

**PROJECT MANUAL
INCLUDING SPECIFICATIONS
FOR CONSTRUCTION**

**SAU TECH'S AETA
PARKING LOT
Southern Arkansas University Tech
Camden, Arkansas**

**ARCHITECT PROJECT NO. 26030
DATE: June 12, 2026**

**LEWIS
ARCHITECTS
ENGINEERS**



**ELLIOTT • MCMORRAN • VADEN
RAGSDALE • WOODWARD • INCORPORATED
501.223.9302 • FAX 501.223.9909 • WWW.LEMVRW.COM**

11225 HURON LANE • SUITE 104 • LITTLE ROCK, AR 72211

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NOTICE TO BIDDERS

SAU TECH'S AETA
PARKING LOT
SOUTHERN ARKANSAS UNIVERSITY TECH
CAMDEN, ARKANSAS

Sealed proposals will be received on General Contract for SAU TECH'S AETA PARKING LOT, SOUTHERN ARKANSAS UNIVERSITY TECH, CAMDEN, ARKANSAS. The Owner will receive sealed proposals until 1:00 p.m., July 1, 2026, at the Southern Arkansas University Tech Procurement Office, Manning Hall, Room 110, 6251 Hussey Road, Camden, Arkansas, at which time they will be publicly read aloud. Any bids received after the stated time and opening date will be returned unopened.

The Proposed Contract Documents may be examined at the following locations:

Lewis, Elliott, McMorran, Vaden,
Ragsdale & Woodward, Inc. (Architect)
11225 Huron Lane, Suite 104
Little Rock, AR 72211

SAU Tech website:

<https://www.sautech.edu/rocket-success-center/invitation-to-bid>

Dodge Construction Network (DCN)

<http://Dodge.construction.com>

Construction Market Data, LLC

www.constructconnect.com

Southern Reprographics, Inc.

901 West 7th St.

Little Rock, AR 72201

General Contractors may secure copies of the Proposed Contract Documents from the Architect on the following basis:

Two sets of the Project Manual, including Specifications, plus two sets of Drawings upon payment of any costs of shipping and \$200 deposit. Deposit is completely refundable if all sets are returned to the Architect in good condition within five days after bid opening. General contractors who secure plans but do not submit legitimate bids shall forfeit their deposit.

Subcontractors and material suppliers may obtain additional copies of the Project Manual, including Specifications, plus additional sets of prints of the Drawings, upon payment of \$100 per set, nonrefundable.

No partial sets will be issued.

All bidders must be licensed in the State of Arkansas, as provided by Act 142 of 1967, amended by Act 293 of 1969, and Act 397 of 1971, and Act 546 of 1971, as enacted by the General Assembly of the State of Arkansas.

Bid proposals must be accompanied by a bidder's bond or cashiers check in the amount of five percent (5%) of the bid, made payable to the Southern Arkansas University Tech, Camden, Arkansas.

The successful bidder will be required to furnish satisfactory performance and payment bond using AIA Document A312.

The Owner reserves the right to waive any informality, or to reject any or all bids.

No bid shall be withdrawn for a period of thirty (30) days subsequent to the opening of the bids, without written consent of the Owner.

Southern Arkansas University Tech
Dr. Jerry Thomas, Chancellor
6415 Spellman Road
Camden, AR 71701

Lewis, Elliott, McMorran, Vaden,
Ragsdale & Woodward, Inc.
11225 Huron Lane, Suite 104
Little Rock, AR 72211
Telephone: (501) 223-9302

END OF NOTICE TO BIDDERS

INSTRUCTION TO BIDDERS

1. Securing Documents:

Copies of the proposed Contract documents are on file at the office of the Architect:

Lewis, Elliott, McMorran, Vaden,
Ragsdale & Woodward, Inc.
11225 Huron Lane, Suite 104
Little Rock, AR 72211

2. Definitions:

a. All definitions set forth in the General Conditions of the Contract for Construction, AIA Document A201, are applicable to these Instructions to Bidders.

3. Examination of Drawings, Specifications, and Site of Work:

a. Before submitting a bid, each bidder shall carefully examine the Drawings, read the Specifications and all other proposed Contract Documents, and visit the site of the Work. Each Bidder shall fully inform himself prior to bidding as to all existing conditions and limitations under which the Work is to be performed, and he shall include in his bid a sum to cover all costs of all items necessary to perform the Work as set forth in the proposed Contract Documents. No allowance will be made to any bidder because of lack of such examination or knowledge. The submission of a bid will be construed as conclusive evidence that the bidder has made such examination.

b. Should the bidder find discrepancies in, or omissions from the drawings, or other bidding documents, or should he be in doubt as to their meaning, he should at once, notify the Architect, who will send a written addendum to all bidders. Neither the Owner nor the Architect will be responsible for any oral instructions. Any addenda issued during the time of bidding are to be covered in the proposal and in closing a contract, they will become a part thereof.

4. Substitutions:

a. Where a definite material is specified, it is not the intent to discriminate against any "approved equal" product of another manufacturer. It is the intent to set a definite standard.

b. Open competition is expected, but in all cases, complete data must be submitted for comparison and test when required by the Architect.

c. The materials, products and equipment described in the Bidding documents establish a standard of required function, dimension, appearance and quality to be met by any proposed substitution.

d. No substitution will be considered prior to receipt of Bids unless written request for approval has been received by the Architect at least ten days prior to the date for receipt of Bids. Such requests shall include the name of the material or equipment for which it is to be substituted and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for an evaluation. Information shall be submitted in a format that compares the proposed product in a direct comparison to the specified product; line number to line number in specifications. A statement setting forth changes in other materials, equipment or other portion of the Work including changes in the work of other contracts that incorporation of the proposed substitution would require shall be included. The burden of proof of the merit of the proposed substitution is upon the proposer. The Architect's decision of approval or disapproval of a proposed substitution shall be final.

e. If the Architect approves a proposed substitution prior to receipt of Bids, such approval will be set forth in an Addendum. Bidders shall not rely upon approvals made in any other manner.

f. No substitutions will be considered after the Contract award unless specifically provided in the Contract documents.

g. No substitution shall be made unless authorized in writing, by the Architect.

h. All bidders shall base their proposals on the material or specialty specified. Any proposal for substitution shall be submitted within 30 days after the award of the contract.

i. Should a substitution be accepted and should the substitute material prove defective or otherwise unsatisfactory for the service intended within the guaranty period, the Contractor shall replace this material or equipment with that which was originally specified, without cost to the Owner.

5. Bid Bond:

a. Proposals must be accompanied by a Bidder's Bond in an amount equal to 5% of Bid, executed by a surety company approved by the Owner, and authorized to do business in the State of Arkansas. The Bidder may furnish a cashiers check, in an amount equal to 5% of Bid, drawn on National Bank or a Bank having a membership in the Federal Reserve System and signed by the President or Cashier, in lieu of bond. The successful bidder's security will be retained until he has signed the Contract and furnished the required Labor and Materials Payment and Performance Bond. The Owner reserves the right to retain the security of the next lowest bidder until the lowest bidder enters into contract or until 60 days after bid opening, whichever is shorter. All other bid security will be returned as soon as practicable. If any bidder refuses to enter into a contract, the Owner will retain his bid security as liquidated damages but not as a penalty.

END OF SECTION

BID FORM

SAU TECH'S AETA
PARKING LOT
SOUTHERN ARKANSAS UNIVERSITY TECH
CAMDEN, ARKANSAS

Proposal of _____

License No. _____ of _____

City

State

Date _____

1. Pursuant to and in compliance with the invitation to bid and the Proposed Contract Documents relating to construction of:

SAU TECH'S AETA
PARKING LOT
SOUTHERN ARKANSAS UNIVERSITY TECH
CAMDEN, ARKANSAS

Including
addenda _____

The undersigned, having become thoroughly familiar with the terms and conditions of the Proposed Contract Documents and with local conditions affecting the performance and cost of the Work at the place where the Work is to be completed, and having fully inspected the site in all particulars, hereby proposes and agrees to fully perform the Work within the time stated and in strict accordance with the proposed Contract Documents, including furnishing any and all labor, and materials, and to do all of the work required to construct and complete said work in accordance with the Contract Documents, for the following sum of money:

A. BASE BID: All labor, materials, services, and equipment necessary for completion of the Work as shown on the Drawings and in the Specifications.

_____ dollars (\$ _____)

B. TRENCHING SAFETY SYSTEMS: Ark. Code Ann. §22-9-212 requires the Contractor to indicate on this bid form the cost of Trenching Safety Systems. (Note: This cost shall be included in the above Base Bid.)

_____ dollars (\$ _____)

2. I understand that the Owner reserves the right to reject this bid, but that this bid shall remain open and not be withdrawn for a period of thirty (30) days from the date prescribed for its opening.

3. If written notice of the acceptance of this bid is mailed or delivered to the undersigned within thirty (30) days after the date set for the opening of this bid, or at any time thereafter before it is withdrawn, the undersigned will execute and deliver the Contract Documents to the Owner in accordance with this bid as accepted, and will also furnish and deliver to the Owner the Performance Bond, Labor, and Material Payment Bond and proof of insurance coverage, all within ten days after personal delivery or after deposit in the mails of the notification of acceptance of this bid.

4. Accompanying this proposal is a bid bond or cashiers check in the amount of _____ dollars (\$_____) which will become the property of Southern Arkansas University Tech as liquidated damages if the undersigned fails to perform the requirements of Paragraph 3.

5. The undersigned hereby agrees to complete the work within _____ calendar days after issuance of Notice To Proceed, and that the Owner may retain the sum of one thousand dollars (\$1,000) from the amount of compensation to be paid the undersigned for each calendar day after the above mentioned time that the work remains incomplete. The amount is agreed upon as the proper measure of liquidated damages which the Owner will sustain per day by the stipulated time and is not construed in any sense as a penalty.

6. The undersigned respectfully submits this bid:

Sign here:

Signature of Bidder

NOTE: If bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address: _____

Telephone Number: _____

Email Address: _____

Fax Number: _____

Date of Proposal: _____

END OF BID FORM

Official Bid Price Sheet

Solicitation Number

SAUT/25-26/07 General Contractor SAU Tech's AETA PARKING
LOT PROJECT

Instructions:

1. The Prospective Contractor **shall** enter their name in the blue shaded field provided above.
2. Pricing **must** include all requirements of the IFB,

VENDOR NAME	
Description	Base Bid Cost
<i>General Contractor for SAU TECH'S AETA Parking Lot Project</i>	
<i>TOTAL COST</i>	\$ -



SOUTHERN ARKANSAS UNIVERSITY TECH

PURCHASING OFFICE
P.O. BOX 3499
Camden, Arkansas 71711

INVITATION FOR BID SOLICITATION DOCUMENT

SOLICITATION INFORMATION			
Solicitation Number:	SAUT/25-26/07	Solicitation Issued:	June 15, 2026
Description:	GENERAL CONTRACTOR FOR SAU TECH'S AETA PARKING LOT		
Division/Agency:	Southern Arkansas University Tech		

SUBMISSION DEADLINE			
Bid Opening Date:	July 1, 2026	Bid Opening Time:	1:00 p.m., Central Time
Bid responses for this Invitation for Bid must be delivered to Southern Arkansas University Tech on or before the submission deadline. Bids received after the submission deadline may be rejected as untimely.			

DELIVERY OF RESPONSE DOCUMENTS	
Delivery Address and IFB Opening Location	Southern Arkansas University Tech Keisha Robinson, Manning Hall Room 110 6251 Hussey Road Camden, Arkansas 71701 Delivery providers, USPS, UPS, and FedEx deliver mail to the delivery street address on a schedule determined by each individual provider. These providers will deliver based solely on the street address. Prospective Contractors assume all risk for timely, properly submitted deliveries. Telephone, email, and/or FAX responses to this bid will not be accepted.
Bid's Outer Packaging	Seal outer packaging and properly mark with the following information. If outer packaging of bid submission is not properly marked, the package may be opened for bid identification purposes. • Solicitation number • Date and time of bid opening • Prospective Contractor's name and return address

DEPARTMENT NAME CONTACT INFORMATION			
Buyer:	Keisha Robinson	Buyer's Direct Phone Number:	870-574-4515
Email Address:	krobinso@sautech.edu	Department's Main Number:	870-574-4515
Department Website:	https://www.sautech.edu/rocket-success-center/invitation-to-bid		

SECTION 1 – INFORMATION AND INSTRUCTIONS

1.1 INTRODUCTION

This Invitation for Bid (IFB) is issued by the Southern Arkansas University Tech Purchasing Office to obtain pricing for a General Contractor for new asphalt installation, curb, and gutter work in AETA's student parking lot located at 6287 Spellman Road, East Camden, Arkansas 71701.

All communications regarding this Solicitation should be directed to the Buyer, Keisha Robinson, at krobinso@sautech.edu, and to Sewon Park at spark@lemvrw.com.

1.2 BID OPENING

The bid opening will be in the SAU Tech Manning Hall Administration Conference Room on the date and time specified on page one of this solicitation document. Any proposals received after the scheduled opening date and time will be immediately disqualified. All proposals shall be guaranteed and binding for not less than sixty (60) days after the opening date. **Telephone, email, and/or FAX responses to this bid will not be accepted.**

The proposal opening will be open to any interested party and the public. However, openings will serve only to open, read, and record the receipt of each proposal. No discussion will be entered into with any vendor as to quality or provisions.

1.3 TYPE OF CONTRACT

- A. As a result of this IFB, SAU Tech intends to award a contract to a single Contractor (see *Contractor Selection*).
- B. The anticipated starting date for any resulting contract is Monday, July 20, 2026, except that the actual contract start date may be adjusted unilaterally by Southern Arkansas University Tech for up to three (3) calendar months. By submitting a signed bid in response to the IFB, the Prospective Contractor represents and warrants that it will honor its bid as being held open as irrevocable for this period.

1.4 SOLICITATION SCHEDULE

For informational purposes, a Solicitation Schedule is provided below; however, dates listed and noted with an asterisk (*) are anticipated dates only and are subject to change at the discretion of the Agency.

TABLE A: TENTATIVE SOLICITATION SCHEDULE

ACTIVITY	DATE
IFB Release to Prospective Contractors	June 15, 2026
Non-Mandatory Site Visit	June 23, 2026 – 10:00 AM (Central)
Last Day for Questions	June 25, 2026 - 5:00 PM (Central)
Contractor Response Due Date	July 1, 2026
Evaluation Completed*	July 2, 2026
Post Anticipation to Award*	July 2, 2026
Official Contract Starts*	July 20, 2026

1.4 DEFINITION OF TERMS

- A. Unless otherwise defined herein, all terms defined in Arkansas Procurement Law have the same meaning herein.
- B. The terms "Invitation for Bid," "IFB," and "Solicitation" are used synonymously in this document.
- C. "Prospective Contractor" means a responsive and responsible bidder who submits a bid that meets the Requirements and criteria set forth in this Solicitation.
- D. "Requirement" means a term, condition, provision, deliverable, Specification, or a combination thereof, that is obligated under the Solicitation, resulting contract, or both.

- E. "Shall" and "must" mean the imperative and are used to identify Requirements and Specifications.
- F. "Specification" means any technical or purchase description or other description of the physical or functional characteristics, or of the nature, of a commodity or service. "Specification" may include a description of any Requirement for inspecting, testing, or preparing a commodity or service for delivery.
- G. "State" means the State of Arkansas. When the term "State" is used herein to reference any obligation of the State under a contract that results from this Solicitation, that obligation is limited to the Department using such a contract.
- H. "SAU Tech" stands for Southern Arkansas University Tech.
- I. "AETA" stands for Arkansas Environmental Training Academy

1.5 CONTRACTOR SELECTION

- A. Award is expected to be made to the responsive and responsible Prospective Contractor determined to have submitted the lowest bid that meets the Requirements and criteria set forth in the IFB, based on the **Total Annual Cost/Estimated Total Cost, etc. of the Official Bid Price Sheet submitted by the Prospective Contractor.**
- B. If SAU Tech chooses, negotiations may be conducted with the lowest-bidding, responsive and responsible Prospective Contractor if:
 - 1. All bids received from responsive and responsible bidders exceed available funding; or
 - 2. It appears that additional savings to the state may result from negotiation.
- C. If negotiations fail to result in a contract, SAU Tech may negotiate with the next lowest-bidding, responsive and responsible Prospective Contractor.
 - 1. The negotiation process may be repeated until an acceptable lower bid price is negotiated, or until such time SAU Tech determines negotiations are no longer in the best interest of the state.
 - 2. Negotiations are conducted at the sole discretion of SAU Tech.
- D. Once the anticipated awardee has been determined, the anticipated award will be posted to the Solicitation posting at <https://www.sautech.edu/invitation-to-bid/>, generally for a period of fourteen (14) days prior to the issuance of a contract. The postings are anticipated awards only, subject to protest.
- E. A contract is not effective prior to final award being made by SAU Tech; some contracts may be subject to Legislative review prior to final award.

1.6 CLARIFICATION OF SOLICITATION

Submit questions regarding this Solicitation via email to Buyer, Keisha Robinson, at krobinso@sautech.edu, and to Sewon Park at spark@lemvrw.com by 5:00 pm, Central Time on or before **Thursday, June 25, 2026**.

- 1. For each question submitted, the Prospective Contractor should reference the specific Solicitation item number to which the question refers, as applicable.
- 2. Prospective Contractors' written questions will be consolidated and answered by the State as deemed appropriate. SAU Tech's consolidated written response is anticipated to be posted to

the Solicitation posting at <https://www.sautech.edu/rocket-success-center/invitation-to-bid> by the close of business on **Thursday, June 25, 2026**. If Prospective Contractor questions are unclear or non-substantive in nature, SAU Tech may request clarification of a question(s) or decline to answer.

- B. The Prospective Contractor should notify the Buyer of any term, condition, etc., that precludes the Prospective Contractor from submitting a Responsive Bid. Prospective Contractors should note that it is the responsibility of the Prospective Contractor to seek resolution of all such issues, including those relating to the terms and conditions of the contract, prior to the submission of a bid.
- C. Prospective Contractors may contact the Buyer with non-substantive questions at any time prior to the bid opening.
- D. An oral statement by Southern Arkansas University Tech will not be part of any contract resulting from this Solicitation and may not reasonably be relied on by any Prospective Contractor as an aid to interpretation unless it is reduced to writing and expressly adopted by Southern Arkansas University Tech.

1.7 RESPONSE DOCUMENTS

- A. All bids **must** be submitted to the delivery address and by the submission deadline on page one (1) of the IFB.
- B. *Bid Response Packet*
 - 1. Prospective Contractors **shall** utilize the *Bid Response Packet* attached to the Solicitation to submit their bids.
 - 2. The following are bid submission Requirements and **must** be submitted as part of a Prospective Contractor's bid.
 - a. Signed *Bid Signature Page*; signature may be ink or digital.
 - b. Completed *Bid Response Packet*, which **must** be in English.
 - c. Completed *Official Bid Price Sheet* in the Bid Response Packet.
 - i. Pricing **must** be proposed in U.S. dollars and cents.
 - ii. Quantities stated are estimates only and are not guaranteed. Prospective Contractor **must** bid unit price on the estimated quantity and unit of measure specified.
 - The State may order more or less than the estimated quantity on term contracts, and the Contractor **shall** sell to the Department quantities ordered at no more than the bid price.
 - iii. If pricing documents do not allow for accurate pricing, Prospective Contractor should notify the Buyer at least seventy-two (72) hours before the bid opening time.
 - iv. Prices **must** be firm offers.
 - v. Discount from list bids pricing is not acceptable unless requested elsewhere in the Solicitation.
 - vi. State and local sales taxes should not be included in the bid price. Trade discounts should be deducted from the unit price and the net price should be shown in the bid.
 - d. Copy of Prospective Contractor's *Equal Opportunity Policy*
 - i. Pursuant to Arkansas Code Annotated § 19-11-104, OSP requires a Prospective Contractor bidding on a state contract to submit a copy of the Prospective Contractor's

Equal Opportunity (EO) Policy. Prospective Contractors not required by law to have an *EO Policy* **must** submit a written statement to that effect.

ii. *Proposed Subcontractors Form* (see [SRV-1](#) or [Standard Commodities Contract](#))

3. The following items, which **must** be submitted prior to a contract award to the Prospective Contractor, may also be included with the Prospective Contractor's bid response:
 - a. *EO 98-04 Contract & Grant Disclosure Form* that is in the Bid Response Packet.
4. Prospective Contractors should not include any other documents or ancillary information, such as a cover letter or promotional marketing information.
- C. Prospective Contractors should not alter any language in Solicitation document(s) or *Official Bid Price Sheet* provided by Southern Arkansas University Tech.
- D. Prospective Contractors' bids cannot be altered or amended after the bid opening except as permitted by law or rule.
- E. As requested, Prospective Contractors **shall** provide clarification regarding Prospective Contractor's bid response.
- F. Prospective Contractors may submit multiple bids.

SECTION 2 – SPECIFICATIONS AND REQUIREMENTS

2.1 SPECIFICATIONS

Attached.

2.2 NON-MANDATORY SITE VISIT

There will be a non-mandatory site visit held on Tuesday, June 23, 2026 at 10:00 am CST at the Project Site, 6287 Spellman Road., East Camden, Arkansas, 71701. Interested bidders are highly encouraged to attend. Please email krobinso@sautech.edu and cramsay@sautech.edu to inform them that you are attending.

2.3 PROPOSAL SECURITY (BOND)

Performance Bond will be required if cost of project exceeds \$50,000. Vendors must include a proposal security in an amount of 5% of the firm purchase price. Bid Bond may be cashier's check or Bid Bond form. The proposal security should be made out to Southern Arkansas University Tech and include the Solicitation number. All proposed securities will be returned upon contract award.

2.4 CONTRACTOR LICENSE

Arkansas contractor license is required, include license number or copy of license.

2.5 CERTIFICATE OF INSURANCE

The successful bidder must also furnish Proof of Liability Insurance in the amount of \$250,000.

SECTION 3 – SOLICITATION TERMS AND CONDITIONS

3.1. ACCEPTANCE OF REQUIREMENTS

- A. A Prospective Contractor's past performance with the State may be used to determine if the Prospective Contractor is responsible (OSP Rule R1:19-11-235).
 1. Bids submitted by Prospective Contractors determined to be non-responsible will be rejected.
- B. A single Prospective Contractor **must** be identified as the prime contractor.

1. The prime Contractor **shall** be responsible for the resulting contract and jointly and severally liable with any of its subcontractors, affiliates, or agents to the State for the performance thereof.
- C. By submitting a bid, the Prospective Contractor represents and warrants:
 1. That the prices in the bid have been arrived at independently, without any collusion with another competing Prospective Contractor.
 - a. Collusion violates Arkansas Procurement Law and can lead to suspension, debarment, and can be referred to the Attorney General's office for investigation and appropriate legal action (Arkansas Code Annotated § 19-11-240 and 19-11-245).
 2. That the Prospective Contractor has not retained a person to solicit or secure the resulting contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the Prospective Contractor for the purpose of securing business.
- D. Qualifications, services, and commodities **must** meet or exceed the required Specifications as set forth in the Solicitation.

3.2. GENERAL TERMS AND CONDITIONS

- E. The Contractor **must** be registered as a vendor to receive payment and may register by emailing a request for the New Vendor Forms to Keisha Robinson at krobinso@sautech.edu.
- F. The Successful Contractor represents and warrants that, before any work is done for this Solicitation, the Successful Contractor has taken or **shall** take all actions necessary to receive payment from SAU Tech through Electronic Funds Transfer (EFT) for the services and/or commodities to be provided under any such contract. This includes, without limitation, the following actions:
 1. Providing all information requested by SAU Tech to set up EFT payments, including either a voided check or a letter from their financial institution that contains the following information:
 - a. Account holder's name
 - b. Account number
 - c. Routing number
 - d. Financial institution official's contact information and signature
 2. Email Keisha Robinson, Procurement Manager, at krobinso@sautech.edu all EFT information requested above or mail to:

Southern Arkansas University Tech
Attn: Procurement Manager
PO Box 3499
Camden, Arkansas 71711
 3. In the event the EFT information changes, the Contractor **shall** be responsible for providing the updated information to SAU Tech at krobinso@sautech.edu. No interest or late payment penalty will apply if payment is delayed because of the Contractor's failure to initially provide or update information necessary for the State to make EFT payment.

- G. Pursuant to Arkansas State Procurement Law, the Contractor **shall** certify that, unless they offer to provide the goods or services for at least twenty percent (20%) less than the lowest certifying Prospective Contractor:
1. They are not engaged in and **shall not**, during the aggregate term of the resulting contract, engage in a boycott of Israel (Arkansas Code Annotated § 25-1-503),
 2. They are not engaged in and **shall not**, during the aggregate term of the resulting contract, engage in a boycott of an Energy, Fossil Fuel, Firearms, or Ammunition Industry (Arkansas Code Annotated § 25-1-1102).
- H. Pursuant to Arkansas Procurement Law, the Contractor **shall** certify that the Contractor does not knowingly employ or contract with illegal immigrants and that the Contractor **shall not** knowingly employ or contract with illegal immigrants during the aggregate term of any contract with the State or any of its departments, institutions, or political subdivisions (Arkansas Code Annotated § 19-11-105).
- I. The Contractor **shall** invoice the SAU Tech as required by the Purchasing Office and should not invoice the SAU Tech in advance of delivery and acceptance of any commodities or services (Arkansas Code Annotated § 19-4-1206).
- J. **The Contractor must submit an itemized invoice to SAU Tech.** SAU Tech's purchase order number and/or the contract number should be referenced on each invoice. Invoices must be emailed to acctpay@sautech.edu or mailed to:
- Southern Arkansas University Tech
Attn: Accounts Payable
PO Box 3499
Camden, Arkansas 71711
- K. Payment will be made in accordance with applicable State of Arkansas accounting procedures upon acceptance of commodities and services by the Department.
- L. Payment will be made only after the Contractor has successfully satisfied SAU Tech as to the reliability and effectiveness of the commodities or services purchased as a whole.
- M. The Prospective Contractor **shall** certify that they are not a company owned in whole or with a majority ownership by the government of the People's Republic of China (a "Scrutinized Company") and that they do not and **shall not** during the aggregate term of the resulting contract employ a Scrutinized Company as a contractor (Arkansas Code Annotated § 25-1-1203).
- N. This IFB incorporates all terms of this contract.
1. A Prospective Contractor's bid may be rejected if a Prospective Contractor takes exception to any terms, conditions, or Requirements in this IFB.
- O. The Prospective Contractor agrees and **shall** adhere to all terms, conditions, and Requirements if selected as the Contractor.
1. Items may only be modified if the legal requirement is satisfied and approved by the SAU Tech during negotiations.

3.3. PROPRIETARY INFORMATION

- A. The release of public records is governed by the Arkansas Freedom of Information Act (Arkansas Code Annotated § 25-19-101 et. seq.).
- B. Submission documents pertaining to the Solicitation become the property of the State and may be subject to the Arkansas Freedom of Information Act (FOIA).

- C. In accordance with FOIA, and to promote maximum competition in the State competitive sealed bidding, the State may maintain the confidentiality of certain types of information described in FOIA. Such information may include trade secrets and other information exempted from public disclosure pursuant to FOIA.
- D. Under no circumstances will pricing information submitted in response to an invitation for sealed bids be designated as confidential after the sealed bids have been opened.
- E. Consistent with and to the extent permitted under FOIA, any Prospective Contractor may designate appropriate portions of a bid as confidential by submitting a redacted copy of the bid. By so redacting any information contained in the bid, the Prospective Contractor warrants that, after having received such necessary or proper review by counsel or other knowledgeable advisors, it has formed a good faith opinion that the portions redacted are not considered public records under FOIA.
- F. If a Prospective Contractor deems part of the information contained in a response not to be a public record, the Prospective Contractor should submit one (1) complete copy of the submission documents from which any proprietary or confidential information has been redacted in their bid response. Except for the redacted information, the redacted copy **must** be identical to the original copy, reflecting the same pagination as the original and showing the space from which information was redacted.
- G. The Prospective Contractor is responsible for identifying all proprietary information and for ensuring the electronic copy is protected against restoration of redacted data.
- H. The redacted copy will be open to public inspection under the FOIA without further notice to the Prospective Contractor. If the State deems redacted information to be subject to a public record request under FOIA, the State will endeavor to notify the Prospective Contractor prior to release of the redacted record.
- I. The SAU Tech has no liability to a Prospective Contractor with respect to the disclosure of Prospective Contractor's confidential or proprietary information ordered by a court of competent jurisdiction pursuant to FOIA or other applicable law.

