

RIVERBANKS ZOO & GARDEN

Procurement Services
400 Rivermont Drive, Columbia, SC 29210
Phone: 803-602-0831 Fax: 803-771-8722

**INVITATION FOR BIDS-
FURNISH, DELIVER, AND INSTALL A GORILLA CLIMBING STRUCTURE**

BID NUMBER: B2022-04-07

DATE: 07/20/2022

OPENING DATE AND TIME: **August 25, 2022, 10:00 AM EST**

OPENING LOCATION: Riverbanks Zoo & Garden
Procurement Services
400 Rivermont Drive
Columbia, SC 29210

MAILING ADDRESS: Riverbanks Zoo & Garden
Attn: Raymond Brindle
400 Rivermont Drive
Columbia, SC 29210

PROCUREMENT FOR: **Gorilla Climbing Structure**

Subject to the conditions, provisions and the enclosed specifications, sealed bids will be received at this office until the stated date and time and then publicly opened. Any bid received after the scheduled deadline will be immediately disqualified. The District assumes no responsibility for delivery of bids which are mailed. Oral, telephonic, electronic or telegraphic bids are invalid and will not receive consideration.

IT IS REQUIRED THAT THE BID NUMBER BE SHOWN ON THE OUTSIDE OF ENVELOPE.

**DIRECT ALL INQUIRES TO: Raymond Brindle, Procurement Manager, 803-602-0831,
rbrindle@riverbanks.org**

KEY EVENTS / DATES

- | | |
|---------------------------------|----------------------------------|
| 1. Advertisement / Posting Date | July 20, 2022 |
| 2. Mandatory Site Visit | August 4, 2022, 8:00 AM (EST.) |
| 3. Deadline for Questions | August 11, 2022, 5:00 PM (EST.) |
| 4. Bid Due | August 25, 2022, 10:00 AM (EST.) |

NOTICE TO BIDDERS: There will be a Mandatory Site Visit on August 4, 2022, at 8:00 AM (EST.) at Riverbanks Zoo & Garden, 500 Wildlife Parkway, Columbia, SC 29210. Meet at the Reception Gate (Once you cross over the railroad tracks, make a right and the Reception Gate will be on your left. Parking is not reserved). Due to the importance of all bidders having a clear understanding of the scope and requirements for this project, *attendance at this meeting will be mandatory.* Any changes that may be agreed upon as a result of this conference will be noted in an amendment to the bid invitation and posted on the Riverbanks Zoo and Garden procurement page. Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this bid. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the contract. All amendments to and interpretations of this solicitation shall be in writing and issued by the Procurement Manager. Richland-Lexington Riverbanks Park District DBA Riverbanks Zoo & Garden (hereinafter known as "the District") shall not be legally bound by any amendment or interpretation that is not in writing.

"NO BID" RESPONSE FORM

To submit a *"No Bid"* response for this project, this form must be completed for your company to remain on our bidders list for commodities/services referenced.

Note: Please show the solicitation number on the outside of the envelope.

Please check statement(s) applicable to your *"No Bid"* response --

Specifications are restrictive, i.e. geared toward one brand or manufacturer only (explain below).

Specifications are ambiguous (explain below).

We are unable to meet specifications.

Insufficient time to respond to the solicitation.

Our schedule would not permit us to perform.

We are unable to meet bond requirements.

We are unable to meet insurance requirements.

We do not offer this product or service.

Remove us from your vendor list for this commodity/service.

Other (specify below).

Comments:

Company Name (as registered with the IRS)

Authorized Signature

Correspondence Address

Printed Name

City, State, Zip

Title

E-mail Address (Please Print)

Date

Telephone

/ _____
Fax

INSTRUCTIONS TO BIDDERS

1. Only one copy of bid invitation is required, unless otherwise stated.
2. Bids, amendments thereto or withdrawal request must be received by the time advertised for bid openings to be timely filed. It is the vendor's sole responsibility to ensure that these documents are received by the Procurement Office at or before the time indicated in the bid document.
3. When specifications or descriptive papers are submitted with the bid invitation, enter bidder's name thereon.
4. Submit your signed bid on the forms provided. Show bid number on envelope as instructed. The District assumes no responsibility for unmarked or improperly marked envelopes. Unsigned bids will be rejected.
5. 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 30-4-4C Code of Laws of South Carolina, 1976, (1986 Cum Supp) Freedom of Information Act. The District reserves the right to determine whether this information should be exempt from disclosure and no legal action may be brought against the District or its agents for its determination in this regard.
6. By submission of a bid, you are guaranteeing that all goods and services meet the requirements of the solicitation during the contract period.
7. This solicitation does not commit the District to award a contract, to pay any cost incurred in the preparation of the bid, or to procure or contract for goods or services listed herein.
8. **CORRECTION OF ERRORS ON THE BID FORM:** All prices and notations shall be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Erasures or use of typewriter correction fluid may be cause for rejection. No bid shall be altered or amended after specified time for opening.
9. **BIDDERS SCHEDULE:** Enter the manufacturer, brand, and model/catalog number, as applicable, and your bid price in the space provided on the bidder's schedule. Additional pages may be attached, when applicable, for alternates, etc.
10. **NOTIFICATION:** Intent to Award and/or Statement of Award will be posted on the Riverbanks Zoo & Garden website at <http://www.riverbanks.org/procurement>
11. **RIGHT TO PROTEST:** (does not apply to procurements \$1-\$50,000) Any prospective bidder, offeror, or contractor, who is aggrieved in connection with the solicitation of a contract shall protest in writing to the Procurement Manager within ten (10) calendar days of the date of issuance of the Invitation to Bid, Requests for Proposals or other solicitation documents, whichever is applicable, or any amendments thereto, if the amendment is at issue. Any actual bidder, offeror, or contractor, who is aggrieved in connection with the intended award or award of a contract, shall protest in writing to the Procurement Manager within ten (10) calendar days of the notification of Intent to Award or Statement of Award.
12. **PROTEST PROCEDURE:** A protest shall be in writing, submitted to the Procurement Manager, and shall set forth the specific grounds of the protest with enough particularity to give notice of the issues to be decided.
13. **QUESTIONS REGARDING SPECIFICATIONS AND/OR THE BIDDING PROCESS:**
 - To ensure fair consideration for all bidders the District prohibits any type of communications to or with any department, employee, or District official during the solicitation process, except as provided on page one of the solicitation. This includes any

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communications initiated by a bidder to any District Official or employee evaluating or considering the bidder, prior to the time an award decision has been made public. **Failure to comply shall be grounds for disqualification of the offending bidder from consideration for award of the bid and/or any future solicitations.**

- Any communications between the bidder and the District shall be initiated by the Procurement Office or the appropriate District representative in order to obtain necessary information or clarification needed to develop a proper and accurate evaluation of the bid. **Failure to comply shall be grounds for disqualification of the offending bidder from consideration for award of the bid and/or any future solicitations.**
- It will be the sole responsibility of the bidder to contact the Procurement Office prior to submitting a bid to ascertain if any amendments have been issued in order to obtain all such documentation, and to return the executed documentation with their bid. All amendments will be posted on the Riverbanks Zoo & Garden website at: <http://www.riverbanks.org/procurement>

GENERAL PROVISIONS

1. The District reserves the right to reject any and all bids, to cancel a solicitation, and to waive any technicality if deemed to be in the best interest of the District.
2. Unit prices will govern over extended prices unless otherwise stated in this bid invitation.
3. PROHIBITION OF GRATUITIES: Amended section 8-13-700 and 705 of the 1976 Code of Laws of South Carolina states: "Whoever gives or offers to any public official or public employee any compensation including a promise of future employment to influence his action, vote, opinion or judgment as a public official or public employee or such public official solicits or accepts such compensation to influence his action, vote, opinion or judgment shall be subject to the punishment as provided by Section 16-9- 210 and Section 16-9-220."
4. BIDDERS QUALIFICATIONS: Consideration will be given only to the contractors who can produce conclusive evidence that they can meet the following requirements:
 - 4.1 Adequate capital and credit rating sufficient to complete all operations under this contract in a satisfactory manner.
 - 4.2 An efficient office force with satisfactory record in expediting delivery of materials to field force, and capable of fulfilling proper liaison service with mechanical trade.
 - 4.3 An adequate and efficient field force with extensive knowledge of all types of work involved under this contract.
 - 4.4 A record of amicable relations with labor.
 - 4.5 An adequate supply of applicable equipment in good operating condition to fulfill the contract.
5. LICENSES, PERMITS, INSURANCE, & TAXES: All costs for required licenses, permits, insurances and taxes shall be borne by the Contractor.
6. INSURANCE:
 - 6.1 The amount and types of insurance required should be reasonably commensurate with the hazards and magnitude of the undertaking, but in no event of lesser amount nor more restrictive than the limits of liability and schedule of hazards below described. Without limiting its liability under the contract agreement, the Contractor shall procure and maintain, at its expense during the life of this contract, insurance of the types in the minimum amounts stated below:

SCHEDULE**WORKERS COMPENSATION**

As required by the State of South Carolina.

