

300 CHASE PARK SOUTH • SUITE 200 • HOOVER, ALABAMA 35244
205-988-9112

ADDENDUM NO. 3

NEW CLASSROOM ADDITION FOR ASHVILLE HIGH SCHOOL

Architect Job No. 24-106

September 4, 2025

DCM #20240625

BIDS DUE:

**Thursday, September 11, 2025, until
2:00 p.m., local time, held at
St. Clair County Board of Education, Annex
175 College Street
Odenville, AL 35120**

The Plans and Specifications are hereby amended. The following supersedes all contrary and/or conflicting information and is made part of the contract documents.

GENERAL

1. **PROPOSAL FORM and attachment – UNIT PRICES, & ACCOUNTING OF SALES TAX:** The attachment - Unit Prices has been added and reflects the most recent Schedule of Allowances. The attached forms are to be used in lieu of any previous version.

SPECIFICATIONS

1. **SECTION 01030 – SPECIAL PROJECT REQUIREMENTS:** Add the attached in its entirety.

Proposal for Geotechnical Engineering Services
Ashville High School
Ashville, St. Clair County, AL
Terracon Proposal No. PE1255061

2. **SECTION 01020 – ALLOWANCES:** Revise Schedule of Allowances as follows:

Allowance No. 1: Include a contingency allowance of \$250,000.00 for the Owner's use throughout the project for unforeseen conditions as directed by the Architect.

Allowance No. 2: Include a contingency allowance of **\$695.00** per thousand for the purchase of brick. Brick masonry installation and all associated materials shall be included under Base Bid.

Allowance No. 3: Include a contingency allowance of \$10,000.00, under Base Bid for materials and labor to aid in Construction for conditions unforeseen or not otherwise indicated, as directed by the Architect.

Allowance No. 4: Include a quantity allowance under Base Bid for providing materials and labor for an additional 250 sf (surface area) of 8" CMU Masonry wall system construction, not otherwise indicated, to be installed at the direction of the Architect throughout the project at single or multiple locations of any divisible quantity or location as directed by the Architect.

Allowance No. 5: Include a contingency allowance of \$35,000.00 to provide Fire Department Radio Transponder.

ADD: Allowance No. 6: Include a quantity allowance of 500 cy for undercutting and replacement of unsuitable soils. The Base Bid shall include the required cutting and filling of the existing grade to the proposed subgrade elevation. Onsite Geotechnical engineer shall determine if unsuitable soils are present. Unit prices shall be used for the addition or deletion of this assumed amount. See also Section 02300 – Earthwork.

ADD: Allowance No. 7: Include a contingency allowance of \$15,000.00 for Access Controls and updates to IT Infrastructure as directed by the Architect.

END OF SECTION

3. **SECTION 04200 – UNIT MASONRY:** Revised in its entirety, see attached.
4. **SECTION 07540 – TPO ROOFING SYSTEM:** Revised in its entirety, see attached.
5. **SECTION 08513 – ALUMINUM WINDOWS:** Revised in its entirety, see attached.

DRAWINGS

1. **SHEETS C-1.0, C-2.0, C-3.0, C-4.0, C-5.0, C-6.0, C-7.0, C-8.0:** Revised transformer location and power routing, removed the light duty paving section.
2. **SHEET A2.1:** Revised Detail #6 to read as Guardrail Detail.
3. **SHEET A2.4:** Revised Window Schedule, Door and Window Legend, and Detail 13,14, & 15.
4. **SHEET S3.1:** Revised Detail #1.
5. **SHEET E2.1:** Revised drawing for the rework of APCO items.

CLARIFICATIONS

1. **SECTION 03410: 2.5 Connection Materials: Item F. Bearing Pads:** 1/8" Korolath Engineered Multipolymer Plastic strips designed for the use with prestressed concrete plank shall be structurally acceptable for use on this project.
2. Type "A" Pex piping is to be used in lieu of copper piping for domestic water lines.

APPROVED MANUFACTURERS

The following manufacturers have submitted data for prior approval and have been approved by our office, **contingent upon the stipulation that their products must meet or exceed the contract specifications.**

Product

09510 Fine Fissured
15760 Mini Heat Pump System
15760 Mini Heat Pump System
15760 Mini Heat Pump System

Fine Fissured HHF-157
37 Series Condenser
615 Series
40 Series Air Handler Units

Manufacturer

Certain Teed
Bryant
Bryant
Carrier Corporation

PROPOSAL FORM

To: St. Clair County Board of Education Date: _____

In compliance with your Advertisement for Bids and subject to all the conditions thereof, the undersigned,

(Legal name of Bidder)

hereby proposes to furnish all labor and materials and perform all work required for the construction of

WORK: New Classroom Addition for Ashville High School, Architects Job No. 24-106, in accordance with

Drawings and Specifications, dated, July 31, 2025, prepared by Lathan Associates Architects, P.C., dba

Lathan McKee Architects, 300 Chase Park South, Suite 200, Hoover, AL 35244, Architect.

The Bidder, which is organized and existing under the laws of the State of _____,

having its principal offices in the City of _____,

is: _____ a Corporation _____ a Partnership _____ an individual _____ (other) _____,

LISTING OF PARTNERS OR OFFICERS: If Bidder is a Partnership, list all partners and their addresses; if

Bidder is a Corporation, list the names, titles and business addresses of its Officers:

BIDDER'S REPRESENTATION: The Bidder declares that it has examined the site of the Work, having become fully informed regarding all pertinent conditions, and that it has examined the Drawings and Specifications (including all Addenda received) for the Work and the other Bid and Contract Documents relative thereto; and that it has satisfied itself relative to the Work to be performed.

ADDENDA: The Bidder acknowledges receipt of Addenda Nos. _____ through _____ inclusively.

ALLOWANCES: The Bidder acknowledges by initials _____ that he/she has read Specification Section 01020 - Allowances and has included cost of same in bid.

ALABAMA IMMIGRATION LAW COMPLIANCE: The Bidder acknowledges by initials _____ that he/she will comply with H.B. 56 - Alabama Immigration Law Compliance.

BASE BID: For construction complete as shown and specified, the sum of _____ Dollars (\$ _____).

ALTERNATES: If alternates as set forth in the Bid Documents are accepted, the following adjustments are to be made to the Base Bid: **N/A**

UNIT PRICES: **SEE ATTACHMENT**

BID SECURITY: The undersigned agrees to enter into a Construction Contract and furnish the prescribed Performance and Payment Bonds and evidence of insurance within fifteen calendar days, or such other period stated in the Bid Documents, after the contract forms have been presented for signature, provided such presentation is made within 30 calendar days after the opening of bids, or such other period stated in the Bid Documents. As security for this condition, the undersigned further agrees that the funds represented by the Bid Bond (or cashier's check) attached hereto may be called and paid into the account of the Awarding Authority as liquidated damages for failure to comply.

Attached hereto is a: *(Mark the appropriate space and provide the applicable information.)*

____ Bid Bond, executed by _____ as Surety,
____ cashier's check on the _____ Bank of _____ ,
for the sum of _____ Dollars
(\$ _____) made payable to the Awarding Authority.

BIDDER'S ALABAMA LICENSE:

State License for General Contracting: _____
License Number Bid Limit Type(s) of Work

CERTIFICATIONS: The undersigned certifies that he or she is authorized to execute contracts on behalf of the Bidder as legally named, that this proposal is submitted in good faith without fraud or collusion with any other bidder, that the information indicated in this document is true and complete, and that the bid is made in full accord with State law. Notice of acceptance may be sent to the undersigned at the address set forth below.

The Bidder also declares that a list of all proposed major subcontractors and suppliers will be submitted at a time subsequent to the receipt of bids as established by the Architect in the Bid Documents but in no event shall this time exceed twenty-four (24) hours after receipt of bids.

Legal Name of Bidder _____

Mailing Address _____

*** By (Legal Signature)** _____ (Seal)

*** Name & Title (print)** _____

Telephone Number _____

Email Address _____

* If other than an individual proprietor, or an above named member of the Partnership, or the above named president, vice-president, or secretary of the Corporation, attach written authority to bind the Bidder. Any modification to a bid shall be over the initials of the person signing the bid, or of an authorized representative.

Note: A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.

PROPOSAL FORM ATTACHMENT

UNIT PRICES

For certain items of **credit or extra work**, if required, the undersigned proposes UNIT PRICES as follows:

UNDERCUTTING & REPLACEMENT
OF UNSUITABLE SOILS

\$ _____ /per cu. yd.

CMU MASONRY WALL CONSTRUCTION

\$ _____ /per sq. ft.

Note: All grading shown on the drawings shall be included in the Base Bid as Unclassified to required subgrade elevations. This Base Bid grading shall include the required cutting and filling of the existing grade to the proposed subgrade elevation. Onsite Geotechnical engineer shall determine if unsuitable soils are present.

Refer to SECTION 02300 - EARTHWORK for additional information regarding undercut & replacement of unsuitable soils and associated quantity allowance.

Note: Costs for profit and overhead shall be included in Unit Prices.

Note: Unit Prices are provided for the addition to or deletion from the contract Base Bid.

BIDDER (to be signed by an Officer of the Company)

(Name/Title)

by _____
(Legal Signature)

WITNESS (to the above signature)

(Name/Title)

by _____
(Legal Signature)

ACCOUNTING OF SALES TAX

Attachment to DCM Form C-3: Proposal Form

To: St Clair County Board Of Education **Date:** _____

(Awarding Authority)

NAME OF PROJECT: New Classroom Addition for Ashville High School

SALES TAX ACCOUNTING

Pursuant to Act 2013-205, Section 1(g) the Contractor accounts for the sales tax NOT included in the bid proposal form as follows:

ESTIMATED SALES TAX AMOUNT

BASE BID: \$ _____

Failure to provide an accounting of sales tax shall render the bid non-responsive. Other than determining responsiveness, sales tax accounting shall not affect the bid pricing nor be considered in the determination of the lowest responsible and responsive bidder.

Legal Name of Bidder _____

Mailing Address _____

* By (Legal Signature) _____

* Name (type or print) _____

* Title _____ (Seal)

Telephone Number _____

Email Address _____

Note: A completed DCM Form C-3A: Accounting of Sales Tax must be submitted with DCM Form C-3: Proposal Form. Submission of DCM Form C-3A with DCM Form C-3 is required, it is not optional. A proposal shall be rendered non-responsive if an Accounting of Sales Tax is not provided.



2147 Riverchase Office Road
Birmingham, Alabama 35244
P (205) 942-1289
Terracon.com

March 31, 2025

St. Clair County Board of Education
410 Roy Drive
Ashville, Alabama 35953

Attn: Dr. Justin Burns
P: 205-594-7131
E: justin.burns@sccboe.org

RE: Proposal for Geotechnical Engineering Services
Classroom Addition
Ashville High School
Ashville, St. Clair County, AL
Terracon Proposal No. PE1255061

Dear Dr. Burns:

We appreciate the opportunity to submit this proposal to St. Clair County Board of Education and Lathan Architects to provide Geotechnical Engineering services for the above referenced project. The following are exhibits to the attached Agreement for Services.

| | |
|-----------|-----------------------------------|
| Exhibit A | Project Understanding |
| Exhibit B | Scope of Services |
| Exhibit C | Compensation and Project Schedule |
| Exhibit D | Site Location |
| Exhibit E | Anticipated Exploration Plan |

Our base fee to perform the Scope of Services described in this proposal is \$8,300. Exhibit C includes details of our fees and consideration of additional services as well as a general breakdown of our anticipated schedule.

Your authorization for Terracon to proceed in accordance with this proposal can be issued by signing and returning a copy of the attached Agreement for Services to our office.

Sincerely,
Terracon

A handwritten signature in black ink, appearing to read "Bryan Ritenour".

Bryan Ritenour, P.E.
Senior Engineer

A handwritten signature in black ink, appearing to read "Matt McCullough".

Matt McCullough, P.E.
Geotechnical Department Manager

Exhibit A – Project Understanding

Our Scope of Services is based on our understanding of the project as described by Lathan Architects. We have not visited the project site to confirm the information provided. Our understanding of the aspects of the project are shown in the table below. We request Lathan Architects and/or the design team verify all information prior to our initiation of field exploration activities.

Planned Construction

| Item | Description |
|--------------------------------------|---|
| Information Provided | Site layout plans with were provided by Mr. Cody Bryant via email. |
| Project Description | The project will consist of a classroom addition and new pavement at the existing Ashville High School. |
| Proposed Structures | Gymnasium addition and new classrooms |
| Building Construction | Masonry with slab on grade |
| Finished Floor Elevation | Assumed to match existing building |
| Maximum Loads | <ul style="list-style-type: none"> ■ Columns: 100 - 200 kips (assumed) ■ Walls: 3-5 kips per linear foot (klf) (assumed) ■ Floor Slabs: 100 pounds per square foot (psf) (assumed) |
| Grading/Slopes | No grading plans for this project have been provided. We anticipate cuts and fills of less than 2 feet will be required. |
| Below-Grade Structures | None anticipated |
| Free-Standing Retaining Walls | None anticipated |
| Pavements | New asphalt or concrete pavement |

Site Location and Anticipated Conditions

| Item | Description |
|---------------------------|--|
| Parcel Information | The project is located at the existing Ashville High School in Ashville, St. Clair County, AL. (See Exhibit D) |

| Item | Description |
|-----------------------|--|
| | Latitude/Longitude (approximate): 33.8183° N, 86.2671° W |
| Existing Improvements | Parking area |
| Current Ground Cover | Grass and gravel |
| Existing Topography | The site is relatively level. |
| Site Access | We expect the site, and all exploration locations, are accessible with our truck-mounted drilling equipment and support vehicles. Site access will be coordinated with SCCBOE or Ashville High School staff. |

Exhibit B - Scope of Services

Our proposed Scope of Services consists of field exploration, laboratory testing, and engineering/project delivery. These services are described in the following sections.

Field Exploration

The following boring locations and depths are planned based on requests from the Civil and Structural Engineers:

| Number of Borings | Planned Boring Depth (feet) ¹ | Planned Location ² (See Exhibit E) |
|-------------------|--|--|
| 5 | 15 | Footprint of addition |
| 4 | 5 | New Pavements |

1. Borings would be terminated at shallower depths if refusal is encountered.
2. Borings may be offset from the planned locations due to buried or overhead utilities, sloping terrain, or other conflicts.

Boring Layout and Elevations: Field measurements from existing site features will be used to locate the borings. If available, approximate elevations will be obtained by interpolation from a site specific, surveyed topographic map. We can alternatively coordinate with your Project Surveyor to include locations and surface elevations in project information if so requested.

Subsurface Exploration Procedures: We will advance borings with a truck-mounted drill rig using continuous flight augers (solid stem and/or hollow stem, as necessary, depending on soil conditions). Four samples will be obtained in the upper 10 feet of each boring and at intervals of 5 feet thereafter. Soil sampling is typically performed using thin-wall tube and/or split-barrel sampling procedures. The split-barrel samplers are driven in accordance with the standard penetration test (SPT). The samples will be placed in appropriate containers, taken to our soil laboratory for testing, and classified by a Geotechnical Engineer. In addition, we will observe and record groundwater levels during drilling and sampling.

Our exploration team will prepare field boring logs as part of standard drilling operations including sampling depths, penetration distances, and other relevant sampling information. Field logs include visual classifications of materials observed during drilling and our interpretation of subsurface conditions between samples. Final boring logs, prepared from field logs, represent the Geotechnical Engineer's interpretation and include modifications based on observations and laboratory tests.

Property Disturbance: Terracon will take reasonable efforts to reduce damage to the property. However, it should be understood that in the normal course of our work some disturbance could occur including rutting of the ground surface.

We will backfill borings with auger cuttings upon completion. Our services do not include repair of the site beyond backfilling our boreholes. Excess auger cuttings will be dispersed in the general vicinity of the borehole. Because backfill material often settles below the surface after a period, we recommend boreholes to be periodically checked and backfilled, if necessary. We can provide this service or grout the boreholes for additional fees at your request. To reduce the risk of future settlement, we will backfill the upper portion of each borehole with a cement mixture.

Safety

Terracon is not aware of environmental concerns at this project site that would create health or safety hazards associated with our exploration program; thus, our Scope considers standard OSHA Level D Personal Protection Equipment (PPE) appropriate. Our Scope of Services does not include environmental site assessment services, but identification of unusual or unnatural materials observed while drilling will be noted on our logs.

Exploration efforts require borings into the subsurface, therefore Terracon will comply with local regulations to request a utility location service through Alabama 811. We will consult with the SCCBOE Staff regarding potential utilities or other unmarked underground hazards.

Private utilities should be marked by the owner/client prior to commencement of field exploration. Terracon will not be responsible for damage to private utilities not disclosed to us.

Terracon's base Scope of Services includes a private utility subcontractor to scan each exploration point to reduce, but not eliminate, the risk of encountering a buried utility. The detection of underground utilities is dependent upon the composition and construction of the utility line; some utilities are comprised of non-electrically conductive materials and may not be readily detected. The use of a private utility subcontractor would not relieve the landowner/client of their responsibilities in identifying private underground utilities. We request that SCBOE observe each of our proposed boring locations for the presence of known buried utilities.

Site Access: Terracon must be granted access to the site by the property owner. Without information to the contrary, we consider acceptance of this proposal as authorization to access the property for conducting field exploration in accordance with the Scope of Services. Site access will be coordinated with SCCBOE or Ashville High

School staff. Terracon will conduct field services during normal business hours (Monday through Friday between 7:00am and 5:00pm). If our exploration must take place over a weekend or at night, please contact us so we can adjust our schedule and fee.

For the safety of students, faculty, and our crew, foot traffic must be restricted around our work areas. If necessary, we will use cones and/or flagging to block off the areas around our exploration points.

Laboratory Testing

The project engineer will review field data and assign laboratory tests to understand the engineering properties of various soil strata. Exact types and number of tests cannot be defined until completion of fieldwork, but we anticipate the following laboratory testing may be performed:

- Moisture content
- Atterberg limits/Sieve Analysis

Our laboratory testing program often includes examination of soil samples by an engineer. Based on the results of our field and laboratory programs, we will describe and classify soil samples in accordance with the Unified Soil Classification System (USCS).

Engineering and Project Delivery

The results of our field and laboratory programs will be evaluated, and a geotechnical engineering report will be prepared under the supervision of a licensed professional engineer. The geotechnical engineering report will provide the following:

- Boring logs with field and laboratory data
- Stratification based on visual soil classification
- Groundwater levels observed during and after the completion of drilling
- Site Location and Exploration Plans
- Subsurface exploration procedures
- Description of subsurface conditions
- Recommended foundation options and engineering design parameters
- Estimated settlement of foundations
- Seismic site classification
- Earthwork recommendations including site/subgrade preparation
- Recommendations for the design and construction of interior floor slabs
- Pavement recommendations based on local practices

In addition to an emailed report, your project will also be delivered using our **Client Portal**. Upon initiation, we provide you and your design team the necessary link and password to access the website (if not previously registered). Each project includes a calendar to track the schedule, an interactive site map, a listing of team members, access to the project documents as they are uploaded to the site, and a collaboration portal. We welcome the opportunity to have project kickoff conversations with the team to discuss key elements of the project and demonstrate features of the portal. The typical delivery process includes the following:

- Project Planning – Proposal information, schedule and anticipated exploration plan
- Site Characterization – Findings of the site exploration and laboratory results
- Geotechnical Engineering Report

When services are complete, we upload a printable version of our completed Geotechnical Engineering report, including the professional engineer's seal and signature, which documents our services. Previous submittals, collaboration, and the report are maintained in our system. This allows future reference and integration into subsequent aspects of our services as the project goes through final design and construction.

Additional Services

In addition to the services noted above, the following are often associated with geotechnical engineering services. Fees for services noted above do not include the following:

Review of Plans and Specifications: Our geotechnical report and associated verbal and written communications will be used by others in the design team to develop plans and specifications for construction. Review of project plans and specifications is a vital part of our geotechnical engineering services. This consists of review of project plans and specifications related to site preparation, foundation, and pavement construction. Our review will include a written statement conveying our opinions relating to the plans and specifications' consistency with our geotechnical engineering recommendations.

Observation and Testing of Pertinent Construction Materials: Development of our geotechnical engineering recommendations and report relies on an interpretation of soil conditions. Our assessment is based on widely spaced exploration locations and the assumption that construction methods will be performed in a manner sufficient to meet our expectations and consistent with recommendations made at the time the geotechnical engineering report is issued. We should be retained to conduct construction observations, and perform/document associated materials testing, for site preparation, foundation, and pavement construction. These services allow a more comprehensive understanding of subsurface conditions and necessary documentation of construction to

confirm and/or modify (when necessary) the assumptions and recommendations made by our engineers.

Exhibit C - Compensation and Project Schedule

Compensation

Based upon our understanding of the site, the project as summarized in Exhibit A, and our planned Scope of Services outlined in Exhibit B, our base fee is shown in the following table:

| Task | Lump Sum Fee ² |
|--|---------------------------|
| GPR Scan for Private Utilities, Subsurface Exploration ¹ , Laboratory Testing, Geotechnical Reporting | \$8,300 |

1. The lump sum fee considers one drill rig mobilization and no unexpected onsite delays. If additional drill rig mobilizations are required, an additional fee of \$800 would be invoiced. A drill crew standby rate of \$200 per hour would be invoiced for unexpected delays.
2. Proposed fees noted above are effective for 90 days from the date of the proposal.

Our Scope of Services does not include services associated with site clearing, wet ground conditions, tree or shrub clearing, or repair of/damage to existing landscape. If such services are desired by the owner/client, we should be notified so we can adjust our Scope of Services.

Unless instructed otherwise, we will submit our invoice(s) to the address shown at the beginning of this proposal. If conditions are encountered that require Scope of Services revisions and/or result in higher fees, we will contact you for approval, prior to initiating services. A supplemental proposal stating the modified Scope of Services as well as its effect on our fee will be prepared. We will not proceed without your authorization.

Project Schedule

We developed a schedule to complete the Scope of Services based upon our existing availability and understanding of your project schedule. However, our schedule does not account for delays in field exploration beyond our control, such as weather conditions, delays resulting from utility clearance, or lack of permission to access the boring

locations. In the event the schedule provided is inconsistent with your needs, please contact us so we may consider alternatives.

| Delivery on Client Portal | Schedule ^{1, 2} |
|---|--|
| Kickoff Call with Client | 5 days after notice to proceed |
| Field Exploration | Anticipated to begin within 10 to 15 days after notice to proceed, 1 day to complete |
| Site Characterization | 5 days after completion of field exploration |
| Geotechnical Report | 10 days after completion of field exploration |
| 1. Upon receipt of your notice to proceed we will activate the schedule component on Client Portal with specific, anticipated dates for the delivery points noted above as well as other pertinent events. 2. Standard workdays. We will maintain an activities calendar within on Client Portal . The schedule will be updated to maintain a current awareness of our plans for delivery. | |

Exhibit D – Site Location

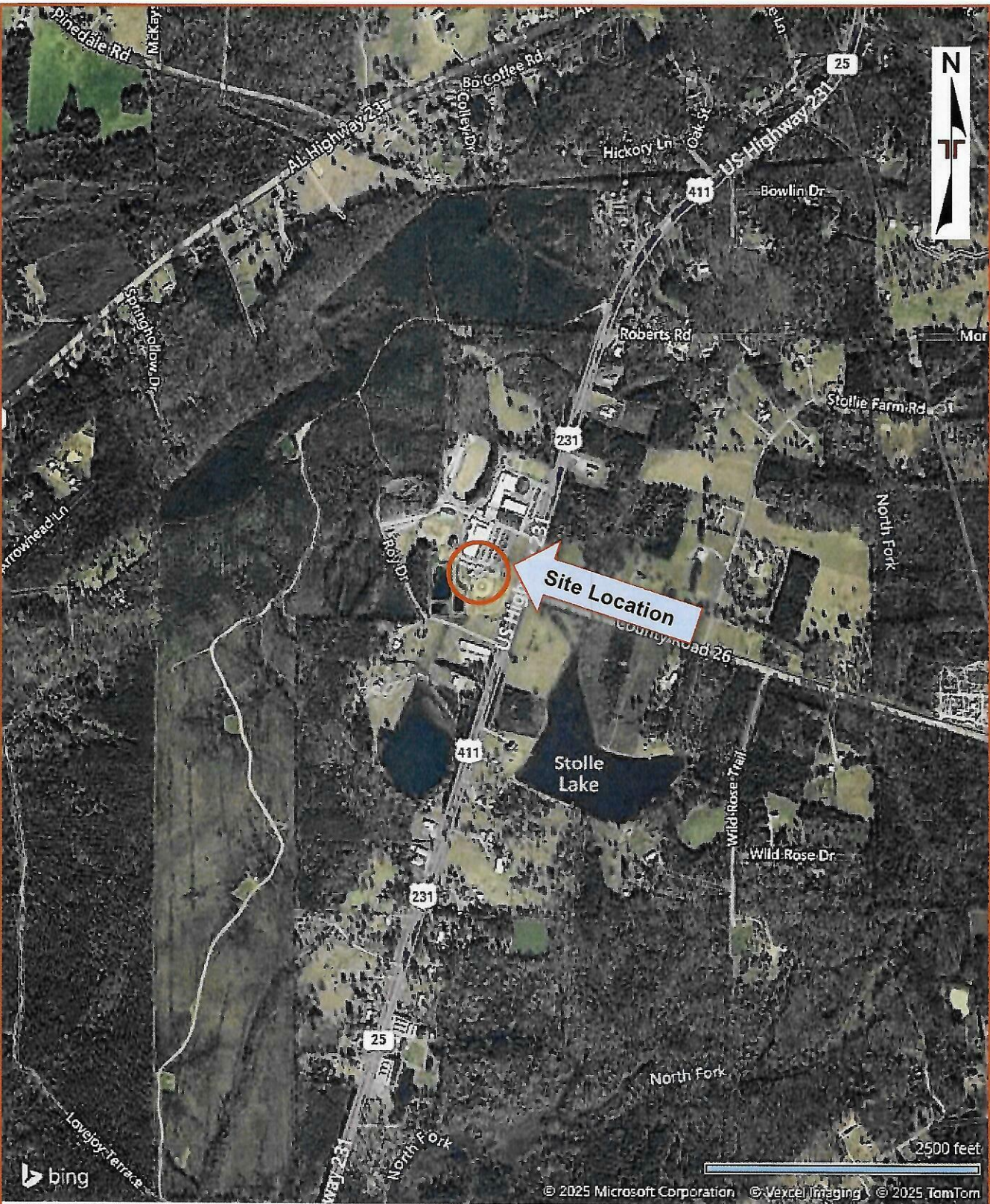
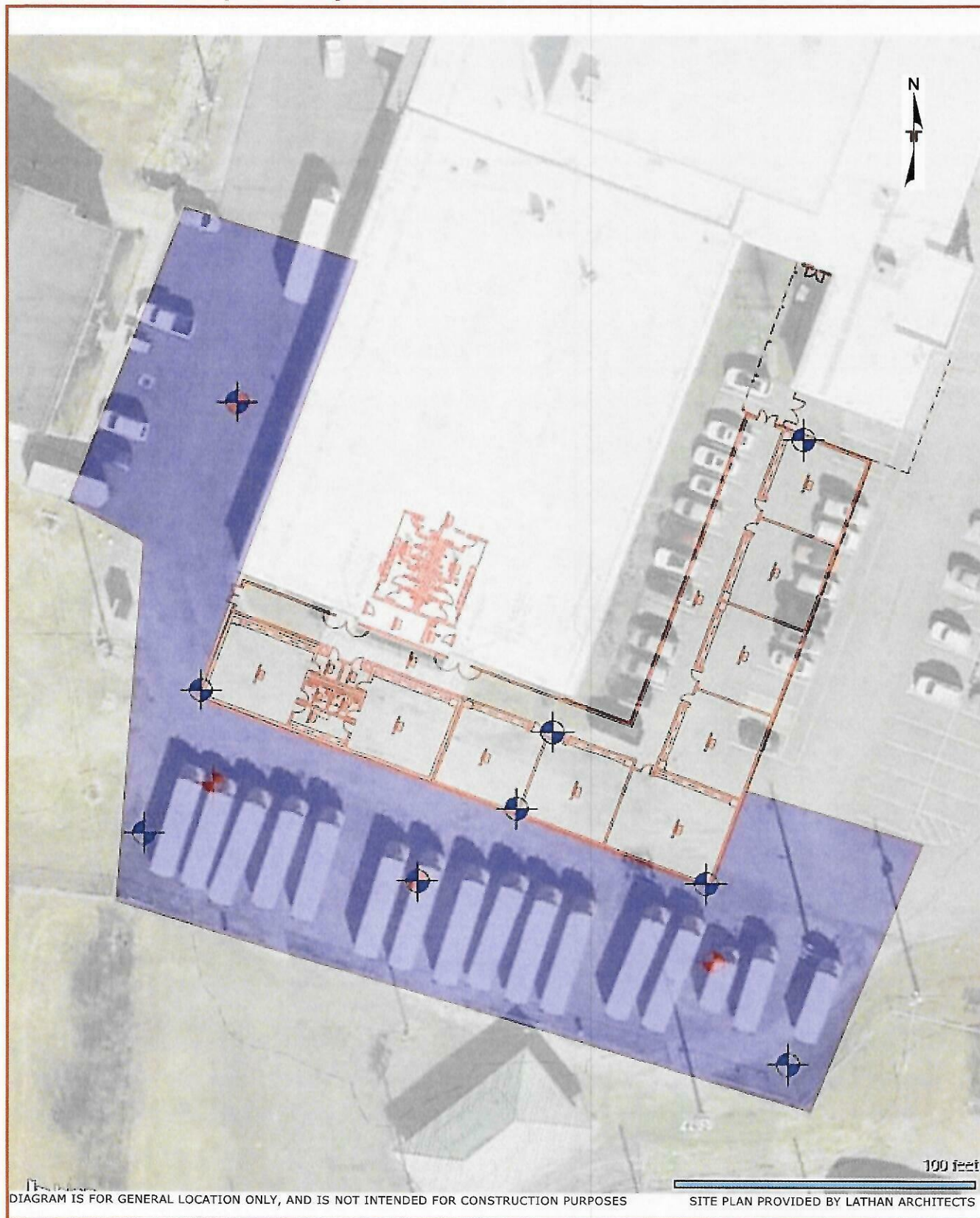


Exhibit E – Anticipated Exploration Plan



AGREEMENT FOR SERVICES

This **AGREEMENT** is between St. Clair County Board of Education ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the Ashville High School Classroom Addition project ("Project"), as described in Consultant's Proposal dated 03/31/2025 ("Proposal"), including but not limited to the Project Information section, unless the Project is otherwise described in Exhibit A to this Agreement (which section or Exhibit is incorporated into this Agreement).

- 1. Scope of Services.** The scope of Consultant's services is described in the Proposal, including but not limited to the Scope of Services section ("Services"), unless Services are otherwise described in Exhibit B to this Agreement (which section or exhibit is incorporated into this Agreement). Portions of the Services may be subcontracted. Consultant's Services do not include the investigation or detection of, nor do recommendations in Consultant's reports address the presence or prevention of biological pollutants (e.g., mold, fungi, bacteria, viruses, or their byproducts) or occupant safety issues, such as vulnerability to natural disasters, terrorism, or violence. If Services include purchase of software, Client will execute a separate software license agreement. Consultant's findings, opinions, and recommendations are based solely upon data and information obtained by and furnished to Consultant at the time of the Services.
- 2. Acceptance/ Termination.** Client agrees that execution of this Agreement is a material element of the consideration Consultant requires to execute the Services, and if Services are initiated by Consultant prior to execution of this Agreement as an accommodation for Client at Client's request, both parties shall consider that commencement of Services constitutes formal acceptance of all terms and conditions of this Agreement. Additional terms and conditions may be added or changed only by written amendment to this Agreement signed by both parties. In the event Client uses a purchase order or other form to administer this Agreement, the use of such form shall be for convenience purposes only and any additional or conflicting terms it contains are stricken. This Agreement shall not be assigned by either party without prior written consent of the other party. Either party may terminate this Agreement or the Services upon written notice to the other. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination plus reasonable costs of closing the Project.
- 3. Change Orders.** Client may request changes to the scope of Services by altering or adding to the Services to be performed. If Client so requests, Consultant will return to Client a statement (or supplemental proposal) of the change setting forth an adjustment to the Services and fees for the requested changes. Following Client's review, Client shall provide written acceptance. If Client does not follow these procedures, but instead directs, authorizes, or permits Consultant to perform changed or additional work, the Services are changed accordingly and Consultant will be paid for this work according to the fees stated or its current fee schedule. If project conditions change materially from those observed at the site or described to Consultant at the time of proposal, Consultant is entitled to a change order equitably adjusting its Services and fee.
- 4. Compensation and Terms of Payment.** Client shall pay compensation for the Services performed at the fees stated in the Proposal, including but not limited to the Compensation section, unless fees are otherwise stated in Exhibit C to this Agreement (which section or Exhibit is incorporated into this Agreement). If not stated in either, fees will be according to Consultant's current fee schedule. Fee schedules are valid for the calendar year in which they are issued. Fees do not include sales tax. Client will pay applicable sales tax as required by law. Consultant may invoice Client at least monthly and payment is due upon receipt of invoice. Client shall notify Consultant in writing, at the address below, within 15 days of the date of the invoice if Client objects to any portion of the charges on the invoice, and shall promptly pay the undisputed portion. Client shall pay a finance fee of 1.5% per month, but not exceeding the maximum rate allowed by law, for all unpaid amounts 30 days or older. Client agrees to pay all collection-related costs that Consultant incurs, including attorney fees. Consultant may suspend Services for lack of timely payment. It is the responsibility of Client to determine whether federal, state, or local prevailing wage requirements apply and to notify Consultant if prevailing wages apply. If it is later determined that prevailing wages apply, and Consultant was not previously notified by Client, Client agrees to pay the prevailing wage from that point forward, as well as a retroactive payment adjustment to bring previously paid amounts in line with prevailing wages. Client also agrees to defend, indemnify, and hold harmless Consultant from any alleged violations made by any governmental agency regulating prevailing wage activity for failing to pay prevailing wages, including the payment of any fines or penalties.
- 5. Third Party Reliance.** This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties other than those who have executed Consultant's reliance agreement, subject to the prior approval of Consultant and Client.
- 6. LIMITATION OF LIABILITY. CLIENT AND CONSULTANT HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING CONSULTANT'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE ASSOCIATED RISKS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF CONSULTANT (AND ITS RELATED CORPORATIONS AND EMPLOYEES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF \$50,000 OR CONSULTANT'S FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF CONSULTANT'S SERVICES OR THIS AGREEMENT. PRIOR TO ACCEPTANCE OF THIS AGREEMENT AND UPON WRITTEN REQUEST FROM CLIENT, CONSULTANT MAY NEGOTIATE A HIGHER LIMITATION FOR ADDITIONAL CONSIDERATION IN THE FORM OF A SURCHARGE TO BE ADDED TO THE AMOUNT STATED IN THE COMPENSATION SECTION OF THE PROPOSAL. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE(S), OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER CONSULTANT'S COMMERCIAL GENERAL LIABILITY POLICY.**
- 7. Indemnity/Statute of Limitations.** Consultant and Client shall indemnify and hold harmless the other and their respective employees from and against legal liability for claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are legally determined to be caused by their negligent acts, errors, or omissions. In the event such claims, losses, damages, or expenses are legally determined to be caused by the joint or concurrent negligence of Consultant and Client, they shall be borne by each party in proportion to its own negligence under comparative fault principles. Neither party shall have a duty to defend the other party, and no duty to defend is hereby created by this indemnity provision and such duty is explicitly waived under this Agreement. Causes of action arising out of Consultant's Services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity or other recovery shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of Consultant's substantial completion of Services on the project.
- 8. Warranty.** Consultant will perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. **EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONSULTANT MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**
- 9. Insurance.** Consultant represents that it now carries, and will continue to carry: (i) workers' compensation insurance in accordance with the laws of the states having jurisdiction over Consultant's employees who are engaged in the Services, and employer's liability insurance (\$1,000,000); (ii) commercial general liability insurance (\$2,000,000 occ / \$4,000,000 agg); (iii) automobile liability insurance (\$2,000,000 B.I. and P.D. combined single limit); (iv) umbrella liability (\$5,000,000 occ / agg); and (v) professional liability insurance (\$1,000,000 claim / agg). Certificates of insurance will be provided upon request. Client and Consultant shall waive subrogation against the other party on all general liability and property coverage.

