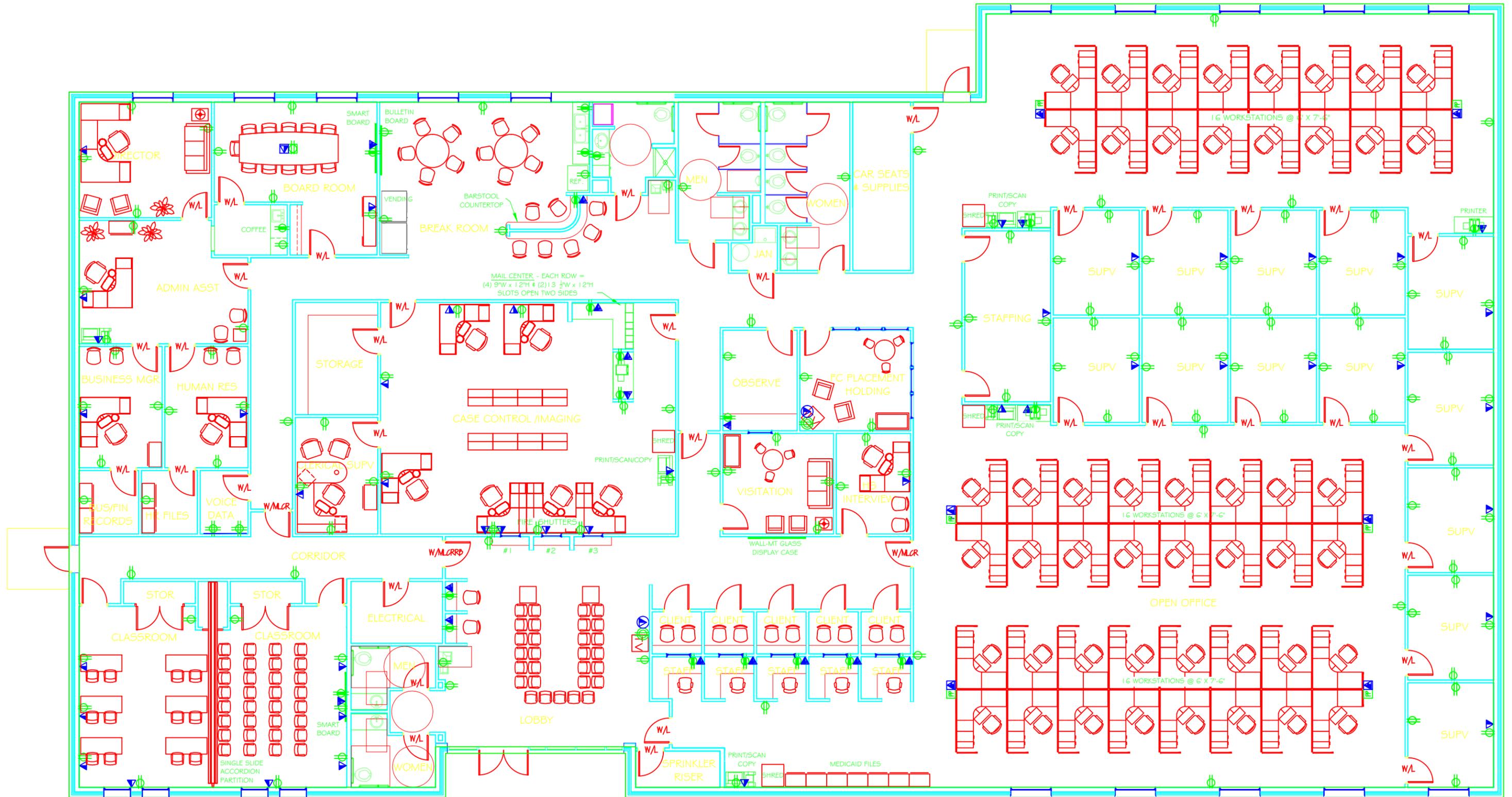
Date _____

EXCEPTIONS PAGE

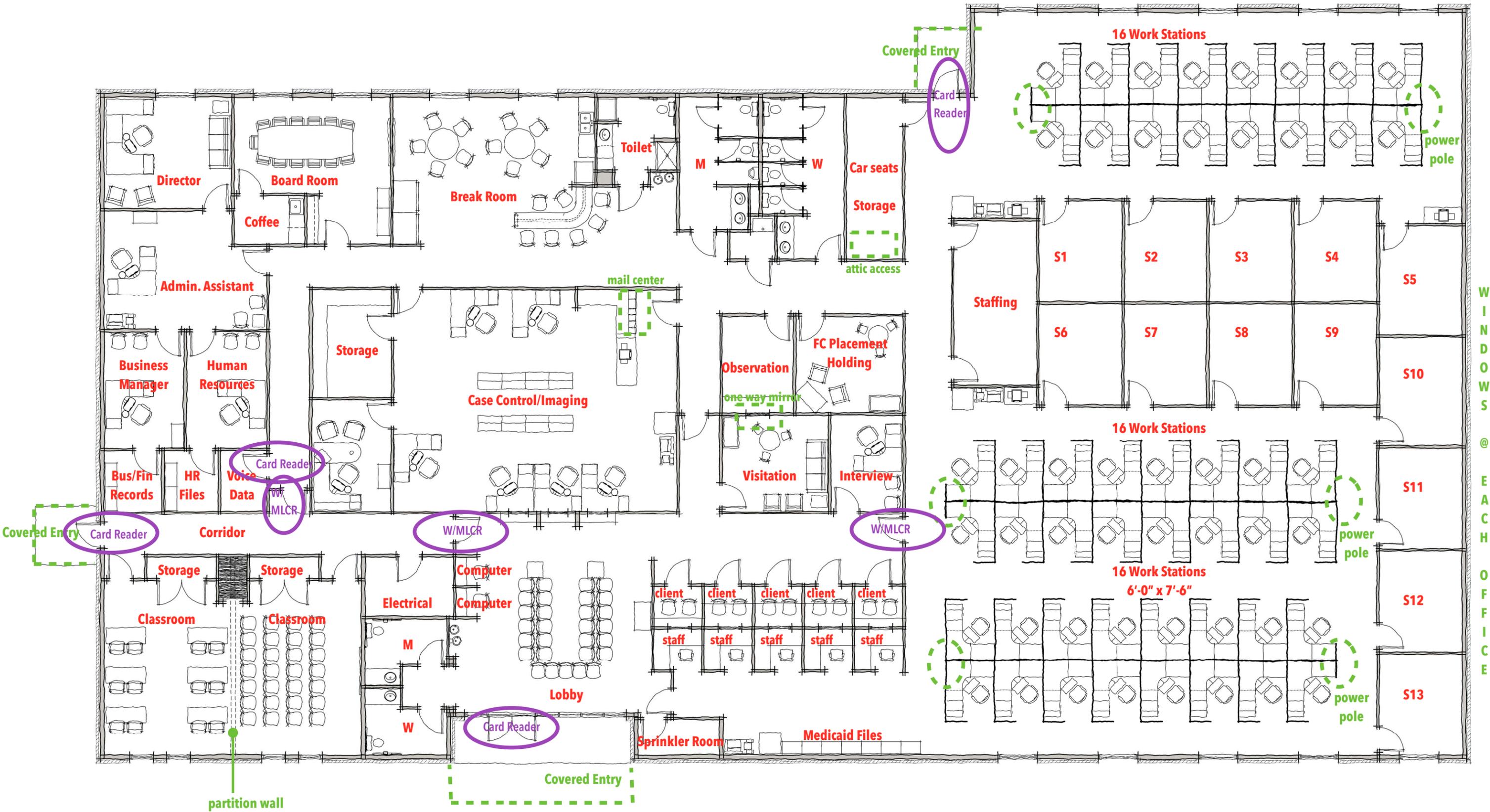
MANDATORY BID SUBMISSION FORM

List any areas where you cannot or will not comply with the specifications or terms contained within the bid documentation. If none, write "NONE".





14,749 GROSS RENTABLE SQ/FT - 72 STAFF = 205 AVG
 SCALE 1/8" = 1'-0" (51" OR 69" PANELS)



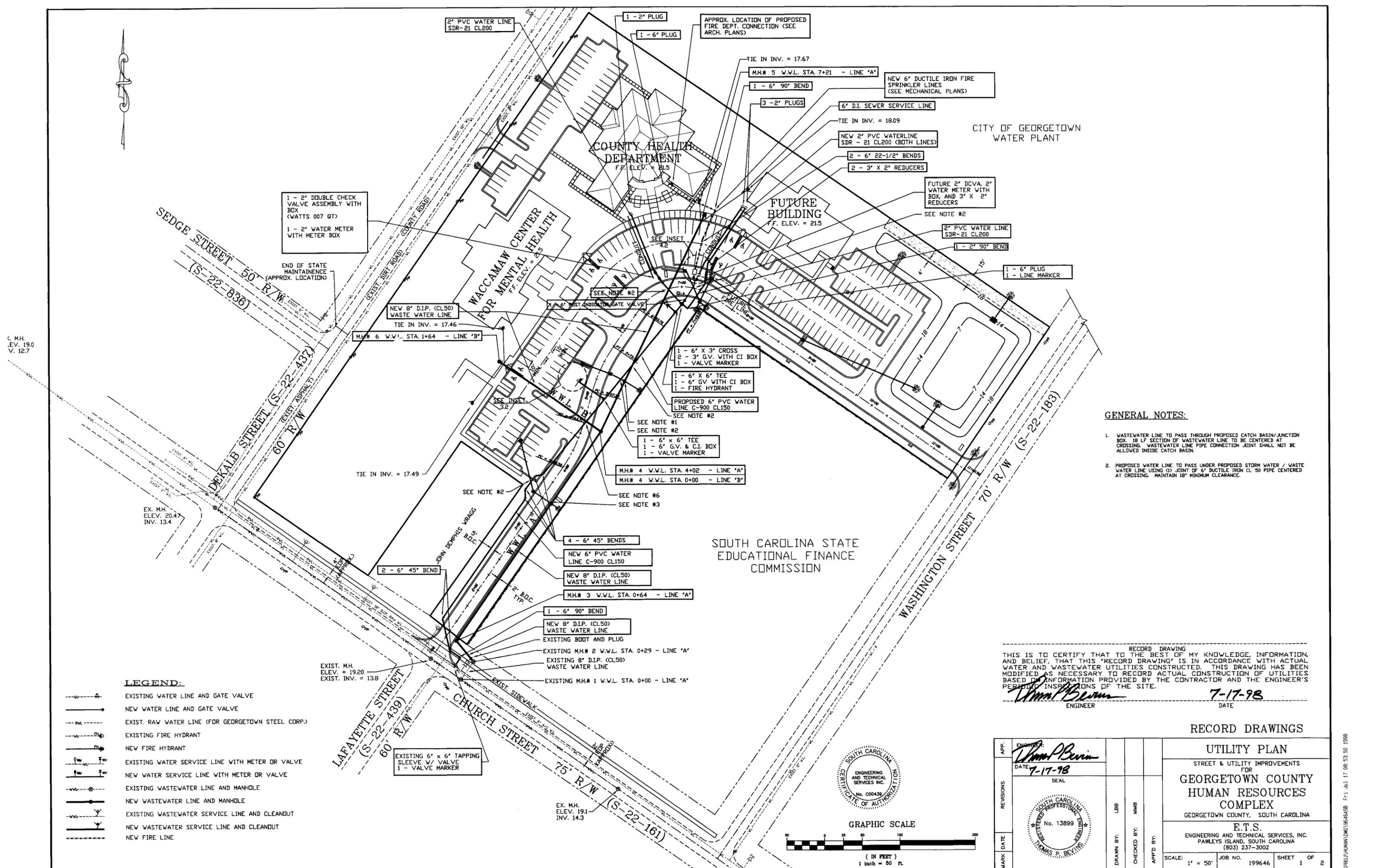
W
I
N
D
O
W
S

@
E
A
C
H

O
F
F
I
C
E

- denotes data outlet location
- denotes architectural woodwork





C. M.H. ELEV. 19.0 V. 12.7

LEGEND:

- EXISTING WATER LINE AND GATE VALVE
- NEW WATER LINE AND GATE VALVE
- EXIST. RAW WATER LINE (FOR GEORGETOWN STEEL CORP.)
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- EXISTING WATER SERVICE LINE WITH METER OR VALVE
- NEW WATER SERVICE LINE WITH METER OR VALVE
- EXISTING WASTEWATER LINE AND MANHOLE
- NEW WASTEWATER LINE AND MANHOLE
- EXISTING WASTEWATER SERVICE LINE AND CLEANOUT
- NEW WASTEWATER SERVICE LINE AND CLEANOUT
- NEW FIRE LINE

GENERAL NOTES:

1. WASTEWATER LINE TO PASS THROUGH PROPOSED CATCH BASIN/JUNCTION BOX. 18' SECTION OF WASTEWATER LINE TO BE CENTERED AT CROSSING. WASTEWATER LINE PIPE CONNECTION JOINT SHALL NOT BE ALLOWED INSIDE CATCH BASIN.
2. PROPOSED WATER LINE TO PASS UNDER PROPOSED STORM WATER / WASTE WATER LINE USING (3) JOINTS OF 6' DUCTILE IRON CL 50 PIPE CENTERED AT CROSSING. MAINTAIN 18" MINIMUM CLEARANCE.

THIS IS TO CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THIS 'RECORD DRAWING' IS IN ACCORDANCE WITH ACTUAL WATER AND WASTEWATER UTILITIES CONSTRUCTED. THIS DRAWING HAS BEEN MODIFIED AS NECESSARY TO RECORD ACTUAL CONSTRUCTION OF UTILITIES BASED ON INFORMATION PROVIDED BY THE CONTRACTOR AND THE ENGINEER'S PERIODIC INSPECTIONS OF THE SITE.