LIMIT

Statutory

COMPREHENSIVE GENERAL LIABILITY

Premises Operations

\$1,000,000 Single Limit

Contractual Liability

Independent Contractors

Personal Injury

Products - Completed Operations

AUTOMOBILE LIABILITY

All Owned, Non-Owned, and Hired

\$ 100,000 Combined

- 6.2 The Contractor's comprehensive general liability policy shall also include blanket contractual liability coverage or shall be endorsed to cover the liability assumed by the Contractor. Said insurance shall be written by a company or companies approved to do business in the State of South Carolina and acceptable to the District. Before commencing any work hereunder, certificates evidencing the maintenance of said insurance shall be furnished to the District. The District, its officials, employees and volunteers are to be covered as insured's as respects: liability arising out of activities performed by or on behalf of the contractor, including the insured's general supervision of the contract; products and completed operations of the contractor; premises owned, occupied or used by the Contractor; or automobiles owned, leased, hired or borrowed by the contractor. The coverage shall contain no special limitations on the scope of protection afforded the District, its officials, employees or volunteers. To accomplish this objective, the District shall be named as an additional insured under the Contractor's insurance as outlined above.
- 6.3 The contractor shall take out and maintain, during the life of this contract, the statutory Workmen's Compensation and Employer's Liability Insurance for all of his employees to be engaged in work on the project under this contract, and in case any such work is sublet, the contractor shall require the subcontractor similarly to provide Workmen's Compensation and Employer's Liability Insurance for all of the latter's employees to be engaged in such work.
- 6.4 Contractors insurance coverage shall be primary insurance as respects the District, it's officials, employees and volunteers. Any insurance or self-insurance maintained the District shall be in excess of the Contractor's insurance and shall not be required to contribute. To accomplish this objective, the following wording should be incorporated in the previously referenced additional insured endorsement:
- Other Insurance:* This insurance is primary, and our obligations are not affected by any other insurance carried by the additional insured whether primary, excess, contingent or on another basis.
- 6.5 Each insurance required by the District shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to Riverbanks Zoo & Garden Procurement Office.
- 6.6 Contractor shall include all subcontractors as insured under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverage's for subcontractors shall be subject to all the requirements stated herein.
- 6.7 All certificates and endorsements must be received and approved by the District within ten (10) days after notification of award.

- 6.8 The District, its officers and employees shall be named as an “additional insured” in the Automobile and General Liability policies, and it shall be stated on the Insurance Certificate with the provision that this coverage “is primary to all other coverage the District may possess”.
7. **BIDDERS RESPONSIBILITY:** Each bidder shall fully acquaint himself with conditions relating to the scope and restrictions attending the execution of the work under the conditions of this bid. It is expected that this will sometimes require on-site observation. The failure or omission of a bidder to acquaint himself with existing conditions shall in no way relieve him of any obligation with respect to this bid or to the contract.
8. **AWARD CRITERIA:** The contract shall be awarded to the lowest responsible and responsive bidder(s) whose bid meets the requirements and criteria set forth in the Invitation for Bid. The award can be made to one or a multiple of contractors; whichever is in the best interest of the District, or unless otherwise stated on bidders’ schedule.

If two or more bidders are tied in price while otherwise meeting all of the required conditions, awards are determined in the following order of priority:

 - 8.1 If there is a South Carolina firm tied with an out-of-state firm, the award must be made automatically to the South Carolina firm.
 - 8.2 Tie bids involving South Carolina produced or manufactured products, when known, and items produced or manufactured out of the State must be resolved in favor of the South Carolina commodity.
 - 8.3 Tie bids involving a business certified by the South Carolina Office of Small and Minority Business Assistance as a Minority Business Enterprise must be resolved in favor of the Minority Business Enterprise.
 - 8.4 Tie bids involving South Carolina firms must be resolved in favor of the South Carolina firm located closest to the District.
 - 8.5 In all other situations in which bids are tied, the award must be made to the tied bidder offering the quickest delivery time, or if the tied bidders have offered the same delivery time, the tie must be resolved by the flip of a coin witnessed by the Procurement Manager. All responding vendors must be invited to attend.
9. **WAIVER:** The District reserves the right to waive any Instruction to Bidders, General or Special Provisions, General or Special Conditions, or specifications deviation if deemed to be in the best interest of the District.
10. **COMPETITION:** This solicitation is intended to promote competition. If any language, specifications, terms and conditions, or any combination thereof restricts or limits the requirements in this solicitation to a single source, it shall be the responsibility of the interested contractor to notify the Procurement Services Office in writing within five (5) days prior to the opening date. The solicitation may or may not be changed but a review of such notification will be made prior to the award.
11. **REJECTION:** The District reserves the right to reject any bid that contains prices for individual items or services that are inconsistent or unrealistic when compared to other prices in the same or other bids or ambiguous bids which are uncertain as to terms, delivery, quantity, or compliance with specifications may be rejected or otherwise disregarded if such action is in the best interest of the District.

GENERAL CONDITIONS

1. **DEFAULT:** In case of default by the contractor, the District reserves the right to purchase any or all items in default in the open market, charging the contractor with any excessive costs. Should such charge be assessed, no subsequent bids will be considered, or purchase orders issued to the defaulting contractor until the assessed charge has been satisfied.
2. **NON-APPROPRIATION:** Any contract entered into by the District resulting from this bid invitation shall be subject to cancellation without damages or further obligation when funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period or appropriated year.
3. **INDEMNIFICATION:** The contractor agrees to indemnify and save harmless the District and all District officers, agents and employees from claims, suits, actions, damages and costs of every name and description, arising out of or resulting from the use of any materials furnished by the Contractor, provided that such liability is not attributable to negligence on the part of the District or failure of the District to use the materials in the manner outlined by the Contractor in descriptive literature or specifications submitted with the Contractor's bid.
4. **CONTRACT ADMINISTRATION:** Questions or problems arising after award of this contract shall be directed to the Procurement Manager. Copies of all correspondence concerning this contract shall be sent to, 400 Rivermont Drive, Columbia, SC 29210. All change orders must be authorized in writing by the Procurement Manager. The District shall not be bound to any change in the original contract unless approved in writing by the Procurement Manager.
5. **PUBLICITY RELEASES:** Contractor agrees not to refer to award of this 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. The contractor shall not have the right to include the District's name in its published list of customers without prior approval. With regard to news releases, only the name of the project and duration of contract may be used and then only with prior approval of the District. The contractor also agrees not to publish, or cite in any form, any comments or quotes from the Riverbanks Zoo & Garden Staff unless it is a direct quote from the Public Relations Officer.
6. **QUALITY OF PRODUCT:** Unless otherwise indicated in this bid it is understood and agreed that any items offered or shipped on this bid shall be new and in first class condition unless otherwise indicated herein.
7. **S.C. LAW CLAUSE:** Upon award of a contract under this bid, the person, partnership, association or corporation to whom the award is made must comply with the laws of South Carolina which require such person or entity to be authorized and/or licensed to do business with this State. Notwithstanding the fact that applicable statutes may exempt or exclude the successful bidder from requirements that it be authorized and/or licensed to do business in this State, by submission of this signed bid, the bidder agrees to subject himself to the jurisdiction and process of the courts of the State of South Carolina as to all matters and disputes arising or to arise under the contract and the performance thereof, including any questions as to the liability for taxes, licenses, or fees levied by the State.
8. **ASSIGNMENT:** No contract or its provisions may be assigned, sublet, or transferred without the written consent/Acknowledgement of the Procurement Manager.
9. **AFFIRMATIVE ACTION:** The successful bidder will take affirmative action in complying with all Federal and State requirements concerning fair employment and treatment of all employees, without regard or discrimination by reason of race, color, religion, sex, national origin or physical handicap.

10. BIDDING CONDITION OF PRICE: All bid prices submitted shall remain effective for a minimum period of 90 days, or until evaluation of bids is complete and award is made unless mutual consent of parties is established to extend due to unforeseen circumstances. Thereafter, the contract prices shall remain effective for the term of the contract.
11. 8% S.C. SALES TAX: The District shall add 8% sales tax to all orders; however lump sum bids shall include sales tax in bid price unless otherwise noted. **By submission of a signed proposal, you are certifying, under penalties of perjury that you comply with the SC Code of Laws 1976, as amended, relating to payment of any applicable taxes. This will certify to the District your compliance.**

Forms to register for all taxes administered by the South Carolina Department of Revenue may be obtained by calling the License and Registration Section at (803) 898-5872 or by writing to the South Carolina Department of Revenue, Registration Unit, Columbia, South Carolina 29214-0140.

12. PAYMENT TERMS: Payment will be made within thirty (30) days after acceptance of completed order/project. Early payment discount, if available, will be calculated from date of acceptance. Application for payment shall reflect services completed through the last day of the month. **There will be no exceptions to these payment terms unless approval is obtained in writing from the Procurement Manager prior to bid opening date.**
13. BID REQUIREMENTS: Bid requirements on the equipment/goods/services specified are not intended to be restrictive to potential bidders but indicate the required features for satisfactory performance. The District will determine if minor deviations from these features are acceptable.
14. DEVIATIONS FROM SPECIFICATIONS: Any deviation from specifications indicated herein must be clearly pointed out; otherwise, it will be considered that items offered are in strict compliance with these specifications, and successful bidder will be held responsible, therefore. Deviations must be explained in detail on separate attached sheet(s). The listing of deviations, if any, is required but will not be construed as waiving any requirements of the specifications. Deviations found in the evaluation of the bid and not listed may be cause for rejection. Bidders offering substitute or equal items must provide information sufficient enough to determine acceptability of item offered.
15. CONTRACT: This bid, contract and submitted documents, when properly accepted by the District along with a written purchase order, shall constitute a contract equally binding between the successful offeror, and the District. No different or additional terms will become a part of this contract with the exception of a Change Order.
16. CHANGE ORDERS: No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing by the Procurement Manager.
17. AMENDMENTS: All amendments to and interpretations of this solicitation shall be in writing and issued by the Procurement Manager. The District shall not be legally bound by any Amendment or interpretation that is not in writing.
18. BID EVALUATION: Bids received will be evaluated by the Procurement Manager. However, based on bid total, final decision for bid award may rest with the Richland-Lexington Riverbanks Park Commission. Factors to be considered during the evaluation process include, but are not limited to:
 - 18.1 – Cost
 - 18.2 – Start time and project duration
 - 18.3 - Reputation and dependability of the contractor
 - 18.4 – Past performance