- 10. CONSEQUENTIAL DAMAGES.** NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE; LOSS OF USE OR OPPORTUNITY; LOSS OF GOOD WILL; COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES; COST OF CAPITAL; OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.
- 11. Dispute Resolution.** Client shall not be entitled to assert a Claim against Consultant based on any theory of professional negligence unless and until Client has obtained the written opinion from a registered, independent, and reputable engineer, architect, or geologist that Consultant has violated the standard of care applicable to Consultant's performance of the Services. Client shall provide this opinion to Consultant and the parties shall endeavor to resolve the dispute within 30 days, after which Client may pursue its remedies at law. This Agreement shall be governed by and construed according to Kansas law.
- 12. Subsurface Explorations.** Subsurface conditions throughout the site may vary from those depicted on logs of discrete borings, test pits, or other exploratory services. Client understands Consultant's layout of boring and test locations is approximate and that Consultant may deviate a reasonable distance from those locations. Consultant will take reasonable precautions to reduce damage to the site when performing Services; however, Client accepts that invasive services such as drilling or sampling may damage or alter the site. Site restoration is not provided unless specifically included in the Services.
- 13. Testing and Observations.** Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Consultant will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive, and are conducted to reduce - not eliminate - project risk. Client shall cause all tests and inspections of the site, materials, and Services performed by Consultant to be timely and properly scheduled in order for the Services to be performed in accordance with the plans, specifications, contract documents, and Consultant's recommendations. No claims for loss or damage or injury shall be brought against Consultant by Client or any third party unless all tests and inspections have been so performed and Consultant's recommendations have been followed. Unless otherwise stated in the Proposal, Client assumes sole responsibility for determining whether the quantity and the nature of Services ordered by Client is adequate and sufficient for Client's intended purpose. Client is responsible (even if delegated to contractor) for requesting services, and notifying and scheduling Consultant so Consultant can perform these Services. Consultant is not responsible for damages caused by Services not performed due to a failure to request or schedule Consultant's Services. Consultant shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Consultant's performance of testing and observation services shall not relieve Client's contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. Consultant will not supervise or direct the work performed by Client's contractor or its subcontractors and is not responsible for their means and methods. The extension of unit prices with quantities to establish a total estimated cost does not guarantee a maximum cost to complete the Services. The quantities, when given, are estimates based on contract documents and schedules made available at the time of the Proposal. Since schedule, performance, production, and charges are directed and/or controlled by others, any quantity extensions must be considered as estimated and not a guarantee of maximum cost.
- 14. Sample Disposition, Affected Materials, and Indemnity.** Samples are consumed in testing or disposed of upon completion of the testing procedures (unless stated otherwise in the Services). Client shall furnish or cause to be furnished to Consultant all documents and information known or available to Client that relate to the identity, location, quantity, nature, or characteristic of any hazardous waste, toxic, radioactive, or contaminated materials ("Affected Materials") at or near the site, and shall immediately transmit new, updated, or revised information as it becomes available. Client agrees that Consultant is not responsible for the disposition of Affected Materials unless specifically provided in the Services, and that Client is responsible for directing such disposition. In no event shall Consultant be required to sign a hazardous waste manifest or take title to any Affected Materials. Client shall have the obligation to make all spill or release notifications to appropriate governmental agencies. The Client agrees that Consultant neither created nor contributed to the creation or existence of any Affected Materials conditions at the site and Consultant shall not be responsible for any claims, losses, or damages allegedly arising out of Consultant's performance of Services hereunder, or for any claims against Consultant as a generator, disposer, or arranger of Affected Materials under federal, state, or local law or ordinance.
- 15. Ownership of Documents.** Work product, such as reports, logs, data, notes, or calculations, prepared by Consultant shall remain Consultant's property. Proprietary concepts, systems, and ideas developed during performance of the Services shall remain the sole property of Consultant. Files shall be maintained in general accordance with Consultant's document retention policies and practices.
- 16. Utilities.** Unless otherwise stated in the Proposal, Client shall provide the location and/or arrange for the marking of private utilities and subterranean structures. Consultant shall take reasonable precautions to avoid damage or injury to subterranean structures or utilities. Consultant shall not be responsible for damage to subterranean structures or utilities that are not called to Consultant's attention, are not correctly marked, including by a utility locate service, or are incorrectly shown on the plans furnished to Consultant.
- 17. Site Access and Safety.** Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services and will execute any necessary site access agreement. Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any third parties, including Client's contractors, subcontractors, or other parties present at the site. In addition, Consultant retains the right to stop work without penalty at any time Consultant believes it is in the best interests of Consultant's employees or subcontractors to do so in order to reduce the risk of exposure to unsafe site conditions. Client agrees it will respond quickly to all requests for information made by Consultant related to Consultant's pre-task planning and risk assessment processes.

Consultant: **Terracon Consultants, Inc.**

By: *Bryan Ritenour* Date: **3/31/2025**

Name/Title: **Bryan C Ritenour / Senior Engineer**

Address: **2147 Riverchase Office Rd**
Hoover, AL 35244-1836

Phone: **(205) 942-1289** Fax: **(205) 443-5302**

Email: **Bryan.Ritenour@terracon.com**

Client: **St. Clair County Board of Education**

By: *Justin Burns* Date: _____

Name/Title: **Justin Burns / Superintendent**

Address: **175 College St**
Odenville, AL 35120

Phone: **(205) 594-7131** Fax: _____

Email: **justin.burns@sccboe.org**

1.0 - GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 Summary

- A. This Section includes unit masonry assemblies consisting of , but not limited to the following:
 - 1. Concrete Masonry Units
 - 2. Mortar and Grout
 - 3. Insulation in masonry walls
- B. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 7 - Section-07910 – Caulking and Sealants
 - 2. Division 8 - Section 08110 - Hollow Metal Doors and Frames
 - 3. Division 8 - Section 08215 – Flush Wood Doors”
- C. Products installed but not furnished under this Section include the following:
 - 1. Hot dip-galvanized Steel lintels for unit masonry
 - 2. Wood nailers and blocking built into unit masonry
 - 3. Manufactured reglets in masonry joints for metal flashing specified in Flashing and Sheet Metal Work

1.3 Submittals

- A. General: Submit each item according to the Conditions of the Contract and Specification Section 01350 - Submittals.
- B. Product data for each different masonry unit, accessory, and other manufactured product specified.
- C. List of Materials Used in Construction Mockups: List generic names together with manufacturers, manufacturers' product names, model numbers, lot numbers, batch numbers, source of supply and other information as required to identify materials used. Include mix proportions for mortar and grout and source of aggregates.
 - 1. Submittal is for information only. Neither receipt of list nor approval of mockup constitutes approval of deviations from the Contract Documents unless such deviations are specifically brought to the attention of the Architect and approved in writing.
- D. Material certificates for the following, signed by manufacturer and Contractor, certifying that each material complies with requirements.

1. Each different cement product required for mortar and grout, including name of manufacturer, brand, type, and weight slips at time of delivery.
 2. Each material and grade indicated for reinforcing bars.
 3. Each type and size of joint reinforcing.
 4. Each type and size of anchors, ties, and metal accessories.
- E. Material test reports from a qualified independent testing agency, employed and paid by Contractor or manufacturer, indicating and interpreting test results relative to compliance of the following proposed masonry materials with requirements indicated:
1. Mortar complying with property requirements of ASTM C 270.
 2. Grout complying with property requirements of ASTM C 476.
 3. Masonry units complying with property requirements of ASTM C90.
- F. Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

1.4 Quality Assurance

- A. Clay Masonry Unit Test: For each clay masonry unit indicated, per ASTM C 67
- B. Concrete Masonry Unit Test: For each different concrete masonry unit indicated, per ASTM C 140
- C. Mortar Test: Test mortar properties per test methods of ASTM C 270
- D. Evaluate mortar composition and properties per ASTM C 780
- E. Grout Test: Test grout for compressive strength per ASTM C 1019
- F. Fire-Resistance Ratings: Where indicated, provide materials and construction identical to those of assemblies with fire resistance ratings determined per ASTM E 119 by a testing and inspecting agency, by equivalent concrete masonry thickness, or by another means, as acceptable to authorities having jurisdiction.
- G. Single-Source Responsibility for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from one source and by a single manufacturer for each different product required.
- H. Single-Source Responsibility for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from one manufacturer for each cementitious component and from one source or producer for each aggregate.

1.5 Special Inspections

Cooperate and adhere to the requirements of 2021 International Building Code - Special Inspections. All masonry and masonry reinforcing shall be subject to special inspections and observations, at stage intervals deemed necessary, by the Owners' third party Inspector, Engineer and/or the Architect prior to grout filling.

1.6 Special Markings

- A. The contractor shall chalk-line mark the floor slab for masonry wall locations.

- B. The contractor shall mark on the floor slab location of reinforcing dowels to serve grouted cells so as to be clear as to locations of vertical cell reinforcement.
- C. The contractor shall mark the concrete sub-floor with temporary marker paint to identify location of structural CMU reinforcing dowels so as to accurately locate reinforced cells during wall erection. Markings should be transferred to CMU surfaces as installation allows.
- D. Prefabricated Corner and "T" Wall Reinforcing - upon arrival to the job site and while material is in bundle state, the ends shall be spray painted in the field with permanent bright red paint for easy recognition during site inspections.

1.7 Special Sequencing

- A. After the special markings have been provided and prior to the start of CMU installation, an inspection of the concrete floor slab and CMU reinforcing dowels shall be required.
- B. CMU wall construction designed to receive structural reinforcement and cell grouting shall be installed in such sequencing as to consolidate the work of placing reinforcement and cell grouting to minimum concentrate intervals encompassing such significant quantities as to warrant truck delivery of ready-mixed grout.
- C. The work event of placing structural reinforcement and grouting shall require continuous special observation by the Owner's third-party Inspector(s) as required by the 2021 International Building Code. Grout mix samples shall be required for testing purposes. The General Contractor shall directly schedule special masonry observations at least 24 hours in advance and notify Architect accordingly. Cost associated with special sequencing shall be considered and included in base bid.

1.8 Delivery, Storage, and Handling

- A. Store masonry units on elevated platforms, under cover, and in a dry location to prevent their deterioration or damage due to moisture, temperature changes, contaminants, corrosion, and other causes. If units become wet, do not install until they are in an air-dried condition.
- B. Store cementitious materials on elevated platforms, under cover, and in a dry location.
- C. Store aggregates where grading and other required characteristics can be maintained, and contamination avoided.
- D. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

1.9 Project Conditions

- A. Protection of Masonry: During erection, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
 - 1. Extend cover a minimum of 24 inches down both sides and hold cover securely in place.

2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches down face next to unconstructed wythe and hold cover in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least 3 days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
1. Protect base of walls from rain-splashed mud and mortar splatter by coverings spread on ground and over wall surface.
 2. Protect sills, ledges, and projections from mortar droppings.
 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt on completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit masonry damaged by frost or freezing conditions. Comply with the following requirements:
1. Cold-Weather Construction: When the ambient temperature is within the limits indicated, use the following procedures:
 - a. 40 to 32 deg F: Heat mixing water or sand to produce mortar temperatures between 40 and 120 deg F
 2. Cold-Weather Protection: When the mean daily temperature is within the limits indicated, provide the following protection:
 - a. 40 to 25 deg F: Cover masonry with a weather-resistant membrane for 48 hours after construction.
 - b. 25 to 20 deg F: Cover masonry with insulating blankets or provide enclosure and heat for 48 hours after construction to prevent freezing. Install wind breaks when wind velocity exceeds 15 mi./h.
 - c. 20 deg F and Below: Provide enclosure and heat to maintain temperatures above 32 deg F within the enclosure for 48 hours after construction.
 3. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and above and will remain so until masonry has dried out, but not less than 7 days after completion of cleaning.
- E. Hot-Weather Requirements: Protect unit masonry work when temperature and humidity conditions produce excessive evaporation of water from mortar and grout. Provide artificial shade and wind breaks and use cooled materials as required. Do not apply mortar to substrates with temperatures of 100 deg F and above.

2.0 - PRODUCTS

2.1 Manufacturers

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
1. Portland Cement, Mortar Cement, Masonry Cement, and Lime:
 - a. Essroc Materials, Inc.
 - b. Glen-Gery Corporation
 - c. Lafarge Corporation
 2. Joint Reinforcement, Ties, and Anchors:
 - a. Dur-O-Wal, Inc.
 - b. Heckman Building Products, Inc.
 - c. Hohmann & Barnard, Inc.
 - d. Wire-Bond

2.2 Concrete Masonry Units

- A. General: Provide shapes indicated and as follows for each form of concrete masonry unit required:
1. Provide special shapes for lintels, corners, jambs, sash, control joints, headers, bonding and other special conditions.
 2. Bullnose units are required for all outside corners of vertical surfaces, unless otherwise indicated.
- B. Concrete Masonry Units: ASTM C 90 and as follows:
1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2,000 psi.
 2. Weight Classification: **NORMAL**
 3. Aggregates: Do not use aggregate made from pumice, scoria or tuff.
 4. Provide Type N-I moisture-controlled units
 5. Size: Manufactured to the actual dimensions indicated on Drawings within tolerances specified in the applicable referenced ASTM specification. Typical unit 8" nominal, 6" nominal, 4" nominal, or 12" nominal as indicated on drawings.
- C. Units shall be made with either white marble or white limestone to meet ASTM C 90-90 Type I. Units shall be of size as indicated and/or as required and shall be laid in stack bond. Furnish all necessary halves, flush ends, and specials. Face detail shall be as indicated on drawings and details. Color shall be selected by the Architect.

2.3 Mortar and Grout Materials

- A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
- B. Masonry Cement: ASTM C91
- C. Hydrated Lime: ASTM C 207, Type S (for CMU)).

- D. Portland Cement-Lime Mix: Packaged blend of portland cement complying with ASTM C 150, Type I or Type III, and hydrated lime complying with ASTM C 207.
- E. Aggregate for Mortar: ASTM C 144; except for joints less than 1/4 inch, use aggregate graded with 100 percent passing the No. 16 sieve.
 - 1. White-Mortar Aggregates: Natural white sand and or ground white stone.
- F. Aggregate for Grout: ASTM C 404.
- G. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortar.
- H. Cold Weather Admixture: Nonchlorine, noncorrosive, accelerating admixture complying with ASTM C 494, Type C; and recommended by the manufacturer for use in masonry mortar of composition indicated.
- I. Ready-Mixed Mortar: Cementitious materials, water, and aggregate complying with requirements specified in this Article; combined with set-controlling admixtures to produce a ready-mixed mortar complying with ASTM C 1142.
- J. Water: Potable.
- K. Products: Subject to compliance with requirements, provide one of the following:
 - 1. Cold Weather Admixture:
 - a. "Accelguard 80"; Euclid Chemical Co.
 - b. "Morset"; W. R. Grace & Co.
 - 2. Mortar shall be approved equal to Lafarge as selected by Architect from full range of mortar colors available.

2.4 Ties and Anchors, General

- A. General: Provide ties and anchors specified in subsequent articles that comply with requirements for metal and size of this Article, unless otherwise indicated.
- B. Wire: As follows:
 - 1. Galvanized Carbon-Steel Wire: ASTM A 82; with ASTM A 153, Class B-2 coating for wire ties and anchors in exterior walls.
 - 2. Wire Diameter: 0.1875 inch.

2.5 Bent Wire Ties and Cornices

- A. Individual units prefabricated from bent wire to comply with requirements indicated below:
 - 1. Type for Masonry where Whythes are of Different Material: Adjustable ties composed of 2 parts; 1 with pintles, the other with eyes; with maximum misalignment of 1-1/4 inches. Ties shall be long enough to extend through rigid wall insulation and into outer wythe a minimum of 2 inches.
- B. Joint Reinforcement: Provide welded-wire units prefabricated with deformed continuous side rods and plain cross rods into straight lengths of not less than 10', with prefabricated corner and tee units, and complying with requirements indicated below:

1. Width: Fabricate joint reinforcement in units with widths of approximately 2" less than nominal width of walls and partitions as required to provide mortar coverage of not less than 5/8" on joint faces exposed to exterior and 1/2" elsewhere.
2. Wire Size: 0.1875" diameter for deformed rods; No. 9 cross rods. Hot dipped galvanized, Class 3. H. Reinforcing:

2.6 Embedded Flashing Materials

A. Vinyl Flashing:

1. Thickness: 40 mil thick.
2. Application: Use where flashing is fully concealed in masonry

B. Adhesive for Flashings: Of type recommended by manufacturer of flashing material for use indicated.

C. Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to the following:

1. Vinyl Flashing:
 - a. Gibraltar
 - b. Nervastral
 - c. AFCO

2.7 Miscellaneous Masonry Accessories

A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Type 2, Class A, Grade 1; compressible up to 35 percent; of width and thickness indicated; formulated from Neoprene.

B. Bond-Breaker Strips: Asphalt-saturated, organic roofing felt complying with ASTM D 226, Type I (No. 15 asphalt felt).

C. Weep Holes: Provide the following:

1. Wicking material: Cotton sash cord in length required to produce 2 inch exposure on exterior and 18 inches in cavity between wythes.

D. Rebar Positioners: 3/16" diameter, hot-dipped galvanized and provided at 48" vertical centers in each reinforced cell.

2.8 Wall Reinforcement and Anchors

A. Continuous wall reinforcement at 16" o.c. for all masonry walls shall be hot-dipped galvanized and of either truss or ladder design with tabs for exterior two wyth walls. Reinforcement shall have not less than No. 9 steel wire cross rods and No. 9 deformed side rods. Wires shall conform to ASTM A82. Reinforcement shall have a drip when used in cavity walls, use rectangular pintle sections 16" o.c. in back-up masonry. Use manufacturer's pre-formed corners and intersecting sections and splice as recommended. Basis of material selection shall be Hohmann & Barnard #270 or approved equals by Heckmann Building Products, Wire Bond and Dur-O-Wall.

2.9 Masonry Cleaners

- A. Job Mixed Detergent Solution: Solution of ½ cup dry measure tetrasodium polyphosphate and 1/2 cup dry measure laundry detergent dissolved in 1 gallon of water.
- B. Proprietary Detergent Solution: Manufacturer's standard strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry surfaces as acceptable to masonry material manufacturer. "Sure Klean" No. 600 Detergent; ProSoCo, Inc., or approved equal. Do not use acid cleaners.

2.10 Mortar and Grout Mixes

- A. General: Do not add admixtures including coloring pigments, air-entraining agents, accelerators, retarders, water repellent agents, anti-freeze compounds or other admixtures, unless otherwise indicated.
 - 1. Do not use calcium chloride in mortar or grout.
- B. Mixing: Combine and thoroughly mix cementitious, water and aggregates in a mechanical batch mixer; comply with referenced ASTM standards for mixing time and water content.
- C. Mortar for Unit Masonry: Comply with ASTM C 270, Proportion Specification, for types of mortar required, unless otherwise indicated.
 - 1. Limit cementitious materials in mortar to portland cement-lime.
 - 2. Use Type S or N mortar.
- D. Colored Pigmented Mortar: Select and proportion pigments with other ingredients to produce color required. Do not exceed pigment-to-cement ratio of 1-to-10, by weight.
- E. Grout for Unit Masonry: Comply with ASTM C 476 for grout for use in construction of reinforced and non-reinforced unit masonry. Use grout of consistency indicated or if not otherwise indicated, of consistency (fine or coarse) at time of placement which will completely fill all spaces intended to receive grout. Grout to have minimum 2,500 psi compressive strength at 28 days when tested in accordance with ASTM C1019.
 - 1. Use fine grout in grout spaces less than 2" in horizontal direction, unless otherwise indicated.
 - 2. Use coarse grout in grout spaces 2" or more in least horizontal dimension, unless otherwise indicated.

3.0 - EXECUTION

3.1 Examination

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of unit masonry. Do not proceed with installation until unsatisfactory conditions have been corrected.
 - 1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of unit masonry.

2. Examine rough-in and built-in construction to verify actual locations of piping connections prior to installation.

3.2 General

- A. Lay out all masonry work according to the dimensions shown on the drawings. No work shall be laid unless the temperature is 35° F. and rising.
- B. All masonry work shall be laid straight, level, plumb, and true. Exterior walls shall be laid continuously around the entire structure and in no case racked up more than five (5) feet.
- C. Build in all flashing, anchors, reinforcing, inserts, wall plugs, lintels, bearing plates, bond beams and items as required to accommodate the work of others.
- D. All special details such as chases, openings, expansion joints, projections, corbels, etc., shall be built as required and/or indicated on the drawings.
- E. Lay all masonry block in full bed of mortar completely filling all joints with mortar. Allow for caulking joints at all window and door frames, and at all wall intersections.
- F. Joints of all exposed masonry surfaces shall be finished after the mortar has taken its initial set. Use a straight edge for horizontal joints. Vertical joints shall be in alignment from top to bottom.
- G. At the end of each day or when rain or frost is imminent, the tops of masonry walls and similar surfaces shall be properly protected by covering top of wall with a strong waterproof membrane well secured in place.
- H. Consult all other trades in advance and make provisions for the installation of their work to avoid cutting and patching. Do all cutting and patching of masonry required to accommodate work of others.
- I.
- J. As the work progresses, mortar daubs and smears shall be cleaned from masonry work.
- K. Door frames shall be set before the masonry walls are built. As the masonry walls are built around these frames, the inside of the frames shall be grouted solid with mortar. NOTE: See HOLLOW METAL DOORS AND FRAMES - SECTION 08110 for requirements to coat interior of frames prior to grouting.
- L. Extend all rated walls to the underside of structural deck above unless otherwise approved. Fit walls neatly with all joints filled where two levels of ceiling occur, extend walls to high level. Extend all partition walls to 8" above adjacent ceiling.
- M. Weep holes: Provide weep holes in head joints 32" o.c. at thru wall flashing where air space is not open downward. Weep holes shall be below finish floor line and above finish grade.
- N. MORTAR IN CONTACT WITH COPPER PIPING WILL NOT BE ACCEPTED. Coordinate with plumbing or mechanical contractor if copper is encountered without sleeving/insulation. Anticipate additional corrective work.

3.3 Installation, General

- A. Thickness: Build cavity and composite walls and other masonry construction to the full thickness shown. Build single-wythe walls to the actual thickness of the masonry units, using units of thickness indicated.

- B. Build chases and recesses to accommodate items specified in this and other Sections of the Specifications.
- C. Leave openings for equipment to be installed before completion of masonry. After installing equipment, complete masonry to match construction immediately adjacent to the opening.
- D. Cut masonry units with motor-driven saws to provide clean, sharp, unchipped edges. Cut units as required to provide continuous pattern and to fit adjoining construction. Use full-size units without cutting, where possible. Allow units cut with water-cooled saws to dry before placing, unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Mix units for exposed unit masonry from several pallets or cubes as they are placed to produce uniform blend of colors and textures.
- F. Matching Existing Masonry: Match coursing, bonding, color, and texture of existing masonry.

3.4 Construction Tolerances

- A. Variation from Plumb: For vertical lines and surfaces of columns, walls, and risers, do not exceed 1/4 inch in 10 feet, nor 3/8 inch in 20 feet, nor 1/2 inch in 40 feet or more. For external corners, expansion joints, control joints, and other conspicuous lines, do not exceed 1/4 inch in 20 feet, nor 1/2 inch in 40 feet or more. For vertical alignment of head joints, do not exceed plus or minus 1/4 inch in 10 feet, nor 1/2 inch maximum.
- B. Variation from Level: For bed joints and lines of exposed lintels, sills, parapets, horizontal grooves, and other conspicuous lines, do not exceed 1/4 inch in 20 feet, nor 1/2 inch in 40 feet or more. For top surface of bearing walls, do not exceed 1/8 inch in 10 feet, nor 1/16 inch within width of a single unit.
- C. Variation of Linear Building Line: For position shown in plan and related portion of columns, walls, and partitions, do not exceed 1/2 inch in 20 feet, nor 3/4 inch in 40 feet) or more.
- D. Variation in Cross-Sectional Dimensions: For columns and thickness of walls, from dimensions shown, do not exceed minus 1/4 inch nor plus 1/2 inch.
- E. Variation in Mortar-Joint Thickness: Do not vary from bed-joint thickness indicated by more than plus or minus 1/8 inch with a maximum thickness limited to 1/2 inch. Do not vary bed-joint thickness from bed-joint thickness of adjacent course by more than 1/8 inch. Do not vary from head-joint thickness indicated by more than plus or minus 1/8 inch. Do not vary head-joint thickness from adjacent head-joint thickness by more than 1/8 inch. Do not vary from collar-joint thickness indicated by more than minus 1/4 inch or plus 3/8 inch.

3.5 Laying Masonry Walls

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint widths and for accurate locating of openings, movement-type joints, returns, and offsets. Avoid the use of less-than-half-size units at corners, jambs, and where possible at other locations.

- B. Lay walls to comply with specified construction tolerances, with courses accurately spaced and coordinated with other construction.
- C. Bond Pattern for Exposed Masonry:
 - 1. Lay CMU in bond pattern to match existing
- D. Lay concealed masonry with all units in a wythe as above. Do not use units with less than nominal 4-inch horizontal face dimensions at corners or jambs.
- E. Stopping and Resuming Work: In each course, rack back 1/2-unit length for one-half running bond or 1/3-unit length for one-third running bond; do not tooth. Clean exposed surfaces of set masonry, wet clay masonry units lightly if required, and remove loose masonry units and mortar prior to laying fresh masonry.
- F. Built-in Work: As construction progresses, build-in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.
- G. Fill space between hollow metal frames and masonry solidly with mortar, unless otherwise indicated.
- H. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath in the joint below and rod mortar or grout into core.
- I. Fill cores in hollow concrete masonry units with grout 24 inches under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.
- J. Build non load-bearing interior partitions full height of story to underside of solid floor or roof structure above and as follows:
 - 1. Install compressible filler in joint between top of partition and underside of structure above.
 - 2. Wedge non-load-bearing partitions against structure above with small pieces of tile, slate, or metal. Fill joint with mortar after dead-load deflection of structure above approaches final position.

3.6 Mortar Bedding and Jointing

- A. Lay hollow concrete masonry units as follows:
 - 1. With full mortar coverage on horizontal and vertical face shells.
 - 2. Bed all webs in mortar.
 - 3. For starting course on footings where cells are not grouted, spread out full mortar bed, including areas under cells.
 - 4. Maintain joint widths indicated, except for minor variations required to maintain bond alignment. If not indicated, lay walls with 3/8-inch joints.
 - 5. Fill bottom course of all CMU solid with mortar.
 - 6. Fill all courses of CMU adjacent to fill in area of ramp and stage solid with mortar.
- B. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness, unless otherwise indicated.

- C. Cut joints flush for masonry walls that are to receive plaster or other direct-applied finishes (other than paint), unless otherwise indicated.

3.7 Structural Bonding of Multiwythe Masonry

- A. Use individual metal ties installed in horizontal joints to bond wythes together. Provide ties as shown, but not less than 1 metal tie for 4 sq. ft. of wall area spaced not to exceed 24 inches o.c. horizontally and vertically. Stagger ties in alternate courses. Provide additional ties within 12 inches of openings and space not more than 36 inches apart around perimeter of openings. At intersecting and abutting walls, provide ties at no more than 24 inches o.c. vertically.
- B. Corners: Provide interlocking masonry unit bond in each course at corners, unless otherwise shown. Provide continuity with horizontal joint reinforcing at corners by using prefabricated "L" units as well as masonry bonding.
- C. Intersecting and Abutting Walls: Unless vertical expansion or control joints are shown at juncture, provide same type of bonding specified for structural bonding between wythes and space by providing continuity with horizontal joint reinforcing at corners by using prefabricated "T" units.

3.8 Cavities

- A. Keep cavities clean of mortar droppings and other materials during construction. Strike joints facing cavities flush.
 - 1. Use wood strips temporarily placed in cavity to collect mortar droppings. As work progresses, remove strips, clean off mortar droppings, and replace in cavity.
 - 2. Tie exterior wythe to back-up with individual metal ties. Stagger alternate courses.

3.9 Anchoring Masonry to Structural Members

- A. Anchor masonry to structural members where masonry abuts or faces structural members to comply with the following:
 - 1. Space weldable rebar couplers at horizontal bond beams as indicated, but not more than 24 inches o.c. vertically.

3.10 Cavity Wall and Masonry Cell Insulation

- A. On units of plastic board insulation, place small dabs of adhesive, spaced approximately 12 inches o.c. both ways on inside face or attach to inside face with plastic fasteners designed for this purpose. Verify compatibility of adhesive and bituminous dampproofing specified in Division 7. Fit courses of insulation between wall ties and other confining obstructions in cavity, with edges butted tightly both ways. Press units firmly against inside wythe of masonry or other construction as shown.
- B. Fill cracks and open gaps in insulation with crack sealer compatible with insulation and masonry.

3.11 Horizontal Joint Reinforcement

- A. General: Provide continuous horizontal joint reinforcement as indicated. Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2" elsewhere. Lap reinforcing a minimum of 6 inches.
 - 1. Space reinforcement not more than 16 inches vertically o.c.
 - 2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
 - 3. Provide reinforcement in mortar joints 1 block course above and below wall openings and extending 12 inches beyond opening.
 - a. Reinforcing above is in addition to continuous reinforcement.
- B. Cut or interrupt joint reinforcement at control and expansion joints, unless otherwise indicated.
- C. Provide continuity at corners and wall intersections by using prefabricated "L" and "T" sections. Cut and bend reinforcement units as directed by manufacturer for continuity at returns, offsets, column fireproofing, pipe enclosures and other special conditions.

3.12 Control and Expansion Joints

- A. General: Install control and expansion joints in unit masonry where indicated. Build-in related items as the masonry progresses. Do not form a continuous span through movement joints unless provisions are made to prevent in-plane restraint of wall or partition movement.
- B. Form control joints in concrete masonry by installing preformed control-joint gaskets designed to fit standard sash block.

3.13 Lintels

- A. Install steel lintels where indicated.
- B. Provide pre-cast masonry lintels where shown and where openings of more than 24 inches for block size units are shown without structural steel or other supporting lintels.
- C. Provide minimum bearing of 8 inches at each jamb, unless otherwise indicated.

3.14 Flashing, Weep Holes, and Vents

- A. General: Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to the downward flow of water in the wall, and where indicated.
- B. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Place through-wall flashing on sloping bed of mortar and cover with mortar. Seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer before covering with mortar.
- C. Install flashing as follows:
 - 1. At composite masonry walls, including cavity walls, extend flashing from exterior face of outer wythe of masonry, through the outer wythe, turned up

- a minimum of 4 inches and through the inner wythe to within 1/2 inch of the interior face of the wall in exposed masonry. Where interior surface of inner wythe is concealed by furring, carry flashing completely through the inner wythe and turn up approximately 2 inches unless otherwise indicated.
2. At lintels and shelf angles extend flashing a minimum of 4 inches into masonry at each end. At heads and sills, extend flashing 4 inches at ends and turn up not less than 2 inches to form a pan.
 3. Flashing installation is to be inspected and approved in writing by Architect before proceeding with masonry work.
- D. Install weep holes in the head joints in exterior wythes of the first course of masonry immediately above embedded flashing and as follows:
1. Form weep holes with product specified in Part 2 of this Section.
 2. Form weep holes by keeping head joints free and clear of mortar.
 3. Space weep holes 24 inches o.c.
- E. Trim wicking material used in weep holes flush with outside face of wall after mortar has set.
1. Install through-wall flashing and weep holes above horizontal blocking.
- F. Install reglets and nailers for flashing and other related construction where shown to be built into masonry.

3.15 Grouting of CMU Walls

- A. Contractor to notify Owner's Testing Agent prior to all grouting of steel reinforced CMU.
- B. All cavities with steel reinforcing to be cleaned of all debris and broken CMU prior to filling with grout.
- C. All reinforcing steel in cells to be filled with grout or concrete to be continuous with laps as required by code.
- D. Grout for filled masonry cells is not to be dropped more than five (5) feet.

3.16 Repairing, Pointing and Cleaning

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or if units do not match adjoining units. Install new units to match adjoining units; install in fresh mortar or grout, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point-up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for application of sealants.
- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears prior to tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
 2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
 3. Protect adjacent stone and non-masonry surfaces from contact with cleaner by covering them with liquid strippable masking agent, polyethylene film or waterproof masking tape.
 4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing the surfaces thoroughly with clear water.
 5. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2 applicable to type of stain present on exposed surfaces.
- E. Protection: Provide final protection and maintain conditions that ensure unit masonry is without damage and deterioration at time of Substantial Completion.

3.17 Masonry Waste Disposal

- A. Recycling: Undamaged, excess masonry materials are Contractor's property and shall be removed from the project site.

END OF SECTION

SECTION 07540 – THERMOPLASTIC POLYOLEFIN (TPO) ROOFING SYSTEM–NEW CONSTRUCTION

1.0 - GENERAL

1.1 Description

- A. The work of this section consists of providing TPO Adhered Roofing System as outlined below:
 - 1. Sure Weld 60 Mill TPO fully adhered.
 - 2. ½" Coverboard adhered in Low-Rise Foam
 - 3. ¼" Tapered insulation if required for positive slope
 - 4. R-25 min ISO

1.2 Scope Of Work

- A. Provide all labor, material, tools, equipment, and supervision necessary to complete the installation of the .060" thick (white, gray or tan color as selected by Architect) reinforced TPO (Thermoplastic Polyolefin) reinforced membrane Adhered Roofing System including flashings and insulation as specified herein and as indicated on the drawings in accordance with the manufacturer's most current specifications and details to meet performance criteria specified herein.
- B. The roofing contractor shall be fully knowledgeable of all requirements of the contract documents and shall make themselves aware of all job site conditions that will affect their work.
- C. The roofing contractor shall confirm all given information and advise the Architect, prior to bid, of any conflicts that will affect their cost proposal.
- D. Any contractor who intends to submit a bid using a roofing system other than the approved manufacturers must submit for pre-approval in writing ten (10) days prior to the bid date. Comply and submit in accordance with Section 01360.

1.3 Related Sections

- A. Section 07621 – Sheet Metal Work Flashing and Trim
- B. Section 10428 – Roof Information Plaque

1.4 Submittals

- A. Prior to starting work, the roofing contractor must submit the following:
 - 1. Shop drawings showing layout, details of construction and identification of materials.
 - 2. A sample of the manufacturer's Membrane System Warranty.
 - 3. Submit a letter of certification from the manufacturer which certifies the roofing contractor is authorized to install the manufacturer's roofing system and lists foremen who have received training from the manufacturer along with the dates training was received.
 - 4. Attachment pattern for insulation and membrane to comply with wind zone requirements.

- B. Upon completion of the installed work, submit copies of the manufacturer's final inspection to the Architect prior to the issuance of the manufacturer's warranty.
- C. Manufacturer Certificates: Signed by manufacturer certifying that roof panels comply with performance requirements specified in "Performance Requirements" Article.
 - 1. Submit evidence of meeting performance requirements.
 - 2. Submit signed approval of project drawings and specifications meeting manufacturer's requirements for specified manufacturer's warranties.
 - 3. Submit evidence of Installer/contractor meeting requirements for specified warranties.
 - 4. Contractor to register roofing project with the manufacturer prior to the pre-roofing conference and prior to submitting shop drawings. As part of the submittals package, copy of the acknowledgement of the manufacturer is required.

Note: Copy of Acknowledgement Letter from manufacturer that project has been registered shall be included with submittals and prior to pre-roofing conference.

A **minimum** of three (3) field inspections shall be made by a technical (non-sales) representative of the Roofing System Manufacturer at start, mid-way and upon completion of the work. Written reports shall be made and copies of these reports must be submitted to the Architect within 3 days of the inspections. These inspections must be made by a manufacturer's representative employed by the manufacturer. Notify Architect 72 hours prior to inspections.

1.5 Product Delivery, Storage and Handling

- A. Deliver materials to the job site in the manufacturer's original, unopened containers or wrappings with the manufacturer's name, brand name and installation instructions intact and legible. Deliver in sufficient quantity to permit work to continue without interruption.
- B. Comply with the manufacturer's written instructions for proper material storage.
 - 1. Store membrane in the original undisturbed plastic wrap in a cool, shaded area. Membrane that has been exposed to the elements for approximately 7 days must be prepared with Weathered Membrane Cleaner (or other Manufacturer's recommended product) prior to hot air welding.
 - 2. Store curable materials (adhesives and sealants) between 60F and 80F in dry areas protected from water and direct sunlight. If exposed to lower temperature, restore to 60F minimum temperature before using.
 - 3. Store materials containing solvents in dry, well-ventilated spaces with proper fire and safety precautions. Keep lids on tight. Use before expiration of their shelf life.
- C. Insulation must be on pallets, off the ground and tightly covered with waterproof protective materials.
- D. Any materials which are found to be damaged shall be removed and replaced at the contractor's expense.

1.6 Work Sequence

- A. Schedule and execute work to prevent leaks and excessive traffic on completed

roof sections. Care should be exercised to provide protection for the interior of the building and to ensure water does not flow beneath any completed sections of the membrane system.

- B. Do not disrupt activities in occupied spaces.

1.7 Site Conditions

- A. If discrepancies are discovered between the actual conditions and those noted on the drawings, immediately notify the Architect in writing. Necessary steps shall be taken to make the building watertight until the discrepancies are resolved.

1.8 Pre-Roofing Conference

- A. Pre-Installation Roofing Conference: Convene a pre-roofing conference approximately two (2) weeks before scheduled commencement of roofing system installation and associated work.

Require attendance of installer of each component of associated roofing work, Contractor, Architect, Owner, Alabama Construction Management, roofing system manufacturer's representative, and other representatives directly concerned with performance of the Work, including (where applicable) Owner's insurers, testing agencies and governing authorities. Objectives of conference include:

1. Review foreseeable methods and procedures related to roofing work, including set up and mobilization areas for stored material and work area.
 2. Review roofing system requirements (drawings, specifications and other contract documents).
 3. Review required submittals both completed and yet to be completed.
 4. Review the construction schedule related to roofing work and verify availability of materials, installer's personnel, equipment and facilities needed to make progress and avoid delays.
 5. Review required inspection, testing, certifying and material usage accounting procedures.
 6. Discuss weather and forecasted weather conditions and procedures for coping with unfavorable conditions, including possibility of temporary roofing (if not mandatory requirement).
 7. Record discussion of conference including decisions and agreements (or disagreements) reached and furnish copy of record to each party attending. If substantial disagreements exist at conclusion of conference, determine how disagreements will be resolved and set date for reconvening conference.
- B. The Architect will record the proceedings and distribute them to the participants for record.
 - C. The intent of the conference is to resolve issues affecting the installation and performance of roofing work. Do not proceed with roofing work until such issues are resolved to the satisfaction of the Owner and Architect.
 - D. **The Representative for the Roofing Materials Manufacturer shall bring a copy of the warranty(ies) for the roofing material(s) for comparison to the warranty(ies) specified. This sample warranty is required to be job specific,**

covering all requirements, per the specifications. If the sample warranty is not provided as required, the conference will be voided, an inspection fee will be issued, and it will have to be rescheduled. Alabama language required.

1.9 Job Site Protection

- A. The roofing contractor shall adequately protect building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. Provide canvas, boards and sheet metal (properly secured) as necessary for protection and remove protection material at completion. The contractor shall repair or be responsible for costs to repair all property damaged during the roofing application. **Do not store roofing materials on the roof.**
- B. During the roofing contractor's performance of the work, the owner will continue to occupy the existing adjacent building. The contractor shall take precautions to prevent the spread of dust and debris, particularly where such material may shift into the building. The roofing contractor shall provide labor and materials to construct, maintain and remove necessary, temporary enclosures to prevent dust or debris in the construction area(s) from entering the remainder of the building.
- C. Do not overload any portion of the building, by either use of or placement of equipment, storage of debris, or storage of materials.
- D. Protect against fire and flame spread. Maintain proper and adequate fire extinguishers.
- E. Take precautions to prevent drains from clogging during the roofing application. Remove debris at the completion of each day's work and clean drains, if required. At completion, test drains to ensure the system is free running and drains are watertight. Remove strainers and plug drains in areas where work is in progress. Install flags or other telltales on plugs. Remove plugs each night and screen drain.
- F. Store moisture susceptible materials above ground and protect with waterproof coverings.
- G. Remove all traces of piled bulk material and return the job site to its original condition upon completion of the work.