Thomas P. Bevin
ENGINEER

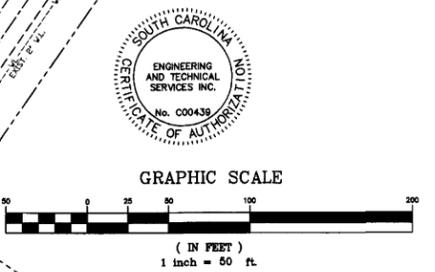
7-17-98
DATE

RECORD DRAWINGS

UTILITY PLAN
STREET & UTILITY IMPROVEMENTS
FOR
**GEORGETOWN COUNTY
HUMAN RESOURCES
COMPLEX**
GEORGETOWN COUNTY, SOUTH CAROLINA

E.T.S.
ENGINEERING AND TECHNICAL SERVICES, INC.
PAWLEYS ISLAND, SOUTH CAROLINA
(803) 237-3002

APP'D:	<i>Thomas P. Bevin</i>	DATE:	7-17-98
REVISIONS:	SEAL		
MARK DATE:			
DRAWN BY:	LB	CHECKED BY:	MMB
APP'D BY:			



**Report of Geotechnical Exploration
Department of Social Services
Georgetown, South Carolina
S&ME Project No. 1463-16-036**



Prepared for:
Georgetown County
129 Screven Street, Suite 239
Georgetown, South Carolina 29440

Prepared by:
S&ME, Inc.
1330 Highway 501 Business
Conway, SC 29526

August 25, 2016



August 25, 2016

Georgetown County
129 Screven Street
Georgetown, South Carolina 29440

Attention: Mr. Kyle Prufer

Reference: **Report of Geotechnical Exploration**
Department of Social Services
Georgetown, South Carolina
S&ME Project No. 1463-16-036

Dear Mr. Prufer:

We have completed our geotechnical exploration for the referenced project in Georgetown, South Carolina. Our exploration was performed pursuant to S&ME Proposal No. 14-1600569 and the Statewide Term Contract Number 12-031, between Georgetown County and S&ME, Inc., dated July 20, 2012. The purpose of this exploration was to evaluate subsurface conditions within the construction footprint as they relate to site preparation, earthwork, and structural support. This report presents our understanding of the proposed construction, the site and subsurface conditions encountered, and our conclusions and recommendations.

❖ Project Information

Project information was provided via email correspondence between Kyle Prufer (Georgetown County) and Tommy Still (S&ME) on July 26, 2016. Mr. Prufer also provided a Site Plan, drawn by Engineering and Technical Services (ETS) and dated January 7, 1998. We understand that the "County Alcohol and Drug Abuse Center" depicted on the site plan has been replaced by a Department of Social Services building, which will occupy generally the same area of the site.

The site is located at the northwest corner of West Church Street and Lafayette Circle in Georgetown, South Carolina. Construction will include a new one-story Department of Social Services structure, measuring approximately 15,000 square feet in plan area. We anticipate that construction will consist of metal framing with concrete masonry unit (CMU) walls and a soil-supported slab-on-grade. Associated asphalt pavements will also be constructed.

Specific structural load information was not provided. Based on our experience with similar construction, we assumed maximum column and wall loads will not exceed 50 kips and 4 kips/ft, respectively. We also assume that less than 2 feet of fill will be required in order to reach proposed subgrade elevation for the building pad. If actual loading or fill thickness varies from our assumptions, our recommendations may require revision.

❖ Methods of Exploration

Field Exploration

Our exploration included a site reconnaissance by a geotechnical engineer and the performance of two cone penetrometer test (CPT) soundings and one seismic cone penetration test (SCPT) sounding, which were performed in general accordance with ASTM D 5778 procedures. The soundings were performed to depths ranging from approximately 20 to 39 feet below the existing ground surface. Two test soundings which were assigned to be advanced to a depth of 40 feet each, SCPT-1 and C-2, encountered refusal to further advancement at depths of 38.5 and 39.4 feet, respectively.

We also drilled hand-auger borings at 4 locations within proposed pavement areas to a depth of 4 feet each, to explore the near-surface soils. Within each of these hand auger borings, dynamic cone penetrometer (DCP) testing was performed at approximate one-foot intervals in general accordance with ASTM STP 399, "Dynamic Cone for Shallow In-Situ Penetration Testing" procedures, to provide us with an index for estimating soil strength parameters and relative consistency of the near-surface soils encountered.

We also drilled a hand-auger boring without DCP testing adjacent to each of the CPT/SCPT test soundings to a depth of 4 feet.

Test locations were established in the field by S&ME personnel utilizing landmark features of the existing building. These approximate test locations are shown on the Test Location Sketch (Figure 1) in the appendix. A more detailed description of our field testing procedures, the CPT sounding logs, and the hand auger boring logs are also included in the appendix.

Laboratory Testing

Soil samples that we obtained were transported to our laboratory. The following ASTM standardized laboratory tests were performed on representative samples collected from the site:

- Natural Moisture Content (ASTM D 2216)
- Grain-Size Distribution (ASTM D 422 without hydrometer portion)
- Atterberg Limits Testing (ASTM D 4318)
- Modified Proctor Testing (ASTM D 1557)
- California Bearing Ratio (CBR) (ASTM D 1883)

A summary of the laboratory procedures used to perform these tests is presented in the appendix. The individual test results are also included in the appendix.

❖ Site and Subsurface Conditions

Site Conditions

The site was wooded at the time of our exploration, and site cover at each test location consisted of trees measuring up to about 50 feet in height, with sparse to medium dense undergrowth.

Topsoil and rootmat was observed to range from about 6 to 12 inches in thickness within our hand auger borings. Topographic information was not provided; however, the ground surface appeared to be relatively level at the time of our exploration.

Subsurface Conditions

Details of the subsurface conditions encountered by the soundings and borings are shown on the logs in the appendix. These logs represent our interpretation of the subsurface conditions based upon field data. Stratification lines on the sounding logs represent approximate boundaries between soil behavior types¹; however, the actual transition may be gradual. The general subsurface conditions and their pertinent characteristics are discussed in the following paragraphs.

Stratum I: Upper Sands with Clay Seams

The exploration initially encountered between 6 and 12 inches of organic-laden topsoil underlain by loose to medium dense sand with varying amounts of silt and clay to a depth of approximately 21 to 22 feet below the existing ground surface. Tip stress measurements within these soils ranged from about 10 to 150 tsf, with typical values ranging from about 20 to 80 tsf. The zone exhibiting the lowest tip resistance was observed between depths of about 5 to 11 feet, where some soft consistency soils were observed. Sounding C-3 was terminated within this stratum at a depth of 20 feet.

Hand auger borings HA-1 and HA-2 on the northwestern side of the site, and the borings at building test locations SCPT-1, C-2, and C-3 encountered primarily sandy soils consisting of poorly graded sands (SP), poorly graded sands with clay (SP-SC), clayey sands (SC), and silty sands (SM) to a depth of 4 feet. Hand auger borings HA-3 and HA-4 on the southeastern side of the site encountered primarily sandy lean clays (CL) and sandy fat clays (CH) to a depth of 4 feet. Dynamic cone penetrometer (DCP) measurements within the upper 4 feet ranged from 6 to 12 blows per increment (bpi), indicating loose to medium dense conditions in the sandy soils, and firm to stiff conditions in the clayey soils.

A bulk sample was collected from the Stratum I soils. The sample was collected from approximately 1.0 to 1.5 feet below grade in boring HA-1 and was classified as silty sand (SM) with a fines content of 25.2 percent passing the No. 200 sieve. This sample was non-plastic and was brown in color. The natural moisture content was measured to be 10.6 percent. Modified Proctor testing indicated a maximum dry density of 113.2 pounds per cubic foot (pcf) at an optimum moisture content of 12.8 percent. The CBR value measured for this soil when a sample was remolded to 95 percent compaction near its optimum moisture content was 16.0 percent.

Another grab sample of the Stratum I soils was recovered from test location SCPT-1 between depths of 2 to 3 feet; this sample also classified as a silty sand (SM), and was measured to have a natural moisture content of 12.7 percent and a fines content of 12.8 percent passing the No. 200 sieve. This sample was non-plastic and was reddish brown in color.

¹ Soil Behavior Type is calculated based on empirical correlations with tip resistance, sleeve friction, and pore pressure. A CPT may define a soil based on its behavior as one type while its grain size and plasticity, the traditional basis for soil classification, may define it as a different type.

Stratum II: Intermediate Soft Clays and Silts

Beneath Stratum I and beginning at depths of about 21 to 22 feet, a stratum of soft to firm clay or silt was encountered to a depth of approximately 27 to 30 feet beneath the existing ground surface. Within the soft to firm soils, tip stress measurements ranged from about 5 to 15 tsf, with occasional readings as high as 30 tsf. The zone exhibiting the lowest tip resistance and the softest soil consistency was observed near the bottom of this stratum between depths of about 25 to 27 feet.

Stratum III: Lower Sands

Beneath Stratum II and beginning at depths of about 27 to 30 feet, loose to very dense sands were encountered to depths of approximately 38 to 39 feet beneath the existing ground surface, where refusal to further advancement of the drilling tools was encountered in soundings SCPT-1 and C-2. Tip stress measurements ranged from about 30 tsf to 450 tsf, with the highest readings being measured at the sounding termination depth. Typical measurements ranged from about 80 to 100 tsf, indicating medium dense conditions.

Subsurface Water

Subsurface water was measured upon completion of the hand auger borings at depths ranging from 3.5 to 4 feet, where encountered. Subsurface water was interpreted based on pore pressure readings within the CPT soundings to range from 7 to 8 feet below the ground surface. The shallow water levels encountered in some hand auger borings may be representative of perched water conditions, where water is perched within and atop near-surface clayey soils and clayey sands. Subsurface water levels at the site will likely fluctuate during the year due to such things as seasonal and climatic variations, and construction activity in the area.

❖ Conclusions and Recommendations

The exploration indicates the site is adaptable for the proposed construction. The primary geotechnical considerations will be site preparation, controlled fill placement and compaction, and pavement construction.

The following presents our geotechnical recommendations regarding site grading and pavement overlay construction. When reviewing these recommendations, it must be recognized that unexpected subsurface conditions may be encountered between test locations. Unexpected conditions can normally be handled during construction by on-site engineering evaluation.

Site Preparation

Site preparation should begin with the establishment of positive site drainage and the removal of unsuitable surface materials. This should include removal of topsoil, rootmat, and any other unsuitable surface materials that may be encountered. In the event that any areas with a significant percentage (i.e. 5% or greater) of organic material are encountered, those materials should be removed from the construction area.

After the surface has been prepared, the existing subgrade surface should be densified with a heavy vibratory roller prior to placement of any new fill. The exposed surface should be densified to at least 95

percent of the Modified Proctor maximum dry density (ASTM D 1557) to a depth of at least 8 inches below the surface, in order to recompact the existing loose, sandy surface.

Under favorable moisture conditions and with the proper equipment, this may be able to be accomplished by densifying the soil from the working surface. However, under less favorable conditions, it may be necessary for the contractor to re-work (or remove, condition, and replace) the material, using moistening or drying techniques, in order to achieve the desired level of compaction. The densification of these soils should be performed under the observation of an S&ME representative.

Based upon the results of our laboratory moisture content testing, the near-surface soils that we sampled were within 2 percent of the optimum moisture content for compaction at the time of our exploration; however, it should be recognized that soil moisture conditions may vary at different times of the year.

After surface densification is complete but prior to any new fill placement, the exposed subgrade should be thoroughly evaluated for stability by the Geotechnical Engineer by having the contractor proofroll it under the observation of the Geotechnical Engineer with a fully-loaded tandem-axle dump truck or similar equipment. Areas that pump or rut excessively under proofrolling should be undercut to stable materials and replaced with controlled fill. This should be a field decision made at the time of construction in consultation with the engineer based upon the actual conditions observed. Undercutting should be observed by the Geotechnical Engineer to confirm that all unsuitable materials are removed and that suitable materials are not over-excavated.

Controlled Fill

Controlled fill material should be cohesionless, non-plastic sandy soil containing no more than 15 percent fines (material passing the No. 200 sieve) by weight and having a maximum dry density of at least 105 pounds per cubic foot (pcf) as determined by a laboratory modified Proctor moisture density relationship test (ASTM D1557). The soil should be relatively free of organics or other deleterious matter. All fill should be placed in uniform lifts of 10 in. or less (loose measure) and compacted to at least 95 percent of the modified Proctor maximum dry density.

Fill placement should be observed by a qualified Materials Technician working under the direction of the Geotechnical Engineer. In addition to this visual evaluation, the Technician should perform a sufficient number of in-place field density tests to confirm that the required degree of compaction is being attained.

Seismic Design Considerations

As of July 1, 2016, the 2015 edition of the International Building Code (IBC) has been adopted for use in South Carolina. We classified the site as one of the Site Classes listed in IBC Section 1613.3, using the procedures described in Chapter 20 of ASCE 7-10.

The initial step in site class definition is to check for the four conditions described for Site Class F, which would require a site specific evaluation to determine site coefficients F_A and F_V . Soils vulnerable to potential failure include the following: 1) quick and highly sensitive clays or collapsible weakly cemented soils, 2) peats and highly organic clays, 3) very high plasticity clays, and 4) very thick soft/medium stiff clays. These soils were not evident in the soundings.

One other determining characteristic, liquefaction potential under seismic conditions, was assessed. Soils were assessed qualitatively for liquefaction susceptibility based on their age, stratum, mode of deposition, degree of cementation, and size composition. This assessment considered observed liquefaction behavior in various soils in areas of previous seismic activity.

Our analysis, which is more fully described below, indicates that liquefaction of subsoils appears likely to occur at this site in the event of the design magnitude earthquake. Testing indicates that some of the loose sands of Stratum I between depths of about 10 and 22 feet, and within Stratum III between depths of about 31 and 36 feet lie beneath the water table, appear to contain relatively few fines, and exhibit relatively low to moderately low density characteristics. We therefore consider the soil conditions within this site to be Site Class F, due to the liquefaction potential at the site.