19. ARBITRATION: Under no circumstances and with no exception will the District act as arbitrator between the Contractor.
20. SHIPPING: All deliveries shall be shipped F.O.B. point Destination-freight prepaid; the seller pays and bears all freight charges; collect shipments will not be accepted. It is agreed by the parties hereto that delivery by the contractor to the common carrier does not constitute delivery to the District. Any claim for loss or damage shall be between the contractor and the carrier.
21. "OR APPROVED EQUAL": Certain processes, types of equipment or kinds of material are described in the specifications and/or on the drawings by means of trade/brand names and catalog numbers. In each instance where this occurs, it is understood and inferred that such description is followed by the words "or approved equal". Such method of description is intended merely as a means of establishing a standard of comparability. However, the Owner reserves the right to select the items, which, in the judgment of the Owner, are best suited to the needs of the Owner, based on price, quality, service, availability, standardization and other relative factors. Bidders should indicate brand name, model, model number, size, type, weight, color, etc., of the item bid, if not exactly the same as the item specified. Vendor's stock number or catalog number is not sufficient to meet this requirement. If any bidder desires to furnish an item different from the specifications, vendor should submit along with the bid, the information, data, pictures, designs, cuts, etc., of the material they plan to furnish to enable the Owner to compare the material specified; and such material shall be given due consideration. The Owner reserves the right to insist upon and receive items as specified if the submitted items do not meet the Owner's standards for acceptance.
22. ALTERNATE BIDS: Bidders wishing to submit an alternate for consideration that does not meet the District's specifications (or approved deviations), must submit their proposal as an alternate bid. **This must be properly marked on both the sealed envelope and the Bidder's Schedule and submitted separately from any other bid. Failure to comply shall be grounds for being deemed non-responsive.**
23. DRUG-FREE WORKPLACE: By submittal of this bid, you are certifying that you will comply with Title 44, Code of Laws of South Carolina, 1976, Section 44-107-30.
24. ILLEGAL IMMIGRATION & PUBLIC CONTRACTS: In accordance with the South Carolina Illegal Immigration Reform Act, [2008, Act No. 280](#), Section 3 of this Act added to [Chapter 14 to Title 8](#) of the South Carolina Code of Laws prohibits covered persons from entering into covered contracts unless the contractor agrees either (a) to verify all new employees through the federal work authorization program [and requires the same from subcontractors and sub-subcontractors] or (b) to employ only qualifying workers. Effectively, the Act also requires contractors to agree to provide any documentation required to establish either (a) that the Act does or does not apply to the contractor, subcontractor, or sub-subcontractor; or (b) that the contractor, and any subcontractor or sub-subcontractor, are in compliance with Section 3 of the Act."
25. NO CONTACT POLICY: After the date and time established for receipt of proposals by the District, any contact initiated by any offeror with any District representative, other than the Purchasing Department representative listed herein, concerning this solicitation is prohibited. Any such unauthorized contact may cause the disqualification of the offeror from this procurement transaction.
26. TERMINATION: Subject to the provisions below, the contract may be terminated for any reason by the District providing a 30-day advance notice in writing is given to the contractor.
 - 26.1 Termination for Cause: Termination by the District for cause, default or negligence on the part of the contractor shall be excluded from the foregoing provisions, termination costs, if any, shall not apply. The thirty (30) days advance written notice requirement is waived and the default provision in this bid shall apply; see General Conditions.

- 26.2 Termination for Convenience: The District, by written notice, may terminate this contract in whole or in part, when it is in the best interest of the District.
- 26.3 Termination requirement does not apply if contract is to terminate at the end of an established contract term.
- 26.4 Termination for Non appropriations: If the District fails to appropriate or authorize the expenditure of sufficient funds to provide the continuation of this contract, or if a lawful order issued in or for any fiscal year during the term of the contract reduces the funds appropriated or authorized in such amount as to preclude making the payments set out therein, the contract shall terminate on the date said funds are no longer available without any termination charges or other liability incurring to the District. Any termination for non-appropriations shall not prohibit the District from obtaining services from another source or in another manner, which is in the best interest of the District.

SCOPE OF WORK

INTENT:

Riverbanks Zoo and Garden is seeking a general contractor to furnish, deliver, and install a gorilla climbing structure pursuant to the specs outlined below. At Riverbanks Zoo and Gardens, we continue to make improvements to the facility to enhance the guest experience and provide more options for improved welfare for the animals. Our current gorilla habitat is an amazing experience for our guests and our animals; however, we are looking to add to this 15-year-old habitat with a dynamic climbing structure that will help to bring it in line with current management practices for this species. The structure will provide opportunities for the guests to see our troop performing a more complete array of behaviors and will serve as a strong focal point to complement the other viewing locations around the habitat.

Given the sensitive nature of the workspace being an animal habitat, all work materials and fasteners must be accounted for and not left on site. Completion of the project will require the use of magnets to sweep the location to recover any materials that were accidentally discarded. This sweep must be conducted with the Project Manager or his designee.

This project is time sensitive and impacts the operation of the area. Therefore, the contractor should have all materials in hand prior to starting so no delays are due to material availability. Any delays must be reported to the Project Manager. Work hours can be adjusted to allow for certain portions of the work to be scheduled prior to or after Zoo operating hours. Normal work hours are 8:00 am till 5:00 pm. Est. The following exhibits have been attached for further clarification:

Exhibit A- Requirements and Specifications

Exhibit B- Conceptual Image

Exhibit C- Geotechnical Exploration

Exhibit D- Topographical Map

REQUIREMENTS:

- Bidders shall refrain from direct or indirect communications promoting their qualifications for this Project to the District or any member of the Lexington-Richland Riverbanks Park Commission, other than through the formal submittal process established by this Invitation for Bid (IFB). Failure to comply with submittal requirements may cause the submittal to be removed from further consideration.
- The selected contractor must hold the required license(s) for the installation of the climbing structure.

- Contractor must be bondable, a certified contractor and have personnel on site who hold the necessary OSHA required certifications to safely perform the work.
- Must have an Experience Modifier Rate (EMR) of less than one (1).
- The contractor should submit as a part of the bid package the safety program to be used on this site to ensure workplace safety.
- Contractor's site superintendent shall coordinate all activities with Zoo Project Manager.
- All oversized deliveries must be made before 7:00 AM or after 7:00 PM est.
- Riverbanks Zoo and Garden is a tobacco and vape free facility.

CONSIDERATIONS:

- The area around the gorilla habitat is open to Riverbanks employees and staff so deliveries, work practices, application processes and behavior of staff will be closely monitored by the Project Manager to ensure the quality of the staff environment.

OBLIGATION:

- Riverbanks Zoo and Garden makes no guarantees as to the correctness of the information and materials identified in this specification. It shall be the contractor's responsibility to ascertain the full extent of this job.

REGULATIONS AND STANDARDS:

- The work shall comply with all laws, ordinances and regulations of all legally constituted authorities having jurisdiction over any part of this work, County and State level. These requirements supplement the specifications and shall take precedence in case of conflict.
- All work shall be performed and completed in a thoroughly workmanlike and professional manner in accordance with best modern practices, regardless of any omissions from the attached specifications and/or drawings. All material and equipment shall be new and shall comply with the applicable standard in every case where such a standard has been established for the particular type of material in question.
- Safety Department to review fall protection plans specific to this project as requested. The Zoo Project Manager to final approve all aspects of the project including changes and payments.
- The Bidder shall supply for review, all SCOSHA written programs as applicable to include, but not limited to, the following OSHA standards; Walking-Working Surfaces (Fall Protection), Control of Hazardous Energy (Lockout/Tagout), Personal Protective Equipment and Permit-required Confined Spaces.

SITE CLEAN UP:

- The contractor shall keep the job site clean and free from an accumulation of debris or materials during the project. At the completion of the work, the entire facility and premises shall be left clean.
- The contractor shall remove from the premises all accumulations of trash and other materials, which are not to be used in the project, daily.

CONTRACTOR'S CARE:

- Contractor shall exercise due care in protecting all trees, property, and surrounding property. Contractor will be responsible for any damage and will be required to restore any damage. If the Contractor fails or refuses to repair any damage promptly, the Project Manager may have the necessary work performed and charge the cost thereof to the contractor.

FINAL INSPECTION:

- At the completion of the contract work, a representative of Riverbanks Zoo and Garden shall accompany the contractor on an inspection of the work. All defects found in the work will be corrected before final payment will be authorized.

BIDS MUST INCLUDE

- Solicitation name and number clearly marked on the outside of the envelope
- One hard copy and one digital (i.e. thumb drive)
- A schedule showing phases and duration
- A written introduction summarizing your company's background, resources and relevant experience.
- Three examples of past or current projects of similar size and scope, and the timelines under which they were completed
- Four references from past projects of similar size and scope
- MBE/DBE/WBE Cultivation Plan- The owner is committed to cultivating MBE/DBE/WBE involvement in all aspects of owner's operations. Explain how your firm will cultivate MBE/DBE/WBE participation in the climbing structure build.
- A single point of contact – name, title, phone and email address must be included.

HOURS OF OPERATION:

Riverbanks Zoo and Garden is open Monday through Sunday from 9:00 am to 5:00 pm and closed on Thanksgiving and Christmas Days.

DISPOSAL OF WASTE:

- The Contractor will ensure proper handling and disposal of materials removed from the containers to prevent discharges of pollutants to surface waters or groundwater.

**NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES)
REQUIREMENT:**

- Contractor shall comply with current and future requirements of the City of Columbia, City of West Columbia and State of South Carolina's NPDES permits (if any) as it may be amended from time to time.

