



PROJECT MANAGEMENT

**INFORMAL INVITATION TO BID REQUEST
24-25-44**

**SITE & FOUNDATION WORK FOR CLASS A BURN FACILITY
FIRE DEPARTMENT
CITY OF GREENVILLE
NORTH CAROLINA**

MANDATORY

**PRE-BID MEETING: THURSDAY, MAY 15, 2025 @ 2:00 PM
POLICE / FIRE RESCUE
500 S. GREENE ST., GREENVILLE, NC**

**BIDS DUE DATE: THURSDAY, MAY 29, 2025 @ 2:00 PM
PROJECT MANAGEMENT
2000 CEDAR LANE, GREENVILLE, NC 27834**

CONTACT PERSONS:

QUESTIONS REGARDING THE BID PACKAGE:

*Wanda House
Financial Services Manager
Telephone: (252) 329-4862
Email: whouse@greenvillenc.gov*

QUESTIONS REGARDING THE SPECIFICATIONS:

*Mr. Ross Peterson
Project Management
Telephone: (252) 329-4570
Email: rpeterson@greenvillenc.gov*

CITY OF GREENVILLE
ADVERTISEMENT FOR PROPOSALS
Site & Foundation Work for Class A Burn Facility
2910 E. Second St., Greenville, NC

The City of Greenville, NC is requesting bids for the "Site and Foundation Work for Class A Burn Facility" located at the 2910 E. Second St., Greenville, NC 27834. The scope of work shall include but is not limited to the removal of current earth, forming and pouring foundation footers, providing 57 stone and crusher run. An add alternate is being requested to add a fire hydrant by extending current fire hydrant to location of burn facility.

This is a turn-key project.

A mandatory pre-bid meeting and site visit will be held at the Police/Fire Rescue located at 500 S. Greene St., Greenville, NC on Thursday, May 15, 2025 @ 2:00 PM.

The person, firm or corporation making a proposal shall submit a bid to *Ross Peterson, Project Management*, on or before the hour and day of Thursday, May 29, 2025 by 2:00 pm. The preferred method of delivery of the bid is by email to rpeterson@greenvillenc.gov. The bid may also be mailed or hand delivered to the Jaycee Park Administrative office located at 2000 Cedar Lane, Greenville, N.C., 27834 and must be received prior to the submittal deadline time and date. Any method of submitting must state and shall have the words *Bid Enclosed, Site & Foundation Work for Class A Burn Facility Attn: Ross Peterson* along with the company name in the subject line or on the outside of the envelope.

Bids received after the deadline will not be opened. All bids will be marked with the date and time they are received by reception staff. Bids will NOT be opened and read aloud. Bids will be open and reviewed by city staff. A bid tabulation will be available on request once the contract is awarded to the successful bidder.

The bidder shall include the required responses and supply all the information as indicated on Attachment A, B, C, D, and E. The prices inserted shall be net and shall be the full cost including all factors whatsoever. Any bids not submitted on such forms provided will be considered non-responsive.

No bid may be changed or withdrawn after the time of the opening. Any modifications or withdrawals requested before this time shall be acceptable only when such a request in writing is made to *Ross Peterson, Project Management*.

The City of Greenville reserves the right to reject any or all bids, waive any informality and award contracts that appear to be in its best interest. The right is reserved to hold any or all proposals for a period of sixty (60) days from the bid opening thereof.

The scope of work attached represents the minimum specification or description of work to be purchased or contracted. These requirements are not intended to prevent fair responses or to eliminate competition, but they are intended for the protection of each and every proposer to ensure, if possible, that all bids submitted shall be upon a fair and comparable basis.

All work shall be FOB, Greenville, N.C.

From the date of this advertisement until the date of opening the proposals, the plans and specifications of the proposed work and/or a complete description of the apparatus, supplies, materials or equipment are and will continue to be on file in the office of the City of Greenville Purchasing Manager, 201 W. 5th Street, Greenville, NC 27834, during regular business hours, and available to prospective bidders. Inquiries should be directed to the Purchasing Manager at the above address --- Telephone (252) 329-4862. Minority/Women owned business are encouraged to submit proposals.

INSTRUCTIONS TO BIDDERS

**Proposal to Provide
Site & Foundation Work for Class A Burn Facility
2910 E. Second St., Greenville, NC**

- 1. Contractor is to provide verification to the City that the company's employees are covered under worker's compensation insurance coverage.**
- 2. All permits can be obtained through the City at no cost to the Contractor.**
- 3. It is expressly understood by the contractor offering a proposal after a written notice of award by the City, a purchase order will be required to be executed and will serve together with this proposal, these instructions, scope of work, and any detailed specifications as the entire form of contract between the parties except in cases where formal contracts are warranted.**
- 4. Each Contractor submitting a proposal is affirming that no official or employee of the City is directly or indirectly interested in this proposal for any reason of personal gain.**
- 5. Sales taxes may be listed on the proposal, but as a separate item. No charge will be allowed for Federal Excise and Transportation Tax from which the City is exempt.**
- 6. Questions regarding any procedure for submission of a proposal for the Site & Foundation Work for Class A Burn Facility shall be directed by email to Ross Peterson, Project Management, @ rpeterson@greenvillenc.gov. Questions shall be submitted by 5:00 PM, Tuesday, May 20, 2025. Answers will be provided in an addendum and email to those that signed in at the pre-bid by 5:00 PM, Thursday, May 22, 2025. If an addendum is provided it must be indicated by initialing on bid form. Addendums will be available on city web page.**
- 7. If the Contractor is unable to provide a proposal for any reason, please send an email with an explanation to rpeterson@greenvillenc.gov.**
- 8. By submitting a proposal for Site & Foundation Work for Class A Burn Facility, the Contractor attests that it is in compliance with all items listed in the bid/proposal instructions. Furthermore, the Contractor attests that the City of Greenville accepts no responsibility for any injuries to the firm's employees, while on City property performing their duties.**
- 9. Contractor shall comply with all local, state, and federal laws, as well as safety/regulatory requirements and ordinances associated with the work within this contract**
- 10. It is expected that work would begin and schedule once all material has been delivered and confirmed.**
- 11. No work will be performed at any time without proper supervision. Names and experience of supervisors shall be provided.**
- 12. Parking and staging areas for equipment and materials can be arranged on site during the pre-construction meeting conducted prior to the work starting.**
- 13. Work on this project will have to be performed so as to not disrupt Greenwood Cemetery daily operations.**
- 14. All work must be performed Monday – Friday from 7:00 AM to 5:00 PM. Weekends and other hours will have to be approved in advance.**

- 15. The Contractor shall accompany a designated representative(s) of the City on inspections of work at any time during the contract period. The City reserves the right to make determinations as to whether service is performed satisfactorily. Deficiencies in work performance must be corrected immediately.**
- 16. Deficiencies in work performance must be corrected immediately. The City reserves the right to add or delete similar items/services specified in the proposal as requirements change during the period of the contract. The City of Greenville and the Contractor will mutually agree upon prices for items/services to be added or deleted from contract. A contract amendment will be issued for each addition or deletion.**
- 17. Contractor shall not engage subcontractors to perform the Services without the City of Greenville's prior written consent by the Project Manager or designee. If any part of this work agreement is sublet, the subcontractor shall be required to meet all insurance requirements set forth in the Agreement. The parties stipulate that the Company will maintain each type of insurance set forth in the Agreement at a coverage equal to the amount set forth in the Agreement at a coverage equal to the amount set forth for each type of insurance. However, nothing contained herein shall relieve the Company from meeting all insurance requirements or otherwise being responsible for the subcontractor.**
- 18. Contractor is responsible for cleaning the worksite daily prior to the end of day.**
- 19. New vendors must register online at the City of Greenville Vendor Self Service portal:**
<https://cityofgreenvillenc.munisselfservice.com/vss>.
- 20. This does not have to be completed to submit a bid, however, the bidder must be a registered vendor prior to the award of the contract.**

SPECIFICATIONS

1.0 SCOPE:

The scope of work shall include, but is not limited to:

- 1.1 The contractor will have 30 consecutive working days to complete the project.**
- 1.2 The Contractor shall provide all labor, equipment, materials and insurance necessary for site and foundation work needed to meet the specification of drawings provided. See Exhibit "C".**
- 1.3 The Contractor shall provide all labor, equipment, materials and insurance necessary for add alternate of adding a fire hydrant by extending from current fire hydrant to meet the specification of drawings provided. See Exhibit "C".**
- 1.4 Third party inspections/testing will be coordinated by owner and contractor. Owner will pay for third party inspections/testing.**
- 1.5 Owner with GUC will be providing site lighting and power. Coordination between contractor, owner, and GUC will be a must during construction.**
- 1.6 Warranty shall meet industry and manufacturer standards for equipment and labor. A minimal (1) year labor shall be provided.**
- 1.7 All work shall be done by certified/licensed contractors.**
- 1.8 Obtain all permits from the City of Greenville at no cost.**
- 1.9 Cleanup and removal of all debris at work site.**
- 1.10 After completion, the owner and contractor will perform a walk through to determine punch list items. Any punch list items shall be addressed within a week.**
- 1.11 Provide close out documents to include warranty and manuals.**

2.0 PAYMENT AND BID:

- 2.1 Bidders will comply with all local, state, and federal laws and ordinances governing said work including the Occupational Safety and Health Act of 1970.**
- 2.2 By submitting a proposal, the firm is attesting that they are an Equal Opportunity Employer.**
- 2.3 The City of Greenville has adopted an Affirmative Action Program. Firms submitting a proposal are attesting that they also have taken affirmative action to ensure equality of opportunity in all aspects of employment.**
- 2.4 Minority and/or Women Business Enterprise (MWBE) Program**
It is the policy of the City of Greenville to provide minorities and women equal opportunity for participating in all aspects of the City's contracting and procurement programs, including but not limited to, construction projects, supplies and materials purchases, and professional and personal

service contracts. In accordance with this policy, the City has adopted a Minority and Women Business Enterprise (M/WBE) Plan and subsequent program, outlining verifiable goals.

The City has established a 10% Minority Business Enterprise (MBE) and 6% Women Business Enterprise (WBE) goal for the participation of MWBE firms in supplying goods and services for the completion of this project. All firms submitting bids agree to utilize minority and women-owned firms whenever possible.

Questions regarding the City's M/WBE Program should be directed to Wanda House in the M/WBE Office at (252) 329-4862.

- 2.5 The City of Greenville reserves the right to reject any and all bids, to waive any informalities and to accept the bid if seems most advantages to the City. Any bid submitted will be binding for sixty (60) days after the date of the bid opening.

2.6 **Equal Employment Opportunity Clause**

The City has adopted an Equal Employment Opportunity Clause, which is incorporated into all specifications, purchase orders, and contracts, whereby a vendor agrees not to discriminate against any employee or applicant for employment on the basis of race, color, religion, sex, national origin or ancestry. By submitting qualifications and/or proposals, the firm is attesting that they are an Equal Opportunity Employer. Federal law (Rehabilitation Act and ADA) prohibits handicapped discrimination by all governmental units. By submitting a proposal, the vendor is attesting to its policy of nondiscrimination regarding the handicapped.

2.7 **Iran Divestment Act Certification:**

The CONTRACTOR hereby certifies that, it is not on the Iran Final Divestment List created by the North Carolina State Treasurer pursuant to N.C.G.S. 147-86.58. The CONTRACTOR shall not utilize in the performance of the Agreement any subcontractor that is identified on the Iran Final Divestment List.

2.8 **E-Verify Compliance:**

The CONTRACTOR shall comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes. Further if the CONTRACTOR utilizes a subcontractor, the CONTRACTOR shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes. The CONTRACTOR represents that the CONTRACTOR and its subcontractors are in compliance with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes.

2.9 **TITLE VI NONDISCRIMINATION NOTIFICATION**

The City of Greenville, North Carolina in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all respondents that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit proposals in response to this advertisement and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award. See EXHIBIT "B"

- 2.10 All new vendors, including subcontractors/consultants, must register with the City of Greenville's online portal *prior* to the rendering of goods or services.

- 2.11 Registration as a vendor with the City of Greenville is the responsibility of prime or subcontractor/consultant, and requires the prospective new vendor to submit a W-9, and complete

the registration through the City's vendor portal at the following web address:

<https://cityofgreenvillenc.munisselfservice.com/vss>

- 2.12 The contractor will develop a lump sum bid; that will include, but is not limited to all work, equipment, parts, and labor specified herein.

3.0 WORKERS COMPENSATION AND INSURANCE:

- 3.1 The contractor must maintain during the life of this contract, Worker's Compensation Insurance for all employees working at the project site under this contract, or as otherwise required by North Carolina General Statutes.