1.10 Safety

- A. The contractor shall be fully responsible for all means and methods as they relate to safety and shall comply with all applicable local, state and federal requirements that are safety related. Safety shall be the responsibility of the contractor. All related personnel shall be instructed daily to be mindful of the full-time requirement to maintain a safe environment for the facility's occupants, including staff, visitors, workers and the occurrence of the general public on or near the site.

1.11 Workmanship

- A. Applicators installing new roof, flashing and related work shall be factory trained and approved by the manufacturer they are representing.

- B. All work shall be of highest quality and in strict accordance with the manufacturer's published specifications and to the Owner's satisfaction.
- C. There shall be a supervisor on the job site at all times while work is in progress.
- D. The contractor shall be responsible for weathertightness under this section.

1.12 Quality Assurance and Performance Requirements

- A. The membrane roofing system must achieve a UL Class A and FM1-90 or higher rating (No exceptions). Provide additional materials or higher quality to meet
 - a. FM-I-90
 - b. Severe Hail (SH) requirements
 - c. Wind speed requirements (Risk Category 3)
(Architect to select needed design speed)
 - 115 mph Design Wind Speed
 - 120 mph Design Wind Speed
 - 130 mph Design Wind Speed
 - 140 mph Design Wind Speed
- B. Unless otherwise noted in this specification, the roofing contractor must strictly comply with the manufacturer's current specifications and details.
- C. The roofing system must be installed by an applicator authorized and trained by the manufacturer in compliance with shop drawings as approved by the manufacturer.
- D. All roofing materials shall be new and provided by same source as required to comply with manufacturer's system warranty.
- E. Provide adequate number of experienced workmen regularly engaged in this type of work who are skilled in the application techniques of the materials specified including operation of hot air welding equipment and power supply. Provide at least one thoroughly trained and an experienced superintendent on the job at all times roofing work is in progress.
- F. There shall be no deviations made from this specification or the approved shop drawings without the prior written approval of the Architect. Any deviation from the manufacturer's installation procedures must be supported by a written certification on the manufacturer's letterhead and presented for the Architect's consideration.
- G. Upon completion of the installation, the applicator shall arrange for an inspection to be made by a technical representative of the membrane manufacturer in order to determine whether or not corrective work will be required before the warranty will be issued. Notify the Architect seventy-two (72) hours prior to the manufacturer's final inspection.
- H. FMG Listing: Provide roofing membrane, base flashings, and component materials that meet the requirements in FMG 4450 and FMG 4470 as part of a membrane roofing system and that are listed in FMG's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FMG markings.

1. Hail Resistance: Severe Hail (SH)

- I. Membrane Roofing System must meet or exceed impact resistance requirements of IBC 2021 Section 1504.7 and Wind Speed Requirements as applicable to the Zone where the Building is located as required by the IBC 2021 Edition.
- J. Certification of Roofing System
Contractor(s), Roofing Material Manufacturer, and Roofing Material Manufacturer's Field Inspector shall each execute the Certification of Roofing System, a copy of which immediately follows this Section.
- K. Product must meet Testing requirements of ASTM D5019, "Standard Specification for Reinforced Non-Vulcanized Polymeric Sheet Used in Roofing Membrane"

1.13 Job Conditions and Special Handling

- A. Material Safety Data Sheets (MSDS) must be on location at all times during the transportation, storage and application of materials.
- B. When positioning membrane sheets, exercise care to locate all field splices away from low spots and out of drain sumps. All field splices should be shingled to prevent bucking of water.
- C. When loading materials onto the roof, the Authorized Roofing Applicator must comply with the requirements of the Owner/Architect to prevent overloading and possible disturbance to the building structure.
- D. Proceed with roofing work only when weather conditions are in compliance with the manufacturer's recommended limitations, and when conditions will permit the work to proceed in accordance with the manufacturer's requirements and recommendations.
- E. Proceed with work so new roofing materials are not subject to construction traffic. When necessary, new roof sections shall be protected and inspected upon completion for possible damage.
- F. Provide protection, such as 3/4-inch-thick plywood, for all roof areas exposed to traffic during construction. Plywood must be smooth and free of fasteners and splinters. Remove debris and loose fasteners promptly.
- G. The surface on which the insulation or roofing membrane is to be applied shall be clean, smooth, dry, and free of projections or contaminants that would prevent proper application of or be incompatible with the new installation, such as fins, sharp edges, foreign materials, oil and grease.
- H. New roofing installation shall be complete and weather tight at the end of each workday.
- I. Contaminants such as grease, fats and oils shall not be allowed to come in direct contact with the roofing membrane.

1.14 Warranty

- A. Provide manufacturer's special 20-year weathertightness No Dollar Limit (NDL) Roofing System Warranty with:

- a. Hail Resistance: Severe Hail (SH) No exclusions for 2" hail.
- b. Edge to Edge Warranty (Pre-Fabricated Edge Metal to be included)
- c. Warranted speed and uplift resistance:
 - i. 120 mph Wind Rider

- B. Pro-rated System Warranties shall not be accepted.
- C. The roof and associated work shall be guaranteed by the General Contractor against leaks from faulty or defective materials and workmanship for a period of five (5) years, starting on the date of acceptance of the project by the Owner.
- D. **Manufacturer's roofing guarantees shall contain language regarding the governing of the guarantee by the State of Alabama, otherwise amend the requirement and state that the Laws of the State of Alabama shall govern all such guarantees.**
- E. Roofing Installers Warranty: Submit roofing Installer's warranty on Installers letterhead, signed by Installer, covering all work of this contract, including incidental items, for the following warranty period:

Warranty Period: Five (5) years from date of Substantial Completion.
- F. State of Alabama General Contractor's Roof Guarantee: Covering Work of this Section, including all components of the roofing system for the following warranty period:

Warranty Period: Five (5) years from date of Substantial Completion.
- G. All warranties shall be dated within 30 days of substantial completion.
- H. **The Representative for the Roofing Materials Manufacturer shall bring a copy of the warranty(ies) for the roofing material(s) for comparison to the warranty(ies) specified. This sample warranty is required to be job specific, covering all requirements, per the specifications. If the sample warranty is not provided as required, the conference will be voided, an inspection fee will be issued, and it will have to be rescheduled.**

2.0 - PRODUCTS

2.1 General

- A. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.
 - 1. Carlisle SynTec, Incorporated. (60 mil)
 - 2. Johns Manville (60 mil)
 - 4. GAF (60 Mill)
- B. All products (including insulation, fasteners, fastening plates and edgings) must be manufactured and supplied by the roofing system manufacturer and covered by the system warranty.

2.2 Membrane

Provide 60 mil thick reinforced TPO (Thermoplastic Polyolefin) membrane as needed to complete the roofing system. Membrane thickness over the reinforcing scrim (top-ply thickness) shall be nominal 15 mil thick. Color to be selected by Architect.

2.3 Insulation/Underlayment/Coverboards

- A. When applicable, insulation shall be installed in multiple layers. The first and second layers of insulation shall be mechanically fastened to the substrate in accordance with the manufacturer's published specifications.
- B. Insulation shall be as indicated. ASTM C1289 Type II, Class 1, Grade 2 (20 psi)
- C. Coverboard (5/8" SecuRock, 5/8" Densdeck,)

2.4 Adhesives and Cleaners

- A. All products shall be provided from approved manufacturer and specifically formulated for the roofing system specified herein.
 - 1. Bonding Adhesive
 - 2. Edge Sealant
 - 3. Sealer: Water Cut-Off Mastic (as recommended by roofing manufacturer)
 - 4. Pocket Sealant: TPO Molded Pocket Sealant (as recommended by roofing manufacturer)
 - 5. Membrane Cleaner

2.5 Fasteners and Plates

- A. To be used for mechanical attachment of insulation as needed and to provide additional membrane securement (Vertical plane):
 - 1. InsulFast Fasteners: A threaded #12 fastener with #3 phillips drive used for insulation attachment into steel or wood decks
 - 2. HP-X Fasteners: A heavy duty #15 threaded fastener with a #3 phillips drive used for membrane or insulation securement into steel, wood plank or minimum 15/32 inch thick plywood when increased pullout resistance is desired
 - 3. Piranha Plates: A 2-3/8" diameter metal barbed fastening plate used with Carlisle HP-X or HP-14-10 Fasteners for membrane securement. This plate can be used for insulation securement
 - 4. Insulation Fastening Plates: a nominal 3-inch diameter plastic or metal plate used for insulation attachment.

2.6 Metal Edging and Membrane Terminations

- 1. Termination Bar: 1 inch wide and .098-inch-thick extruded aluminum bar pre-punched 6 inches on center; incorporates a sealant ledge to support Lap Sealant and provide increased stability for membrane terminations.
- 2. Securedge Coping and Gravel Stop -Snap on edge system consisting of a 24 gauge galvanized metal water dam and 24 gauge steel, Kynar 500 finish. Metal fascia color shall be as designated by the Owner's Representative. ANSI/SPRI ES-1 Certified. Coping FM Approved 1-90. Fascia FM Approved 1-195

3. SecurEdge EX: a metal fascia system with an extruded aluminum anchor bar and 24 gauge galvanized steel fascia. Metal fascia color shall be as designated by the Owner's Representative. ANSI/SPRI ES-1 Certified. 2000 Fascia FM Approved 1-645. 2000 Extended Fascia FM Approved 1-270. 2000 Canted Fascia FM Approved 1-270

2.7 Other Materials

Metal Flashing, specified under Section 07621.

3.0 - EXECUTION

3.1 General

- A. Comply with the manufacturer's published instructions for the installation of the membrane roofing system including proper substrate preparation, job site considerations and weather restrictions.
- B. Position sheets to accommodate contours of the roof deck and shingle splices to avoid bucking water.

3.2 Insulation Placement and Attachment

- A. Install insulation or membrane underlayment over the substrate with boards butted tightly together with no joints or gaps greater than 1/4 inch. Stagger joints horizontally and vertically if multiple layers are provided.
- B. Secure insulation to the substrate with the required insulation adhesive as specified in the project drawings per manufacturer's specification to meet wind zone requirements (FM I-90) and MPH wind speed at roof level. (See performance requirements)

3.3 Membrane Placement and Attachment

- A. Position membrane over the acceptable substrate. Fold membrane sheet back lengthwise (onto itself) so half the underside of the membrane is exposed.
- B. Apply Bonding Adhesive in accordance with the manufacturer's published instructions, to the exposed underside of the membrane and the corresponding substrate area. Do not apply Bonding Adhesive along the splice edge of the membrane to be hot air welded over the adjoining sheet. Allow the adhesive to dry until it is tacky but will not string or stick to a dry finger touch.
 1. Roll the coated membrane into the coated substrate while avoiding wrinkles. Brush down the bonded section of the membrane sheet immediately after rolling the membrane into the adhesive with a soft bristle push broom to achieve maximum contact.
 2. Fold back the unbonded half of the sheet lengthwise and repeat the bonding procedures.
- C. Position adjoining sheets to allow a minimum overlap of 2 inches.

- D. Hot air weld the membrane sheets using the Automatic Hot Air Welding Machine or Hot Air Hand Welder in accordance with the manufacturer's hot air welding procedures.
- E. Pull the membrane back along the welded splice so the entire underside of the membrane is exposed once the Hot Air Weld has been completed.
- F. Apply Bonding Adhesive to the exposed underside of the membrane sheet and the substrate.
- G. Allow adhesive to dry until tacky and roll the membrane into the substrate and brush down the bonded section with a bristle broom following the procedure noted above.
- H. Continue to install adjoining membrane sheets in the same manner, overlapping edges a minimum of 2 inches and complete the bonding procedures as stated previously.

3.4 Membrane Splicing/Hot Air Welding Procedures

- A. Hot air weld the membrane using an Automatic Hot Air Welding Machine or Hot Air Hand Welder in accordance with the manufacturer's specifications. At all splice intersections, roll the seam with a silicone roller to ensure a continuous hot air welded seam. (Note: When using .060" thick membrane, all splice intersections shall be overlaid with non-reinforced flashing)
- B. Probe all seams once the hot air welds have thoroughly cooled (approximately 30 minutes).
- C. Repair all seam deficiencies the same day they are discovered.
- D. Apply Cut Edge Sealant on all cut edges of reinforced membrane (where the scrim reinforcement is exposed) after seam probing is complete. Cut Edge Sealant is not required on vertical splices.

3.5 Flashing

- A. Flashing of parapets, curbs, expansion joints and other parts of the roof must be performed using reinforced membrane. Non-reinforced membrane can be used for flashing pipe penetrations, Sealant Pockets, and scuppers, as well as inside and outside corners, when the use of pre-molded accessories is not feasible.
- B. Follow manufacturer's typical flashing procedures for all wall, curb, and penetration flashing including metal edging/coping and roof drain applications.

3.6 Walkways

- A. Install walkways at all traffic concentration points (such as roof hatches, access doors, rooftop ladders, etc.) and all locations as identified on the specifier's drawing.
- B. Hot air weld walkway pads to the membrane in accordance with the manufacturer's specifications.

3.7 Daily Seal

- A. On phased roofing, when the completion of flashings and terminations is not achieved by the end of the work day, a daily seal must be performed to temporarily close the membrane to prevent water infiltration.
- B. Complete an acceptable membrane seal in accordance with the manufacturer's requirements.

3.8 Clean Up

- A. Perform daily clean up to collect all wrappings, empty containers, paper, and other debris from the project site. Upon completion, all debris must be disposed of in a legally acceptable manner.
- B. Prior to the manufacturer's inspection for warranty, the applicator must perform a pre-inspection to review all work and to verify all flashing has been completed as well as the application of all caulking.

END OF SECTION

1.0 GENERAL

1.1 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 Definitions

- A. Definitions: For fenestration industry standard terminology and definitions refer to American Architectural Manufacturers Association (AAMA) – AAMA Glossary (AAMA AG).

1.3 Performance Requirements

- A. General Performance: Aluminum-framed window system shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction.
- B. Window System Performance Requirements:
 - 1. Provide aluminum windows of performance indicated that comply with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS)
 - a. Performance Class and Grade: AW-PG100-FW
 - b. Wind load design pressures shall meet 2021 IBC.
 - 2. Air Infiltration: The test specimen shall be tested in accordance with ASTM E 283 at a minimum window size of 60" x 99" (1524 x 2515 mm). The air infiltration rate shall not exceed 0.10 cfm/ft² at a static air pressure differential of 6.2 psf (300 Pa).
 - 3. Water Resistance: The test specimen shall be tested in accordance with ASTM E 547 and ASTM E 331 at a minimum window size of 60" x 99" (1524 x 2515 mm). There shall be no leakage as defined in the test method at a static air pressure differential of 15 psf (720 Pa).
 - 4. Uniform Load Deflection: A minimum static air pressure difference of 100 psf (4788 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330. There shall be no deflection in excess of L/175 of the span of any framing member.
 - 5. Uniform Load Structural Test: A minimum static air pressure difference of 150 psf (7182 Pa) shall be applied in the positive and negative direction in accordance with ASTM E 330. The unit shall be evaluated after each load.
 - 6. Component Testing: Window components shall be tested in accordance with procedures described in AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).
 - 7. Energy Efficiency:
 - a. Thermal Transmittance Test (U-Factor): When tested in accordance with AAMA 1503, the conductive thermal transmittance (U-Factor) shall not be more than .50 BTU/hr/sf/°F and glass SHGC is .25 per AAMA 507 or NFRC100 when using project specified glass.

8. Condensation Resistance Test (CRF): When tested in accordance with AAMA 1503 with clear glass, the condensation resistance factor (CRF) shall not be less than (CRF_f 59) frame and (CRF_g 57) glass.
 9. Forced Entry Resistance: All windows shall conform to ASTM F588, Grade 10.
 10. Sound Performance: When tested in accordance with ASTM E 90, the STC shall not be less than (34) and OITC not less than (28) based on 1" (25.4 mm) IG with 1/2" (12.7 mm) air space.
 11. Thermal Barrier Tests: Testing shall be in general accordance with AAMA 505 Dry Shrinkage and Composite Thermal Cycling test procedure, AAMA TIR-A8, Structural Performance of Composite Thermal Barrier systems.
- C. Environmental Product Declarations (EPD): Shall have a Type III Product-Specific EPD created from a Product Category Rule.

1.4 Submittals

- A. Product Data: Include construction details, material descriptions, fabrication methods, dimensions of individual components and profiles, hardware, finishes, and operating instructions for each type of aluminum window indicated.
- B. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other work, operational clearances and installation details.
- C. Samples for Initial Selection: For units with factory-applied color finishes including samples of hardware and accessories involving color selection.
- D. Samples for Verification: For aluminum windows and components required.
- E. Product Schedule: For aluminum windows. Use same designations indicated on Drawings.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for each type, class, grade, and size of aluminum window. Test results based on use of downsized test units will not be accepted.

1.5 Quality Assurance

- A. Installer Qualifications: An installer which has had successful experiences with installation of the same or similar units required for this project and other projects of similar size and scope.
- B. Manufacturer Qualifications: A manufacturer capable of fabricating aluminum windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion of test reports, and calculations.
- C. Source Limitations: Obtain aluminum windows through one source from a single manufacturer.
- D. Product Options: Drawings indicate size, profiles, and dimensional requirements of aluminum windows and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements." Do not modify size and dimensional requirements.
 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- E. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
 1. Build mockup for type(s) of window(s) indicated, in location(s) shown on Drawings.

- F. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination."

1.6 Project Conditions

- A. Field Measurements: Verify aluminum window openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1.7 Warranty

- A. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty.
 - 1. Warranty Period: Two (2) years from Date of Substantial Completion of the project provided however that the Limited Warranty shall begin in no event later than six months from date of shipment by manufacturer.
- B. Insulating Glass: Warranted to be free from defects (excluding breakage) for a period of five (5) years.

2.0 PRODUCTS

2.1 Manufacturers

- A. Basis-of-Design Product: Kawneer Company Inc.
 - 1. FIXED - Series 8225TLF Thermal Windows - 2-1/4" (57.2 mm) frame depth; AW-PG100-FW
 - 2. CASEMENT - Series AA@6400/6500/6600 Windows - Outswing 3-3/8" (85.7 mm) Outswing vent depth; AW-PG70-C
- B. Substitutions: Refer to Substitutions Section for procedures and submission requirements.
 - 1. Pre-Contract (Bidding Period) Substitutions: Submit written requests ten (10) days prior to bid date.
 - 2. Post-Contract (Construction Period) Substitutions: Submit written request in order to avoid window installation and construction delays.
 - 3. Product Literature and Drawings: Submit product literature and drawings modified to suit specific project requirements and job conditions.
 - 4. Certificates: Submit certificate(s) certifying substitute manufacturer (1) attesting to adherence to specification requirements for window system performance criteria, and (2) has been engaged in the design, manufacturer and fabrication of aluminum windows for a period of not less than ten (10) years. (Company Name)
 - 5. Test Reports: Submit test reports verifying compliance with each test requirement required by the project.
 - 6. Samples: Provide samples of typical product sections and finish samples in manufacturer's standard sizes.
- C. Substitution Acceptance: Acceptance will be in written form, either as an addendum or modification, and documented by a formal change order signed by the Owner and Contractor.

2.2 Materials

- A. Aluminum Extrusions: Alloy and temper recommended by aluminum window manufacturer for strength, corrosion resistance, and application of required finish and not less than 0.125" (2.3 mm) wall thickness at any location for the main frame and sash members.

- B. Thermal Barrier: The thermal barrier shall be Kawneer IsoLock™ with a nominal 3/8" (9.5 mm) separation consisting of a two-part, chemically curing high density polyurethane which is mechanically and adhesively bonded to the aluminum.
- C. Fasteners: Aluminum, nonmagnetic stainless steel or other materials to be non-corrosive and compatible with aluminum window members, trim, hardware, anchors, and other components.
- D. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- E. Reinforcing Members: Aluminum, nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- F. Sealant: For sealants required within fabricated windows, provide window manufacturer's standard, permanently elastic, non-shrinking, and non-migrating type recommended by sealant manufacturer for joint size and movement.

2.3 Glazing

- A. Glass and Glazing Materials: Refer to Division 08 Section "Glazing" for glass units and glazing requirements applicable to glazed aluminum window units.
- B. Glazing System: Glazing method shall be a wet/dry type in accordance with manufacturer's standards. Exterior glazing shall be silicone back bedding sealant. Interior glazing shall be snap-in type glazing beads with an interior gasket in accordance with AAMA 702 or ASTM C864.

2.4 Hardware

- A. General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, or other corrosion-resistant material compatible with aluminum; designed to smoothly operate, tightly close, and securely lock aluminum windows, and sized to accommodate sash weight and dimensions.
- B. Casement Window Typical Hardware:
- C. Typical Hardware:
 - 1. Locking
 - a. Single Handle Multi-Point Locks (Standard)
 - b. Cast White Bronze Cam Locks (Outswing Casement)
 - 2. Hinging
 - a. Limit Stop
 - b. Concealed Hinges (Outswing Casement)
 - c. Friction Adjusters
 - 3. Other
 - a. Roto Operator (Outswing Casement)

2.5 Accessories

- A. Spacers, Setting Blocks, Gaskets, and Bond Breakers: Manufacturer's standard permanent, non-migrating types in hardness recommended by manufacturer, compatible with sealants, and suitable for system performance requirements.
- B. Framing system gaskets, sealants, and joint fillers as recommended by manufacturer for joint type.
- C. Sealants and joint fillers for joints at perimeter of window system as specified in Division 7 Section "Joint Sealants".

- D. Perimeter Anchors: When steel anchors are used, provide insulation between steel material and aluminum material to prevent galvanic action.
- E. Optional interior Trims: Extruded aluminum, 6063-T6 alloy and temper, extruded to profiles and details indicated.
 - 1. Interior Trims: The interior face trim minimum wall thickness shall be 0.062" (1.57 mm). The face trim shall snap-fit onto concealed mounting clip. Exposed fasteners shall not be accepted. The mounting clip shall be extruded aluminum of 6063-T6 alloy and temper. The minimum wall thickness shall be 0.062" (1.57 mm). The trim clips shall be provided in 4" (101.6 mm) lengths and spaced a maximum of 18" (457.2 mm) center to center.
- F. Coupling Mullions: Shall be extruded aluminum of 6063-T6 alloy and temper of profile and dimensions indicated on drawings. Mullions shall provide structural properties to resist wind pressure required by performance criteria and standards.
- G. Optional Insect Screens: Extruded aluminum frames, 6063-T6 alloy and temper, joined at corners: 18 x 16 mesh fiberglass screen cloth; frames finished to match aluminum windows; splines shall be extruded vinyl, removable to permit rescreening.

2.6 Fabrication

- A. Framing Members, General: Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fit joints; make joints flush, hairline and weatherproof.
 - 3. Means to drain water passing joints, condensation within framing members, and moisture migrating within the system to exterior.
 - 4. Physical and thermal isolation of glazing from framing members.
 - 5. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 6. Provisions for field replacement of glazing.
 - 7. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- B. Window Frame Joinery: Screw-spline, factory-sealed frame and corner joints.
- C. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.
- D. Fabricate aluminum windows that are re-glazable without dismantling framing.
- E. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.
- F. Sub frames: Provide sub frames with anchors for window units as shown, of profile and dimensions indicated but not less than 0.093" (2.4 mm) thick extruded aluminum. Miter or cope corners, and join with concealed mechanical joint fasteners. Finish to match window units. Provide sub frames capable of withstanding design loads of window units.
- G. Factory-Glazed Fabrication: Glaze aluminum windows in the factory where practical and possible for applications indicated. Comply with requirements in Division 08 Section "Glazing" and with AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS).
- H. Glazing Stops: Provide snap-on glazing stops coordinated with Division 08 Section "Glazing" and glazing system indicated. Provide glazing stops to match frame.

2.7 Aluminum Finishes

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Factory Finishing:
 - 1. Kawneer Permafluor™ (70% PVDF), AAMA 2605, Fluoropolymer Coating (Color to be selected by Architect from full range of colors.)

2.8 Examination

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work. Verify rough opening dimensions, levelness of sill plate and operational clearances. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure a coordinated, weather tight window installation.
 - 1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
 - 2. Wood Frame Walls: Dry, clean, sound, well nailed, free of voids, and without offsets at joints. Ensure that nail heads are driven flush with surfaces in opening and within 3 inches (76.2 mm) of opening.
 - 3. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
 - 4. Proceed with installation only after unsatisfactory conditions have been corrected.

2.9 Installation

- A. Comply with Drawings, Shop Drawings, and manufacturer's written instructions for installing windows, hardware, accessories, and other components.
- B. Install aluminum framed window system level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Set sill members in bed of sealant or with gaskets, as indicated, for weather tight construction.
- D. Install aluminum framed window system and components to drain condensation, water penetrating joints, and moisture migrating within system to the exterior.
- E. Separate aluminum from dissimilar materials to prevent corrosion or electrolytic action at points of contact.

2.10 Field Quality Control

- A. Testing Agency: Engage a qualified testing agency to perform tests and inspections and prepare test reports.
 - 1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.
- B. Testing Services: Testing and inspecting of installed windows shall take place as follows:
 - 1. Testing Methodology: Testing Standard shall be per AAMA 502 including reference to ASTM E 783 for Air Infiltration Test and ASTM E 1105 for Water Penetration Test.
 - a. Air Infiltration Test: Conduct test in accordance with ASTM E 783 at a minimum uniform static test pressure of 1.6 psf (75 Pa) for CW or 6.2 psf (300 Pa) for AW. The maximum allowable rates of air

- leakage for field testing shall not exceed 1.5 times the project specifications.
- b. Water Infiltration Test: Water penetration resistance tests shall be conducted in accordance with ASTM E 1105 at a static test pressure equal to 2/3 the specified water test pressure.
- 2. Testing Extent: Architect shall select window units to be tested as soon as a representative portion of the project has been installed, glazed, perimeter caulked and cured. Conduct tests for air infiltration and water penetration with manufacturer's representative present.
 - 3. Test Reports: Shall be prepared according to AAMA 502.

2.11 Adjusting, Cleaning, And Protection

- A. Adjust operating sashes, screens, hardware, and accessories for a tight fit at contact points and weather stripping for smooth operation and weather tight closure. Lubricate hardware and moving parts.
- B. Clean aluminum surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- C. Clean glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels, and clean surfaces.
- D. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.
- E. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.

END OF SECTION

1.0 - GENERAL

1.1 Scope

The work required under this section consists of room & wall signage.

1.2 Existing Conditions

- A. It is the general contractor's responsibility to field verify existing signage before a bid and provide signage that shall match all existing signage types and styles currently installed to provide a continuity of design to the owner as required.

1.3 Submittals

- A. Submit a sample of signs, including size, lettering style, materials, and finish.
- B. Provide mounting templates.
- C. Signs shall conform to requirements as set forth by the AMERICANS WITH DISABILITIES ACT Accessibility Guidelines.
- D. Submit the schedule indicating each room name and number indicated on Architectural Drawings with a corresponding space for the Owner's markup for the actual room name and number per school system of each room name and number along with sign type to the Architect for review.

2.0 – PRODUCTS

2.1 Manufacturers

Subject to compliance requirements. Provide products by the following.

1. Leeds Architectural Letters, Inc. (Basis Of Design)
2. Devaney Sign Service, LLC
3. Bellco Sign & Engraving Specialists.

2.2 Room and Wall Signs Standards

- A. Provide photopolymer signs with Grade II Braille 3/4" numerals and 5/8" Letters to comply with ADA (American Disability Act). Signs shall be color selected from the manufacturer's full line of colors.
- B. Room signs with message insert to have 1/16" front plate, minimum 1/32" solid spacer (no tape spacer), and 1/8" back plate.
- C. Room Signs (no message slot)- minimum 1/8" thick with 1/32" raised letters.
- D. Elevator and Stair Signs to be 6 x 6 and 1/8" thick with 1/32" raised letters.
- E. Exterior Signs - Exterior Aluminum .040 thick, factory painted, and text to be silkscreened or inkjet print.
- F. Edge Condition - Square Cut.
- G. Corners – Round.

- H. Mounting:
1. Sheet Rock – double-sided tape
 2. Block or Brick – double-sided tape and silicone
 3. Signs to be mounted with screws and anchors if specified.
 4. Signs mounted on the wall adjacent to the latch side of the door 60" from floor to centerline of signs and 2" from the edge of the door frame to edge of the sign.

2.3 Typical Signage Schedule (refer to Architectural Signage Plan in construction documents, WHERE applicable and indicated on plans)

- A. All Offices, Classrooms, and Instructional Areas shall be 6" x 8" with a 2-1/2" x 8" changeable clear message insert unless otherwise indicated. Refer to Item 1.2, Item A for existing signage conditions
- B. All other interior door signs except corridor and vestibule doors shall be a 6" x 6" with no message strip.
- C. All restrooms shall have a minimum 6" x 8" sign with pictogram area with an additional area for raised copy and Braille.
- D. 6" x 6" signs at all elevators on all floors. (Use Stairs in Case of Fire...etc.).
- E. 3" x 7" area of refuge sign with raised copy and Braille.
- F. Provide Framed Signage with Clear View Window. Frame to Match Interior Signage Cover) to accommodate an 8.5 x 11 Landscape Floor Plan. Provide two (2) per Classroom and Assembly Area.
- G. 6" x 6" tactile exit sign at all interior exit doors leading directly to the exterior with raised copy and Braille. (Identified as EXIT on signage plan)
- K. Storm Shelter Signage (See Life Safety Plan)
1. Provide the following Storm Shelter Signage as required by ICC 500-2014 and as indicated on the storm shelter plan located within architectural drawings.
 - a. Provide a 12" x 16" storm shelter plaque which shall be located within each storm shelter, as indicated.
 - b. Provide 8" x 8" storm shelter sign, location as indicated.
 - c. Provide 4" x 7" storm shelter instruction signs on each face of all storm doors as indicated.
 - d. Provide an 8"x8" sign adjacent to all doors leading to electrical equipment rooms containing stationary battery systems indicating "APPLY NO WATER," along with the type of battery system and current maintenance contact information

2.4 Pictorial Signs

- A. Provide 12" x 18" baked enamel on metal sign with International Symbol for Accessibility Wheelchair and lettering "Physically Handicapped Parking Only." Each sign shall have a "Van Accessible" sign mounted to the post.
- B. Provide Traffic Control signs as indicated on drawings and in accordance with the State of Alabama Highway Department Manual on Uniform Traffic Control Devices.

3.0 - EXECUTION

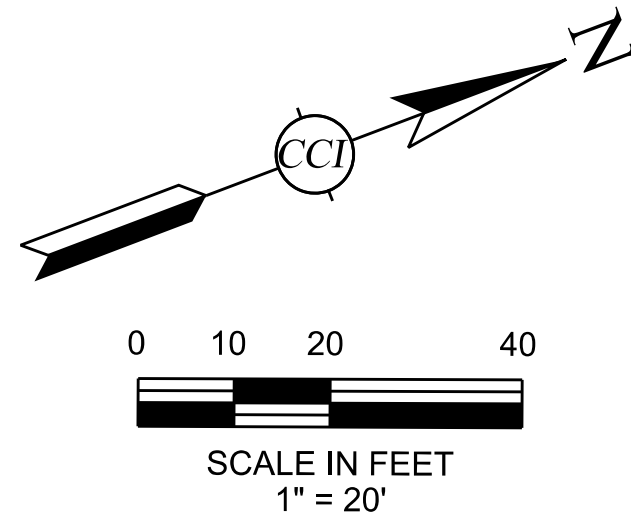
- 3.1 Installation of Signs
Install signs on surfaces and at heights as directed.
- 3.2 Install "Physically Handicapped Parking Only" sign at Handicapped Parking Spaces as indicated.
- 3.3 Install Traffic Control Signs in accordance with State of Alabama Highway Department Manual on Uniform Traffic Control Devices.

END OF SECTION



| | |
|-------------|------------|
| PROJ. MGR.: | R. VERNON |
| DRAWN: | SAB |
| DATE: | 08/28/2025 |
| REVISIONS | |
| ADDENDUM | 3 |

| | |
|------------|--------|
| JOB NO. | 24-106 |
| SHEET NO.: | C-1.0 |



GENERAL NOTES:

1. JOB SITE SAFETY AND COMPLIANCE WITH APPLICABLE SAFETY REGULATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY PROTECTIVE DEVICES, AND FOR THE IMPLEMENTATION OF ALL SAFETY MEASURES INCLUDING, BUT NOT LIMITED TO: THE PROTECTION OF LIFE, INJURY, PROPERTY, AND SITE IMPROVEMENTS; THE PROTECTION OF EXISTING UTILITY LINES AND STRUCTURES; AND THE PROVISION AND COORDINATION OF ALL TEMPORARY TRAFFIC CONTROL EFFORTS AND MEASURES.
2. ALL NECESSARY PERMITS AND APPROVALS FROM AGENCIES GOVERNING THIS WORK SHALL BE SECURED PRIOR TO BEGINNING CONSTRUCTION.
3. ALL CONSTRUCTION SHOWN SHALL BE PERFORMED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS FOR THIS PROJECT AND SHALL CONFORM TO ALL CODES, ORDINANCES, RESTRICTIONS, SPECIFICATIONS, AND STANDARDS OF ALL GOVERNING AGENCIES HAVING JURISDICTION OVER THE SITE. CONTRACTOR WILL ONLY PERFORM CONSTRUCTION ACTIVITIES BASED ON PLANS AND SPECIFICATIONS WHICH HAVE BEEN PROPERLY ISSUED FOR CONSTRUCTION PURPOSES.
4. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL PROPERTY CORNERS AND BENCHMARKS. ALL PROPERTY PINS OR BENCHMARKS ELIMINATED OR DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN LIKE KIND BY CONTRACTOR.
5. BOUNDARY AND TOPOGRAPHIC INFORMATION WAS OBTAINED FROM A SURVEY PROVIDED BY ARRINGTON ENGINEERING DATED 06/24/2025. PHONE: (205) 985-9315. CIVIL CONSULTANTS IS NOT RESPONSIBLE FOR THE ACCURACY OF THE SURVEY.
6. EXISTING UTILITY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LINE LOCATIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DEVIATIONS FROM THE DESIGN LOCATIONS SHALL BE REPORTED TO THE OWNER OR THE ENGINEER PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL APPROPRIATE UTILITY CONTACTS 48 HOURS PRIOR TO EXCAVATION IN AREAS WHERE UTILITIES MAY EXIST. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM AND SANITARY SEWER STRUCTURES, STORM AND SANITARY PIPES AND ALL OTHER EXISTING UTILITIES AND IRRIGATION LINES PRIOR TO BEGINNING CONSTRUCTION.
7. CONTRACTOR SHALL COORDINATE THE INSTALLATION, ADJUSTMENT OR RELOCATION OF ALL UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES AND HIS WORK. ALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, STORM SEWER, ELECTRICAL CONDUIT, GAS & TELEPHONE, IRRIGATION SLEEVES, ETC. SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF BASE COURSE MATERIAL.
8. CONTRACTOR SHALL REFERENCE ARCHITECTURAL PLANS FOR ANY SITE LIGHTING LOCATIONS, IF PROVIDED, AND COORDINATE INSTALLATION WITH PROPOSED IMPROVEMENTS TO AVOID CONFLICTS WITH EXISTING OR PROPOSED UTILITY LOCATIONS AND STORM DRAINAGE SYSTEM.
9. THE LIMITS OF DISTURBANCE SHALL INCLUDE ALL AREAS DISTURBED BY GRADING OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL AREAS OUTSIDE THE LIMITS OF DISTURBANCE. ANY DAMAGE CAUSED BY CONSTRUCTION SHALL BE REPAIRED TO ITS ORIGINAL CONDITION.
10. EROSION CONTROL DEVICES SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES. EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED THROUGHOUT CONSTRUCTION UNTIL PERMANENT GROUND COVER IS ESTABLISHED. CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR PREVENTING SILTS OR DEPOSITS OF SOIL, DUST OR MATERIALS FROM BEING TRANSPORTED OFF THE CONSTRUCTION SITE BY EROSION FORCES
11. CONTRACTOR SHALL REFER TO ARCHITECT'S PLANS FOR ACTUAL BUILDING DIMENSIONS AND DETAILS. CONTRACTOR SHALL VERIFY THAT THE COORDINATE POINTS PROVIDED FOR THE TWO OUTSIDE BUILDING CORNERS PRECISELY MATCH THE ARCHITECT'S PLANS. IF A DISCREPANCY EXISTS WITH RESPECT TO THE BUILDING CORNERS, THEN CONTACT THE ENGINEER AND ARCHITECT FOR A RESOLUTION BEFORE EXCAVATING FOR FOUNDATIONS.
12. IN THE EVENT THAT A CONFLICT ARISES BETWEEN THE SITE CONSTRUCTION DRAWINGS AND STRUCTURES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND ENGINEER AND SHALL NOT PROCEED WITH CONSTRUCTION OF ANY AREA WHERE A CONFLICT HAS BEEN DISCOVERED UNTIL SUCH TIME AS THE CONFLICT HAS BEEN CLEARLY RESOLVED.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FLUSH AND SMOOTH TRANSITION BETWEEN ALL NEW CONSTRUCTION AND ALL EXISTING CONDITIONS. ALL TRANSITION GRADES, CONSTRUCTION MATERIALS, AND FINISHES SPECIFICALLY AT DRIVEWAY ENTRANCE LOCATIONS, ARE SUBJECT TO APPROVAL BY THE OWNER, ARCHITECT OR ENGINEER.
14. CONTRACTOR SHALL COORDINATE WITH CONTRACTORS OF ADJACENT WORK TO MINIMIZE THE DISRUPTION OF ITS WORK AND THE WORK OF OTHERS.

LAYOUT NOTES:

1. FOR BUILDING DIMENSIONS REFER TO ARCHITECTURAL PLANS. ALL DIMENSIONS AND COORDINATES TO BUILDING ARE MEASURED FROM OUTSIDE FACE, UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS IN PAVED AREAS ARE MEASURED FROM THE EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED.
3. ALL RADII AND COORDINATES ARE DIMENSIONED FROM/TO THE EDGE OF PAVEMENT.
4. IF FOR ANY REASON A WRITTEN DIMENSION DOES NOT COINCIDE WITH A SCALED DIMENSION, THE WRITTEN DIMENSION SHALL GOVERN. DO NOT SCALE CRITICAL DIMENSIONS FROM THIS DRAWING. SEEK CLARIFICATION FROM ARCHITECT/ENGINEER IF NEEDED.
5. COORDINATES SHOWN IN THESE PLANS ARE GIVEN IN U.S. SURVEY FEET AND ARE BASED ON THE STATE PLANE COORDINATE SYSTEM.
6. PRIOR TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR IS TO VERIFY THE LOCATION, ELEVATION AND RELATIVITY OF THE COORDINATES ASSIGNED TO BLDG. CORNERS, PROPERTY LINES, INLETS, STORM MANHOLES, SANITARY MANHOLES, PIPES, ETC. IF THERE IS A DISCREPANCY OR INCONGRUITY BETWEEN THE COORDINATES THEN NOTIFY THE ENGINEER IMMEDIATELY FOR CLARIFICATION.