The IBC requires a site-specific evaluation for Site Class F, but it allows an exception for structures having fundamental periods of vibration equal to or less than 0.5 seconds, which includes most short, stiff structures. We expect that the structure proposed for this site would meet this criterion for this exception. For these stiff structures, which include most buildings below 4 to 5 stories tall, site-specific evaluations are not required to determine spectral accelerations for sites with liquefiable soils. Rather, the site class may be determined in accordance with the soil profile, assuming no liquefaction, and the corresponding values of F_A and F_V may be determined from the tables contained in the code provisions, as long as the risks of liquefaction are considered in design. Under these criteria, site response factors F_A and F_V that correspond to Site Class D would be applicable for this site to determine spectral acceleration values for design. This recommendation is provided based on the recorded shear wave velocity measured to a depth of 34 feet and extrapolated to a depth of 100 feet. The average weighted shear wave velocity was estimated to be 848 feet per second, which is greater than the 600 feet per second that is required for consideration of Site Class D design parameters. See the appendix for the shear wave velocity profile.

Liquefaction Analysis

We performed our liquefaction analysis based on the design earthquake prescribed by the 2015 edition of the International Building Code (IBC 2015). An age correction factor, which increases the liquefaction resistance of older sand deposits of the type that were encountered at this site, was applied.

To help evaluate the consequences of liquefaction, we have computed the Liquefaction Potential Index (LPI), which is an empirical tool used to evaluate the potential for liquefaction to cause damage. The LPI considers the factor of safety against liquefaction, the depth to the liquefiable soils, and the thickness of the liquefiable soils to compute an index that ranges from 0 to 100. An LPI of 0 means there is no risk of liquefaction; an LPI of 100 means the entire profile is expected to liquefy. The level of risk is generally defined as:

- **LPI < 5** – surface manifestation and liquefaction-induced damage not expected.
- **5 ≤ LPI ≤ 15** – moderate liquefaction with some surface manifestation possible.
- **LPI > 15** – severe liquefaction and foundation damage is likely.

The LPI for this site was estimated to range from approximately 11 to 14, indicating the liquefaction risks are moderate, and some surface manifestation is possible. This manifestation is most likely to take the form of surface settlements during seismic shaking. Because the first potentially liquefiable zone is

located 10 feet below the surface, we do not anticipate that surface rupture in the form of sand boils would occur.

A rigorous evaluation of surface settlement due to earthquake motion was beyond our scope of work, but settlements were in general terms estimated by multiplying the average estimated volumetric strain by the thickness of the liquefied zones. Our analysis shows that, in the event that it occurred, the anticipated settlements at the surface associated with the liquefaction are unlikely to exceed 5 inches of total settlement and up to 4 inches of differential settlement across the footprint of the structure.

Observations from past earthquakes are helpful to put the liquefaction risk in perspective. Post-earthquake reconnaissance observations indicate that structures can survive substantial liquefaction-induced settlement without suffering a collapse or catastrophic failure; however, the performance may be significantly compromised, and the damage may be such that the structure must be replaced.

Considering the requirements within the IBC 2015 for Seismic Design Category D and the performance of structures that have survived with less stringent ductility and detailing requirements, we believe that a code-compliant structure constructed on this site could likely be designed to survive the predicted liquefaction and meet the collapse-prevention objectives of the building code, albeit with significant loss of serviceability. If the structures are to be designed with performance requirements in excess of collapse prevention, then ground improvements must be performed or the building must be supported on deep foundations extending below the liquefiable soil zones.

Seismic Spectral Design Values

Using site class D parameters, and under the expectation that the structure can be designed to tolerate the predicted amount of liquefaction related settlements without suffering collapse, the spectral response accelerations and site coefficients for the site are given below in Table 1.

Table 1: Seismic Design Coefficients

Criteria	Site Class	S_S	S_1	S_{DS}	S_{D1}	PGA_M	Seismic Design Category
2015 IBC	F*	0.75	0.25	0.60	0.32	0.46	D

*Use Site Class D based on the "exception" listed in ASCE 7-10, Section 20.3.1 (1.)

For a structure having a Risk Category classification of I, II, III, or IV the S_{DS} and S_{D1} values obtained are consistent with "Seismic Design Category D" as defined in section 1613.3.5 of the IBC.

Shallow Foundation Recommendations

Based on our load assumptions and analysis, we recommend that the proposed structure be supported with conventional shallow foundations bearing in suitable natural soils or well-compacted fill provided our site preparation and fill placement and compaction recommendations are followed.

A maximum allowable bearing pressure of 2,500 psf may be used for sizing footings.

Building footings should bear a minimum depth of 12 in. below finished exterior grades to develop the design bearing pressure. Wall and column footings should be a minimum of 18 and 30 in. wide, respectively. This recommendation is made to help prevent a "localized" or "punching" shear failure condition, which could exist with very narrow footings.

All foundation excavation bottoms must be evaluated by a representative of the Geotechnical Engineer prior to reinforcing steel and concrete placement. This evaluation should include probing, hand-auger borings, and dynamic cone penetrometer (DCP) testing. This evaluation will help determine if individual footings are directly underlain by suitable bearing material. Loose material should be properly compacted or undercut and replaced with well-compacted controlled fill or clean, coarse, crushed aggregate such as SCDOT No. 57 or No. 67 stone. If practical, concrete placement should be completed the same day as the footing excavation.

Based on a 50 kip column load and a uniform applied area load of 300 psf to represent the weight of the new fill, the floor slab, and the load on the slab, and considering a 2,500 psf applied bearing pressure, we estimate about $\frac{3}{4}$ to 1 inch of static settlement potential.

Based on a 4 kip per linear foot wall load and a uniform applied area load of 300 psf to represent the weight of the new fill, the floor slab, and the load on the slab, and considering a 2,500 psf applied bearing pressure, we estimate about $\frac{3}{4}$ to 1 inch of static settlement potential.

Differential settlement is typically assumed to be about half of the total settlement, or in this case, $\frac{1}{2}$ in. or less.

If actual structural loads will be greater than those used in this report, or if more than about 1 to 2 feet of new fill will be required to achieve design grade elevations, we should be provided with this information so that we can reevaluate static settlement. This is very important because higher structural loads or additional fill may cause additional settlement.

Excavation

Subsurface water was encountered from 3.5 to 8 feet below the existing ground surface at the time of our exploration. If subsurface water is encountered during excavation, the water level should be maintained at least 2 feet below excavations to help maintain bottom stability. Water can probably be controlled at the site by pumping from sumps located within the excavation. The effects of dewatering on nearby structures should be evaluated and are the responsibility of the designer of any dewatering system.

All excavations should be sloped or shored in accordance with local, state, and federal regulations, including OSHA (29 CFR Part 1926) excavation trench safety standards. The contractor is solely responsible for site safety. This information is provided only as a service, and under no circumstances should S&ME be assumed to be responsible for construction site or excavation safety.

Soil-supported Grade Slabs

Grade slabs may be soil supported provided our site preparation and controlled fill recommendations are followed. A subgrade modulus (k) of 175 pci, based on a 30-in. diameter plate load test, is appropriate for

design of slabs supported on well-compacted sandy soils. This modulus must be reduced for wide area loads.

A vapor barrier is not required for geotechnical purposes; however, if moisture-sensitive floor coverings will be used, a vapor barrier may be necessary. This should be determined by the project Architect. We do recommend placement of at least 4 inches of compacted granular materials below the floor slab to provide a capillary break. This may consist of clean, coarse, well-graded sandy soils meeting USCS Classification SW and having a silt-clay fines content of 5 percent or less by weight, or, a crushed, well-graded gravel blend such as SCDOT Graded Aggregate Base Course (GABC). Open-graded, manufactured washed gravel such as SCDOT No. 57 or No. 67 stone may also be used. If sand or washed gravel is used as the underslab layer, then the contractor should plan on using a pump truck to place the floor slab concrete since these materials are cohesionless and difficult to drive concrete trucks on. If GABC is used, then either a pump truck or direct discharge from concrete batch trucks may be appropriate depending upon the circumstances. The underslab layer should be compacted to at least 95 percent of the modified Proctor maximum dry density (ASTM D 1557).

Pavement Section Design and Construction Recommendations

We assume that new pavement subgrades will be constructed atop compacted structural fill soils compacted to at least 95 percent of the modified Proctor maximum dry density. We have performed our evaluations assuming that a CBR value of at least 9 percent will be available from subgrade soils compacted to 95 percent. If soils exhibiting a CBR value of less than 9 percent at 95 percent compaction are to be used on this project, these recommendations may require revision.

Traffic volumes for the proposed development were not provided to us in preparation for our exploration and pavement section analysis; therefore, we have performed our calculations based on typical pavement section thicknesses. The recommended pavement section components are provided in Table 2 below.

For flexible pavements, the pavement thickness computations were made using the AASHTO method, assuming an initial serviceability of 4.2 and a terminal serviceability index of 2.0, and a reliability factor of 95 percent. Assuming that only SCDOT approved source materials will be used in flexible pavement section construction, we used a structural layer coefficient of 0.44 for the HMA layers and a coefficient of 0.18 for the graded aggregate base course (GABC). Rigid pavement design assumes an initial serviceability of 4.5 and a terminal serviceability index of 2.5, and a reliability factor of 90 percent. Assuming that appropriately designed load transfer devices (dowels) will be used at the joints in the rigid pavement, we used an average load transfer coefficient of 3.2. We also assumed a minimum 28-day design compressive strength of at least 4,000 psi for the PCC. A sub-base drainage factor of 1.0 was assigned, based upon the assumption that the sub-base soils will consist of granular soils.

If reinforced joint design with appropriate load transfer devices (such as steel dowels) is not provided, then the rigid pavement section thickness design would need to be reconsidered using a higher load transfer coefficient, which is likely to result in an increase in the pavement section thickness to maintain a similar ESAL capacity.

Table 2: Recommended Minimum Pavement Sections^(a)

Pavement Area	Theoretical Allowable Traffic Load (ESALs)	HMA Surface Course Type C (inches)	HMA Intermediate Course Type C (inches)	4,000 psi Doweled Joint Concrete Pavement (inches)	Compacted SCDOT Graded Aggregate Base Course [GABC] (inches)
Light Duty Flexible (Asphalt)	150,000	1.5	1.5	---	6.0
Heavy Duty Flexible (Asphalt)	370,000	1.5	1.5	---	8.0
Heavy Duty Rigid (Concrete)	335,000	---	---	6.0	6.0

(a)Single-stage construction and soil compaction as recommended is assumed; S&ME, Inc. must observe pavement subgrade preparation and pavement installation operations.

Permanent Underdrains

Shallow clays were observed in two of our hand auger borings (HA-1 and HA-2). These clays have the potential to cause the build-up of shallow perched groundwater beneath the pavements. Therefore, we recommend that in order to provide permanent stabilization for pavements, a system of underdrains should be designed for the pavement area subgrades (parking lots and roadways) to promote drainage.

1. In order to provide permanent stabilization for pavements, underdrain systems are recommended to be designed for the pavement area subgrades (parking lots and roadways), due to the presence of shallow fine-grained soils that may promote the development of perched water conditions, and the presence of shallow groundwater observed at the time of our exploration.
2. The site civil engineer should be consulted regarding the type and location of the underdrains. Our experience is that two types of underdrain systems are commonly used in this locality, depending upon the traffic application and the preferences of the civil engineer. One commonly used system is a gravel-filled, fabric-wrapped trench containing an embedded perforated plastic HDPE pipe. A generic detail for this traditional type of underdrain system is attached to this addendum for your reference and consideration. Another type of system that we see used is an edge drain product such as AdvantEdge by ADS, Inc. This is a fabric-wrapped, perforated HDPE slot style drain. Some engineers have used a combination of these two systems. Typically, the underdrains are tied into the storm water system to maintain positive gravity flow.
3. Do not fill the landscaped islands in the parking lot with clayey or silty (impermeable) spoils that may impede the movement of water into the underdrains.

General Pavement Construction Recommendations

The following recommendations are provided regarding pavement construction:

1. Fill placed in pavement areas should be compacted as recommended previously in this report. Prior to pavement section installation, all exposed pavement area subgrades should be methodically proofrolled at final subgrade elevation under the observation of S&ME, Inc., and any identified unstable areas should be repaired as directed.
2. Pavement underdrainage and/or ditches should be designed and constructed, as previously discussed. The pavement underdrainage should be designed by the civil engineer to assist in long-term drainage.
3. The stone base course underlying pavements should consist of a graded aggregate base course (GABC) as specified by the SCDOT 2007 Standard Specifications for Highway Construction, Section 305. Proposed materials for use should be provided by a SCDOT-approved source.
4. As stated in the SCDOT Section 305 specification, we recommend that all new base course should be compacted to at least 100 percent of the modified Proctor maximum dry density (SC T-140). Base courses should not exhibit pumping or rutting under equipment traffic. Heavy compaction equipment is likely to be required in order to achieve the required base course compaction, and the moisture content of the material will likely need to be maintained very near the optimum moisture content in order to facilitate proper compaction. S&ME, Inc. should be contacted to perform field density and thickness testing of the base course prior to paving.
5. Experience indicates that a thin surface overlay of asphalt pavement may be required in about 7 to 10 years due to normal wear and weathering of the surface. Such wear is typically visible in several forms of pavement distress, such as aggregate exposure and polishing, aggregate stripping, asphalt bleeding, and various types of cracking. There are means to methodically estimate the remaining pavement life based on a systematic statistical evaluation of pavement distress density and mode of failure. We recommend the pavement be evaluated in about 7 years to assess the pavement condition and remaining life.
6. Construct the HMA surface course in accordance with the specifications of Section 403 of the South Carolina Department of Transportation Standard Specifications for Highway Construction (2007 edition). Construct HMA intermediate courses in accordance with the specifications of Section 402 of this same specification.
7. It is very important for this project that the asphaltic concrete be properly compacted, as specified in Section 401.4 of the SCDOT specification. Asphaltic concrete that is insufficiently compacted will show wear much more rapidly than if it were properly compacted.
8. Sufficient testing should be performed during flexible pavement installation to confirm that the required thickness, density, and quality requirements of the pavement specifications are followed.
9. For rigid pavements, we recommend air-entrained ASTM C 94 joint reinforced Portland cement concrete that will achieve a minimum compressive strength of at least 4,000 psi at 28 days after placement, as determined by ASTM C 39. We also recommend that the pavement concrete be constructed in a manner which at least meets the minimum standards recommended by the American Concrete Institute (ACI).