- 3.2 The Consultant/Contractor agrees to purchase at its own expense insurance coverages to satisfy the following minimum requirements. Work under this contract shall not commence until all insurance required as listed has been obtained. Insurance required shall remain in effect through the life of this contract.

a. **Workers' Compensation Insurance:** No contractor or subcontractor may exclude executive officers. Workers Compensation must include all employees

Limits:

Workers Compensation:	Statutory for the State of North Carolina.
Employers Liability:	Bodily Injury by Accident \$1,000,000 each accident.
	Bodily Injury by Disease \$1,000,000 policy limit.
	Bodily Injury by Disease \$1,000,000 each employee.

b. **Commercial General Liability:**

Limits:

Each Occurrence: \$1,000,000
 Personal and Advertising Injury \$1,000,000
 General Aggregate Limit \$2,000,000
 Products and Completed Operations Aggregate \$2,000,000

The aggregate limit must apply per project. The form of coverage must be the ISO CG 00 01 policy as approved by the State of North Carolina Department of Insurance. If a form of coverage other than the CG 00 01 is used it must be approved by the City. Any endorsed exclusions or limitations from the standard policy must be clearly stated in writing and attached to the Certificate of Insurance. Completed Operations coverage must be maintained for the period of the applicable statute of limitations. Additionally, the Consultant/Contractor must be added as an Additional Insured to the Commercial General Liability policy.

c. **Commercial Automobile Liability:**

Limits: \$1,000,000 combined single limit.

d. **Cancellation:**

Each certificate of insurance shall bear the provision that the policy cannot be altered or canceled in less than ten (10) days after mailing written notice to the assured of such alteration or cancellation, sent registered mail.

e. **Proof of Carriages:**

I. The Consultant/Contractor shall provide the City with insurance industry standard ACCORD form Certificate(s) of Insurance on all policies of insurance and renewals thereof

in a form(s) acceptable to the City prior to the commencement of services. Said policies shall provide that the City be an additional named insured.

II. The City shall be notified in writing of any reduction, cancellation, or substantial change of policy or policies at least thirty (30) days prior to the effective date of said action.

III. All insurance policies shall be issued by responsible companies who are acceptable to the City and licensed and authorized to do business under the laws of North Carolina

3.3 OTHER INSURANCE:

The contractor shall furnish such additional insurance as may be required by the General Statutes of North Carolina, including motor vehicle insurance in amounts not less than statutory limits.

3.4 The contractor shall furnish the owner with satisfactory proof of insurance required before written approval of such insurance is granted by the owner.
Executed contract documents, insurance certifications, invoices and other information requested, are to be sent to:

*Ross Peterson, Project Management
City of Greenville
2000 Cedar Lane
Greenville, N.C. 27834
Email: rpeterson@greenvillenc.gov*

3.4 CANCELLATION:

Each certificate of insurance shall bear the provision that the policy cannot be altered or canceled in less than ten (10) days after mailing written notice to the assured of such alteration or cancellation, sent registered mail.

4.0 DAMAGE TO CONTRACTORS PROPERTY:

4.1 The City of Greenville shall be under no obligation to replace or in any way compensate the contractor for fire, theft, vandalism or any other casualty, injury or damage to equipment or property belonging to the contractor while on City property.

4.2 The successful bidder agrees to indemnify or hold harmless the City of Greenville from and against any liability, loss, cost, damage suit, claim, or expense arising occurrence on the part of the successful bidder to include its officers, servants, agents or employees arising from its activities, operations, and performance of services while on City property and further agrees to release and discharge the City of Greenville and its Agents from all claims or liabilities arising from or caused by the successful bidder in fulfilling its obligations under this Agreement.

4.3 It is understood and agreed by the parties that the City of Greenville will assume no liability for damages, injury, or other loss to the successful bidder, its employees or property, tools or equipment, or to other persons or properties located on City facilities resulting from the successful bidder's activities and operations while performing those service enumerated herein. The successful bidder shall assume full and complete liability for any and all damages on City or private properties caused by or resulting from its activities, operations, and that of its employees, agents and officers.

5.0 ADDENDUM

- 5.1 Addendum: Any changes to the specifications will be issued as a written addendum. No oral statements, explanations, or commitments by whosoever shall be of any effect.**
- 5.2 Amendment: The contract may be amended from time to time through written agreement by both parties.**

Title VI of the Civil Rights Act of 1964 Nondiscrimination Provisions, Appendices A & E.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

(1) Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation (USDOT), as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

(2) Nondiscrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, creed (religion), low-income, limited English proficiency, or disability in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

(3) Solicitations for Subcontractors, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Nondiscrimination on the grounds of race, color, or national origin.

(4) Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the USDOT to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the USDOT, as appropriate, and will set forth what efforts it has made to obtain the information.

(5) Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Nondiscrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the USDOT may determine to be appropriate, including, but not limited to:

- (a)** withholding payments to the contractor under the contract until the contractor complies; and/or
- (b)** cancelling, terminating, or suspending a contract, in whole or in part.

(6) Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the USDOT may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

I. During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

Pertinent Nondiscrimination Authorities

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);

- **Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;**
- **The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);**
- **Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);**
- **The Civil Rights Restoration Act of 1987, (PL 100- 209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, subrecipients and contractors, whether such programs or activities are Federally funded or not);**
- **Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;**
- **The Federal Aviation Administration's Nondiscrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);**
- **Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Nondiscrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;**
- **Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);**
- **Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq); • Federal transit laws, specifically 49 U.S.C. § 5332 (prohibiting discrimination based on race, color, religion, national origin, sex (including gender identity), disability, age, employment, or business opportunity)**



PROJECT MANAGEMENT

6.0 REFERENCE INFORMATION

All bidders must provide a list of three (3) client references of similar work. The reference information must include the company's name, a contact person's name with his or her title and their telephone number. Contractor must provide the information below with their bid sheet. Contractor must be experienced in projects of similar construction.

1. Company name: _____

Contact person: _____

Title: _____ Phone No. _____

2. Company name: _____

Contact person: _____

Title: _____ Phone No. _____

3. Company name: _____

Contact person: _____

Title: _____ Phone No. _____



PROJECT MANAGEMENT

7.0 CONTRACTOR INFORMATION

Contractor must provide the information below with the bid sheet.

**CITY OF GREENVILLE
NORTH CAROLINA
PROSPECTIVE CONTRACTOR DATA FORM**

Company Name: _____

Address: _____

Phone Number: _____ **Mobile Phone Number:** _____

Email: _____ **Business Fax Number:** _____

Tax ID# _____

NC General Contractors License# _____

Corporation or Partnership: _____

Number of Years in Business: _____



PROJECT MANAGEMENT

CITY OF GREENVILLE PROJECT MANAGEMENT DEPARTMENT REQUEST FOR BIDS

In compliance with the request for bids by the City of Greenville and subject to all conditions and specifications thereof, the undersigned offers and agrees to furnish all equipment, labor and work site clean-up as provided in the above-mentioned specifications.

Description:

Base Bid: Site & Foundation Work for Class A Burn Facility:

Base Sum	Tax	Lump Sum
\$ _____	\$ _____	\$ _____

Add Alternate: Adding Fire Hydrant:

Alternate Sum	Tax	Lump Sum
\$ _____	\$ _____	\$ _____

Total Lump Sum: Base and Alternate

\$ _____

Bid reviewed, prepared and submitted by-

Company Name: _____

Addenda Received: _____

Signed: _____

Print Name: _____

Date: _____

STATE OF NORTH CAROLINA

AFFIDAVIT

CITY OF GREENVILLE

I, _____ (the individual attesting below), being duly authorized by and on behalf of _____ (the entity bidding on project hereinafter "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS §64-25(5).
2. Employer understands that Employers Must Use E-Verify. Each employer, after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a).
3. Employer is a person, business entity, or other organization that transacts business in this State and that employs 25 or more employees in this State. (mark Yes or No)
 - a. YES _____, or
 - b. NO _____
4. Employer's subcontractors comply with E-Verify, and if Employer is the winning bidder on this project Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer.

This ____ day of _____, 20____.

Signature of Affiant

Print or Type Name: _____

State of North Carolina City of Greenville

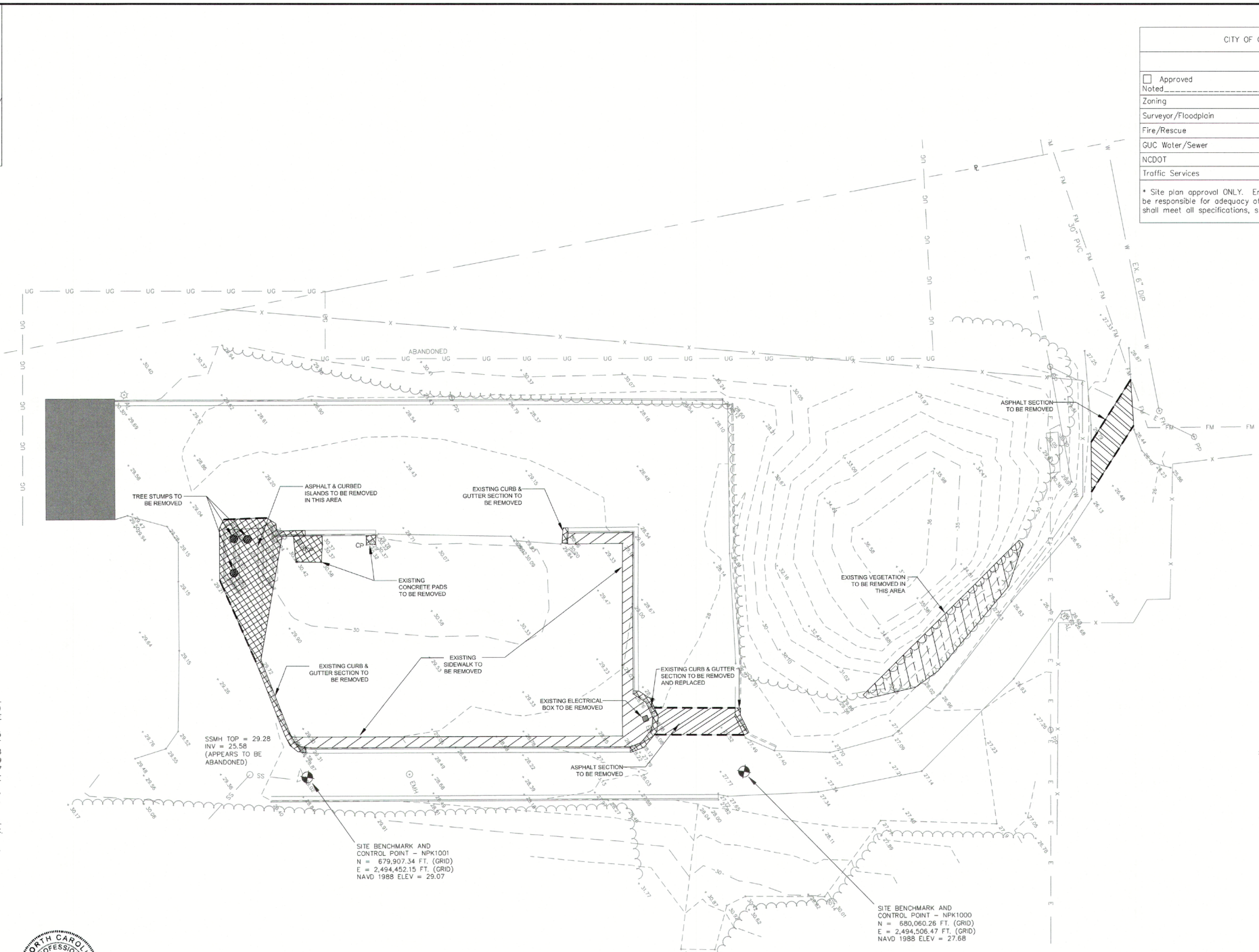
Signed and sworn to (or affirmed) before me, this the _____

day of _____, 20____.

My Commission Expires: _____

Notary Public: _____

(Affix Official/Notarial Seal)



CITY OF GREENVILLE SITE PLAN APPROVAL	
DATE _____	
<input type="checkbox"/> Approved	<input type="checkbox"/> Approved as
Noted _____	
Zoning	Engineering
Surveyor/Floodplain	Inspections
Fire/Rescue	GUC Electric
GUC Water/Sewer	GUC Gas
NCDOT	Vegetation
Traffic Services	Notes
<p>* Site plan approval ONLY. Engineer/Architect/Landscape Architect/Surveyor shall be responsible for adequacy of design, errors, omissions in the plans. All plans shall meet all specifications, standards and applicable regulations.</p>	

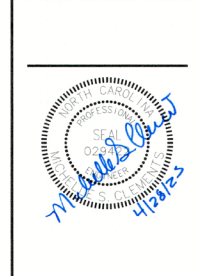
 **THE
EAST
GROUP**

■ Engineering ■ Architecture
■ Surveying ■ Technology

Corporate Office
324 Evans Street
Greenville, NC 27858
P: 252.758.4736
F: 252.830.3954

Branch Office
4252 Lake Boone Trail, Suite 311
Raleigh, NC 27617
P: 919.784.9330
F: 919.784.9331

NC Engineering Lic. No. C-0206
NC Architectural Lic. No. 50213
NC Landscape Architectural Lic. No. C-427



REV/#	DATE	DESCRIPTION	CHK	BY
A	02.05.25	90% CDS FOR OWNER REVIEW	MSC	APF
B	04.17.25	100% CDS FOR OWNER REVIEW	MSC	APF
C	04.24.25	100% CONSTRUCTION DRAWINGS	MSC	APF

TEG PROJECT NO. 20240180

CLIENT PROJECT NO.