LEGEND

CONCRETE SIDEWALK

HEAVY DUTY ASPHALT PAVEMENT

SOLID SOD

CONCRETE DUMPSTER PAD / HEAVY DUTY CONCRETE

GRAVEL DRIVE

BOUNDARY / RIGHT OF WAY

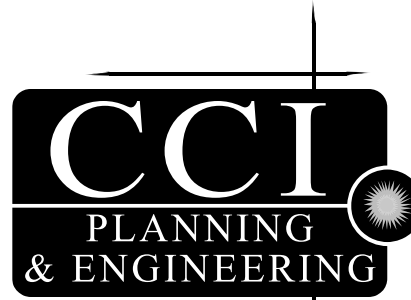
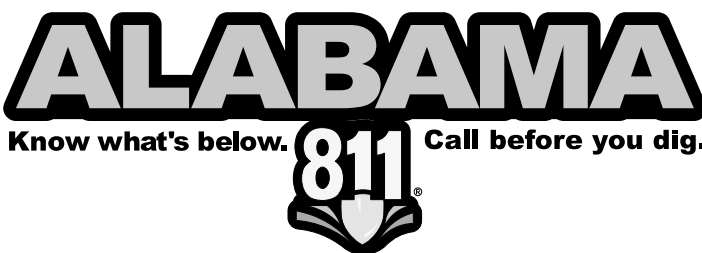
EDGE OF PAVEMENT

PARKING SPACE COUNT

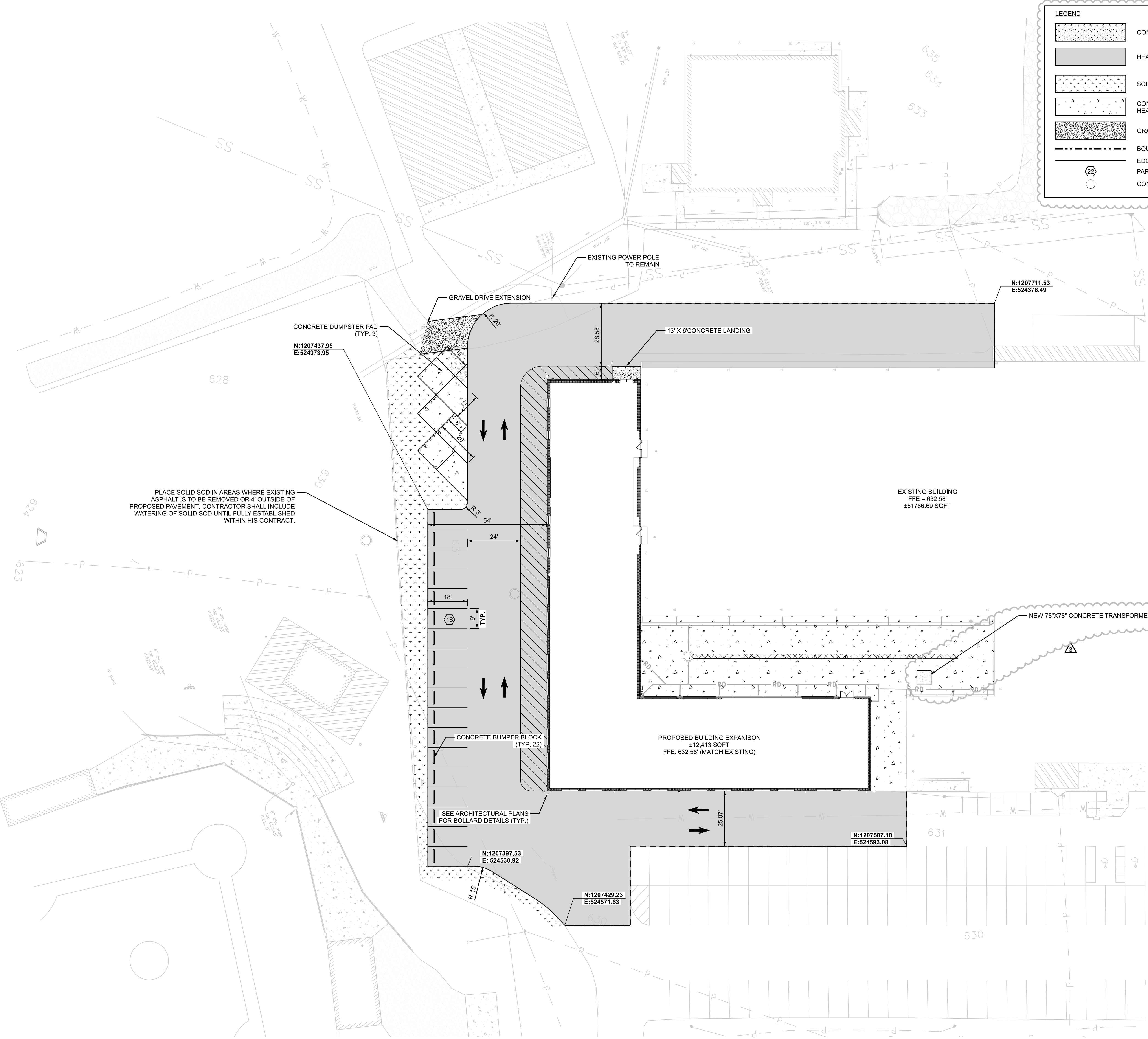
CONCRETE BOLLARD

CAUTION NOTICE TO CONTRACTOR:

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3528 Vann Road
Suite 105
Birmingham, AL 35235
Phone: (205) 655-1991
www.ccipe.com



LIST OF CONTACTS

| | |
|--|--|
| OWNER ST. CLAIR COUNTY BOARD OF EDUCATION Phone: (205) 594-7131 Contact: Justin Burns 410 Roy Dr. Ashville, AL 35953 | CIVIL ENGINEERING CIVIL CONSULTANTS, INC. Phone: (205) 655-1991 Contact: Will Dailey, P.E. 3528 Vann Road, Suite 105 Birmingham, Alabama 35235 |
| SURVEYING ARRINGTON ENGINEERING Phone: (205) 985-9315 Contact: Jeff D. Arrington 2032 Valleydale Road Birmingham, AL 35244 | GEOTECHNICAL TERRACON Phone: (205) 443-5209 Contact: Bryan Ritenour, P.E. 2147 Riverchase Office Road Birmingham, AL 35244 |

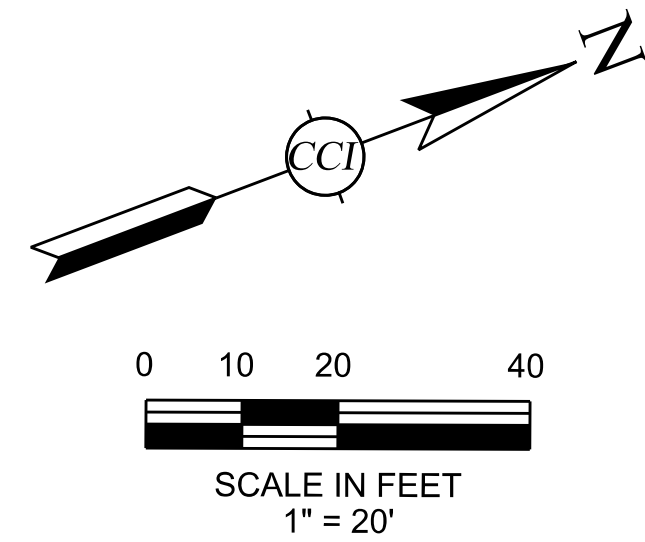
INDEX OF SHEETS

| SHEET NUMBER | DESCRIPTION |
|--------------|---|
| C-1.0 | LAYOUT PLAN |
| C-2.0 | DEMOLITION PLAN |
| C-3.0 | GRADING PLAN |
| C-4.0 | DRAINAGE PLAN |
| C-5.0 | UTILITY PLAN |
| C-6.0 | EROSION AND SEDIMENT CONTROL PLAN |
| C-7.0 | SECTIONS AND DETAILS |
| C-8.0 | SURVEY (TOPOGRAPHIC SURVEY ASHVILE HIGH SCHOOL BY ARRINGTON ENGINEERING) FOR INFORMATION ONLY |



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| PROJ. MGR.: R. VERNON |
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| DATE: 08/28/2025 |
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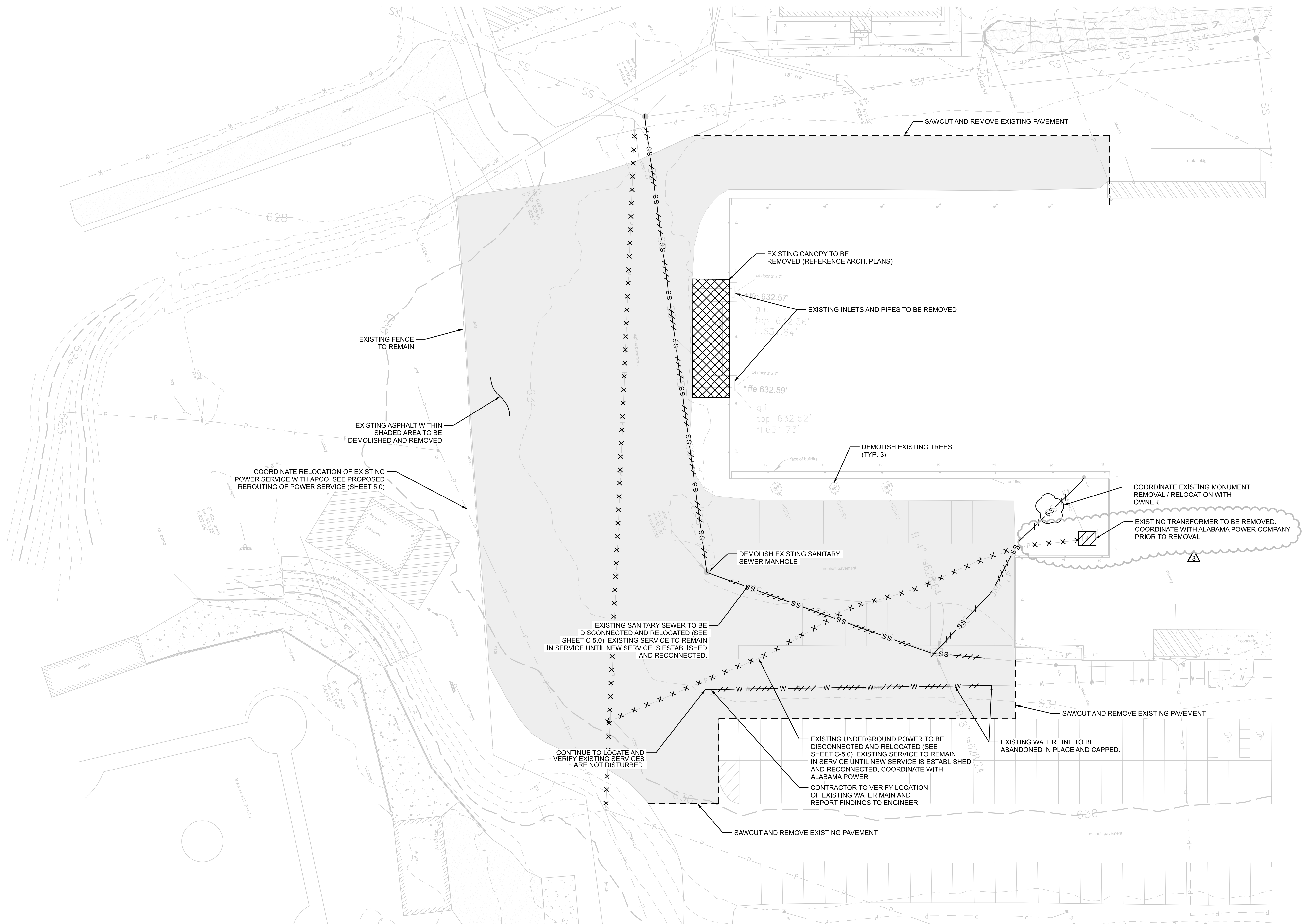
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| LEGEND | |
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| | DEMOLISH BUILDING |
| | DEMOLISH SANITARY SEWER |
| | DEMOLISH UTILITY/MISC. |
| | DEMOLISH ASPHALT PAVEMENT AND REMOVE FROM SITE |
| | SAWCUT LINE |
| | DEMOLISH CONCRETE |

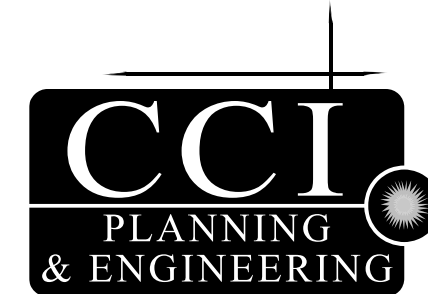
DEMOLITION NOTES

- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE ADEQUACY AND INSTALLATION OF ALL TEMPORARY SHORING & BRACING SYSTEMS USED DURING THE PERFORMANCE OF THIS WORK.
- WORK SHALL BE PERFORMED BY SKILLED AND PROPERLY EQUIPPED PERSONNEL. PROMPTLY REPAIR DAMAGES CAUSED BY DEMOLITION OPERATIONS.
- REMOVE EXISTING CONSTRUCTION TO THE EXTENT NECESSARY FOR THE PROPER INSTALLATION OF NEW CONSTRUCTION AND JUNCTION WITH EXISTING WORK. CUT BACK FINISHED SURFACES TO STRAIGHT, PLUMB, OR LEVEL LINES AS REQUIRED.
- WHERE OPENINGS ARE CUT OVERSIZED OR AT IMPROPER LOCATIONS AS DETERMINED BY THE ENGINEER, REPLACE THE EXCESS REMOVED MATERIAL AS INSTRUCTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER.
- COORDINATE DEMOLITION WITH OTHER TRADES TO ASSURE THE PROPER SEQUENCE, LIMITS, METHODS AND TIME OF PERFORMANCE. SCHEDULE WORK SO AS TO IMPOSE A MINIMUM HARDSHIP ON THE PERFORMANCE OF WORK OF OTHER TRADES.
- DEMOLITION SCHEDULE IN GENERAL. MATERIALS SHALL BE REMOVED AS FOLLOWS:
A. REMOVE EXISTING BUILDINGS, FOUNDATIONS, CONCRETE PADS AND OTHER STRUCTURES. REMOVE ANY LEAD BASED PAINTS OR ASBESTOS CONTAINING MATERIALS PRIOR TO STRUCTURE DEMOLITION. PROVIDE FULL DEPTH SAWCUT AT ALL PAVEMENT REMOVALS.
B. ASPHALT PAVEMENT AND PORTLAND CEMENT CONCRETE WHICH ARE INDICATED FOR REMOVAL: SAW CUT TO CLEAN, STRAIGHT, PERPENDICULAR LINES. UNLESS OTHERWISE SHOWN ON DRAWINGS, JACK HAMMERING IS NOT ACCEPTABLE. UNLESS INDICATED ON PLANS, CUT BACK CONCRETE WHEN NEW WORK WILL JOIN EXISTING TO PROVIDE KEY. PROVIDE WET VACUUM EQUIPMENT AS REQUIRED FOR CONTROL WASTE COOLING WATER.
C. CURB: SAW CUT TO CLEAN, STRAIGHT, PERPENDICULAR LINES.
D. REMOVE CONCRETE STRUCTURES OR PORTIONS OF STRUCTURES EXTENDING BELOW GRADE COMPLETELY.
E. DEMOLITION SCHEDULE CAN BE ADJUSTED BY CONTRACTOR AS NECESSARY TO BEST FIT COORDINATION EFFORTS, HOWEVER, UTILITY SERVICE DISCONNECTS TO BE PERFORMED IN INITIAL DEMOLITION PLANS IF REQUIRED. DEPRESSIONS LEFT BY FOUNDATIONS, PIPE OR STRUCTURE REMOVALS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND PROPERLY COMPACTED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- WORK NOT MENTIONED TO BE REMOVED THAT INTERFERES WITH NEW CONSTRUCTION SHALL BE CUT AND REMOVED TO PROVIDE FOR PROPER INTERFACE WITH NEW CONSTRUCTION, OR PATCHING AND REPAIR, AS REQUIRED.
- ALL MATERIALS INCLUDING DEBRIS FROM CLEARING AND BUILDING DEMOLITION SHALL BE DISPOSED OF IN AN APPROPRIATE OFF-SITE LOCATION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FOR BOTH DEMOLITION WORK AND WASTE MATERIAL DISPOSAL INCLUDING ANY ADDITIONAL TESTING FOR LEAD BASED PAINT AND/OR ASBESTOS.
- CERTAIN BUILDINGS ARE KNOWN TO CONTAIN ASBESTOS CONTAINING MATERIALS. REMOVE AND DISPOSE OF ASBESTOS CONTAINING MATERIALS IN ACCORDANCE WITH ST. CLAIR COUNTY HEALTH DEPARTMENT. BUILDINGS REQUIRING DEMOLITION AS SHOWN ON THIS SHEET HAVE HAD AN ASBESTOS INVESTIGATION COMPLETED. THESE DOCUMENTS WILL BE PROVIDED TO THE CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AN ASBESTOS INVESTIGATION FOR THESE BUILDINGS.
- CITY OF ASHVILLE WATER AND SEWER AND ALABAMA GAS CORPORATION IS RESPONSIBLE FOR ALL WATER AND GAS DEMOLITION AND/OR RELOCATION. CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS DEMOLITION SCHEDULES WITH CITY OF CULLMAN WATER & WASTEWATER DEPARTMENT AND CULLMAN-JEFFERSON GAS. CITY OF CULLMAN WATER & WASTEWATER AND CULLMAN-JEFFERSON GAS WILL ABANDON IN PLACE ALL GAS AND WATER MAINS AND SERVICES THAT ARE CALLED TO BE RELOCATED OR REMOVED. IN ADDITION CITY OF CULLMAN WATER & WASTEWATER AND CULLMAN-JEFFERSON GAS WILL CAP ABANDONED WATER AND GAS MAINS AT 5 FEET EACH SIDE OF ALL PROPOSED UNDERGROUND UTILITIES AFTER NEW MAIN IS INSTALLED.
- ALL WATER AND GAS VALVES THAT ARE NOT REMOVED OR RELOCATED SHALL BE ADJUSTED TO GRADE BY CITY OF ASHVILLE WATER AND SEWER AND ALABAMA GAS CORPORATION.



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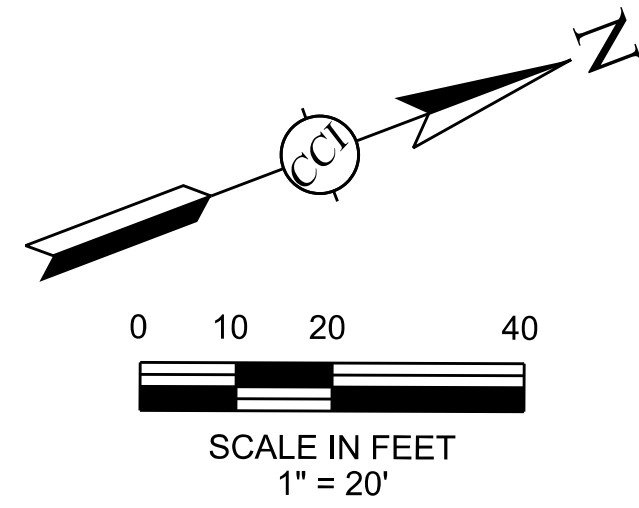
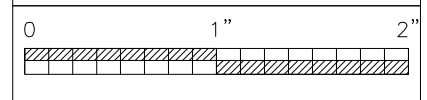


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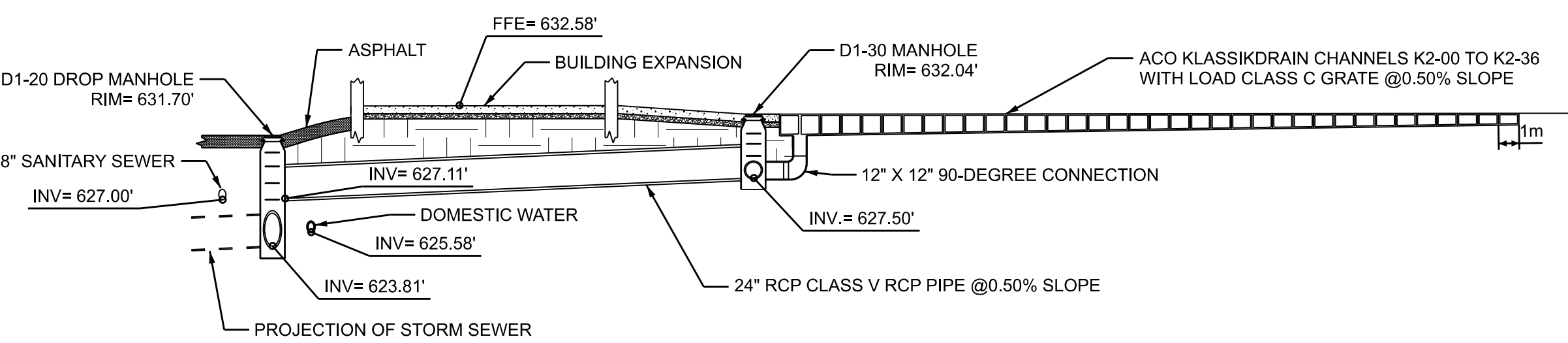
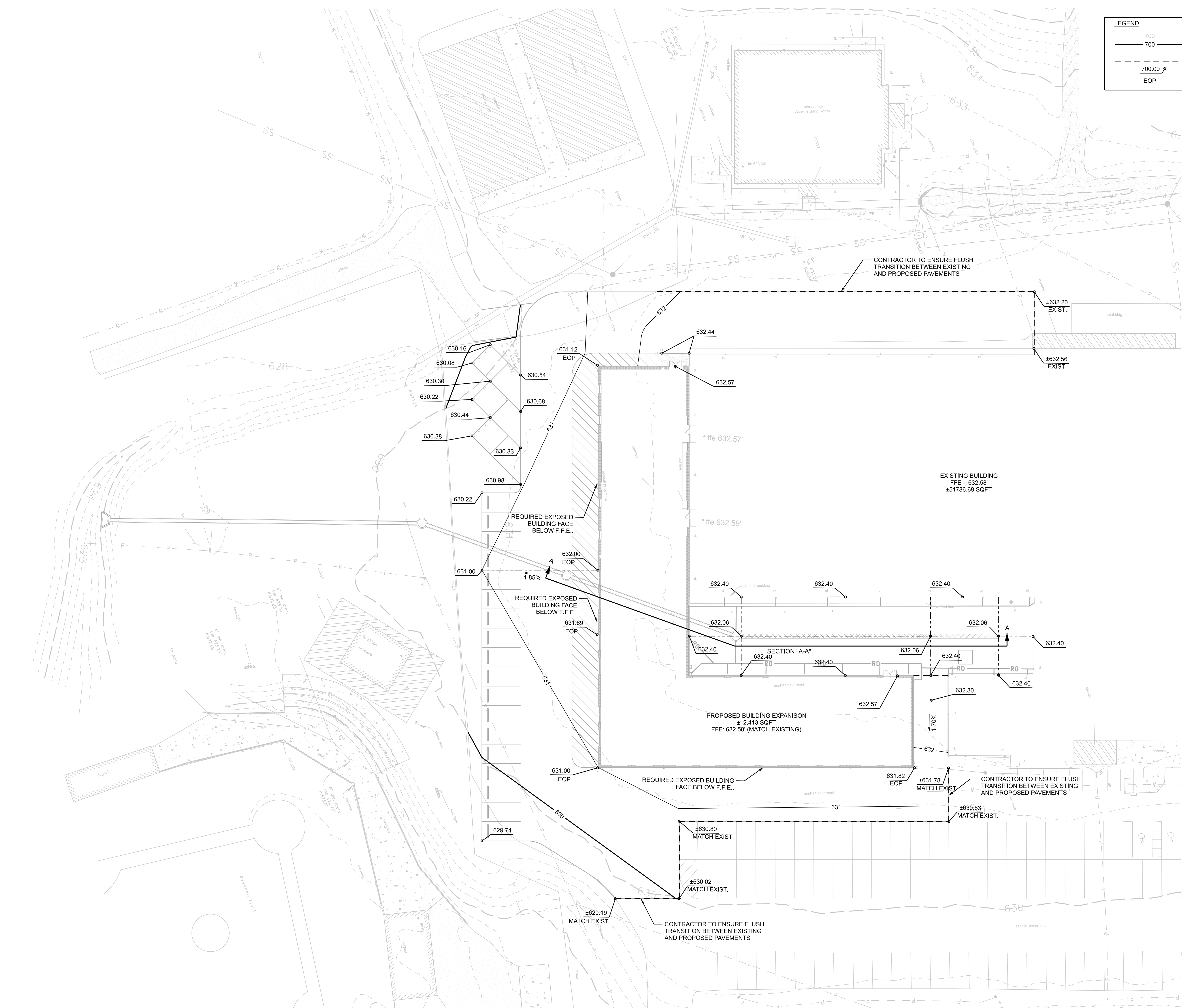
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| LEGEND | |
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| | EXISTING CONTOUR |
| | PROPOSED CONTOUR |
| | VALLEY LINE |
| | RIDGE LINE |
| | SPOT ELEVATION |
| | EDGE OF PAVEMENT |

GRADING NOTES:

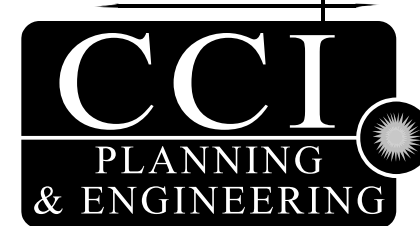
- REFERENCE GENERAL NOTES- DRAWING C-1.0
- CLEARING AND GRUBBING LIMITS SHALL INCLUDE ALL AREAS DISTURBED BY GRADING OPERATIONS. ANY CLEARING REQUIRED FOR THIS CONSTRUCTION SHALL BE INCIDENTAL TO THE OVERALL SITE WORK.
- ANY GRADED OR DISTURBED AREAS SHALL HAVE A MINIMUM OF 4" OF TOPSOIL WITH SOD, FERTILIZER, AND WATER APPLIED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED. ALL SLOPES 3:1 OR STEEPER SHALL BE SODDED.
- GRADES SHOWN ARE FINISHED PAVEMENT & TOP OF GRASS GRADE ELEVATIONS. REFERENCE ARCHITECTURAL PLANS TO DETERMINE BUILDING SUBGRADE ELEVATIONS. FOR SUBGRADE ELEVATIONS IN PAVED AND SIDEWALK AREAS, REFERENCE SECTIONS & DETAILS.
- CONTRACTOR SHALL MAINTAIN POSITIVE GRADE FALL AWAY FROM THE BUILDING AND ALL DOORS. DO NOT GRADE AREAS AROUND THE ENTIRE BUILDING TO ALLOW STORMWATER TO FLOW TOWARD THE BUILDINGS OR DOORS.
- SITE CONTRACTOR SHALL PROVIDE SUBGRADE FOR BUILDING PAD PER ARCHITECTURAL SPECIFICATIONS. REFERENCE ARCHITECTURAL PLAN FOR SUBGRADE ELEVATION.
- CONTRACTOR SHALL OBTAIN AND BE FAMILIAR WITH GEOTECHNICAL INVESTIGATION PREPARED BY TERRACON (DATED MAY 13, 2025) AND ALL SUBSEQUENT REVISIONS.
- CONTRACTOR SHALL SAWCUT EXISTING PAVEMENT AS NECESSARY TO ACCOMMODATE NEW PAVEMENTS AND CURB & GUTTER AND ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CODES AND SPECIFICATIONS OF THE MUNICIPALITY HAVING JURISDICTION OVER THE SITE.
- THE LOCATION AND ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, SHOULD NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM SEWER STRUCTURES, PIPES AND UTILITIES PRIOR TO CONSTRUCTION. ANY DEVIATIONS FROM PLAN INFORMATION SHOULD BE DISCUSSED WITH ENGINEER AND OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL CALL APPROPRIATE UTILITY CONTACTS 48 HOURS PRIOR TO EXCAVATION IN AREAS WHERE UTILITIES MAY EXIST.
- ANY EXCESS MATERIAL AT THE END OF THE GRADING OPERATIONS, SHALL BE REMOVED AND DISPOSED OF IN A LEGAL MANNER OFF-SITE.
- NO SLOPES SHALL BE STEEPER THAN 3-HORIZONTAL TO 1-VERTICAL, UNLESS OTHERWISE NOTED ON THE PLAN OR APPROVED BY ENGINEER.
- ALL TOPSOIL REQUIRED FOR THE SITE SHALL BE OBTAINED FROM THE SITE BEFORE ANY IS BORROWED FROM OFF SITE. CONTRACTOR IS TO COORDINATE ON SITE TOPSOIL ACQUISITION AND STOCK PILES.
- ALL SPOT ELEVATIONS ARE AT EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- PRIOR TO PLACING FILL, THE EXISTING TREES, BRUSH, VEGETATION, TOPSOIL, SURFACE DEBRIS, AND ANY OTHER DELETERIOUS MATERIAL SHOULD BE REMOVED. AFTER CLEARING AND GRUBBING ANY REQUIRED CUTS TO THE FINISHED SUBGRADE SHOULD BE PERFORMED. AFTER EXCAVATION, THE EXPOSED SUBGRADE SHOULD BE PROOF-ROLLED WITH AN ADEQUATELY LOADED VEHICLE SUCH AS A FULLY LOADED TANDEN-AXLE DUMP TRUCK. THE PROOF-ROLLING SHOULD BE PERFORMED UNDER THE DIRECTION OF THE GEOTECHNICAL ENGINEER. AREAS EXCESSIVELY DEFLECTING UNDER THE PROOF-ROLL SHOULD BE DELINEATED AND SUBSEQUENTLY ADDRESSED BY THE GEOTECHNICAL ENGINEER. REMEDIATION FOR SOILS FAILING THE PROOF-ROLL WILL BE HIGHLY DEPENDENT ON SITE AND WEATHER CONDITIONS DURING CONSTRUCTION BUT MAY INCLUDE UNDERCUTTING OR MOISTURE CONDITIONING AND RE-COMPACTION.
- THE SITE GRADING CONTRACTOR SHALL REFERENCE THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY TERRACON DATED MAY 13, 2025 FOR ALL FILL MATERIAL REQUIREMENTS, COMPACTION REQUIREMENTS, UTILITY TRENCH BACKFILL (SPECIFICALLY THOSE TRENCHES BENEATH THE BUILDING) AND PAVEMENT TO SUBGRADE REQUIREMENTS.
- ALL UTILITY TRENCHES IN THE BUILDING AND PARKING/DRIVE AREAS MUST BE BACKFILLED AND COMPACTED IN THE MANNER SPECIFIED FOR STRUCTURAL FILL. REDUCE LIFT THICKNESS TO 4 TO 6 INCHES (LOOSE MEASURE), IN ORDER TO ACHIEVE COMPACTION USING HAND OPERATED EQUIPMENT. DENSITY TEST TO BE PERFORMED AT LEAST EVERY 200 FT. ALONG THE TRENCH FOR EACH LIFT.
- OWNER SHALL PROVIDE EARTHWORK TESTING IN ACCORDANCE WITH THE RECOMMENDATIONS WITHIN THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY TERRACON.
- PROPERTY LINES AND EASEMENTS ARE SHOWN ON THE CONSTRUCTION PLANS AS PROVIDED BY THE SURVEY. STRUCTURES SUCH AS WALLS, SIGNS, FENCES, BUILDINGS, ETC. OR PLANTS SUCH AS TREES OR SHRUBS SHALL NOT BE PLACED IN THE RIGHT OF WAYS, EASEMENTS, OR OUTSIDE PROPERTY WITHOUT PROPER APPROVAL.



TYPICAL SECTION A-A
N.T.S.

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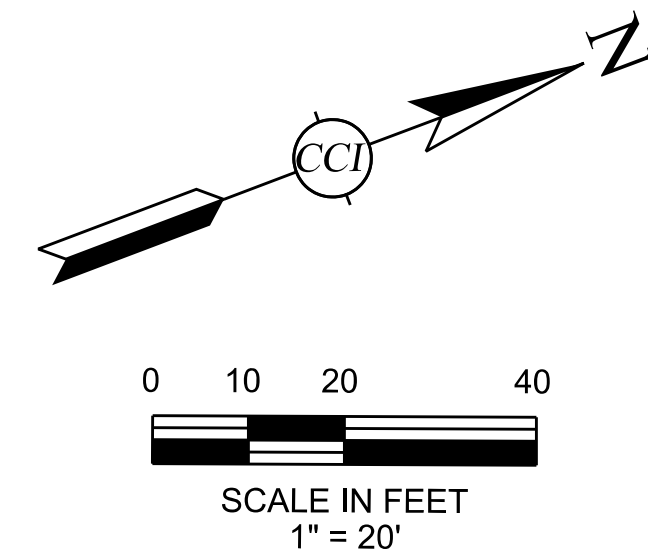
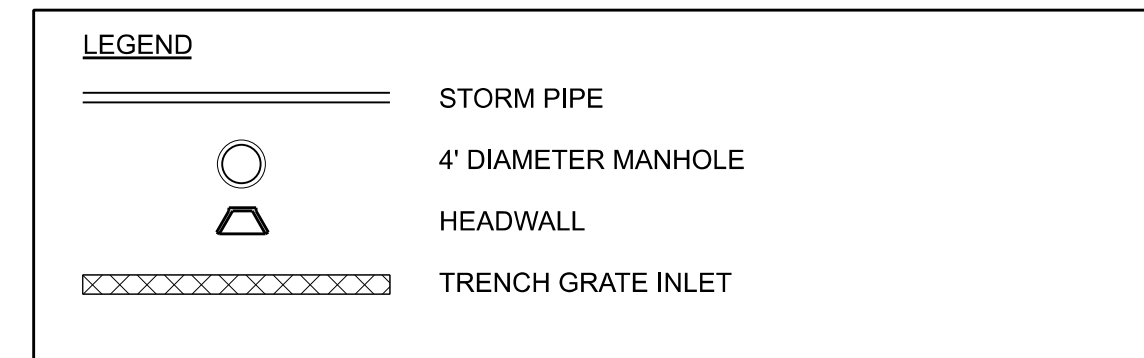
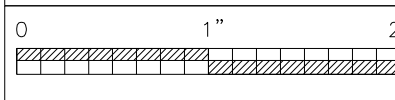


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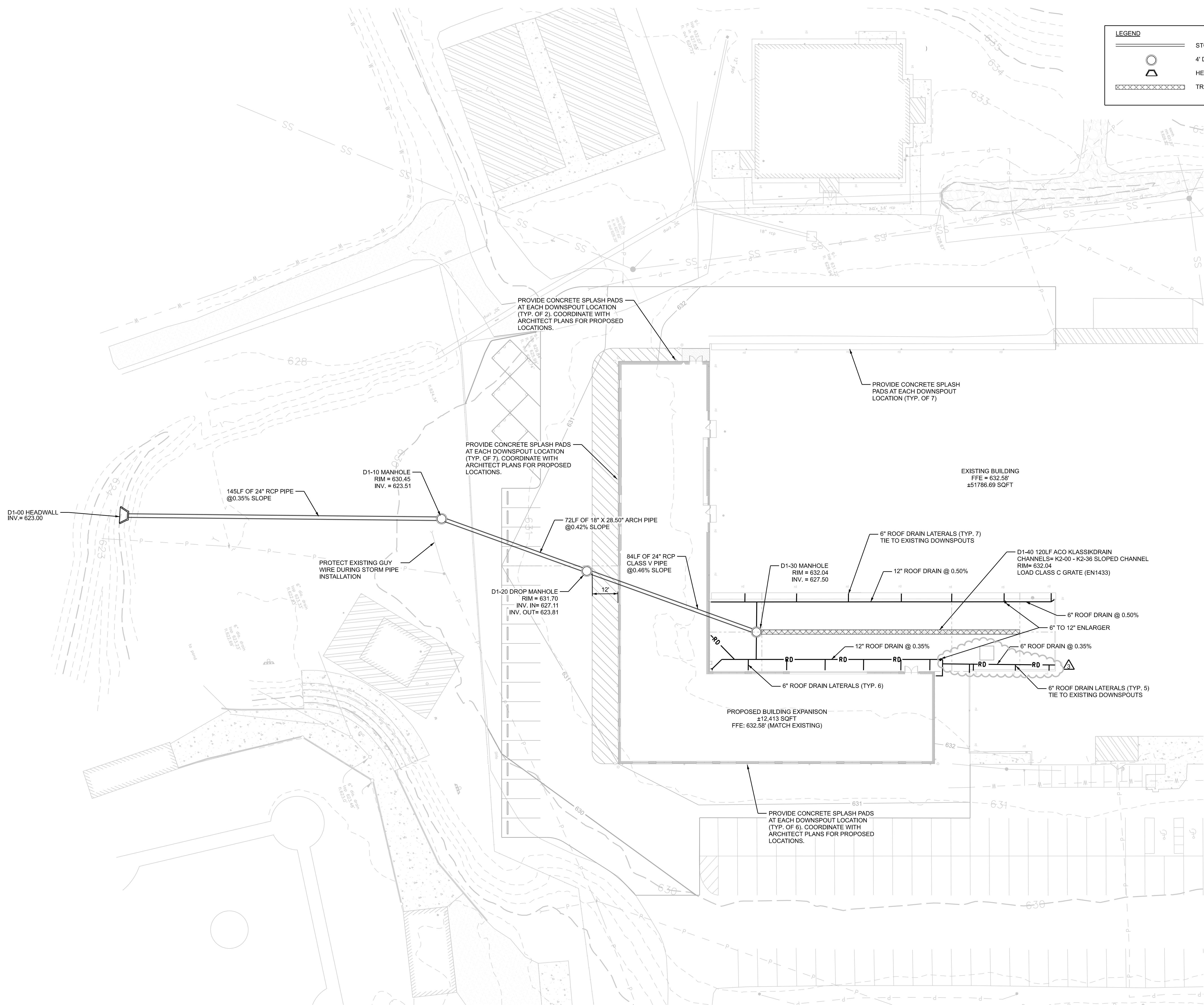
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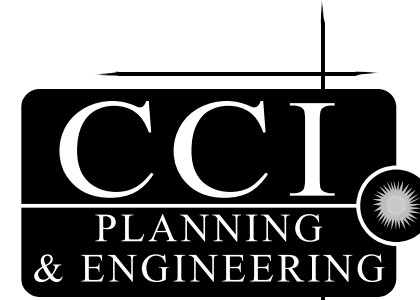
STORM DRAINAGE NOTES:

1. STORM PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP), CONFORMING TO ASTM C-76, B OR C WALL, CLASS III OR CLASS V, (UNLESS NOTED OTHERWISE ON PLAN). JOINTS SHALL BE TONGUE AND GROOVE OR BELL AND SPIGOT, WHICH MUST BE SEALED WITH RUBBER GASKETS CONFORMING TO ASTM 443 OR FLEXIBLE GASKETS CONFORMING TO AASHTO M 198, UNLESS NOTED OTHERWISE.
2. ALL ROOF COLLECTORS SHALL BE PVC OR HDPE. SIZE SHALL BE AS CALLED OUT ON THIS SHEET. CONTRACTORS SHALL PROVIDE A WATERTIGHT CONNECTION FROM ROOF DRAIN TO COLLECTOR WHERE ROOF DRAIN EXITS BUILDING FOUNDATION.
3. ALL PIPE ENTERING STORM SEWER STRUCTURES SHALL BE GROUTED TO ASSURE THE CONNECTION AT THE STRUCTURE IS WATER TIGHT.
4. ALL STORM SEWER MANHOLES AND INLETS SHALL BE PRECAST OR CAST IN PLACE AND MEET THE SPECIFICATIONS OF ASTM C478.
5. ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH THE PAVEMENT AND SHALL HAVE TRAFFIC BEARING LIDS.
6. ALL STORM SEWER MANHOLE LIDS SHALL BE LABELED "STORM SEWER", OR PER CITY STANDARDS.
7. ALL STORM DRAINAGE PIPE AND STRUCTURES SHALL BE CLEANED OF SILT, TRASH AND DEBRIS PRIOR TO DEMOBILIZATION FROM THE SITE.
8. CONTRACTOR IS TO BEGIN STORM DRAINAGE CONSTRUCTION FROM THE MOST DOWN STREAM POINT OF THE SYSTEM.
9. PIPE LENGTH AND SLOPES ARE APPROXIMATE. PIPE LENGTH ARE HORIZONTAL PROJECTIONS AND ARE MEASURED FROM THE MIDDLE OF THE STRUCTURE. DISTANCES ARE ROUNDED TO THE NEAREST WHOLE FOOT.
10. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING STORM STRUCTURES, PIPES AND UTILITIES PRIOR TO CONSTRUCTION. ANY DEVIATIONS OR CONFLICTS FROM THE LOCATIONS SHOWN SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.