INTENTIONALLY LEFT BLANK



Procurement Services
 400 Rivermont Drive, Columbia, SC 29210
 Phone: 803-602-0831 Fax: 803-771-8722

BIDDERS SCHEDULE

BID NUMBER: B2022-04-07

DATE: 07/20/2022

OPENING DATE AND TIME: August 25, 2022, 10:00 AM (EST)

OPENING LOCATION: Riverbanks Zoo & Garden
 Procurement Services
 400 Rivermont Drive
 Columbia, SC 29210

PROCUREMENT: Under a design build contract provide all materials, equipment, and labor for the demolition and installation of a gorilla climbing structure in accordance with the specifications, conditions, and provisions as applicable to this solicitation. All prices are to include all applicable transportation, recycle and disposal costs. **Submit one (1) hard copy and one (1) digital copy.**

Delivery Requirements: All deliveries shall be shipped F.O.B. point Destination-freight prepaid; the seller pays and bears all freight charges; collect shipments will not be accepted. It is agreed by the parties hereto that delivery by the contractor to the common carrier does not constitute delivery to the District. Any claim for loss or damage shall be between the contractor and the carrier.

ITEM NUMBER	QTY U/I	DESCRIPTION MFG/MDL/STK #	PRICE
#1:	EA	Gorilla Climbing Structure Materials	
#4:	EA	Installation / Labor	
#5:	EA	Total Price	

TOTAL PRICE WRITTEN: _____

COMPANY: _____

AUTHORIZED SIGNATURE: _____

The attached Certificate of Familiarity must be returned with bid.
--

SOLICITATION NUMBER: B2022-04-07**DATE: July 20, 2022**

CERTIFICATE OF FAMILIARITY

The undersigned, having fully familiarized himself with the information contained within this entire solicitation and applicable amendments, submits the attached bid and other applicable information to the District, which I verify to be true and correct to the best of my knowledge. I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a bid for the same materials, supplies or equipment, and is in all respects, fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid. I further certify that this bid is good for a period of ninety (90) days, unless otherwise stated.

 Company Name as registered
with the IRS

 Authorized Signature

 Correspondence Address

 Printed Name

 City, State, Zip

 Title

 Date

 Telephone Number Fax Number

 Remittance Address

 E-mail Address (PLEASE PRINT)

 City, State, Zip

 Telephone Number

 Toll-Free Number if available

 Federal Tax ID Number

 SC Sales and Use Tax Number

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B2022-04-07 Gorilla Climbing Structure

Richland-Lexington Riverbanks Park District

**B2022-04-07
Gorilla Climbing Structure**

LIST OF REFERENCES

Please list four (4) references that your company has recently or currently provided similar products and/or services for.

Company Name

Company Name

Representative

Representative

Address

Address

City, State, Zip Code

City, State, Zip Code

Telephone # / Fax #

Telephone # / Fax #

E-Mail Address

E-Mail Address

Company Name

Company Name

Representative

Representative

Address

Address

City, State, Zip Code

City, State, Zip Code

Telephone # / Fax #

Telephone # / Fax #

E-Mail Address

E-Mail Address

COMPANY: _____

AUTHORIZED SIGNATURE: _____

EXHIBIT A**Requirements and Specifications****Building Materials (Materials and Fabrication)**

Any alternate materials to including but not limited to stains and paints must be approved by the Project Manager

Gorilla Element Columns/Posts

Item	Material	Quality	Size
Branched Columns	Buried 5' - White Oak	4	20' x 18-20"
Straight Columns	Buried 5' - White Oak	2	20' x 18"
Large Climbing Poles	White Oak	2	25' x 18"

Gorilla Element Decks/Platforms

Item	Material	Quality	Size
Deck Beams	Black Locust	6	8' x 8-10"
Deck Rafters	Black Locust Dimensional	15	8' x 4"
Platform Decking	Black Locust	55	8' x 2"

Gorilla Element Ladders/Supports

Item	Material	Quality	Size
Ladders	Black Locust	2	24' x 4-6"

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EXHIBIT B

Conceptual Image



July 7, 2022

Eric Helms
Director of Construction and Planning
Riverbanks Zoo and Garden
500 Wildlife Parkway
Columbia, SC 29210

Re: Report for Limited Geotechnical Exploration
Gorilla Climbing Structure
Riverbanks Zoo and Garden
City of Columbia, Richland County, South Carolina
F&ME Project No.: G2022050.01
FME Project No.: G6686.00

Dear Mr. Helms:

F&ME Consultants, Inc. (FME) is pleased to submit our report on the limited geotechnical exploration for the proposed new gorilla climbing structure at the Riverbanks Zoo and Garden. It has been a pleasure working for you on this project and we appreciate the opportunity to be of service. Please notify us if there are any questions or if we may be of further assistance with the implementation of our recommendations.

Sincerely,
FME

A handwritten signature in blue ink, appearing to read 'A Chandler'.

Alex M Chandler, EIT
Geotechnical Staff Professional

A handwritten signature in blue ink, appearing to read 'R Lawrence'.

Robert Lawrence, PE GE
Senior Geotechnical Engineer



Project Description

Information about the project was obtained via emails between Eric Helms of the Riverbanks Zoo and Garden (RZG) and Andy Whitfield of FME on April 25th 2022. The emails included a brochure for Whole Trees Structures and a preliminary drawing of the gorilla climbing structure. Mr. Helms indicated that the hill on which the proposed structure is to be constructed is undocumented fill materials placed when the moat surrounding the gorilla exhibit was constructed.

FIELD EXPLORATION

FME contacted South Carolina 811 (SC 811) for utility marking prior to mobilization of field drilling equipment to help avoid damage to public utilities from our subsurface exploration activities. Field exploration activities were performed on June 7, 2022.

Two (2) hand auger borings with Dynamic Cone Penetrometer (DCP) testing were performed for the exploration designated as HA-1 and HA-2. The approximate locations of hand auger borings are shown on the boring location plan (Figure 2) which is included in Appendix A of this report. The hand auger borings were performed within the existing gorilla pen at locations designated by RZG staff. HA-1 and HA-2 were advanced using hand operated augering equipment to completion depths of ten (10) feet below ground surface (bgs).

Dynamic Cone Penetrometer (DCP) testing was performed in the borings starting at or near the surface and continuing at one (1) foot intervals in the borings to the completion depths. The DCP testing generally followed the “Dynamic Cone for Shallow In-Situ Penetration Testing Methodology” per Sowers and Hedges (1966). The number of blows required to drive the probe three (3) consecutive one and three quarter (1-¾) inch drives were recorded on the boring logs for developing correlations to Standard Penetration Test (SPT) blow counts.

Disturbed representative soil samples were recovered from soil cuttings as the hand augers were advanced and placed in sealed plastic bags. Collected soil samples were classified in the field, sealed in plastic bags, and transported to FME’s laboratory. The soils were visually classified in the field based upon the Unified Soil Classification System (USCS). The descriptions of the soil samples are shown on the boring logs included in Appendix B of this report. As with any geologic formation, soil transitions between the described soil stratigraphy may be gradual and the descriptions as represented on the test boring logs of this report should be considered as general subsurface conditions and not as an absolute indicator.

Groundwater observations and approximate depth of any identified groundwater were noted on the boring logs at the time the borings were performed. Once the borings were completed, they were backfilled with auger cutting.

SOIL STATRAIGRAPY

Soil encountered during the geotechnical exploration mainly consisted of silt (ML), clay (CL), clayey sand (SC), and well-graded sand with silt (SW-SM). Overall, the site generally consists of approximately two (2) feet of silt (ML) overlying clayey sands and/or sandy clays (SC/CL). At depths of between eight (8) to ten (10) feet bgs. In boring HA-1 a two (2) foot layer of well-graded sand with silt (SW-SM) was identified at eight (8) feet below the ground surface until boring termination. Fragments of asphalt and crushed granite were found in the borings confirming the structure will be placed over undocumented fill as indicated to FME during proposal development.

GROUNDWATER

Groundwater was not encountered in the borings performed at the site and this is predominantly due to the site being a local hill constructed out of locally derived fill. It should be noted that groundwater levels will fluctuate and perched groundwater may be encountered at shallower depths after significant precipitation events.

LABORATORY TESTING

Standard Proctor testing was performed on the bulk samples BS-1 obtained from a composite of HA-1 and HA-2. The following table summarizes the Proctor results. The laboratory testing sheets are provided in Appendix C of this report.

Table 1: Bulk Sample Results

ID No.	Max Dry Density (pcf)	Optimum Moisture (%)
BS-1 @ HA-1/HA-2	115.4	13.9

SITE PREPARATION

Care should be taken with near-surface soils during grading since they contain fine grained particles (silts and clays). When exposed to moisture, the workability and strength of these near-surface soil deteriorates significantly, and the need for stabilization and drying may delay progress. We recommend that construction grades be maintained throughout this project in a way that forces stormwater runoff to flow off and away from working surfaces and exposed subgrade.

Additionally, stormwater should not be allowed to enter any of the foundation excavations as this can result in souging or potential collapse of the foundation excavation.

The soils encountered in the borings will be sensitive to disturbance from construction activity and rainfall. When precipitation occurs during construction, then near-surface soils could increase in moisture content and become more susceptible to disturbance. Construction activity should be monitored and should be curtailed if it is causing subgrade disturbance due to wet subgrade. Construction traffic will likely cause significant rutting if equipment is allowed on to the subgrade during precipitation and for a period after any rainfall until the subgrade has significantly dried.

STRUCTURAL FILL

In general, all fill placed at the site, including on-site, should not contain rocks or lumps larger than one (1) inch in the greatest dimension and contain no more than fifteen percent larger than two and a half (2.5) inches. Onsite soils similar to those encountered in the boring can be used as structural fill. Imported structural fill soil should have a classification of SM, SC, SP, CL, or ML with a Standard Proctor maximum dry density (ASTM D698) greater than 100 pcf.

Structural fill should be moisture-conditioned, spread in relatively thin lifts (8-inch maximum loose lifts), and methodically compacted with compaction equipment to at least ninety-five percent (95%) of the Standard Proctor maximum dry density (ASTM D698). Fill soil must be maintained within three percent (3%) of the optimum moisture content during compaction. Fill should be tested for compaction by a technician working under the direction of a licensed geotechnical engineer. Fill placed for the gorilla climbing structure should have a minimum of one (1) compaction test per 2,000 square feet of fill placed per lift, but not less than three (3) tests per lift.