We recommend that at least 1 set of 5 cylinder specimens be cast by S&ME per every 50 cubic yards of concrete placed or at least once per placement event in order to measure achievement of the design compressive strength. We also recommend that S&ME be present on site to observe concrete placement.



❖ Limitations of Report

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The conclusions and recommendations in this report are based on the applicable standards of our practice in this geographic area at the time this report was prepared. No other warranty, express or implied, is made.

The analyses and recommendations submitted herein are based, in part, upon the data obtained from the subsurface exploration. The nature and extent of variations of the soils at the site to those encountered at our boring and sounding locations may not become evident until construction. If variations appear evident, then we should be provided the opportunity to re-evaluate the recommendations of this report. In the event that any changes in the nature, design, or location of the structure are planned, the conclusions and recommendations contained in this report will not be considered valid unless the changes are reviewed and conclusions modified or verified in writing by the submitting engineers.

Assessment of site environmental conditions; sampling of soils, ground water or other materials for environmental contaminants; identification of jurisdictional wetlands, rare or endangered species, geological hazards or potential air quality and noise impacts were beyond the scope of this geotechnical exploration.

❖ Closure

S&ME, Inc. appreciates the opportunity to be of service to you on this project. Please call if you have questions concerning this report or any of our services.

Sincerely,

S&ME, Inc.

W. Worth King, P.E.
Project Engineer
Registration No. 29491



Ronald P. Forest, Jr., P.E.
Senior Engineer
Registration No. 21248



Attachments: Appendix

Appendix

Test Location Sketch

Summary of Exploration Procedures

Soil Classification Chart

Hand Auger Boring Logs

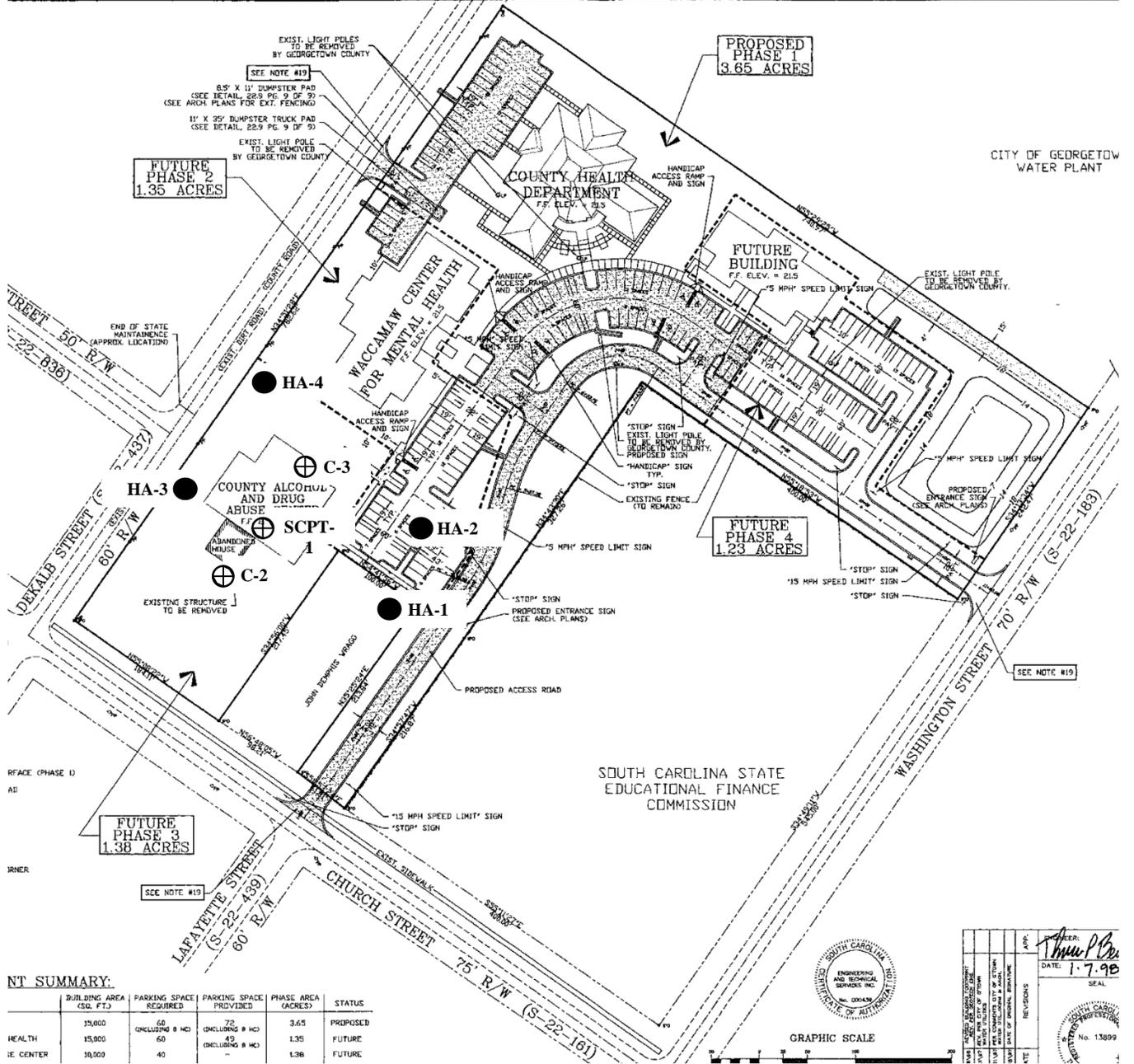
CPT Soil Classification Chart

SCPT/CPT Sounding Logs

Shear Wave Velocity Calculations

Summary of Laboratory Procedures

Laboratory Test Results



LEGEND

- Hand Auger Location
- ⊕ CPT Sounding Location

NT SUMMARY:

	BUILDING AREA (SQ. FT.)	PARKING SPACE REQUIRED	PARKING SPACE PROVIDED	PHASE AREA (ACRES)	STATUS
HEALTH	35,000	60 (INCLUDING 8 HC)	72 (INCLUDING 8 HC)	3.65	PROPOSED
HE CENTER	15,000	60	49 (INCLUDING 8 HC)	1.35	FUTURE
HE CENTER	10,000	40	-	1.36	FUTURE

Professional Engineer Seal for **John P. Coe**, State of South Carolina, License No. 13899. Date: 1.7.96.

SCALE:	Not To Scale
SOURCE:	Georgetown County
DATE:	August, 2016
DRAWN BY:	RFC No. 16-076 WVK



TEST LOCATION SKETCH
 Department of Social Services
 Georgetown, South Carolina

FIGURE NO. **1**

Page 66 of 95

❖ Summary of Exploration Procedures

The American Society for Testing and Materials (ASTM) publishes standard methods to explore soil, rock and ground water conditions in Practice D-420-98, "*Standard Guide to Site Characterization for Engineering Design and Construction Purposes.*" The boring and sampling plan must consider the geologic or topographic setting. It must consider the proposed construction. It must also allow for the background, training, and experience of the geotechnical engineer. While the scope and extent of the exploration may vary with the objectives of the client, each exploration includes the following key tasks:

- ◆ Reconnaissance of the Project Area
- ◆ Preparation of Exploration Plan
- ◆ Layout and Access to Field Sampling Locations
- ◆ Field Sampling and Testing of Earth Materials
- ◆ Laboratory Evaluation of Recovered Field Samples
- ◆ Evaluation of Subsurface Conditions

The standard methods do not apply to all conditions or to every site. Nor do they replace education and experience, which together make up engineering judgment. Finally, ASTM D 420 does not apply to environmental investigations.

❖ Reconnaissance of the Project Area

We walked over the site to note land use, topography, ground cover, and surface drainage. We observed general access to proposed sampling points and noted any existing structures.

Checks for Hazardous Conditions - State law requires that we notify the Palmetto Utility Protection Service (PUPS) before we drill or excavate at any site. PUPS is operated by the major water, sewer, electrical, telephone, CATV, and natural gas suppliers of South Carolina. PUPS forwarded our location request to the participating utilities. Location crews then marked buried lines with colored flags within 72 hours. They did not mark utility lines beyond junction boxes or meters. We checked proposed sampling points for conflicts with marked utilities, overhead power lines, tree limbs, or man-made structures during the site walkover.

❖ Boring and Sampling

Electronic Cone Penetrometer (CPT) Soundings

CPT soundings consist of a conical pointed penetrometer which is hydraulically pushed into the soil at a slow, measured rate. Procedures for measurement of the tip resistance and side friction resistance to push generally follow those described by ASTM D-5778, "*Standard Test Method for Performing Electronic Friction Cone and Piezocone Penetration Testing of Soils.*"

A penetrometer with a conical tip having a 60 degree apex angle and a cone base area of 10 cm² was advanced into the soil at a constant rate of 20 mm/s. The force on the conical point required to penetrate the soil was measured electronically every 50 mm penetration to obtain the *cone resistance* q_c . A friction sleeve is present on the penetrometer immediately behind the cone tip. The force exerted on the sleeve was measured electronically at a minimum of every 50 mm

penetration and divided by the surface area of the sleeve to obtain the *friction sleeve resistance value* f_s . A pore pressure element mounted immediately behind the cone tip was used to measure the pore pressure induced during advancement of the cone into the soil.

Refusal to CPT Push

Refusal to the cone penetrometer equipment occurred when the reaction weight of the CPT rig was exceeded by the thrust required to push the conical tip further into the ground. At that point the rig tended to lift off the ground. Refusal may have resulted from encountering hard cemented or indurated soils, soft weathered rock, coarse gravel, cobbles or boulders, thin rock seams, or the upper surface of sound continuous rock. Where fills are present, refusal to the CPT rig may also have resulted from encountering buried debris, building materials, or objects.

CPT Soil Stratification

Using ASTM D-5778 soil samples are not obtained. Soil classification was made on the basis of comparison of the tip resistance, sleeve resistance and pore pressure values to values measured at other locations in known soil types, using experience with similar soils and exercising engineering judgment.

Plots of normalized tip resistance versus friction ratio and normalized tip resistance versus penetration pore pressure were used to determine soil classification (Soil Behavior Type, SBT) as a function of depth using empirical charts developed by P.K. Robertson (1990). The friction ratio soil classification is determined from the chart in the appendix using the normalized corrected tip stress and the normalized corrected tip stress and the normalized friction ratio.

At some depths, the CPT data fell outside of the range of the classification chart. When this occurred, no data was plotted and a break was shown in the classification profile. This occasionally occurred at the top of a penetration as the effective vertical stress is very small and commonly produced normalized tip resistances greater than 1000.

To provide a simplified soil stratigraphy for general interpretation and for comparison to standard boring logs, a statistical layering and classification system was applied the field classification values. Layer thicknesses were determined based on the variability of the soil classification profile, based upon changes in the standard deviation of the SBT classification number with depth. The average SBT number was determined for each successive 6-inch layer, beginning at the surface. Whenever an additional 6-inch increment deviated from the previous increment, a new layer was started, otherwise, this material was added to the layer above and the next 6-inch section evaluated. The soil behavior type for the layer was determined by the mean value for the complete layer.

Hand Auger Borings

Auger borings were advanced using hand operated augers. The soils encountered were identified in the field by cuttings brought to the surface. Representative samples of the cuttings were placed in glass jars or plastic bags and later transported to the laboratory. Soil consistency was qualitatively estimated by the relative difficulty of advancing the augers. In some of the hand auger borings, at selected intervals, the augers were withdrawn and soil consistency measured with a dynamic cone penetrometer. The conical point of the penetrometer was first seated 1-3/4 inches to penetrate any loose cuttings in the boring, then driven two additional 1-3/4 inch

increments by a 15 pound hammer falling 20 inches. The number of hammer blows required to achieve this penetration was recorded. When properly evaluated by qualified professional staff, the blow count is an index to the soil strength and ability to support foundations.

Water Level Measurement

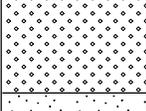
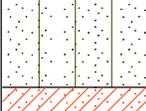
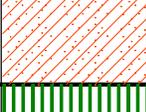
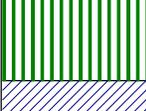
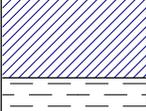
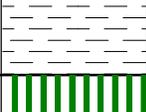
Subsurface water levels in the boreholes were measured during the onsite exploration and after a period of about 24 hours by measuring depths from the existing grade to the current water level using a tape.

Backfilling of Borings

Once subsurface water levels were obtained, boring spoils were backfilled into the open bore holes that were advanced with a hand auger. Bore holes were backfilled to the existing ground surface. The CPT sounding holes were not backfilled; these holes are only 2 inches in diameter.