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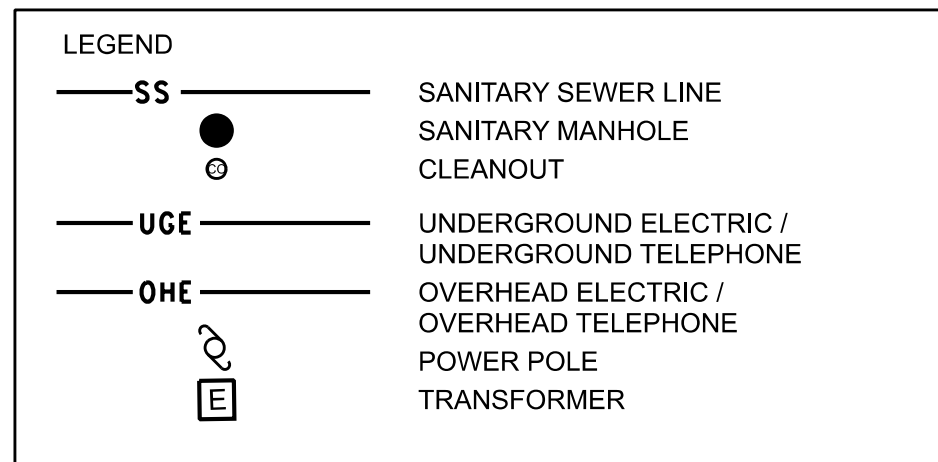
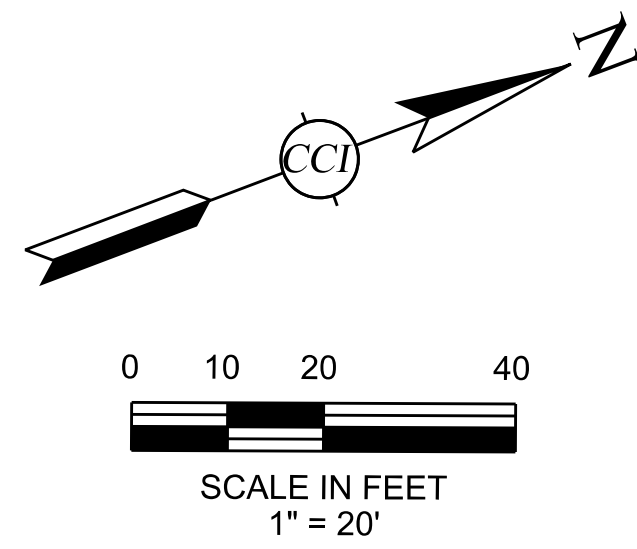


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SANITARY SEWER NOTES

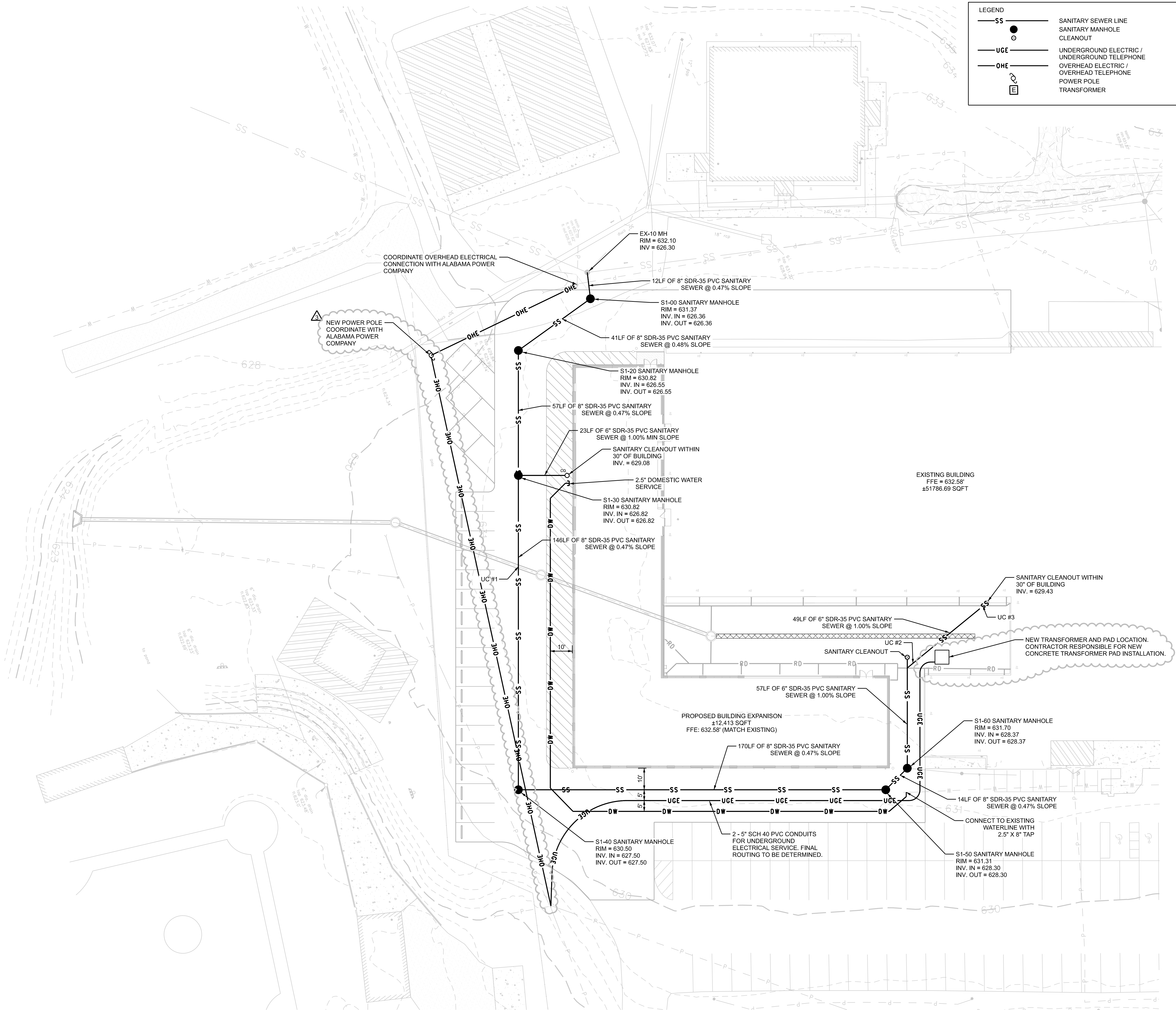
- REFERENCE GENERAL NOTES AND ARCHITECTURAL/PLUMBING PLANS.
- DIMENSIONS SHOWN ARE TO THE CENTERLINE OF PIPE OR TO CENTERLINE OF MANHOLE.
- ALL CLEANOUTS SHALL BE A SHALL BE FLUSH WITH EXISTING/PROPOSED GRADE ELEVATIONS.
- SANITARY SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE CITY OF ASHVILLE WATER AND SEWER REQUIREMENTS.
- CONTRACTOR SHALL REFER TO ARCHITECT'S PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL BUILDING ENTRANCES, TO INCLUDE SANITARY SEWER SERVICE, DOMESTIC & IRRIGATION SERVICE, ELECTRICAL TELEPHONE & GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES SUCH THAT PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE APPROPRIATE UTILITIES AS TO LOCATION AND SCHEDULING OF TIE-INS/CONNECTIONS TO THEIR FACILITIES.

POWER NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL SCHEDULE 40 GRAY PVC UNDERGROUND CONDUIT ASSOCIATED WITH POWER AND TELEPHONE DISTRIBUTION AND SERVICE.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY PULL BOXES FOR POWER AND UTILITY CONSTRUCTION.
- ALL BENDS FOR POWER AND TELEPHONE CONDUITS (HORIZONTAL AND VERTICAL) SHALL BE LONG SWEEPING ELLS.
- POWER CONDUITS SHALL BE INSTALLED WITH A MINIMUM OF 4 FEET OF COVER FROM FINISHED GRADE TO TOP OF THE CONDUIT.
- A MINIMUM OF 1 FOOT OF HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN POWER AND TELEPHONE CONDUITS.
- THE MINIMUM SPACING BETWEEN PRIMARY AND SPARE CONDUITS IS THE DIAMETER OF THE CONDUITS.
- ALL CONDUITS SHALL BE PROVIDED WITH PULL STRING.
- THE BUILDING ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PULLING ALL SECONDARY CONDUITORS AS WELL AS MAKING THE ASSOCIATED SECONDARY TERMINATIONS WITHIN THE TRANSFORMER, UNLESS OTHERWISE NOTED.

WATER NOTES

- REFERENCE GENERAL NOTES.
- ALL DOMESTIC LEADS TO BUILDING SHALL END WHERE NOTED ON PLAN AND SHALL BE PROVIDED WITH A TEMPORARY PLUGS AT END (FOR OTHERS TO REMOVE AND EXTEND AS NECESSARY). COORDINATE EXTENSION OF WATER LINE WITH PROJECT PLUMBING CONTRACTOR.
- DIMENSIONS SHOWN ARE TO CENTERLINE OF PIPE OR FITTING.
- SITE CONTRACTOR SHALL COORDINATE TAPS WITH CITY OF ASHVILLE WATER AND SEWER. CONTRACTOR IS RESPONSIBLE FOR ALL CHARGES, FEES ETC. ASSOCIATED WITH WATER CONNECTION. CONTRACTOR SHALL PROVIDE AND INSTALL DOMESTIC SERVICE PER CITY OF ASHVILLE WATER AND SEWER.
- THE CONTRACTOR SHALL COORDINATE ALL UTILITY INSPECTIONS WITH THE GOVERNING AUTHORITIES PRIOR TO COVERING TRENCHES DURING INSTALLATION.
- CONTRACTOR SHALL MAINTAIN A 24" HORIZONTAL AND 18" VERTICAL SEPARATION BETWEEN WATER SERVICE AND OTHER UTILITIES, EXCEPT FOR SANITARY SEWER, POTABLE WATER PIPING SHALL BE LAID AT LEAST TEN FEET HORIZONTALLY FROM SANITARY SEWER LINES. THE DISTANCE SHALL BE MEASURED FROM EDGE OF PIPE TO EDGE OF PIPE. WHERE CROSSINGS ARE NECESSARY, CASE ONE OF THE PIPES WITH A CONTINUOUS PIPE OF SUFFICIENT LENGTH LOCATED SUCH THAT A MINIMUM FIVE (5)-FOOT SEPARATION EXISTS BETWEEN EACH END OF THE CASING PIPE AND THE UNCASD PIPE. POTABLE WATER PIPING CROSSING SANITARY SEWER LINES SHALL BE LAID TO PROVIDE MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE POTABLE WATER PIPING AND THE OUTSIDE OF THE SEWER LINE. THE 18 INCH SEPARATION SHALL APPLY WHETHER THE POTABLE WATER PIPING IS OVER OR UNDER THE SEWER LINE. LAY POTABLE WATER PIPING AT CROSSINGS OF SEWER LINES SO A FULL LENGTH OF PIPE IS CENTERED ON THE SEWER LINE WHENEVER POSSIBLE.
- CONTRACTOR SHALL REFER TO ARCHITECT'S PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL BUILDING ENTRANCES, TO INCLUDE SANITARY SEWER SERVICE, DOMESTIC & IRRIGATION SERVICE, ELECTRICAL TELEPHONE & GAS SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES SUCH THAT PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE APPROPRIATE UTILITIES AS TO LOCATION AND SCHEDULING OF TIE-INS/CONNECTIONS TO THEIR FACILITIES.
- INSPECTION WILL BE BY CITY OF ASHVILLE INSPECTOR. NOTIFY CITY OF ASHVILLE WATER AND SEWER A MINIMUM OF 24 HOURS PRIOR TO ANY WORK ON SERVICE LINES.
- DOMESTIC WATER LINE SHALL BE TYPE K COPPER CONFORMING WITH ASTM B88 PROVIDE WITH SOLDER JOINTS CONFORMING WITH ASME B16.18 OR ASME B16.22.
- ALL WATER TAPS SHALL BE PROVIDED WITH GATE VALVE PER CITY OF ASHVILLE WATER AND SEWER REQUIREMENTS.



| UTILITY CONFLICTS | |
|-------------------|--|
| UC #1: | 8" SANITARY TOP = ±627.67 8" SANITARY BOTTOM = ±627.00 18" X 28.50" ARCH STORM TOP = ±625.27 18" X 28.50" ARCH STORM BOTTOM = ±623.77 |
| UC #2: | 6" SANITARY TOP = ±629.48 6" SANITARY BOTTOM = ±628.98 6" STORM TOP = ±628.86 6" STORM BOTTOM = ±628.36 |
| UC #3: | 6" SANITARY TOP = ±629.90 6" SANITARY BOTTOM = ±629.40 6" STORM TOP = ±629.20 6" STORM BOTTOM = ±628.70 |

CAUTION NOTICE TO CONTRACTOR:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL AT LEAST 48 HOURS BEFORE ANY SITE DISTURBANCE OR EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

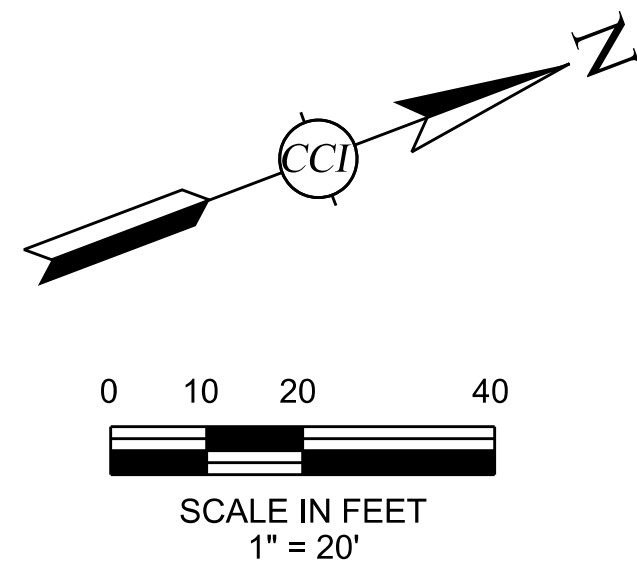


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| |
|---|
| PROJ. MGR.: R. VERNON |
| DRAWN: SAB |
| DATE: 08/28/2025 |
| REVISIONS |
| <div><div></div><div>ADDENDUM 3</div></div> |

| | |
|--|--------|
| JOB NO. | 24-106 |
| SHEET NO: | C-6.0 |
| <div><div></div><div>01" = 20'</div></div> | |



| EROSION CONTROL LEGEND | |
|------------------------|---------------------------|
| | CONSTRUCTION EXIT PAD |
| | SEDIMENT BARRIER - WATTLE |
| | INLET PROTECTION |
| | CONCRETE WASHOUT PIT |

EROSION & SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLANS DOES NOT PROVIDE SUFFICIENT EROSION AND SEDIMENT CONTROL, ADDITIONAL CONTROL MEASURES SHALL BE IMPLEMENTED IMMEDIATELY TO PREVENT SILT OR SEDIMENT FROM ESCAPING THE SITE AT NO ADDITIONAL COST TO OWNER. CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL AND PERFORM NECESSARY REPAIRS AND MAINTENANCE. CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EROSION AND SEDIMENT CONTROL DEVICES WHICH BECOME INEFFECTIVE. NO ADDITIONAL PAYMENT WILL BE MADE FOR ADDITIONAL EROSION CONTROL DEVICES OR MEASURES AS DEEMED NECESSARY BY THE ENGINEER, OWNER OR REGULATORY AUTHORITIES TO COMPLY WITH CONSTRUCTION DOCUMENTS OR GOVERNING AUTHORITY.
2. CONTRACTOR SHALL REMOVE THE BUILD UP OF SILT AND SEDIMENT FROM BEHIND SEDIMENT BARRIERS, SEDIMENT TRAPS AND INLET PROTECTION WHEN SILT AND SEDIMENT HAS REACHED 1/3 THE TOTAL HEIGHT OF THE EROSION AND SEDIMENT CONTROL DEVICE.
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ANY FINES LEVIED AGAINST THE SITE FOR VIOLATIONS OF EROSION CONTROL REGULATIONS AND PERMITS.
4. ALL EROSION CONTROL MEASURES SHALL MEET THE GUIDELINES SET FORTH IN THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS, VOLUME 1", PUBLISHED BY THE ALABAMA SOIL AND WATER CONSERVATION COMMITTEE, MONTGOMERY, ALABAMA.
5. CONTRACTOR SHALL INSTALL, MAINTAIN AND INSPECT ALL EROSION AND SEDIMENT DEVICES AND MEASURES IN ACCORDANCE WITH THE "ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL AND STORMWATER MANAGEMENT ON CONSTRUCTION SITES AND URBAN AREAS VOLUME 2", PUBLISHED BY THE ALABAMA SOIL AND WATER CONSERVATION COMMITTEE, MONTGOMERY, ALABAMA.
6. THE LIMITS OF DISTURBANCE SHALL INCLUDE ALL AREAS DISTURBED BY GRADING OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL AREAS OUTSIDE THE LIMITS OF DISTURBANCE. ANY DAMAGE OUTSIDE THE LIMITS OF CONSTRUCTION CAUSED BY THE CONTRACTOR OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED TO ITS ORIGINAL CONDITION. THE CONTRACTOR IS RESPONSIBLE FOR THE CLEANUP AND REMOVAL OF ANY BUILDUP OF SEDIMENT WHICH ESCAPES FROM THE SITE.
7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT AND SEDIMENT FROM THE SITE (IF NOT REUSABLE ON SITE) AND FOR CORRECTING HORIZONTAL AND VERTICAL ALIGNMENT OF SLOPES & DITCHES, IF NECESSARY AT THE COMPLETION OF CONSTRUCTION AND WITHIN THE ONE YEAR WARRANTY PERIOD.
8. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SILT, SEDIMENT AND DEBRIS OUT OF ALL STORM DRAINAGE STRUCTURES UPON THE COMPLETION OF CONSTRUCTION AND ONE WEEK AFTER ALL PAVING, LANDSCAPE AND FINISH WORK HAS BEEN COMPLETED.
9. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES AFTER CONSTRUCTION IS COMPLETE AND ALL DISTURBED AREAS HAVE BEEN STABILIZED.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER HANDLING AND STORAGE OF HAZARDOUS MATERIALS SUCH AS PAINTS, FUELS, FERTILIZERS, POISONS, ETC., DURING CONSTRUCTION. APPROPRIATE SPILL PREVENTION SHOULD BE IMPLEMENTED TO REDUCE THE POSSIBILITY OF CONTAMINATING STORM WATER RUNOFF.
11. CONTRACTOR SHALL PROVIDE TEMPORARY GROUND COVER FOR ALL AREAS WITH EXPOSED SOIL WHICH WILL NOT BE DISTURBED BY GRADING OPERATIONS FOR A PERIOD OF 13 DAYS OR MORE.

INITIAL EROSION CONTROL:

1. INSTALL SEDIMENT BARRIER AND CONSTRUCTION EXIT PAD.
2. CLEAR, GRUB AND STRIP TOPSOIL.

INTERMEDIATE EROSION CONTROL:

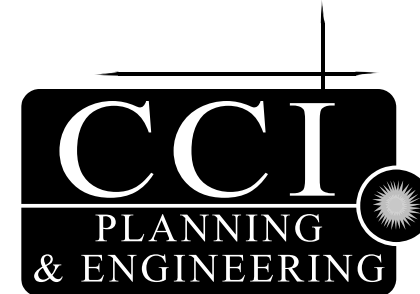
1. PROVIDE FABRIC INLET PROTECTION WITH SEDIMENT TRAPS IMMEDIATELY FOLLOWING INLET INSTALLATION AND MAINTAIN WHILE SOIL SUBGRADE IS EXPOSED.
2. REMOVE SOFT, YIELDING OR UNSUITABLE MATERIAL.
3. BEGIN GRADING FOR BUILDING PAD & PARKING; MAINTAIN POSITIVE DRAINAGE AT ALL TIMES.

FINAL EROSION CONTROL:

1. CONVERT INLET PROTECTION TO GRATE INLET PROTECTION.
2. PROVIDE LANDSCAPING OR SODING OF NON PAVED DISTURBED AREAS.
3. AFTER ALL AREAS ARE STABILIZED, REMOVE CONSTRUCTION ENTRANCES, SILT BARRIERS, AND OTHER TEMPORARY SEDIMENT CONTROL DEVICES.
4. REFER TO LANDSCAPE PLAN FOR ALL PERMANENT STABILIZATION MEASURES OUTSIDE OF PAVED AREAS.

CAUTION NOTICE TO CONTRACTOR:

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NTS



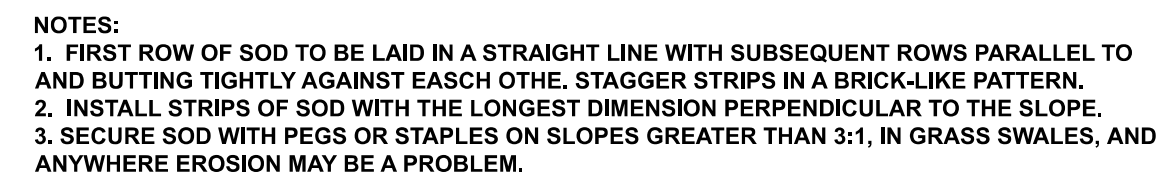
- CONCRETE WASHOUT PIT
N.T.S.



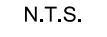
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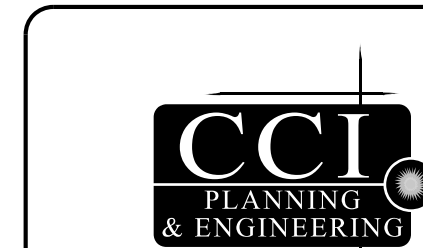
N.T.S.



ZE: #4 WASHED STONE



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NEW CLASSROOM ADDITION FOR
ASHVILLE HIGH SCHOOL
33125 US-231, ASHVILLE, AL 35953
ST. CLAIR COUNTY BOARD OF EDUCATION

SIGNED AND SEALED SURVEY

SHEET TITLE:

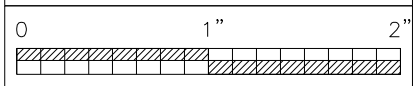


PROJ. MGR.: R. VERNON
DRAWN: SAB
DATE: 08/28/2025
REVISIONS
ADDENDUM 3

JOB NO. 24-106

SHEET NO:

C-8.0



TOPOGRAPHIC SURVEY
ASHVILLE HIGH SCHOOL

33215 U.S. # 231, ASHVILLE, AL. 35953

GRAPHIC SCALE



(IN FEET)

1 inch = 40 ft.



ABBREVIATIONS

| | |
|--------|--------------------------|
| FFE | FINISH FLOOR ELEVATION |
| C/L | CENTERLINE |
| N.T.S. | NOT TO SCALE |
| P.O.C. | POINT OF BEGINNING |
| P.O.B. | POINT OF COMMENCEMENT |
| (M) | MEASURED |
| (D) | DEED |
| (P) | PLAT |
| ROW | RIGHT OF WAY |
| FL | FLOWLINE |
| FLG | FLOWLINE GUTTER |
| INV. | INVERT |
| INV.G | INVERT GUTTER |
| SWI | SINGLE WING INLET |
| DWI | DOUBLE WING INLET |
| CI | CURB INLET |
| GI | GRATE INLET |
| YI | YARD INLET |
| STMH | STORM MANHOLE |
| SSMH | SANITARY MANHOLE |
| RCP | REINFORCED CONCRETE PIPE |
| CMP | CORRUGATED METAL PIPE |
| PVC | POLY-VINYL CHLORIDE PIPE |
| CPP | CORRUGATED PLASTIC PIPE |
| VC | VITRIFIED CLAY |
| BOW | BOTTOM OF WALL |
| TOW | TOP OF WALL |
| BOC | BOTTOM OF CURB |
| TOC | TOP OF CURB |
| HC | HANDICAP SIGN |

SURVEY CONTROL

THE BEARINGS AND OR COORDINATES SHOWN ON THIS SURVEY ARE BASED ON ALABAMA STATE PLANE EAST ZONE, GRID NORTH, NAD 83/ADJUSTED 2011). THE VERTICAL DATUM IS NAVD 88 (GEOID 18). ELEVATION AND POSITION WAS OBTAINED FROM R.T.K. OBSERVATION USING THE ALDOT CORS NETWORK AS CONTROL.

SURVEYORS' NOTES:

- NO TITLE SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED BY THIS FIRM AND LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR EASEMENTS AND/OR RIGHTS OF WAYS, RECORDED OR UNRECORDED. THE PARCEL SHOWN HEREON IS SUBJECT TO SETBACKS, EASEMENTS, ZONING, AND RESTRICTIONS THAT MAY BE FOUND IN THE PUBLIC RECORD OF SAID COUNTY.
- ALL BEARINGS AND/OR ANGLES, AND DISTANCES ARE DEED AND ACTUAL UNLESS OTHERWISE NOTED: DEED=(D); MEASURED=(M); RECORD MAP/PLAT=(P); CALCULATED=(C).
- UNDERGROUND PORTIONS OF FOUNDATIONS, FOOTINGS, OR OTHER UNDERGROUND STRUCTURES WERE NOT LOCATED UNLESS OTHERWISE NOTED.
- UPSTREAM PROPERTY OWNERS POSSESS A NATURAL EASEMENT ACROSS THE SUBJECT PROPERTY FOR SURFACE WATER FLOWING IN ITS NATURAL COURSE.
- THIS SURVYOR MADE NO DETERMINATION REGARDING ANY REGULATORY WATERS OF THE UNITED STATES AS DEFINED BY SECTION 404 OF THE CLEAN WATER ACT THAT MAY EXIST ON THE SUBJECT PROPERTY.
- ANY PUBLIC UTILITY LINES AND EQUIPMENT SHOWN ON THIS SURVEY MAY BE SUBJECT TO EASEMENTS FOR OPERATION AND MAINTENANCE OF SAME.
- THIS SURVEY IS VALID ONLY WITH AN ORIGINAL SIGNATURE AND A LEGIBLE SEAL.



Know what's below.
Call before you dig.
Call 2 working days before digging.
It's the Law!

I HEREBY STATE THAT ALL PARTS OF THIS SURVEY AND DRAWING HAVE BEEN COMPLETED IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR SURVEYING IN THE STATE OF ALABAMA TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF.

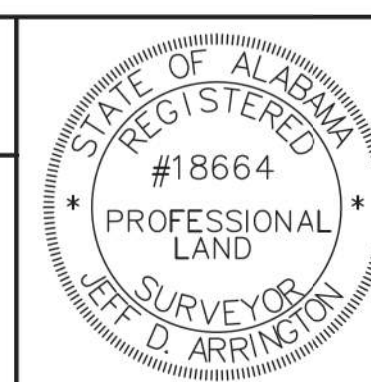
SURVEYOR:

JEFF D. ARRINGTON
ALABAMA NO. 18664

DATE: 6-24-2025

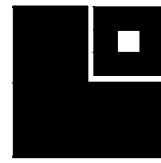


DRAWING TITLE
TOPOGRAPHIC SURVEY
ASHVILLE HIGH SCHOOL
LOCATION & DESCRIPTION
33215 U.S. # 231, ASHVILLE, AL. 35953



DRAWN BY: JDA
CHECKED BY: JDA
DATE: 6-24-2025
SCALE: 1" = 40'
PARTY CHIEF: JJ-KS
PROJECT NO.: 84890
SHEET: 1 OF 1

G:\2025 PROJECTS\59- St Clair County Schools\84890 - Ashville HS\DWG\84890-6-24-2025.dwg



LATHAN
▪McKEE
ARCHITECTS

ASHVILLE HIGH SCHOOL

NEW CLASSROOM ADDITION FOR
33125 US-231, ASHVILLE, AL 35953
ST. CLAIR COUNTY BOARD OF EDUCATION

SHEET TITLE:
ENLARGED PLAN DETAILS AND BOLLARD
DETAIL

PROJ. MGR.: R. VERNON
DRAWN: C.L. BRYANT
JWW
DATE: JULY 31, 2025
REVISIONS

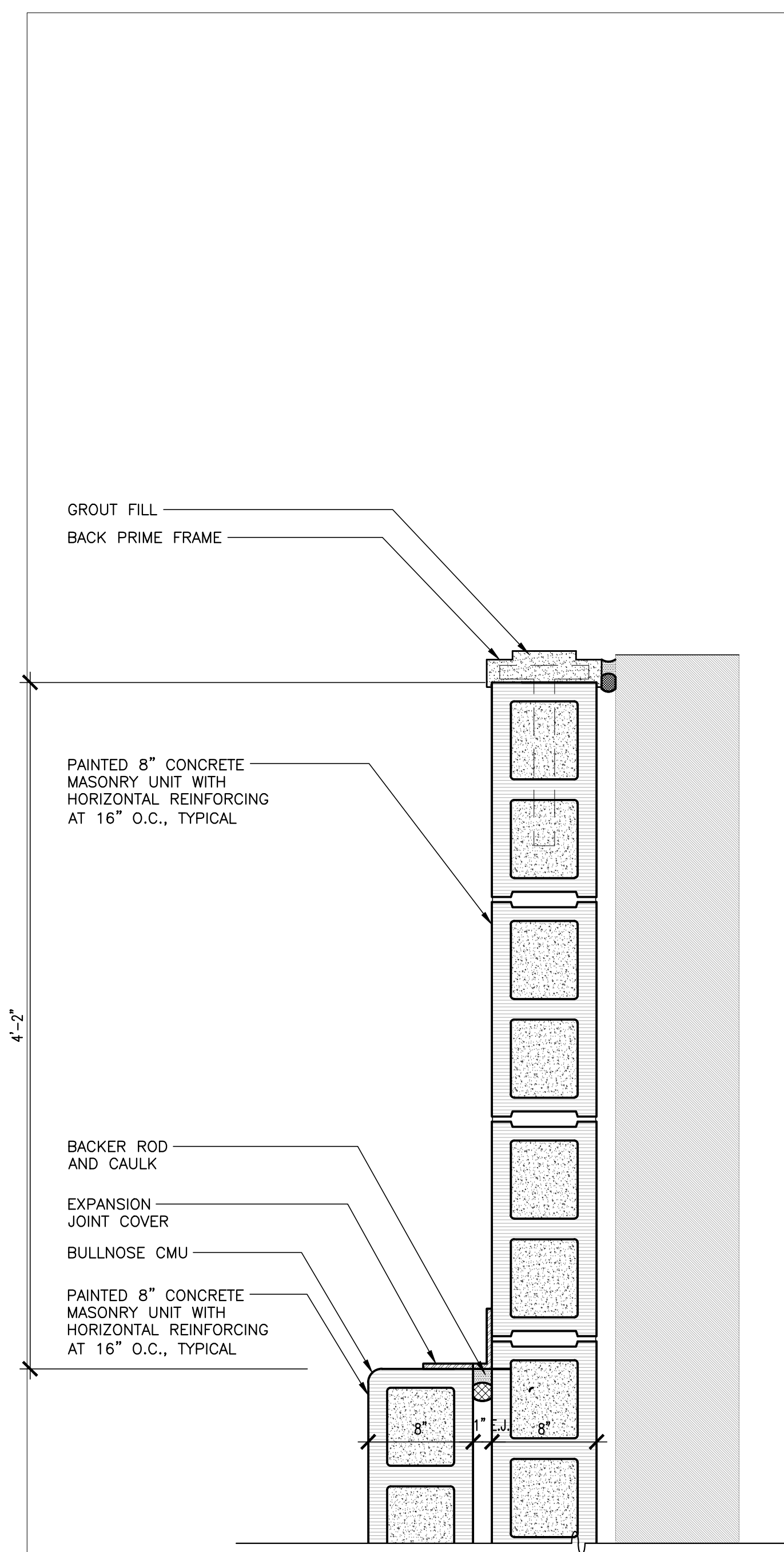
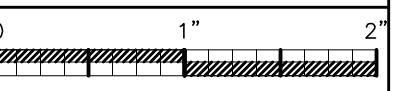
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SEPTEMBER 2, 2025