STRUCTURAL DESIGN VALUES

Based upon discussions with zoo staff, the new gorilla climbing structure will be anchored to the ground by grouting the logs in predrilled holes with Portland Cement Concrete. The tables below generalized the soil layering in each of the borings and provide side friction and lateral resistance design values for use in determining the required embedment lengths of the gorilla climbing structure legs. In lieu of grouting in the gorilla climbing structure legs in the predrilled holes, drilled piers may be used with the gorilla climbing structure legs mechanically connected to the drilled piers with anchor bolts.

Table 2: HA-1 Structural Design Values

Layer	USCS Classification	Allowable Side Resistance* (psf)	Allowable Lateral Resistance (psf)
0-2	ML	0	0
2-8	CL	500	400
8-10	SP-SM	300	300

Table 3: HA-2 Structural Design Values

Layer	USCS Classification	Allowable Side Resistance* (psf)	Allowable Lateral Resistance (psf)
0-2	ML	0	0
2-6	SC	150	300
6-10	CL	500	400

* - Allowable side resistance values are for axial compression. For tension demands, one half (½) of these values should be used.

The above side resistance and lateral resistance values assume that there is a minimum of five (5) feet of horizontal ground in front of the foundation in the direction of loading. In other words, the minimum foundation tip embedment depth is five (5) feet. If for some reason the foundations cannot be imbedded a minimum of five (5) feet below the ground surface, then FME must notified to reevaluate our design recommendations.

If wooden posts for the climbing structure are extended below grade to form the foundations, then the wooden posts should be centered in augered holes with a minimum hole diameter of twenty-four (24) inches in diameter. The annulus between the soil and post should be completely filled with concrete. Centralizers may be required to keep the gorilla climbing structure legs centered in the hole during concrete placement. If drilled piers are used as the foundations (drilled holes filled with concrete) and the wooden climbing structure anchored to the concrete foundations, then drilled piers should have a minimum diameter of eighteen (18) inches.

Foundation concrete around wooden posts or as drilled piers should have a minimum unconfined compression strength of 3,000 pounds per square inch. The structural engineer of record may require a higher compressive strength. All concrete shall be placed in a clean dry excavation. Any water that enters the excavations shall be completely removed prior to concrete placement. If water is allowed to sit in any of the excavations for more than eight (8) hours, the hole shall be re-drilled such that no saturated soils remain and over drilling the excavation may be required in extreme cases.

LIMITATIONS OF REPORT

The limited geotechnical exploration report has been prepared in accordance with generally accepted geotechnical engineering practices for specific application to this project. The soil parameters as recommended herein are based upon the soil conditions as encountered in the test boring and applicable standards in this geographic area at the time this report was prepared. No warranty, expressed or implied, was made.

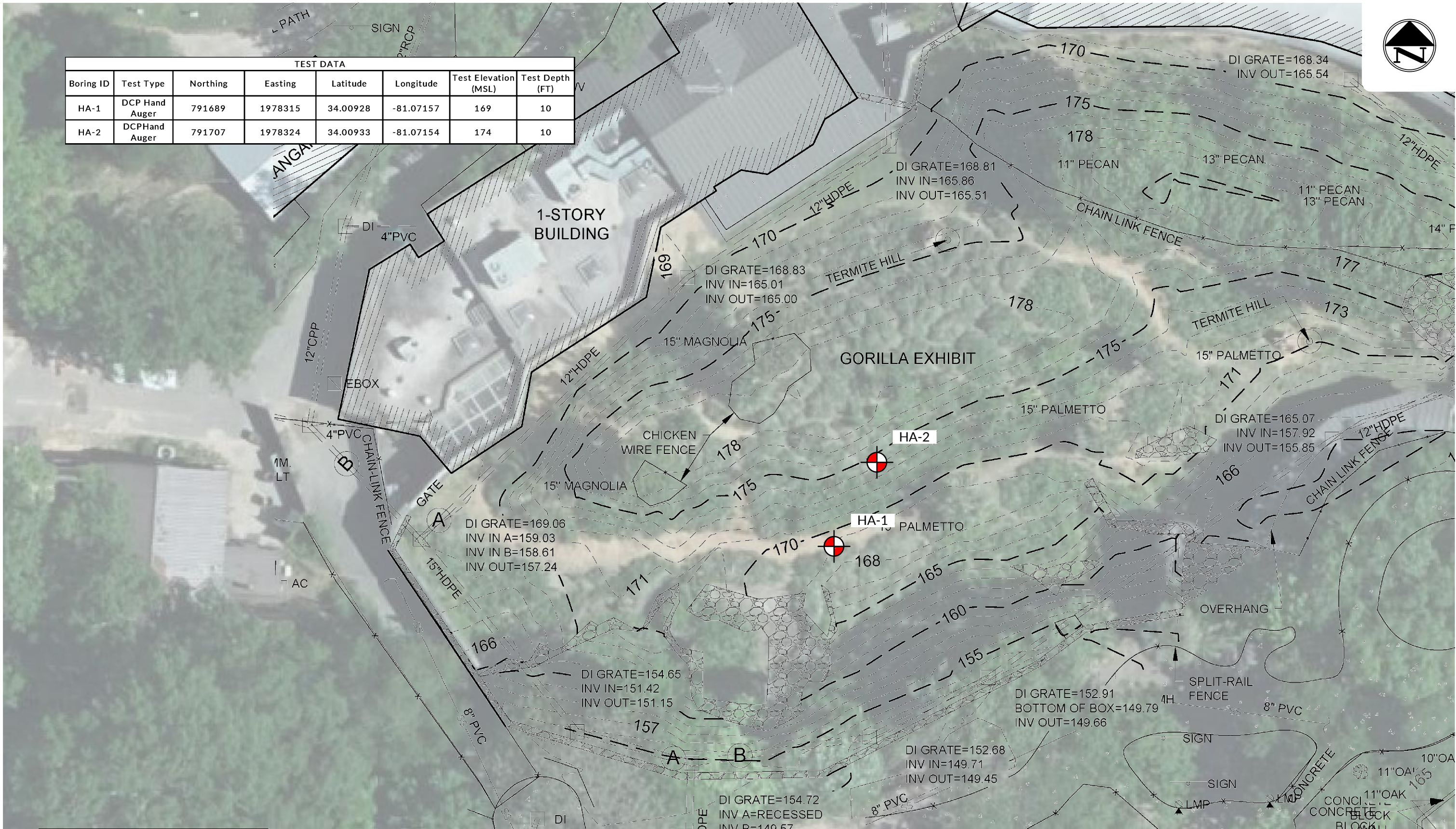
If subsurface conditions are found to differ during construction, then FME should be notified and given an opportunity to adjust our recommendation to match the conditions encountered.

APPENDIX A


Location Plans



TEST DATA							
Boring ID	Test Type	Northing	Easting	Latitude	Longitude	Test Elevation (MSL)	Test Depth (FT)
HA-1	DCP Hand Auger	791689	1978315	34.00928	-81.07157	169	10
HA-2	DCP Hand Auger	791707	1978324	34.00933	-81.07154	174	10



Legend:

 HAND AUGER TEST LOCATION

DRAWN BY:	CTC	ORIGINAL:	July 6, 2022
APPROVED BY:	AMC	REVISIONS:	
NOTES:		1	
		2	
		3	
		SCALE: 1"=20'	



F&ME CONSULTANTS, INC.
1825 BLANDING STREET
COLUMBIA, SC 29201

Riverbanks Zoo - Gorilla Improvements
Columbia, South Carolina

Hand Auger Location Plan

F&ME CONSULTANTS
PROJECT NUMBER:

G6686.000

FIGURE
NUMBER:

2

APPENDIX B

Soil Test Logs

**Gorilla Climbing Structure
Columbia, Riverbanks Zoo, South Carolina
G6686.000**

LOG OF BORING No. HA-1

Latitude: 34.00928
Longitude: -81.07157

Date Drilled: 6/7/2022	Supervisor: A. Chandler	Notes: REF: Dynamic Cone for Shallow In-Situ Penetration Testing; Sowers & Hedges
Date Completed: 6/7/2022	Approx. Ground Elevation (ft): 169	
Drill Machine:	Drilling Method:	
Water T.O.B. (ft): Not Encountered	Water 24 HR (ft):	

Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample Type-No.	1st 6" 2nd 6" 3rd 6" 4th 6"				N Value	STD. PENETRATION TEST DATA (blows/ft)				
						1st 6"	2nd 6"	3rd 6"	4th 6"		5	10	20	40	70
164.0		Very Stiff, Dry, Reddish Brown, Fine Sandy <u>SILT(ML)</u>		0.0	DS-1	25				18					
		@1.0-ft.: Moist, with Trace of Asphalt Fragments		1.0	DS-2										
	2.0	Stiff to Firm, Moist, Reddish Brown, Medium Plasticity, Fine Sandy <u>CLAY(CL)</u> @DS-3: LL=36, PL=12, PI=24, NMC=14.7%, % $\#200$ =6.8		2.0	DS-3	8	12	17		12					
				3.0	DS-4	11	11	12		9					
				4.0	DS-5	5	10	11		8					
				5.0	DS-6	4	8	7		7					
				6.0	DS-7	12	10	8		8					
				7.0	DS-8	8	11	12		9					
	8.0	Medium Dense to Loose, Moist, Non-Plastic, Reddish Brown, Well-Grade Fine to Medium <u>SAND (SP-SM)</u> with Silt @DS-10: LL=NP, PL=NP, PI=NP, NMC=6.8%, % $\#200$ =12.0		8.0	DS-9	9	10	17		11					
				9.0	DS-10	8	14	12		10					
159.0	10.0	Boring Terminated at 10.0-ft. Below Existing Ground Surface													