BID RESPONSE PACKET
SAUT/25-26/07
GENERAL CONTRACTOR FOR
SAU TECH'S AETA PARKING LOT

BID SIGNATURE PAGE

PROSPECTIVE CONTRACTOR'S INFORMATION				
Company:				
Address:				
City:		State:		Zip Code:
PROSPECTIVE CONTRACTOR CONTACT INFORMATION				
<i>Provide contact information to be used for Solicitation related matters.</i>				
Contact Person:		Title:		
Phone:		Alternate Phone:		
Email:				
CONFIRMATION OF REDACTED COPY				
☐ YES, a redacted copy of submission documents is enclosed. ☐ NO, a redacted copy of submission documents is <u>not</u> enclosed. I understand a full copy of non-redacted submission documents will be released if requested. If a redacted copy of the submission documents is not provided with Prospective Contractor's response packet, and neither box is checked, a copy of the non-redacted documents, except for financial data (other than pricing), will be released in response to any request made under the Arkansas Freedom of Information Act (FOIA). See the <i>Proprietary Information</i> section of the Solicitation.				
REQUIRED CERTIFICATIONS				
By signing and submitting a response to this Solicitation, Prospective Contractor represents, warrants, and certifies that they are not a Scrutinized Company and they do not currently and shall not for the aggregate term of a resultant contract: - Boycott Israel. - Knowingly employ or contract with illegal immigrants. - Boycott Energy, Fossil Fuel, Firearms, or Ammunition Industries. - Employ a Scrutinized Company as a contractor. Prospective Contractor represents, warrants, and certifies that it shall not become a Scrutinized Company during the aggregate term of a contract resulting from this Solicitation. The Prospective Contractor further represents, warrants, and certifies in shall in all other respects comply with the laws, rules, and executive orders of the state that apply to the Contractor's performance during the aggregate term of a contract resulting from this Solicitation.				

An official authorized to bind the Prospective Contractor to a resultant contract **shall** sign below. The signature below signifies agreement that any exception that conflicts with a Requirement of this Solicitation may cause the Prospective Contractor's bid to be rejected.

Authorized Signature: _____ **Title:** _____

Printed/Typed Name: _____ **Date:** _____

SUBMISSION REQUIREMENTS CHECKLIST

The following items **must** be submitted with the Prospective Contractor's bid:

- ☐ *Bid Signature Page*
- ☐ *Proposed Subcontractors Form*
- ☐ Copy of Prospective Contractor's *Equal Opportunity Policy*
- ☐ *Official Bid Price Sheet*

The following items, which **must** be submitted prior to a contract award to the Prospective Contractor, may also be included with the Prospective Contractor's bid:

- ☐ EO 98-04: *Contract and Grant Disclosure Form*
- ☐ *Voluntary Product Accessibility Template (VPAT)*, if applicable

PROPOSED SUBCONTRACTORS FORM

Prospective Contractors **shall** complete the form for all subcontractors the Prospective Contractor proposes to use under a resulting contract ([Services Contract \(SRV-1\) Fillable Form](#) or [Standard Commodities Contract Template](#), section 14). If the Prospective Contractor does not intend to use subcontractor(s), Prospective Contractor should indicate so by checking the appropriate box.

Prospective Contractors should not include additional information relating to subcontractors on this form or as an attachment to this form.

Prospective Contractor proposes to use the following subcontractor(s) under a resulting contract:

SUBCONTRACTOR'S COMPANY NAME	STREET ADDRESS	CITY, STATE, ZIP

☐ **Prospective Contractor does not propose to use subcontractors under a resulting contract.**

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of the following information may result in a delay in obtaining a contract, lease, purchase agreement, or grant award with any Arkansas State Agency.

SUBCONTRACTOR:

SUBCONTRACTOR NAME:

☐ Yes ☐ No

IS THIS FOR:

TAXPAYER ID NAME:

☐ Goods?

☐ Services? ☐ Both?

YOUR LAST NAME:

FIRST NAME:

M.I.:

ADDRESS:

CITY:

STATE:

ZIP CODE:

COUNTRY:

AS A CONDITION OF OBTAINING, EXTENDING, AMENDING, OR RENEWING A CONTRACT, LEASE, PURCHASE AGREEMENT, OR GRANT AWARD WITH ANY ARKANSAS STATE AGENCY, THE FOLLOWING INFORMATION MUST BE DISCLOSED:

FOR INDIVIDUALS *

Indicate below if: you, your spouse or the brother, sister, parent, or child of you or your spouse is a current or former: member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee:

Position Held	Mark (√)		Name of Position of Job Held [senator, representative, name of board/ commission, data entry, etc.]	For How Long?		What is the person(s) name and how are they related to you? [i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.]	
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Relation
General Assembly							
Constitutional Officer							
State Board or Commission Member							
State Employee							

☐ None of the above applies

FOR AN ENTITY (BUSINESS) *

Indicate below if any of the following persons, current or former, hold any position of control or hold any ownership interest of 10% or greater in the entity: member of the General Assembly, Constitutional Officer, State Board or Commission Member, State Employee, or the spouse, brother, sister, parent, or child of a member of the General Assembly, Constitutional Officer, State Board or Commission Member, or State Employee. Position of control means the power to direct the purchasing policies or influence the management of the entity.

Position Held	Mark (√)		Name of Position of Job Held [senator, representative, name of board/commission, data entry, etc.]	For How Long?		What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?		
	Current	Former		From MM/YY	To MM/YY	Person's Name(s)	Ownership Interest (%)	Position of Control
General Assembly								
Constitutional Officer								
State Board or Commission Member								
State Employee								

☐ None of the above applies

Contract and Grant Disclosure and Certification Form

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.

2. I will include the following language as a part of any agreement with a subcontractor:

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.

3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM** completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

I certify under penalty of perjury, to the best of my knowledge and belief, all of the above information is true and correct and that I agree to the subcontractor disclosure conditions stated herein.

Signature _____ Title _____ Date _____

Vendor Contact Person _____ Title _____ Phone No. _____

Agency use only

Agency _____ Agency _____ Agency _____ Contact _____ Contract
Number _____ Name _____ Contact Person _____ Phone No. _____ or Grant No. _____

Reset Form

Print Form



Contract #: _____

STATE OF ARKANSAS SERVICES CONTRACT

Contract #		Federal ID #	
Service Type		Procurement Method	

1. **Contracting Parties.** State of Arkansas is hereinafter referred to as the Department and contractor is herein after referred to as the Contractor.

Department No. & Name	
Division	

Contractor Name	
Contractor Address	
Contractor Number	

2. **Objectives, Scope, and Performance.** Identify, in reasonable detail, the objectives and scope of the contractual agreement and the methods the Department will use to determine whether the objectives of the contract (Contract) have been achieved. If space below is insufficient it may be supplemented with Attachment 4.

--

3. **Term Dates.** The original term (**Original Term**) of the Contract shall commence on _____, and shall continue until _____, unless earlier terminated or cancelled in accordance with the Contract or some other writing agreed to and signed by the parties, but in no event may the Original Term exceed a period of four (4) consecutive years from the effective date of the Original Term, unless exempt from Arkansas Code Annotated § 19-61-512(c)(1). By written agreement of the parties, the term of the Contract may be extended or renewed for additional time beyond the Original Term. This allows for a total possible term (**Total Possible Term**) beyond the Contract's Original Term, as defined in the following paragraph.

The **Total Possible Term** of the Contract is a period comprised of the Original Term plus any

Contract #: 0

extensions or renewals that may be agreed to by the parties in writing, but in no event longer than a period of seven (7) consecutive years from the effective date of the **Original Term**, unless otherwise provided by law. Subject to applicable law, the terms hereof, and an appropriation of necessary funding, the Total Possible Term of this Contract expires no later than _____ (mm/dd/yyyy).

- 4. Contractor's Performance Obligations.** Contractor, for the duration of the Contract and as consideration for the Department's payment as set forth below, shall provide the following to the Department:

The parties agree that this paragraph 4 of the Contract, and any incorporated attachment, fully sets forth the Contractor's performance upon which the Department's obligation to pay the Contractor is conditioned. (if the space provided is not enough to fully specify the Contractor's duty to perform and to identify the standards of satisfactory performance, the Contractor's covenant to perform must be set forth in Attachment 5 hereto, Performance Details, the terms of which, if any, are incorporated herein by reference.)

- 5. Department's Payment Obligations.** Department, as consideration for the Contractor's satisfactory performance of the Contractor's Performance Obligations, as set forth above, shall pay the Contractor as follows:

The parties agree that this paragraph 5 of the Contract, and any incorporated attachment, fully sets forth

all applicable rates, fees, charges, costs (transportation, per diem, subsistence, out-of-pocket allowances, and any other costs that may apply), and items for which the Contractor is entitled to payment under the Contract as consideration for Contractor's satisfactory performance of its obligations under the Contract.

The Department shall not pay Contractor except as set forth. The parties also agree that the method(s) of determining the amount of payment corresponding to the Contractor's satisfactory performance is/are set forth in this paragraph 5 such that the total payment owed under the Contract can be determined by reference thereto. (If the space provided is not enough to fully set forth the information needed to determine proper compensation owed by the Department for Contractor's satisfactory performance under the Contract, that information must be set forth in Attachment 2, Calculation of Compensation, the terms of which, if any, are incorporated herein by reference.)

Assuming: (a) Contractor's full and satisfactory performance under the Contract for the duration of the **Original Term**, and (b) the corresponding compensation identified in paragraph 5; the maximum number of dollars that the Department may be obligated to pay to the Contractor under the terms of the Contract for the Original Term is: _____ (**Initial Contract Amount**).

Assuming: (a) Contractor's full and satisfactory performance under the Contract for the duration of its **Total Possible Term**, and (b) the corresponding compensation identified in paragraph 5, the maximum number of dollars that the Department may be obligated to pay to the Contractor under the terms of the Contract for the Total Possible Term is: _____ (**Total Projected Contract Amount**).

If either the **Total Projected Contract Amount** or the amount the Department may be obligated to pay the Contractor in any given year of the **Original Term**, or the **Total Possible Term** of the Contract meets or exceeds the threshold of Arkansas Code Annotated § 19-61-116, the Contract shall be submitted for legislative review prior to its effective date.

- 6. Terms and Conditions of Solicitation Incorporated and Order of Precedence.** The parties agree that the agreement in this Contract memorializes and incorporates by reference any and all written representations, warranties, terms, and conditions, set forth in the underlying solicitation document and the bid or proposal that became the basis of the Contract award, which representations, warranties, terms, and conditions continue in full force and effect unless expressly amended hereby.

Accordingly, the provisions of this memorialization of the Contract should be read as being consistent therewith and supplementary thereto to the extent reasonably possible. However, in the event of a conflict between the provisions of this memorialization and the specific provisions of the bid or proposal that was the basis of award, such conflict shall be resolved by giving priority to the documents in the order listed below, including but not limited to conflicting order of precedence provisions.

- A. This Contract, as may be amended in writing by the parties;
- B. The solicitation _____ (Solicitation number) including all Addenda;
- C. Contractor's response to the solicitation.

7. Termination & Cancellation Clauses.

- A. Non-Appropriation Clause Pursuant to Arkansas Code Annotated § 19-67-206(b)(11).** In the event the State of Arkansas fails to appropriate funds or make monies available for any biennial period covered by the term of this contract for the services to be provided by the Contractor, this Contract shall be terminated on the last day of the last biennial period for which funds were

appropriated or monies made available for such purposes.

This provision shall not be construed to abridge any other right of termination the agency may have.

- B. For Convenience.** The Department may terminate this contract for any reason by giving the Contractor written notice of such termination no less than sixty (60) days prior to the date of termination.
- C. For Cause.** The Department may cancel this Contract for cause when the Contractor fails to perform its obligations under it by giving the Contractor written notice of such cancellation at least thirty (30) days prior to the date of proposed cancellation. In any written notice of cancellation for cause, the State will advise the Contractor in writing of the reasons why the State is considering cancelling the Contract and may provide the Contractor with an opportunity to avoid cancellation for cause by curing any deficiencies identified in the notice of cancellation for cause prior to the date of proposed cancellation. The parties may endeavor to agree to reasonable modifications in the Contract to accommodate the causes of the cancellation for cause and avoid the cancellation, to the extent permitted by law, and at the discretion of each party individually.

8. Non-negotiable Governing Law and Venue.

- A.** This contract shall be governed by and construed in accordance with the Laws of the State of Arkansas. Exclusive venue arising under this Contract is Pulaski County, Arkansas.
- B.** Any legislation that may be enacted subsequent to the date of this Contract, which may cause all or any part of the Contract to be in conflict with the laws of the State of Arkansas, will be given proper consideration if and when this contract is renewed or extended. At such time, the parties agree that the Contract shall be amended to comply with any applicable laws in effect.
- C.** Under Arkansas law, the release of public records is governed by the Arkansas Freedom of Information Act found at Section 25-19-101 et. seq. of the Arkansas Code Annotated.

9. Non-negotiable Sovereign Immunity. Nothing in this Contract shall be construed as a waiver of the State's sovereign immunity. Any claims Contractor wishes to assert against the State in connection with this Contract shall be brought in the Arkansas State Claims Commission.

10. Non-negotiable Intergovernmental/Cooperative Use. In accordance with Arkansas Code Annotated § 19-61-802, any State public procurement unit may participate in this Contract with a participating addendum signed by the Contractor and approved by the chief procurement officer of the procurement agency issuing the contract.

11. Non-negotiable Disclosure Required by Executive Order 98-04. Any contract or amendment to a contract executed by an agency which exceeds \$10,000 shall require the Vendor to disclose information as required under the terms of Executive Order 98-04 and the Regulations pursuant thereto. The Vendor shall also require the subcontractor to disclose the same information. The Contract and Grant Disclosure and Certification Form shall be used for this purpose. Contracts with another government entity such as a state agency, public education institution, federal government entity, or body of a local government are exempt from disclosure requirements.

The failure of any person or entity to disclose as required under any term of Executive Order 98-04, or the violation of any rule, regulation or policy promulgated by the Department of Finance and

Administration pursuant to this Order, shall be considered a material breach of the terms of the contract, lease, purchase agreement, or grant and shall subject the party failing to disclose, or in violation, to all legal remedies available to the Agency under the provisions of existing law.

- 12. Compliance.** The Contractor shall ensure, in cooperation with the Department, that the Contract adheres to the requirements of Arkansas procurement law, including without limitation the inclusion of any mandatory language and the submission of the contract for any required review. The signature of the Contractor on this Contract serves as an acknowledgement that the Contractor is:
- A.** Equally responsible with the Department for adhering to the requirements of Arkansas Procurement Law related to the content and review of the Contract; and
 - B.** Subject to the relevant ethical provisions of Arkansas Code Annotated § 19-64-101 et seq.
- 13. Indemnity.** The Contractor shall be fully liable for the actions of its agents, employees, partners, and assigns and shall fully indemnify, defend, and hold harmless the Department, and their officers, agents, and employees from third party suits, actions, damages, and costs of every name and description, including attorney's fees to the extent arising from or relating to personal injury and damage to real or personal property, caused in whole or in part by the negligence or willful misconduct of Contractor, its agents, employees, partners, or assigns.
- 14. Assignment/Subcontracting.** Contractor shall not assign, sell, transfer, subcontract or sublet rights, or delegate responsibilities under this Contract, in whole or in part, without the prior written approval of the Department.
- 15. Amendments.** The terms of this Contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever without written approval of both parties. Any amendment that increases compensation or represents a material substantive change may require review by Legislative Council or Joint Budget Committee pursuant to Arkansas Code Annotated § 19-61-116.
- 16. Records.** Financial and accounting records reasonably relevant to State of Arkansas transactions under this Contract shall be subject to examination by appropriate Arkansas government authorities for a period of five (5) years from the date of expiration, termination or cancellation and final payment under this Contract, provided, however, that such government authorities will provide thirty (30) days written notice to the Contractor of its intent to conduct such examination contemplated by this section; and provided that such examination occurs pursuant to a mutually agreed upon location, during normal business hours and subject to reasonable confidentiality obligations.
- 17. Non-waiver.** The failure by one party to require performance of any provision shall not affect that party's right to require performance at any time thereafter, nor shall a waiver of any breach or default of this Contract constitute a waiver of any subsequent breach or default or a waiver of the provision itself.
- 18. Severability.** If any provision of this contract is held unenforceable, all remaining provisions of this Contract shall remain in full force and effect.
- 19. ACH Payment.** All payments to the Contractor under this Contract shall be made exclusively through ACH (Automated Clearing House) direct deposit or through the State's authorized VISA Procurement Card (p-card). The Contractor agrees to provide the necessary banking information, including account number, routing number, and any other details required to facilitate ACH direct deposits. The Contractor

Contract #: 0 _____

is responsible for ensuring that the provided banking information is accurate and up to date. Any delays or errors in payment caused by incorrect or outdated information provided by the Contractor shall not be the responsibility of the Department. The Department will process payments according to the agreed payment schedule, and all payments made via ACH direct deposit shall be considered as duly received upon successful transmission to the Contractor's designated bank account.

20. Attachments.

1. Certification of Contractor
2. Calculation of Compensation, as applicable;
3. Source of Funds
4. Objectives, Scope, and Performance Standards, as applicable; and
5. Performance Details, as applicable
6. Additional Attachments as applicable
 - A. _____
 - B. _____
 - C. _____

21. Notices.

- A. Method of Notice.** The parties shall give all notices and communications between the parties in writing by (i) personal delivery, (ii) a nationally-recognized, next-day courier service, (iii) first-class registered or certified mail, postage prepaid, (iv) fax, or (v) electronic mail to the party's address specified in this Contract, or to the address that a party has notified to be that party's address for the purposes of this section.
- B. Receipt of Notice.** A notice given under this Contract will be effective on
- i. the other party's receipt of it, or
 - ii. if mailed, the earlier of the other party's receipt of it and the fifth business day after mailing it.
- C. Issuance of Notice.** All notices and communications between the parties in writing shall be directed to the respective parties in accordance with the following:

Contact #1 – Department Representative submitting/tracking this contract

Name

Title

Telephone #

Email

Contact #2 - Department Representative with knowledge of this project (for general questions and responses)

Name

Title

Telephone #

Email

Contract #: 0

Contact #3 - Department Representative Director or Critical Contact (for time sensitive questions and responses)

Name

Title

Telephone#

Email

22. Technology Access. If the Commodities are electronic information processing hardware or software, including telecommunications hardware or software (“Information Technology”), then the Contractor represents and warrants it shall comply with federal and state law relating to accessibility by persons with visual impairments and nonvisual access standards established by the Office of State Technology, which standards can be found at [Technology Access Clause](#) and are included herein by reference, as applicable.

23. SIGNATURES

DEPARTMENT SIGNATURE CERTIFIES NO OBLIGATIONS WILL BE INCURRED BY A STATE DEPARTMENT UNLESS SUFFICIENT FUNDS ARE AVAILABLE TO PAY THE OBLIGATIONS WHEN THEY BECOME DUE.

IN WITNESS WHEREOF, the Parties sign and cause this Contract to be executed. Notwithstanding verbal or other representations by the parties, the "Effective Date" of this Contract shall be the date provided in Section 3 above.

CONTRACTOR AUTHORIZED SIGNATURE

DEPARTMENT AUTHORIZED SIGNATURE

Printed Name

Printed Name

Title

Title

Address

Address

Signature

Signature

Date _____

Date

Attachment #1 CERTIFICATION OF CONTRACTOR

Sections A, B and C apply to all service contracts. Sections D and E apply to Professional and Consulting Services contracts only.

A. "I, _____, _____
(Contractor) (Title)

certify under penalty of perjury that, to the best of my knowledge and belief, no regular full-time or part- time employee of the State of Arkansas will receive any personal, direct or indirect monetary benefits as a result of the execution of this contract that would violate the law." Where the Contractor is a widely-held public corporation, the term 'direct or indirect monetary benefits' "shall not apply to any regular corporate dividends paid to a stockholder of said corporation who is also a State employee and who owns less than ten percent (10%) of the total outstanding stock of the contracting corporation."

B. List any other contracts or subcontracts Contractor has with any other state government entities. (Not applicable to contracts between Arkansas state departments. If no contracts or subcontracts, please put "Not applicable" or "None.")

C. Is Contractor currently engaged in any legal controversies with any state agencies or representing any clients engaged in any controversy with any Arkansas state department? If no controversies, please put "Not applicable" or "None.")

D. Contractor shall list below, or on an attachment hereto, names, addresses, and relationship of those persons who will be supplying services to the State at the time of the execution of the contract. If the names are not known at the time of the execution of the contract, the Contractor shall submit the names along with the other information as they become known. Such persons shall, for all purposes, be employees or independent contractors operating under the control of the Contractor (subcontractors), and nothing herein shall be construed to create an employment relationship between the departments and the persons listed below.

Name	Address	Relationship

CERTIFICATION OF CONTRACTOR CONT'D

E. The State has no managerial responsibilities over the Contractor or Contractor's employees. In carrying out this contract, Contractor understands and represents that there is no employment relationship between the contracting parties.

Pursuant to Arkansas law, a vendor must certify as specified below and as designated by the applicable laws.

1. **Israel Boycott Restriction:** For contracts valued at \$1,000 or greater.

A public entity shall not contract with a person or company (the "Contractor") unless the Contractor certifies in writing that the Contractor is not currently engaged in a boycott of Israel. If at any time after signing this certification the Contractor decides to boycott Israel, the Contractor must notify the contracting public entity in writing. See Arkansas Code Annotated § 25-1-503.

2. **Illegal Immigrant Restriction:** For contracts valued at \$25,000 or greater.

No state agency may contract for services with a Contractor who knowingly employs or contracts with an illegal immigrant. The Contractor shall certify that it does not knowingly employ, or contract with, illegal immigrants. See Arkansas Code Annotated § 19-60-105.

3. **Energy, Fossil Fuel, Firearms, and Ammunition Industries Boycott Restriction:** For contracts valued at \$75,000 or greater.

A public entity shall not contract unless the contract includes a written certification that the Contractor is not currently engaged in and agrees not to engage in, a boycott of an Energy, Fossil Fuel, Firearms, or Ammunition Industry for the duration of the contract. See Arkansas Code Annotated § 25-1-1102.

4. **Scrutinized Company Restriction:** Required with bid or proposal submission.

A state agency shall not contract with a Scrutinized Company or a company that employs a Scrutinized Company as a subcontractor. A Scrutinized Company is a company owned in whole or with a majority ownership by the government of the People's Republic of China. A state agency shall require a company that submits a bid or proposal for a contract to certify that it is not a Scrutinized Company and does not employ a Scrutinized Company as a subcontractor. See Arkansas Code Annotated § 25-1-1203.

By signing this form, the Contractor agrees and certifies they are in compliance with the certification requirements listed above that are relevant to this contract and will remain so for the aggregate term of any resultant contract.

Contract #: 0

Attachment #2 Calculation of Compensation

Calculation of Compensation (for Professional & Consulting Service Contracts Only):

- A. In the table below, provide the various levels of expertise, the number of personnel for each level, the compensation rate, and total for each level, as applicable.

Level of Personnel	Number	Compensation Rate	Total for Level
TOTAL COMPENSATION EXCLUSIVE OF EXPENSE REIMBURSEMENT(S)			\$ 0.00

- B. In the table below, provide any allowable reimbursable expenses, estimated rates, and a total for each level.

Reimbursable Expense Items (Specify)	Estimated Rate of Reimbursement	Total
TOTAL REIMBURSABLE EXPENSES		\$ 0.00

Total compensation inclusive of expenses reimbursement: \$ 0.00

Annual Contract Amount:

Calculation of Services and Commodities (for Technical & General Service Contracts Only):

- A. In the table below, as applicable, provide the various services to be rendered, the quantity, cost per item, and total cost.

Services	Quantity	Cost Per Item	Total Cost
TOTAL SERVICES			\$ 0.00

- B. In the table below, as applicable, provide the various commodities, quantity, cost per item, and total cost

Commodities	Quantity	Cost Per Item	Total Cost
TOTAL COMMODITIES			\$ 0.00

Total services inclusive of commodities: \$ 0.00

Annual Contract Amount:

Attachment #3 Source of Funds

Source of Funds the Department intends to draw on. This is provided for informational purposes only. It is required under Arkansas Procurement Law and is not a performance obligation of the Department or an unconditional promise to pay from the sources identified.

Fund Source	Identify Source of Funds*	Fund	Fund Center	Amount of Funding	% of Total Contract Cost
					%
					%
					%
					%
					%
					%
TOTALS				\$ 0.00	0.00 %

Identify whether State general revenue funds (GRF), special revenue funds (SRF), federal funds (FED), or other public funds (Other) are the source. Identify each specific source of SRF, such as special taxes or fees, in the "Identify Source of Funds" column. Similarly, if Other public funds, such as tobacco funds, general improvement funds, etc., are being used to pay the Contractor, these should be specified in the "Identify Source of Funds" column.

REQUIRED CONTRACT FORMS

The following are the construction document forms that, where required by the Architect, will be used during this project. These documents are either furnished in the project manual or available for inspection at the Architect's office:

Lewis, Elliott, McMorran, Vaden,
Ragsdale & Woodward, Inc.
11225 Huron Lane, Suite 104
Little Rock, AR 72211

Bid Form.	As furnished in Project Manual
*Form of Agreement Between Owner & Contractor	AIA Document A101
Contractors Qualification Statement	AIA Document A305
Bid Bond	AIA Document A310 or Cashier's Check
Performance Bond and Labor and Material Payment Bond	AIA Document A312
Insurance and Bonds	AIA Document A101 – 2017 Exhibit A
*Change Order.	AIA Document G701
Application and Certificate for Payment	AIA Document G702 and G703
*Certificate of Substantial Completion.	AIA Document G704
Certificate of Insurance	Acord Form (See sample furnished)
Contractor's Affidavit of Payment of Debts and Claims.	AIA Document G706
Lien Waiver Form (Builder's or Contractor's Affidavit)	As furnished in Project Manual
Consent of Surety - to Reduction or Partial Releases of Retainage	AIA Document G707A
Consent of Surety Company to Final Payment	AIA Document G707
*Architect's Supplemental Instructions.	AIA Document G710
Proposal Request.	AIA Document G709
Construction Change Directive	AIA Document G714
Project Team Directory.	AIA Document G808

*Indicates forms furnished and procedures initiated by the Architect.

END OF REQUIRED CONTRACT FORMS

SAMPLE OF LIABILITY
INSURANCE FORM

GENERAL:

The Contractor's insurance carrier shall supply the "Acord Certificate of Insurance" form exactly as shown on the sample form furnished in this Project Manual, and a notarized letter of endorsement "Specifically permitting the waiver of rights provision in Article 11.1.2.7 of the General Conditions of the Contract for Construction, AIA Document A201, as amended by the Supplementary Conditions and bound into this Project Manual".