JOB NO. 24-106

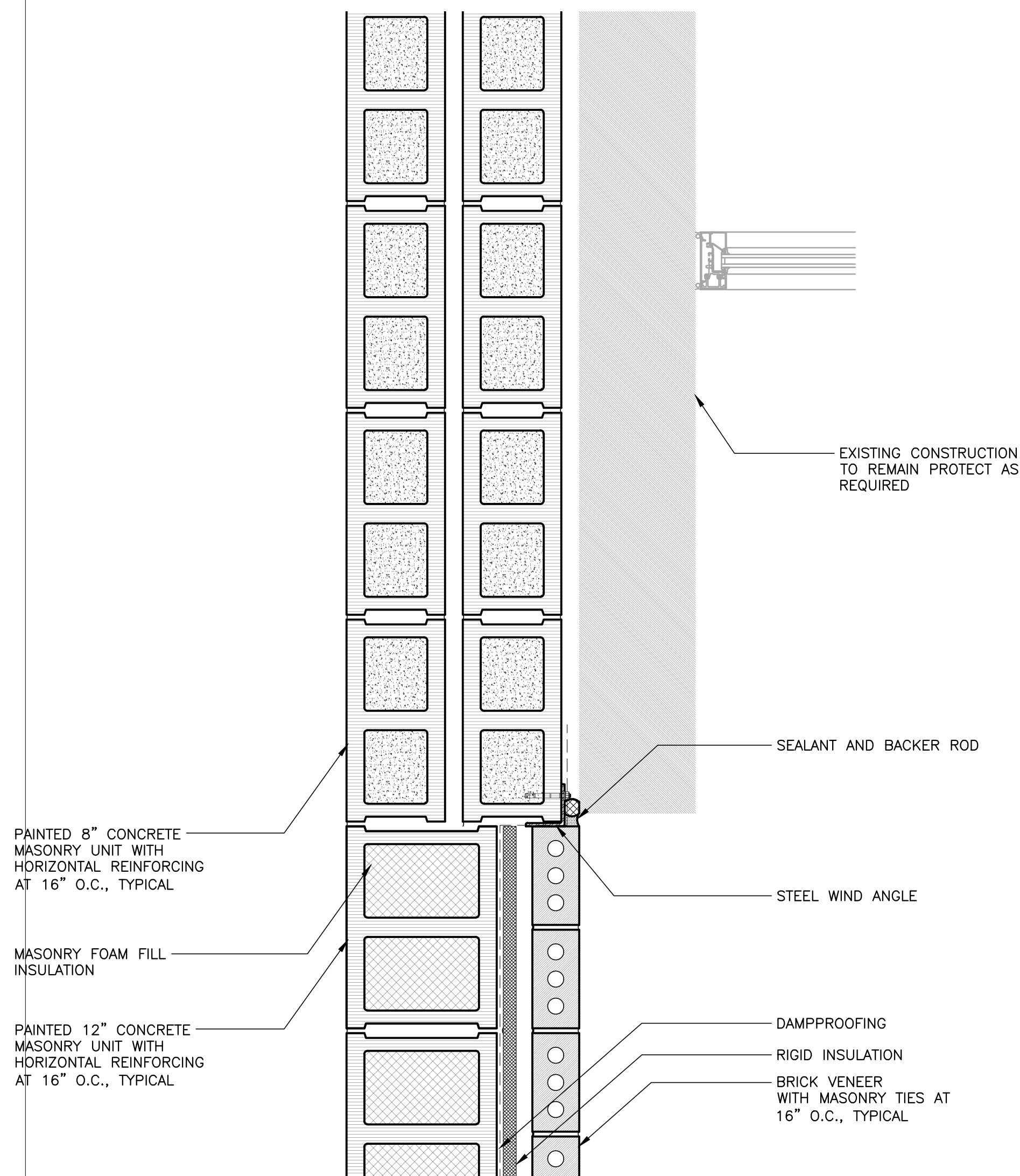
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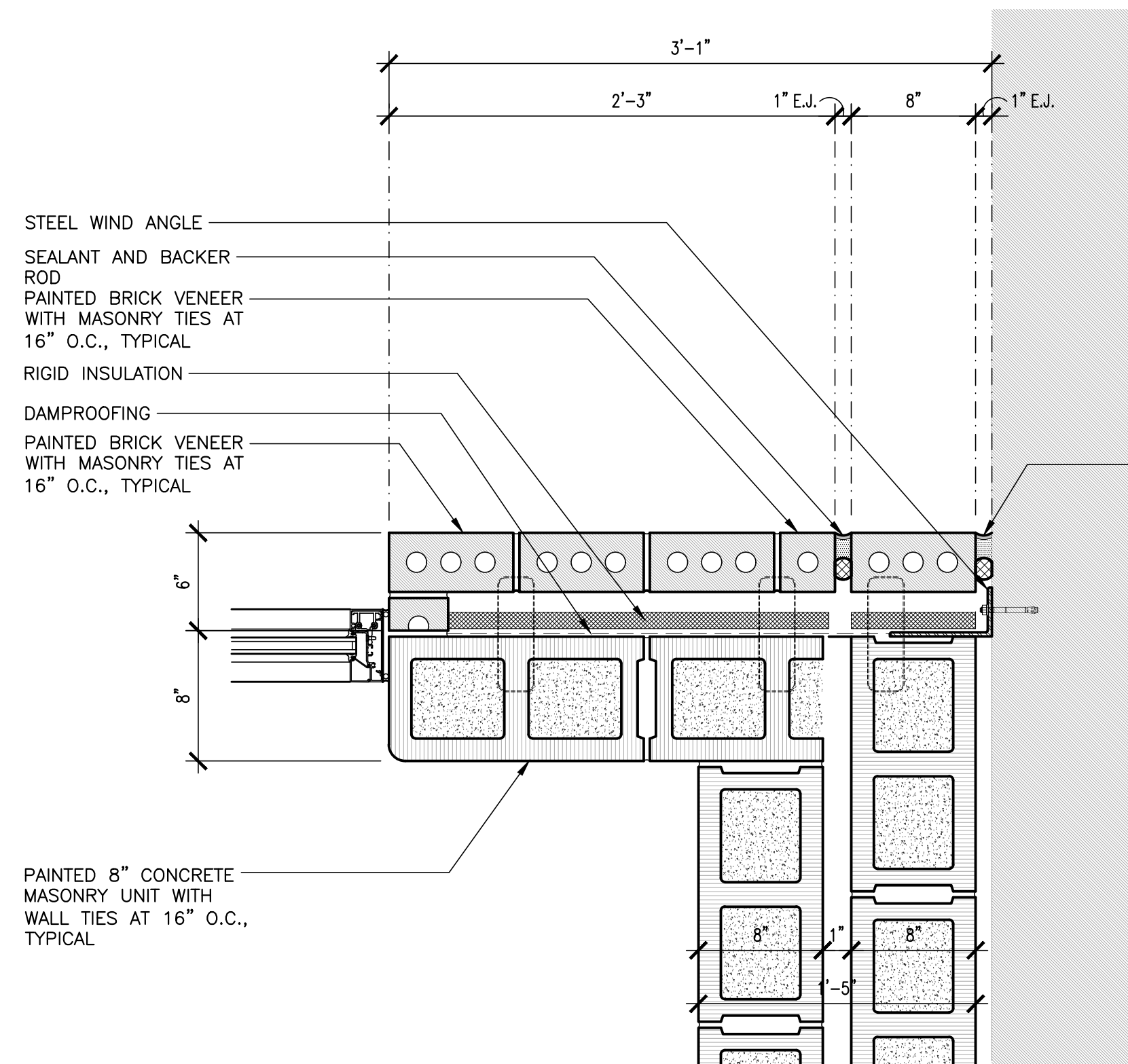
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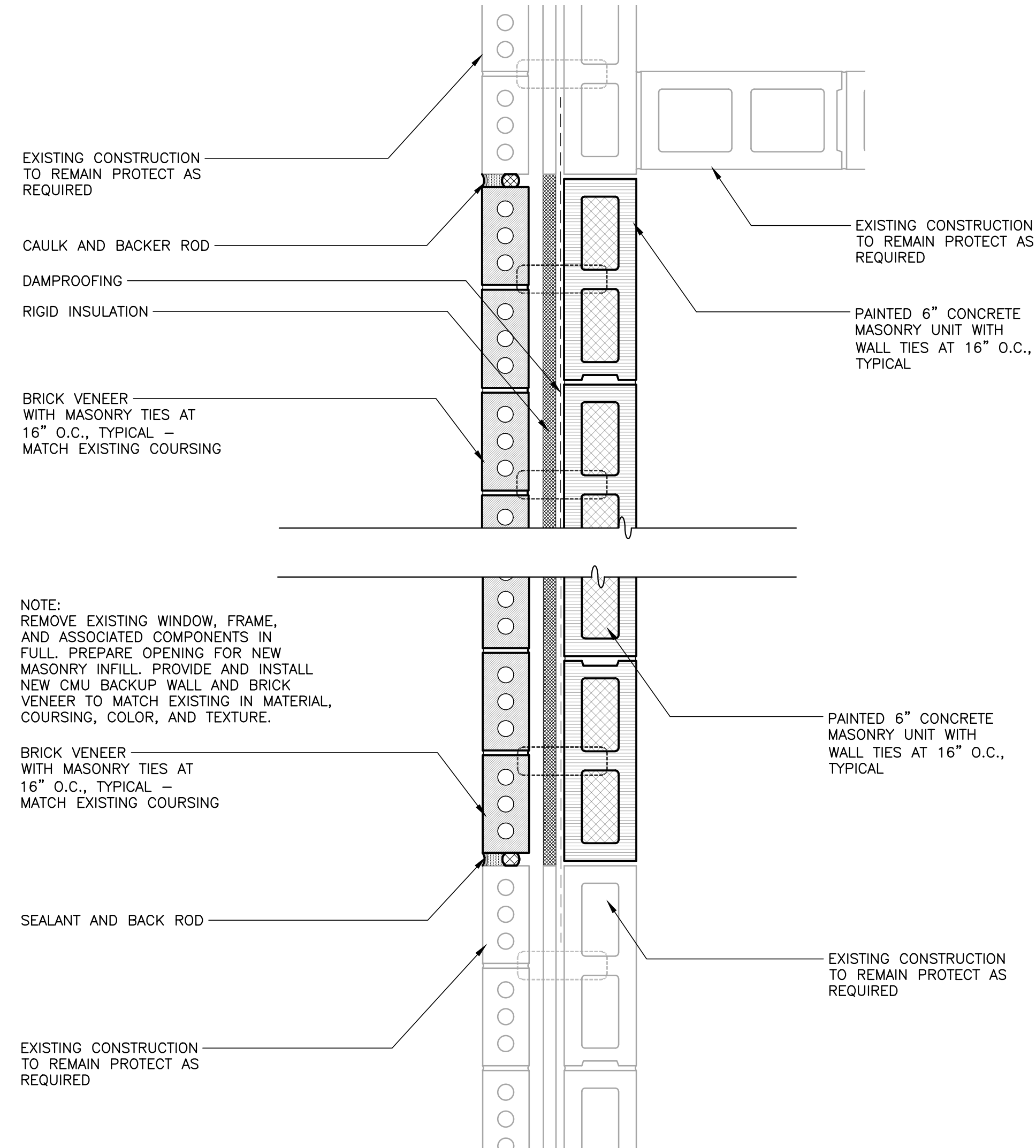
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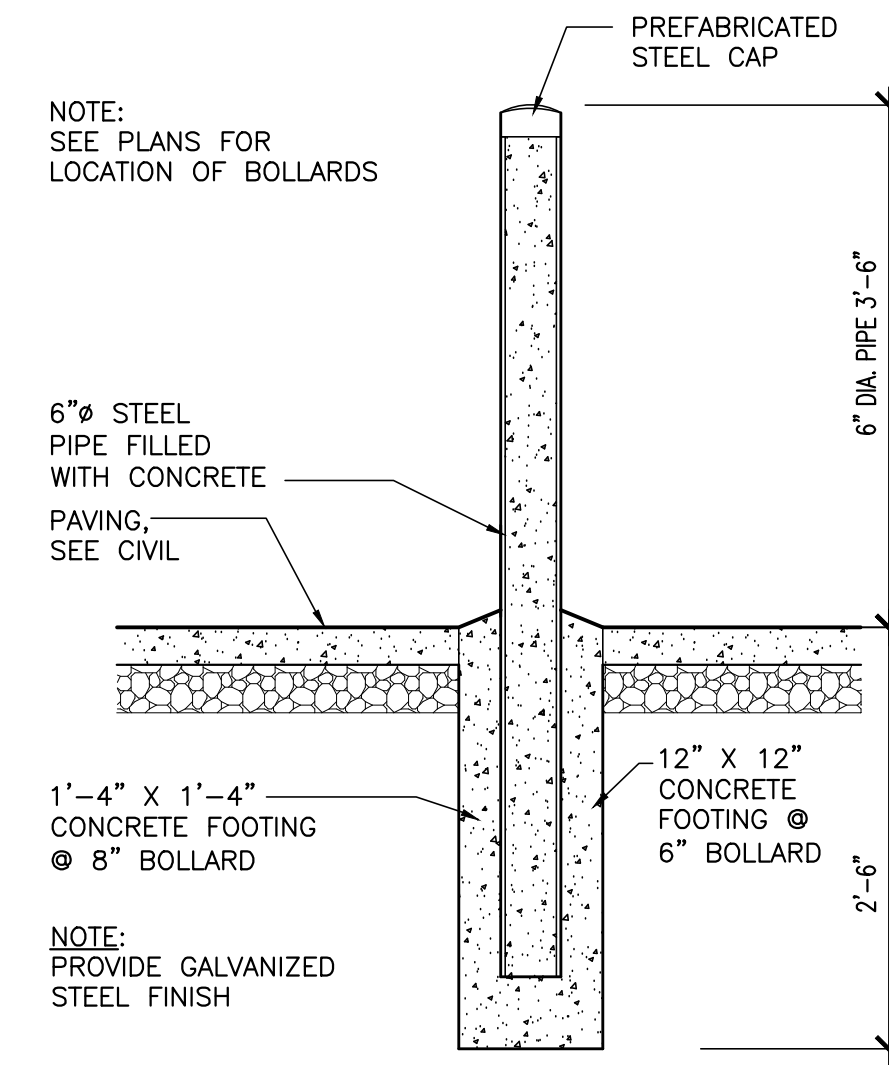
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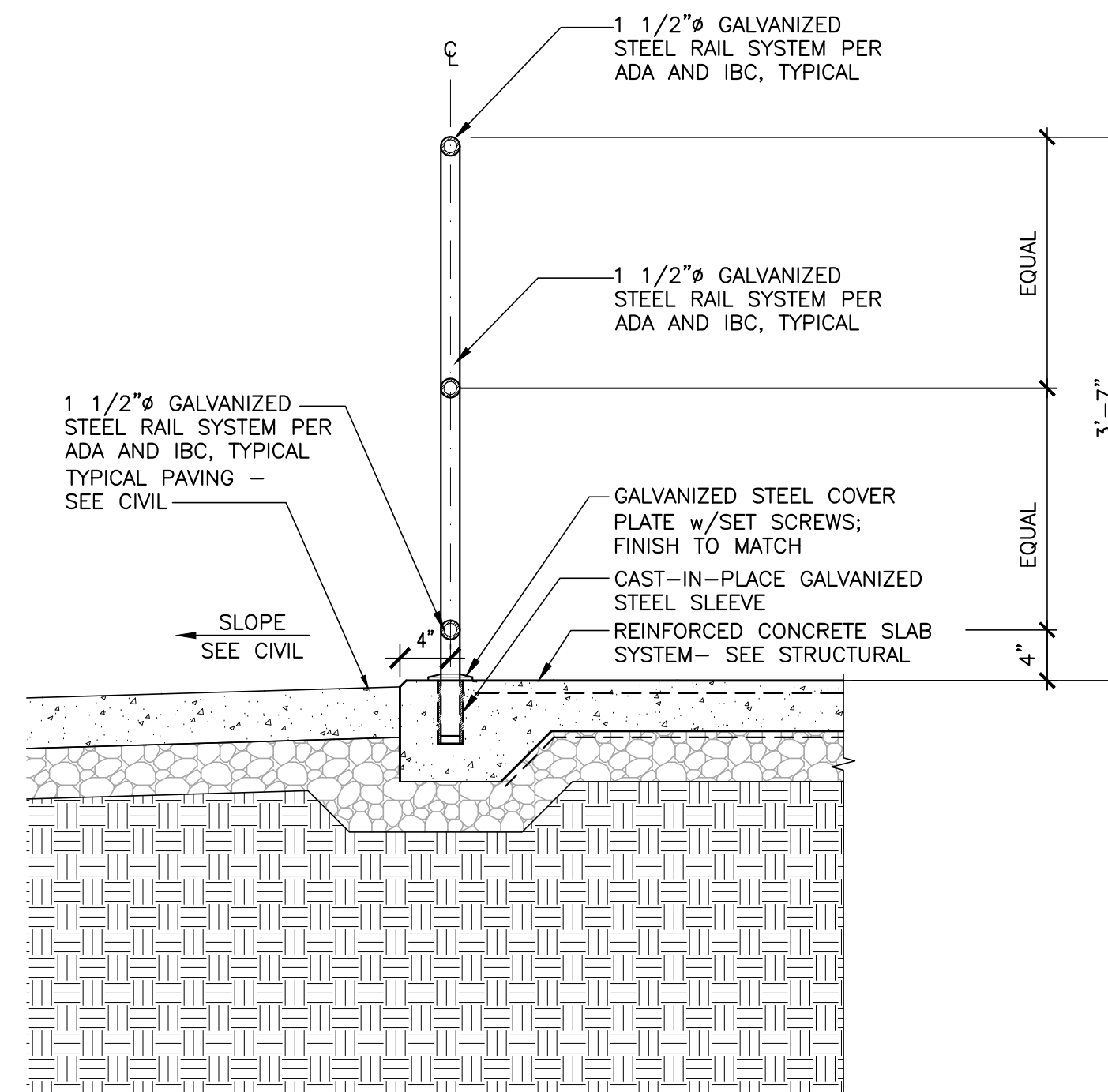
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4 PLAN DETAIL
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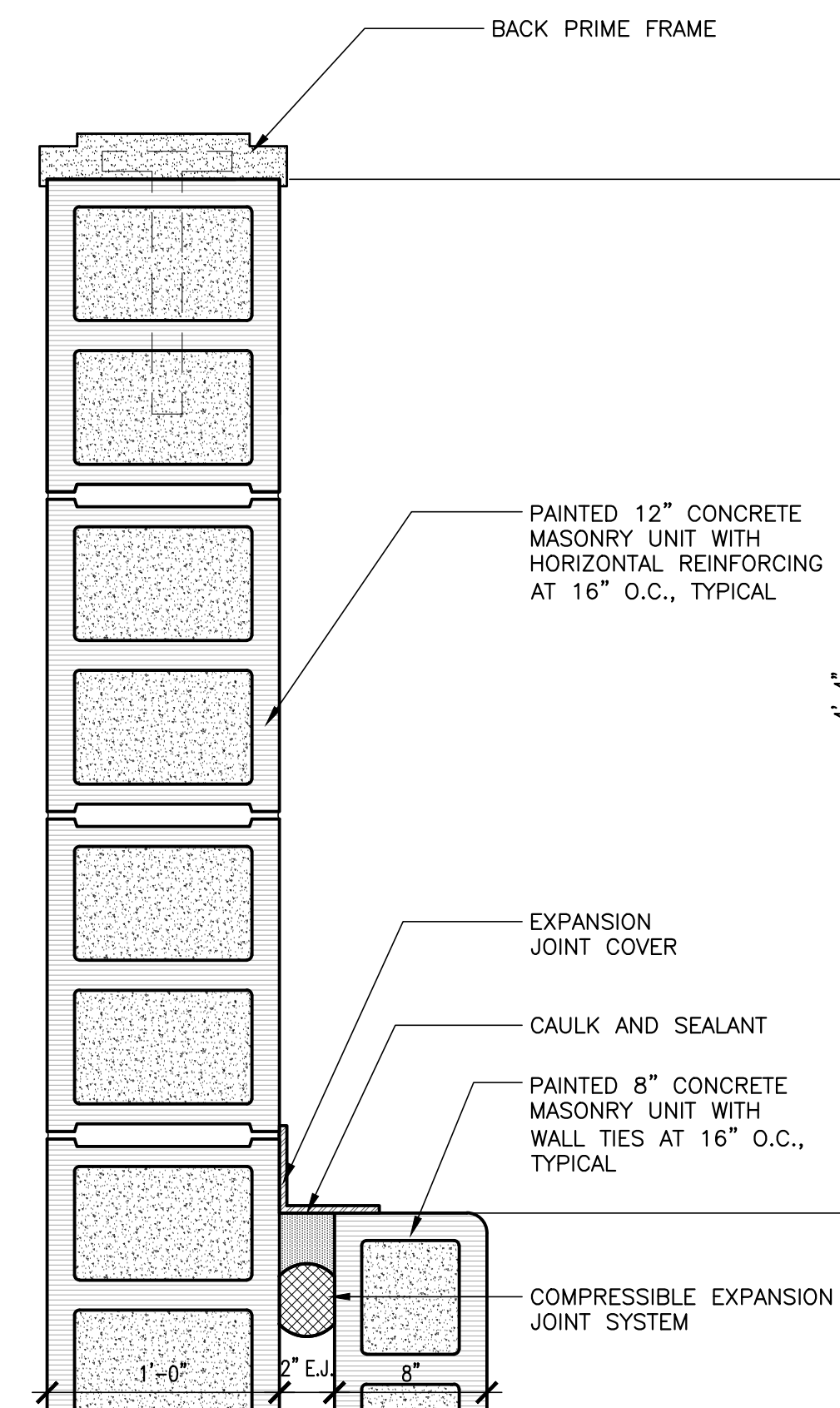


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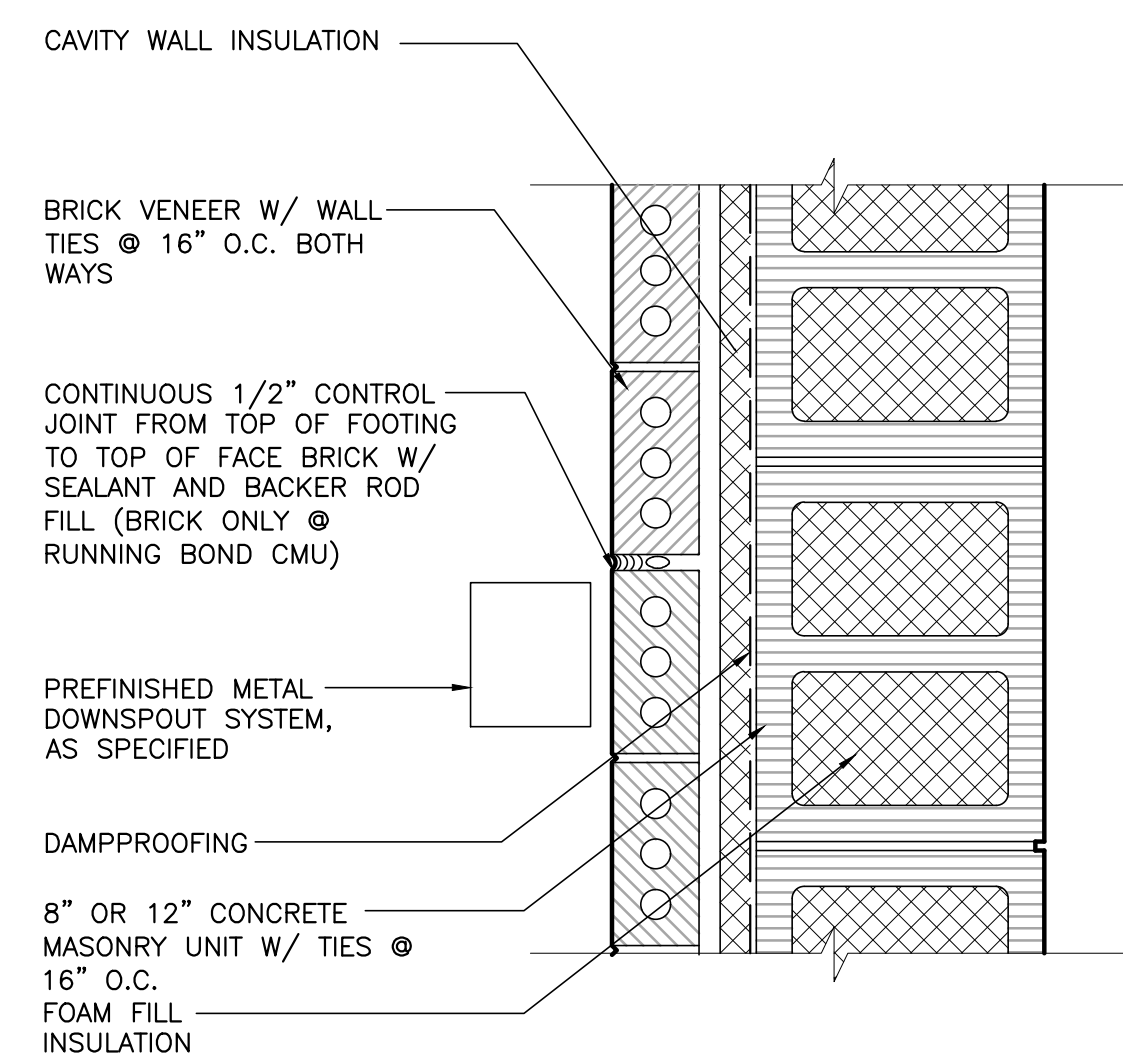


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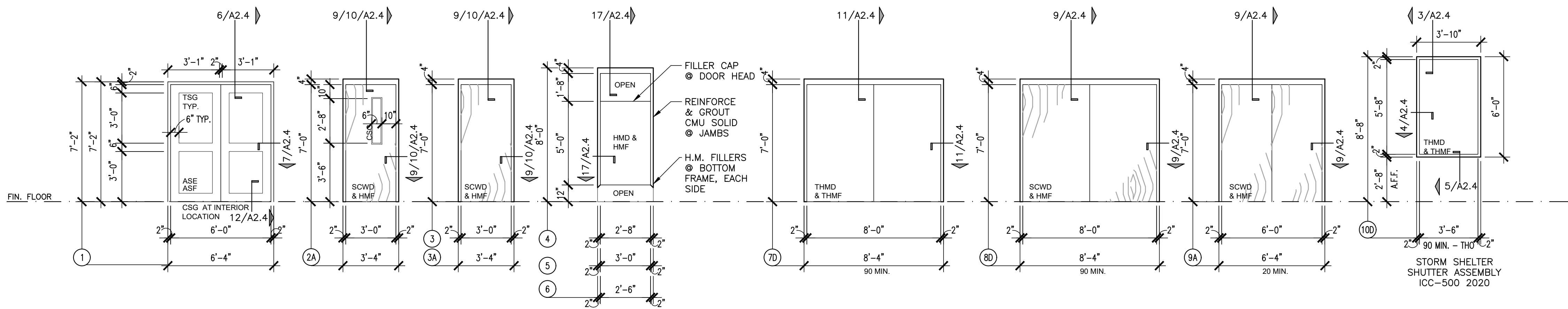
1 ADDENDUM NO. 3
SEPTEMBER 2, 2025



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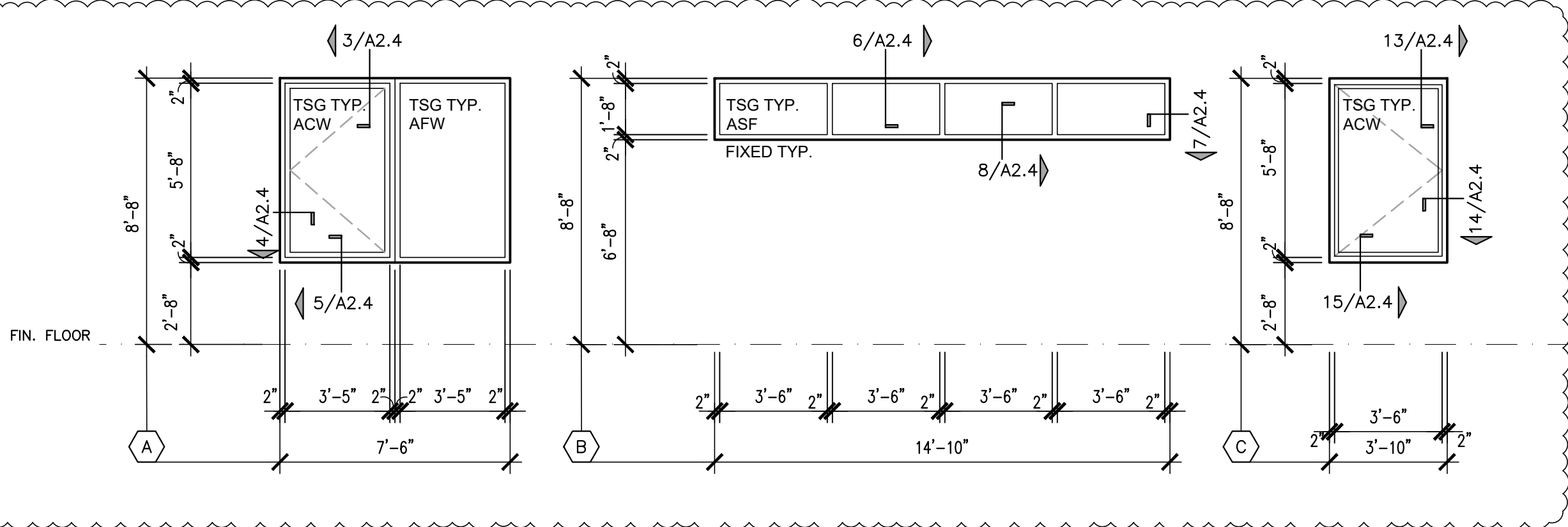


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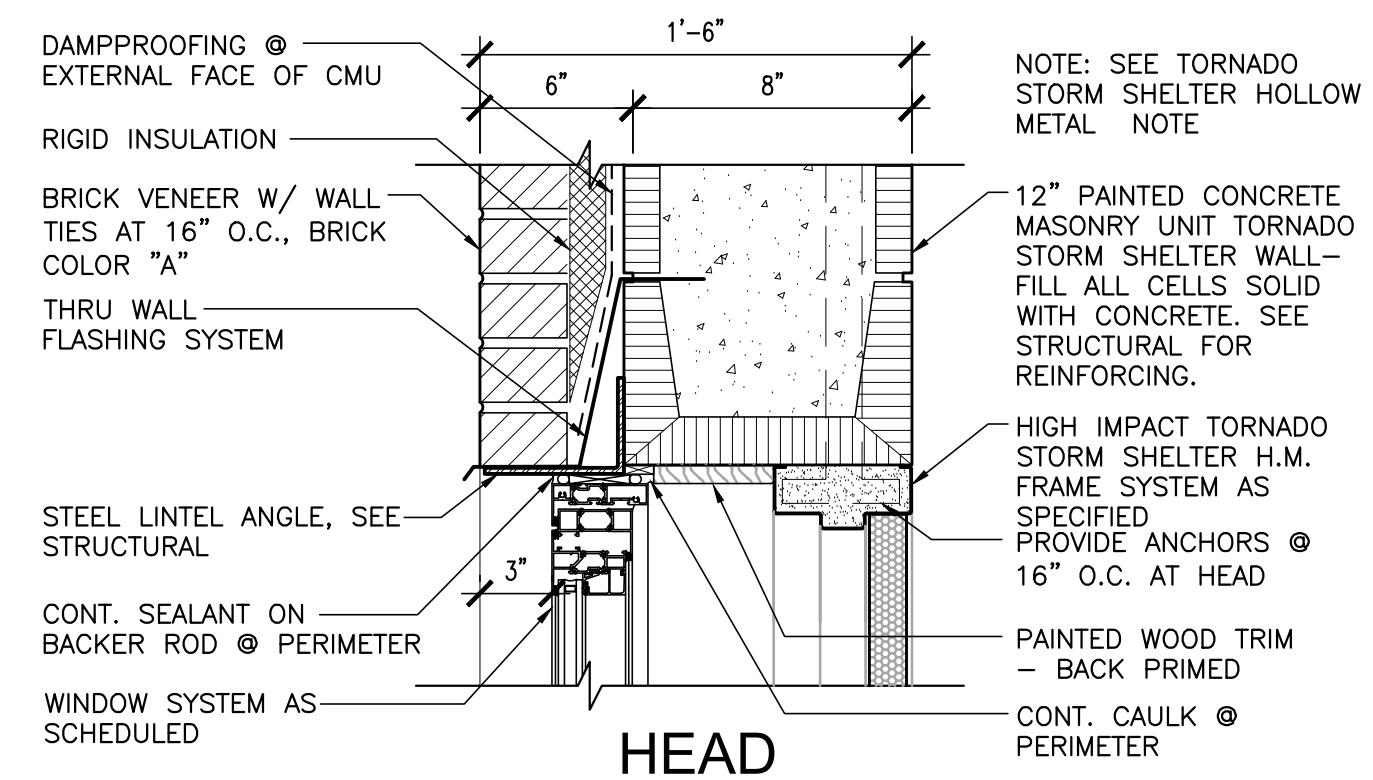


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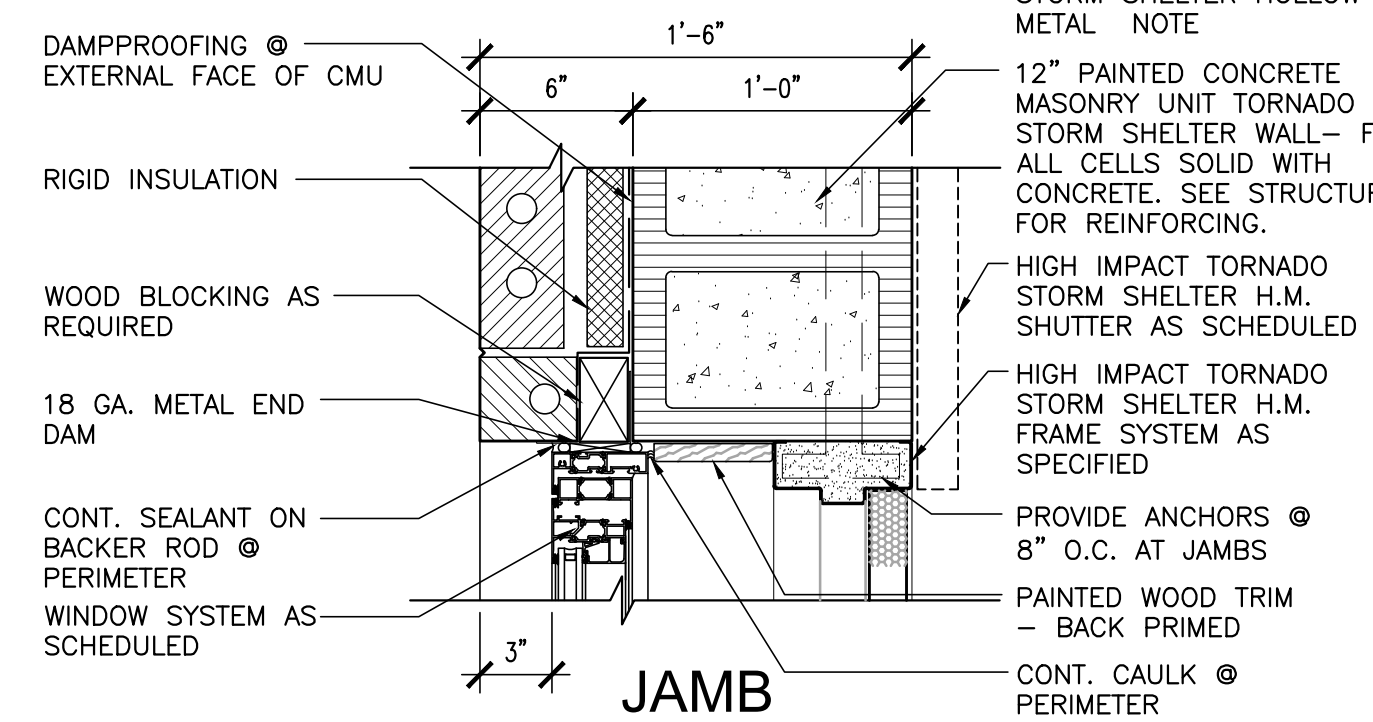
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SEPTEMBER 2, 2025