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	PHD - Percussion Hammer Drill

**Gorilla Climbing Structure
Columbia, Riverbanks Zoo, South Carolina
G6686.000**

LOG OF BORING No. HA-2

Latitude: 34.00933
Longitude: -81.07153

Date Drilled: 6/7/2022	Supervisor: A. Chandler	Notes: REF: Dynamic Cone for Shallow In-Situ Penetration Testing; Sowers & Hedges
Date Completed: 6/7/2022	Approx. Ground Elevation (ft): 174	
Drill Machine:	Drilling Method:	
Water T.O.B. (ft): Not Encountered	Water 24 HR (ft):	

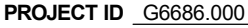
Elevation (ft)	Depth (ft)	MATERIAL DESCRIPTION	Graphic Log	Sample Depth (ft)	Sample Type-No.	1st 6" 2nd 6" 3rd 6" 4th 6"				N Value	STD. PENETRATION TEST DATA (blows/ft)				
											5	10	20	40	70
169.0		Very Stiff, Dry, Reddish Brown, Fine Sandy <u>SILT (ML)</u>		0.0	DS-1	25				18					
		@1.0-ft.: Moist, with Trace of Asphalt Fragments		1.0	DS-2	13	24	25		17					
	2.0	Loose to Very Loose, Moist, Reddish Brown, Medium Plasticity, Clayey Fine <u>SAND (SC)</u>		2.0	DS-3	7	8	7		7					
		@3.0-ft.: With Trace of Rock Fragments		3.0	DS-4	8	7	8		7					
		@4.0-ft.: With Trace of Asphalt Fragments @DS-4: LL=36, PL=18, PI=18, NMC=15.0%, % _{#200} =47.8		4.0	DS-5	9	9	7		7					
		@4.5-ft.: No Observed Trace of Asphalt Fragments		5.0	DS-6	4	3	4		3					
	6.0	Stiff, Moist, Reddish Brown, High Plasticity, Fine to Medium Sandy Lean <u>CLAY (CL)</u>		6.0	DS-7	5	9	10		9					
		@DS-8: LL=36, PL=13, PI=23, NMC=14.5%, % _{#200} =54.8		7.0	DS-8	12	16	17		12					
				8.0	DS-9	9	19	18		14					
				9.0	DS-10	15	16	16		12					
164.0	10.0	Boring Terminated at 10.0-ft. Below Existing Ground Surface													

LEGEND

SAMPLER TYPE		DRILLING METHOD	
SS - Split Spoon	NQ - Rock Core, 1-7/8"	HSA - Hollow Stem Auger	RW - Rotary Wash
ST - Undisturbed Sample	CU - Cuttings	CFA - Continuous Flight Augers	RC - Rock Core
AWG - Rock Core, 1-1/8"	CT - Continuous Tube	DC - Driving Casing	PHD - Percussion Hammer Drill

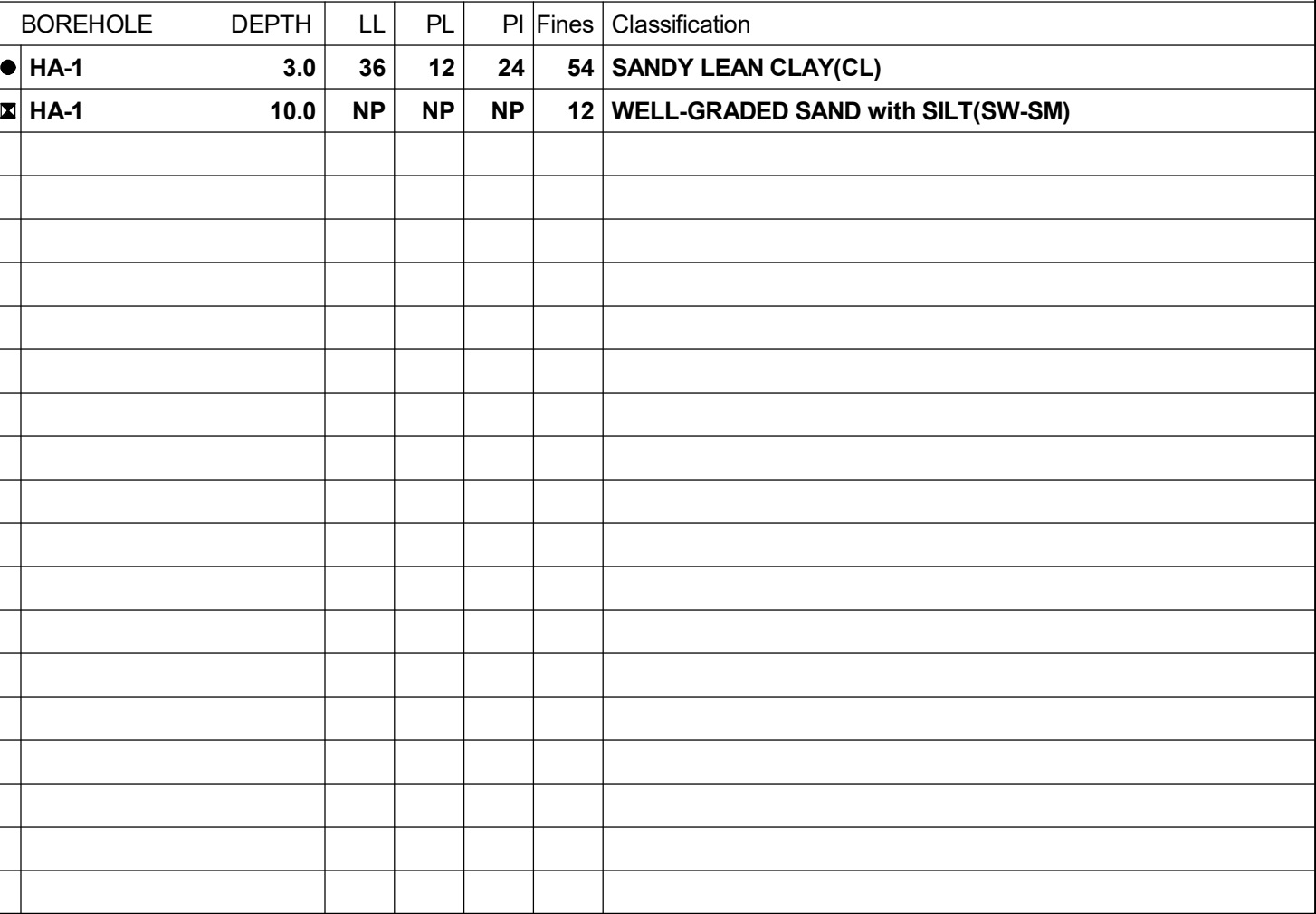
APPENDIX C

Laboratory Test Results



PROJECT NAME Gorilla Climbing Structure

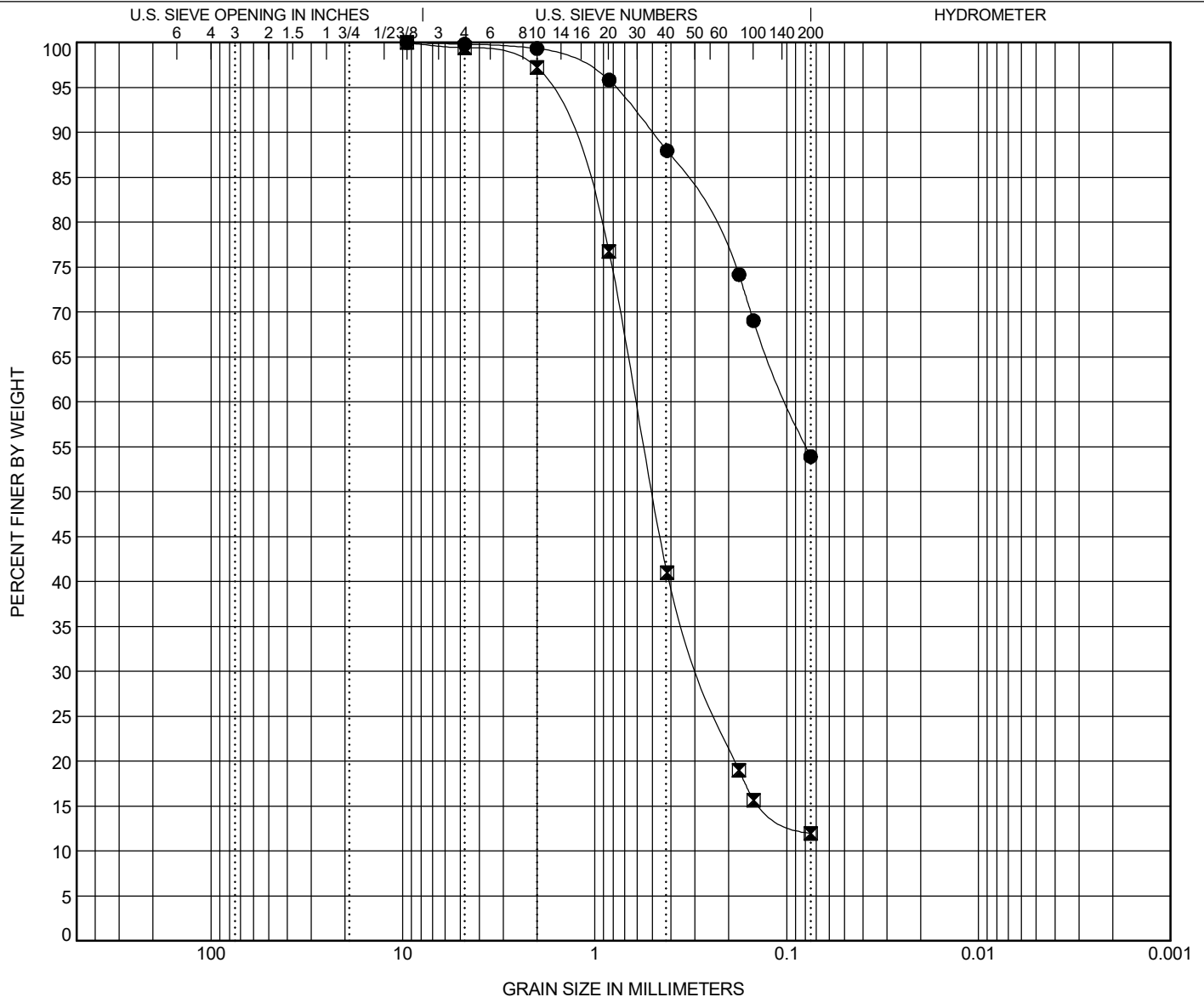
PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina



PROJECT ID G6686.000

PROJECT NAME Gorilla Climbing Structure

PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification					MC%	LL	PL	PI	Cc	Cu
● HA-1	3.0	SANDY LEAN CLAY(CL)					14.7	36	12	24		
☒ HA-1	10.0	WELL-GRADED SAND with SILT(SW-SM)					6.8	NP	NP	NP	2.35	11.69
BOREHOLE	DEPTH	D100	D95	D50	D10	%Gravel	%Sand	%Silt		%Clay		
● HA-1	3.0	9.51	0.781			0.2	45.9	53.9				
☒ HA-1	10.0	9.51	1.82	0.5		0.6	87.5	12.0				

F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT: Gorilla Climbing Structure **FME PROJECT NO.:** G6686
SAMPLE NUMBER: 22-1750 **DATE SAMPLE RECEIVED:** 5/18/2022
DESCRIPTION OF SOIL: Various
TESTED BY: AC **DATE SETUP:** 6/8/2022
WEIGHED BY: LK **DATE OF WEIGHING:** 6/9/2022

BORING NO.	HA-1	HA-1			
SAMPLE NO.	DS-3	DS-10			
SAMPLE DEPTH (FT.)	2.0 - 3.0	9.0 - 10.0			
WATER CONTENT, W%	14.7	6.8			

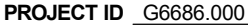
BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					



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3112 Devine St., Columbia, SC 29205



PROJECT NAME Gorilla Climbing Structure

PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina

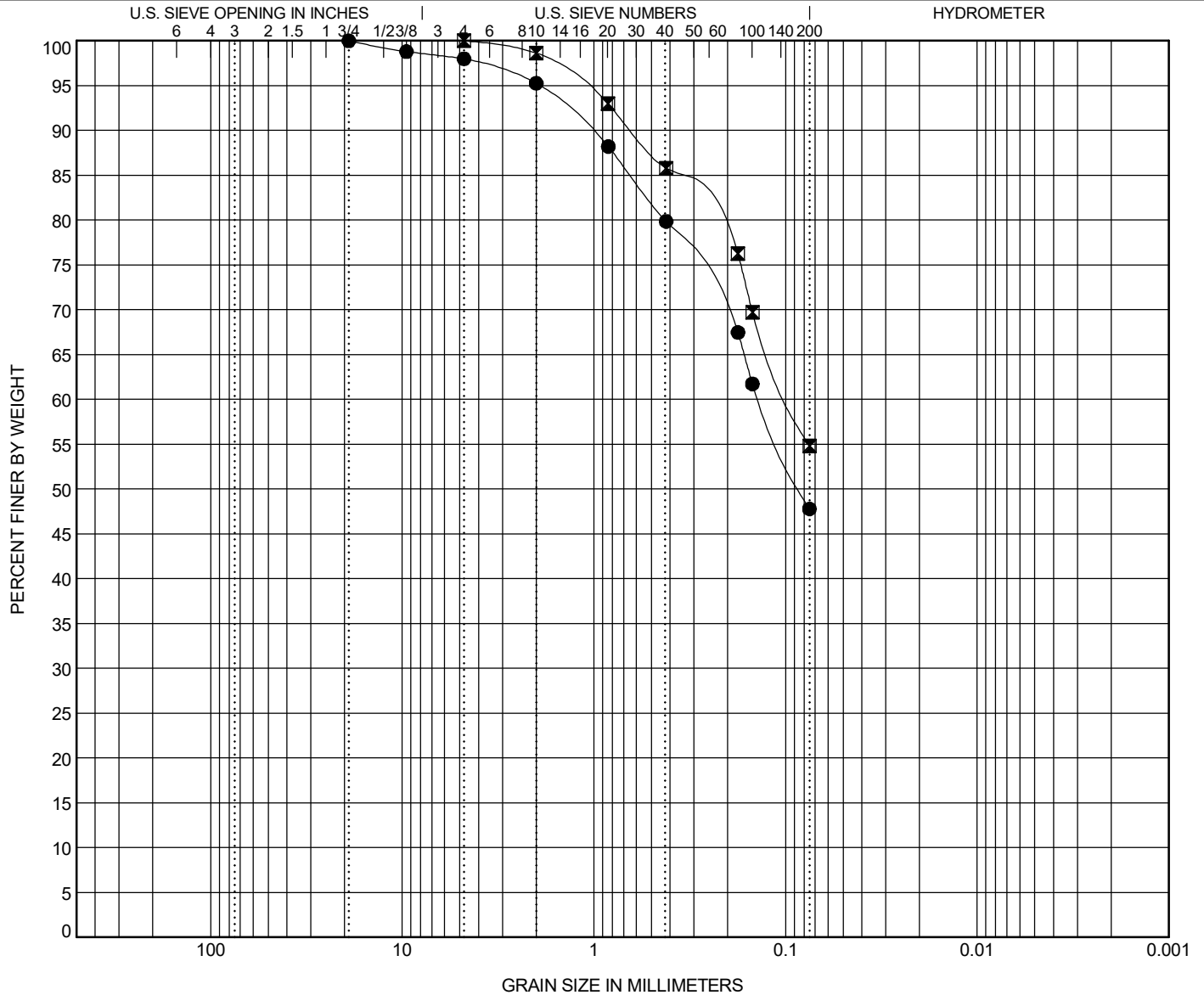


ATTERBERG LIMITS - F&ME G6686 - GORRILLA CLIMBING STRUCTURE.GPJ FME2017.GDT 6/14/22

PROJECT ID G6686.000

PROJECT NAME Gorilla Climbing Structure

PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina



F&ME CONSULTANTS, INC.

MOISTURE CONTENT DETERMINATION (AASHTO T265)

PROJECT: Gorilla Climbing Structure **FME PROJECT NO.:** G6686
SAMPLE NUMBER: 22-1750 **DATE SAMPLE RECEIVED:** 5/18/2022
DESCRIPTION OF SOIL: Various
TESTED BY: AC **DATE SETUP:** 6/8/2022
WEIGHED BY: LK **DATE OF WEIGHING:** 6/9/2022

BORING NO.	HA-2	HA-2			
SAMPLE NO.	DS-5	DS-8			
SAMPLE DEPTH (FT.)	4.0 - 5.0	7.0 - 8.0			
WATER CONTENT, W%	15.0	14.5			

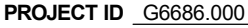
BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

BORING NO.					
SAMPLE NO.					
SAMPLE DEPTH (FT.)					
WATER CONTENT, W%					

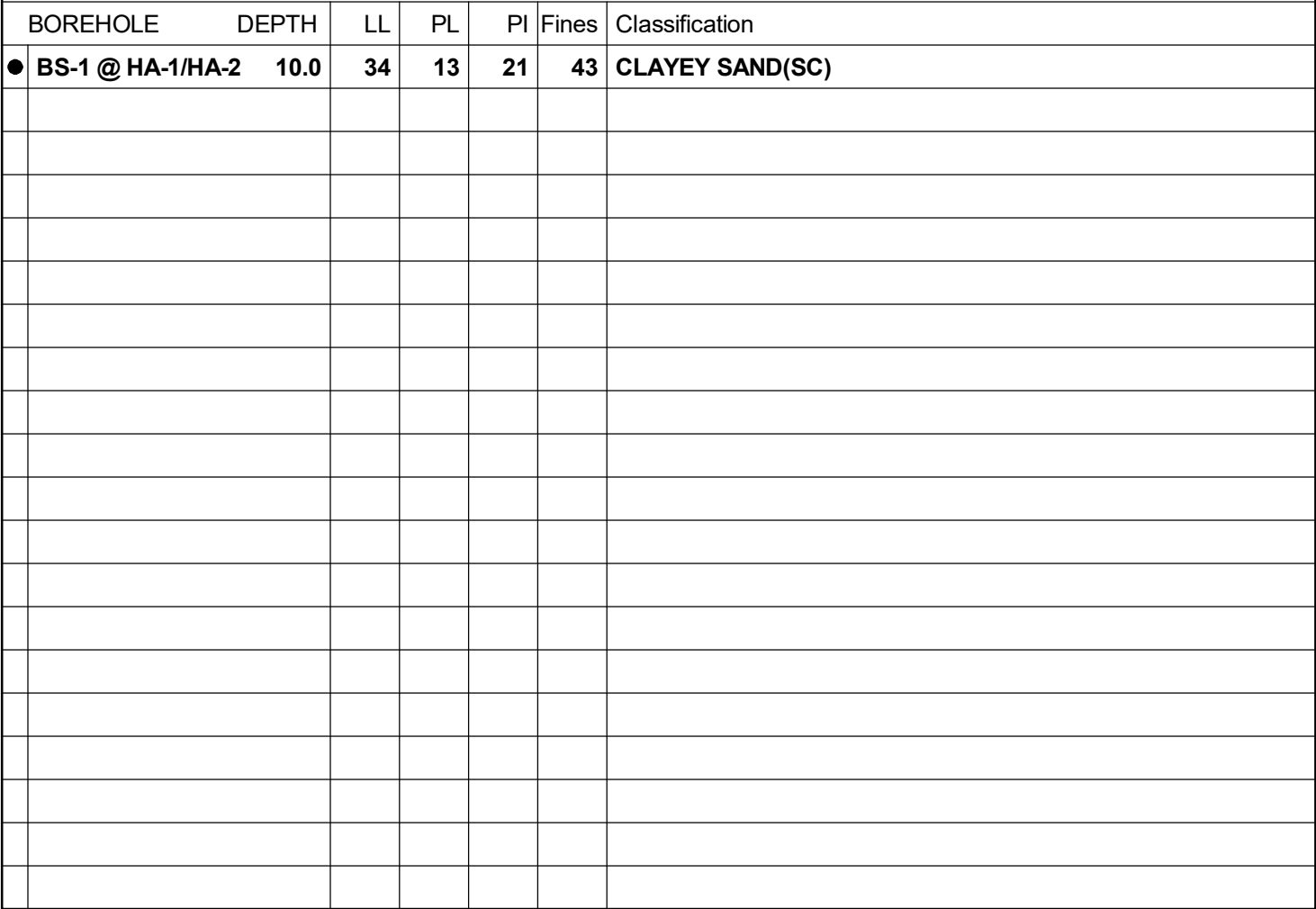


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3112 Devine St., Columbia, SC 29205