PROJECT TITLE
COG Class A Fire
Training Center
2900 E 2nd St
Greenville, NC 27858
Pitt County

SHEET NAME

Existing Conditions
& Demolition Plan

SHEET NO.

C0.1

<u>SITE DATA:</u>	
TOTAL ACREAGE	44.94 AC
ZONING	R4Z0
OWNER NAME	CITY OF GREENVILLE
OWNER ADDRESS	PO BOX 7200
CITY/ STATE/ ZIP	GREENVILLE, NC 27835
PHYSICAL ADDRESS	2910 E 28 TH ST
CITY/ STATE/ ZIP	GREENVILLE, NC 27806
PARCEL No.	028979
PIN No.	4697495737
TOWNSHIP	GREENVILLE
CENSUS TRACT	207
NEIGHBORHOOD	4029GV
PROPOSED BLDG. FOOTPRINT	640 SF
IMPERVIOUS AREA	
EXISTING	1.83 AC
PROPOSED	0.25 AC
DISTURBED AREA	
TOTAL	0.38 AC

STATE OF NORTH CAROLINA LENOIR COUNTY

I, WILLIAM B. HILLARD, CERTIFY THAT THIS
PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL
SURVEY MADE UNDER MY SUPERVISION; (GEESE DESCRIPTION
RECORDED IN BOOK _____ PAGE _____) THAT THE RATIO
OF PRECISION AS CALCULATED IS 1:10,000; THAT THIS PLAT
WAS PREPARED IN ACCORDANCE WITH THE STANDARDS OF
PRACTICE, WITNESS MY ORIGINAL SIGNATURE AND REGISTRATION
NUMBER AND SEAL THIS 22 DAY OF MAY, 2025

[Signature]
L-4509

NOTES:

1. THIS PROPERTY IS SUBJECT TO THE TAR/PAM/LICO RIVER RIPARIAN BUFFER RULES.
2. THE SUREYOR MAKES NO GUARANTEE THAT THERE ARE NO OTHER EASEMENTS THAT MAY BENEFIT OR BURDEN THE SUBJECT PROPERTY.
3. THE PROPERTY DEPICTED IN THIS SURVEY IS LOCATED IN ZONE X AND IS NOT WITHIN A SPECIAL FLOOD HAZED AREA AS TAKEN FROM N.F.P. RATE MAP DATED JULY 7, 2011. COMMUNITY PLAN NUMBER 3720-468850K & 3720-469700K.
4. SUBSURFACE UTILITIES SHOWN WERE TAKEN FROM AVAILABLE RECORD EVIDENCE AND RECORDS PROVIDED BY GREENVILLE UTILITIES COMMISSION.
5. SPOT ELEVATIONS & CONTOURS ESTABLISHED FROM A CEMENT PILE POINT (HAYDS ELEVATION = 27.12).
6. PROPERTY LINES SHOWN AS DASHED REPRESENT LINES NOT SURVEYED.

SITE BENCHMARK AND
CONTROL POINT - NPK1000
N = 680,060.26 FT. (GRID)
E = 2,494,506.47 FT. (GRID)
NAVD 1988 ELEV = 27.68

LEGEND

□	ECM = EXISTING CONCRETE MONUMENT
○	EIP = EXISTING IRON PIPE
○	EIS = EXISTING IRON STAKE
○	EPK = EXISTING PK NAIL
○	NP = NEW PK NAIL
○	NIP = NEW IRON PIPE
○	RIM = RIGHT-OF-WAY MONUMENT
AL	= AREA LIGHT
ALB	= AREA LIGHT BASE (NO POLE OR LIGHT)
BLRD	= BOLLARD
BPFP	= BPZ/BACK FLOW PREVENTER
CB	= CATCH BASIN
CLF	= CHAIN LINK FENCE
CO	= CLEAN OUT
CP	= CONCRETE PAD
CSW	= CONCRETE SIDEWALK
DI	= DROP INLET
■	ELB = ELECTRIC BOX/ELB CONDUIT
▲	EM = ELECTRIC METER
EMH	= ELECTRIC MANHOLE
FDC	= FIRE DEPARTMENT CONNECTION
PH	= FIRE HYDRANT
FOCB	= FIBER OPTIC CABLE BOX
GM	= GAS METER
GW	= GUY WIRE
JB	= JUNCTION BOX
MB	= MAIL BOX
MH	= MANHOLE
PIV	= POST INDICATOR VALVE
POB	= POINT OF BEGINNING
PP	= POWER POLE
SSMH	= SANITARY SEWER MANHOLE
RCP	= REINFORCED CONCRETE PIPE
R/W	= RIGHT-OF-WAY
SI	= SIGN
WM	= WATER METER
WS	= WATER SPOUT
WV	= WATER VALVE
YL/FL	= YARD LIGHT/FLOOD LIGHT
	= NOT TO SCALE
	= NO POINT SET
E	= OVERHEAD ELECTRIC
SS	= SEWER LINE
SD	= STORM DRAIN
UE	= UNDERGROUND ELECTRIC LINE
UG	= UNDERGROUND GAS LINE
W	= WATER LINE
W	= SAWCUT LINE





Engineering Architecture
Surveying Technology

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NC Engineering Lic. No. C-0206
NC Architectural Lic. No. 50213
NC Landscape Architectural Lic. No. C-427



REV#	DATE	DESCRIPTION	BY		CHK	
			APP	MSC	APP	MSC
A	02.02.25	50% CDs FOR OWNER REVIEW				
B	04.12.25	100% CDs FOR OWNER REVIEW				
C	04.24.25	100% CONSTRUCTION DRAWINGS				

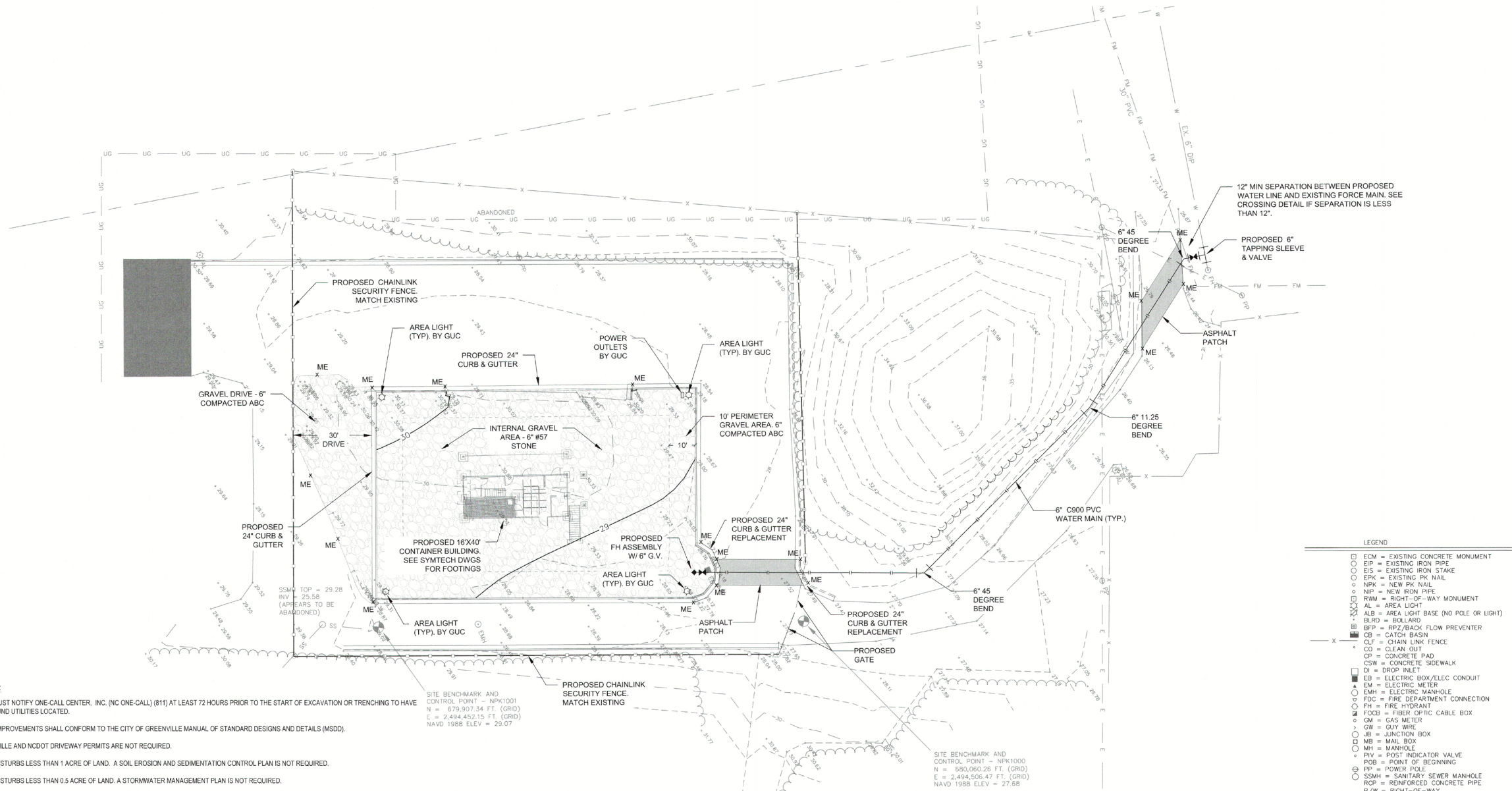
TEG PROJECT NO. 20240190

CLIENT PROJECT NO.

PROJECT TITLE
COG Class A Fire Training Center
2900 E 2nd St
Greenville, NC 27858
Pitt County

SHEET NAME
Site, Grading, & Utility Plan

SHEET NO.
C1.0



SITE PLAN NOTES:

- CONTRACTOR MUST NOTIFY ONE-CALL CENTER, INC. (NC ONE-CALL) (811) AT LEAST 72 HOURS PRIOR TO THE START OF EXCAVATION OR TRENCHING TO HAVE ALL UNDERGROUND UTILITIES LOCATED.
- ALL REQUIRED IMPROVEMENTS SHALL CONFORM TO THE CITY OF GREENVILLE MANUAL OF STANDARD DESIGNS AND DETAILS (MSDD).
- CITY OF GREENVILLE AND NCDOT DRIVEWAY PERMITS ARE NOT REQUIRED.
- THIS PROJECT DISTURBS LESS THAN 1 ACRE OF LAND. A SOIL EROSION AND SEDIMENTATION CONTROL PLAN IS NOT REQUIRED.
- THIS PROJECT DISTURBS LESS THAN 0.5 ACRE OF LAND. A STORMWATER MANAGEMENT PLAN IS NOT REQUIRED.
- CONTRACTOR SHALL NOTIFY CITY OF GREENVILLE ENGINEERING DEPARTMENT AT 252-329-4868, 48 HOURS PRIOR TO MAKING CONNECTIONS TO EXISTING STORM DRAINS LOCATED WITHIN PUBLIC STORM DRAINAGE EASEMENTS OR RIGHT-OF-WAY.