SOIL CLASSIFICATION CHART

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p>COARSE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p>GRAVEL AND GRAVELLY SOILS</p> <p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	
	<p>SAND AND SANDY SOILS</p> <p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		SM	SILTY SANDS, SAND - SILT MIXTURES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
		<p>FINE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</p>	<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
					CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
	OL			ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY		
<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT GREATER THAN 50</p>			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS		
			CH	INORGANIC CLAYS OF HIGH PLASTICITY		
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS		
<p>HIGHLY ORGANIC SOILS</p>				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	



PROJECT: Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: SCPT-1		
DATE STARTED: 8/10/16	DATE FINISHED: 8/10/16	NOTES:		
SAMPLING METHOD: Hand Auger	PERFORMED BY: W. King			
WATER LEVEL: 3.5' ATD				
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOTMAT - APPROXIMATELY 6 INCHES		
		CLAYEY SAND (SC) - Mostly fine to medium sand, some low to medium plasticity fines, brown, moist.		
1		POORLY GRADED SAND WITH CLAY (SP-SC) - Mostly fine to medium sand, few low to medium plasticity fines, tan/gray, moist to wet.		-
2		SILTY SAND (SM) - Mostly fine to medium sand, some low to medium plasticity fines, tan/gray, wet.		-
3		CLAYEY SAND (SC) - Mostly fine to medium sand, some low to medium plasticity fines, tan, wet to saturated.		-
4		Boring terminated at 4 ft		▽



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

PROJECT: Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: C-2		
DATE STARTED: 8/10/16	DATE FINISHED: 8/10/16	NOTES:		
SAMPLING METHOD: Hand Auger	PERFORMED BY: W. King			
WATER LEVEL: 4' ATD				
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOTMAT - APPROXIMATELY 8 INCHES		
1		SILTY SAND (SM) - Mostly fine to medium sand, some low to medium plasticity fines, brown, moist.		
2		POORLY GRADED SAND WITH CLAY (SP-SC) - Mostly fine to medium sand, few low to medium plasticity fines, tan, moist to wet.		
3				
4		POORLY GRADED SAND (SP) - Mostly fine to medium sand, gray, saturated.		
		Boring terminated at 4 ft		▽



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

PROJECT: Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: C-3		
DATE STARTED: 8/10/16	DATE FINISHED: 8/10/16	NOTES:		
SAMPLING METHOD: Hand Auger	PERFORMED BY: W. King			
WATER LEVEL: 4' ATD				
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL - APPROXIMATELY 12 INCHES		
1		POORLY GRADED SAND WITH CLAY (SP-SC) - Mostly fine to medium sand, few low to medium plasticity fines, tan/gray, moist.		-
2		POORLY GRADED SAND WITH CLAY (SP-SC) - Mostly fine to medium sand, few low to medium plasticity fines, gray, moist to saturated.		-
3				-
4		Boring terminated at 4 ft		▽



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

PROJECT:		Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: HA-1		
DATE STARTED: 8/10/16		DATE FINISHED: 8/10/16		NOTES:		
SAMPLING METHOD: Hand Auger		PERFORMED BY: W. King				
WATER LEVEL: Not encountered at TOB.						
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.)	DCP VALUE
		TOPSOIL AND ROOTMAT - APPROXIMATELY 8 INCHES				6
1		SILTY SAND (SM) - Mostly fine to medium sand, some low to medium plasticity fines, brown/gray, moist, loose.				9
2		SANDY LEAN CLAY (CL) - Mostly low to medium plasticity fines, some fine to medium sand, brown/gray, moist to wet, stiff.				9
3						10
4		Boring terminated at 4 ft				9



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

PROJECT: Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: HA-2				
DATE STARTED: 8/10/16		DATE FINISHED: 8/10/16		NOTES:		
SAMPLING METHOD: Hand Auger		PERFORMED BY: W. King				
WATER LEVEL: 3.5' ATD						
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.)	DCP VALUE
		TOPSOIL - APPROXIMATELY 12 INCHES			10 20 30 60 80	7
1		SANDY LEAN CLAY (CL) - Mostly low to medium plasticity fines, some fine to medium sand, brown/gray, moist to wet, firm to stiff.				8
2						12
3		SANDY FAT CLAY (CH) - Mostly medium to high plasticity fines, some fine to medium sand, gray/tan, saturated, firm to stiff.				10
4		Boring terminated at 4 ft		▽		8



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

PROJECT:		Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: HA-3		
DATE STARTED: 8/10/16		DATE FINISHED: 8/10/16		NOTES:		
SAMPLING METHOD: Hand Auger		PERFORMED BY: W. King				
WATER LEVEL: 4' ATD						
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.)	DCP VALUE
		TOPSOIL - APPROXIMATELY 8 INCHES				7
1		POORLY GRADED SAND WITH CLAY (SP-SC) - Mostly fine to medium sand, few low to medium plasticity fines, tan, moist to wet, loose to medium dense.				9
2						12
3		CLAYEY SAND (SC) - Mostly fine to medium sand, some low to medium plasticity fines, tan/gray, saturated, loose.				8
4		Boring terminated at 4 ft				7



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

PROJECT:		Department of Social Services Georgetown, South Carolina 1463-16-036		HAND AUGER BORING LOG: HA-4		
DATE STARTED: 8/10/16		DATE FINISHED: 8/10/16		NOTES:		
SAMPLING METHOD: Hand Auger		PERFORMED BY: W. King				
WATER LEVEL: Not encountered at TOB.						
Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.)	DCP VALUE
		TOPSOIL AND ROOTMAT - APPROXIMATELY 12 INCHES			10 20 30 60 80	9
1						
		POORLY GRADED SAND WITH CLAY (SP-SC) - Mostly fine to medium sand, few low to medium plasticity fines, tan, moist to wet, loose.				8
2						8
3						7
4		Boring terminated at 4 ft				9



DCP INDEX IS THE DEPTH (IN.) OF PENETRATION PER BLOW OF A 10.1 LB HAMMER FALLING 22.6 IN., DRIVING A 0.79 IN. O.D. 60 DEGREE CONE.

CPT Soil Classification Legend

Zone	Color	Q _t /N	Description
1	■	2	Sensitive, Fine Grained
2	■	1	Organic Soils-Peats
3	■	1.5	Clays-Clay to Silty Clay
4	■	2	Silt Mixtures-Clayey Silt to Silty Clay
5	■	3	Sand Mixtures-Silty Sand to Sandy Silt
6	■	4.5	Sands-Clean Sand to Silty Sand
7	■	6	Gravelly Sand to Sand
8	■	1	Very Stiff Clay to Clayey Sand*
9	■	2	Very Stiff, Fine Grained*

(*) Heavily Overconsolidated or Cemented

Robertson's Soil Behavior Type (SBT), 1990			
Group #	Description	I _c	
		Min	Max
1	Sensitive, fine grained	N/A	
2	Organic soils - peats	3.60	N/A
3	Clays - silty clay to clay	2.95	3.60
4	Silt mixtures - clayey silt to silty clay	2.60	2.95
5	Sand mixtures - silty sand to sandy silt	2.05	2.60
6	Sands - clean sand to silty sand	1.31	2.05
7	Gravelly sand to dense sand	N/A	1.31
8	Very stiff sand to clayey sand (High OCR or cemented)	N/A	
9	Very stiff, fine grained (High OCR or cemented)	N/A	

Soil behavior type is based on empirical data and may not be representative of soil classification based on plasticity and grain size distribution.

Relative Density and Consistency Table			
SANDS		SILTS and CLAYS	
Cone Tip Stress, qt (tsf)	Relative Density	Cone Tip Stress, qt (tsf)	Consistency
Less than 20	Very Loose	Less than 5	Very Soft
20 - 40	Loose	5 - 15	Soft to Firm
40 - 120	Medium Dense	15 - 30	Stiff
120 - 200	Dense	30 - 60	Very Stiff
Greater than 200	Very Dense	Greater than 60	Hard

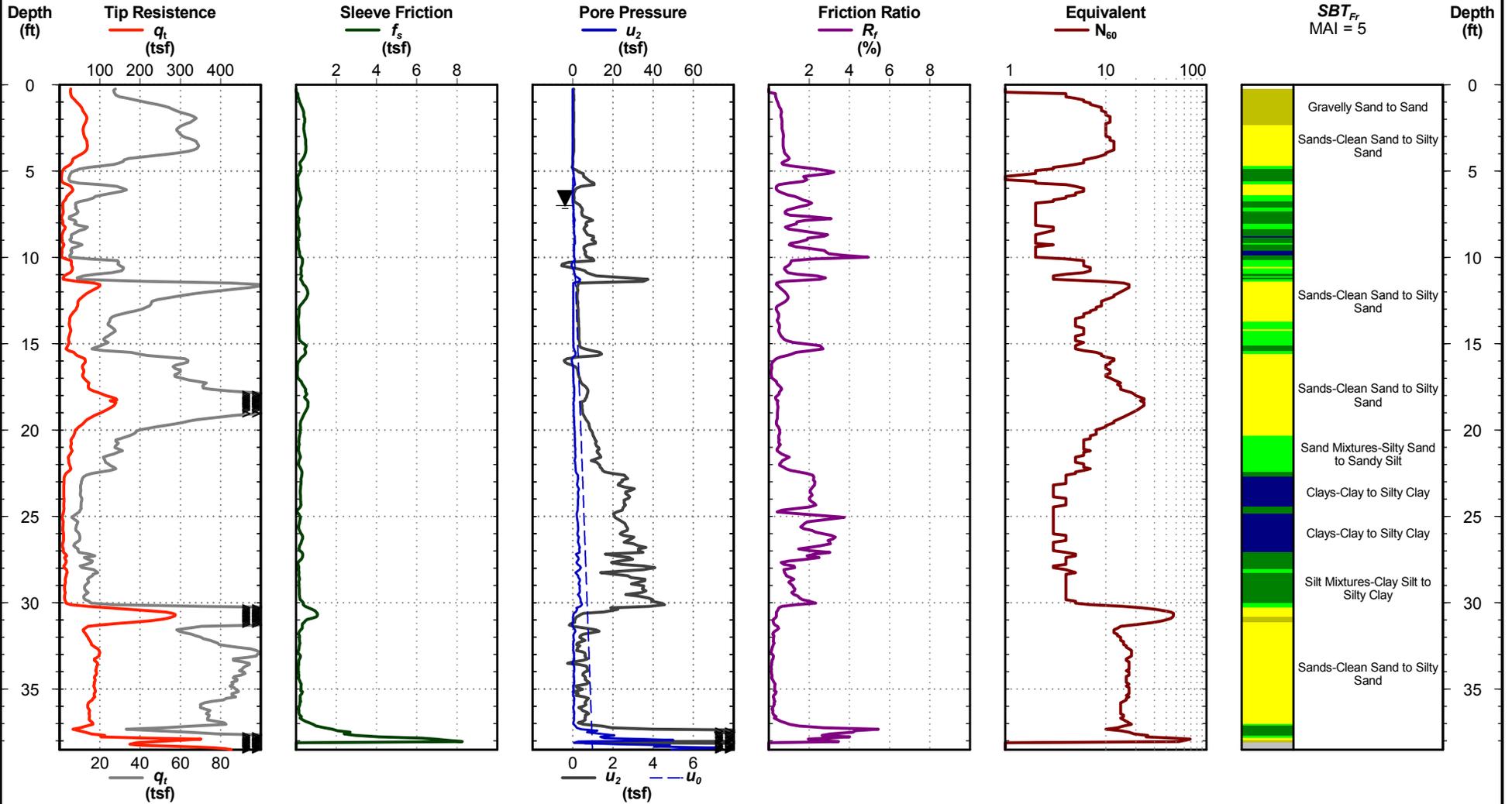


Cone Penetration Test

SCPT-1

Date: Aug. 15, 2016
 Estimated Water Depth: 7 ft
 Rig/Operator: Track / A. Feix

Total Depth: 38.5 ft
 Termination Criteria: Maximum Reaction Force
 Cone Size: 1.75



CPT REPORT - DYNAMIC 1463-16-036.GPJ S&ME 2008_06_24.GDT_8/25/16

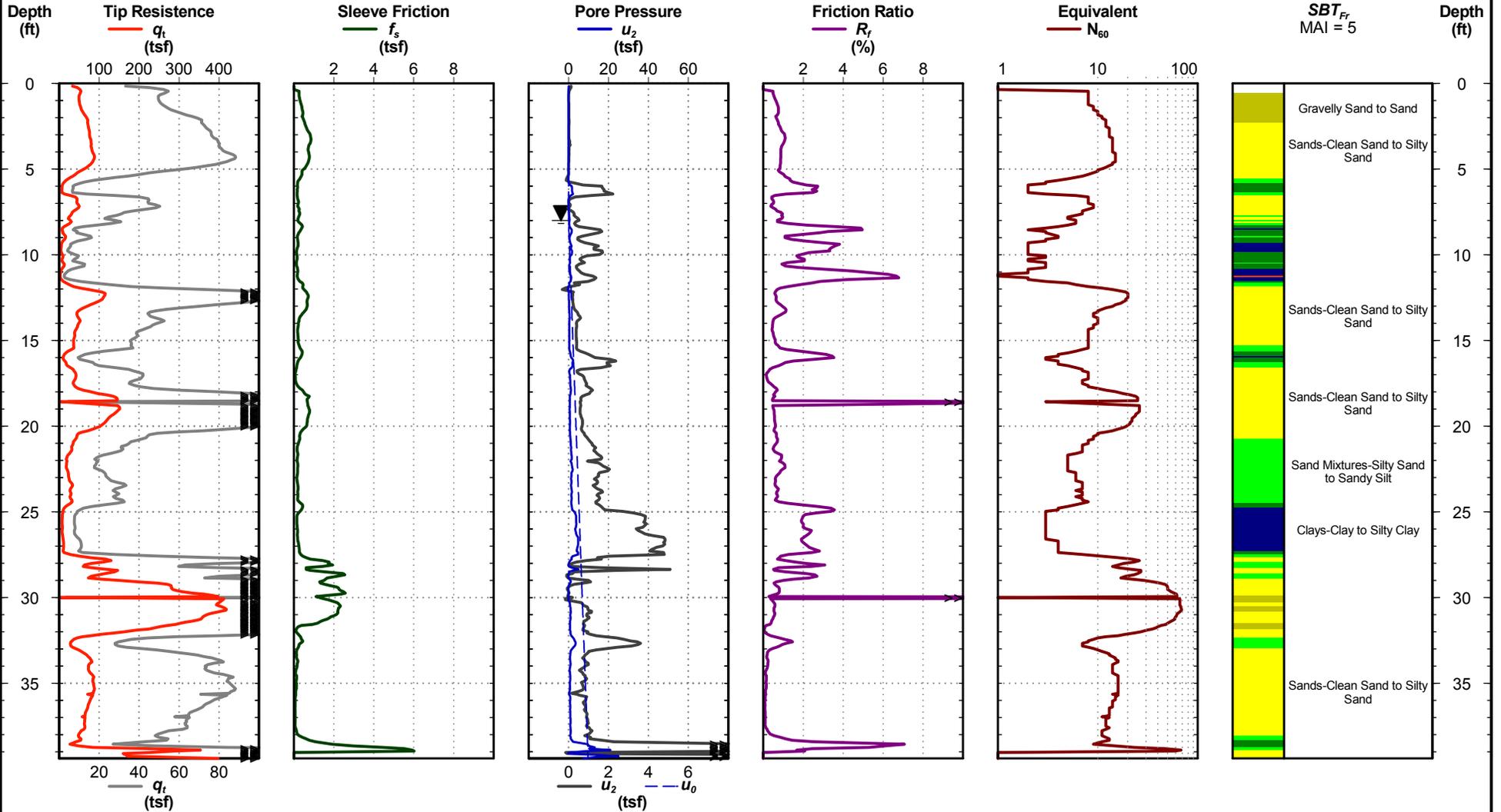


Cone Penetration Test

C-2

Date: Aug. 15, 2016
 Estimated Water Depth: 8 ft
 Rig/Operator: Track / A. Feix

Total Depth: 39.4 ft
 Termination Criteria: Maximum Reaction Force
 Cone Size: 1.75