END OF SECTION



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

12/09/2025

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

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

PRODUCER ABC Insurance Agency Mailing Address City ST 11111		CONTACT NAME: Agency contact person PHONE (A/C, No, Ext): (111) 111-1111 FAX (A/C, No): (111) 111-1111 E-MAIL ADDRESS: agent@emailaddress.com	
INSURED ABC Construction Company Mailing Address City ST 11111		INSURER(S) AFFORDING COVERAGE INSURER A: Insurance Company INSURER B: Insurance Company INSURER C: Insurance Company INSURER D: Insurance Company INSURER E: Insurance Company INSURER F: Insurance Company	
		NAIC # 11111 11111 11111 11111 11111 11111	

COVERAGES**CERTIFICATE NUMBER:** 2025 Sub Sample Cert**REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	☒ COMMERCIAL GENERAL LIABILITY ☐ CLAIMS-MADE ☒ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ☐ POLICY ☒ PRO-JECT ☐ LOC ☐ OTHER:	Y	Y	Policy Number	12/10/2025	12/10/2026	EACH OCCURRENCE \$ 1,000,000	
	DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000							
	MED EXP (Any one person) \$ 5,000							
	PERSONAL & ADV INJURY \$ 1,000,000							
B	☒ AUTOMOBILE LIABILITY ☒ ANY AUTO ☐ OWNED AUTOS ONLY ☐ SCHEDULED AUTOS ☒ HIRED AUTOS ONLY ☒ NON-OWNED AUTOS ONLY			Policy Number	12/10/2025	12/10/2026	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000	
	BODILY INJURY (Per person) \$							
	BODILY INJURY (Per accident) \$							
	PROPERTY DAMAGE (Per accident) \$							
C	☒ UMBRELLA LIAB ☒ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☒ RETENTION \$ 10,000	Y	Y	Policy Number	12/10/2025	12/10/2026	EACH OCCURRENCE \$ 1,000,000	
	AGGREGATE \$ 1,000,000							
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N Y	N/A	Y	Policy Number	04/01/2025	04/01/2026	☒ PER STATUTE ☐ OTH-ER
	E.L. EACH ACCIDENT \$ 1,000,000							
	E.L. DISEASE - EA EMPLOYEE \$ 1,000,000							
	E.L. DISEASE - POLICY LIMIT \$ 1,000,000							
E	Builders Risk Property Insurance			Policy Number	04/01/2025	04/01/2026		

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

Project Name

CERTIFICATE HOLDER**CANCELLATION**

SAMPLE CERTIFICATE

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

AGENCY CUSTOMER ID: 00002879

LOC #: _____



ADDITIONAL REMARKS SCHEDULE

Page _____ of _____

AGENCY Mark V. Williamson Co. Inc.		NAMED INSURED Lewis, Elliott, McMorran,Vaden, Ragsdale And Woodward Inc.
POLICY NUMBER		
CARRIER	NAIC CODE	EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability Insurance: Notes

Attach policy forms regarding Additional Insured, Blanket Waiver of Subrogation, Notice of Cancellation, Primary/Non-Contributory status, etc that are applicable to the policies listed on this certificate:

General Liability:

- *Owner & Architect shall be named as an Additional Insured or included in Blanket Additional Insured policy form
- *Per Project Aggregate Limit of Liability
- *Primary Non-contributory endorsement
- *Waiver of Subrogation in favor of Certificate Holder
- *30 Day Notice of Cancellation in favor of Certificate Holder

Workers Compensation:

- *Waiver of Subrogation in favor of Certificate Holder

Umbrella:

- *Confirmation of Following Form for Additional Insured & Waiver of Subrogation on underlying policies

LIEN WAIVER FORM

STATE OF ARKANSAS

COUNTY OF _____

_____ of _____
(Name) (Address)

being first duly sworn deposes and says:

That he is the sub-contractor and/or material supplier who worked on or furnished material to be used in the construction and improvements on the property located in _____, more particularly described as follows:

Affiant further states that all material used therein was of the quality prescribed in plans and specifications approved by the architects, Owner, or both, that all laws, ordinances, building codes and civic regulations concerning construction or repair of building(s) have been complied with and that the Owner has inspected said improvements and accepted same as being complete and satisfactory.

Affiant further states that all charges and costs for labor performed, material furnished, and fixtures installed on said premises have been fully paid; that said premises are free and clear of all lienable claims whatsoever arising under and by virtue of said construction, and warrants and guarantees to hold Owner, and those claiming under the Owner, including any mortgagee or title insurance company, free and immune from any liability therefore.

The release is given in order to induce payment in the amount of _____ and on receipt of this amount due, this release may be recorded, becomes valid, enforceable and of full effect.

Affiant further states that said construction began on the _____ day of _____ 2026 and was completed on or before the _____ day of _____ 2026, and he acknowledges receipt of all monies due him in connection therewith.

Sub-Contractor/Material Supplier

STATE OF ARKANSAS

COUNTY OF _____

Subscribed and sworn to before me this _____ day of _____, 2026.

Notary Public

My commission expires:

_____ Seal

GENERAL CONDITIONS

"THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", STANDARD FORM OF THE AMERICAN INSTITUTE OF ARCHITECTS, 2017 EDITION, A.I.A. DOCUMENT, A201, ARTICLES 1 THROUGH 15 INCLUSIVE, CONSISTING OF THIRTY NINE PRINTED PAGES, ARE HEREBY INCORPORATED AS A PART OF THE PROJECT MANUAL AND SHALL BE AS THOUGH THEY WERE ATTACHED HERETO. THE GENERAL CONDITIONS ARE ON FILE FOR PUBLIC INSPECTION AT THE OFFICE OF LEWIS, ELLIOTT, MCMORRAN, VADEN, RAGSDALE & WOODWARD, INC., 11225 HURON LANE, SUITE 104, LITTLE ROCK, ARKANSAS."

SUPPLEMENTARY
CONDITIONS

1. The "General Conditions of the Contract for Construction", AIA Document A201, 2017, Articles 1 through 15 inclusive, is a part of this Contract.
2. The following supplements shall modify, delete, and/or add to the General Conditions. Where any article, paragraph, or subparagraph in the General Conditions is supplemented by one of the following paragraphs, the provisions of such article, paragraph, or subparagraph shall remain in effect and the supplemental provisions shall be considered an added thereto. Where any article, paragraph, or subparagraph in the General Conditions is amended, voided, or superseded by any of the following paragraphs, the provisions of such article, paragraph, or subparagraph not so amended, voided, or superseded shall remain in effect.
3. Add subparagraph 1.1.9:

"The word "Provide" shall mean to furnish and install, complete in place, operating, tested and approved".
4. Add subparagraph 1.1.10:

"The word "Product(s)" refers to the materials, systems, and equipment provided by the Contractor".
5. In subparagraph 3.4.3, add: "Any person whose work is unsatisfactory to the Owner or the Architect shall be removed from the work upon receipt of written notice from the Architect".
6. Add subparagraph 3.4.4:

"All Contractors and Subcontractors engaged in the Work shall conform to the labor laws of the State of Arkansas, and the various acts amendatory and supplementary thereto, and to all other laws, ordinances, and legal requirements applicable there to".
7. Add subparagraph 3.7.6:

"The Contractor shall be licensed contractor as provided by the Act Number 124 of the 1939 Act Number 217 of 1945 and Act Number 153 of 1951 and Act Number 150 of 1965 as enacted by the General Assembly of the State of Arkansas".
8. Delete subparagraphs 3.9.2 and 3.9.3 in their entirety and substitute the following subparagraph 3.9.2:

"The superintendent and assistants shall be satisfactory to the Architect, and shall not be changed except with the consent of the Architect, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his employ".
9. Add subparagraph 3.13.1:

3.13.1 "All material shall be arranged and maintained in an orderly manner without hindering the use of walks, drives, roads, and entrances. Should it be necessary at any time to move material, sheds, or storage platforms, the Contractor shall do so as and when directed, and at his own expense".

10. Add subparagraphs 7.2.2 and 7.2.3:

7.2.2 The contractor shall be required to furnish the original bills and payrolls and support the statement with proper affidavits. The burden of proof of the costs rests upon the Contractor. Bills for extras will be allowed only when work is ordered in writing. No bills based on verbal orders will be allowed by the Architect unless accompanied by a written order from the Architect. The Contractor waives all claim for extension of time of completion on account of extra work, unless application for such extension is made by the Contractor in writing within twenty (21) days of the time such work is ordered.

7.2.3 The Contractor shall not make any changes except on written order of the Owner. Contractor's request for a Change Order to the Work shall be made on the AIA Document G709 and shall provide itemized breakdown of whole sum listing unit quantities and costs of all labor and materials. Contractor shall submit all verifying data as required to support claims, such as copies or original invoices, payrolls, etc. Requests shall identify percentage sums included for insurance, taxes, bonds, overhead and profit. Percentages shall not be allowed for changes altering allowances. Changes in the work by cost and a mutual acceptable fixed or percentage fee shall be computed as follows:

- a. Net cost of materials, plus State Sales Tax.
- b. Net delivery cost.
- c. Net placing cost plus W.C. Insurance premium and FICA Tax.
- d. 12% Overhead and Profit Charge on a. through c. allowed.
- e. Allowable Bond Premium.

Where changes in the work involve subcontract work, the General Contractor shall add to cost of subcontract work a profit charge of 5% total overhead and profit charge.

11. Delete subparagraph 7.4 and substitute the following:

"The Architect will have authority to order minor changes in the Work in the form of Field Orders which interpret the Contract Documents or order minor changes in the work without change in Contract Sum or Contract Time. Such changes shall be effected by written Field Order, and shall be binding on the Owner and the Contractor. The Contractor shall attend to such Field Order promptly".

12. Add subparagraphs 7.4.1 and 7.4.2:

7.4.1 "If the Contractor considers that a change in Contract Sum or Contract Time is required, he shall submit an itemized proposal to the Architect immediately and before proceeding with this work. If the proposal is found to be satisfactory and in proper order, the Field Order will in that event be superseded by a Change Order as provided in Paragraph 7.2. The Contractor shall attend to such Field Orders promptly".

7.4.2 "When the time required for processing a Change Order would cause a delay in the progress of the Work, the Architect may issue a Field Order which, when signed by the Owner and the Contractor, will authorize the Contractor to proceed with changes in the work, which may change the Contract Sum and/or the Contract Time. Such Field Orders will be subsequently incorporated in the work as Change Orders as provided in paragraph 7.2. The contractor shall attend to such Field Order promptly".

13. Delete subparagraph 9.3.1 and substitute the following:

"On or before the twenty-fifth day of each calendar month, the Contractor shall submit to the Architect an itemized Application for Payment on AIA Document G702, supported by data substantiating the Contractor's right to payment submitted on AIA Document G703 and attached thereto. The Contractor shall submit one (1) legible copy of these prepared Application for Payment forms and (1) legible copy of each invoice or statement supporting requests for payment of materials or equipment stored on job site or in an approved bonded warehouse". These forms can be emailed to the address as provided at the Pre-Construction meeting or by mailing, shipping or hand-delivery.

"Throughout entire job, the Owner will pay 95 percent of the amount due the Contractor on account of progress payments in compliance with Arkansas Code §22-9-604(2024). The Owner shall forego withholding retainage of the progress payments when the construction contract is fifty-percent (50%) complete and the contractor has provided the work in a satisfactory manner to the Architect and the Owner. No retainage will be withheld on material and/or equipment stored on job site or in an approved bonded warehouse".

14. 10.2.2 Add the following new subparagraphs:

10.2.2.1 Project with trenching or excavation which exceeds five feet in depth shall comply with Arkansas Code Annotated §22-9-212.

10.2.2.2 The current edition of OSHA Standard for Excavation and Trenches Safety System, 29 CFR 1926, Subpart P, shall be incorporated by reference in this contract.

15. NOTE: Refer to Sample of Liability Insurance Form for Sample Acord Form. Add the following clauses to 11.1.1:

11.1.1.1 The Contractor shall purchase and maintain Workers Compensation insurance providing Statutory Workers compensation benefits as well as Employers Liability Coverage of at least \$1,000,000.00 Limit of Liability.

The following endorsements providing extensions of coverage shall be attached forming a part of said Workers compensation policy:

- a. Broad Form All States Endorsement
- b. Maritime or Jones Act coverage - where applicable, such as work on navigable waters.
- c. United States Longshoremen's & Harbor Workers Coverage (may be voluntary if job is not close to body of water).

11.1.1.2 Comprehensive General Liability insurance shall be purchased and maintained by the contractor providing the following coverages and limits of liability:

- a. Premises & Operations
- b. Independent Contractors
- c. Completed Operations and Products
- d. X-Explosion, C-Collapse, U-Underground Property Damage Coverage – When Applicable Included
- e. Contractual Liability/Blanket Coverage
- f. Personal Injury Coverage with Employee Exclusion Removed

- g. Owner and Architect shall be named as an Additional Insured on CGL Policy including Completed Operations
 - h. Additional insured shall be provided with a certificate of insurance
- Limits No Less Than:

\$1,000,000 Per Occurrence
\$2,000,000 Annual Aggregate
\$2,000,000 Products/Completed Operations Aggregate

“Per Project Aggregate” endorsement shall be included.

11.1.1.3 Business Auto Liability or Comprehensive Auto Liability policy shall be purchased and maintained by the contractor providing coverage for all owned, non-owned and hired autos.

Limit of Liability required shall be:

\$1,000,000.00 Combined Single Limit.

11.1.1.4 An Umbrella Liability Policy shall be purchased and maintained by the contractor providing coverage over and above required underlying Employers Liability, Comprehensive General Liability, and Business Auto Liability coverages.

Limits of Liability shall be no less than \$1,000,000.00 per Occurrence/\$1,000,000.00 Aggregate.

The Owner and Architect shall be named as an Additional Insured.

11.1.1.5 Property Insurance, (Builder's Risk, Installation Floater, Boiler & Machinery coverage when applicable), providing All-Risk Coverage shall be purchased and maintained by the contractor providing full coverage for all materials, including labor, destined to be part of job and/or already part of job.

The Owner, Architect, Contractor and all Subcontractors shall be included as Named Insureds covering their interest of the said job.

The policy shall reflect a Deductible of \$250.00 per occurrence which shall be paid in all cases by the Contractor.

11.1.1.6 Miscellaneous Requirements:

- a. All required insurance coverages and bonds shall be provided by an insurance company of a sound financial rating and licensed to do business in the state of the designated job.
- b. Certificates of Insurance shall be filed in duplicate with the Architect and approved by the Owner prior to commencement of the work. The certificates shall reflect coverages, limits of liability, and wording at least as broad as the attached specimen. Use the Accord Certificate of Insurance form as shown by specimen included in this set of specifications. All certificates shall include 30 day written notice of cancellation applicable to the General Liability, Workers Compensation, Automobile and Umbrella policies.

- c. The contractor shall not commence work under this contract or allow any subcontractor or anyone directly or indirectly employed by anyone of them to commence work until he has obtained all insurance required under this, and two duly executed Certificates of such insurance shall have been filed with the Architect and approved by the Owner and Contractor has complied with bonding requirements and work order has been issued. Each such certificate and policy shall contain a provision that coverages afforded under the policies will not be cancelled or materially altered until at least thirty days prior written notice has been given to the Owner.
 - d. The insurance carrier shall issue an endorsement specifically permitting the waiver of rights provision in AIA Document A201, Article 11.3.1.
16. Add subparagraph 11.1.1.7:
- If by the terms of this insurance any mandatory deductibles are required, or if the Contractor should elect, with the concurrence of the Owner, to increase the mandatory deductible amounts or purchase this insurance with voluntary deductible amounts, the Contractor shall be responsible for payment of the amount of the deductible in the event of a paid claim.
17. Add subparagraph 11.1.2.1:
- "Contractor shall furnish and pay for an Executed Performance Bond on AIA Document A312 and Labor and Material Payment bond on AIA Document A312 in the amount of 100% of the contract sum. No modification to the standard bond forms will be allowed without written consent of the Architect".
18. Add subparagraph 11.1.2.2:
- "After being approved by the Architect and prior to any work under this contract, the Contractor shall file the bonds with the circuit clerk and recorder of the county in which the work to be performed is located. Contractor shall obtain from the circuit clerk certificates as evidence that the bonds have been approved and filed with the clerk and said certificates shall be filed with the Architect".
19. Add subparagraph 11.1.5:
- "If at any time a surety on any such bond is declared bankrupt or loses its right to do business in this state, Contractor shall notify the Owner immediately and within ten (10) days, furnish an acceptable bond (or bonds), in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the Owner. Failure to comply with the above requirements may be deemed sufficient grounds for termination of this contract".
20. Delete subparagraph 11.2.1 in its entirety and substitute the following:
- The Contractor shall be responsible for purchasing and maintaining liability insurance as will protect the Owner against claims which may arise from operations under the contract.

21. Delete subparagraph 11.2.2 in its entirety and substitute the following:

11.2.2 The Contractor shall purchase and maintain property insurance upon the entire Work at the site to the full insurable value thereof. Such insurance shall be in a company or companies against which the Owner has no reasonable objection. This insurance shall include the interests of the Owner, the Contractor, Subcontractors, and Subcontractors in the Work and shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss or damage including, without duplication of coverage, theft, vandalism and malicious mischief. If not covered under all risk insurance or otherwise provided in the Contract Documents, the contractor shall effect and maintain similar property insurance on portions of the work stored off the site or in transit when such portions of the work are to be included in an application for Payment under subparagraph 9.3.2. The form of policy for this coverage shall be completed value.

22. Add subparagraph 11.5.3

The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section 11.1.1.5 Property Insurance have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

23. Delete subparagraph 15.1.6.2 in its entirety and substitute the following:

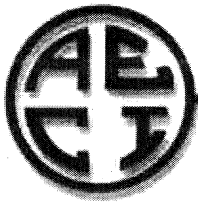
"Extension of Time Due to Weather Delays: Claims for extension of time due to unusual inclement weather shall be granted only because such unusual inclement weather prevented the execution of major items of the work. Unusual inclement weather is defined as severe weather which is beyond the normal weather recorded and expected for the month of the year as shown in the chart below. Extension of time due to weather delays shall be granted only for those days in excess of the number of days shown. Extension of time requests shall be submitted in writing within 30 days of occurrence and submitted with current pay request.

PRECIPITATION

<u>MONTH</u>	<u>AVERAGE NO. OF DAYS .01" OR MORE</u>
January	10
February	9
March	10
April	10
May	10
June	8
July	9
August	7
September	7
October	6
November	8
December	9

24. In paragraph 15.3, omit any and all references to arbitration.
25. Delete paragraph 15.4 in its entirety.

END OF SUPPLEMENTARY CONDITIONS



ANDERSON ENGINEERING CONSULTANTS, INC.

10205 Rockwood Road, Little Rock, Arkansas 72204
Phone 501-455-4545 • Fax 501-455-4552

GEOTECHNICAL INVESTIGATION

FOR

PROPOSED SOUTHERN ARKANSAS UNIVERSITY TECH ADDITIONS

EAST CAMDEN, ARKANSAS

*** * * * ***

CADM ARCHITECTURE, INC.

ARCHITECTS

214 NORTH WASHINGTON, SUITE 413

EL DORADO, ARKANSAS 71730

*** * * * ***

JANUARY 11, 2012

JOB NO. 13143



ANDERSON ENGINEERING CONSULTANTS, INC.

10205 ROCKWOOD ROAD - LITTLE ROCK, ARKANSAS 72204

PHONE (501) 455-4545 FAX (501) 455-4552

January 11, 2012

Job No. 13143

Mr. W. Brian Monroe, AIA
CADM Architecture, Inc.
214 North Washington, Suite 413
El Dorado, Arkansas 71730

Re: Geotechnical Investigation
Proposed Southern Arkansas University Tech Additions
East Camden, Arkansas

Dear Mr. Monroe:

It is our pleasure to submit this final report on the geotechnical investigation for the proposed Southern Arkansas University Tech Additions in East Camden, Arkansas. The investigation consisted of test borings, soils laboratory testing, earthwork criteria, foundation and pavement design analyses.

Based on the results of this investigation, the site should be suitable for shallow foundations and normal construction techniques. However, soft soils were encountered across the site to a minimum depth of 3.0 feet and should be expected during construction. We recommend that our geotechnical services, especially thorough quality control observation and testing, be continued in the construction phases of the project for this is the most feasible means of assuring the owners, designers, and builders that the design intent is being achieved. In the event adverse geotechnical conditions are encountered during construction, our firm is the most qualified to identify and evaluate them so that adequate remedial measures can be implemented in a timely manner during construction.

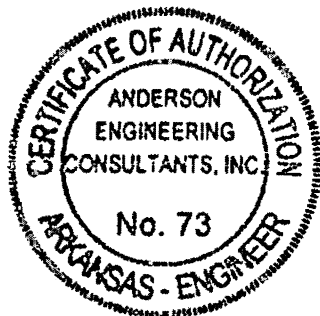
We wish to express our appreciation for the opportunity of serving you and other members of the design team. We are available for further assistance at any time during final design and construction, should you desire additional consultation.

Very truly yours,

ANDERSON ENGINEERING CONSULTANTS, INC.

Stuart M. Scheiderer, P.E.
Senior Geotechnical Engineer

Scott W. Anderson, P.E.
Principal Engineer



SMS/SWA/plf
13143.GEO

Geotechnical Engineering - Environmental Assessments - Quality Control Of Construction Materials

GEOTECHNICAL INVESTIGATION
FOR
PROPOSED SOUTHERN ARKANSAS UNIVERSITY TECH ADDITIONS
EAST CAMDEN, ARKANSAS

* * * * *

CADM ARCHITECTURE, INC.
ARCHITECTS
214 NORTH WASHINGTON, SUITE 413
EL DORADO, ARKANSAS 71730

* * * * *

BY
ANDERSON ENGINEERING CONSULTANTS, INC.
GEOTECHNICAL CONSULTANTS
10205 ROCKWOOD ROAD
LITTLE ROCK, ARKANSAS 72204

JANUARY 11, 2012

JOB NO. 13143

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Important Information About Your Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one—not even you—should apply the report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time to perform additional study.* Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.* *Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely on Your ASFE-Member Geotechnical Engineer for Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.



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PURPOSE

The primary purposes of this geotechnical investigation were:

- a. To determine the physical and engineering properties of the soils within the areas of the proposed construction with respect to their suitability for the support of the proposed facilities.
- b. To make recommendations for the earthwork, type of foundation, and pavements suited for the prevailing soil conditions within the proposed construction areas.
- c. To evaluate and recommend the design procedures for the various soil, foundation, and pavement items in accordance with current engineering practices.

SCOPE

The scope of this geotechnical investigation includes the following:

- a. The geological features in the vicinity of the project consist primarily of Tertiary deposits of sands, silts, and clays. The site is located in East Camden, Arkansas, as shown on the Vicinity Map, Plate 1. Soils in the area typically consist of terrace and alluvial deposits, with the topography ranging from low hills to flat.
- b. It was concluded that eight borings would be required to obtain the necessary data for design of the proposed structures and parking. The borings were placed strategically within the building and parking areas as shown on the Plan of Borings, Plate 2.
- c. Field tests consisted of Standard Penetration test samples (ASTM D 1586) taken in all the borings. Logs of the borings illustrating stratigraphic and field test information are provided on Plates 3 through 9. The Field Classification System for Soil Exploration and Key to Soil Classification and Symbols are provided on Plates 10 and 11, respectively.

- d. The soils analyses were based on N-values obtained from the drilling program, visual observations, and other routine inspection/classification methods. The soils were classified basically in accordance with the Unified Soil Classification System (ASTM D 2487) shown on Plate 12, however, visual classifications may be given for samples not tested.
- e. A laboratory testing program was developed by the geotechnical engineer after visual observation of the samples obtained and review of the field boring logs. Laboratory tests included moisture content determination, Atterberg limits, mechanical grain size analyses, and PVC Swell Tests. The individual test results are provided in Appendix B.
- f. The foundation analyses for the three proposed structures were based on based on AECI's current foundation design procedures using the N-values obtained during drilling, results of the laboratory tests, and the results of our in-house bearing capacity calculations. The bearing capacity calculations and plots illustrating bearing capacity with depth for each structure is provided on Plates 13 through 18, with an explanation of the bearing capacity calculations provided on Plate 19.
- g. The flexible and rigid pavement sections discussed in this report are based on the design method utilizing estimated California Bearing Ratio (CBR) data derived from field/laboratory investigations and generally accepted industry standards. The proposed flexible and rigid pavement sections are provided on Plate 20.

AUTHORITY

This geotechnical investigation was authorized on November 23, 2011, by Mr. Brian Monroe, AIA, the owner's representative for the proposed project by acceptance of AECI Proposal No. 13690 dated November 11, 2011.

PROJECT DESCRIPTION

The project will consist of the construction of a new Shop, Classroom, and Student Center buildings. Parking and drive areas are also planned around the proposed structures. The proposed construction areas are primarily vacant and occupied with mown grass. Though existing and proposed grades were not provided, very little cut and variable amounts of fill are anticipated based on the current grades. The site is relatively flat and offers little relief for surficial runoff. The surface of the site was soft at the time of this investigation and will likely cause difficulty with site access and mobility. The owner and contractor should consider these conditions in the development of the construction schedule and costs.

REGIONAL GEOLOGY

The 1993 Geologic Map of Arkansas, as prepared by the Arkansas Geologic Commission and the United States Geological Survey, indicates that the project is located within the Gulf Coastal Plain Physiographic Region of southern Arkansas. The geological features generally consist of Tertiary Aged deposits of the Claiborne Formation. These non-marine deposits were derived through erosion and deposition by streams and rivers at a time when the ancient Gulf Coast occupied the general area. The formation is generally composed of sand, gravel, and clay.

GROUNDWATER CONDITIONS

Groundwater was encountered as shallow as 2.0 feet below existing elevations but is typically found at 4.0 to 6.0 feet. The water level, though, is considered seasonal in nature and will rise and fall with fluctuations in rainfall. Thus, groundwater can be expected during construction and should be considered in design and construction of foundations, utilities, equipment pits or elevator shafts. Temporary dewatering of these types of excavations by sump/pump or gravity drains may be required.

Perched water will likely be encountered near the surface, especially in areas where more plastic clays are present. This latent water condition is typically due to storage of recent rainfall or by a barrier to capillary evaporation. Perched water when encountered will most likely be brief in duration and typically in low quantities. Areas likely to contain perched water include old fill areas, paved areas, old drainage swales, old foundations/slabs, and existing utility trenches.

Where perched water is encountered the contractor should expect to excavate gravity drainage ditches to divert it away from the construction area. Additionally, soft, wet and pumpable soils can be expected. In structural areas, these soils should be removed and replaced with a select fill soil compacted in accordance with criteria provided in the **EARTHWORK** section of this report. Since the quantity of undercut is unknown, it would be prudent to establish a unit rate for this item of work to minimize construction delays.

SITE DRAINAGE

The designer should also consider the topography of the site and surrounding areas during planning, design, and construction. The final grading should ensure positive drainage away from the buildings. It is strongly recommended that roof drains, condensate lines, and other potential water sources divert water away from the building, preferably to the storm sewer system, to prevent accumulation around the perimeter of the proposed structures. The subgrade soils have the ability of absorbing significant amounts of moisture, which could be detrimental as strength loss to foundations.

Consideration should be given to control of surface water runoff during construction. The site is relatively flat and offers little relief for surficial runoff. The contractor should consider excavating a gravity drainage ditch around the perimeter of the proposed building areas in an effort to intercept surficial runoff. The excavation should extend around the construction area in an effort to divert water and prevent accumulation or standing water in construction areas. The proposed construction areas should also be maintained in a well drained condition to prevent water from ponding within the structural and parking areas. Saturation of the subgrade soils will likely require additional amounts of undercut, especially during wet/winter months.

SEISMICITY

The seismic analyses require the selection of appropriate site coefficients and other seismic values that can be established from subsurface conditions, guidelines set forth by local, state and federal codes, and historic seismic information. The structure's foundations should be designed using guidelines as set forth in the 1999 Standard Building Code as required by Arkansas Act 1100-1991 (and subsequent amendments) or the 2009 International Building Code, which has recently been adopted statewide.

The predominant soil types are stiff to hard clays (CL/CH) overlying medium dense to very dense sand (SP). Based upon the subsurface soil conditions and the seismic values for Arkansas published by the Arkansas State Building Services, the 1999 Standard Building Code and the 2009 International Building Code the following data are considered applicable to this project site:

IBC Information (2009)

Site Class	C*
Value of Site Coefficient (F_a)	1.200
Value of Site Coefficient (F_v)	1.697

Standard Building Code (1999)

Seismic Zone	1
Soil Profile Type	S_1
Site Coefficient	1.0
Peak Acceleration Coefficient (A_a)	0.02
Effective Peak Velocity-Related Acceleration Coefficient (A_v)	0.08

*Not verified by 100-foot boring as per IBC Code.