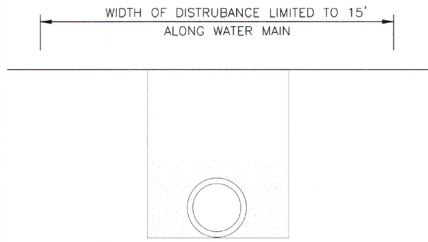
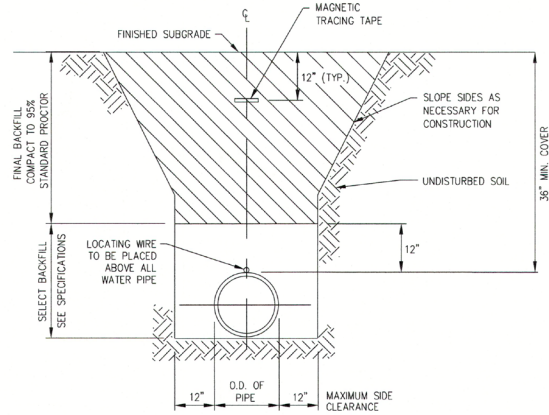
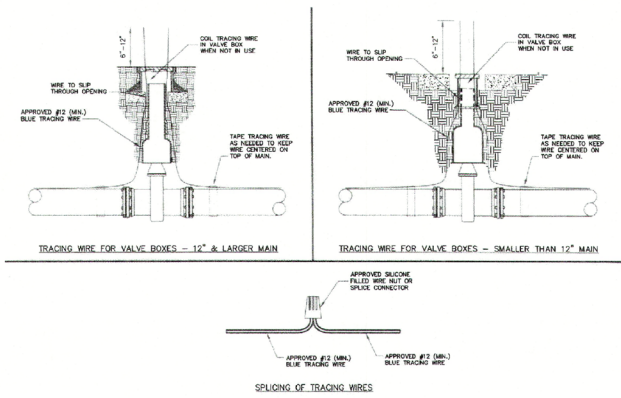
GRADING NOTES:

- ALL VEGETATION AND TOPSOIL SHALL BE STRIPPED FROM FILL AREAS PRIOR TO PLACING FILL. ANY QUESTIONABLE OR UNSUITABLE SOIL CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER & OWNER.
- AFTER STRIPPING TOPSOIL AND PRIOR TO PLACING FILL, IT IS RECOMMENDED THAT ALL BUILDING AREAS BE ROLLED WITH A VIBRATORY ROLLER TO CONSOLIDATE LOOSE SOILS IN THE UPPER SUBGRADE. COMPACTION TEST RESULTS OF AT LEAST 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY WILL BE REQUIRED PRIOR TO ENGINEER'S APPROVAL FOR FILL PLACEMENT. CONTRACTOR SHALL CONTACT THE ENGINEER AND SCHEDULE A PROOF ROLL FOR SUBGRADE AND WHEN AGGREGATE BASE COURSE HAS BEEN INSTALLED.
- ALL FILL SHALL BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).
- ALL CULVERT CLEANOUT MUST BE DONE SUCH THAT THE SEDIMENT IS EITHER EXTRACTED OR BLOWN UPSTREAM FOR CLEANUP. UNDER NO CIRCUMSTANCES SHALL SEDIMENT BE BLOWN DOWNSTREAM.
- GRADING CONTRACTOR SHALL TEMPORARY SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE SPECIFICATIONS WITHIN 14 DAYS OF COMPLETION OF GRADING WORK. UPON COMPLETION OF THE PROJECT, THE GENERAL CONTRACTOR SHALL INSTALL PERMANENT SEEDING AS OUTLINED IN THE SPECIFICATIONS. ALL DRAINAGE PIPES SHALL BE CLEANED BY THE GENERAL CONTRACTOR TO REMOVE ANY SEDIMENTS THAT HAVE ACCUMULATED.
- ALL PLANTING AREAS SHALL BE BACKFILLED WITH TOPSOIL AND RAKED DOWN, REMOVING ALL CLODS AND ROOTS, AND LEFT READY FOR SEEDING AND PLANTING.

LEGEND	
	ECM = EXISTING CONCRETE MONUMENT
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	EIS = EXISTING IRON STAKE
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	EMH = ELECTRIC MANHOLE
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	OE = OVERHEAD ELECTRIC
	SL = SEWER LINE
	SD = STORM DRAIN
	UEL = UNDERGROUND ELECTRIC LINE
	UGL = UNDERGROUND GAS LINE
	WL = WATER LINE
	--- = EXISTING CONTOUR
	- - - = PROPOSED CONTOUR
	- - - = PROPOSED WATER LINE
	- - - = PROPOSED FENCE



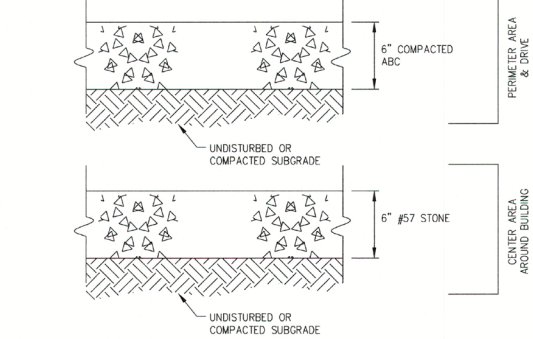
GRAPHIC SCALE: 1" = 30'
0 15 30 60



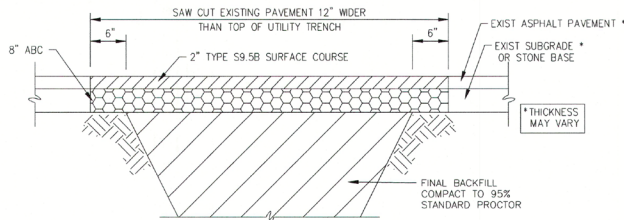
NOTE:
THE WIDTH OF DISTURBANCE SHALL BE LIMITED TO 15' WIDE AND WITHIN THE RIGHT OF WAY.

1 WATER PIPE TRENCH DETAIL
C2.0 N.T.S.

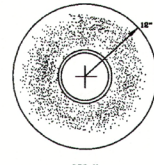
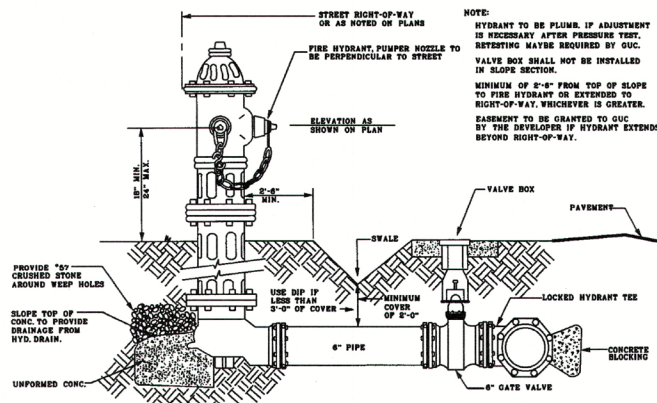
2 DISTURBANCE LIMITS
C2.0 N.T.S.



3 TYPICAL NEW GRAVEL SECTION
C2.0 N.T.S.

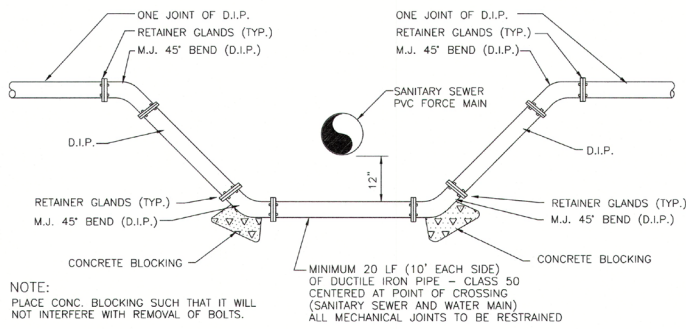


4 ASPHALT REPAIR
C2.0 N.T.S.



NOTE:
VALVE BOX SHALL NOT BE INSTALLED IN CURB AND GUTTER.
VALVE BOX SHALL BE IN ACCORDANCE WITH MANUAL.
VALVE BOX SHALL BE CENTERED AND PLUMBED OVER VALVE.

THE CONTRACTOR SHALL NOTIFY ENGINEER FOR INSPECTION OF ALL SUCH CROSSINGS PRIOR TO BACKFILLING. FAILURE TO DO SO WILL RESULT IN CONTRACTOR HAVING TO UNCOVER WATERLINE FOR CROSSING INSPECTION. 24 HOUR ADVANCE NOTICE IS REQUIRED FOR ALL INSPECTIONS.



NOTE:
PLACE CONC. BLOCKING SUCH THAT IT WILL NOT INTERFERE WITH REMOVAL OF BOLTS.

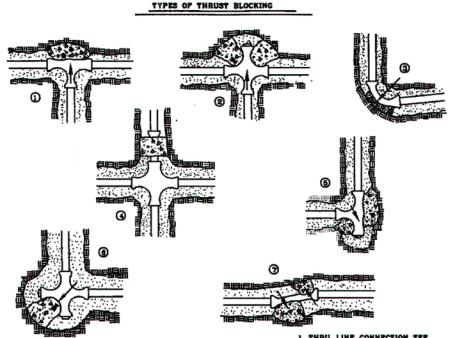
5 WATER / SEWER CROSSING DETAIL
C2.0 N.T.S.

RESULTANT THRUST AT FITTING AT 150 PSI WATER PRESSURE

NOM. PIPE SIZE	TOTAL POUNDS				
	DEAD END	90°	45°	30-1/8"	11-1/4"
4"	8,700	1,800	2,800	1,100	800
6"	8,800	6,000	4,800	2,800	1,100
8"	8,700	15,800	7,400	3,800	1,800
10"	14,500	20,800	11,200	5,700	2,800
12"	20,500	28,000	15,700	8,000	4,000
14"	27,800	38,000	21,200	11,000	6,100
16"	35,700	50,400	27,500	14,000	7,000
18"	44,800	63,400	34,400	17,000	8,800
20"	55,000	77,000	42,100	21,000	10,800
24"	78,500	110,000	60,000	31,000	15,400
30"	120,000	170,000	92,500	47,500	23,000
36"	172,000	244,400	132,500	67,000	33,000
42"	233,200	320,000	178,000	91,000	45,700
48"	304,000	420,000	232,700	118,000	59,000
60"	394,100	543,200	294,000	149,000	75,300

SOIL	BEARING LOAD (LBS./SQ. FT.)
NUCK	0
SOFT CLAY	1,000
SILT	1,000
SANDY SILT	3,000
SAND	4,000
SANDY CLAY	6,000
HARD CLAY	8,000

POLYWRAP SHALL BE USED TO COVER FITTINGS AND BOLTS.
TO DETERMINE THE SIZE OF A CONCRETE THRUST BLOCK, DIVIDE THE TOTAL FORCE BY THE BEARING VALUES OF THE SOIL. THE QUOTIENT WILL BE THE SIZE OF THE BEARING AREA OF THE THRUST BLOCK IN SQUARE FEET. APPROXIMATE VALUES FOR VARIOUS TYPES OF SOIL ARE LISTED IN TABLE.
NO RESPONSIBILITY CAN BE ASSUMED FOR THE ACCURACY OF THE DATA IN THIS TABLE DUE TO THE WIDE VARIATION OF BEARING LOAD CAPABILITIES FOR EACH SOIL TYPE.



SEED BED PREPERATION NOTES

1. SCARIFY SOIL TO A DEPTH OF THREE (3) INCHES AND WORK INTO A SATISFACTORY SEED BED BY DISKING, USE OF CULTIPACKERS, HARROWS, DRAGS AND OTHER APPROVED MEANS.
2. PREPARATION OUTLINED ABOVE SHALL NOT BE DONE WHEN THE SOIL IS FROZEN, WET OR OTHERWISE IN AN UNFAVORABLE CONDITION.
3. BEGIN AND COMPLETE SEEDING OPERATIONS AS OUTLINED AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED, BUT IN NO EVENT LATER THAN 14 CALENDAR DAYS AFTER COMPLETION OF FINAL GRADING.
4. SEEDING AND MULCHING OPERATIONS SHALL NOT BEGIN UNTIL ELECTRICAL SERVICE HAS BEEN INSTALLED WITHIN THE PROJECT, UNLESS DIRECTED BY THE ARCHITECT/ENGINEER.
5. DISTRIBUTE LIME AND FERTILIZER, UNIFORMLY OVER SEED BED AND HARROW, RAKE, OR OTHERWISE WORK SAME INTO SEED BEDS.
6. DISTRIBUTE SEED UNIFORMLY OVER SEED BED. COVER SEED LIGHTLY AFTER SEEDING.
7. NO LIME, FERTILIZER, OR SEED SHALL BE APPLIED DURING A STRONG WIND, WHEN SOIL IS WET OR OTHERWISE UNWORKABLE. SHOULD RAIN FOLLOW SEEDING BEFORE ROLLING IS BEGUN, THE BED SHALL NOT BE ROLLED.

GROUND STABILIZATION		
SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
* PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
* HIGH QUALITY WATER (HGW) ZONES	7 DAYS	NONE
* SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
* SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
* ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HGW ZONES)

TEMPORARY SEEDING

DATE
APR 15-AUG 14 GERMAN MILLET 50 LBS/ACRE
AUG 15-APR 14 RYE (GRAIN) 50 LBS/ACRE
YEAR ROUND FERTILIZER 10-20-20 400 LBS/ACRE ANALYSIS

VEGETATIVE PLAN:

VEGETATIVE COVER SHALL BE IN ACCORDANCE WITH THE SEEDING SCHEDULE AND THE FOLLOWING SPECIFICATION SECTIONS:
SECTION 0210 SITE CLEARING
SECTION 0220 EROSION & POLLUTION CONTROL
SECTION 0228 CLEAN-UP & SEEDING

SEEDING AND MULCHING

ALL ROADWAY AREAS		
MARCH 1 - AUGUST 31	SEPTEMBER 1 - FEBRUARY 28	
50# TALL FESCUE	50# TALL FESCUE	
10# CENTIPEDE	10# CENTIPEDE	
25# BERMUDAGRASS (HULLED)	35# BERMUDAGRASS (HULLED)	
500# FERTILIZER	500# FERTILIZER	
4000# LIMESTONE	4000# LIMESTONE	
WATER AND BORROW LOCATIONS		
MARCH 1 - AUGUST 31	SEPTEMBER 1 - FEBRUARY 28	
75# TALL FESCUE	75# TALL FESCUE	
25# BERMUDAGRASS (HULLED)	35# BERMUDAGRASS (HULLED)	
500# FERTILIZER	500# FERTILIZER	
4000# LIMESTONE	4000# LIMESTONE	
NOTE: 50# OF BAHIA GRASS MAY BE SUBSTITUTED FOR EITHER CENTIPEDE OR BERMUDAGRASS ONLY UPON ENGINEER'S REQUEST.		