CPT REPORT - DYNAMIC 1463-16-036.GPJ S&ME 2008_06_24.GDT_8/25/16

C-2

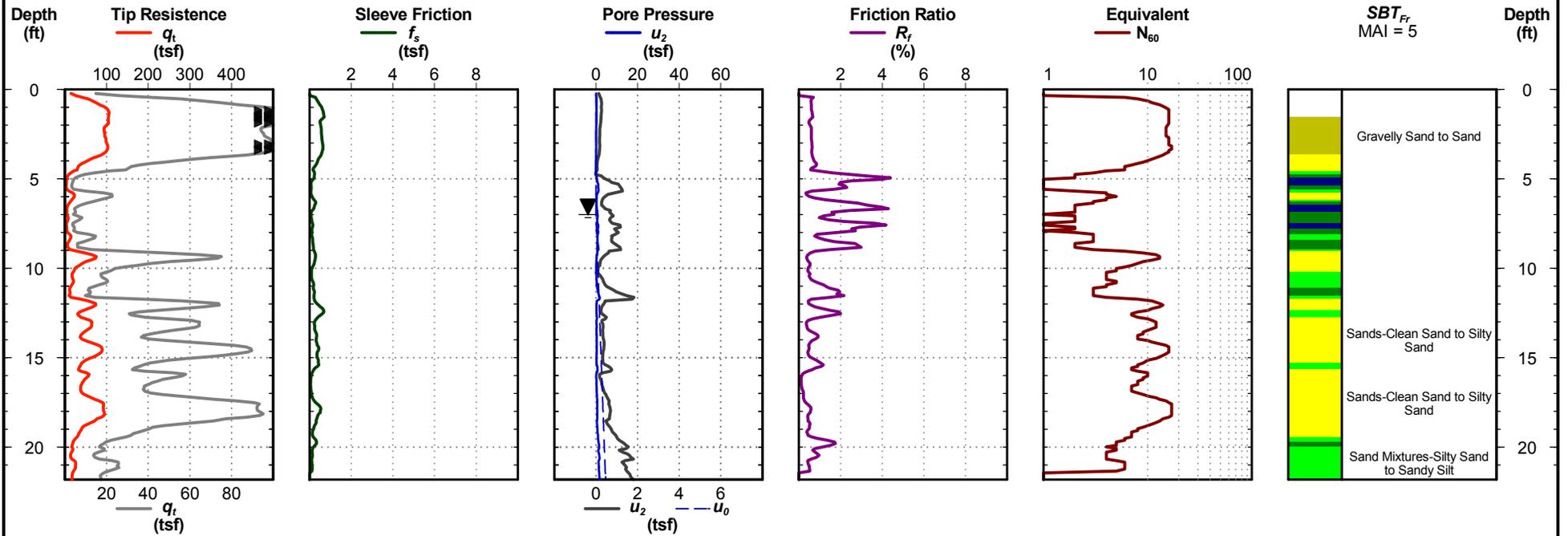


Cone Penetration Test

C-3

Date: Aug. 15, 2016
 Estimated Water Depth: 7 ft
 Rig/Operator: Track / A. Feix

Total Depth: 21.8 ft
 Termination Criteria: Target Depth
 Cone Size: 1.75



CPT REPORT - DYNAMIC_1463-16-036.GPJ_S&ME 2008_06_24.GDT_8/25/16

C-3

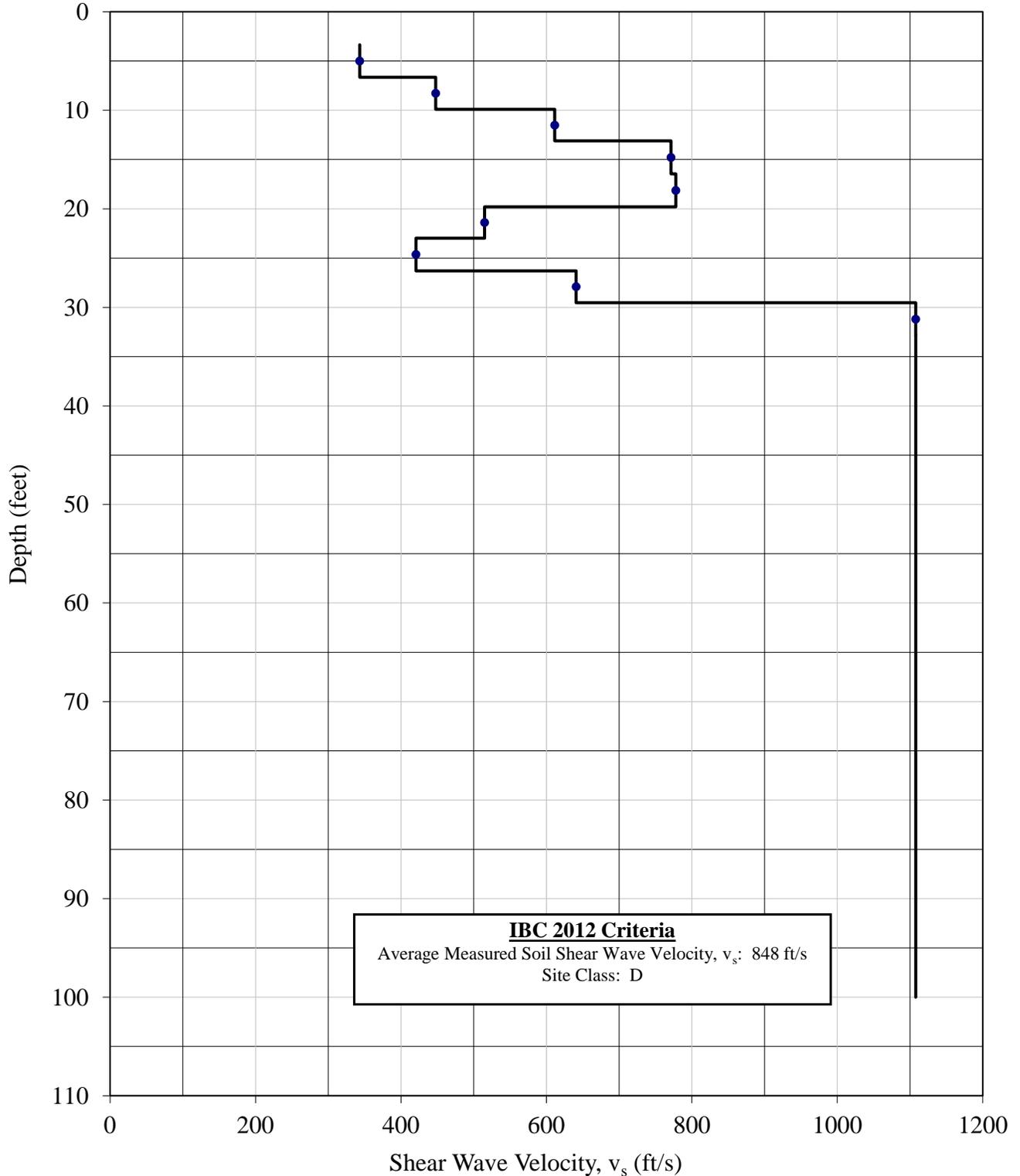


Shear Wave Velocity Calculations

Department of Social Services Facility
Georgetown, SC

Sounding ID: **SCPT-1**
Date: 08/15/16

Project Number: **1463-16-036**



* Site Class based on 2006 International Building Code - Table 1613.5.2 - SITE CLASS DEFINITIONS

❖ Summary of Laboratory Procedures

Examination of Recovered Soil Samples

Soil and rock samples and field boring records were reviewed in the laboratory by the geotechnical professional. Soils were classified in general accordance with the visual-manual method described in ASTM D 2488, "*Standard Practice for Description and Identification of Soils (Visual-Manual Method)*". Representative soil samples were selected for classification testing to provide grain size and plasticity data to allow classification of the samples in general accordance with the AASHTO Classification method described in ASTM D 3282, "*Standard Practice for Classification of Soils and Soil Aggregate Mixtures for Highway Construction Purposes*". The geotechnical professional also prepared the final boring records enclosed with this report.

Moisture Content Testing of Soil Samples by Oven Drying

Moisture content was determined in general conformance with the methods outlined in ASTM D 2216, "*Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil or Rock by Mass*." This method is limited in scope to Group B, C, or D samples of earth materials which do not contain appreciable amounts of organic material, soluble solids such as salt or reactive solids such as cement. This method is also limited to samples which do not contain contamination.

A representative portion of the soil was divided from the sample using one of the methods described in Section 9 of ASTM D 2216. The split portion was then placed in a drying oven and heated to approximately 110 degrees C overnight or until a constant mass was achieved after repetitive weighing. The moisture content of the soil was then computed as the mass of water removed from the sample by drying, divided by the mass of the sample dry, times 100 percent. No attempt was made to exclude any particular particle size from the portion split from the sample.

Liquid and Plastic Limits Testing

Atterberg limits of the soils was determined generally following the methods described by ASTM D 4318, "*Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils*." Albert Atterberg originally defined "limits of consistency" of fine grained soils in terms of their relative ease of deformation at various moisture contents. In current engineering usage, the *liquid limit* of a soil is defined as the moisture content, in percent, marking the upper limit of viscous flow and the boundary with a semi-liquid state. The *plastic limit* defines the lower limit of plastic behavior, above which a soil behaves plastically below which it retains its shape upon drying. The *plasticity index* (PI) is the range of water content over which a soil behaves plastically. Numerically, the PI is the difference between liquid limit and plastic limit values.

Representative portions of fine grained Group A, B, C, or D samples were prepared using the wet method described in Section 10.1 of ASTM D 4318. The liquid limit of each sample was determined using the multipoint method (Method A) described in Section 11. The liquid limit is by definition the moisture content where 25 drops of a hand operated liquid limit device are required to close a standard width groove cut in a soil sample placed in the device. After each test, the moisture content of the sample was adjusted and the sample replaced in the device. The

test was repeated to provide a minimum of three widely spaced combinations of N versus moisture content. When plotted on semi-log paper, the liquid limit moisture content was determined by straight line interpolation between the data points at N equals 25 blows.

The plastic limit was determined using the procedure described in Section 17 of ASTM D 4318. A selected portion of the soil used in the liquid limit test was kneaded and rolled by hand until it could no longer be rolled to a 3.2 mm thread on a glass plate. This procedure was repeated until at least 6 grams of material was accumulated, at which point the moisture content was determined using the methods described in ASTM D 2216.

Grain Size Analysis of Samples

The distribution of particle sizes greater than 75 mm was determined in general accordance with the procedures described by ASTM D 421, "*Standard Practice for Dry Preparation of Soil Samples for Particle-Size Analysis and Determination of Soil Constants*"; and D 422, "*Standard Test Method for Particle Size Analysis of Soils*," except that the hydrometer portion of the test standard was not utilized. During preparation samples were divided into two portions. The material coarser than the No. 30 U.S. sieve size fraction was dry sieved through a nest of standard sieves as described in Article 6. Material passing the No. 30 sieve was independently passed through a nest of sieves down to the No. 200 size.

Percent Fines Determination of Samples

A selected specimen of soils was washed over a No. 200 sieve after being thoroughly mixed and dried. This test was conducted in general accordance with ASTM D 1140, "*Standard Test Method for Amount of Material Finer Than the No. 200 Sieve*." Method A, using water to wash the sample through the sieve without soaking the sample for a prescribed period of time, was used and the percentage by weight of material washing through the sieve was deemed the "percent fines" or percent clay and silt fraction.

Compaction Tests of Soils Using Modified Effort

Soil placed as engineering fill is compacted to a dense state to obtain satisfactory engineering properties. Laboratory compaction tests provide the basis for determining the percent compaction and water content needed to achieve the required engineering properties, and for controlling construction to assure the required compaction and water contents are achieved. Test procedures generally followed those described by ASTM D 1557, "*Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 lbf/ft³)*."

The relationship between water content and the dry unit weight is determined for soils compacted in either 4 or 6 inch diameter molds with a 10 lbf rammer dropped from a height of 18 inches, producing a compactive effort of 56,000 lbf/ft³. ASTM D 1557 provides three alternative procedures depending on material gradation:

Method A

All material passes No. 4 sieve size

4 inch diameter mold

Shall be used if 20 percent or less by weight is retained on No. 4 sieve

Soil in 5 layers with 25 blows per layer

Method B

All material passes 3/8 inch sieve

4 inch diameter mold

Shall be used if 20 percent by weight is retained on the No. 4 sieve and 20 percent or less by weight is retained on the 3/8 Inch sieve.

Soil in 5 layers with 25 blows per layer

Method C

All material passes 3/4 inch sieve

6-inch diameter mold

Shall be used if more than 20 percent by weight is retained on the 3/8 inch sieve and less than 30 percent is retained on the 3/4 inch sieve.

Soil in 5 layers with 56 blows per layer

Soil was compacted in the mold in five layers of approximately equal thickness, each compacted with either 25 or 56 blows of the rammer. After compaction of the sample in the mold, the resulting dry density and moisture content was determined and the procedure repeated. Separate soils were used for each sample point, adjusting the moisture content of the soil as described in Section 10.2 (Moist Preparation Method). The procedure was repeated for a sufficient number of water content values to allow the dry density vs. water content values to be plotted and the *maximum dry density* and *optimum moisture content* to be determined from the resulting curvilinear relationship.

Laboratory California Bearing Ratio Tests of Compacted Samples

This method is used to evaluate the potential strength of subgrade, subbase, and base course material, including recycled materials, for use in road and airfield pavements. Laboratory CBR tests were run in general accordance with the procedures laid out in ASTM D 1883, "*Standard Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils.*" Specimens were prepared in standard molds using two different levels of compactive effort within plus or minus 0.5 percent of the optimum moisture content value. While embedded in the compaction mold, each sample was inundated for a minimum period of 96 hours to achieve saturation. During inundation the specimen was surcharged by a weight approximating the anticipated weight of the pavement and base course layers. After removing the sample from the soaking bath, the soil was then sheared by jacking a piston having a cross sectional area of 3 square inches into the end surface of the specimen. The piston was jacked 0.5 inches into the specimen at a constant rate of 0.05 inches per minute.