PROJECT NAME Gorilla Climbing Structure

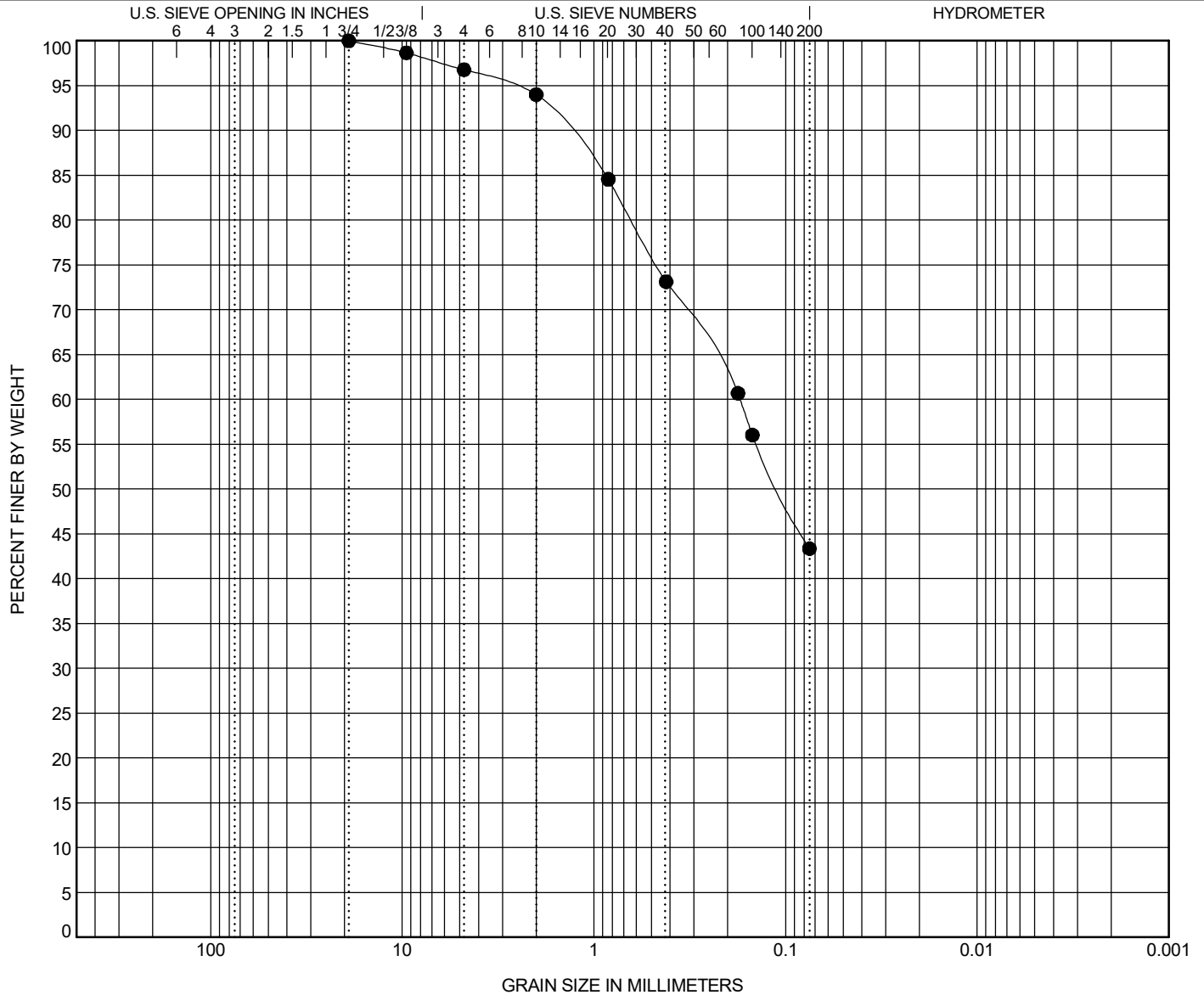
PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina



PROJECT ID G6686.000

PROJECT NAME Gorilla Climbing Structure

PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

BOREHOLE	DEPTH	Classification				MC%	LL	PL	PI	Cc	Cu
● BS-1 @ HA-1/HA-20	10	CLAYEY SAND(SC)				12.9	34	13	21		
BOREHOLE	DEPTH	D100	D95	D50	D10	%Gravel	%Sand	%Silt		%Clay	
● BS-1 @ HA-1/HA-20	10	19	2.732	0.107		3.2	53.4	43.4			

PROJECT ID G6686.000

PROJECT NAME Gorilla Climbing Structure

PROJECT LOCATION Riverbanks Zoo - Columbia, South Carolina

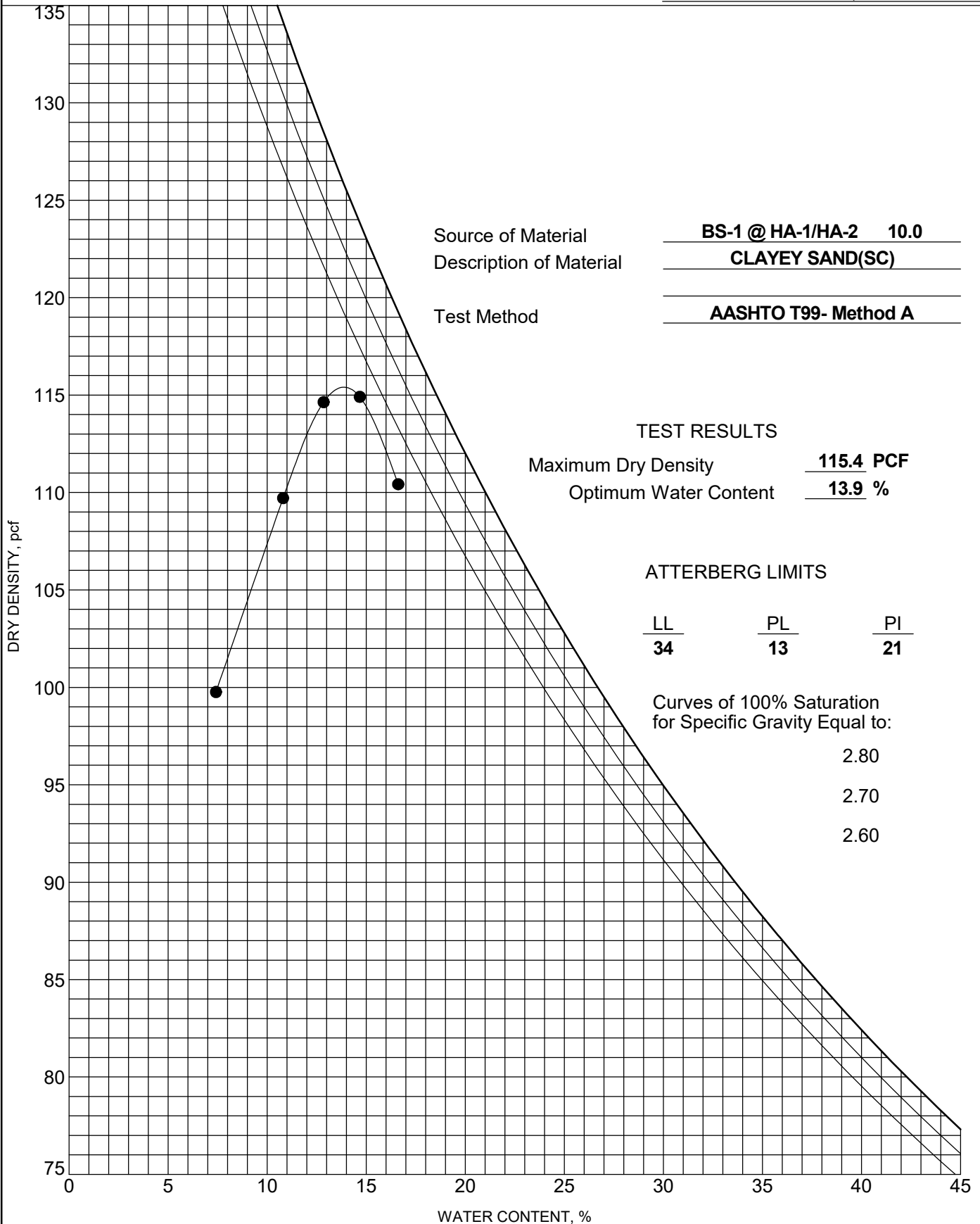


EXHIBIT D