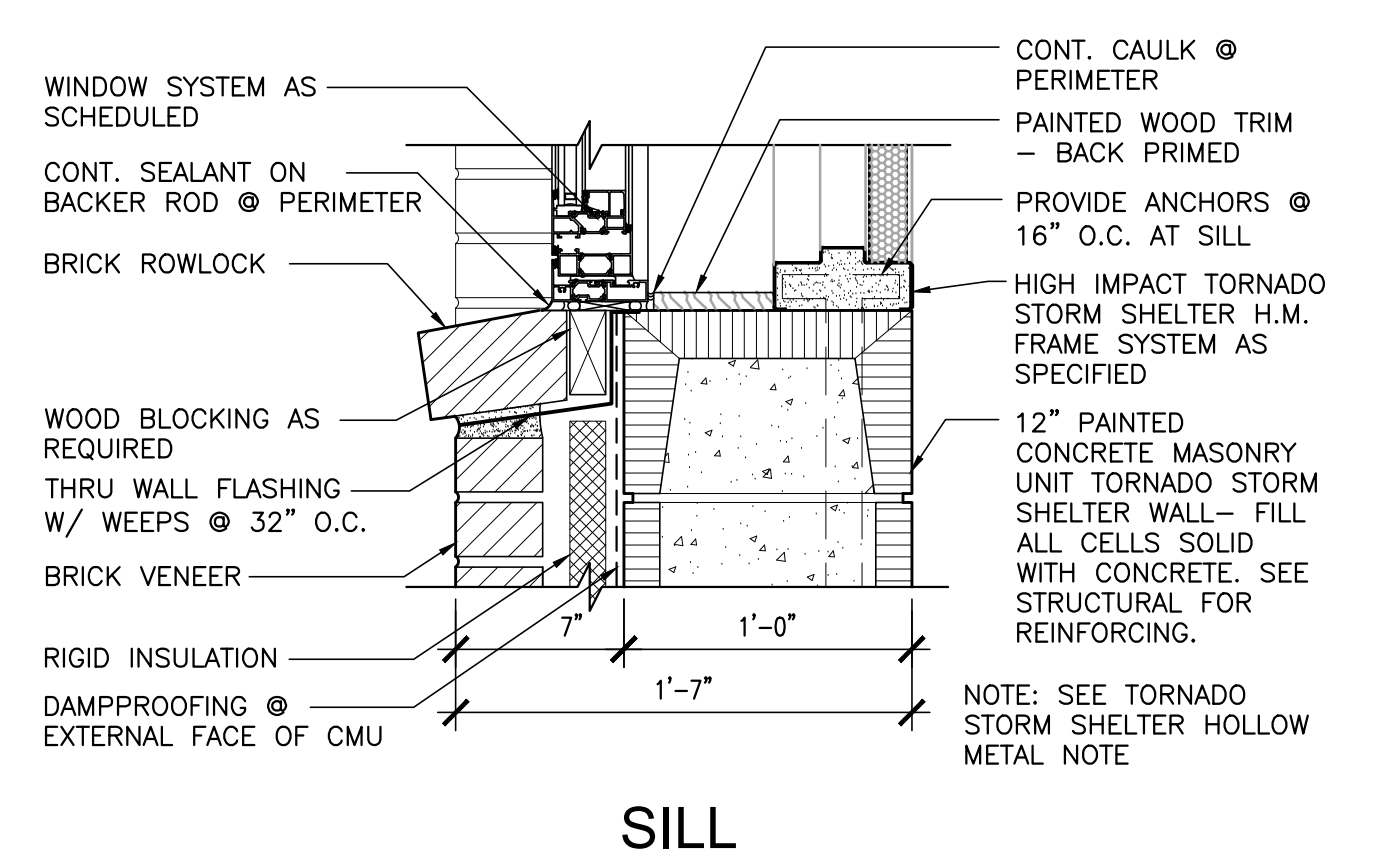
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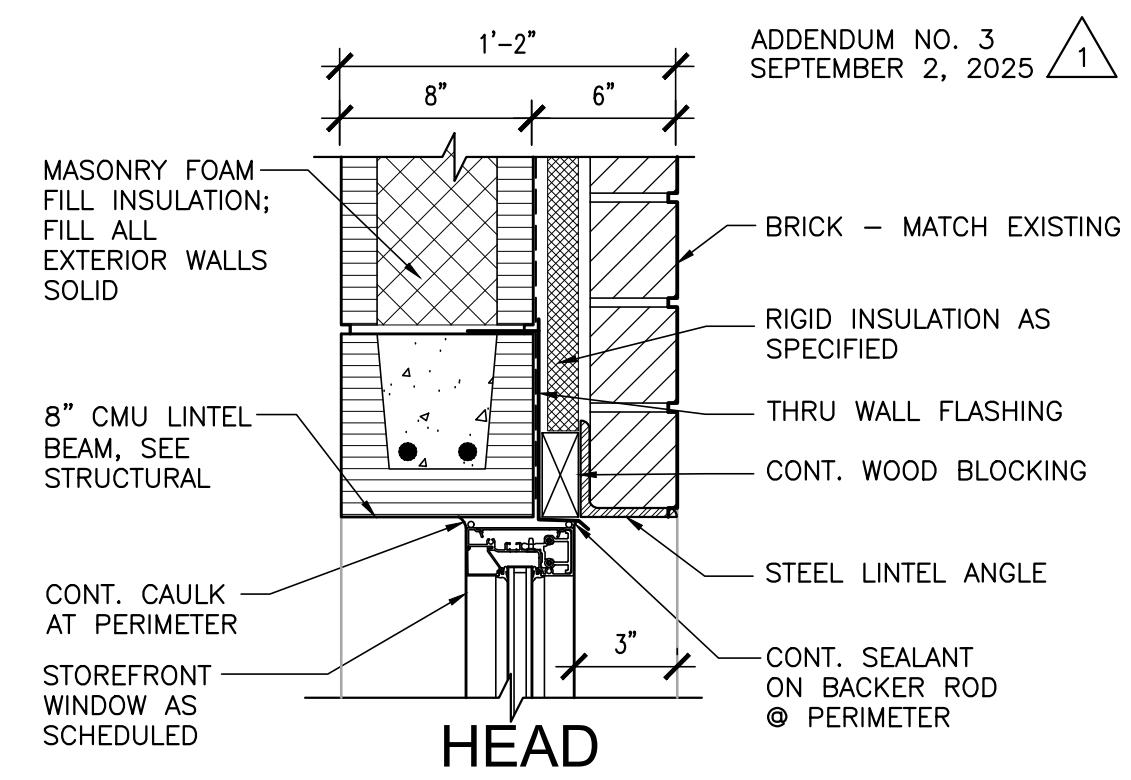
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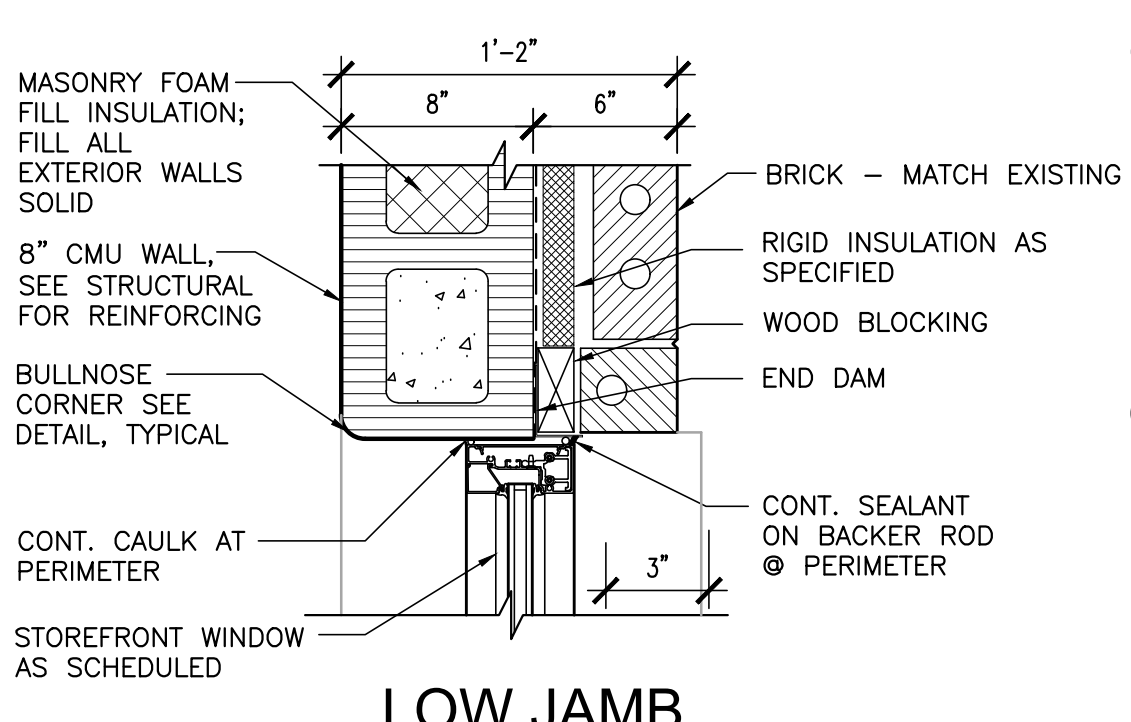
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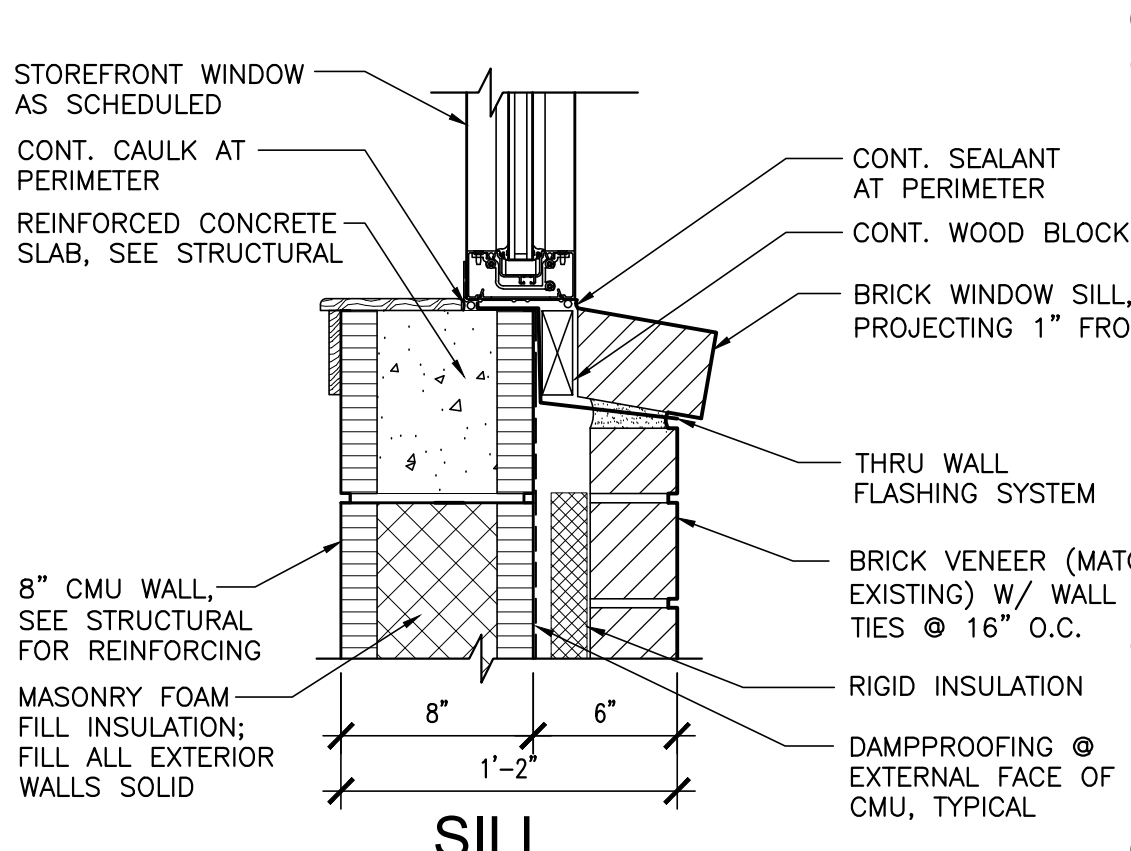
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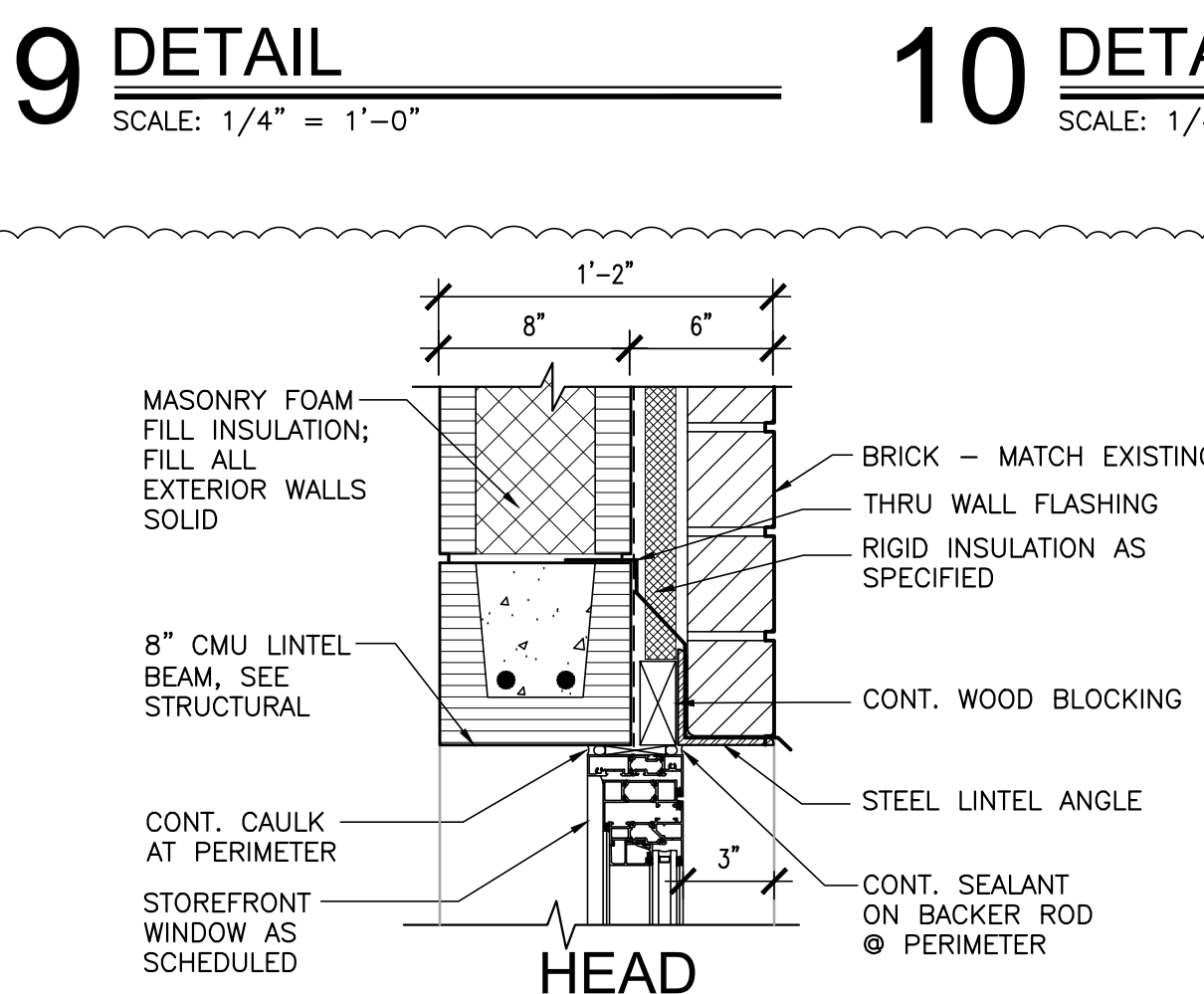
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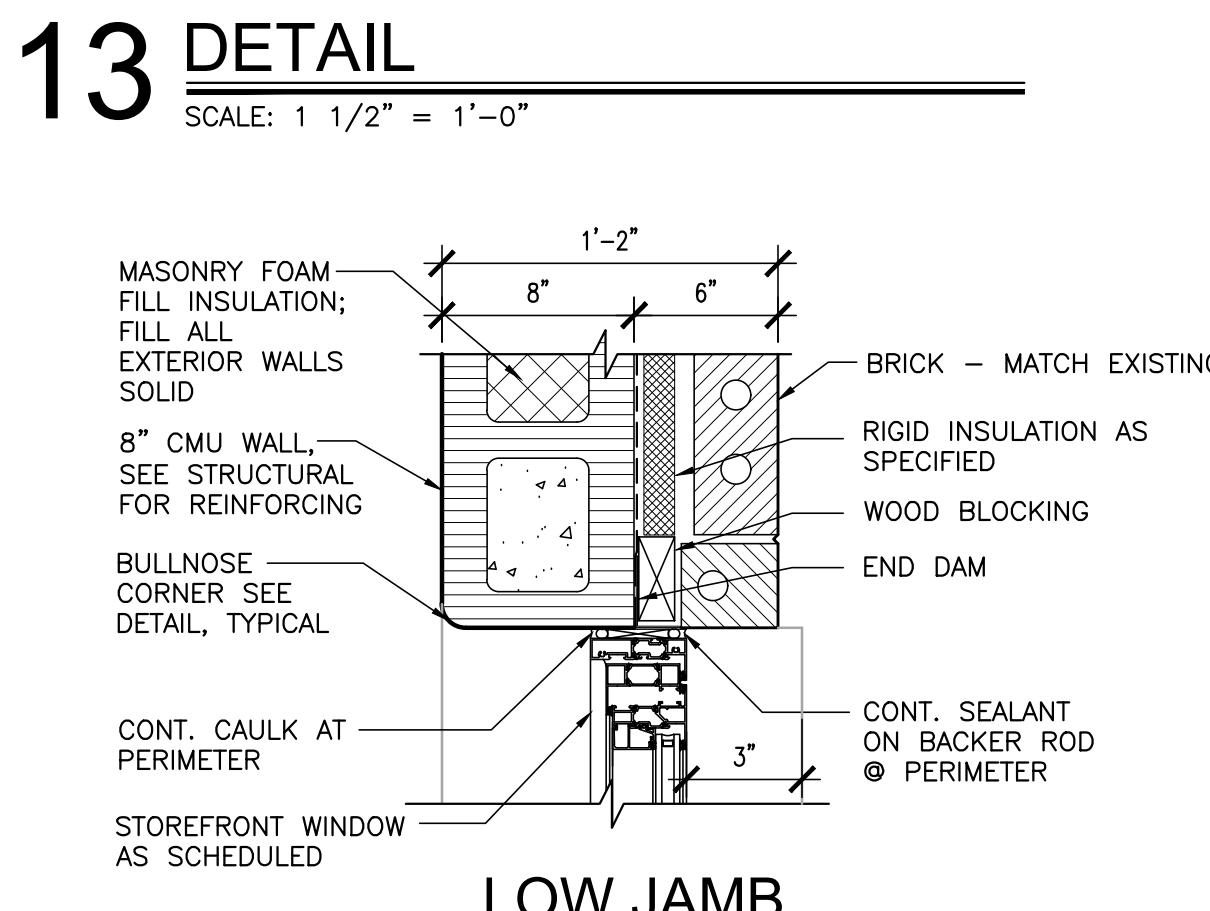
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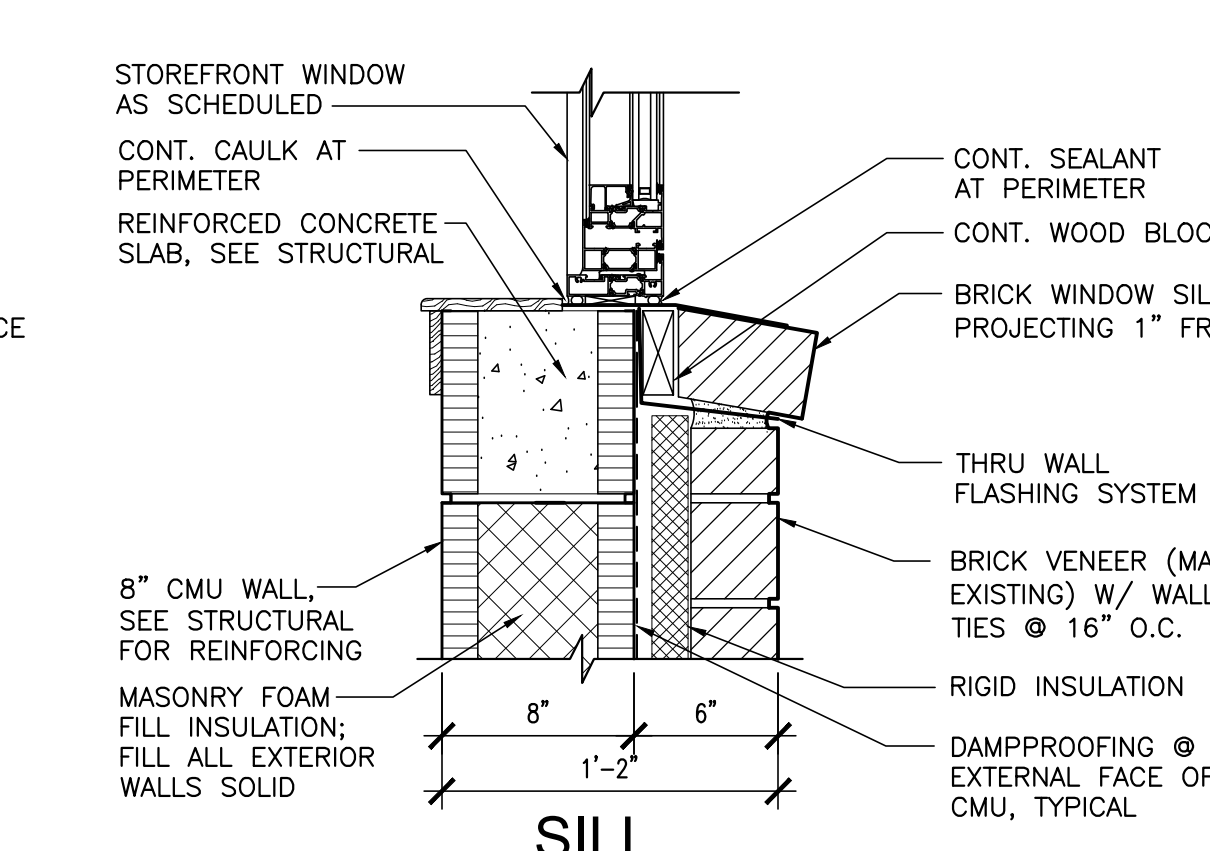
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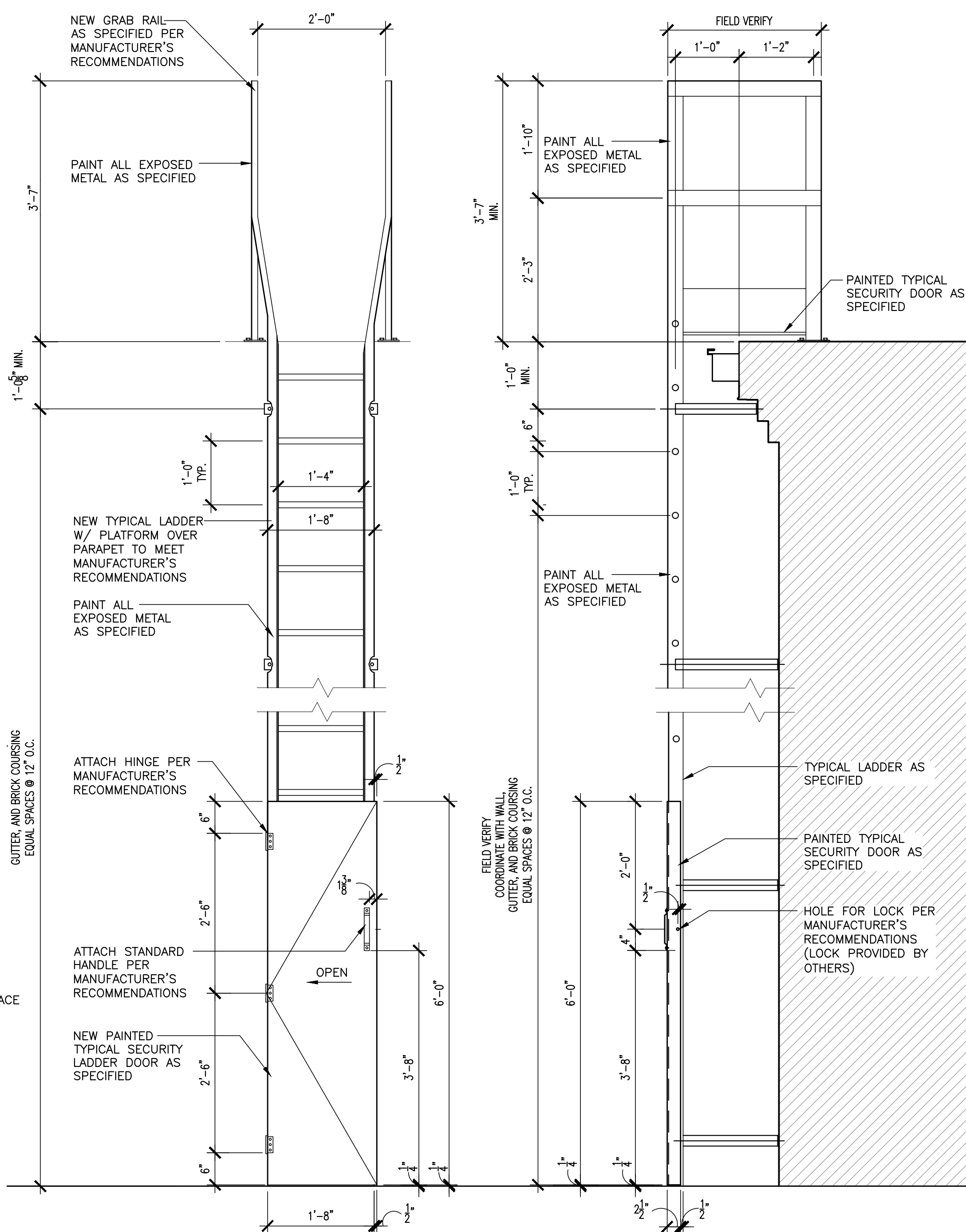
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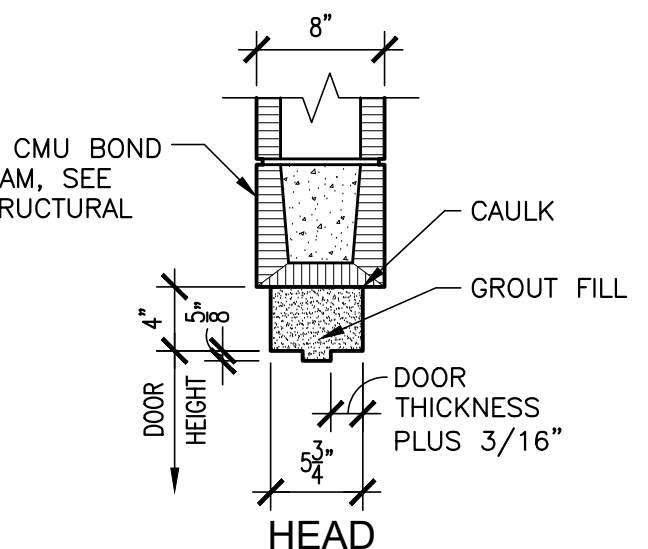
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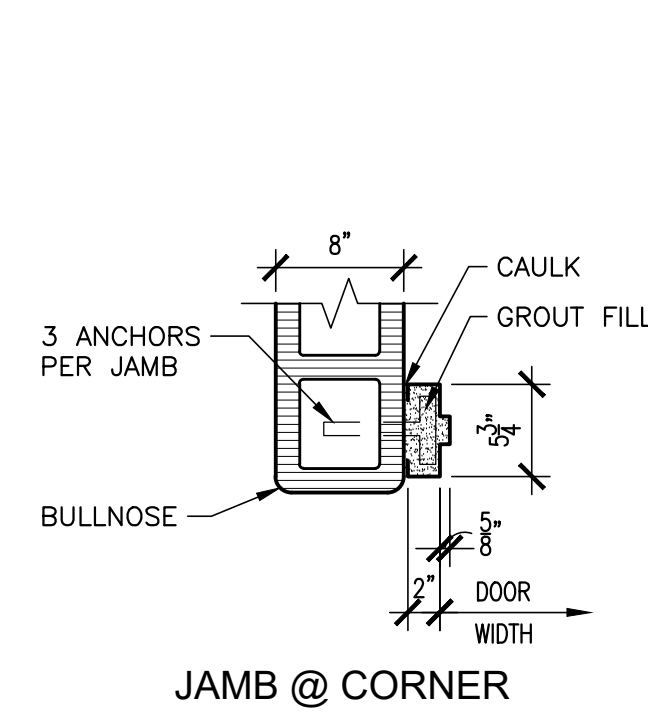
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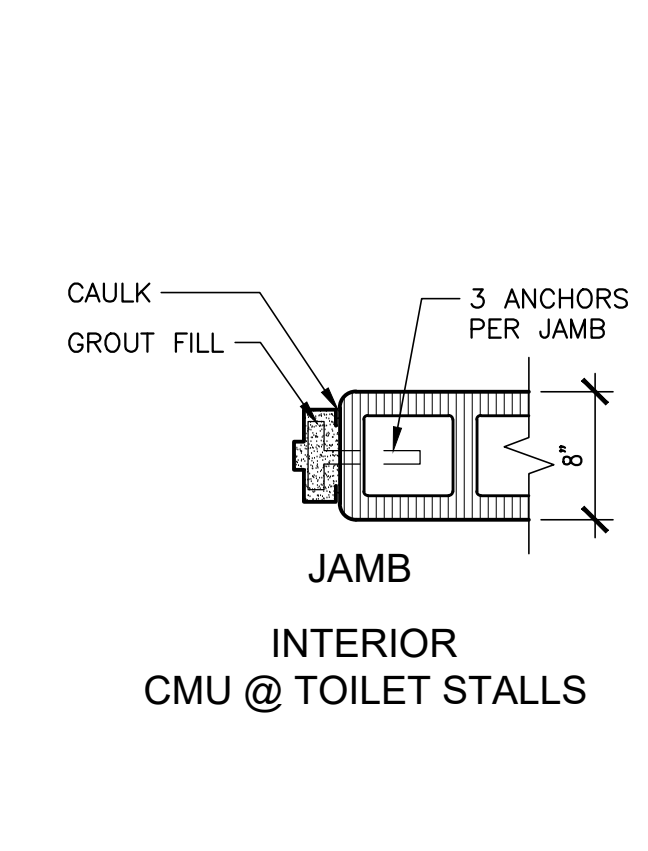
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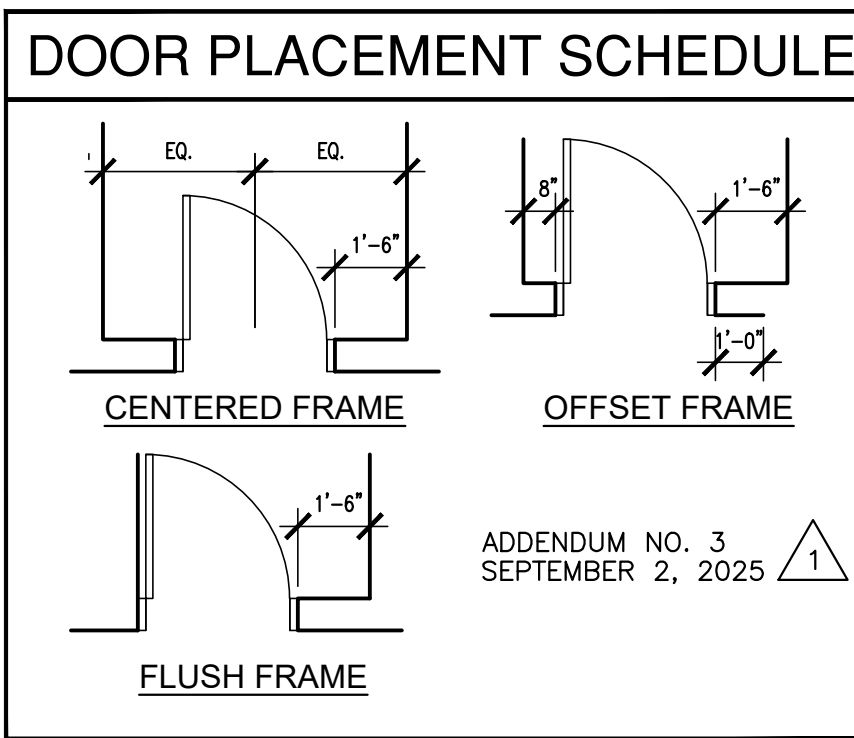
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14 DETAIL
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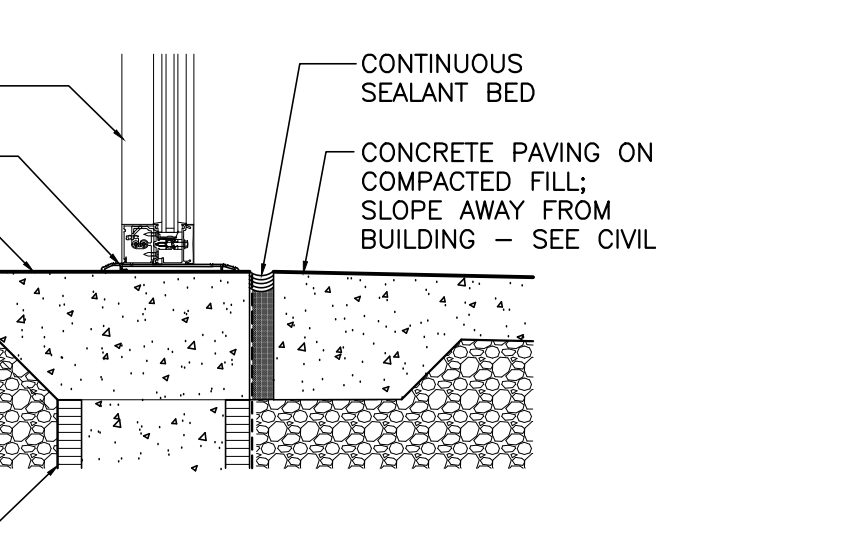


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SCALE: 1" = 1'-0"