The CBR is defined as the load required to penetrate a material to a predetermined depth, compared to the load required to penetrate a standard sample of crushed stone to the same depth. The CBR value was usually based on the load ratio for a penetration of 0.10 inches, after correcting the load-deflection curves for surface irregularities or upward concavity. However, where the calculated CBR for a penetration of 0.20 inches was greater than the result obtained for a penetration of 0.10 inches, the test was repeated by reversing the specimen and shearing the opposite end surface. Where the second test indicated a greater CBR at 0.20 inches penetration, the CBR for 0.20 inches penetration was used.

Form No: TR-D422-WH-1
 Revision No. 0
 Revision Date: 07/14/08

Sieve Analysis of Soils



ASTM D 422

Quality Assurance

S&ME, Inc. - Myrtle Beach 1330 Highway 501 Business; Conway, SC 29526

Project #:	1463-16-036	Report Date:	8/19/2016
Project Name:	Department of Social Services Facility	Test Date(s):	8/18/2016
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #	SCPT-1	Sample #:	S-2
		Sample Date:	8/10/2016
Location:	Borings	Lab #:	3886
		Depth:	2'-3'

Sample Description: Reddish Brown Silty Sand (SM)

Description of Sand & Gravel Particles:	Rounded	<input type="checkbox"/>	Angular	<input checked="" type="checkbox"/>
Hard & Durable	<input checked="" type="checkbox"/>	Soft	<input type="checkbox"/>	Weathered & Friable
				<input type="checkbox"/>

Particle Size Analysis / Without Hydrometer Analysis				Material Excluded:		
Tare No.	PPP	Tare Wt.		Mass of Sample after Wash + Tare Wt.		
			87.3		137.9	
Total Sample Wet Wt. + Tare Wt.			152.2	Mass of Sample after Wash	50.6	
Total Sample Dry Wt. + Tare Wt.			144.9	Mass passing #200	7.0	
Total Sample Dry Weight			57.6	% Passing #200 (D1140)	12.2%	
Sieve Size		Retained Weight	% Retained Between Sieves	% Retained	% Passing	SPECS
Standard	mm	Cumulative	Individual	Cumulative Total Sample		
2.0"	50.00	0.0	0.0%	0.0%	100.0%	
1.5"	37.50	0.0	0.0%	0.0%	100.0%	
1.0"	25.00	0.0	0.0%	0.0%	100.0%	
3/4"	19.00	0.0	0.0%	0.0%	100.0%	
1/2"	12.50	0.0	0.0%	0.0%	100.0%	
3/8"	9.50	0.0	0.0%	0.0%	100.0%	
#4	4.75	0.0	0.0%	0.0%	100.0%	
#10	2.000	0.0	0.0%	0.0%	100.0%	
#30	0.600	0.0	0.0%	0.0%	100.0%	
#40	0.425	0.5	0.9%	0.9%	99.1%	
#60	0.250	6.5	10.4%	11.3%	88.7%	
#100	0.150	40.9	59.7%	71.0%	29.0%	
#200	0.075	50.2	16.1%	87.2%	12.8%	
Pan	<0.075	50.6		% Passing #200 (D1140) =		12.8%
D2487	Maximum Particle Size		.600 mm	Medium Sand	< 2.00 mm and > 0.425 mm (#40)	0.9%
Gravel	< 75 mm and > 4.75 mm (#4)		0.0%	Fine Sand	< 0.425 mm and > 0.075 mm (#200)	86.3%
Coarse Sand	< 4.75 mm and > 2.00 mm (#10)		0.0%	% Silt & Clay	< 0.075 mm	12.8%

Notes / Deviations / References:

W. King, P.E.
 Technical Responsibility

WK
 Signature

Project Engineer
 Position

8/22/16
 Date

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Liquid Limit, Plastic Limit, and Plastic Index



ASTM D 4318 AASHTO T 89 AASHTO T 90

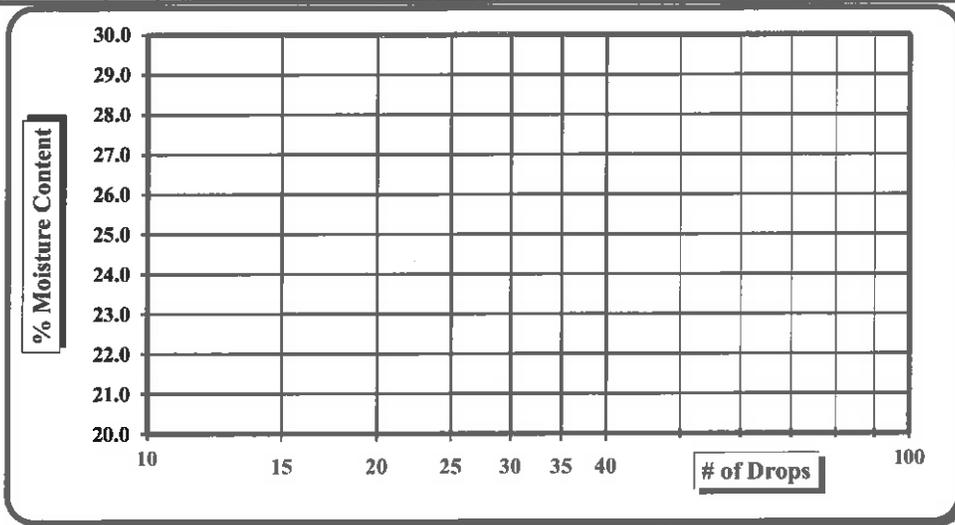
Quality Assurance

S&ME, Inc. Myrtle Beach 1330 Highway 501 Business; Conway, SC 29526

Project #:	1463-16-036	Report Date:	8/19/2016
Project Name:	Department of Social Services Facility	Test Date(s)	8/12/2016
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #:	SCPT-1	Sample #:	S-2
Location:	Borings	Lab #:	3886
Sample Description:	Reddish Brown Silty Sand (SM)		

Type and Specification	S&ME ID #	Cal Date	Type and Specification	S&ME ID #	Cal Date
Balance (0.01 g)	00401	2/18/2016	Grooving tool	11368	5/1/2016
LL Apparatus	18801	5/1/2016			
Oven	17745	5/6/2016			

Pan #	Tare #:	Liquid Limit						Plastic Limit		
		1	2	3	4	5	6	7	8	9
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS							Moisture Contents determined by ASTM D 2216		
LL	LL = F * FACTOR									
Ave.	Average									



One Point Liquid Limit			
N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic

Liquid Limit

Plastic Limit **NP**

Plastic Index

Group Symbol **SM**

Multipoint Method

One-point Method

Wet Preparation Dry Preparation Air Dried

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

W. King, P.E. <i>Technical Responsibility</i>	 <i>Signature</i>	Project Engineer <i>Position</i>	8/22/16 <i>Date</i>
--	----------------------	-------------------------------------	------------------------

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Sieve Analysis of Soils



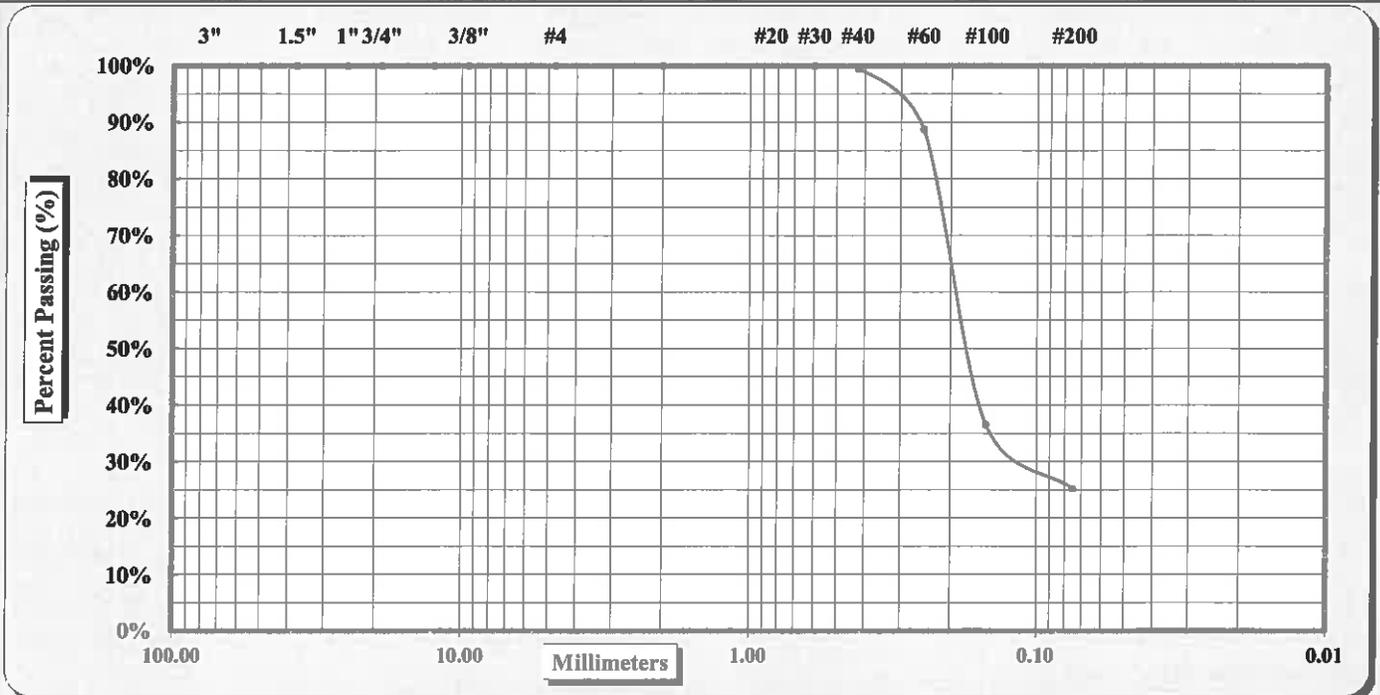
ASTM D 422

Quality Assurance

S&ME, Inc. - Myrtle Beach 1330 Highway 501 Business; Conway, SC 29526

Project #:	1463-16-036	Report Date:	8/19/2016
Project Name:	Department of Social Services Facility	Test Date(s):	8/18/2016
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #	HA-1	Sample #:	S-1
Location:	Borings	Lab #:	3886
		Sample Date:	8/10/2016
		Depth:	1.0'-1.5'

Sample Description: Dark Brown Silty Sand (SM)



Cobbles	< 300 mm (12") and > 75 mm (3")	Fine Sand	< 0.425 mm and > 0.075 mm (#200)
Gravel	< 75 mm and > 4.75 mm (#4)	Silt	< 0.075 and > 0.005 mm
Coarse Sand	< 4.75 mm and > 2.00 mm (#10)	Clay	< 0.005 mm
Medium Sand	< 2.00 mm and > 0.425 mm (#40)	Colloids	< 0.001 mm

Maximum Particle Size	.600 mm	Coarse Sand	0.0%	Fine Sand	74.3%
Gravel	0.0%	Medium Sand	0.5%	Silt & Clay	25.2%
Liquid Limit	--	Plastic Limit	NP	Plastic Index	--
Specific Gravity	--			Moisture Content	10.6%
Coarse Sand	0.0%	Medium Sand	0.5%	Fine Sand	74.3%

Description of Sand & Gravel Particles: Rounded Angular
 Hard & Durable Soft Weathered & Friable

Notes / Deviations / References:

W. King, P.E.
 Technical Responsibility

W.K.
 Signature

Project Engineer
 Position

8/22/16
 Date

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Form No: TR-D422-WH-1
 Revision No. 0
 Revision Date: 07/14/08

Sieve Analysis of Soils



ASTM D 422

Quality Assurance

S&ME, Inc. - Myrtle Beach 1330 Highway 501 Business; Conway, SC 29526

Project #:	1463-16-036	Report Date:	8/19/2016
Project Name:	Department of Social Services Facility	Test Date(s):	8/18/2016
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #	HA-1	Sample #:	S-1
Location:	Borings	Lab #:	3886
		Sample Date:	8/10/2016
		Depth:	1.0'-1.5'
Sample Description:	Dark Brown Silty Sand (SM)		

Description of Sand & Gravel Particles:	Rounded	<input type="checkbox"/>	Angular	<input checked="" type="checkbox"/>
	Hard & Durable	<input checked="" type="checkbox"/>	Soft	<input type="checkbox"/>
			Weathered & Friable	<input type="checkbox"/>

Particle Size Analysis / Without Hydrometer Analysis				Material Excluded:	
Tare No.	Norah	Tare Wt.	84.4	Mass of Sample after Wash + Tare Wt.	147.9
Total Sample Wet Wt. + Tare Wt.			178.2	Mass of Sample after Wash	63.5
Total Sample Dry Wt. + Tare Wt.			169.2	Mass passing #200	21.3
Total Sample Dry Weight			84.8	% Passing #200 (D1140)	25.1%

Sieve Size		Retained Weight	% Retained Between Sieves	% Retained	% Passing	SPECS
Standard	mm.	Cumulative	Individual	Cumulative Total Sample		
2.0"	50.00	0.0	0.0%	0.0%	100.0%	
1.5"	37.50	0.0	0.0%	0.0%	100.0%	
1.0"	25.00	0.0	0.0%	0.0%	100.0%	
3/4"	19.00	0.0	0.0%	0.0%	100.0%	
1/2"	12.50	0.0	0.0%	0.0%	100.0%	
3/8"	9.50	0.0	0.0%	0.0%	100.0%	
#4	4.75	0.0	0.0%	0.0%	100.0%	
#10	2.000	0.0	0.0%	0.0%	100.0%	
#30	0.600	0.0	0.0%	0.0%	100.0%	
#40	0.425	0.4	0.5%	0.5%	99.5%	
#60	0.250	9.5	10.7%	11.2%	88.8%	
#100	0.150	53.8	52.2%	63.4%	36.6%	
#200	0.075	63.4	11.3%	74.8%	25.2%	
Pan	<0.075	63.5		% Passing #200 (D1140) =		25.2%
D2487	Maximum Particle Size	.600 mm	Medium Sand	< 2.00 mm and > 0.425 mm (#40)		0.5%
Gravel	< 75 mm and > 4.75 mm (#4)	0.0%	Fine Sand	< 0.425 mm and > 0.075 mm (#200)		74.3%
Coarse Sand	< 4.75 mm and > 2.00 mm (#10)	0.0%	% Silt & Clay	< 0.075 mm		25.2%