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NC Architectural Lic. No. 50213
NC Landscape Architectural Lic. No. C-427



CHK	BY	DATE	DESCRIPTION
MSC	APF	02/02/25	95% CDs FOR OWNER REVIEW
MSC	APF	04/17/25	100% CDs FOR OWNER REVIEW
MSC	APF	04/24/25	100% CONSTRUCTION DRAWINGS
REV #	A		
	B		
	C		
TES PROJECT NO. 20240180			
CLIENT PROJECT NO.			

PROJECT TITLE
COG Class A Fire Training Center
2800 E 2nd St
Greenville, NC 27858
Pitt County

SITE DETAILS

SHEET NO.
C2.0

FOUNDATION STRUCTURAL NOTES

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COPIES OF PUBLICATIONS REFERENCED IN THESE GENERAL STRUCTURAL NOTES ARE AVAILABLE FOR REVIEW AT SCHAEFER. CONTRACTORS UNFAMILIAR WITH THESE PUBLICATIONS MUST REVIEW THEM PRIOR TO CONSTRUCTION.

GOVERNING CODE

INTERNATIONAL BUILDING CODE, 2015 EDITION, WITH NORTH CAROLINA AMENDMENTS (REFERENCES ASC7-10).

DESIGN LOADS

- CONTAINER FOUNDATIONS: FOUNDATION REACTIONS AND LOADS ARE BASED ON THE SYMTECH DRAWINGS DATED 3/1/2024 AND THE FOLLOWING ASSUMPTIONS:
- ROOF LOADS:
 - MINIMUM COMBINATION OF WIND LOAD, LIVE LOAD, RAIN LOAD, OR SNOW LOAD (P_1 OR P_{1s}) AS CALCULATED 50 PSF (Per NFPA 1402)
 - STRUCTURE SELF-WEIGHT AS CALCULATED 5 PSF
 - SUPERIMPOSED DEAD LOAD"FLAT ROOF SNOW LOAD, $P_s = 8.4$ PSF
GROUND SNOW, $P_g = 10$ PSF
SNOW LOAD IMPORTANCE FACTOR, $I_s = 1.0$
SNOW EXPOSURE FACTOR, $C_e = 1.0$
SNOW LOAD THERMAL FACTOR, $C_t = 1.2$
MINIMUM SNOW LOAD, $P_{min} = 10$ PSF
- FLOOR LOADS:
 - STRUCTURE SELF-WEIGHT AS CALCULATED
 - SUPERIMPOSED DEAD LOAD 15 PSF
 - FLOOR LIVE LOAD 50 PSF (Per NFPA 1402)
- WIND LOAD (PER ASCE 7):
 - BASIC DESIGN WIND SPEED, $V = 113$ MPH
 - ALLOWABLE STRESS DESIGN WIND SPEED, $V_{ASD} = 88$ MPH
 - RISK CATEGORY = II
 - WIND EXPOSURE = C (ALL WIND DIRECTIONS)
 - INTERNAL PRESSURE COEFFICIENT, $GCP_i = +0.18, -0.18$
- SEISMIC LOAD
 - SEISMIC RISK CATEGORY = II
 - SEISMIC IMPORTANCE FACTOR, $I_s = 1.0$
 - MAPPED SPECTRAL RESPONSE ACCELERATION FACTOR AT SHORT PERIOD, $S_s = -0.095$
 - MAPPED SPECTRAL RESPONSE ACCELERATION FACTOR AT 1 SECOND PERIOD, $S_1 = -0.048$
 - SITE CLASS = D
 - DESIGN SPECTRAL RESPONSE ACCELERATION FACTOR AT SHORT PERIODS, $S_{DS} = -0.102$
 - DESIGN SPECTRAL RESPONSE ACCELERATION FACTOR AT 1 SECOND PERIOD, $S_{D1} = -0.076$
 - SEISMIC DESIGN CATEGORY = B
 - BASIC SEISMIC FORCE RESISTING SYSTEM = LIGHT FRAME WALLS WITH SHEAR PANELS OF ALL OTHER MATERIALS
 - RESPONSE MODIFICATION COEFFICIENT, $R = 2$
 - SEISMIC RESPONSE COEFFICIENT, $C_S = 0.05$
 - DESIGN BASE SHEAR = 5 KIP
 - ANALYSIS PROCEDURE USED = ELFP

CONSTRUCTION AND SAFETY

- ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY CONTRACTOR.
- THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. WHEN ON SITE, THE ENGINEER IS RESPONSIBLE FOR HIS/HER OWN SAFETY BUT HAS NO RESPONSIBILITY FOR THE SAFETY OF OTHER PERSONNEL OR SAFETY CONDITIONS AT THE SITE.
- EMBED PLATES, ANCHOR RODS AND FOUNDATION DOWELS SHALL NOT BE REPAIRED, REPLACED OR FIELD-MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
- PRIOR TO COMMENCEMENT OF STEEL ERECTION, CONTRACTOR MUST PROVIDE THE STEEL ERECTOR WRITTEN NOTIFICATION THAT THE CONCRETE IN THE FOOTINGS AND PEDESTALS HAS ATTAINED EITHER 75 PERCENT OF THE INTENDED MINIMUM COMPRESSIVE DESIGN STRENGTH OR SUFFICIENT STRENGTH TO SUPPORT THE LOADS IMPOSED DURING STEEL ERECTION.

FOUNDATIONS

- FOUNDATION DESIGN IS BASED UPON RECOMMENDATIONS DESCRIBED IN THE GEOTECHNICAL ENGINEER'S REPORT BY ECS SOUTHEAST, LLC, DATED DECEMBER 12, 2024. THE GEOTECHNICAL ENGINEER'S REPORT IS AVAILABLE UPON REQUEST.
 - ALL FOOTINGS SHALL BEAR ON LEVEL (WITHIN 1 IN 12) UNDISTURBED SOIL OR APPROVED ENGINEERED FILL. FOUNDATIONS HAVE BEEN DESIGNED FOR A MAXIMUM ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF BELOW STRIP FOOTINGS AND 3000 PSF BELOW ISOLATED COLUMN FOOTINGS.
 - SLAB-ON-GRADE MODULUS OF SUBGRADE REACTION: 175 PCF
 - THE GEOTECHNICAL REPORT INDICATES THAT UNDERCUTTING MAY BE REQUIRED AT SOME FOOTING LOCATIONS.
- ALL AREAS WITHIN THE FOOTPRINT OF THE BUILDING, INCLUDING UTILITY TRENCHES, MUST BE FREE OF ANY WET AND/OR SOFT AREAS PRIOR TO PLACEMENT OF FILL MATERIAL OR SLAB.
- CONTRACTOR SHALL CONTACT UTILITY COMPANIES FOR LOCATING UNDERGROUND SERVICES AND IS RESPONSIBLE FOR THEIR PROTECTION AND SUPPORT.
- FILL MATERIALS: ALL FILL MATERIALS SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER, INCLUDING THE SUITABILITY OF ALL EXCAVATED ON-SITE SOILS FOR RE-USE. MATERIAL SHALL NOT BE PLACED ON FROZEN GROUND.
 - CONTROLLED LOW STRENGTH MATERIAL (CLSM): SELF LEVELING AND SELF COMPACTING CEMENTITIOUS MATERIAL WITH AN UNCONFINED COMPRESSIVE STRENGTH BETWEEN 50 PSI AND 150 PSI.
 - WELL GRADED GRANULAR MATERIAL: WELL GRADED MIXTURE OF CRUSHED GRAVEL, CRUSHED STONE, AND SAND PER ASTM D294 WITH AT LEAST 95 PERCENT PASSING A 1 1/2" SIEVE AND NOT MORE THAN 5 PERCENT PASSING A NO. 200 SIEVE.
 - FREE DRAINING GRANULAR FILL: NARROWLY GRADED MIXTURE OF CRUSHED STONE PER ASTM D448 WITH COARSE AGGREGATE GRADING SIZE 67 WITH 100 PERCENT PASSING A 1 INCH SIEVE AND NO MORE THAN 5 PERCENT PASSING A NO. 4 SIEVE.
 - IMPERVIOUS FILL: LEAN CLAYEY GRAVEL AND SAND MIXTURE CAPABLE OF COMPACTING TO A DENSE STATE.
- FOUNDATION ELEVATIONS SHOWN ARE FOR BIDDING PURPOSES AND MAY VARY TO SUIT SUB-SURFACE SOIL CONDITION. ELEVATION DATA SHALL BE APPROVED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR CLSM UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS
- MINIMUM FOUNDATION DEPTH IS 24 INCHES BELOW GRADE. BOTTOM OF FOOTINGS, MAT FOUNDATIONS AND GRADE BEAMS THAT ARE NOT PART OF AN INSULATED FROST PROTECTED FOUNDATION SYSTEM AND ARE NOT WITHIN CONDITIONED SPACE MUST BE BELOW SPECIFIED MINIMUM FROST DEPTH AS MEASURED FROM EXTERIOR GRADE. MAINTAIN SPECIFIED T/FON ELEVATIONS AND THICKEN FOOTING OR PLACE ON CLSM AS REQUIRED.

- FOUNDATIONS MAY BE PLACED WITHOUT SIDE FORMS IF EXCAVATED WALLS STAND APPROXIMATELY VERTICAL.
- ENGINEERED FILL BENEATH FOOTINGS: MINIMUM COMPACTION 98% STANDARD PROCTOR MAXIMUM DRY DENSITY WITHIN +/- 2% OPTIMUM MOISTURE CONTENT.
- FILL BELOW FLOOR SLABS:
 - SUBGRADE: PROOF ROLL TOP 12" OF SUBGRADE BELOW INTERIOR SLAB TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY WITHIN +/- 2% OPTIMUM MOISTURE CONTENT PRIOR TO PLACEMENT OF BASE COURSE.
 - GRANULAR DRAINAGE LAYER: 6" OF WELL GRADED GRANULAR MATERIAL BELOW FLOOR SLAB COMPACTED TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY WITHIN +/- 2% OPTIMUM MOISTURE CONTENT COMPACTED FREE DRAINING GRANULAR FILL CAPILLARY BREAK.
- FILL AT UTILITY TRENCHES BELOW FOOTINGS, EXCAVATED PRIOR TO FOOTING CONSTRUCTION.
 - BACKFILL TRENCHES UNDER FOOTINGS AND WITHIN 18 INCHES OF BOTTOM OF FOOTINGS WITH CLSM TO THE BOTTOM OF FOOTING ELEVATION.
 - BACKFILL TRENCHES EXCAVATED UNDER FOOTINGS AND MORE THAN 18 INCHES BELOW BOTTOM OF FOOTINGS WITH CLSM OR OTHER FILL MATERIAL APPROVED BY GEOTECHNICAL ENGINEER.
- SEAL UTILITY TRENCH AT THE EXTERIOR FOUNDATION WALL BY USING A COMPACTED IMPERVIOUS FILL OR CLSM TO CREATE A DAM TO PREVENT ENTRY OF WATER.
- FINISHED GRADE SHALL SLOPE AWAY FROM THE PERIMETER FOUNDATION
- EXCAVATIONS:

- EXCAVATIONS IN THE VICINITY OF EXISTING FOUNDATIONS SHALL BE PERMITTED WITHOUT ANY SPECIAL MEASURES AS LONG AS THE BOTTOM NEAR EDGE OF THE EXCAVATION IS ABOVE A LINE WITH SLOPE OF 2 HORIZONTAL TO 1 VERTICAL. EXTENDING OUTWARD AND DOWNWARD FROM THE NEAREST BOTTOM CORNER OF THE EXISTING FOUNDATION. WHICH IS THE RESPONSIBILITY OF THE CONTRACTOR AS PART OF ITS SELECTED MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. CONTRACTOR SHALL SUBMIT TEMPORARY EXCAVATION BRACING AND UNDERPINNING OF EXISTING FOUNDATIONS, WHICH IS THE RESPONSIBILITY OF THE CONTRACTOR AS PART OF ITS SELECTED MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. CONTRACTOR SHALL SUBMIT TEMPORARY EXCAVATION BRACING AND UNDERPINNING DETAILS PRIOR TO EXCAVATION. CONTRACTOR SHALL PERFORM THESE EXCAVATIONS WITH CAUTION SO AS NOT TO UNDERMINE ANY EXISTING STRUCTURE FOUNDATIONS, AND EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- EXCAVATIONS IN THE VICINITY OF EXISTING FOUNDATIONS WITH THE BOTTOM NEAR EDGE OF THE EXCAVATION BELOW A LINE WITH SLOPE OF 2 HORIZONTAL TO 1 VERTICAL EXTENDING OUTWARD AND DOWNWARD FROM THE NEAREST BOTTOM CORNER OF THE EXISTING FOUNDATION SHALL BE MADE ONLY WITH THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER. SUCH EXCAVATIONS MAY REQUIRE SPECIAL TEMPORARY EXCAVATION BRACING OR UNDERPINNING OF EXISTING FOUNDATIONS, WHICH IS THE RESPONSIBILITY OF THE CONTRACTOR AS PART OF ITS SELECTED MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES. CONTRACTOR SHALL SUBMIT TEMPORARY EXCAVATION BRACING AND UNDERPINNING DETAILS PRIOR TO EXCAVATION. CONTRACTOR SHALL PERFORM THESE EXCAVATIONS WITH CAUTION SO AS NOT TO UNDERMINE ANY EXISTING STRUCTURE FOUNDATIONS, AND EXCAVATIONS SHALL BE MADE IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- UTILITY TRENCHES PARALLEL TO FOOTINGS AND WITH PIPES BELOW THE BOTTOM OF FOOTING ELEVATION MUST BE LOCATED SO THAT THE SLOPE BETWEEN THE PIPE INVERT ELEVATION AND THE NEAREST BOTTOM CORNER OF THE FOOTING IS A MINIMUM OF 2 HORIZONTAL TO 1 VERTICAL.