FIELD INVESTIGATION

On December 15 and 16, 2011, a geotechnical drilling crew performed the drilling and sampling of eight borings within the proposed construction areas. The borings were placed as shown on the Plan of Borings, Plate 2. Standard Penetration Tests (SPT) were performed at selected intervals to determine the consistency of the subgrade soils. This testing consists of driving a split spoon sampler a total of 18.0 inches and recording the number of blows for each 6.0-inch increment. The number of blows required for the last two increments are summed to arrive at an SPT ("N") value. A value greater than 50 blows per foot is considered refusal.

The soil samples obtained from this testing were visually classified in the field by an engineering technician. The logs of the borings showing the stratigraphy at each location and N-values with depth are provided on Plates 3 through 9. The Field Classification System for Soil and Key to Soil Classifications and Symbols are provided on Plates 10 and 11, with the Unified Soil Classification System presented on Plate 12.

LABORATORY TESTING

Tests were performed on select samples to determine their classification and/or strength characteristics. Laboratory testing included moisture contents, Atterberg limits, mechanical grain size analyses, and PVC swell index tests. The following sections describe the results of these tests. Individual test results are shown in Appendix B.

Moisture Content:

The moisture content of selected samples was determined to aid in the earthwork recommendations and verify the condition of the materials encountered. The near surface samples (<1.5 feet) had in situ moistures ranging from 19.8% to 29.3%, which is considered highly variable given the soils are similar. The moisture contents generally decreased with depth until fat clays (CH) were encountered and correlated with an increase in strength. The elevated moisture contents indicate some undercut or stabilization will be required and should be expected during earthwork.

Atterberg Limits

Atterberg limit tests were performed on selected samples to aid in classification and to determine the potential volume change of the soils. Based on the tests performed, the materials encountered during this investigation were found to range from a non-plastic material to a moderately plastic clay. The liquid limit (LL) of cohesive samples ranged from 22 to 48 with a plasticity index (PI) within the range of 4 to 32. These values indicate that some soils present could be critical with respect to shrink/swell. Some shallow samples were non-plastic, but the plasticity of these materials increased with depth. The granular soils encountered in the deeper depths were considered to be non-plastic based on visual observations.

Mechanical Grain Size Analyses

Mechanical grain size analyses were performed on selected samples to also aid in classification. Representative samples tested contained a majority of fines (passing the No. 200 sieve). The cohesive soils encountered in the upper depths contained between 60.5% and 82.9% fines. Based on these tests and the Atterberg limit tests performed, these soils would classify as sandy clay (CL) to fat clay (CH). The deeper materials contained predominately sand based on visual observations, and would best classify as sand (SP).

Swell Tests

Visual inspection and laboratory plasticity tests performed on selected samples suggest that the clays present may be of a critical nature with respect to shrinkage and swell potential, and thus, they could cause some detrimental effects upon the proposed structure. Two representative samples were tested at their natural moisture content to determine the potential swell if the materials become saturated. This testing resulted in negligible swell pressures and a linear shrinkage range of 9.6% to 10.2%. Based on these results, a maximum PVR of 0.50 inch should be considered in design provided all criteria in the **EARTHWORK** section is met or exceeded.

EARTHWORK

The following sections are intended to provide the designer and contractor with guidelines for construction of the project. They are not intended to be used as a specification for construction procedures or methods. It is strongly recommended that any desired modification be reviewed by the soils engineer prior to implementation into the project specifications. Site conditions different from those indicated herein may result in alteration of these recommendations, but should be verified by the soils engineer, or his representative.

Site Preparation:

Data obtained from the borings indicate the upper 3.0 feet of soil was soft and unstable. The owner and contractor should anticipate poor site conditions with respect to access and mobility. Visual observations indicate varying amounts of topsoil and vegetation are present over a majority of the areas. A stripping depth of 6.0 to 8.0 inches should be utilized in bidding to account for deeper organic laden soils, roots and stumps. Deeper stripping depths (12.0 to 18.0 inches) will be required in lower lying areas, drainage swales, heavily vegetated areas, and within root zones of mature trees. Upon completion of stripping, any required cuts should be performed.

Upon completion of stripping and/or cut to required elevation, the proposed construction area should be proof rolled with a loaded, tandem axle dump truck. Numerous passes should be completed to identify soft, unstable soils. Data obtained from the borings indicate soft soils will be encountered across the site in the upper 3.0 feet, but extend to 5.0 feet in some instances. The amount of required undercut or stabilization will highly depend on the construction schedule and climatic conditions. Providing specific recommendations without grading information is difficult. Where soft soils are present, a minimum of 3.0 feet of properly compacted select fill should be provided beneath the bottom of footings and slabs. Similar amounts of undercut will be necessary beneath pavements if soft soils are found. Should firm, stable materials be encountered at depths shallower than those indicated and are verified by a representative of this firm, the undercut may be terminated.

Fill Placement:

Fill materials for the project should consist of granular, non-expansive type soils with a plasticity index (PI) between 5 and 20 per Section 3.7 of ACI 360R. A minimum approximate dry density of 110.0 to 115.0 pcf is typical for soils meeting this criteria. On-site soils if available or other locally

available soils may also be suitable, but must be approved by the soils engineer prior to their use. Fill soils should be placed in maximum 8.0-inch loose lifts, moisture conditioned to within -1 to +3 percentage points of optimum moisture content, and compacted to a minimum of 95% Modified compaction. It should be noted that especially during wet or winter months, aeration of fill may be required. At no time should the particle size of the material exceed half the lift thickness. Laboratory data indicates most materials at the site would be suitable, provided they are moisture conditioned and properly compacted. Though granular soils are preferred, sandy clays (CL) may be used, provided their PI is less than 20.

The compaction and moisture content of fill materials should be verified through field density tests. One test per lift should be performed for every 2500 square feet of building area, but could be increased to 5000 to 10,000 square feet for parking. It would be prudent to require the periodic performance of Atterberg limits on fill materials to ensure compliance with the criteria outlined herein as borrow pit soils may vary significantly across the pit.

Excavation Criteria:

The soils encountered should be excavated with normal tracked excavators. No conditions were encountered over the depths investigated that would indicate difficulty with excavations. Trench excavations for utilities should be completed with normal excavation equipment. The shallow soils are non-cohesive and could be prone to sloughing or cave-ins. Especially, if these materials are allowed to saturate, some cave-ins are possible. Based on OSHA regulations (29 CFR 1926, Subpart P) regarding soil classification for trench excavations, the soils encountered would best classify as Type C. In any case, OSHA regulations regarding shoring or benching of excavations

should be considered during construction. Backfilling trench excavations should satisfy the criteria given previously, though AHTD approved flowable fill may be used as an alternative for confined spaces provided it is allowed to properly cure.

Landscaping/Hardscaping:

The preferred landscaping method is to utilize green areas having a root barrier and a drainage system tied into the storm sewer system. Drip irrigation is preferred so that the amount of water can be controlled and routed away from the building ensuring that saturation of the foundation soils will not occur. As a general rule, the drip line of any existing or future full grown tree should not fall within the building area. Moisture control will also be added by having sidewalks, paving, properly drained green areas, or sloping ground surfaces for at least 5.0 feet outside the structure.

The sidewalks or paving must have positive slope away from the building and all joints must be sealed to prevent water infiltration. Implementation of these points will reduce the fluctuations in moisture content of the highly plastic soils and consequent movements of the foundations and floor slabs. It would also be prudent to capture roof drain outlets and AC unit condensate drip lines in the project storm sewer system. By doing so, the likelihood of distress from moisture variations to buildings, landscapes, and pavements is greatly decreased. All utilities servicing the facility should have flexible connections to allow for the anticipated soil movements.

Adverse Weather Conditions:

Site grading and earthwork operations will be more difficult in wet or winter months. Should earthwork operations for the project begin in the time period of November through April, the owner should anticipate and budget for additional expenses for earthwork. Not only will more frequent and saturating rains be prevalent during these months, ambient air conditions are not conducive to drying of site soils. Efficient aeration and drying of soils is dependant upon high temperatures, low humidity, and the contractor's ability to disc or scarify the soils. Aeration and drying of onsite soils will require additional effort by the contractor and should be considered during budgeting or planning. Wet conditions may also require drying of otherwise suitable soils.

Should the owner or contractor elect to begin earthwork in wet or winter months, undercut of soft soils will likely be the most feasible option. Mechanical stabilization of the on site soils is possible and could include the use of a geotextile fabric/grid to bridge over soft soils and provide support to subsequent fill. Implementation of a geotextile can be addressed once the grading plan for the project is near completion, but will require willingness and cooperation of the contractor for success. Chemical stabilization through lime or fly ash worked into wet soils can also be effective. However, these methods are highly dependant upon the contractor's expertise, equipment, and proper installation or mixing methods. In any case, the proposed construction area should be maintained in a well drained condition during construction. Water should not be allowed to stand or pond on areas of exposed earthwork. In anticipation of rainfall, it would be prudent for the contractor to "seal" exposed subgrades with a smooth drum roller to promote runoff. Additionally, surface drainage control features such as stormwater ponds should be installed as soon as it is practical.

FOUNDATIONS

Conventional shallow foundations (strip/spread) are considered the most feasible foundation option based on the anticipated loadings, site conditions, and earthwork criteria established in the previous section. The following discussion will provide bearing capacity, settlement, and other criteria typically required for in design. For the purposes of this report, bearing capacity refers to the net allowable bearing capacity, which is defined by the ultimate bearing capacity (factored dead and live loads) reduced by an acceptable factor of safety, which for this project is considered to be 2.0. Additionally, shape, inclination, groundwater depth, and other design factors are considered minimal and no reduction in bearing capacity is necessary for these conditions.

Bearing Capacity:

Based on the results of our field investigation, the condition of the subgrade soils vary across the site and within the footprint of each structure. As indicated by the calculations and curve for the Shop Building provided on Plate 13 and 14, an allowable bearing capacity of 2000 psf may be used in design. A lower bearing capacity of 1750 psf is recommended for the Classroom and Student Center buildings in an effort to limit the amount of undercut required. These values were developed using SPT values obtained from the drilling and laboratory testing program utilizing our in-house design program. The resulting calculations and curves for these two structures illustrating the bearing capacity with depth are provided on Plates 15 through 18. An explanation of the terminology used in the calculations and curve is presented on Plate 19. Some undercut or deepening of footings may be necessary to obtain the recommended bearing capacity. Additionally, shallow water was encountered and could become a nuisance during footing excavations requiring some pumping.

Should the designer desire to utilize the curve to increase the bearing capacity, this firm should be consulted for review. Interior footing depths may be decreased so long as they satisfy local building codes.

Settlement:

The settlement of the foundations must be within tolerable limits, which should be established by the structural engineer, but have not been provided prior to this investigation. The potential settlement for conventional footings was estimated from results of Standard Penetration tests performed during drilling. The magnitude of total settlement for conventional footings at the recommended bearing capacity and depth was estimated to be on the order of 1.00 inch. A differential settlement on the order of 0.50 inch is recommended for use in the structural design. Should the bearing capacity or loads used in design differ from those indicated herein, the amount of settlement will vary accordingly.

Other Design Considerations:

The bearing capacity and settlement discussions provided previously assume that the structural loadings are positioned such that a relatively uniform bearing pressure is exerted to the bearing strata. Eccentric, inclined or other loadings that result in a non-uniform bearing pressure will require further evaluation by this firm once specific loading conditions are established. In any case, it would be prudent to increase the rigidity of the foundation in an effort to minimize potential differential movements. An increase in rigidity can be achieved by techniques that would increase the section modulus of the foundation members. Column and wall footings should be designed in accordance with the requirements of the various applicable codes.

Resisting uplift loads should consider the weight of the footing and overlying soil backfill. A minimum factor of safety of 1.5 is recommended when calculating uplift resistance. For resistance of lateral forces, a net allowable passive resistance of 500 psf can be used for the portion of the footing extending below 1.5 feet. A coefficient of sliding resistance of 0.40 may be used by the designer to calculate frictional resistance along the bottom surface of the footing.

Excavation/Monitoring:

The excavations for footings should be performed with equipment capable of providing a clean bearing surface. It would be ideal for the bottom 6.0 inches of the excavation be achieved with a smooth plate excavator, or hand labor. Reinforcing steel and concrete should be placed as soon as possible upon completion of the geotechnical representative evaluation, as described below. All debris, standing water and mud, including saturated soils, should be removed. In no instance should concrete be placed in frozen or saturated soils. If unforeseen circumstances require excavations to remain open for an extended period, a thin "mud slab" may be placed in an effort to reduce disturbance to the bearing strata. In this case, the excavation should extend a minimum of 2.0 inches below planned depth, allowing a thin layer of concrete the same strength as required for the footings to be placed.

The performance of the foundation system will partially depend on the quality of construction. It would be prudent to have further evaluations by the soils engineer, or his representative, to verify that the design bearing value has been achieved in footing excavations. Furthermore, the condition of the subgrade should be evaluated to insure cleanliness and uniformity of bearing strata immediately prior to concrete placement. Bearing capacity can be verified by the use of a static cone penetrometer, or other acceptable means designated by the soils engineer.

FLOOR SLABS

Differential movement of the floor slab may be caused by a difference in the allowable gross bearing capacity, differing heave conditions, and/or variable thicknesses of compressible soils below the floors. The stiffness effect of a well compacted subgrade and/or engineered fill should greatly diminish the differential floor slab movements to tolerable limits. A conventional slab-on-grade may be utilized provided the slab bears on at least 8.0 inches of compacted subgrade. However, where soft soils are present, a minimum of 3.0 feet of properly compacted fill should be provided beneath the bottom of the floor slab. For these soil conditions a modulus of subgrade reaction (k) equal to 125 pci should be used in design.

In the American Concrete Institute (ACI) Publication 302.1-96, a "base material" is recommended in place of the conventional cleaner "sand cushion" material. The manual maintains that clean sand (commonly "cushion" sand) is difficult to compact and maintain until concrete placement is complete. ACI recommends a clean, fine graded material (with at least 10% to 30% of particles passing a #100 sieve) which is not contaminated with clay, silt or organic material.

The need for a vapor membrane depends on whether the floor slab will have a vapor sensitive covering, will have vapor sensitive items stored on the slab, or if the space above the slab will be a humidity controlled area. If the project does not have this vapor sensitivity or moisture control need, placement of a vapor membrane may not be necessary. However, if any of the above sensitivity issues apply, placement of a minimum 10-mil vapor membrane is recommended. Some floor covering systems (adhesives and flooring materials) may require a vapor membrane to maintain a specified maximum slab moisture content as a condition of their warranty.

A number of issues should be considered when deciding whether to place the vapor membrane above or below the granular layer. The benefits of placing the slab on a granular layer, with the vapor membrane placed **below** the granular layer, include **reduction** of the following:

- Slab curling during the curing and drying process.
- Time of bleeding, which allows for quicker finishing.
- Vapor membrane puncturing.
- Surface blistering or delamination caused by an extended bleeding period.
- Cracking caused by plastic or drying shrinkage.

The benefits of placing the vapor membrane **above** the granular layer include the following:

- The moisture emission rate is achieved faster.
- Eliminates a potential water reservoir within the granular layer above the membrane.
- Provides a "slip surface", thereby reducing slab restraint and the associated random cracking.

Ultimately, the location of the vapor membrane will be an architectural/structural issue and should be considered accordingly.

DRIVES AND PARKING AREAS

The following pavement designs and pavement recommendations are based on numerous reasonable assumptions concerning the pavement use, site conditions, and maintenance. An estimated CBR of 3 was determined for the subgrade soils based on SPT values obtained from borings in the parking area of the site. A minimum of 8.0 inches of compacted subgrade should be adequate for support of normal pavement sections, provided it passes a proof roll. However, soft soils are present across the site, and could require undercut or stabilization. These areas will require a minimum of 18.0 inches of properly compacted select fill beneath the pavement section if stabilization is not

cost effective. More specific recommendations can be provided as the grading plan nears completion. The base material and surface material thicknesses and construction procedures are provided in the following sections.

Flexible Pavement

Flexible pavement typically consists of asphalt cement hot mix (ACHM) as specified by Section 407 of the Standard Specifications for Highway Construction (Edition of 2003) as published by the Arkansas State Highway and Transportation Department. The design requirements for ACHM surface course; 12.5 mm (Type II) and 9.5 mm (Type III) are provided in Tables 407-1 and 407-2, respectively. ACHM is most commonly used for light to moderate traffic areas including straight drives and parking areas for light vehicles. It should not be used in traffic lanes where trucks turn, backup, or pickup trash dumpsters. Based on the subgrade CBR of 3 and a minimum of 8.0 inches of compacted subgrade the following sections will apply for light and heavy duty sections. The recommended pavement structures are shown on Plate 20.

<u>LIGHT</u>		<u>HEAVY</u>	
<u>Material</u>	<u>Thickness (inches)</u>	<u>Material</u>	<u>Thickness (inches)</u>
12.5 mm ACHM	2.0	12.5 mm ACHM	3.0
Class 7 Base	6.0	Class 7 Base	8.0

NOTES:

- 1) Class 7 - 90% crushed stone meeting AHTD Table 303-1.
- 2) Due to the limited availability of Class 7, Class 5 may be substituted provided the base thickness is increased by 2.0 inches.
- 3) Compaction of ACHM should not be less than 92% of theoretical design mix.
- 4) Base material compaction should not be less than 95% ASTM D 1557.

Rigid Pavement Non-Reinforced

Rigid pavements or Portland Cement Concrete (PCC) pavements consist of concrete materials and construction procedures as specified by Section 501 of the Standard Specifications for Highway Construction (Edition of 2003) as published by the Arkansas State Highway and Transportation Department. The material type and design requirements including admixtures, reinforcing, dowels, jointing, curing, and finish are provided therein. Rigid (PCC) pavements are commonly used for both light and heavy duty traffic applications. Minimally, approach slabs, truck turning areas, docks, and dumpster pads should be PCC. Based on the site subgrade CBR of 3 and a modulus of subgrade reaction of 125.0 pci over a minimum of 8.0 inches of subgrade the following sections will apply for both light and heavy duty pavement sections. The recommended pavement structures are shown on Plate 20.

<u>LIGHT</u>		<u>HEAVY</u>	
<u>Material</u>	<u>Thickness (inches)</u>	<u>Material</u>	<u>Thickness (inches)</u>
PCC	5.0	PCC	7.0
Class 7 Base	4.0	Class 7 Base	6.0

NOTES:

- 1) Class 7 - 90% crushed stone meeting AHTD Table 303-1.
- 2) Due to the limited availability of Class 7, Class 5 may be substituted provided the base thickness is increased by 2.0 inches.
- 3) PCC strength to be 4000 pci at 28 days.
- 4) PCC to be entrained with 5% air.
- 5) Load transfer, dowels, and joints per ACI, AHTD or PCA guidelines.

Pavement Performance/Maintenance

The long term pavement performance will be directly related to several factors such as adequate edge drainage and surface drainage which does not allow water to accumulate on the pavement surface or behind the curbs and pavement edges. All pavement joints must be sealed and should be

placed parallel to the overall site drainage direction. All irrigation, water, and other utility lines should be carefully monitored to insure they do not contribute to premature pavement failure by allowing water to migrate onto or under the pavements. Adequate quality control testing including proof rolling, compaction testing, thickness testing of base and ACHM as well as compaction of the ACHM is critical to successful long term pavement performance. In addition, pavements will require regular maintenance such as periodic surface sealing and crack sealing to prolong the desired performance and life.

CONSTRUCTION QUALITY CONTROL

Quality control testing should be utilized in all phases of the construction. To verify that the proper performance of the proposed structures, all fill required should be compacted to a minimum of 95% Modified compaction, in accordance with ASTM D 1557 and be verified by testing using ASTM D 6938. The turndown excavations should be evaluated to verify that the recommended bearing capacity has not been reduced by disturbance to excavation or massive imperfections in the bearing strata. A geotechnical engineering representative should be present to evaluate the bottom of the foundation excavations by means of a static cone penetration device. The compaction of the pavement sections should be verified by tests after the earthwork is completed, so as not to invalidate the design criteria. Our recommendations are based upon adequate quality control testing being utilized and further evaluations and reviews during the construction phase of the project.

CONCLUSIONS AND RECOMMENDATIONS

As a result of this geotechnical investigation, the following recommendations are offered for consideration:

1. As previously discussed, shallow foundations would serve satisfactorily for the proposed structures. It is concluded that this will be an economical type of foundation and should be designed in accordance with necessary structural and/or architectural requirement determined by the designers with the owner's ultimate approval.
2. The foundation for the Shop Building should be designed utilizing a maximum allowable bearing of 2000 psf at a footing depth of 2.0 feet on adequate natural ground or 3.0 feet of properly compacted fill. The Classroom and Student Center buildings should be designed using an allowable bearing capacity of 1750 psf. Some undercut or deepening of excavations should be expected to obtain the allowable bearing capacity including up to 3.0 feet of fill.
3. All fill required should consist of low PI non-expansive fill and should be placed in 8.0-inch thick lifts and be compacted within three percentage points of optimum moisture content to 95% of Modified Proctor density as per ASTM D 1557. The select fill shall have a PI between 5 and 20 per ACI 360R. Locally available clayey sand (SC) or clayey gravel (GC) should be utilized for this project, but must meet the criteria given in the **EARTHWORK** section of this report.
4. Undercutting of soft, wet, or unstable soils will likely be required in building and pavement areas. The contractor may replace the undercut areas with suitable backfill if it is compacted to 95% of Modified Proctor.
5. As an additional measure, perimeter surface and subsurface drainage should be assured around the exterior of the building to intercept and drain surface runoff or seepage water from the near surface and foundation supporting soils. It would also be a prudent measure to slope backfill soils away from foundation walls and install all site drainage features as soon as it is practical.

6. The use of flexible or rigid pavements should be a function of the anticipated traffic use as determined by the designer using the recommended sections provided in the **PAVEMENT** section of this report. As a minimum PCC pavements should be used for truck/bus lanes and dumpster pads.
7. Quality control testing should be utilized in the construction of the foundation, undercutting, fill placement, and floor slab construction with adequate testing to verify that the design requirements have been achieved.
8. Geotechnical engineering and testing services are recommended during the foundation construction phase so that adequate compensation can be made for conditions that may occur which differ significantly from those assumed as a result of this investigation.
9. Other recommendations are given throughout the text of this report.

LIMITATIONS

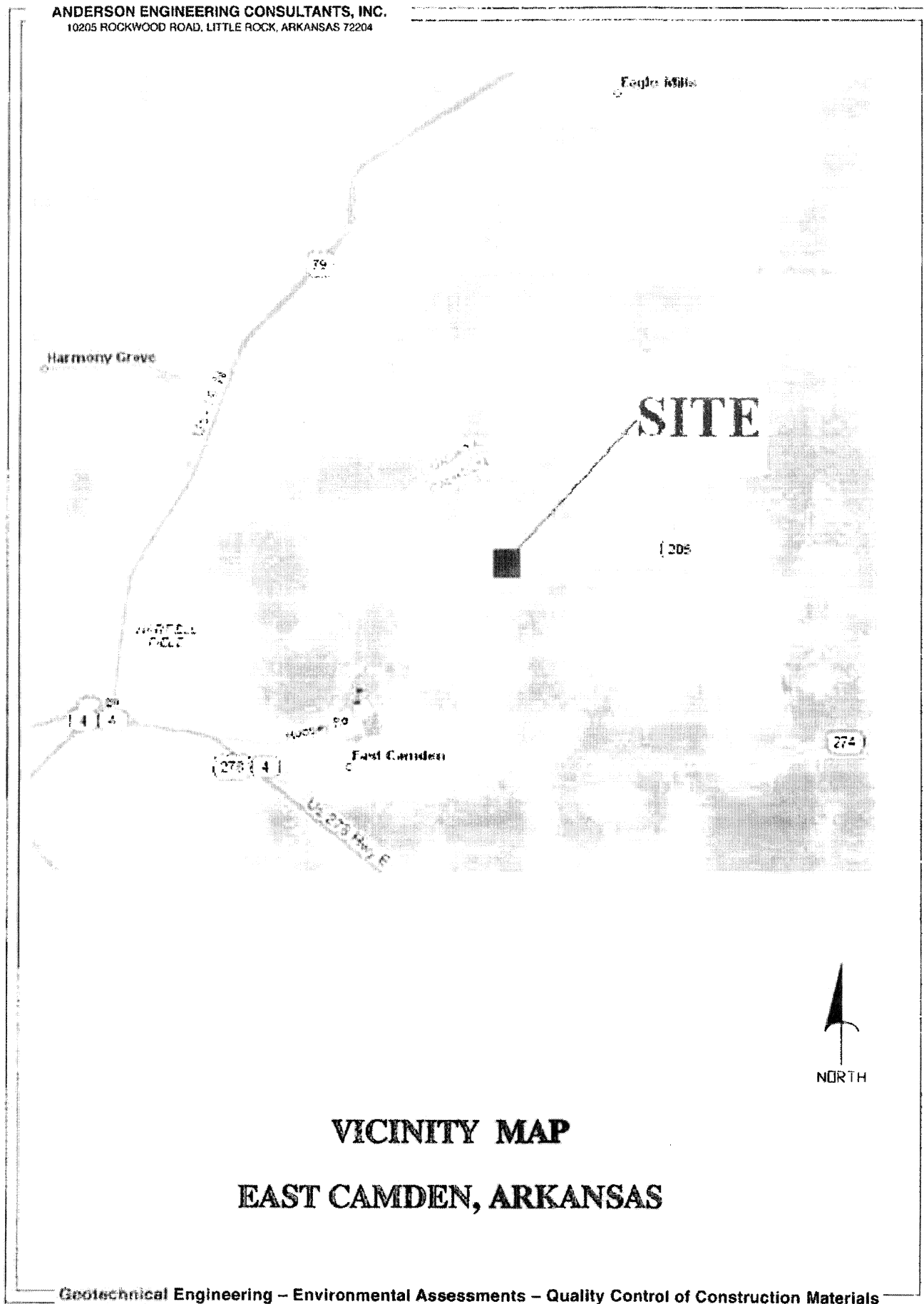
The boring logs shown in this report contain information related to the types of soil or rock encountered at specific locations and times and show lines delineating the interface between these materials, as well as results of tests performed in the laboratory on representative samples. The logs also contain our field geologist's interpretation of conditions that are believed to exist in those depth intervals between the actual samples taken. Therefore, these boring logs contain both factual and interpretative information. It is not warranted that these logs are representative of subsurface conditions at other locations and times.

The analyses, conclusions, and recommendations contained in this report are based on site conditions as they existed at the time of our field investigation and further on the assumption that the exploratory borings are representative of the subsurface conditions throughout the site. If, during construction, different subsurface conditions from those encountered in our borings are observed, or appear to be present beneath excavations, we must be advised promptly so that we can review these conditions and provide new recommendations as becomes necessary. Recognize that both natural and manmade events may have changed site conditions since issuance of this report and further review may result. If after submission of this report structural loads or finished grades are changed from those that were assumed, we urge that we be promptly informed, and retained to review our report to determine the applicability of the conclusions and recommendations, considering the changed conditions and/or time lapse. Further, we request that our firm be retained to review those portions of the plans and specifications for this particular project that pertain to earthwork and foundations as a means to determine whether the plans and specifications are consistent with the recommendations contained in the report.

It should be understood that there is the possibility that even with the proper application of current engineering principles, conditions may exist on the site that could not be identified within the scope of this investigation or which were not reasonably identifiable from the available information. The conclusions and recommendations in this report contain all the limitations inherent to the principles and practice of geotechnical engineering. AECI has not performed any observations, investigation, study, or testing that is not specifically listed in the scope of services. Thus, AECI shall not be liable for failing to discover any condition whose discovery required the performance of services outside of the scope of services provided in our proposal.