Notes / Deviations / References:

W. King, P.E.
 Technical Responsibility

WK
 Signature

Project Engineer
 Position

8/22/16
 Date

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Liquid Limit, Plastic Limit, and Plastic Index



ASTM D 4318 AASHTO T 89 AASHTO T 90

Quality Assurance

S&ME, Inc. Myrtle Beach 1330 Highway 501 Business; Conway, SC 29526

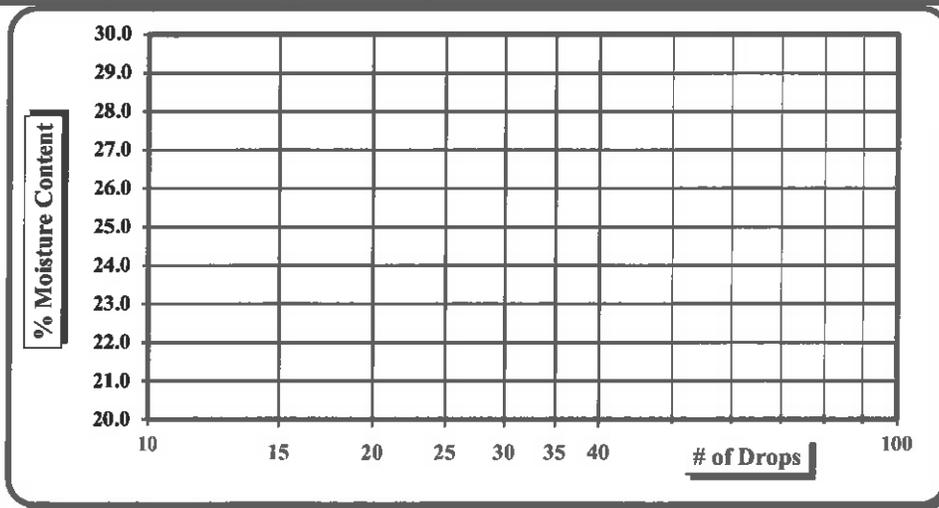
Project #:	1463-16-036	Report Date:	8/19/2016
Project Name:	Department of Social Services Facility	Test Date(s)	8/12/2016
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #:	HA-1	Sample #:	S-1
Location:	Borings	Lab #:	3886
		Sample Date:	8/10/2016
		Depth:	1.0'-1.5'

Sample Description:	Dark Brown Silty Sand (SM)				
Type and Specification	S&ME ID #	Cal Date	Type and Specification	S&ME ID #	Cal Date
Balance (0.01 g)	00401	2/18/2016	Grooving tool	11368	5/1/2016
LL Apparatus	18801	5/1/2016			
Oven	17745	5/6/2016			

Pan #	Tare #:	Liquid Limit					Plastic Limit			
		1	2	3	4	5	6	7	8	9
A	Tare Weight									
B	Wet Soil Weight + A								NP	
C	Dry Soil Weight + A									
D	Water Weight (B-C)									
E	Dry Soil Weight (C-A)									
F	% Moisture (D/E)*100									
N	# OF DROPS									
LL	LL = F * FACTOR									
Ave.	Average									

One Point Liquid Limit

N	Factor	N	Factor
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		



NP, Non-Plastic

Liquid Limit

Plastic Limit NP

Plastic Index

Group Symbol SM

Multipoint Method

One-point Method

Wet Preparation Dry Preparation Air Dried

Notes / Deviations / References:

ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils

W. King, P.E.
Technical Responsibility

WK
Signature

Project Engineer
Position

8/22/16
Date

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

Moisture - Density Report



ASTM D1557- D698

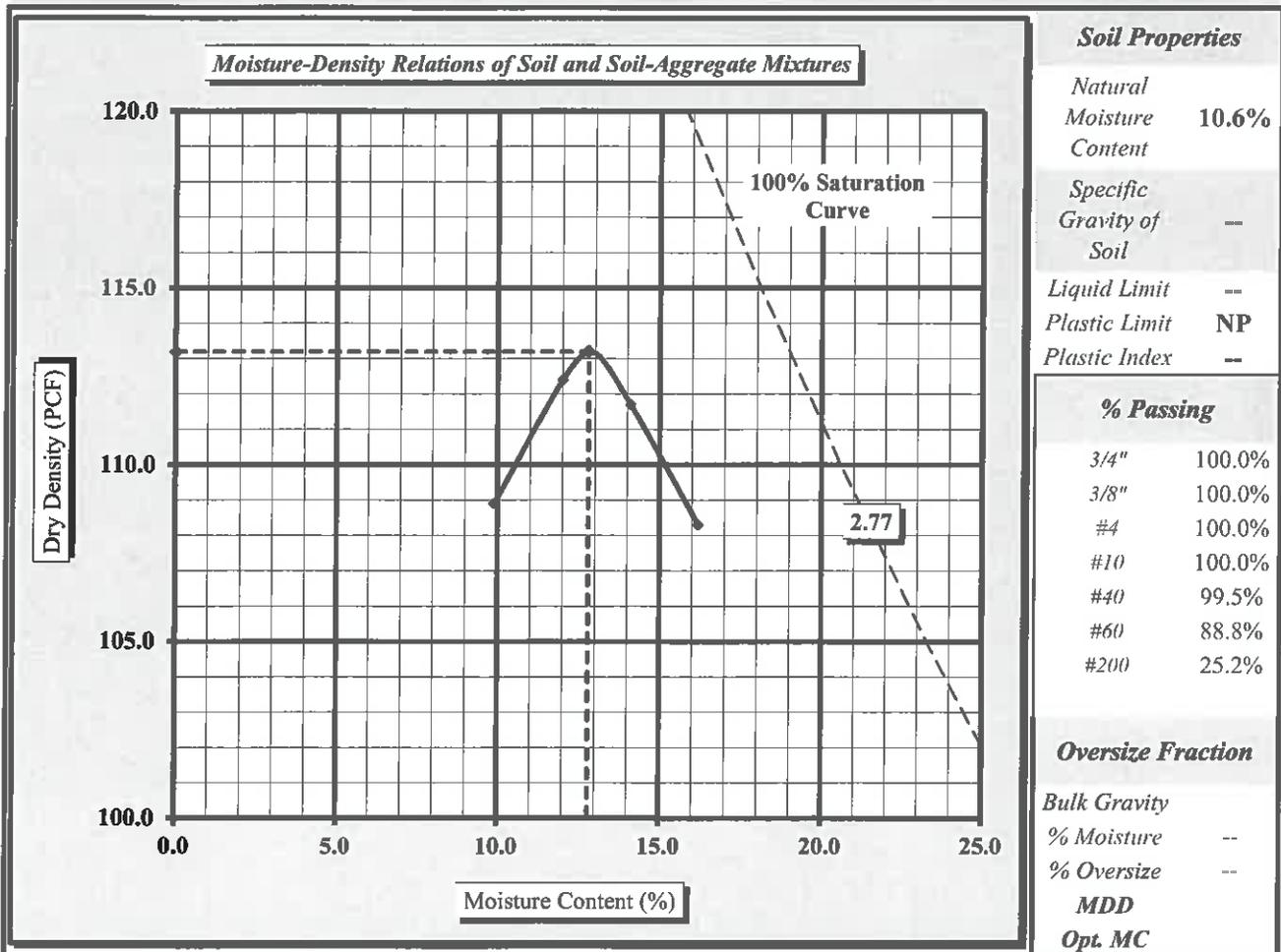
Quality Assurance

S&ME, Inc.- Myrtle Beach 1330 Highway 501 Business; Conway, SC 29526

S&ME Project #:	1463-16-036	Report Date:	8/19/2016
Project Name:	Department of Social Services Facility	Test Date(s):	8/12/2016
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #:	HA-1	Sample #:	S-1
Location:	Borings	Lab #:	3886
Sample Description:	Dark Brown Silty Sand (SM)	Sample Date:	8/10/2016
		Depth:	1.0'-1.5

Maximum Dry Density 113.2 PCF. Optimum Moisture Content 12.8

ASTM D1557 -- Method A



Moisture-Density Curve Displayed: Fine Fraction Corrected for Oversize Fraction (ASTM D 4718)
 Sieve Size used to separate the Oversize Fraction: #4 Sieve 3/8 inch Sieve 3/4 inch Sieve
 Mechanical Rammer Manual Rammer Moist Preparation Dry Preparation

References / Comments / Deviations:

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
 ASTM D 1557: Laboratory Compaction Characteristics of Soil Using Modified Effort

W. King, P.E.
 Technical Responsibility

WK
 Signature

Project Engineer
 Position

8/22/16
 Date

This report shall not be reproduced, except in full, without the written approval of S&ME, Inc.

**CBR (California Bearing Ratio) of Laboratory
Compacted Soil**

ASTM D 1883



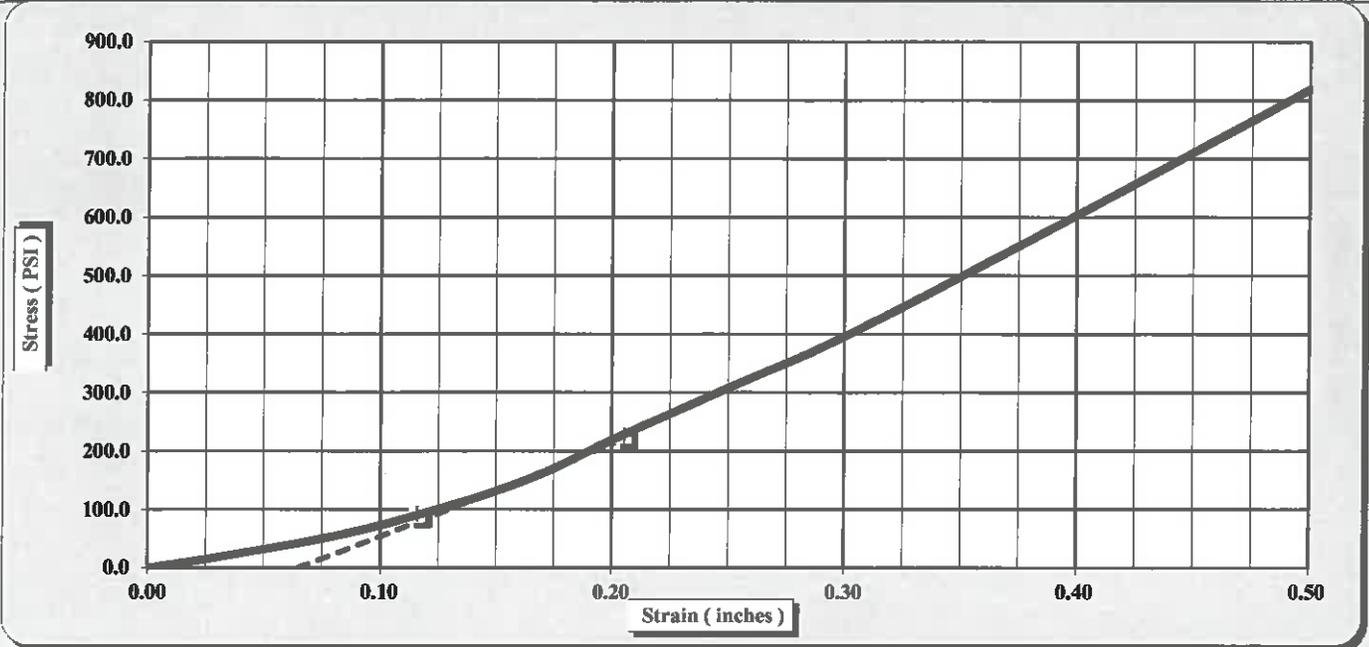
Quality Assurance

S&ME, Inc. Florence 2327 Prosperity Way, Suite 9; Florence, SC 29501

Project #:	1463-16-036	Report Date:	8/22/16
Project Name:	Department of Social Services Facility	Test Date(s)	8/15/16
Client Name:	Georgetown County		
Client Address:	129 Screven Street, Suite 239; Georgetown, SC 29440		
Boring #	SCPT - 1	Sample #:	S-2
Location:	Borings	Lab #:	3886
		Sample Date:	8/10/16
		Depth:	1.0' - 1.5'
Sample Description:	Dark Brown Silty Sand (SM)		

ASTM D1557 Method A Maximum Dry Density: 113.2 PCF Optimum Moisture Content: 12.8%
 Compaction Test performed on grading complying with CBR spec % Retained on the 3/4" sieve: 0.0%

Uncorrected CBR Values		Corrected CBR Values	
CBR at 0.1 in.	7.3	CBR at 0.1 in.	9.3
CBR at 0.2 in.	14.6	CBR at 0.2 in.	15.1



CBR Sample Preparation:

The entire gradation was used and compacted in a 6" CBR mold in accordance with ASTM D1883, Section 6.1.1

Before Soaking		After Soaking	
Compactive Effort (Blows per Layer)	20	Final Dry Density (PCF)	107.0
Initial Dry Density (PCF)	107.7	Average Final Moisture Content	13.7%
Moisture Content of the Compacted Specimen	12.9%	Moisture Content (top 1" after soaking)	13.3%
Percent Compaction	95.2%	Percent Swell	0.0%
Soak Time:	96 hrs.	Surcharge Weight	20.0
Liquid Limit	--	Surcharge Wt. per sq. Ft.	102.0
		Plastic Index	--
		Apparent Relative Density	--

Notes/Deviations/References Liquid Limit: ASTM D 4318, Classification: ASTM D 2487

W. King
Technical Responsibility

WK
Signature

Project Engineer
Position

8/22/2016
Date

This report shall not be reproduced, except in full without the written approval of S&ME, Inc.