CAST-IN-PLACE CONCRETE (03-30-00)

- CONCRETE MIXTURES: REFER TO CONCRETE MIXTURE REQUIREMENTS TABLE FOR CONCRETE MIX INFORMATION.
- CONCRETE MATERIALS:
 - CEMENTITIOUS MATERIALS
 - PORTLAND CEMENT: ASTM C150, TYPE III.
 - BLENDED HYDRAULIC CEMENT: ASTM C595, TYPE II, PORTLAND LESTMONE CEMENT
 - FLY ASH: ASTM C618, CLASS F OR C. FLY ASH SHALL NOT EXCEED 25% OF TOTAL CEMENTITIOUS CONTENT BY MASS.
 - GROUND GRANULATED BLAST FURNACE SLAG: ASTM C698, GRADE 100 OR 120. COMBINATION OF TYPE I OR II PORTLAND CEMENT AND FLY ASH SHALL NOT EXCEED 50% OF TOTAL CEMENTITIOUS CONTENT BY MASS.
 - AGGREGATES:
 - NORMAL WEIGHT AGGREGATES: ASTM C33, COARSE GRADED.
 - ADMIXTURES: ADMIXTURES CONTAINING CHLORIDE ARE NOT PERMITTED IN REINFORCED CONCRETE OR CONCRETE CONTAINING METALS.
 - WATER REDUCING ADMIXTURE: ASTM C494.
 - PLASTICIZING ADMIXTURE: ASTM C1017.
 - AIR ENTRAINING ADMIXTURE: ASTM C260.
 - WATER: ASTM C94 AND POTABLE
- DETAILING REQUIREMENTS
 - PROVIDE 3/4" CHAMFER AT CORNERS OF EXPOSED CONCRETE.
- CONTRACTION JOINTS IN SLABS ON GROUND SHALL NOT EXCEED A LENGTH TO WIDTH RATIO OF 1:5:1. SEE PLAN FOR MAXIMUM JOINT SPACINGS.
- PERFORMANCE
 - CONCRETE WORK IN COLD WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 308-130 "STANDARD SPECIFICATION FOR COLD WEATHER CONCRETING" AND ACI 308R-10 "GUIDE TO COLD WEATHER CONCRETING".
 - CONCRETE WORK IN HOT WEATHER SHALL CONFORM TO ALL REQUIREMENTS OF ACI 305-1-14 "SPECIFICATION FOR HOT WEATHER CONCRETING" AND ACI 305R-10 "GUIDE TO HOT WEATHER CONCRETING". THE AIR TEMPERATURE, RELATIVE HUMIDITY, CONCRETE TEMPERATURE, AND WIND SPEED SHALL BE ENTERED INTO NOMOGRAPH FIGURE 4.2 IN ACI 308R-10 TO DETERMINE IF PRECAUTIONS AGAINST PLASTIC SHRINKAGE ARE REQUIRED.
 - TOLERANCES: CONFORM TO ACI 117-10
 - EXTERIOR SLAB FINISHING AND CURING:
 - FINISH: LIGHT BROOM FINISH
 - CURING: UV RESISTANT ACRYLIC "CURE AND SEAL" LIQUID MEMBRANE FORMING CURING COMPOUND (ASTM C1315, TYPE 1, CLASS A).
 - IF CONCRETE ARRIVES AT THE POINT OF DELIVERY WITH A SLUMP BELOW THAT WHICH WILL RESULT IN THE SPECIFIED SLUMP AT THE POINT OF PLACEMENT AND IS UNSUITABLE FOR PLACING AT THAT SLUMP, THE SLUMP MAY BE ADJUSTED ONCE ONLY TO THE REQUIRED VALUE BY ADDING WATER UP TO THE AMOUNT ALLOWED IN THE ACCEPTED MIXTURE PROPORTIONS. ADDITION OF WATER SHALL BE IN ACCORDANCE WITH ASTM C94. DO NOT EXCEED THE SPECIFIED WATER-CEMENTITIOUS MATERIAL RATIO OR SLUMP IN THE APPROVED MIX DESIGN. DO NOT ADD WATER TO CONCRETE DELIVERED IN EQUIPMENT NOT ACCEPTABLE FOR MIXING. AFTER PLASTICIZING OR WATER REDUCING ADMIXTURES ARE ADDED TO THE CONCRETE AT THE SITE TO ACHIEVE FLOWABLE CONCRETE, DO NOT ADD WATER TO THE CONCRETE. MEASURE SLUMP (AND AIR CONTENT OF AIR ENTRAINED CONCRETE) AFTER SLUMP ADJUSTMENT, TO VERIFY COMPLIANCE WITH SPECIFIED REQUIREMENTS.
 - SLUMP SHALL BE MEASURED PRIOR TO THE ADDITION OF ADMIXTURES AND AFTER THE ADDITION OF ADMIXTURES.
- SUBMITTALS:
 - CONCRETE MIX DESIGNS: CONCRETE MIX DESIGNS INCLUDING PRODUCT DATA FOR ALL SUB-SURFACE SOILS AND BEARING CAPACITY SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE. PROVIDE ENGINEERED FILL OR CLSM UNDER FOUNDATIONS AT SOFT SPOTS AND FOR EXTENDING EXCAVATION TO ADEQUATE BEARING MATERIAL. INSTALL FOUNDATIONS AT DESIGNED ELEVATIONS
 - PRODUCT DATA FOR CURING MATERIALS
- QUALITY ASSURANCE

- CONCRETE WORK AND TESTING, AS PERFORMED BY "QUALIFIED FIELD TESTING TECHNICIANS" AND "QUALIFIED LABORATORY TECHNICIANS", SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301-16, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS ABOVE. REPORTS FROM TESTS REQUIRED BY SECTION 1.6 OF ACI 301-16 SHALL BE SUBMITTED TO STRUCTURAL ENGINEER, ARCHITECT, OWNER, CONTRACTOR, CONCRETE SUPPLIER, AND BUILDING OFFICIAL.

CONCRETE REINFORCING (03-20-00)

- MATERIALS
 - DEFORMED BARS: ASTM A615, OR ASTM A706, GRADE 60.
 - ASTM A706 DEFORMED BARS ARE REQUIRED FOR ALL WELDED REINFORCING BARS.
 - WELDED WIRE REINFORCEMENT: ASTM A1064, FLAT SHEETS ONLY.
- REINFORCING DEVELOPMENT AND LAP SPLICES (UNLESS OTHERWISE NOTED)
 - SEE REINFORCING BAR DEVELOPMENT TABLES FOR REQUIRED DEVELOPMENT AND LAP SPLICE LENGTHS.
 - WELDED WIRE REINFORCEMENT: LAP WELDED WIRE REINFORCEMENT MINIMUM 1 FULL SPACE PLUS 2".
- PERFORMANCE
 - COMPLY WITH CRSI'S "MANUAL OF STANDARD PRACTICE" FOR PLACING AND SUPPORTING REINFORCEMENT.
 - REINFORCING BARS SHALL HAVE CLEAR COVER AS INDICATED ON THE DRAWINGS. WHERE NOT INDICATED, PROVIDE MINIMUM CLEAR COVER PER ACI-318.
 - REINFORCING BARS SHALL BE FREE OF DIRT AND FORM RELEASE AGENTS.
- SUBMITTALS
 - SHOP DRAWINGS FOR REINFORCING STEEL (COMPLY WITH ACI SP-066):

STRUCTURAL STEEL

- MATERIALS (UNLESS NOTED OTHERWISE):
 - PLATES AND ROLLED SHAPES OTHER THAN W-SHAPES: ASTM A36, $F_y = 36$ KSI, UNLESS NOTED OTHERWISE ON DRAWINGS
 - HEADED STUD ANCHOR CONNECTORS (AT EMBED PLATES): AWS D1.1 GR. B
 - WELDS: AWS E70XX, LOW HYDROGEN ELECTRODES.
- ALL DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO AISC SPECIFICATIONS FOR "DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES", LATEST EDITION
- FABRICATOR QUALIFICATIONS: STRUCTURAL STEEL FABRICATOR SHALL PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM, AND SHALL BE DESIGNATED AS AN AISC-CERTIFIED PLANT, CATEGORY STD.
- SUBMITTALS
 - STRUCTURAL STEEL SHOP DRAWINGS
- CONNECTIONS:
 - WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS D1.1:2010).
 - HEADED STUD SHEAR CONNECTORS SHALL BE WELDED WITH AUTOMATICALLY TIMED STUD WELDING EQUIPMENT. FILLET WELDS ARE NOT PERMITTED.
- PAINT AND PROTECTION:
 - MEMBERS EXPOSED TO WEATHER IN FINISHED STRUCTURE
 - HOT DIP GALVANIZE PER ASTM A123 AFTER FABRICATION. COATING WEIGHT PER PARAGRAPH 5.1 OF ASTM A123 AND A153. FABRICATE ASSEMBLES PER ASTM A143, A384, AND A385. AFTER ERECTION, REPAIR DAMAGED AREAS AND WELDS MADE AFTER GALVANIZING IN ACCORDANCE WITH ASTM A780 WITH ORGANIC ZINC RICH PAINT COMPLYING WITH DOD-P-21035 OR MIL-P-28515. MULTIPLE COATS TO DRY FILM THICKNESS OF 4 MILS. FILL EXPOSED VENT AND DRAIN HOLES, NOT INDICATED AS WEEP HOLES, BY PLUGGING WITH ZINC SOLDER AND FILING OFF SMOOTH.
 - MEMBERS ENCASED IN CONCRETE: PROVIDE 3" MINIMUM CONCRETE COVER FOR ALL STEEL BELOW GRADE.

SPECIAL INSPECTIONS

- SPECIAL INSPECTIONS ARE REQUIRED BY SECTION 1704 OF THE REFERENCED BUILDING CODE. THE INTENT OF SPECIAL INSPECTIONS IS TO VERIFY THE COMPLIANCE OF MATERIALS, INSTALLATION, FABRICATION, ERECTION AND/OR PLACEMENT OF COMPONENTS WITH THE COMPLETED SET OF CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. IT IS THE RESPONSIBILITY OF ALL PARTIES INVOLVED TO BECOME FAMILIAR WITH THE SPECIAL INSPECTION REQUIREMENTS SET FORTH IN CHAPTER 17 OF THE REFERENCED BUILDING CODE. SPECIAL INSPECTIONS SHALL BE PROVIDED BY THE OWNER OR THE OWNER'S AGENT AND SHALL NOT BE CONSIDERED IN THE SCOPE OF WORK OF THE CONTRACTOR.
THE FOLLOWING SCHEDULE OF SPECIAL INSPECTIONS FOR STRUCTURAL WORK HAS BEEN PREPARED IN ACCORDANCE WITH SECTIONS 106.1 AND 1704 OF THE REFERENCED BUILDING CODE. SEE OTHERS FOR SPECIAL INSPECTION REQUIREMENTS FOR NON-STRUCTURAL WORK. THE SPECIAL INSPECTOR(S) SHALL COORDINATE WITH THE OWNER, CONTRACTORS, AND DESIGN PROFESSIONALS AND SCHEDULE ALL INSPECTIONS ACCORDINGLY.