* * * * *

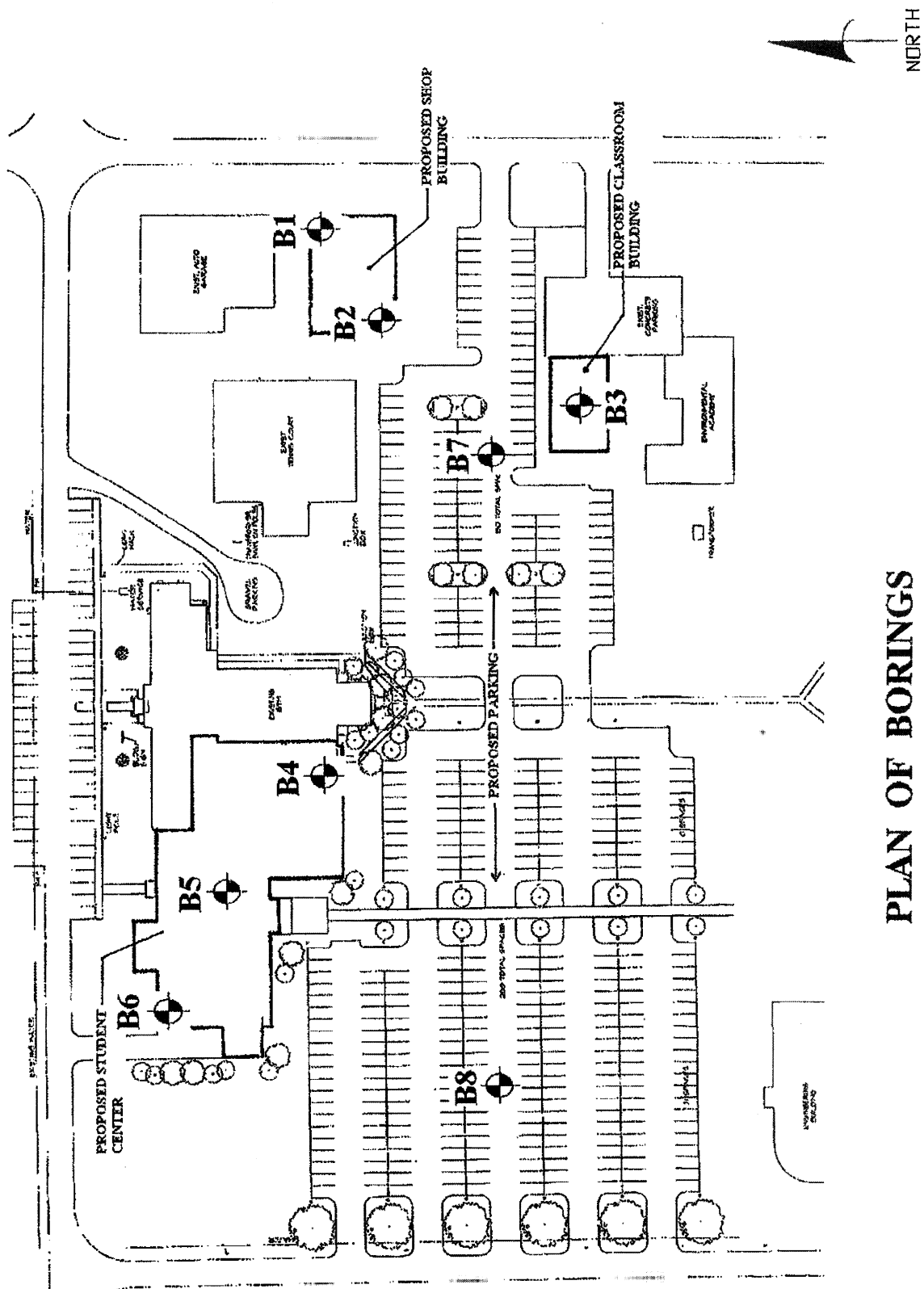
APPENDIX A
PLATES



VICINITY MAP

EAST CAMDEN, ARKANSAS

NOT DRAWN TO SCALE.



PLAN OF BORINGS

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Geotechnical Engineering – Environmental Assessments – Quality Control of Construction Materials

ANDERSON ENGINEERING CONSULTANTS, INC.

10206 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS

EAST CAMDEN, ARKANSAS

FOR: CADM ARCHITECTURE, INC.

DATE: 12/15/11

JOB NO: 13143

DRILLER: JOHNSON
HILYARD ATV

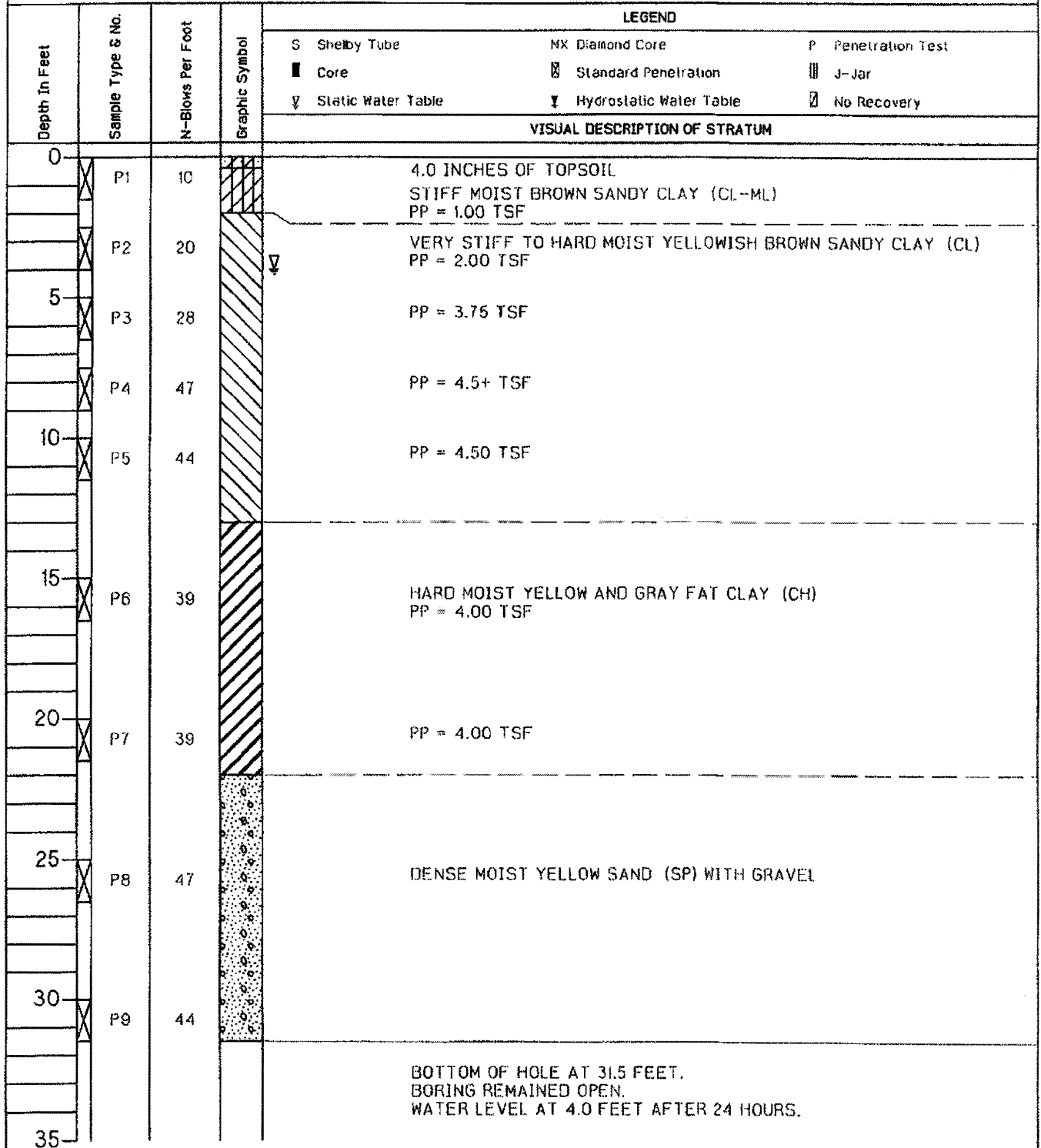
GEOTECHNICIAN: JOHNSON

BORING NO: B1

LOCATION: SEE PLAN OF BORINGS

BORING TYPE: AUGER/WASH W/SPT

GROUND ELEVATION: NOT FURNISHED



ANDERSON ENGINEERING CONSULTANTS, INC.

10205 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS

EAST CAMDEN, ARKANSAS

FOR: CADM ARCHITECTURE, INC.

DATE: 12/15/11

JOB NO: 13143

DRILLER: JOHNSON
HILYARD ATV

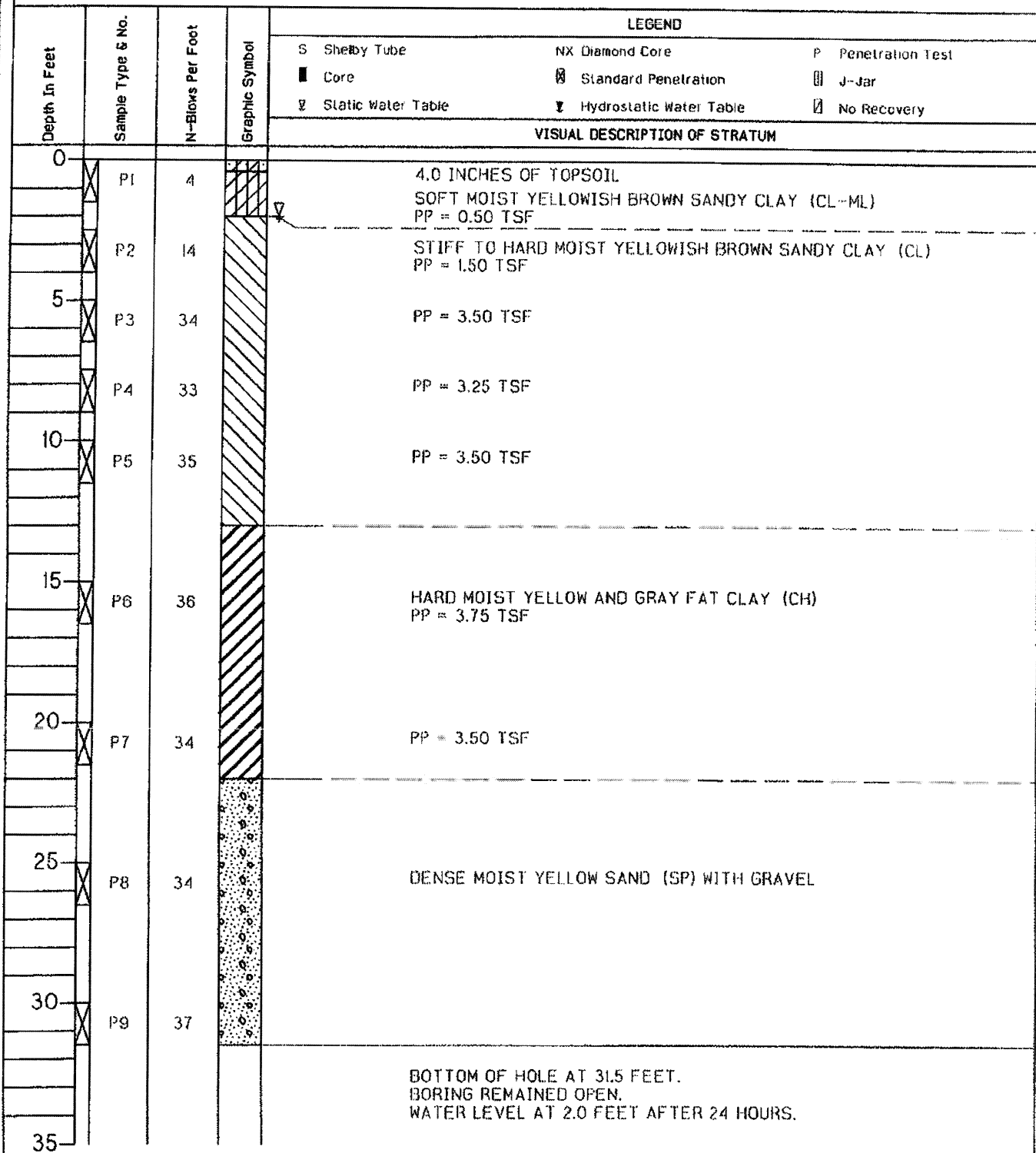
GEOTECHNICIAN: JOHNSON

BORING NO: B2

LOCATION: SEE PLAN OF BORINGS

BORING TYPE: AUGER/WASH W/SPT

GROUND ELEVATION: NOT FURNISHED



ANDERSON ENGINEERING CONSULTANTS, INC.

10205 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS

EAST CAMDEN, ARKANSAS

FOR: CADM ARCHITECTURE, INC.

DATE: 12/16/11

JOB NO: 13143

DRILLER: JOHNSON
HILYARD ATV

GEOTECHNICIAN: JOHNSON

BORING NO: B3

LOCATION: SEE PLAN OF BORINGS

BORING TYPE: AUGER/WASH W/SPT

GROUND ELEVATION: NOT FURNISHED

Depth In Feet	Sample Type & No.	N-Blows Per Foot	Graphic Symbol	LEGEND		
				S Shelby Tube	NX Diamond Core	P Penetration Test
				Core	Standard Penetration	J-Jar
				Static Water Table	Hydrostatic Water Table	No Recovery
VISUAL DESCRIPTION OF STRATUM						
0	P1	4		6.0 INCHES OF TOPSOIL		
	P2	10		SOFT TO HARD MOIST BROWN SANDY CLAY (CL-ML)		
				PP = 0.50 TSF		
				PP = 1.00 TSF		
5	P3	43		PP = 4.25 TSF		
	P4	50+		VERY STIFF TO HARD MOIST BROWN SANDY CLAY (CL)		
				PP = 4.5+ TSF		
10	P5	47		PP = 4.5+ TSF		
15	P6	46		HARD MOIST YELLOWISH BROWN FAT CLAY (CH)		
				PP = 4.5+ TSF		
20	P7	42		PP = 4.25 TSF		
25	P8	44		DENSE MOIST YELLOW SAND (SP) WITH GRAVEL		
30	P9	42				
35				BOTTOM OF HOLE AT 31.5 FEET. BORING REMAINED OPEN. WATER LEVEL AT 6.0 FEET AFTER 24 HOURS.		

Geotechnical Engineering-Environmental Assessments-Quality Control Of Construction Materials

ANDERSON ENGINEERING CONSULTANTS, INC.

10205 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS

EAST CAMDEN, ARKANSAS

FOR: CADM ARCHITECTURE, INC.

DATE: 12/16/11

JOB NO: 13143

DRILLER: JOHNSON
HILYARD ATV

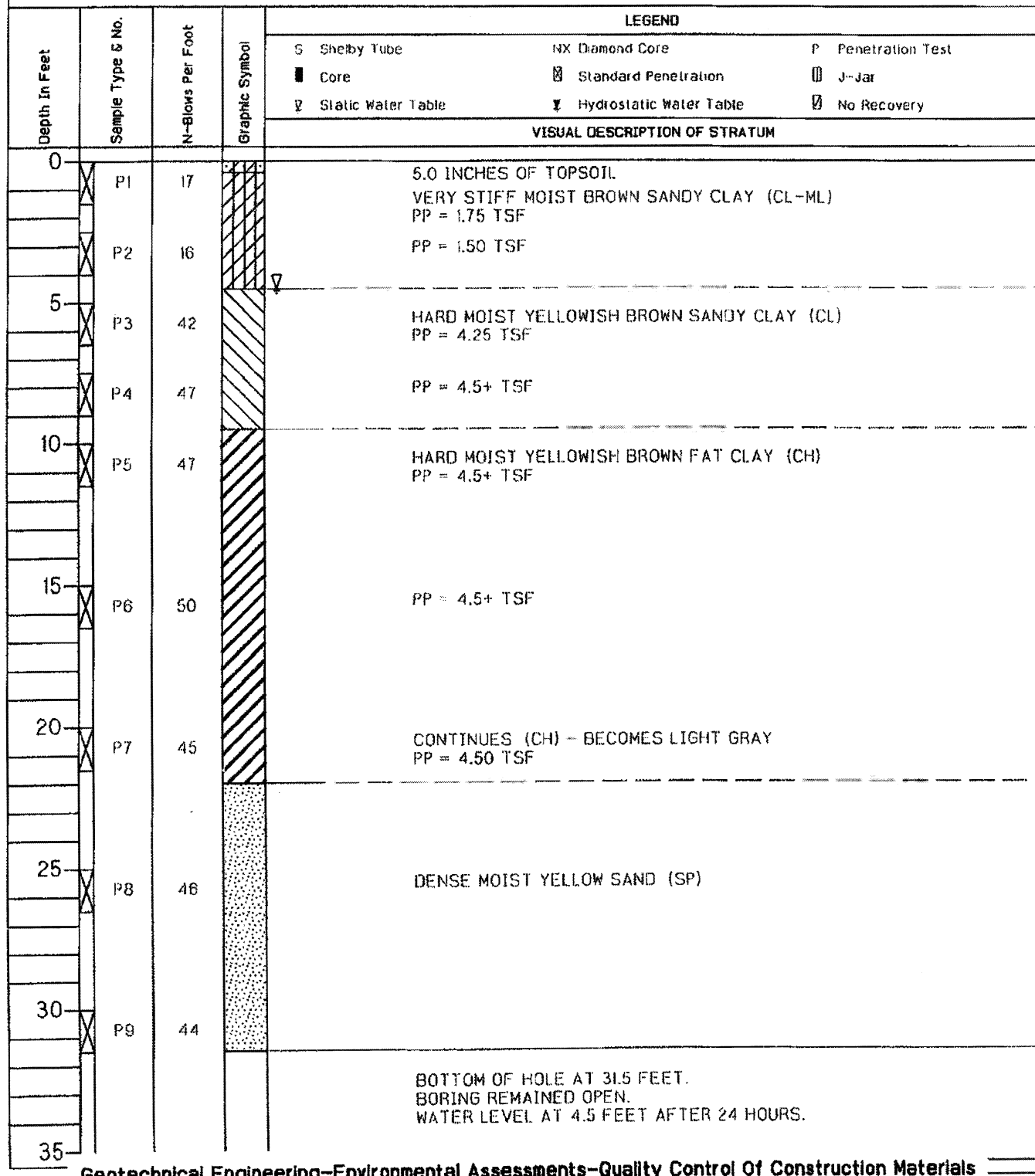
GEOTECHNICIAN: JOHNSON

BORING NO: B4

LOCATION: SEE PLAN OF BORINGS

BORING TYPE: AUGER/WASH W/SPT

GROUND ELEVATION: NOT FURNISHED



ANDERSON ENGINEERING CONSULTANTS, INC.

10205 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS

FOR: EAST CAMDEN, ARKANSAS
CADM ARCHITECTURE, INC.

DATE: 12/16/11

JOB NO: 13143

DRILLER: JOHNSON
HILYARD ATV

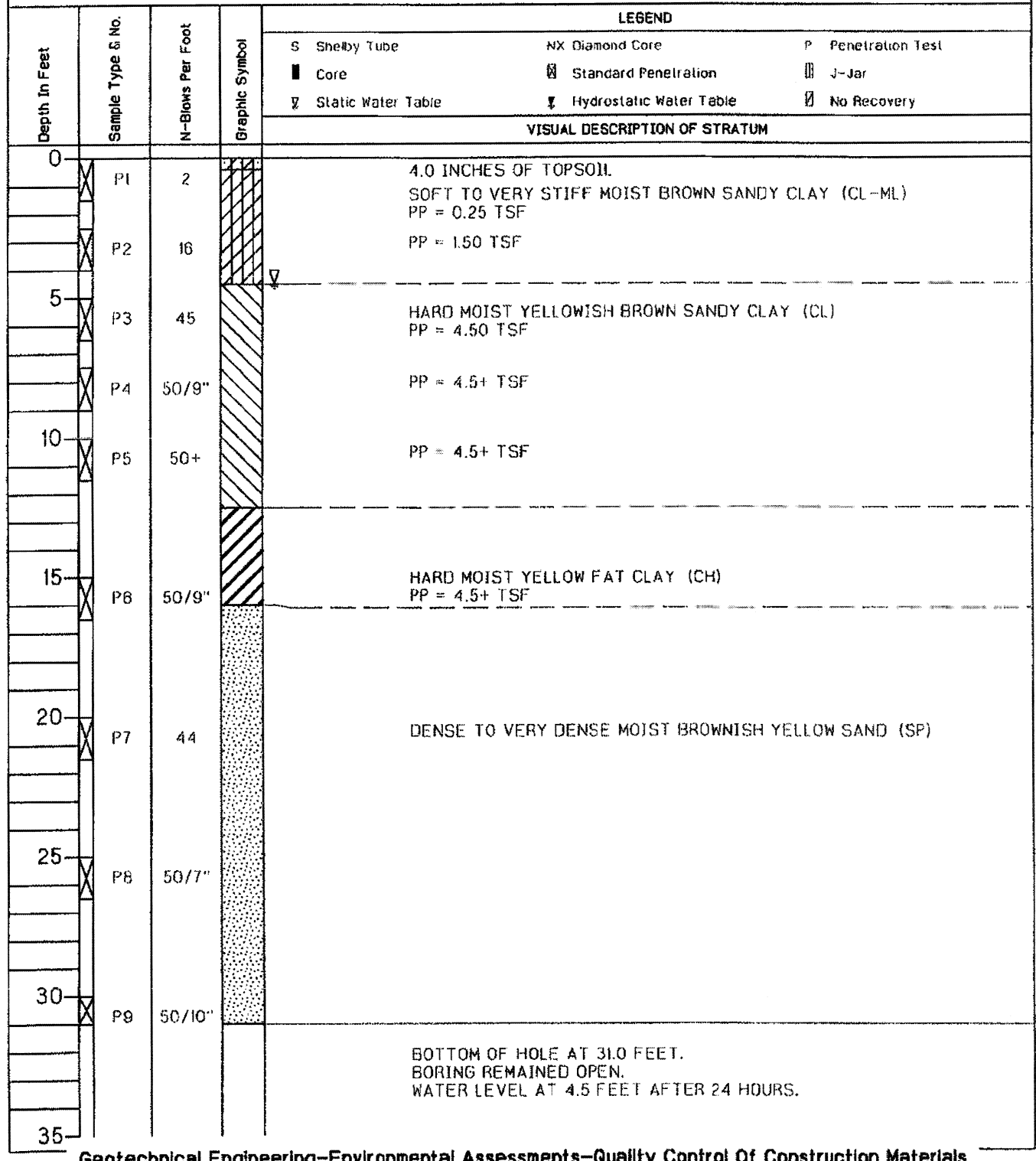
GEOTECHNICIAN: JOHNSON

BORING NO: B5

LOCATION: SEE PLAN OF BORINGS

BORING TYPE: AUGER/WASH W/SPT

GROUND ELEVATION: NOT FURNISHED



ANDERSON ENGINEERING CONSULTANTS, INC.

10205 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS

EAST CAMDEN, ARKANSAS

FOR: CADM ARCHITECTURE, INC.

DATE: 12/16/11

JOB NO: 13143

DRILLER: JOHNSON
HILYARD ATV

GEOTECHNICIAN: JOHNSON

BORING NO: B6

LOCATION: SEE PLAN OF BORINGS

BORING TYPE: AUGER/WASH W/SPT

GROUND ELEVATION: NOT FURNISHED

Depth In Feet	Sample Type & No.	N-Blows Per Foot	Graphic Symbol	LEGEND		
				S Shelby Tube	NX Diamond Core	P Penetration Test
				Core	Standard Penetration	J-Jar
				Static Water Table	Hydrostatic Water Table	No Recovery
VISUAL DESCRIPTION OF STRATUM						
0	P1	5		4.0 INCHES OF TOPSOIL SOFT TO MEDIUM STIFF MOIST BROWNISH YELLOW SANDY CLAY (CL-ML) PP = 0.50 TSF PP = 0.25 TSF		
	P2	3				
5	P3	44		HARD MOIST YELLOWISH BROWN SANDY CLAY (CL) PP = 4.50 TSF		
	P4	50/9"		PP = 4.5+ TSF		
10	P5	50/8"		PP = 4.5+ TSF		
15	P6	50/10"		HARD MOIST YELLOW FAT CLAY (CH) PP = 4.5+ TSF		
20	P7	46		PP = 4.5+ TSF		
25	P8	50/10"		VERY DENSE MOIST YELLOW SAND (SP)		
30	P9	50/10"				
35				BOTTOM OF HOLE AT 31.0 FEET. BORING REMAINED OPEN. WATER LEVEL AT 4.5 FEET AFTER 24 HOURS.		

ANDERSON ENGINEERING CONSULTANTS, INC.

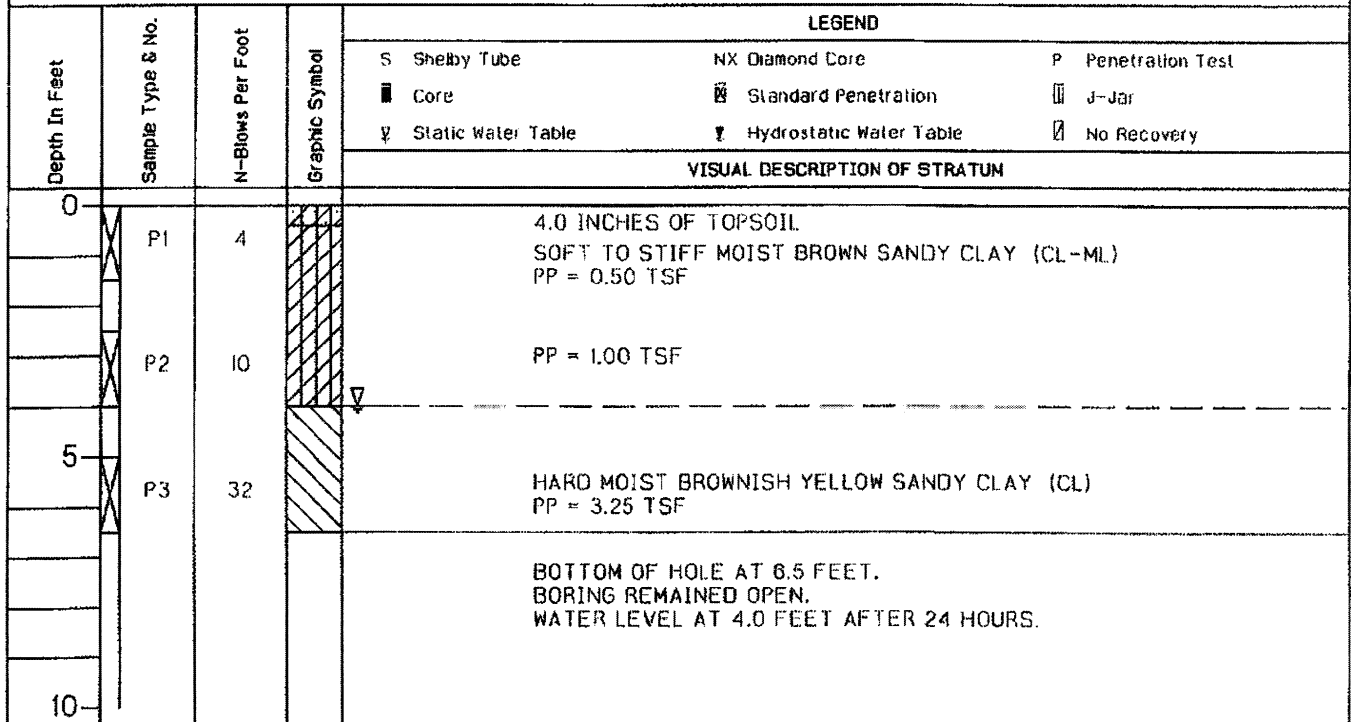
10205 ROCKWOOD ROAD, LITTLE ROCK, ARKANSAS 72204

LOG OF BORING

PROJECT: PROPOSED SAU TECH ADDITIONS
EAST CAMDEN, ARKANSAS
FOR: CADM ARCHITECTURE, INC.

BORING NO: B7**LOCATION:** SEE PLAN OF BORINGS**DATE:** 12/16/11**JOB NO.:** 13143**BORING TYPE:** AUGER/WASH W/SPT

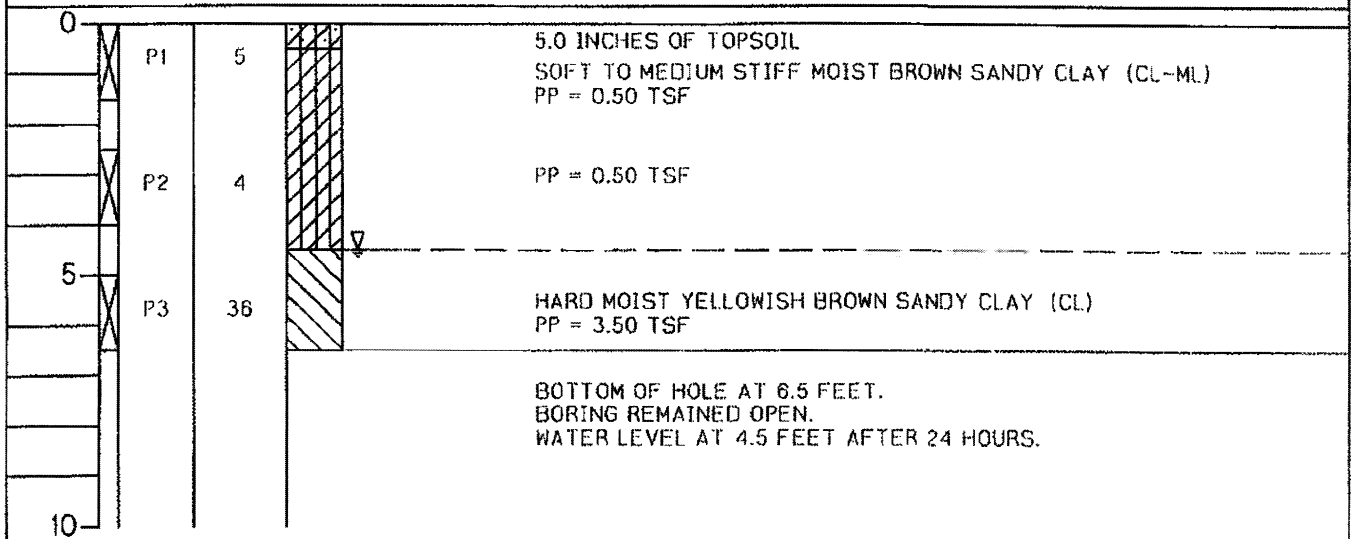
DRILLER: JOHNSON
HILYARD ATV

GEOTECHNICIAN: JOHNSON**GROUND ELEVATION:** NOT FURNISHED**LOG OF BORING**

PROJECT: PROPOSED SAU TECH ADDITIONS
EAST CAMDEN, ARKANSAS
FOR: CADM ARCHITECTURE, INC.

BORING NO: B8**LOCATION:** SEE PLAN OF BORINGS**DATE:** 12/16/11**JOB NO.:** 13143**BORING TYPE:** AUGER/WASH W/SPT

DRILLER: JOHNSON
HILYARD ATV

GEOTECHNICIAN: JOHNSON**GROUND ELEVATION:** NOT FURNISHED

FIELD CLASSIFICATION SYSTEM FOR SOIL EXPLORATION

NON COHESIVE SOILS

(Silt, Sand, Gravel and Combinations)

Density

Very Loose	- 0 - 4 blows/ft.
Loose	- 4 to 10 blows/ft.
Medium Dense	- 10 to 30 blows/ft.
Dense	- 30 to 50 blows/ft.
Very Dense	- over 50

Particle Size Identification

Boulders	- 8-inch diameter or more
Cobbles	- 3 to 8-inch diameter
Gravel	- Coarse - 1 to 3-inch
	Medium - ½ to 1-inch
	Fine - ¼ to ½-inch
Sand	- Coarse - 0.6 mm to ¼-inch (dia. of pencil lead)
	Medium - 0.2 mm to 0.6 mm (dia. of broom straw)
	Fine - 0.05 mm to 0.2 mm (dia. of human hair)
Silt	- 0.06 mm to 0.002 mm (Cannot see particles)

Relative Proportions

Descriptive Term	Percent
Trace	1 - 10
Little	11 - 20
Some	21 - 35
And	36 - 50

COHESIVE SOILS

(Clay, Silt and Combinations)

Consistency

Very Soft	- <2 blows/ft.
Very Soft	- <2 blows/ft.
Soft	- 2 to 4 blows/ft.
Medium Stiff	- 4 to 8 blows/ft.
Stiff	- 8 to 15 blows/ft.
Very Stiff	- 15 to 30 blows/ft.
Hard	- over 30

Plasticity

<u>Degree of Plasticity</u>	<u>Plasticity Index</u>
None to slight	0 - 4
Slight	5 - 7
Medium	8 - 22
High to Very High	over 22

NOTES

Classification on logs are made by visual inspection.

Standard Penetration Test - Driving a 2.0-inch O.D., 1¾-inch I.D., sampler a distance of 1.0 foot into undisturbed soil with a 140-pound hammer free falling a distance of 30.0 inches. It is customary for AECL to drive the spoon 6.0 inches to seat into undisturbed soil, then perform the test. The number of hammer blows for seating the spoon and making the tests are recorded for each 6.0 inches of penetration on the drill log (Example: 6/8/9). The standard penetration test results can be obtained by adding the last two figures (i.e., 8 + 9 = 17 blows/ft.).

Strata Changes - In the column "Soil Descriptions" on the drill log the horizontal lines represent strata changes. A solid line (—) represents an actually observed change, a dashed line (- - -) represents an estimated change.

Groundwater observations were made at the times indicated. Porosity of soil strata, weather conditions, site topography, etc., may cause changes in the water levels indicated on the logs.

KEY TO SOIL CLASSIFICATIONS AND SYMBOLS

UNIFIED SOIL CLASSIFICATION SYSTEM(1)						TERMS CHARACTERIZING SOIL STRUCTURE(2)
Major Divisions		Letter	Symbol		Name	
			Hatching	Color		
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW		RED	Well-graded gravels or gravel-sand mixtures, little or no fines	SLICKENSIDED - having inclined planes of weakness that are slick and glossy in appearance.
		GP			Poorly-graded gravels or gravel-sand mixtures, little or no fines	
		GM		YELLOW	Silty gravels, gravel-sand-silt mixtures	LAMINATED (VARVED) - composed of thin layers of varying color and texture, usually grading from sand or silt at the bottom to clay at the top.
		GC			Clayey gravels, gravel-sand-clay mixtures	
	SAND AND SANDY SOILS	SW		RED	Well-graded sands or gravelly sands, little or no fines	CRUMBLY - cohesive soils which break into small blocks or crumbs on drying.
		SP			Poorly-graded sands or gravelly sands, little or no fines	
		SM		YELLOW	Silty sands, sand-silt mixtures	WELL GRADED - having wide range in grain sizes and substantial amounts of all intermediate particle sizes.
		SC			Clayey sands, sand-clay mixtures	
FINE GRAINED SOILS	SILTS AND CLAYS LL<50	ML		GREEN	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	SYMBOLS FOR TEST DATA
		CL			Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
		OL			Organic silts and organic silt-clays of low plasticity	
	SILTS AND CLAYS LL>50	MH		BLUE	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
		CH			Inorganic clays of high plasticity, fat clays	
		OH			Organic clays of medium to high plasticity, organic silts	
HIGHLY ORGANIC SOILS	PT		ORANGE	Peat and other highly organic soils	▼ - Hydrostatic water table. ▽ - Static water table.	

TERMS DESCRIBING CONSISTENCY OF SOILS(2)

COARSE GRAINED SOILS		FINE GRAINED SOILS		
DESCRIPTIVE TERM	NO. BLOWS/FOOT STANDARD PEN. TEST	DESCRIPTIVE TERM	NO. BLOWS/FOOT STANDARD PEN. TEST	UNCONFINED COMPRESSION TONS PER SQ. FT.
Very Loose	0 - 4	Very Soft	<2	<0.25
Loose	4 - 10	Soft	2 - 4	0.25 - 0.50
Firm (medium dense)	10 - 30	Plastic (medium stiff)	4 - 8	0.50 - 1.00
Dense	30 - 50	Stiff	8 - 15	1.00 - 2.00
Very Dense	over 50	Very Stiff	15 - 30	2.00 - 4.00
		Hard	over 30	over 4.00

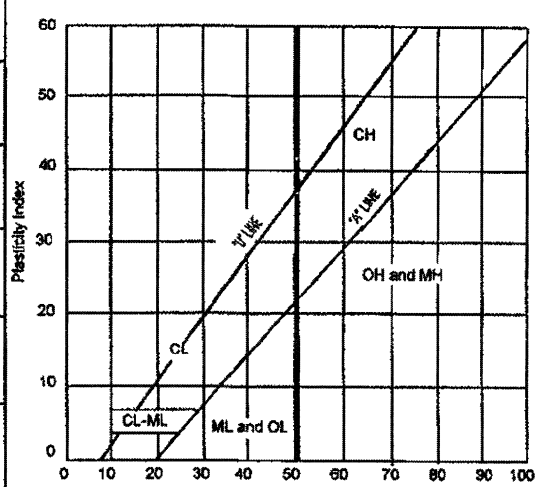
Field classification for "Consistency" is determined with a 0.25-inch diameter penetrometer.

(1) - From Waterways Experiment Station Technical Memorandum No. 3-357

(2) - From "Soil Mechanics in Engineering Practice" by Terzaghi and Peck

UNIFIED SOIL CLASSIFICATION SYSTEM

(ASTM D 2487)

Major divisions			Group Symbols	Typical Names	Laboratory Classifications Criteria			
Coarse-grained soils (More than half of material is larger than No. 200 sieve size)	Gravels (more than half of coarse fraction is larger than No. 4 sieve size)	Clean gravels (Little or no fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines	Determine percentages of sand and gravel from grain-size curve. Depending on percentage of fines (fraction smaller than No. 200 sieve size), coarse-grained soils are classified as follows: Less than 5 percent GW, GP, SW, SC More than 5 percent GM, GC, SM, SC 5 to 12 percent Borderline cases requiring dual symbols *	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}}$ between 1 and 3		
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines		Not meeting all gradation requirements for GW		
		Gravels with fines (Appreciable amount of fines)	GM*	d		Silty gravels, gravel-sand-silt mixtures	Atterberg limits below "A" line or P.I. less than 4	Above "A" line with P.I. Between 4 and 7 are borderline cases requiring use of dual symbols
				u				
	Sands (More than half of coarse fraction is smaller than No. 4 sieve size)	Clean sands (Little or no fines)	GC			Clayey gravels, gravel-sand-clay mixtures	Atterberg limits above "A" line with P.I. greater than 7	
			SW			Well-graded sands, gravelly sands, little or no fines		
		Sands with fines (Appreciable amount of fines)	SP	Poorly graded sands, gravelly sands, little or no fines		Not meeting all gradation requirements for SW		
				SM*			d	Silty sands, sand-silt mixtures
			u					
			SC				Clayey sands, sand-clay mixtures	
Fine-grained soils (More than half of material is smaller than No. 200 sieve)	Sills and clays (Liquid limit less than 50)	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					
	Sills and clays (Liquid limit greater than 50)	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts					
		CH	Inorganic clays of high plasticity, fat clays					
		OH	Organic clays of medium to high plasticity, organic silts					
	Highly Organic soils	Pt	Peel and other highly organic soils					

*Division of GM and SM groups into subdivisions of d and u are for roads and airfield only. Subdivision is based on Atterberg limits; suffix d used when L.L. is 28 or less and the P.I. is 6 or less; u used when L.L. is greater than 24.

**Borderline classifications, used for soils possessing characteristics of two groups, are designated by combinations of group symbols. For example GW-GC, well-graded gravel-sand mixture with clay binder.

Design Calculations for Conventional Footings

PROJECT: Proposed SAU Tech Additions

PROJECT NO.: 13143

DATE: 12/28/11

BORING NO.: Shop

TESTED BY: AECI

SAFETY FACTOR: 2.00

Df ft	Depth from	ft. to	STRATA H - ft	N B/F	Qu KSF	Qu/2 KSF	1.25Qu KSF	.125Df KSF	Qa KSF
1.5	0.0	1.5	1.5	7	1.9	0.9	2.3	0.188	1.3
4.0	1.5	4.0	2.5	17	4.5	2.2	5.6	0.500	3.0
6.5	4.0	6.5	2.5	36	10.1	5.1	12.7	0.813	6.6
9.0	6.5	9.0	2.5	40	11.6	5.8	14.5	1.125	7.6
11.5	9.0	11.5	2.5	40	11.6	5.8	14.5	1.438	7.7
16.5	11.5	16.5	5.0	38	10.9	5.4	13.6	2.063	7.4
21.5	16.5	21.5	5.0	37	10.5	5.2	13.1	2.688	7.3
26.5	21.5	26.5	5.0	41	12.0	6.0	15.0	3.313	8.4
31.5	26.5	31.5	5.0	41	12.0	6.0	15.0	3.938	8.5

WATER TABLE LEVEL: 2.0 ft.

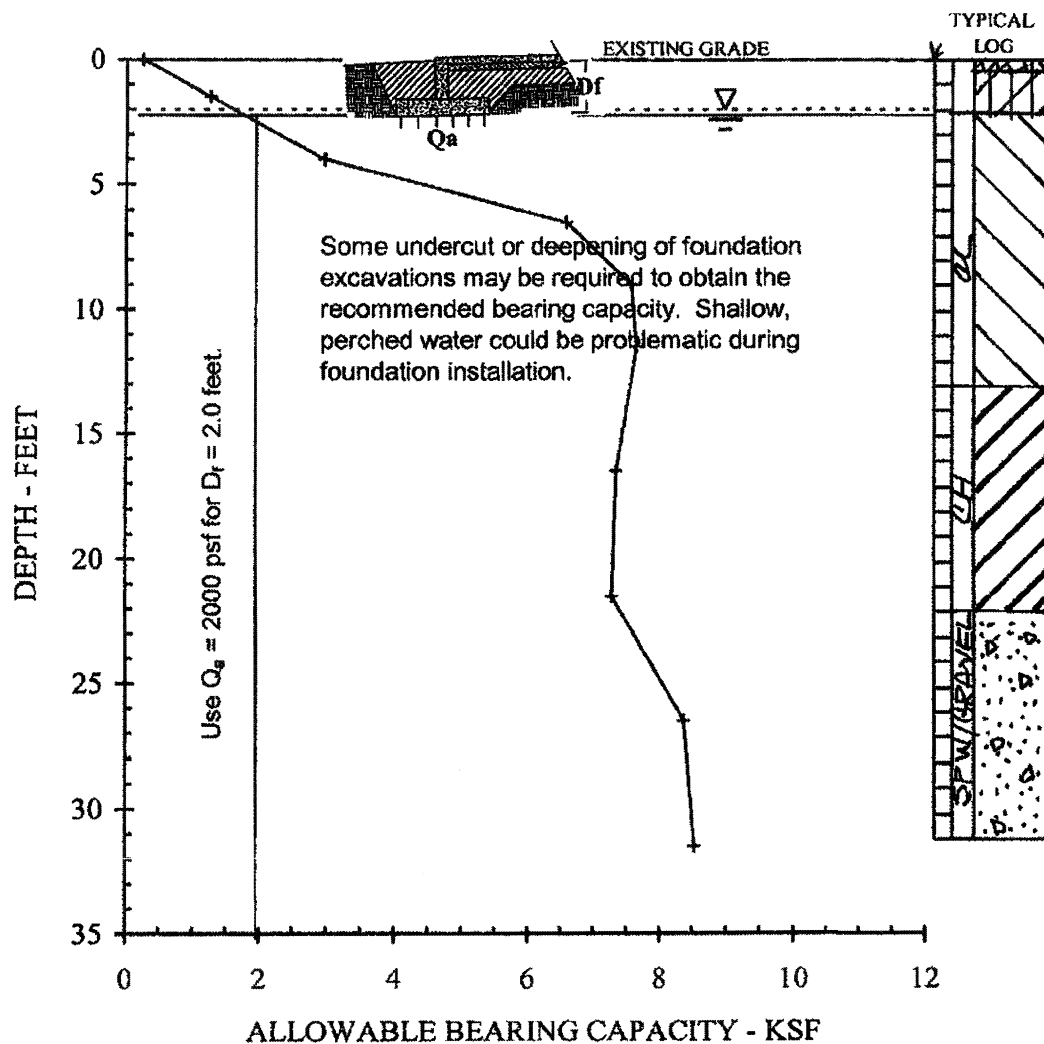
CONVENTIONAL FOOTINGS

PROJECT: **Proposed SAU Tech Additions**
East Camden, Arkansas

BORING NO.: **Shop**

PROJECT NO.: **13143** WATER TABLE: **2.0 ft.**

SAFETY FACTOR: **2.00**



DEPTH - BEARING CAPACITY CURVE

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Design Calculations for Conventional Footings

PROJECT: Proposed SAU Tech Additions

PROJECT NO.: 13143

DATE: 12/28/11

BORING NO.: Classroom

TESTED BY: AECI

SAFETY FACTOR: 2.00

Df ft	Depth from	ft. to	STRATA H - ft	N B/F	Qu KSF	Qu/2 KSF	1.25Qu KSF	.125Df KSF	Qa KSF
1.5	0.0	1.5	1.5	4	1.1	0.5	1.4	0.188	0.8
4.0	1.5	4.0	2.5	10	2.7	1.3	3.3	0.500	1.9
6.5	4.0	6.5	2.5	43	12.8	6.4	16.0	0.813	8.4
9.0	6.5	9.0	2.5	50	15.9	7.9	19.8	1.125	10.5
11.5	9.0	11.5	2.5	47	14.5	7.2	18.1	1.438	9.8
16.5	11.5	16.5	5.0	46	14.0	7.0	17.5	2.063	9.8
21.5	16.5	21.5	5.0	42	12.4	6.2	15.5	2.688	9.1
26.5	21.5	26.5	5.0	44	13.2	6.6	16.5	3.313	9.9
31.5	26.5	31.5	5.0	42	12.4	6.2	15.5	3.938	9.7

WATER TABLE LEVEL: NOT ENCOUNTERED

Design Calculations for Conventional Footings

PROJECT: Proposed SAU Tech Additions

PROJECT NO.: 13143

DATE: 12/28/11

BORING NO.: Student Center

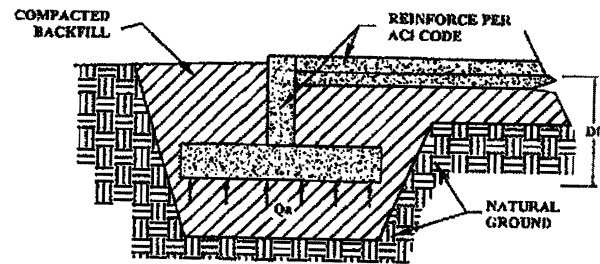
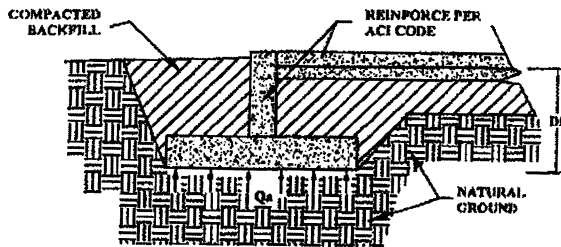
TESTED BY: AECI

SAFETY FACTOR: 2.00

Df ft	Depth from	ft. to	STRATA H - ft	N B/F	Qu KSF	Qu/2 KSF	1.25Qu KSF	.125Df KSF	Qa KSF
1.5	0.0	1.5	1.5	8	2.1	1.1	2.7	0.188	1.4
4.0	1.5	4.0	2.5	12	3.2	1.6	4.0	0.500	2.2
6.5	4.0	6.5	2.5	44	13.2	6.6	16.5	0.813	8.5
9.0	6.5	9.0	2.5	49	15.4	7.7	19.2	1.125	10.0
11.5	9.0	11.5	2.5	49	15.4	7.7	19.2	1.438	10.0
16.5	11.5	16.5	5.0	50	15.9	7.9	19.8	2.063	10.5
21.5	16.5	21.5	5.0	45	13.6	6.8	17.0	2.688	9.2
26.5	21.5	26.5	5.0	49	15.4	7.7	19.2	3.313	10.5
31.5	26.5	31.5	5.0	48	14.9	7.5	18.7	3.938	10.4

WATER TABLE LEVEL: 2.0 ft.

CONVENTIONAL FOOTINGS



Explanation of Calculations Shown in Tables

D_r = Depth from ground surface to bottom of footing (feet)

Depth = Depth from top to bottom of soil strata (feet)

Strata H = Thickness of soil strata (feet)

N = Standard penetration N-value (blows per foot)

Q_u = Ultimate soil strength (ksf)

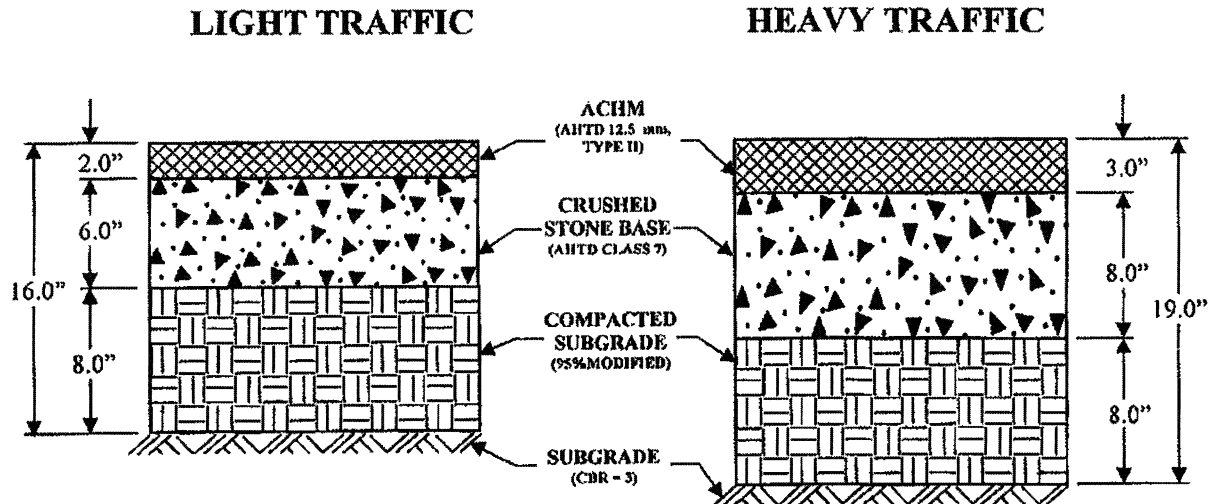
$1.25 Q_u$ = Soil Strength parameter (ksf)

$0.125 D_r$ = Depth factor (ksf)

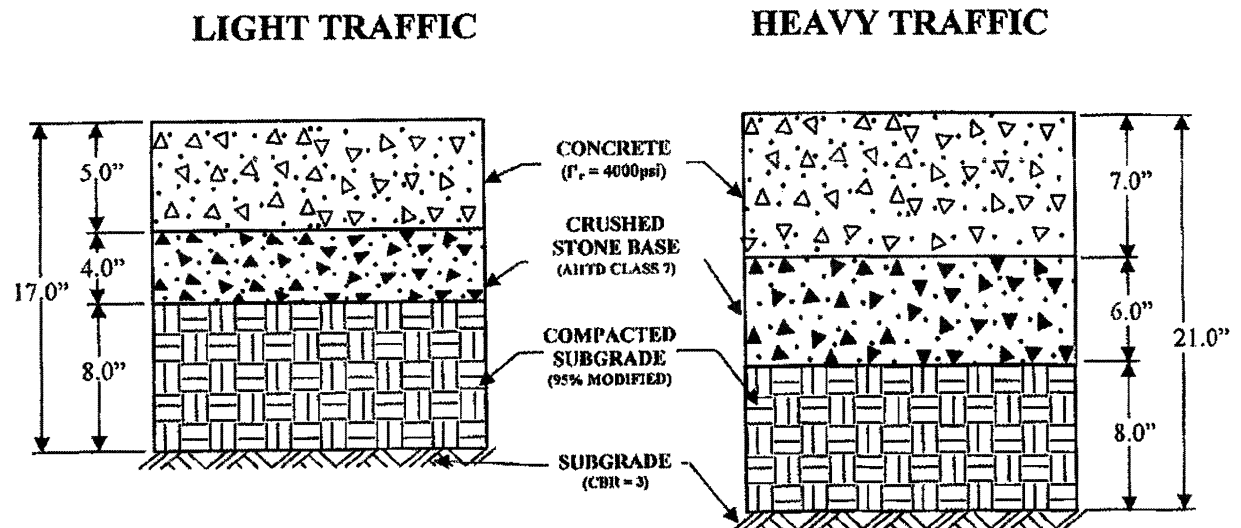
Q_a = Allowable bearing capacity = $(1.25 Q_u + 0.125 D_r) \div \text{Safety Factor}$ (ksf)

EXPLANATION OF BEARING CAPACITY CALCULATIONS

RECOMMENDED FLEXIBLE PAVEMENT STRUCTURE



RECOMMENDED RIGID PAVEMENT STRUCTURE



APPENDIX B
SUPPORTING LABORATORY DATA

MOISTURE CONTENT DETERMINATION ASTM D 2216

Project: SAU TECH ADDITION
Location: EAST CAMDEN, ARKANSAS

Project No.: 13143
Date: 12/28/11

MOISTURE CONTENT

Sample Number	B1;P1	B1;P3-P5	B3;P1	B3;P2	B4;P1	B4;P2	B4;P6
Tare Number	SHB	Z	III	210	W-7	AW	E6
Tare + Wet Soil (g)	164.96	197.82	179.90	159.75	140.83	118.30	109.30
Tare + Dry Soil (g)	135.67	161.51	152.01	135.92	119.19	103.76	90.99
Tare (g)	11.42	12.20	11.76	11.54	9.85	11.08	9.81
Water (g)	29.29	36.31	27.89	23.83	21.64	14.54	18.31
Dry Soil (g)	124.25	149.31	140.25	124.38	109.34	92.68	81.18
Water Content (%)	23.57	24.32	19.89	19.16	19.79	15.69	22.55

MOISTURE CONTENT

Sample Number	B6;P1	B6;P2	B6;P3	B7;P1	B7;P2
Tare Number	F23	F14	F13	E4	G
Tare + Wet Soil (g)	151.36	165.92	132.46	94.74	193.61
Tare + Dry Soil (g)	125.43	133.26	109.88	75.52	164.1
Tare (g)	10.11	10.99	9.94	9.89	11.36
Water (g)	25.93	32.66	22.58	19.22	29.51
Dry Soil (g)	115.32	122.27	99.94	65.63	152.74
Water Content (%)	22.49	26.71	22.59	29.29	19.32

ATTERBERG LIMIT DETERMINATION **ASTM D 4318**

Project: SAU TECH ADDITIONS
Location: EAST CAMDEN, ARKANSAS

Project No.: 13143
Date: 12/28/11

LIQUID LIMIT

Sample Number	B1;P2	B1;P6	B3;P2	B3;P4	B4;P2	B4;P3	B4;P6
Tare Number	69	75		67		71	13
Number of Blows	25	28		26		23	22
Tare + Wet Soil (g)	29.82	30.80		22.51		23.84	28.19
Tare + Dry Soil (g)	24.13	24.13		18.30		19.41	21.62
Tare (g)	7.65	8.00		7.59		8.48	8.06
Water (g)	5.69	6.67		4.21		4.43	6.57
Dry Soil (g)	16.48	16.13		10.71		10.93	13.56
Water Content (%)	34.53	41.35		39.31		40.53	48.45
Liquid Limit	35	42	NP	39	NP	40	48