LEGEND		
SYMBOL	DESCRIPTION	REFERENCE
	COLUMN LINE DESIGNATION	
	FACE OF BUILDING	
	FOOTING MARK	SHEET S101
	EMBED PL MARK	SHEET S101
	PEDESTAL MARK	SHEET S101
	ELEVATION INDICATION	SHEET S101

ABBREVIATIONS	
NAME	DESCRIPTION
AFF =	ABOVE FINISHED FLOOR ELEVATION
ARCH =	ARCHITECT
BI =	BOTTOM OF
BLDG =	BUILDINGS
BOT =	BOTTOM
BRG =	BEARING
CFS =	COLD-FORMED STEEL
CJ =	CONTRACTION JOINT
CJP =	COMPLETE JOINT PENETRATION
CL =	CENTER LINE
CLR =	CLEAR
CLSM =	CONTROLLED LOW STRENGTH MATERIAL
CMU =	CONCRETE MASONRY UNIT
COL =	COLUMN
CONT =	CONTINUOUS
CONC =	CONCRETE
DEG or ° =	DEGREE
DIA or ø =	DIAMETER
EA =	EACH
EF =	EACH FACE
EL =	ELEVATION
EMB =	EMBEDMENT
EOD =	EDGE OF DECK
EOS =	EDGE OF SLAB
EQ =	EQUAL
EXIST =	EXISTING
EXP =	EXPANSION
FON =	FOUNDATION
FS =	FAR SIDE
FTG =	FOOTINGS
GA =	GAGE
GALV =	GALVANIZED
GT =	GIRDER TRUSS
HORIZ =	HORIZONTAL
JST BRG =	JOIST BEARING
Ld =	TENSION DEVELOPMENT LENGTH OF REINFORCING BAR IN CONCRETE
Ld-CMU =	TENSION DEVELOPMENT LENGTH OF REINFORCING BAR IN GROUTED CMU
Ldc =	COMPRESSION DEVELOPMENT LENGTH OF REINFORCING BAR IN CONCRETE
LH =	LONG DIMENSION HORIZONTAL
Lhb =	HOKED BAR TENSION DEVELOPMENT LENGTH OF REINFORCING BAR IN CONCRETE
LDV =	LONG DIMENSION VERTICAL
LLH =	LONG LEG HORIZONTAL
LLV =	LONG LEG VERTICAL
Ls =	LAP SPLICE LENGTH OF REINFORCING BAR IN CONCRETE
Ls-CMU =	LAP SPLICE LENGTH OF REINFORCING BAR IN GROUTED CMU
Lsc =	COMPRESSION LAP SPLICE LENGTH OF REINFORCING BAR IN CONCRETE
LSL =	LAMINATED STRAND LUMBER
LVL =	LAMINATED VENEER LUMBER
MCJ =	MASONRY CONTROL JOINT
MFR =	MANUFACTURER
NS =	NEAR SIDE
ON =	ON CENTER
OPNG =	OPENING
OPP =	OPPOSITE
PIT =	POST-TENSION
PAF =	POWER-ACTUATED FASTENER
PE =	PRE-ENGINEERED
PEMB =	PRE-ENGINEERED METAL BUILDING
PJP =	PARTIAL JOINT PENETRATION
PL =	PLATE
PSL =	PARALLEL STRAND LUMBER
PT =	PRESSURE TREATED
RD =	ROOF DRAIN
REINF =	REINFORCING
RTU =	ROOF TOP UNIT
SOS =	SELF DRILLING SCREWS
SM =	SIMILAR
SL =	STEP LEDGE
SOMD =	SLAB ON METAL DECK
SPA =	SPACE or SPACES
SRD =	SECONDARY ROOF DRAIN
STIFF =	STIFFENER
STL =	STEEL
STW =	STEP TOP OF WALL
T =	TOP OF
UNO =	UNLESS NOTED OTHERWISE
VB =	VERTICAL BRACING
VERT =	VERTICAL
VIF =	VERIFY IN FIELD
W =	WITH
WP =	WORK POINT

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**GREENVILLE FIRE
DEPARTMENT TRAINING
FACILITY**

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ENGINEER: IAU
MODELER: DAP
CHECKED BY: RW

ISSUE/REVISION/SUBMISSION
NO DATE DESCRIPTION

PROJECT NUMBER:
24-2550

SHEET NAME:

GENERAL NOTES

DATE:
02/14/2025

SHEET:

S001

NC COMPLIANCE DATA:

ENTITY: STEVEN SCHAEFER ASSOCIATES, INC.
ADDRESS: 537 EAST PETE ROSE WAY, STE 400
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LICENSE # C-1023

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CONCRETE CLASS	DESCRIPTION	EXPOSURE CLASS				MINIMUM f _c AT 28 DAYS (PSI)	MAXIMUM w/c RATIO	AIR CONTENT	MINIMUM CEMENTITIOUS MATERIAL (LB/CY)	REMARKS
		F	S	W	C					
A	FOOTINGS	F0	S0	W0	C0	4500	--	--	--	--
B	PEDESTALS	F2	S0	W0	C1	4500	0.45	6% ±1.5%	--	--
C	EXTERIOR SLAB ON GRADE	F2	S0	W0	C1	4500	0.45	6% ±1.5%	--	--

CONCRETE MIXTURE NOTES:
A. PROVIDE MIX DESIGNS IN ACCORDANCE WITH ACI 301-16 FOR SPECIFIED EXPOSURE CLASS AND AGGREGATE.
B. NOMINAL MAX AGGREGATE SIZE = 3/4" UNLESS OTHERWISE NOTED
C. ALL CONCRETE SHALL BE NORMAL WEIGHT UNLESS OTHERWISE NOTED

SCHEDULE OF TENSION DEVELOPMENT AND LAP SPLICE LENGTHS					
FOOTINGS & PEDESTALS (f _c = 4500PSI)					
BAR SIZE	L _d		L _s		L _{dh}
	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	
	(in)	(in)	(in)	(in)	(in)
#3	14	18	18	23	7
#4	18	24	24	31	9
#5	23	30	30	38	12
#6	27	35	35	46	14
#7	40	51	51	67	16
#8	45	59	59	76	18
#9	51	66	66	86	21
#10	57	74	74	96	23
#11	64	82	82	107	26
#14	76	99	99	128	31
LAP AND DEVELOPMENT TABLE CRITERIA:					
A. GRADE 60 UNCOATED REINFORCING STEEL					
i. FOR EPOXY COATED: MULTIPLY L _d , L _s BY 1.5; L _{dh} BY 1.2					
B. NORMAL WEIGHT CONCRETE					
i. FOR LIGHTWEIGHT CONCRETE: MULTIPLY L _d , L _s , L _{dh} BY 1.33					
C. CLEAR COVER GREATER THAN db					
D. MIN 2"db CLEAR SPACING BETWEEN BARS					
FOR BARS THAT DO NOT MEET THE CLEAR COVER OR CLEAR SPACING INDICATED:					
#6 AND SMALLER: L _d = 54 BAR DIAMETERS; L _s = 70 BAR DIAMETERS					
#7 AND LARGER: L _d = 68 BAR DIAMETERS; L _s = 88 BAR DIAMETERS					
FOR TOP BARS MULTIPLY BY 1.3					
MINIMUM L _d AND L _s = 12"					
LAP AND DEVELOPMENT TABLE NOTES & DEFINITIONS:					
A. TOP BARS = HORIZ BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BARS					
B. db = BAR DIAMETER					
C. s = CENTER-TO-CENTER BAR SPACING					
D. A _{th} = TOTAL AREA OF TIES OR STIRRUPS CONFINING HOOKED BARS					
E. A _{hs} = TOTAL AREA OF HOOKED BARS BEING DEVELOPED					
F. WHERE BARS OF DIFFERENT SIZES ARE SPLICED, L _s FOR THE LARGER BAR SHALL BE USED					
G. ALL TENSION SPLICES SHALL BE CLASS B, UNLESS NOTED OTHERWISE					
H. L _{dh} VALUES FOR #11 BARS AND SMALLER MAY BE REDUCED AS FOLLOWS (PER ACI 318-14)					
i. MULTIPLY BY 0.70 FOR (1) OR (2)					
(1) SIDE COVER ≥ 2 1/2"					
(2) 90° HOOKS WITH COVER ON BAR EXTENSION BEYOND HOOK ≥ 2"					
ii. MULTIPLY BY 0.80 FOR (3), (4), or (5)					
(3) 90° HOOKS ENCLOSED ALONG L _{dh} WITHIN TIES OR STIRRUPS AT s ≤ 3db					
(4) 90° HOOKS ENCLOSED ALONG THE BAR EXTENSION WITHIN TIES OR STIRRUPS AT s ≤ 3db					
(5) 180° HOOKS ENCLOSED ALONG L _{dh} WITHIN TIES OR STIRRUPS AT s ≤ 3db					
iii. L _{dh} SHALL NOT BE LESS THAN THE LARGER OF 8db OR 6" WITH REDUCTIONS APPLIED					

SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.6 SOILS						
Item	Sub Item / Scope	Extent			Agency Qualifications	Comments
		Cont.	Periodic	N/A		
1. Bearing Materials	Verify materials below shallow foundations are adequate to achieve the design bearing capacity.		X		Testing Agency Under supervision of Licensed Geotechnical Engineer	
2. Excavations	Verify excavations are extended to proper depth and have reached proper material		X		Testing Agency Under supervision of Licensed Geotechnical Engineer	
3. Fill Classification	Perform classification and testing of compacted fill materials		X		Testing Agency Under supervision of Licensed Geotechnical Engineer	
4. Placement and Fill Compaction	Verify use of proper materials, densities, and lift thicknesses during placement and compaction of compacted fill	X			Testing Agency Under supervision of Licensed Geotechnical Engineer	
5. Subgrade	Prior to placement of compacted fill, inspect subgrade and verify that the site has been prepared properly		X		Testing Agency Under supervision of Licensed Geotechnical Engineer	

SCHEDULE OF SPECIAL INSPECTION SERVICES - 1705.3 CONCRETE CONSTRUCTION						
Item	Sub Item / Scope	Extent			Agency Qualifications	Comments
		Cont.	Periodic	N/A		
In-Plant Special Inspections (Precast Concrete)	Fabrication and implementation procedures: In addition to special inspections provided on site, provide special inspections indicated below on the premises of fabricator's shop. Verify that the fabricator maintains detailed fabrication and quality control procedures.			X	As Noted Below	Special inspections on the premises of the fabricator's shop are not required provided the fabricator is an <i>Approved Fabricator</i> in accordance with section 1704.2.5.1. Fabricator is required to submit documentation/certification that they are an <i>Approved Fabricator</i> .
1. Reinforcing steel	a. Mild Reinforcing Steel: Inspect size, spacing, cover, positioning and grade of reinforcing steel: Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters. Verify welded wire fabric is supported per construction documents. Reference ACI 318: 20, 25.2, 25.3, 26.6-1-26.6-3, and IBC 1908.4. b. Prestress Steel: Inspect size, spacing, cover, and position of prestressing tendons:		X		Testing Agency	
2. Welding of Reinforcing Steel	a. Verify weldability of reinforcing bars other than ASTM A706. Reference ACI 318: 26.6.4 and AWS D1.4 b. Inspect single pass fillet welds, maximum 5/16" c. Inspect all other welds			X	Testing Agency AWS - Certified Welding Inspector	
3. Cast in Place Anchor Rods and Embed Plates	Inspect size, position and embedment of cast in place bolts, anchor rods, and embed plates. Inspect concrete placement and consolidation around anchors. Reference ACI 318: 17.8.2		X		Testing Agency	
4. Post Installed Anchors (Anchors installed in Hardened Concrete)	a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads. Inspect type and size of anchor, concrete type and compressive strength, hole cleaning procedures, anchor embedment, anchor spacing and edge distances, and tightening torque (where applicable). Reference ACI 318: 17.8.2.4 b. Mechanical anchors and adhesive anchors not defined in 4.a. Inspect type and size of anchor, concrete type and compressive strength, hole cleaning procedures, anchor embedment, anchor spacing and edge distances, and tightening torque (where applicable). Reference ACI 318: 17.8.2	X			Testing Agency	Reference evaluation report (identified in project general notes) for additional inspection scope required by manufacturer.
5. Mix Design	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at site, if permitted by construction documents, does not exceed that allowed by mix design.		X		Testing Agency	
6. Sampling and Testing of Concrete	At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests as required by construction documents, and determine the temperature of concrete. Reference ASTM C 172, ASTM C31, ACI 318 19, 26.4.3, 26.4.4, and IBC 1904.1, 1904.2, 1908.2, 1908.3	X			Testing Agency	
7. Concrete and Shotcrete Placement	Inspect concrete and shotcrete placement for proper application techniques. Reference ACI 318: 26.5 and IBC 1908.6, 1908.7, and 1908.8. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated.	X			Testing Agency	
8. Curing and Protection	Inspect for maintenance of specified curing temperature and techniques. Inspect cold weather and hot weather protection procedures as applicable. Reference ACI 318: 26.5.3-26.5.5 and IBC 1908.9		X		Testing Agency	
9. Prestressed (Post-tensioned) Concrete	a. Application of Prestressing Forces: Inspect placement, stressing, grouting and protection of post-tensioning tendons. Verify that tendons are correctly positioned, supported, tied and wrapped. Record tendon elongations. Reference ACI 318: 26.10.2 b. Grouting of Bonded Prestressing Tendons in the Seismic-Force Resisting System: Reference ACI 318: 26.10.1			X	Testing Agency	
10. Precast Concrete Erection	Inspect erection of precast concrete including member configuration, connections, welding and grouting. Reference ACI 318: Ch 26.9			X	Testing Agency	
11. Verification of In-Situ Concrete Strength	Verify concrete strength prior to the removal of shores and forms from beams and structural slabs and prior to the stressing of tendons in post-tensioned concrete. Reference ACI 318: 26.10.2 & 26.11.11.2			X	Testing Agency	
12. Formwork Geometry	Inspect formwork for shape, location and dimensions of the concrete member being formed. Reference ACI 318: 26.11		X		Testing Agency	