PLASTIC LIMIT

Sample Number	B1;P2	B1;P6	B3;P2	B3;P4	B4;P2	B4;P3	B4;P6
Tare Number	24	SMB		76		JAF	155
Tare + Wet Soil (g)	20.01	17.84		21.19		21.26	16.89
Tare + Dry Soil (g)	18.13	16.61		19.23		19.26	15.70
Tare (g)	6.95	7.43		7.85		8.14	8.19
Water (g)	1.88	1.23		1.96		2.00	1.19
Dry Soil (g)	11.18	9.18		11.38		11.12	7.51
Water Content (%)	16.82	13.40		17.22		17.99	15.85
Plastic Limit	17	13		17		18	16
Plasticity Index	18	29		22		22	32
Classification (#40)	CL	CL	NP	CL	NP	CL	CL

LIQUID LIMIT

Sample Number	B6;P1	B6;P3	B7;P1
Tare Number	LTB	19	
Number of Blows	24	21	
Tare + Wet Soil (g)	28.53	35.68	
Tare + Dry Soil (g)	24.55	28.08	
Tare (g)	6.83	8.11	
Water (g)	3.98	7.60	
Dry Soil (g)	17.72	19.97	
Water Content (%)	22.46	38.06	
Liquid Limit	22	37	NP

PLASTIC LIMIT

Sample Number	B6;P1	B6;P3	B7;P1
Tare Number	55	23	
Tare + Wet Soil (g)	19.23	34.98	
Tare + Dry Soil (g)	17.43	30.54	
Tare (g)	7.54	7.65	
Water (g)	1.80	4.44	
Dry Soil (g)	9.89	22.89	
Water Content (%)	18.20	19.40	
Plastic Limit	18	19	
Plasticity Index	4	18	
Classification (#40)	CL-ML	CL	NP

MECHANICAL GRAIN SIZE ANALYSES ASTM D 1140

Project: SAU TECH ADDITIONS **Project No.:** 13143
Location: EAST CAMDEN, ARKANSAS **Date:** 12/28/11
Sample No.: B1;P1 **Sample Depth:** 0.0'-1.5'
Soil Description: LIGHT GRAY AND BROWN SANDY CLAY

Sieve or Screen	Weight Retained (grams)	Cumulative Weight Retained (grams)	Percent Retained	Percent Passing
#200	185.5	185.5	39.5	60.5
PAN	283.9	469.4	100.0	0.0
Percent Sample Gravel/Sand:		39.5	Sample Weight: 469.4	
Percent Sample Silt/Clay:		60.5	Washing Loss: 283.9g	

Project: SAU TECH ADDITIONS **Project No.:** 13143
Location: EAST CAMDEN, ARKANSAS **Date:** 12/28/11
Sample No.: B3;P2 **Sample Depth:** 2.5'-4.0'
Soil Description: LIGHT GRAY AND LIGHT BROWN CLAY WITH SAND

Sieve or Screen	Weight Retained (grams)	Cumulative Weight Retained (grams)	Percent Retained	Percent Passing
#200	78.0	78.0	17.1	82.9
PAN	377.9	455.9	100.0	0.0
Percent Sample Gravel/Sand:		17.1	Sample Weight: 455.9	
Percent Sample Silt/Clay:		82.9	Washing Loss: 377.9g	

MECHANICAL GRAIN SIZE ANALYSES
ASTM D 1140

Project: SAU TECH ADDITIONS **Project No.:** 13143
Location: EAST CAMDEN, ARKANSAS **Date:** 12/28/11
Sample No.: B4;P1 **Sample Depth:** 0.0'-1.5'
Soil Description: LIGHT GRAY AND BROWN SANDY CLAY

Sieve or Screen	Weight Retained (grams)	Cumulative Weight Retained (grams)	Percent Retained	Percent Passing
#200	172.2	172.2	35.6	64.4
PAN	311.3	483.5	100.0	0.0
Percent Sample Gravel/Sand:		35.6	Sample Weight: 483.5	
Percent Sample Silt/Clay:		64.4	Washing Loss: 311.3g	

Project: SAU TECH ADDITIONS **Project No.:** 13143
Location: EAST CAMDEN, ARKANSAS **Date:** 12/28/11
Sample No.: B7;P1 **Sample Depth:** 0.0'-1.5'
Soil Description: BROWNISH GRAY CLAY WITH SAND

Sieve or Screen	Weight Retained (grams)	Cumulative Weight Retained (grams)	Percent Retained	Percent Passing
#200	78.3	78.3	21.4	78.6
PAN	288.4	366.7	100.0	0.0
Percent Sample Gravel/Sand:		21.4	Sample Weight: 366.7	
Percent Sample Silt/Clay:		78.6	Washing Loss: 288.4g	

SHRINKAGE / SWELL INDEX TESTS

Project:	SAU TECH ADDITIONS	Project No.:	13143
Location:	EAST CAMDEN, ARKANSAS	Date:	12/28/11
Sample No.:	B1;P2	Sample Depth:	2.5'-4.0'
Soil Description:	LIGHT BROWN AND GRAY CLAY	K PRC:	2.0

Liquid Limit:	35	Est. Specific Gravity:	2.67
Plastic Limit:	17	No. of Layers:	3
Plasticity Index:	18	No. Blows/Layer:	7

WATER CONTENT

	Before Test		After Test
Tare Number	i	Tare Number	BT-9
Tare + Wet Soil	168.8 g	Tare + Wet Soil	172.6 g
Tare + Dry Soil	139.5 g	Tare + Dry Soil	149.6 g
Tare	10.5 g	Tare	49.8 g
Water Content	22.7 %	Water Content	23.0 %
Saturation	100.0 %	Saturation	100.0 %
Dry Density	106.9 pcf	Dry Density	107.0 pcf

VOID RATIO DETERMINATION

Vo	57.786 ccm	Vf	57.786 ccm
Wt of Soil + Ring	356.1 g	Wt of Soil + Ring	356.6 g
Wt of Ring	234.6 g	Wt of Ring	234.6 g
Moist Wt of Soil	121.5 g	Moist Wt fo Soil	122.0 g
Vs	37.104 ccm	Vs	37.104 ccm
Eo	0.5574	Ef	0.5574

SWELL DATA

Time	Dial (* 0.0001)	Pressure	Void Ratio
0.00	0.00	0.0	0.6387
19.00	0.00	0.0	0.6387
49.00	0.00	0.0	0.6387
124.00	0.00	0.0	0.6387

Final Dial Reading: 0.00

Swell Pressure: 0 PSF

Heave = 0.000 % = 0.0000 inches/foot

SHRINKAGE DATA

Linear Shrinkage (Bar Method):

Linear Shrinkage: 10.2 %

Volumetric Shrinkage: 27.6 %

SHRINKAGE / SWELL INDEX TESTS

Project:	SAU TECH ADDITIONS	Project No.:	13143
Location:	EAST CAMDEN, ARKANSAS	Date:	12/28/11
Sample No.:	B4;P3	Sample Depth:	5.0'-6.5'
Soil Description:	LIGHT BROWN AND GRAY CLAY	K PRC:	2.0

Liquid Limit:	40	Est. Specific Gravity:	2.67
Plastic Limit:	18	No. of Layers:	3
Plasticity Index:	22	No. Blows/Layer:	7

WATER CONTENT

	Before Test		After Test
Tare Number	F80	Tare Number	A10
Tare + Wet Soil	163.0 g	Tare + Wet Soil	168.0 g
Tare + Dry Soil	131.7 g	Tare + Dry Soil	143.2 g
Tare	11.6 g	Tare	51.5 g
Water Content	26.1 %	Water Content	27.0 %
Saturation	100.0 %	Saturation	100.0 %
Dry Density	99.6 pcf	Dry Density	99.2 pcf

VOID RATIO DETERMINATION

Vo	57.786 ccm	Vf	57.786 ccm
Wt of Soil + Ring	354.9 g	Wt of Soil + Ring	355.3 g
Wt of Ring	238.6 g	Wt of Ring	238.6 g
Moist Wt fo Soil	116.3 g	Moist Wt fo Soil	116.7 g
Vs	34.549 ccm	Vs	34.549 ccm
Eo	0.6726	Ef	0.6726

SWELL DATA

Time	Dial (* 0.0001)	Pressure	Void Ratio
0.00	0.00	0.0	0.7599
14.00	0.00	0.0	0.7599
33.00	0.00	0.0	0.7599
63.00	0.00	0.0	0.7599
123.00	0.00	0.0	0.7599

Final Dial Reading: 0.00

Swell Pressure: 0 PSF

Heave = 0.000 % = 0.0000 inches/foot

SHRINKAGE DATA

Linear Shrinkage (Bar Method):

Linear Shrinkage:	9.6 %
Volumetric Shrinkage:	26.1 %

52.222-5 Davis-Bacon Act—Secondary Site of the Work.

As prescribed in [22.407](#)(h), insert the following provision:

DAVIS-BACON ACT—SECONDARY SITE OF THE WORK (JULY 2005)

(a)(1) The offeror shall notify the Government if the offeror intends to perform work at any secondary site of the work, as defined in paragraph (a)(1)(ii) of the FAR clause at [52.222-6](#), Davis-Bacon Act, of this solicitation.

(2) If the offeror is unsure if a planned work site satisfies the criteria for a secondary site of the work, the offeror shall request a determination from the Contracting Officer.

(b)(1) If the wage determination provided by the Government for work at the primary site of the work is not applicable to the secondary site of the work, the offeror shall request a wage determination from the Contracting Officer.

(2) The due date for receipt of offers will not be extended as a result of an offeror's request for a wage determination for a secondary site of the work.

(End of provision)

52.222-6 Davis-Bacon Act.

As prescribed in [22.407](#)(a), insert the following clause:

DAVIS-BACON ACT (JULY 2005)

(a) Definition.—“Site of the work”—

(1) Means—

(i) *The primary site of the work.* The physical place or places where the construction called for in the contract will remain when work on it is completed; and

(ii) *The secondary site of the work, if any.* Any other site where a significant portion of the building or work is constructed, provided that such site is—

(A) Located in the United States; and

(B) Established specifically for the performance of the contract or project;

(2) Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided—

(i) They are dedicated exclusively, or nearly so, to performance of the contract or project; and

(ii) They are adjacent or virtually adjacent to the “primary site of the work” as defined in paragraph (a)(1)(i), or the “secondary site of the work” as defined in paragraph (a)(1)(ii) of this definition;

(3) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the “site of the work.” Such permanent, previously established facilities are not a part of the “site of the work” even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a contract.

(b)(1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the contract was performed at that site and shall be incorporated without any adjustment in contract price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.

(2) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

(3) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(4) The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the primary site of the work and the secondary site of the work, if any, in a prominent and accessible place where it can be easily seen by the workers.

(c)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:

The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to paragraphs (c)(2) and (c)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(d) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(e) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

52.222-7 Withholding of Funds.

As prescribed in [22.407\(a\)](#), insert the following clause:

WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other federally assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

52.222-8 Payrolls and Basic Records.

As prescribed in [22.407\(a\)](#), insert the following clause:

PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional [Form WH-347](#) (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the—

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify—

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional [Form WH-347](#) shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

52.222-9 Apprentices and Trainees.

As prescribed in [22.407\(a\)](#), insert the following clause:

APPRENTICES AND TRAINEES (JULY 2005)

(a) Apprentices.

(1) An apprentice will be permitted to work at less than the predetermined rate for the work performed when employed—

(i) Pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS) or with a State Apprenticeship Agency recognized by the OATELS; or

(ii) In the first 90 days of probationary employment as an apprentice in such an apprenticeship program, even though not individually registered in the program, if certified by the OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program.

(3) Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph (a)(1) of this clause, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

(5) Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(6) In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees.

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS). The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by OATELS.

(2) Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the OATELS shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.

(3) In the event OATELS withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) *Equal employment opportunity*. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

52.222-10 Compliance with Copeland Act Requirements.

As prescribed in [22.407](#)(a), insert the following clause:

COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

52.222-11 Subcontracts (Labor Standards).

As prescribed in [22.407\(a\)](#), insert the following clause:

SUBCONTRACTS (LABOR STANDARDS) (JULY 2005)

(a) *Definition.* “Construction, alteration or repair,” as used in this clause, means all types of work done by laborers and mechanics employed by the construction Contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation—

(1) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;

(2) Painting and decorating;

(3) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work;

(4) Transportation of materials and supplies between the site of the work within the meaning of paragraphs (a)(1)(i) and (ii) of the “site of the work” as defined in the FAR clause at [52.222-6](#), Davis-Bacon Act of this contract, and a facility which is dedicated to the construction of the building or work and is deemed part of the site of the work within the meaning of paragraph (2) of the “site of work” definition; and

(5) Transportation of portions of the building or work between a secondary site where a significant portion of the building or work is constructed, which is part of the “site of the work” definition in paragraph (a)(1)(ii) of the FAR clause at [52.222-6](#), Davis-Bacon Act, and the physical place or places where the building or work will remain (paragraph (a)(1)(i) of the FAR clause at [52.222-6](#), in the “site of the work” definition).

(b) The Contractor shall insert in any subcontracts for construction, alterations and repairs within the United States the clauses entitled—

(1) Davis-Bacon Act;

(2) Contract Work Hours and Safety Standards Act—Overtime Compensation (if the clause is included in this contract);

(3) Apprentices and Trainees;

(4) Payrolls and Basic Records;

(5) Compliance with Copeland Act Requirements;

(6) Withholding of Funds;

(7) Subcontracts (Labor Standards);

(8) Contract Termination—Debarment;

(9) Disputes Concerning Labor Standards;

(10) Compliance with Davis-Bacon and Related Act Regulations; and

(11) Certification of Eligibility.

(c) The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor performing construction within the United States with all the contract clauses cited in paragraph (b).

(d)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed [Standard Form \(SF\) 1413](#), Statement and Acknowledgment, for each subcontract for construction within the United States, including the subcontractor’s signed and dated acknowledgment that the clauses set forth in paragraph (b) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed [SF 1413](#) for such additional subcontract.

(e) The Contractor shall insert the substance of this clause, including this paragraph (e) in all subcontracts for construction within the United States.

(End of clause)

52.222-12 Contract Termination—Debarment.

As prescribed in [22.407](#)(a), insert the following clause:

CONTRACT TERMINATION—DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act—Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

52.222-13 Compliance with Davis-Bacon and Related Act Regulations.

As prescribed in [22.407](#)(a), insert the following clause:

COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

52.222-14 Disputes Concerning Labor Standards.

As prescribed in [22.407](#)(a), insert the following clause:

DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 Certification of Eligibility.

As prescribed in [22.407](#)(a), insert the following clause:

CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, [18 U.S.C. 1001](#).

(End of clause)

"General Decision Number: AR20260020 05/18/2026"

State: Arkansas

Construction Types: Building

Counties: Arkansas Counties of
 Calhoun, Clark, Columbia, Dallas,
 Hempstead, Howard, Lafayette,
 Montgomery, Ouachita, Pike and Sevier

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

CARP0216-003 07/01/2024

	Rates	Fringes
MILLWRIGHT.....	\$ 34.02	11.88

ENGI0624-006 01/01/2024

	Rates	Fringes
POWER EQUIPMENT OPERATOR: FORKLIFT.....	\$ 33.25	15.00
POWER EQUIPMENT OPERATOR: CRANE.....	\$ 34.25	15.00

IRON0321-010 08/01/2024

	Rates	Fringes
IRONWORKER, STRUCTURAL.....	\$ 28.00	21.21

PAIN0424-008 07/01/2021

	Rates	Fringes
PAINTER (SPRAY).....	\$ 16.25	10.42

SUAR2015-017 01/09/2017

	Rates	Fringes
TRUCK DRIVER: DUMP TRUCK.....	\$ 15.00	0.00
SHEET METAL WORKER (HVAC DUCT INSTALLATION ONLY)....	\$ 20.06	6.75
PLUMBER.....	\$ 24.42	4.86
PAINTER (BRUSH AND ROLLER).....	\$ 17.02	6.42
OPERATOR: BULLDOZER.....	\$ 18.13	0.00
OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE.....	\$ 23.95	0.00
LABORER: MASON TENDER - BRICK.....	\$ 12.88	0.00
LABORER: COMMON OR GENERAL.....	\$ 12.84	0.00
ELECTRICIAN.....	\$ 21.21	5.74
DRYWALL HANGER.....	\$ 16.19	0.00
CEMENT MASON/CONCRETE FINISHER.....	\$ 19.14	0.00
CARPENTER, EXCLUDES DRYWALL HANGING.....	\$ 16.03	0.00
BRICKLAYER.....	\$ 19.18	1.60

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than **◆SU◆**, **◆UAVG◆**, **◆SA◆**, or **◆SC◆** denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE:

UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The **◆SU◆** identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

◆SU◆ wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The **◆SA◆** identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the **◆SA◆** identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter

- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

- 2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

- 3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

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SUMMARY OF WORK

PART ONE - GENERAL

1.1 WORK COVERED BY THE CONTRACT DOCUMENTS

A. The work generally consists of:

1. New asphalt installation, curb and gutter work in AETA's student parking lot located at 6287 Spellman Road, East Camden, Arkansas 71701.

1.2 LAYOUT OF NEW WORK

- A. The General Contractor shall be responsible for correct layout of all proposed improvements in accordance with the Drawings. He shall establish grades and elevations called for on the Drawings.

1.3 COORDINATION OF WORK

- A. At no time shall the construction under this contract interfere with the normal operation of school activities nor in any way shall materials or equipment used in this work be allowed to block or interfere with school traffic.
- B. Debris shall be removed at the end of each working day.

1.4 CONTINGENCY ALLOWANCE

- A. The Contractor shall include in the bid a contingency amount of \$10,000. This contingency shall be used only upon written approval from the Architect. Any difference in cost above or below this amount shall be adjusted by change order. Overhead and profit shall not be allowed if use of the contingency is necessary.

PART TWO – PRODUCTS

Not Used

PART THREE – EXECUTION

Not Used

END OF SECTION

PROJECT MEETINGS

PART ONE - GENERAL

1.1 PRECONSTRUCTION CONFERENCE

- A. Before the work order has been issued on the project by the Architect, a preconstruction conference shall be held on the job site with the following personnel; Architect's representative, General Contractor, Superintendent (who will be on the job at all times) and, if he so desires, the Owner. This meeting is designed for a two-fold purpose: To clarify any questions about the plans and specifications and the transfer of ideas as to what the Architect will expect for all trades and subcontractors.
- B. The purpose being as follows: Distribution by Prime Contractor of following:
 - 1. List of subcontractors, including addresses, telephone numbers and person to contact (to be used also as a Job Directory).
 - 2. Tentative Progress Schedule prepared in accordance with the following provisions:
 - a. Schedule and regulate all construction activities. The schedule shall indicate start and finish dates for activities, submittal and delivery dates for major materials and equipment, and final completion date.
 - b. Prepare tentative Progress Schedule for preview at initial progress meeting, final schedule being prepared shortly thereafter.
 - c. Discussion of following:
 - 1) General over-all progress based on tentative Progress Schedule as presented by Prime Contractor.
 - 2) Shop Drawing submission procedure as presented by Architect-Engineer.
 - 3) Change Order processing procedure as presented by Architect-Engineer.
 - 4) Pay request submission procedure as presented by Architect-Engineer.
 - 5) Clarification of Architect-Engineer and Contractor personnel, duties, functions and responsibilities.
 - d. A pre-work conference shall be required between the Architect's representative, job superintendent and major trades subcontractor before their phase of work begins.

1.2 PROGRESS MEETINGS

- A. General Contractor, major subs and all trades on job at the time shall attend bi-monthly (twice a month) progress meetings upon request of the Architect.
- B. Architect reserves the right to initiate additional meetings between above parties as he deems necessary.

PART TWO – PRODUCTS

Not Used.

PART THREE – EXECUTION

Not Used.

END OF SECTION

SHOP DRAWINGS, PRODUCT
DATA & SAMPLES

PART ONE - GENERAL

1.1.1 Work included:

1.1.1.1 Wherever possible throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined by manufacturer's name and catalog number, reference to recognized industry and government standards, or description of required attributes and performance.

1.1.1.2 To ensure that the specified products are furnished and installed in accordance with design intent, procedures have been established for advance submittal of design data and for their review by the Architect. All required submittals, shop drawings, product data, and samples shall be submitted within four (4) weeks after construction contracts have been signed.

1.1.1.3 Make all submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements.

1.1.1.4 Material Safety Data Sheets (MSDS) shall not be submitted as part of the submittal package. They are not a requirement of the Contract Documents.

1.1.2 Related work described elsewhere: Individual requirements for submittals are described in pertinent other Sections of these Specifications.

1.2 QUALITY ASSURANCE

1.2.1 Coordination of submittals: Prior to each submittal, carefully review and coordinate all aspects of each item being submitted and verify that each item and the submittal for it conforms in all respects with the requirements of the Contract Documents. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed. Any Shop Drawing submitted to the Architect that has not been checked thoroughly, stamped and signed by the Contractor will be rejected.

1.2.2 Progress schedule: Designate in the Progress Schedule, or in a separate coordinated schedule, the dates for submission and the dates that reviewed Shop Drawings, Product Data, and Samples will be needed.

1.3 SHOP DRAWINGS – ELECTRONIC SUBMITTAL PROCEDURES

1.3.1 Summary:

1. Shop drawings and product data submittals shall be transmitted to Architect in electronic (PDF) format via Architect's SharePoint Portal (sp.laeprojects.com).
2. The use of Procore for transmitting shop drawings and product data submittals shall be allowed as long as LAE is given administration privileges to modify work flow.
3. Details shall be identified by reference to sheet and detail, schedules, or room numbers shown on the Contract Drawings.
4. The intent of electronic submittals is to expedite the construction process by reducing paperwork, improving information flow, and decreasing turnaround time.

5. The electronic submittal process is not intended for color samples, color charts, or physical material samples.
6. Shop Drawings shall be present in a clear and thorough manner.

1.3.2 Requirements:

1. All participants in electronic documentation process will be required to have internet access.
2. Necessary software Adobe Acrobat (www.adobe.com) or Blubeam PDF Revu (www.blubeam.com) to produce, view, apply comments and save to PDF files. A PDF reader only will not be adequate.

1.4 PRODUCT DATA

1.4.1 Preparation:

1. Provide cover page with project name and contractor name(s).
2. Include "Table of Contents" if multiple items are included in submittal.
3. Clearly mark each copy to identify pertinent products or models.
4. Show performance characteristics and capacities.
5. Show dimensions and clearances required.
6. Show wiring or piping diagrams and controls.
7. Include special installation instructions.

1.4.2 Manufacturer's standard schematic drawings and diagrams:

1. Modify drawings and diagrams to delete information which is not applicable to the Work.
2. Supplement standard information to provide information specifically applicable to the Work.

1.4.3 Submission:

1. Contractor shall request access to Architect's SharePoint Portal (sp.laeprojects.com).
2. Submittal Preparation - Contractor may use any or all of the following options:
 - a. Subcontractors and Suppliers provide electronic (PDF) submittals to Contractor through means provided by and required by Contractor.
 - b. Subcontractors and Suppliers provide paper submittals to General Contractor who electronically scans and converts to PDF format.
3. Contractor shall review and apply electronic stamp certifying that the submittal complies with the requirements of the Contract Documents including verification of manufacturer / product, dimensions and coordination of information with other parts of the work.
4. Contractor shall transmit each submittal to Architect using the Architect's SharePoint Portal (sp.laeprojects.com) or Procore (with administration privileges to modify work flow).
5. At discretion of Architect's Reviewer, paper copies can be requested upon receipt of electronic submittal in order to assist in review. Request will be made through email. Contractor will provide the number of paper copies requested.
6. Architect / Engineer review comments will be made available on the Architect's SharePoint Portal for downloading. Contractor will receive email notice of completed review.
7. Distribution of reviewed submittals to subcontractors and suppliers is the responsibility of the Contractor.

1.5 SAMPLES

1.5.1 Samples shall be of sufficient size and quantity to clearly illustrate:

1. Functional characteristics of the product, with integrally related parts and attachment devices.
2. Full range of color, texture and pattern.
3. Workmanship when applicable.

1.5.2 Field samples and mock-up:

1. Erect at the project site at a location acceptable to the Architect.
2. Size or area: That specified in the respective specification section.
3. Fabricate each sample and mock-up complete and finished.
4. Remove mock-ups at conclusion of the Work or when acceptable to the Architect.

1.6 NOTIFICATION

1.6.1 Notify the Architect in writing, at the time of submission, of any deviations in the submittals from requirements of the Contract Documents.

1.6.2 Notify the Architect in writing, at the time of resubmission, of changes made on re-submittals other than those previously requested by the Architect.

PART TWO – PRODUCTS

Not Used.

PART THREE – EXECUTION

Not Used.

END OF SECTION

TESTING LABORATORY
SERVICES

PART ONE – GENERAL

1.1 WORK INCLUDED

- A. The Owner will employ and pay for the services of an independent testing laboratory to perform specified testing, except where designated otherwise in the Specification Sections.
 - 1. Contractor shall cooperate with the laboratory to facilitate the execution of the required services.
 - 2. Employment of the laboratory by the Owner shall in no way relieve the Contractor's obligations to perform the Work of the Contract.
- B. The Owner will pay for all initial services of the testing agency. Similar services required of the Contractor, as outlined in 3.4 - Contractor's Responsibilities, shall be born by the Contractor.
- C. Testing laboratory curing and testing is required for cast-in-place concrete. See Section 03 31 00 - Concrete.

1.2 RELATED WORK

- A. Related requirements in other parts of the Project Manual:
 - 1. Inspections and testing required by laws, ordinances, rules, regulations, orders or approvals of public authorities: General Conditions of the Contract.
- B. Related requirements specified in other sections:
 - 1. Certification of products: The respective sections of Specifications.
 - 2. Test, adjust and balance of equipment: The respective Sections of Specifications.
 - 3. Laboratory tests required, and standards for testing: Each specification section listed.

1.3 QUALITY ASSURANCE

- A. The testing laboratory employed by the Owner will meet "Recommended Requirements for Independent Laboratory Qualification" published by the American Council of Independent Laboratories.
- B. In its work on this project, the testing laboratory will be required to meet the basic requirements of ASTM E329, "Standards of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel as Used in Construction".

1.4 SUBMITTALS

- A. Submit a written report of each test and inspection to the following:
 - 1. Architect
 - 2. Contractor
 - 3. Project Record file at job site

PART TWO - PRODUCTS

Not used.

PART THREE - EXECUTION

3.1 DUTIES OF TESTING LABORATORY

- A. Cooperate with Architect and Contractor; provide qualified personnel after due notice.
- B. Perform specified inspections, sampling and testing of materials and methods of construction:
 - 1. Comply with specified standards.
 - 2. Ascertain compliance of materials with Requirements of the Contract Documents.
- C. Promptly notify Architect and Contractor of observed irregularities or deficiencies of work or products.
- D. Promptly submit copies of the written report of each test and inspection as required in Article 1.4 above.

3.2 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. The testing laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on the requirements of the Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

3.3 FIELD WORK BY TESTING LABORATORY

- A. The testing laboratory personnel shall supply field services under the following limitations:
 - 1. There will be no laboratory field services provided for concrete work. Under the requirements of the concrete work, the General Contractor shall secure and deliver all samples for testing and the lab shall perform laboratory tests only.
 - 2. Samples of proposed fill material shall be secured by the contractor's personnel and delivered to the laboratory for testing. (See 3.4.2 below.)
 - 3. Laboratory field work is acceptable for the taking of compaction readings. The general contractor shall coordinate the tests, to be certain compacted soil is ready for testing so as to avoid unnecessary re-tests.

3.4 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel and provide access to the Work and to Manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing. The cost of securing and delivery to the laboratory shall be born by the Contractor.
- C. Provide to the laboratory the proposed design mix to be used for concrete and other material mixes which require control by the testing laboratory.
- D. Furnish copies of products test reports as required.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to the Work to be tested.
 - 2. To obtain and handle samples at the project site or at the source of the product to be tested.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test specimens.
- F. Notify the laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
- G. Provide all required time within the construction schedule for the testing laboratory to perform its tests and to issue each of its tests and to issue each of its findings.
- H. Provide at the site three extra standard test cylinder molds for emergency use.

END OF SECTION

TEMPORARY FACILITIES
AND CONTROLS

PART ONE – GENERAL

1.1 DESCRIPTION

- A. Work included: Temporary facilities and controls required for this Work include, but are not necessarily limited to:
 - 1. Field Offices and sheds.
 - 2. Sanitary facilities.
 - 3. Enclosures such as tarpaulins, barricades, and canopies.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with Federal, State and local codes and regulations.

1.3 TEMPORARY SANITARY FACILITIES

- A. Provide temporary sanitary facilities in the quantity required, for use of all personnel. Maintain in a sanitary condition at all times.
- B. Service, clean, and maintain facilities and enclosures.

1.4 REMOVAL

- A. Completely remove temporary facilities and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.

1.5 FIELD OFFICES AND SHEDS

- A. Provide a field office building and sheds adequate in size and accommodation for all Contractor's offices, supply and storage.
- B. The entire facility, including furniture, will remain the property of the Contractor and shall be removed from the site after completion of the Work.

1.6 ENCLOSURES

- A. Furnish, install, and maintain for the duration of construction all required scaffolds, tarpaulin, barricades, canopies, warning signs, steps, bridges, platforms, and other temporary construction necessary for proper completion of the work in compliance with all safety and other regulations.

1.7 PROJECT SIGNS

- A. Provide 4' x 8' x 3/4" exterior grade plywood on two 8' x 4' x 4' treated wood posts. Paint sign as directed by Architect.
- B. Allow no signs or advertising of any kind on the job site except as specifically approved in advance by the Architect.

PART TWO – PRODUCTS

Not Used.

PART THREE - EXECUTION

- 3.1 Maintain all temporary facilities and controls as long as needed for the safe and proper completion of the Work. Remove all such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Architect.

END OF SECTION

CONTRACT CLOSEOUT

PART ONE - GENERAL

1.1 PRODUCT CLOSEOUT

- A. Upon completion of the project, the Contractor shall remove all temporary structures and facilities from the site, and leave the premises in the condition required by the Construction Documents. The Contractor shall notify the Architect, in writing, as to the date when, in his opinion all or a designated portion of the work will be substantially completed and ready for final observation and the punch list to be performed. If the Architect determines that the state of preparedness is as represented, the punch list will promptly be started.
- B. The Architect will give written copies of the Punch List to the Contractor of observed defects. The Contractor shall promptly remedy any defects due to noncompliance of Construction Documents, faulty materials, or workmanship and pay for any damage to other work resulting therefrom.

1.2 FINAL OBSERVATION

- A. When defects are remedied as acceptable and upon receipt of punch list with each item initialed and dated acknowledging same, Architect shall arrange for final observation with the Owner, General Contractor and the Architect. Should Architect/Engineer perform additional observations due to failure of work not complying with the claims of status of completion made by the Contractor, the Architect/Engineer will be compensated for such additional observations by the Contractor. The amount of compensation due to the Architect/Engineer shall be deducted from the final payment to the Contractor.

1.3 PAPER WORK

- A. Final payment of the retainage will be withheld until the following documents are delivered to the Architect on a USB flash drive or by link or other electronic method of transferring the files and a printed copy of the as-built drawings as stated in item 3. Files to be organized and clearly labeled. Large files containing multiple documents are to include an index and page numbers indicating location of various sections or documents.
 - 1. Submittals / Shop Drawings:
An approved copy of each submittal, manufacturer's brochures, test data, etc., submitted to the Architect for approval during the course of construction shall be included. File names to be 60 characters or less. Longer file names will not be accepted due to issues caused with transferring and opening files.
 - 2. Record Documents / As-Built Drawings:
Provide, as described in Section 01 78 39, a printed copy of the project record documents, with all dimensions of utility locations, variances from original drawings, etc., clearly documented in red. Each plan sheet to be included, regardless of whether changes were made to that work or not.
 - 3. Project Directory: Complete listing of all subcontractors, mechanics, and material suppliers involved in the work under this contract.

4. Warranties: Submit signed and notarized copies of all manufacturers, mechanics, contractors or supplier warranties required by the contract documents, including General Contractor's one (1) year warranty. Form and wording of guarantees must be as specified and/or as submitted by the Contractor and approved by the Architect prior to bidding.
5. Lien Waivers: Submit signed and *notarized* lien waivers from all subcontractors, mechanics, and material suppliers involved in the work of this contract. *No partial lien waivers shall be accepted.* Lien Waiver form to be as supplied by the Architect.
6. AIA Forms:
 - 1) AIA Document G706 - Contractor's Affidavit of Payment of Debts And Claims *General Contractor to generate & complete*
 - 2) AIA Document G706A - Contractor's Affidavit of Release of Liens *General Contractor to generate & complete*
 - 3) AIA Document G707 - Consent of Surety Company to Final Payment *General Contractor to generate & complete*
 - 4) AIA Document G704* - Certificate of Substantial Completion
**Architect to generate (Signed by Owner, Architect, and Contractor)*

AIA Forms can be obtained on-line at
www.aiacontracts.com

PART TWO – PRODUCTS

Not Used.

PART THREE – EXECUTION

Not Used.

END OF SECTION

PROJECT RECORD
DOCUMENTS

PART ONE - GENERAL

1.1 DESCRIPTION

- A. Reference: Applicable provisions of the General and Supplementary Conditions and Division 1, General Requirements, govern all work of this Section.

1.2 WORK

- A. Maintain at the site for the Owner one record copy of:
 - 1. Drawings, Specifications, Addenda, Change Orders, and other modifications to the Contract.
 - 2. Approved Shop Drawings, and Product Data.
 - 3. Field Test Records.
- B. Record actual construction on drawings at the job site. Provide the job site set of drawings with close-out documents as required and one (1) photo copied set to the Architect.

1.3 RELATED REQUIREMENTS

- A. Submittals - Section 01 33 23
- B. Conditions of the Contract

1.4 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Maintain documents in a secure, clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- B. Make documents available at all times for inspection by Architect.

1.5 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters with felt tip marking pen.
- B. Record information concurrently with construction progress.
 - 1. Do not conceal any work until required information is recorded.
- C. Legibly mark drawings to record actual construction:
 - 1. Field changes of dimension and detail.
 - 2. Changes made by Field Order or by Change Order.
 - 3. Details not on original contract drawings.

1.6 SUBMITTAL

At Contract Close-out, Record Documents shall be included on the two (2) USB flash drives as requested in Section 01 77 19 - Contract Closeout.

PART TWO – PRODUCTS

Not Used

PART THREE – EXECUTION

Not Used

END OF SECTION

DEMOLITION

PART ONE - GENERAL

1.1 DESCRIPTION

- A. Provide all demolition work required to perform the work shown on the Drawings, specified herein and as required for a complete and proper installation.

1.2 INSPECTION

- A. Prior to bidding, the Contractor shall visit the job site and determine demolition requirements for the completion of construction. No extra compensation shall be granted for work which the Contractor could have foreseen by close, conscientious investigation of the site. Unforeseen conditions discovered after conscientious investigations shall be immediately brought to the attention of the Architect. Work resulting from such unforeseen conditions shall be performed as directed by the Architect as per the General Conditions of the contract for construction.

PART TWO - PRODUCTS

2.1 DESCRIPTION

- A. Provide all materials, labor, equipment and related items necessary to complete the work indicated on drawings and/or specified.

PART THREE - EXECUTION

3.1 DEMOLITION

- A. Complete demolition as indicated on the drawings and as required to complete alterations. Inspect all areas of proposed demolition to accurately determine the locations and extent of demolition required. Provide protection against damage to existing appurtenances which are to remain.
- B. Take accurate field measurements in locating areas to be demolished. Coordinate demolition work with work of other trades. Provide adjustments in the work as necessary to assure proper installation of new materials in connection with demolitions.

3.2 CUTTING AND PATCHING

- A. Execute cutting, fitting or patching of work required to make several parts fit properly, uncover work to provide installation of new work or to remove and replace defective work for Contract Documents conformance.
- B. Inspect existing conditions of work including elements subject to movement or damage during demolition and cutting and patching. After uncovered work, inspect conditions affecting installation of new products and existing material to be reinstalled. Do not endanger existing building by cutting except as shown on drawings.

- C. Prior to cutting provide: Shoring, bracing and support as required to maintain structural integrity of Project, protection for other portions of Project, and protection from elements.
- D. Restore work which has been cut or removed and install new products to provide completed work in accord with requirements of Contract Documents.

END OF SECTION

CONCRETE

PART ONE - GENERAL

1.1 GENERAL

- A. Work Included: This section covers all cast-in-place, reinforced and non-reinforced concrete construction as shown and specified.

1.2 REFERENCE STANDARDS

- B. ACI 318 "Building Code Requirements for Reinforced Concrete".
- C. Concrete Reinforcing Steel Institute, "Manual of Standard Practice".

1.3 DELIVERY, STORAGE AND HANDLING OF MATERIALS

- A. All materials shall be so delivered, stored and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Package materials shall be delivered and stored in original packages until ready for use. Packages or materials showing evidence of water or other damage shall be rejected. All materials shall be of the respective quantities specified herein. Frozen or partially frozen aggregates shall not be used.

1.4 SUBMITTALS

- A. The contractor shall submit one hard copy (not to be returned) and one electronic copy in PDF format as per section 01 33 23, through an approved testing laboratory, the proposed concrete mix to be used to the architect for approval. The proposed concrete mix must be proved by 3 cylinder tests in accordance with ASTM C-31. The owner shall pay for all design mixes and cylinder tests.
- B. Reinforcing steel fabricator shall submit one hard copy (not to be returned) and one electronic copy in PDF format as per section 01 33 23 of detailed shop drawings for approval by the Architect on reinforcing bars and anchor bolts seating plans before fabrication or shipment.

PART TWO - PRODUCTS

- 2.1 CONCRETE: Concrete for interior slabs and footings shall have a 28-day minimum compressive strength of 3000 psi. Maximum water-cement ratio - .53 by weight. Exterior concrete shall have a 28 day minimum compressive strength of 4000 psi w/air entrainment of 6% $\pm$ 1%. Maximum water-cement ratio - .50 by weight. No other admixtures shall be used without approval of Architect.

- A. Portland cement shall conform to ASTM C-150, Type I.
- B. Water shall be potable.
- C. Aggregate shall conform to ASTM C-33.

2.2 REINFORCING STEEL

- A. Deformed bars shall conform to ASTM A615, Grade 60.
- B. Welded wire fabric shall conform to ASTM A-185. Provide 6 x 6 W1.4 x W1.4 in all floor slabs unless noted otherwise.

2.3 CONSTRUCTION JOINTS OR CONTROL JOINT: Provide 24 gage galvanized preformed steel screed keys as manufactured by Dayton Superior or approved equal. Provide steel stakes and splice plates as required by manufacturer.

2.4 Premolded expansion joint material shall be asphalt impregnated expansion joint material to meet ASTM specification D-1751-73. Expansion joint material shall have a “zip strip” or “tear tab” for ease in installation of backer rod and sealant.

PART THREE - EXECUTION

3.1 FORMS AND SCREEDS

- A. Form shall be so constructed that the finished concrete will conform to the shapes, lines, grades, and dimensions indicated on the drawings.
- B. Set all screeds with instrument. Wet screeds are unacceptable.

3.2 PLACING REINFORCEMENT

- A. Reinforcing shall be unpainted and uncoated, free from rust or scale and shall be cleaned and straightened before being shaped and put into position.
- B. Reinforcing shall be accurately positioned and securely tied.

3.3 CONCRETE MIXING

- A. Concrete shall be Ready-Mix in accordance with ASTM C-94.

3.4 CONCRETE PLACING

- A. Notify Architect 36 hours prior to placing to permit inspection of forms and reinforcing.
- B. Concrete shall be handled from the mixer to the forms as rapidly as possible by methods which shall prevent the separation of ingredients.
- C. Consolidate concrete as required.

3.5 CURING

- A. The slabs shall be moisture cured by ponding, continuous sprinkling and application of absorptive mats or 1 1/2 inch of sand kept continuously wet. Whichever method used, the slabs shall be kept continuously wet for 7 days.

3.6 FINISHES: Interior slabs shall receive a steel trowel finish typically. Exterior slabs shall receive a light broomed finish over a steel trowel finish.

A. Apply floor hardener to interior slabs in accordance with manufacturer's recommendations.

3.7 TESTING

A. Samples and tests of the concrete shall be made by an approved independent testing and inspection laboratory. At Contractor's expense, a certified ACI technician shall take test cylinders at the job site. All other test shall be at paid for by the owner unless noted otherwise. Not less than one test for 40 cu. yd. of concrete, or fraction thereof, will be required, and in any event not less than one test for each day's pour. Not less than four specimens will be made for each test. Specimens shall be made and cured in accordance with current ASTM Specifications C-39 and C-31. A slump test shall be made for each set of test cylinders.

B. Test cylinders shall be made in accordance with ASTM C-31, latest edition. Test one cylinder at 7 days, one at 14 days and two at 28 days. Test cylinders shall be cast on the project site and cured under conditions approaching that of concrete poured on job as nearly as possible. If average strength of test cylinders falls below strength called for, the Architect shall have the right to order removal and replacement of any defective concrete at the contractor's expense.

END OF SECTION

GRADING

PART ONE - GENERAL

1.1 WORK INCLUDED

- A. Stripping and stockpiling surface layer of topsoil and organic matter in building and traffic areas and in all cut and fill areas.
- B. Removing and disposing of boulders, fractured rock, and other material unsuitable for use in fill under structures (controlled fill).
- C. Excavating site to required subgrade for controlled fill and traffic areas and grading site to required slopes.
- D. Placing and compacting excavated material to required density and at required subgrade and slope for structures, pavement areas, and fill slopes.

1.2 RELATED WORK

- A. Testing Laboratory Services Section 01 45 29

1.3 QUALITY ASSURANCE

A. Testing agency:

- 1. Soil classification tests on material for controlled fill to be performed by testing laboratory selected by the Architect.
- 2. In-place soil compaction tests to be performed by testing laboratory at locations selected by the Architect.
- 3. Refer to section 01 45 29 - Testing Laboratory Services for details of testing procedures.

B. Reference Standards:

- 1. American Society for Testing and Materials (ASTM):
 - a. ASTM D2487-69 (175), Classification of Soils for Engineering Purposes.
 - b. ASTM D-1557 Modified Compaction Procedures.
 - c. ASTM D 1556-64 (1974) Method of Test for Density of Soil in Place by the Sand-cone Method.
 - d. ASTM D 2167-66 (1977), Method of Test for Density of Soil in Place by the Rubber Balloon Method.
 - e. ASTM D 2922-71, Methods for Determining the Density of Soil and Soil-aggregate by Nuclear Methods (shallow depth).

1.4 SUBMITTALS

- A. Have the testing laboratory submit reports that material for controlled fill meets the requirements of this Section:
 - 1. On site excavated material.
 - 2. Borrow material.
- B. Have testing laboratory submit reports of density tests of controlled fill.

1.5 SITE CONDITIONS

- A. Establish positive surface drainage during and following clearing and site grading by proper ditching or sloping.
- B. Provide measures to prevent mud and silt from flowing onto adjacent property.
- C. Erect sheeting, shoring, and bracing as necessary for protection of persons, improvements, and excavation.

PART TWO - PRODUCTS

2.1 SUITABLE MATERIAL FOR CONTROLLED FILL

- A. On site excavated soils:
 - 1. Sandy or gravelly clays having a liquid limit less than 40.
 - 2. Unified Soils Classification System Soils:
 - a. Class SC, SW, SM
 - b. Class GC, GW, GM
 - c. Class CL (when approved by Soils Engineer).
 - 3. Overburden soils with low plasticity.
- B. Borrow Material:
 - 1. Material meeting the requirements of selected material as described in Section 210 of the Arkansas State Highway Department's Standard Specifications for Highway Construction, Edition of 2003.
 - 2. All borrow material shall be approved by the soils engineer prior to placement.

2.2 UNSUITABLE MATERIAL FOR CONTROLLED FILL

- A. All areas: Organic top soils and soils containing roots, vegetable matter, or trash.
- B. Building area:
 - 1. Cobbles, boulders, and fractured rock more than 6 inches in greatest dimension anywhere in the fill.
 - 2. Cobbles and fractured rock more than 3 inches in greatest dimension within 12 inches of the finished subgrade.

C. Paving area:

1. Cobbles, boulders, and fractured rock more than 8 inches in greatest dimension anywhere under the paving area.
2. Cobbles and fractured rock more than 4 inches in greatest dimension within 12 inches of the finished subgrade.

2.3 SUITABLE MATERIAL FOR CLEAN SAND OR GRAVEL UNDER SLABS (DRAINAGE FILL)

A. All materials clean free of shale, clay, friable materials and debris.

1. Gravel: Clean natural stone, free of organic material. Maximum size 1/2".
2. Sand: Clean natural river or bank sand, free of organic material.

PART THREE - EXECUTION

3.1 PREPARATION

A. Complete clearing work:

1. Remove unsuitable materials from the site before beginning site grading.

B.. Stake the work: By the Contractor.

C. Notify Architect 24 hours before controlled fill is to begin.

3.2 EXCAVATION

A. Excavation procedures:

1. Strip surface layer of top soil, organic matter, and any remaining trash in cut and fill areas of the site and stockpile for later use in landscaping operations.
 - a. Removed material containing unacceptable quantities of trash or rock in the mixture shall be disposed of off the site or may be spread in thin layers in the outpart of fill slopes outside of controlled fill areas.
2. Remove soft or spongy material at the exposed subgrade of cut and fill areas and replace with approved material and compact.
3. Remove rock and boulders in cut areas to a minimum depth of 8 inches below subgrade and replace with approved material and compact.
4. Use all suitable excavated material, as far as practicable, in the formation of controlled fills and fill slopes.
5. Material determined by the Soils Engineer to be unsuitable for proper compaction may be placed in the fill slopes outside controlled fill areas.
6. Excavated boulders and rock determined by the Soils Engineer to be too large for use in fill slopes shall be disposed of off the site.
7. Do not leave undrained pockets where boulders or rocks have been removed.
8. Keep all excavation dry by pumping or draining water from the Work.
9. In cut areas where fill is not required, scarify exposed subgrade soils to a depth of at least 8 inches, adjust the soil moisture, and recompact to the same density as required for each layer of controlled fill; or, proof-roll the areas with a loaded tandem axle dump truck or similar equipment to aid in identifying soft areas.

10. Grade excavated slopes to a neat, smooth condition with no loose material or scars left on the surface.
11. Refer to the geotechnical investigation for further information regarding excavation, site preparation, fill placement, etc.

3.3 CONTROLLED FILL

- A. Scarify cleared surfaces in fill areas to a depth of at least 8 inches, adjust the soil moisture, and re-compact to the same density as required for each layer of controlled fill; or proof-roll as described in sub-paragraph 9 of Article 3.2.1.
- B. Fill placed on hillsides:
 1. Bench continuously as the work is brought up in layers.
 2. Begin each horizontal cut at the intersection of the original ground and the vertical sides of the previous cuts.
 3. Re-compact the cut-out material along with the new fill material.
- C. Place fill material in lifts no greater than 8 inch loose-lift uniform thickness and compact to a minimum of 95% of maximum dry density at or near optimum moisture content as determined by the Modified Compaction Procedures, ASTM D-1557.
 1. Compact lifts containing low plasticity clay soils at 2% to 4% above optimum moisture content.
 2. Add water when the soil is too dry and mix with the material before compacting.
 3. Aerate material when too wet by manipulation with suitable equipment before compacting.
- D. Each fill lift will be tested and approved for adequate density and proper moisture content before additional lifts shall be placed.
- E. Grade fill slopes to a neat, smooth condition with no loose material, protruding rock, or scars left on the surface.

3.4 FIELD QUALITY CONTROL

- A. In-place tests of density and moisture content of controlled fill in accordance with either ASTM D1556-64 (1974), ASTM D2167-66 (1977), or ASTM D2922-71 (1976) by testing laboratory.
- B. Soil Classification of fill material and placement location of each type to be determined by Soils Engineer.
- C. Provide a minimum of 2 tests of density and moisture content per lift.

END OF SECTION

EROSION AND
SEDIMENTATION CONTROL

PART ONE – GENERAL

1.1 DESCRIPTION

- A. All new slopes and disturbed areas shall be treated for erosion control in accordance with these specifications including silt fencing and placement of hay bales. Contractor will provide a Storm Water Pollution Prevention Plan (SWPPP) and permit complying with all Arkansas Department of Environmental Quality Standards.

1.2 RELATED SECTIONS

- A. Grading Section 31 22 00

1.3 REFERENCES

- A. United States Environmental Protection Agency (EPA):
 - 1. NPDES – National Pollutant Discharge Elimination System
- B. Arkansas Highway & Transportation Department (AHTD):
 - 1. AHTD – Arkansas Highway & Transportation Department Standard Specifications for Highway Construction.
- C. Arkansas Department of Environmental Quality (ADEQ):
 - 1. ADEQ – Arkansas Department of Environmental Quality requirements.

1.4 QUALITY ASSURANCE

- A. Perform work in accordance with the following ADEQ standards:
 - 1. Section 220 – Temporary Erosion, Sedimentation and Stormwater Pollution Prevention and Control.
 - 2. Section 223 – Temporary Silt Fence.
 - 3. Section 224 – Temporary Sediment Control Filters.
 - 4. Section 226 – Temporary Sediment Removal.
- B. Regulatory Requirements: Conform to requirements of local authority having jurisdiction for prevention of erosion and sediment control.
 - 1. Conform to NPDES requirements where required.

1.5 PROJECT CONDITIONS

- A. Protect adjacent properties and water resources from erosion and sediment damage throughout work. Take all necessary measures to prevent sedimentation from construction operations to enter adjacent property. Offsite discharge of sedimentation is not permitted.

PART TWO – PRODUCTS

2.1 MATERIALS

- A. Seeding: Bermuda Grass, common, unhulled, (March 1st through September 1st) broadcast at a rate of 30 pounds per acre. All other times, seed shall be Rye applied at the rate of 20 pounds per acre and unhulled Bermuda at 20 pounds per acre.
- B. Fertilizer: 10-20-10 spread at the rate of 400 pounds per acre.
- C. Fencing for Siltation Control: UV resistant geotextile fabric.
- D. Temporary Mulches: Loose straw, netting, wood cellulose, or agricultural silage free of seed. Mulch material with asphalt tack shall be spread as required to hold grass during establishment of turf.
- E. Bale Stakes:
 - 1. Minimum 3 feet length.
 - 2. (2) No. 4 steel reinforcing bars or
 - 3. (2) steel pickets or
 - 4. (2) 2 x 2 inch hardwood stakes driven 18 inches to 24 inches into ground.

PART THREE – EXECUTION

- 3.1 The Contractor shall produce a Storm Water Pollution Prevention Plan (SWPP) that meets the requirements set forth by the Arkansas Department of Environmental Quality.
- 3.2 The Contractor shall fill out inspection reports and log rainfall data as required by the SWPP.
- 3.3 The Contractor shall install all erosion control measures prior to commencing dirtwork activities on this site.
- 3.4 The Contractor shall immediately clean up any sediment that leaves this site.
- 3.5 The Contractor shall re-establish all disturbed areas in accordance with the SWPP.
- 3.6 The Contractor shall removal all erosion control measures once the site has been re-established.

END OF SECTION

ASPHALTIC PAVING

PART ONE - GENERAL

1.1 WORK INCLUDED

A. Project Description:

1. Prepare sub-grade to receive base course.
2. Place asphaltic concrete hot mix (ACHM) surface course.

1.2 RELATED WORK

A. Testing Laboratory Services Section 01 45 29

B. Grading Section 31 22 00

1.3 REFERENCE STANDARDS

A. Arkansas Highway and Transportation Dept. (AHTD).

B. American Society for Testing and Materials (ASTM).

1. ASTM D1557-70, Test for Moisture - Density Relationship of Soils using 10 lb. (4.5 kg) rammer in 18 inch (457 mm) drop.
2. ASTM D2922-78, Methods for Determining the Density of Soil and Soil Aggregate in Place by Nuclear Methods (shallow depth).
3. ASTM 3515-76, Specifications for Hot-Mixed, Hot- Laid, Bituminous Paving Mixtures.
4. ASTM D1074-76, Test for Compressive Strength of Bituminous Mixtures.

PART TWO - PRODUCTS

2.1 BASE COURSE MATERIALS

A. Crushed stone added to existing: SB-2, meeting the requirements of sub-section 303.02 of the AHTD Standard Specifications, or approved equal.

2.2 ASPHALT PAVEMENT MATERIALS

A. ACHM: Type 2 mix as described in Division 400 of the AHTD Standard Specifications.

B. The surface course shall be composed of a mixture of mineral aggregate and asphalt cement in the proportions by weight for the type mixture designated.

PART THREE - EXECUTION

3.1 PREPARATION

A. Sub-grade:

1. Ensure grading of the sub-grade to the required elevation.
2. Scarify to a depth of six inches the sub-grade where the base course is to be placed.
3. Water and thoroughly mix sub-grade where the base course is to be placed.
4. Water and thoroughly mix sub-grade until optimum moisture content exists. When excess of moisture exists, rework and aerate sub-grade until optimum moisture content is obtained.
5. Recompect the sub-grade to a minimum of 95% of the maximum dry density at or near the optimum moisture content as determined by ASTM D 1557.
6. Before final rolling, grade the entire area to the required cross section, adding additional sub-soil as required and compact the sub-grade surface to the required density.

3.2 PLACEMENT

A. Base Course:

1. Place the crushed stone base material over the prepared sub-grade in accordance with the construction methods described in sub-section 303 of the AHTD Standard Specifications. **COMPACTED THICKNESS AS SHOWN ON PLANS.**
2. Add water during compaction to bring the base course materials to optimum moisture content. When an excess moisture exists, rework the base course materials until optimum moisture content is obtained.
3. Compact the base course to 98% of the maximum dry density as determined by ASTM D 1557.

B. ACHM Surface Course:

1. Construction Methods: Division 400, AHTD Standard Specifications.
2. Temperature range of mix:
 - a. When discharged from mixer: 285 degrees F to 325 degrees F.
 - b. When placed on base course: 275 degrees F to 325 degrees F.
3. Temperature of air: Do not place ACHM when air temperature in the shade is below 40 degrees F.
4. Place asphalt pavement to **COMPACTED DEPTH AS SHOWN ON PLANS.**
5. Compact to required density, with approved rolling equipment. Start compaction as soon as pavement will bear equipment without checking or undue placement.
6. Required density: 92% of maximum theoretical density.
7. Carry out compaction in three operations in pass sequence. Ensure each pass of roller overlaps previous passes to ensure smooth surface free of roller marks. Keep roller wheels sufficiently moist so as not to pick up material.
8. Perform hand tamping in areas not accessible to rolling equipment.
9. Ensure joints made during paving operations and at connection to existing pavement are straight, clean vertical and free of broken or loose material. Prime vertical surfaces of joints to ensure tight bond.

10. Ensure surface of completed asphalt pavement is true to lines, profiles and elevations indicated, and is free from depressions exceeding 1/4 inch when measured with a 10 foot straight edge.
11. Do not allow vehicular traffic on newly paved areas until surface has cooled to atmospheric temperature.

3.3 FIELD QUALITY CONTROL

- A. Testing laboratory make in-place tests of density and moisture content of the sub-grade and the base course in accordance with ASTM D2922-78.
- B. Testing laboratory make density tests of compacted asphalt paving in accordance with ASTM D1074-76.
- C. Provide four inch wide white center line and parking bay markings as shown on the drawings.

END OF SECTION