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MODELER: DAP
CHECKED BY: RW

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NO DATE DESCRIPTION

PROJECT NUMBER:
24-2550

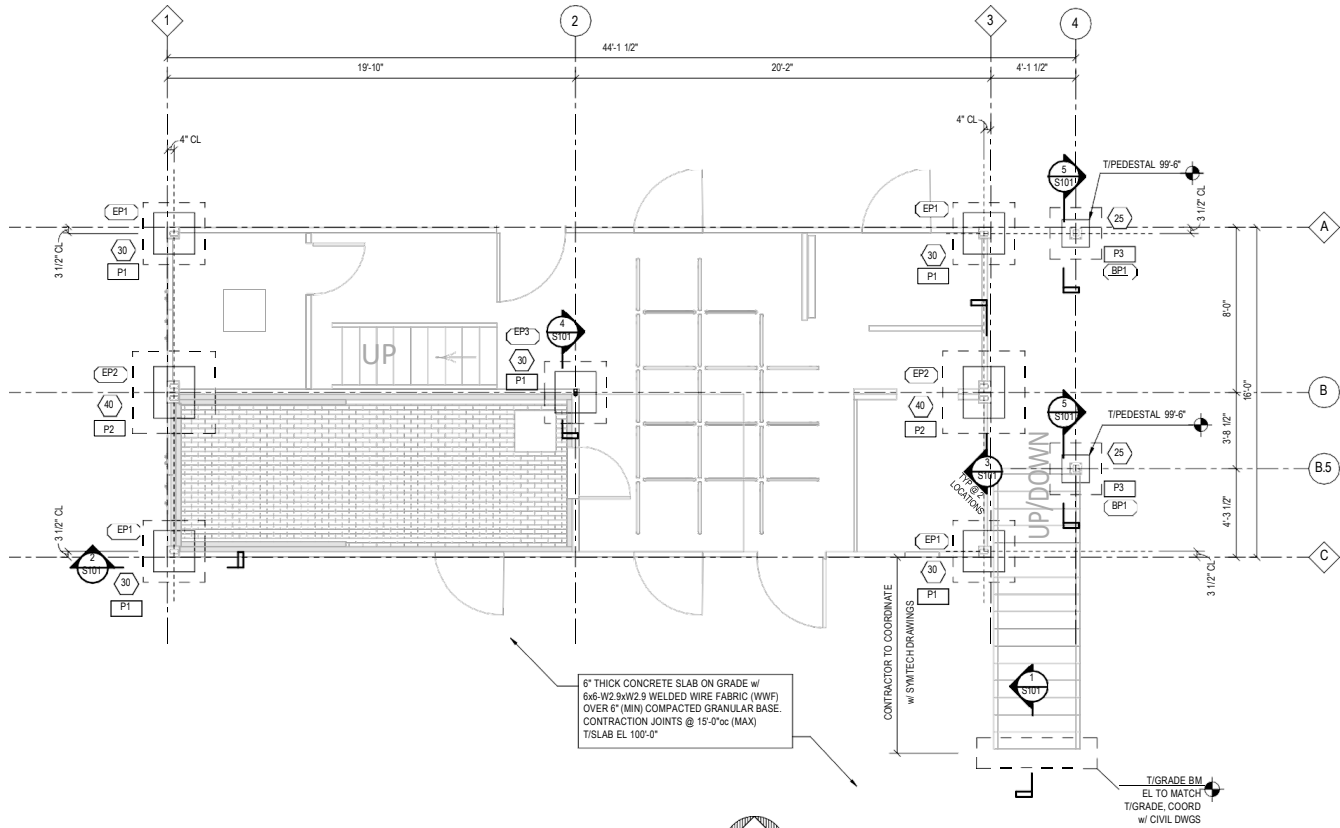
SHEET NAME:

SPECIAL INSPECTIONS

DATE:
02/14/2025

SHEET:

S002



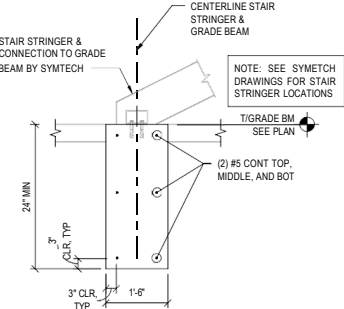
FOUNDATION PLAN

NOTES:

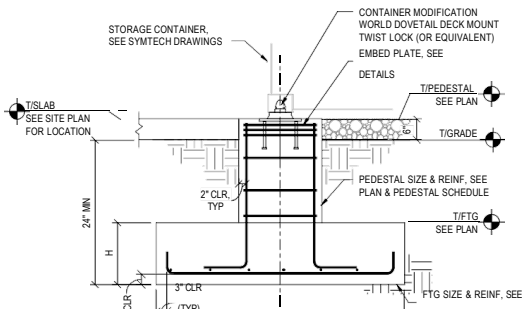
- REFERENCE PLAN ELEVATION 100'-0" = TOP OF FINISH GRADE BELOW CONTAINERS. COORDINATE ELEVATION w/ CIVIL ENGINEER PRIOR TO START OF CONSTRUCTION.
- TOP OF FOOTING ELEVATION = 98'-6", TYP UNO.
- TOP OF PEDESTAL ELEVATION = 100'-0", TYP UNO.
- SEE SHEET S301 FOR ABBREVIATIONS & LEGEND (SYMBOLS).



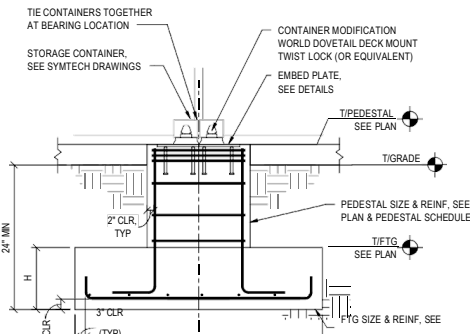
1/4" = 1'-0"



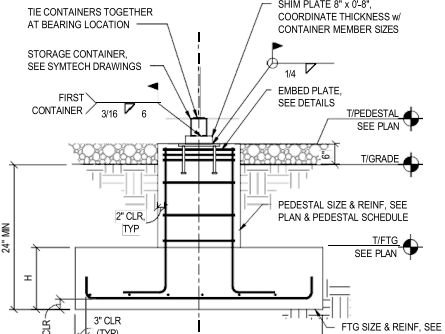
TYPICAL GRADE BEAM
BELOW STAIR STRINGER
NTS
S101



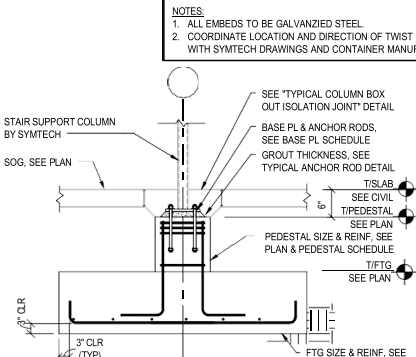
SECTION 2
1/2" = 1'-0" S101



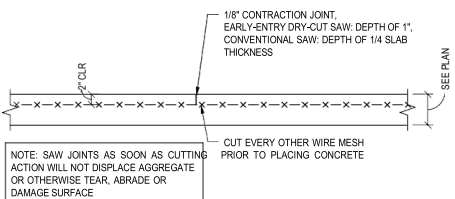
SECTION 3
1/2" = 1'-0" S101



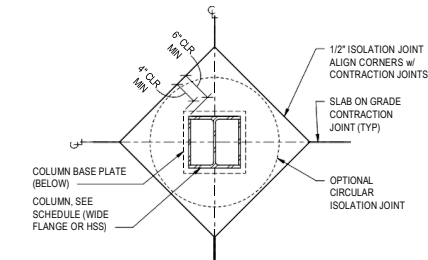
SECTION 4
1/2" = 1'-0" S101



SECTION 5
1/2" = 1'-0" S101



SLAB ON GRADE TYPICAL CONTRACTION JOINT
NTS



TYPICAL COLUMN BOX OUT ISOLATION JOINT
3/4" = 1'-0"

PEDESTAL SCHEDULE						
MARK	SIZE		PATTERN	REINFORCING		REMARKS
	B	L		VERTICAL BARS	TIES	
P1	2'-0"	2'-0"	A	(12) #5	#4 @ 10"oc	
P2	2'-0"	2'-6"	B	(12) #5	#4 @ 10"oc	
P3	1'-4"	1'-4"	C	(8) #5	#4 @ 10"oc	

NOTES:

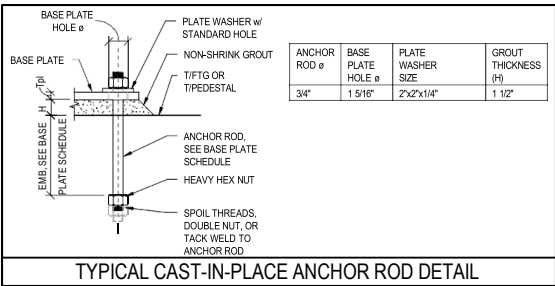
- SEE RELATING SECTIONS FOR ADDITIONAL INFORMATION.
- CENTER PEDESTAL ON COLUMN CENTERLINE OR CENTERLINE DIMENSION ON PLAN AS INDICATED.
- COORDINATE PEDESTAL ORIENTATION WITH FOUNDATION PLAN.
- REINFORCING HAS 2" CLEARANCE TO EXTERIOR FACE OF CONCRETE.
- PLACE (2) #4 TIES IN THE TOP 5" OF PEDESTAL, IN ADDITION TO SCHEDULED TIE REINFORCING.
- EXTEND PEDESTAL REINFORCING TO 4" CLEAR OF BOTTOM OF FOOTING & TERMINATE w/ STANDARD HOOK.

PATTERN TYPES:

TYPE A TYPE B TYPE C

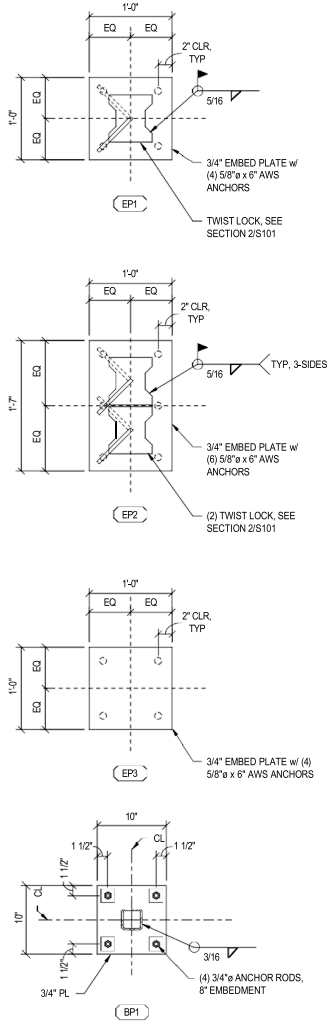
NOTE 5
SEE SCHEDULE
NOTE 6
SEE RELATING SECTION

FOOTING SCHEDULE (ISOLATED)						
MARK	SIZE		THICKNESS (H)	REINFORCING	REMARKS	
	LENGTH (L)	WIDTH (B)				
25	2'-6"	2'-6"	1'-0"	(3) #5 BOT EA WAY	PROVIDE STD HOOK ON REINF. TYP AT EA END	
30	3'-0"	3'-0"	1'-0"	(3) #5 BOT EA WAY	PROVIDE STD HOOK ON REINF. TYP AT EA END	
40	4'-0"	4'-0"	1'-0"	(4) #5 BOT EA WAY	PROVIDE STD HOOK ON REINF. TYP AT EA END	



TYPICAL CAST-IN-PLACE ANCHOR ROD DETAIL

BASE PLATE & EMBED PLATE DETAILS



NOTES:

- ALL EMBEDS TO BE GALVANIZED STEEL.
- COORDINATE LOCATION AND DIRECTION OF TWIST LOCKS ON "EP1" AND "EP2" WITH SYMTECH DRAWINGS AND CONTAINER MANUFACTURER.

STRUCTURAL ENGINEERS
800.542.3302
schaefer-inc.com

schaefer

STAMP:



GREENVILLE FIRE
DEPARTMENT TRAINING
FACILITY

E 2ND STREET
GREENVILLE, NC 27858

ENGINEER: IAU
MODELER: DAP
CHECKED BY: RW

ISSUE/REVISION/SUBMISSION
NO DATE DESCRIPTION

PROJECT NUMBER:
24-2550

SHEET NAME:
FOUNDATION
PLAN

DATE:
02/14/2025

SHEET:

S101

NC COMPLIANCE DATA:

ENTITY: STEVEN SCHAEFER ASSOCIATES, INC.
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CINCINNATI, OH 45202
LICENSE #: C-1023

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