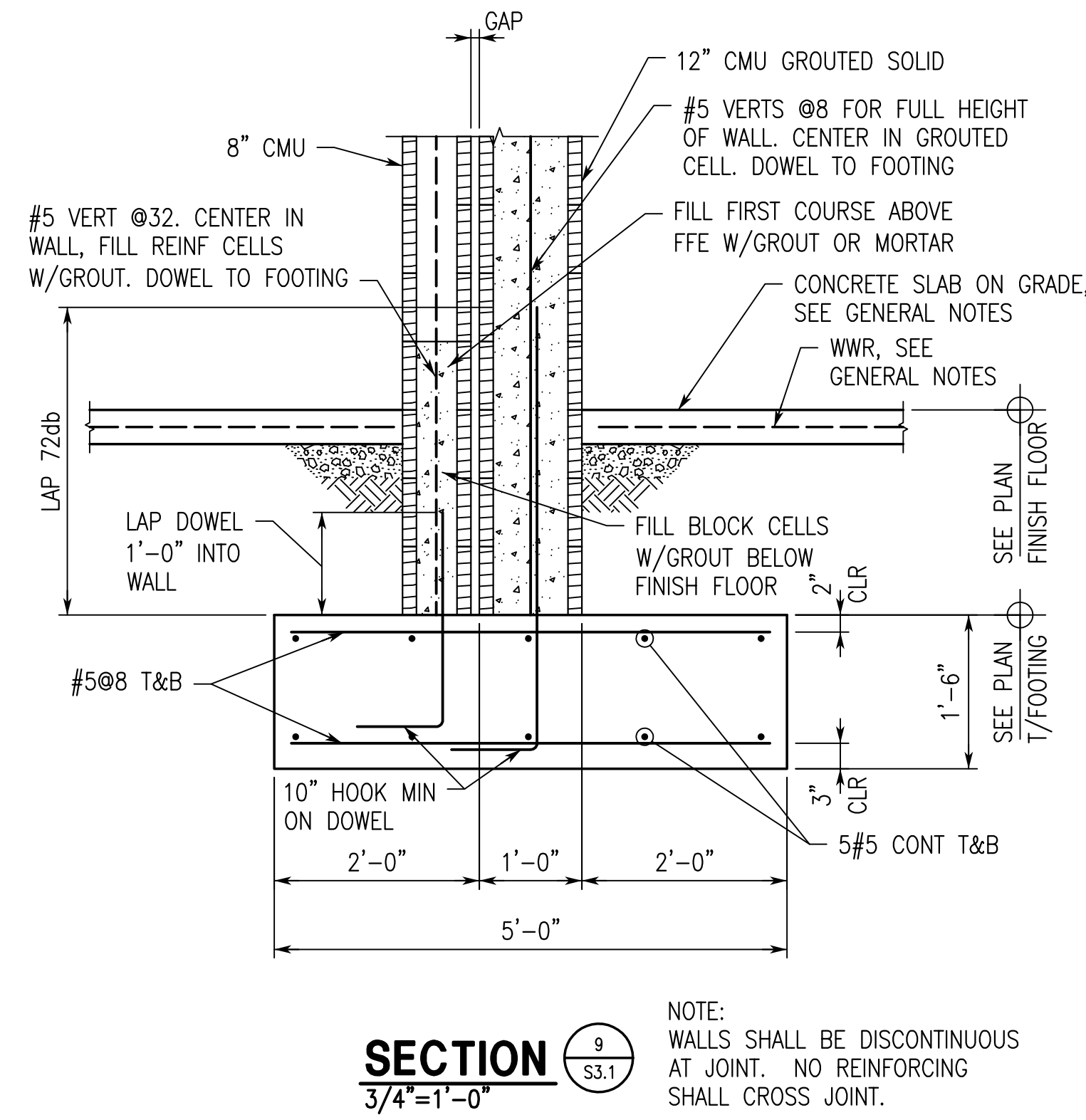
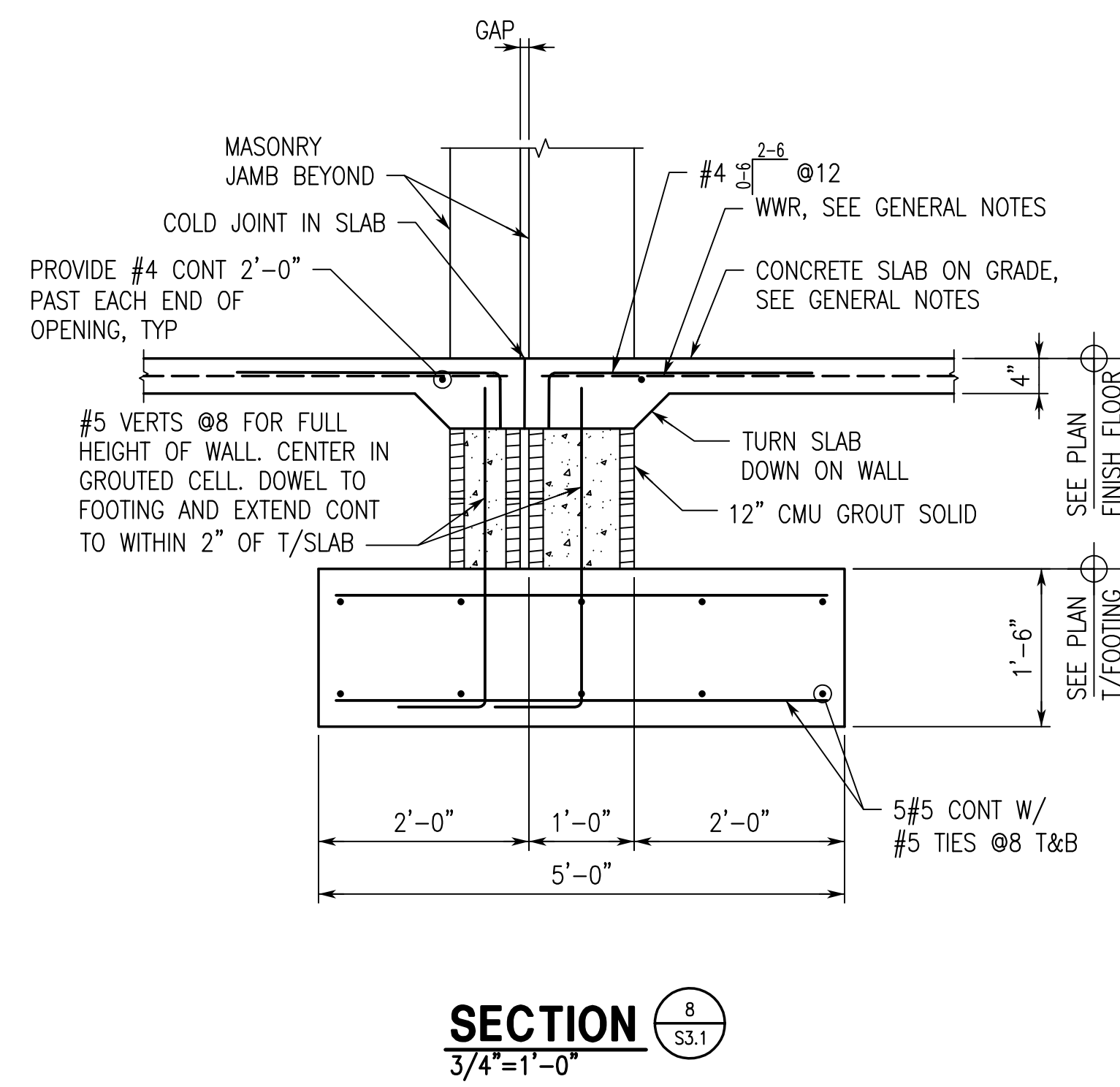
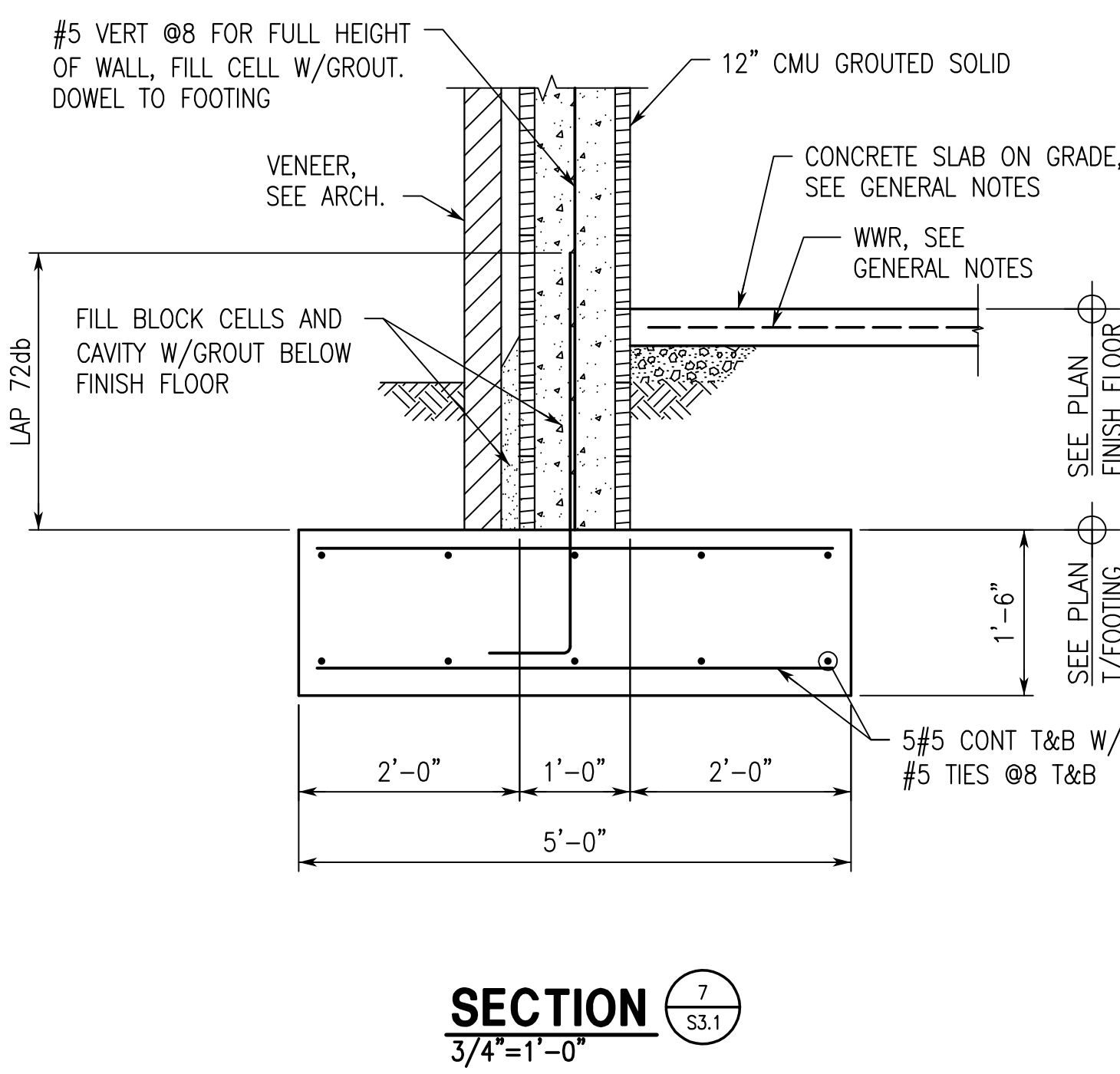
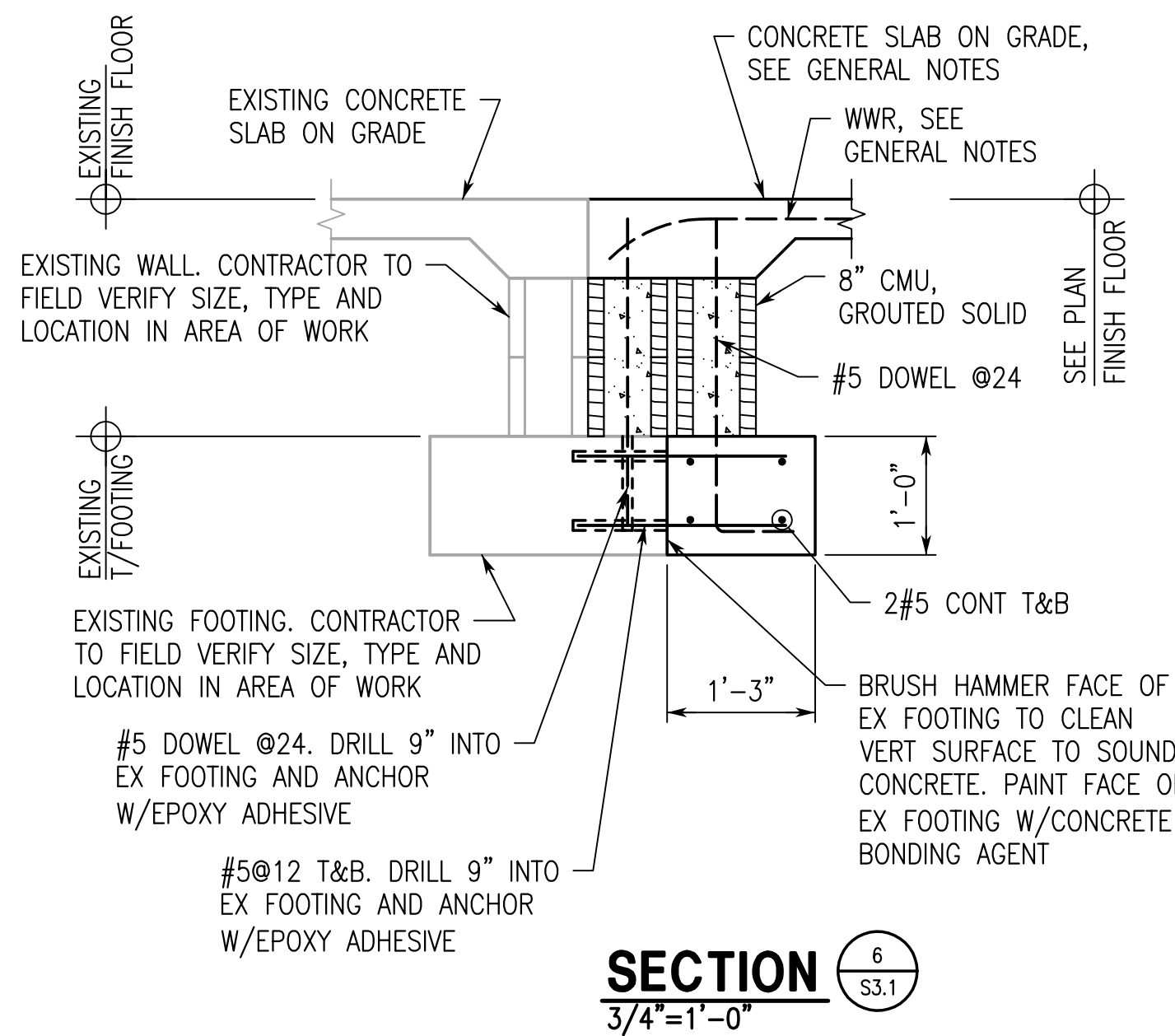
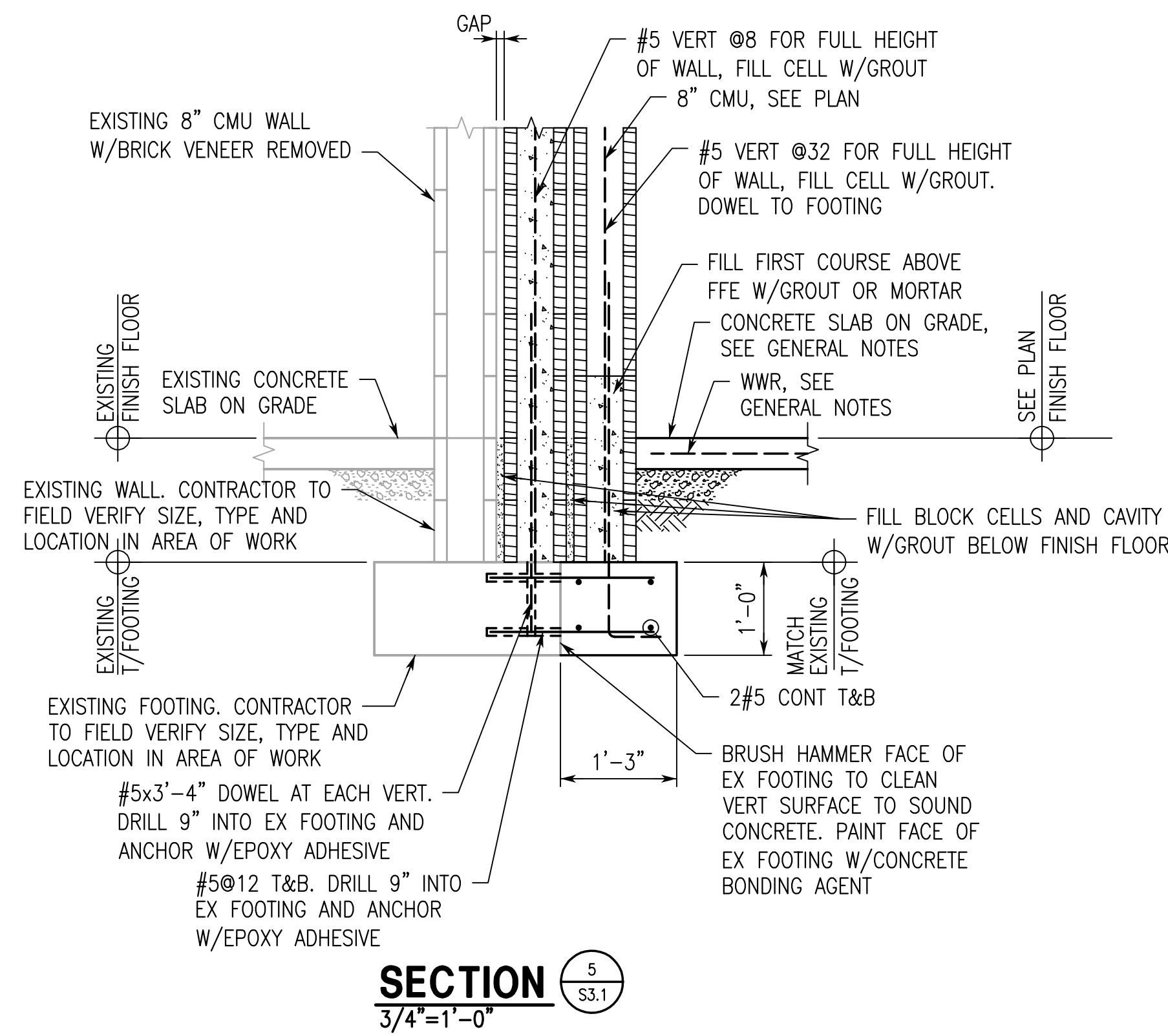
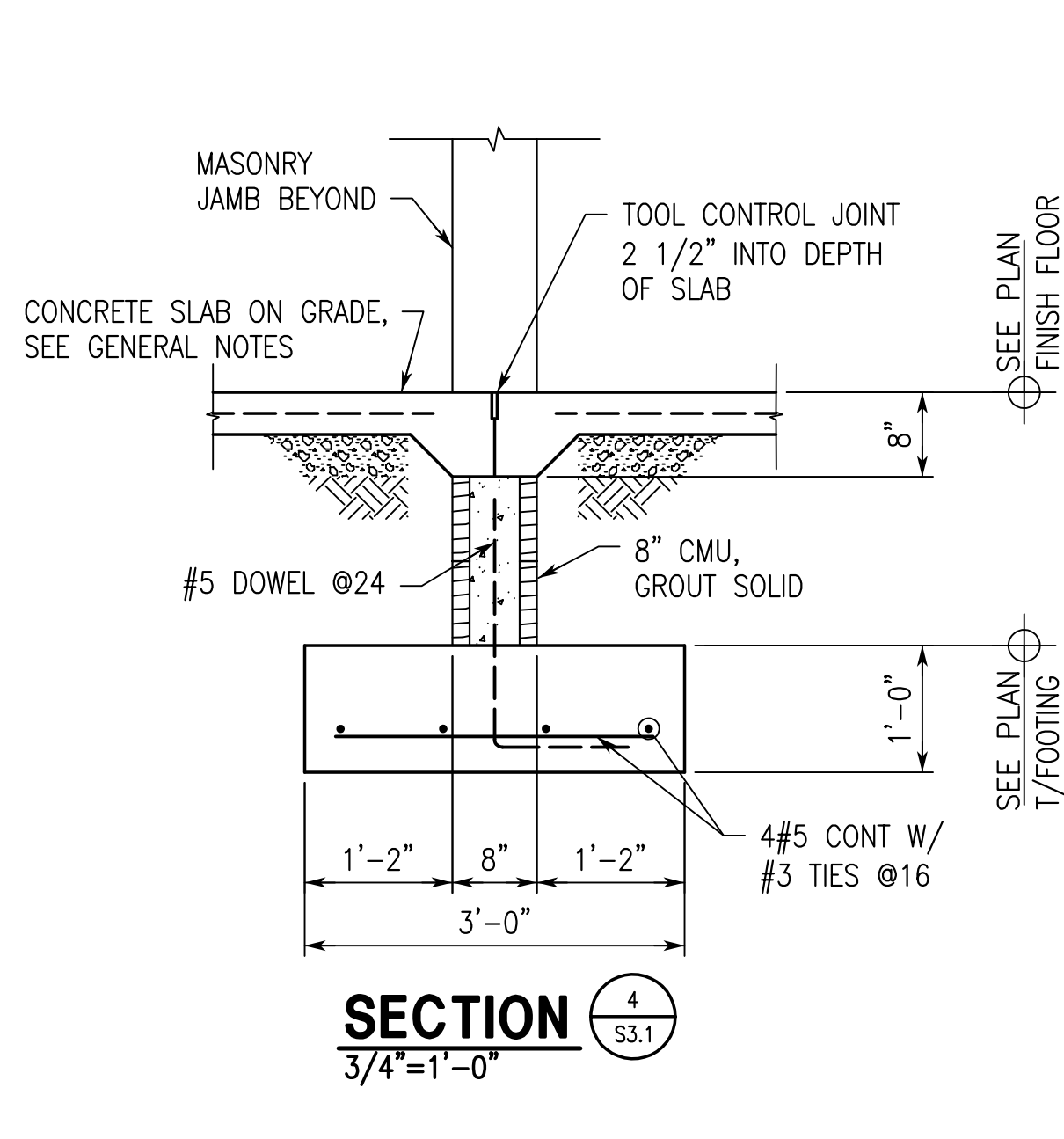
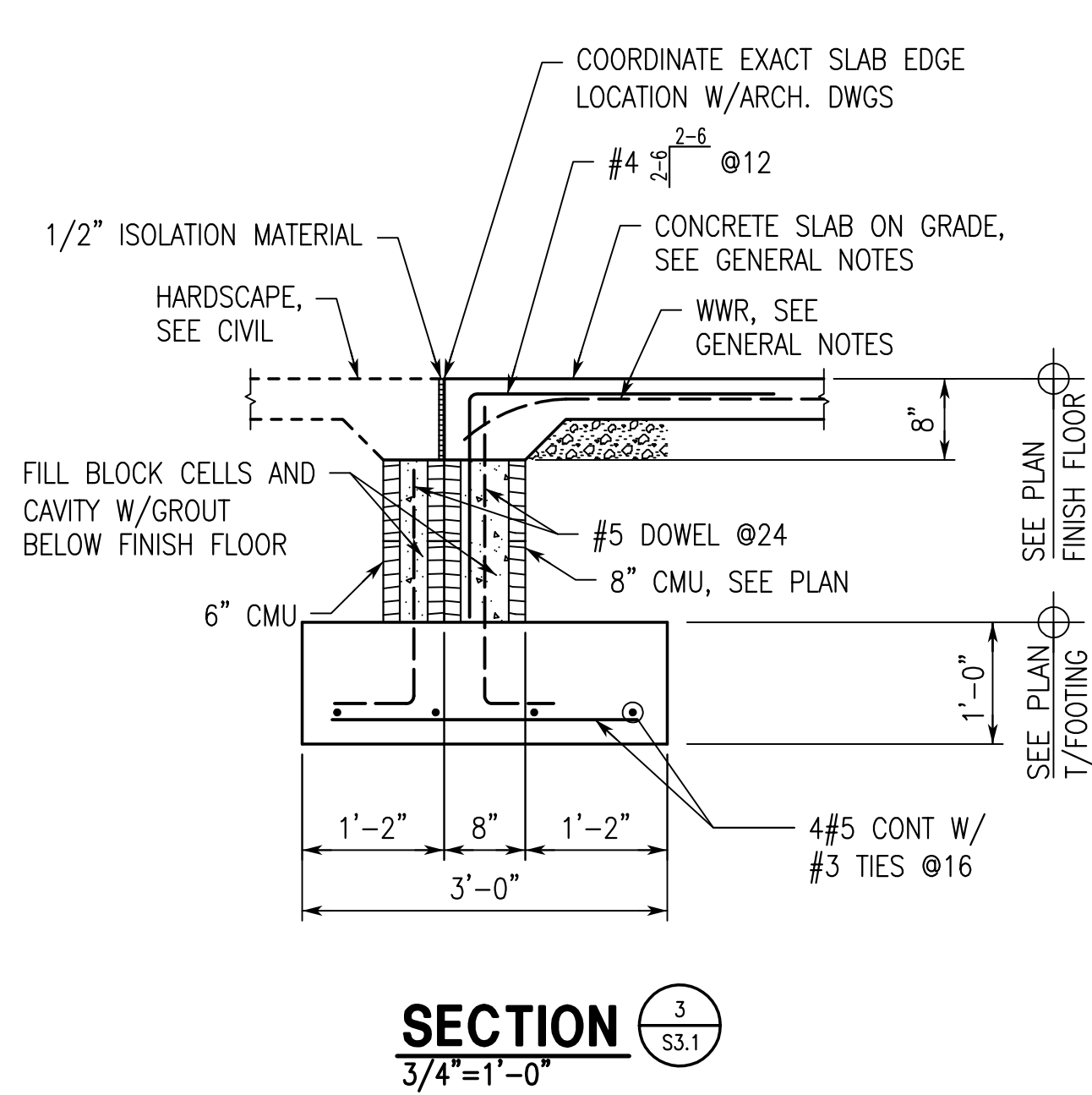
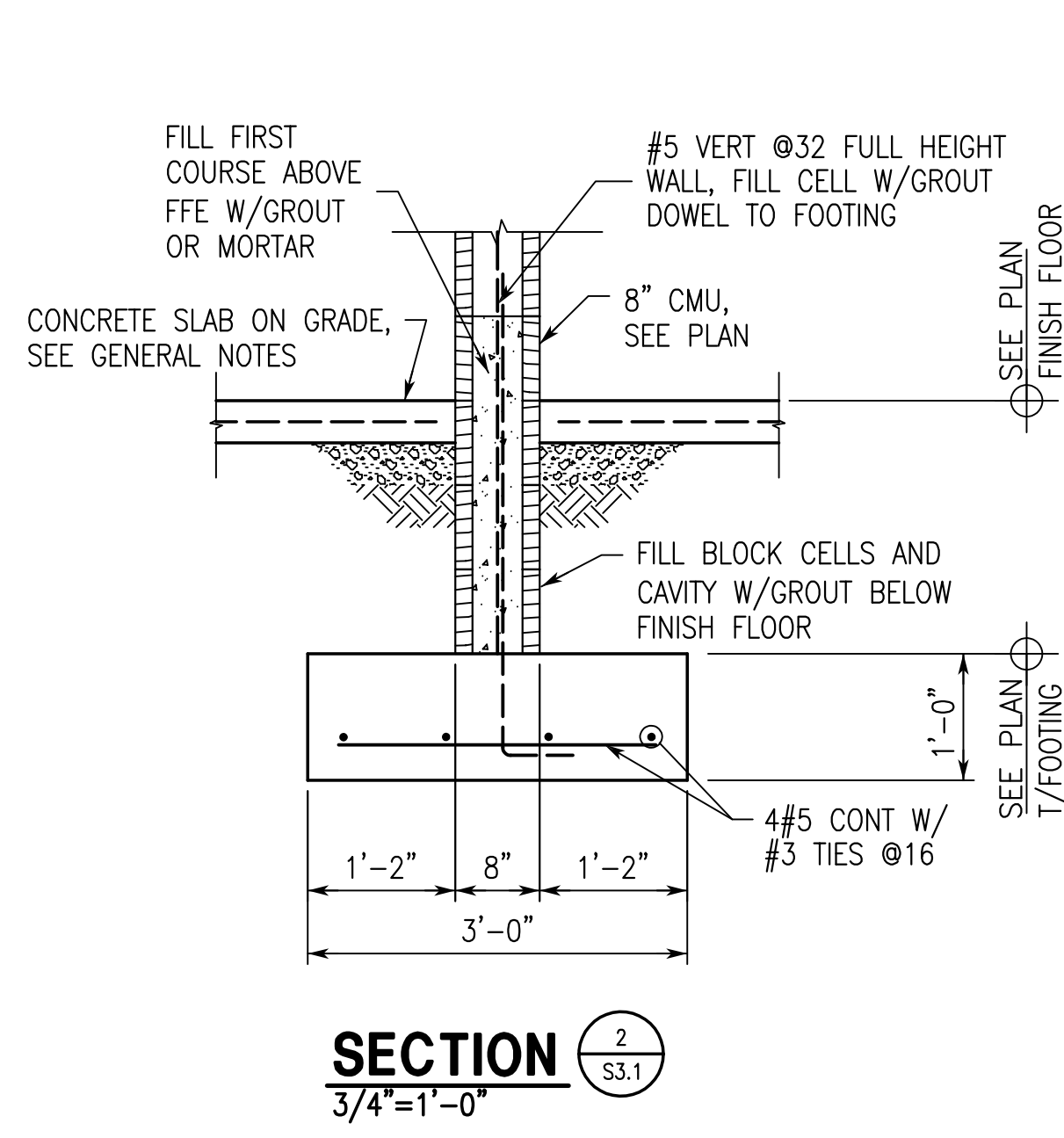
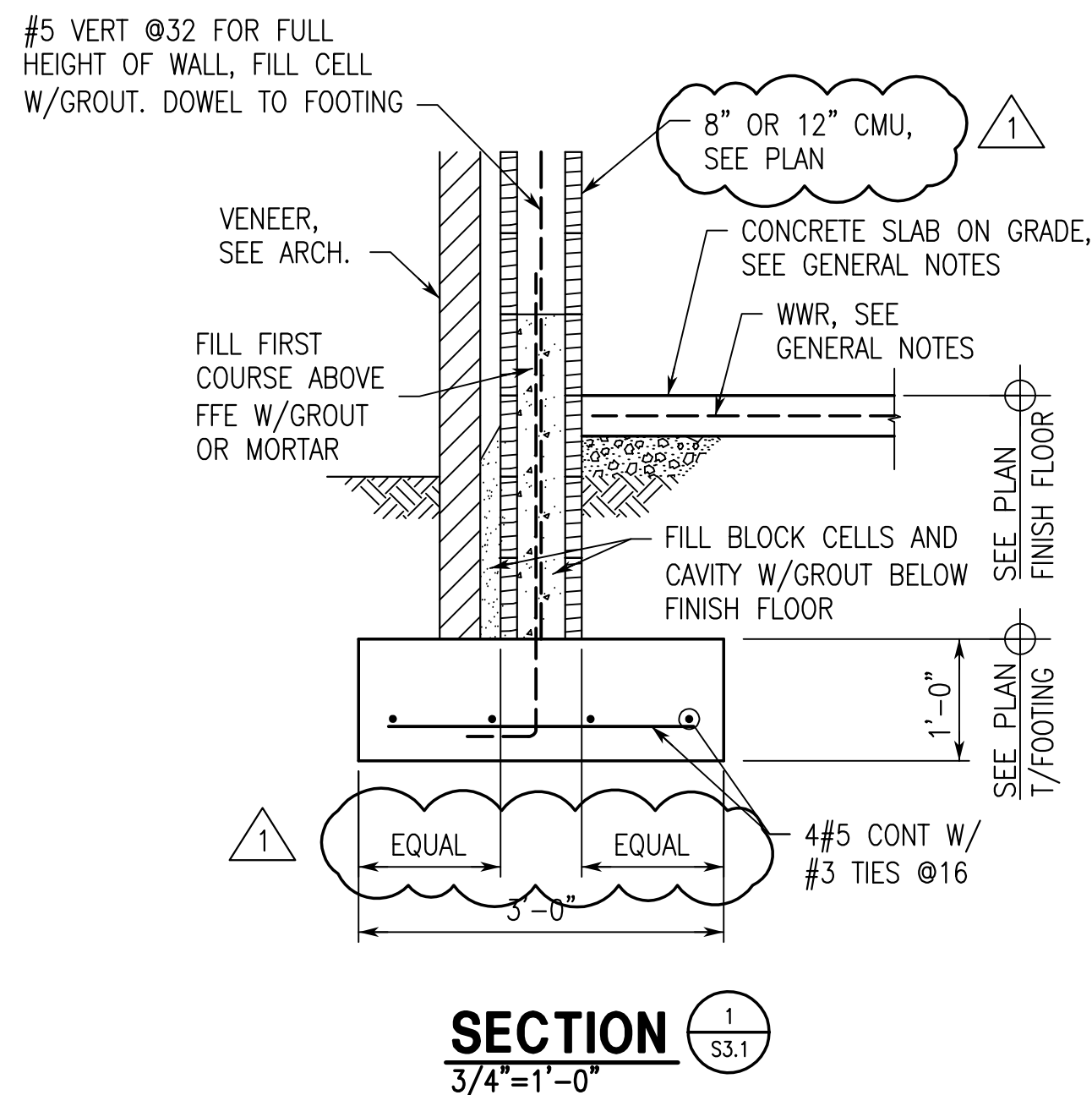


| DOOR AND WINDOW LEGEND | |
|------------------------|---|
| CSG | 1/4" THICK CLEAR TEMPERED SAFETY GLASS. |
| CFG | CLEAR FIRE RATED SAFETY GLASS AS SPECIFIED. |
| TSG | 1" TINTED INSULATED LOW-E TEMPERED SAFETY GLASS AS SPEC. |
| SCWD | SOLID CORE WOOD DOOR |
| ASE | PREFINISHED ALUMINUM STOREFRONT ENTRANCE SYSTEM AS SPECIFIED. |
| ASF | PREFINISHED ALUMINUM STOREFRONT FRAME SYSTEM AS SPECIFIED. |
| AFW | PREFINISHED ALUMINUM FIXED WINDOW |
| THMD | TORNADO RATED HOLLOW METAL DOOR |
| THMF | TORNADO RATED HOLLOW METAL FRAME |

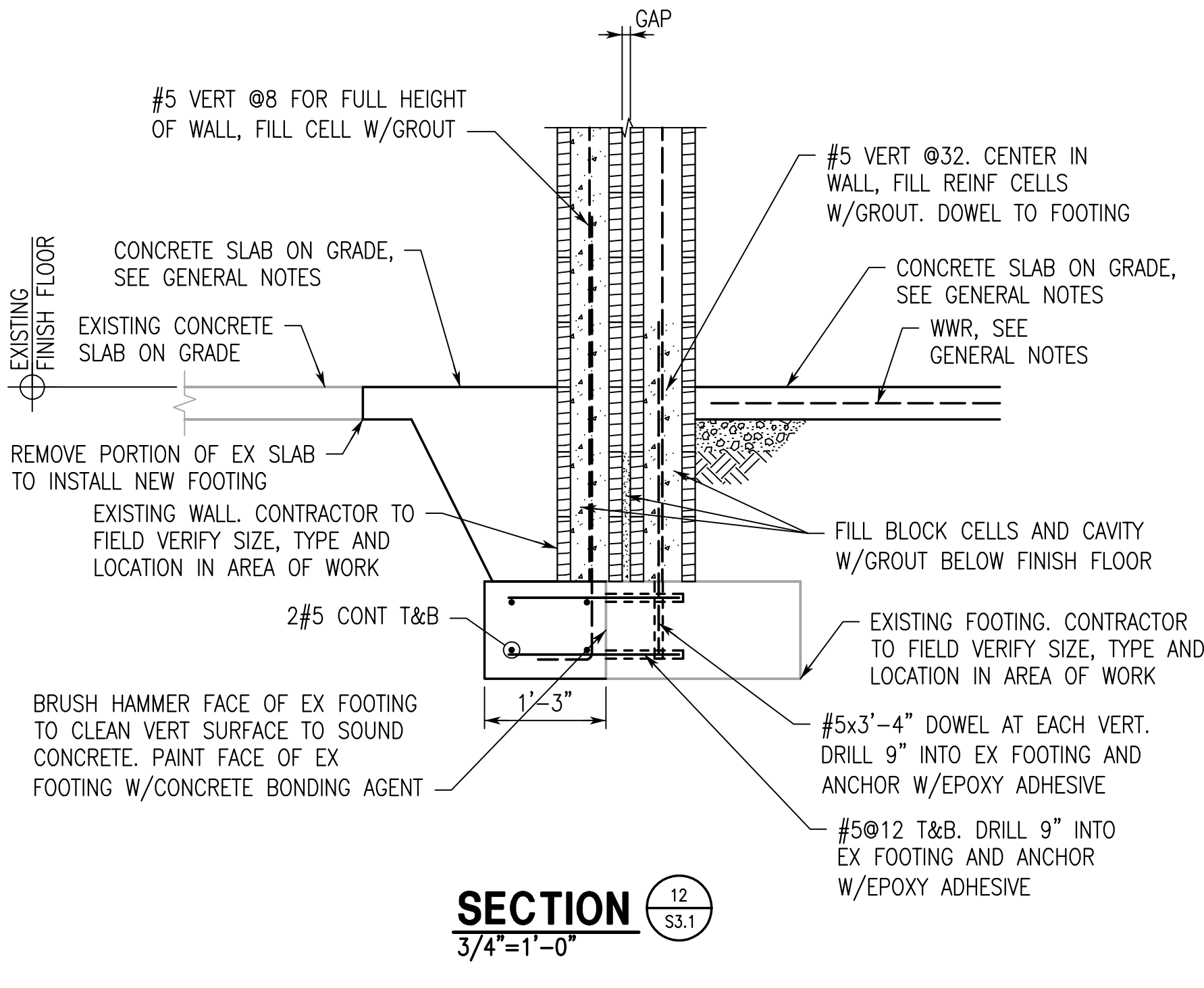
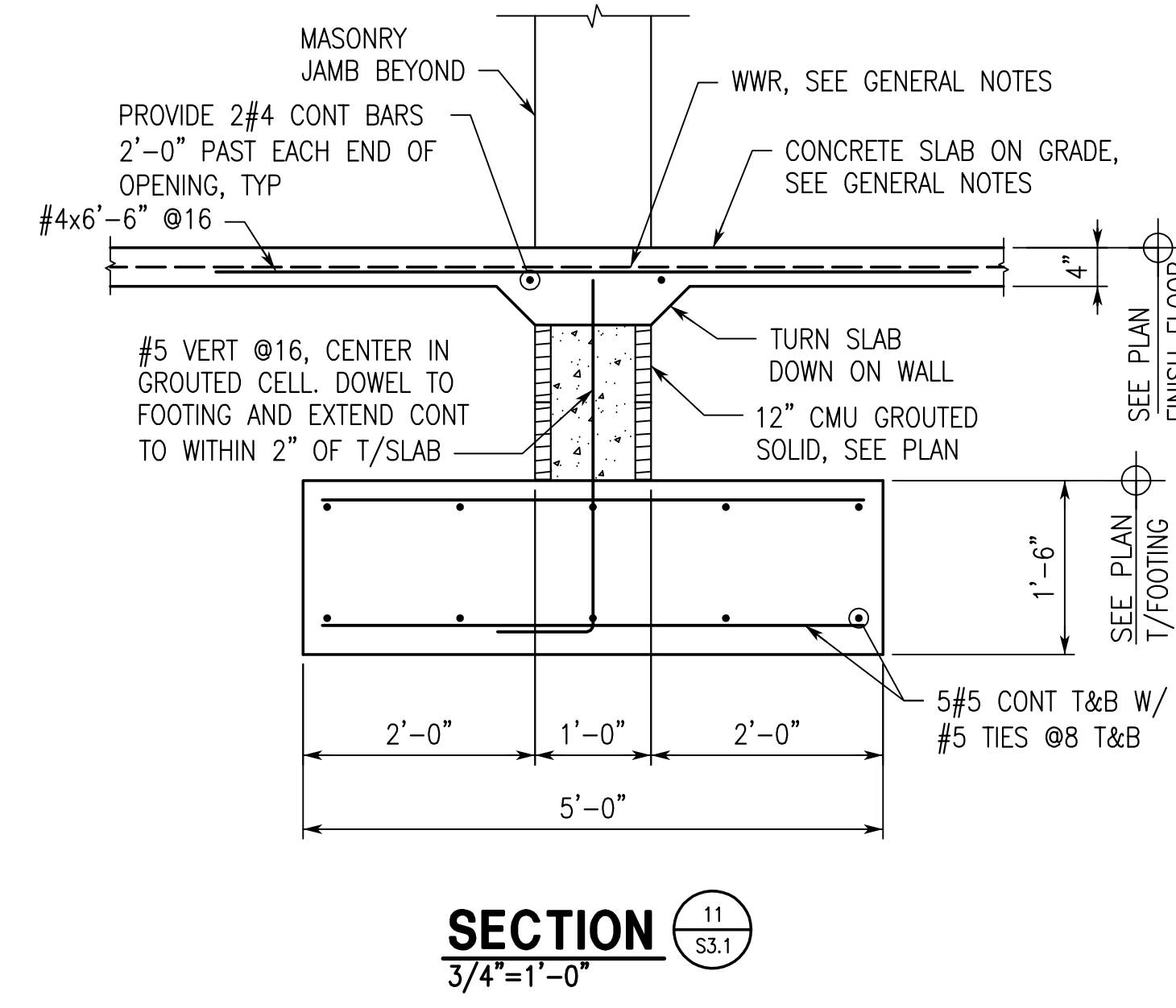
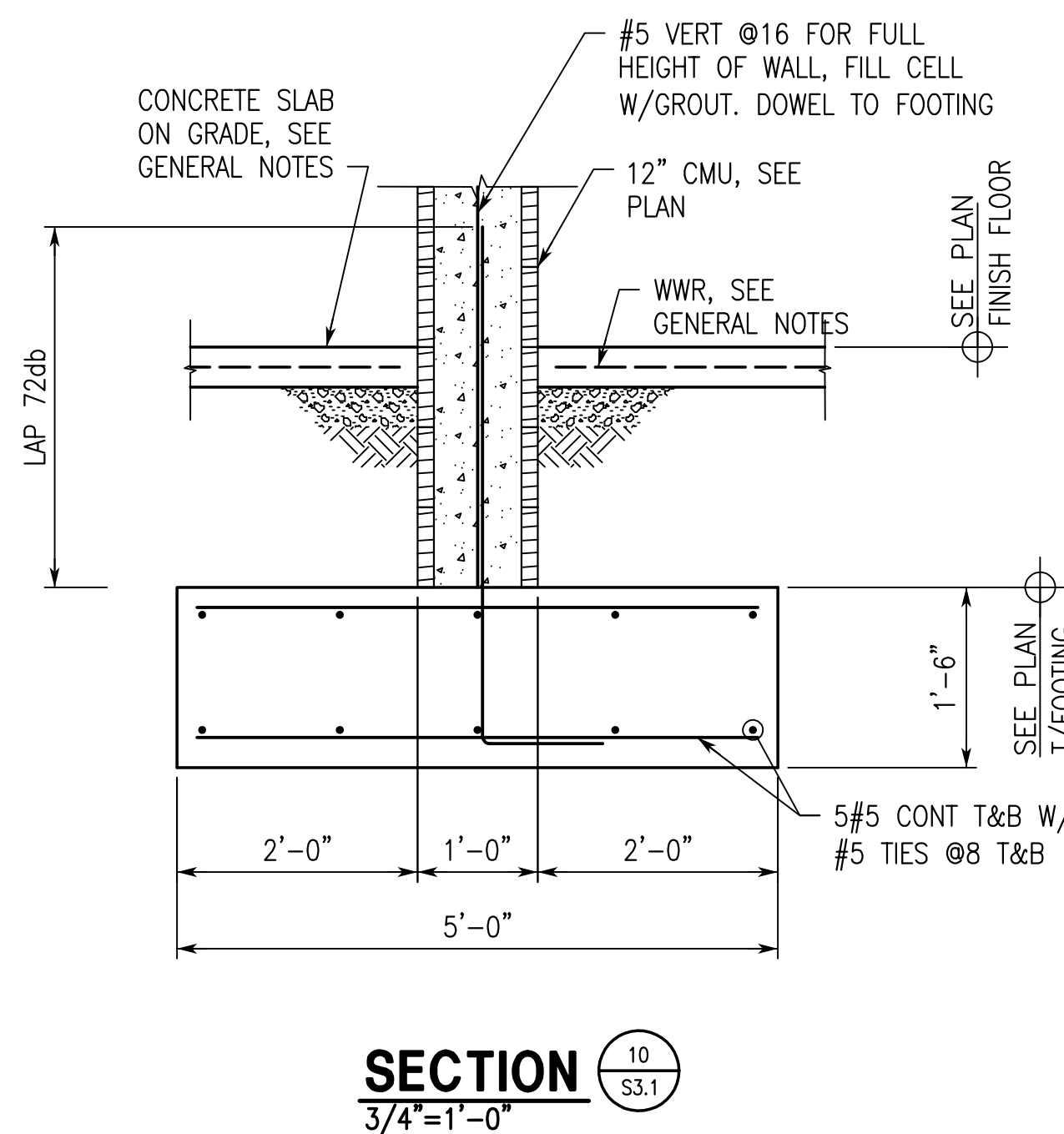
| DOOR AND WINDOW LEGEND | |
|------------------------|---|
| DOOR TYPE (1) | NO RATING |
| DOOR TYPE + A (1A) | 20 MINUTE RATING |
| DOOR TYPE + D (1D) | 90 MINUTE RATING |
| HMF | HOLLOW METAL FRAME |
| HMD | HOLLOW METAL DOOR |
| SCWD | SOLID CORE WOODEN DOOR |
| ACW | PREFINISHED ALUMINUM CASEMENT WINDOW SYSTEM |



16 DETAIL
SCALE: 1" = 1'-0"



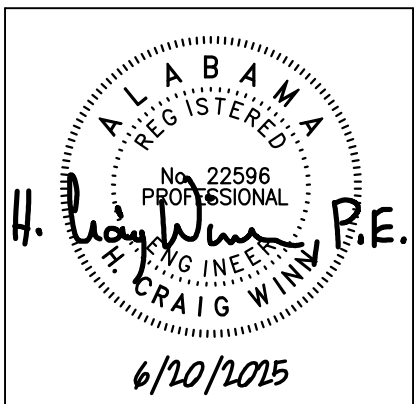
NOTE:
WALLS SHALL BE DISCONTINUOUS AT JOINT. NO REINFORCING SHALL CROSS JOINT.



NEW CLASSROOM ADDITION FOR
ASHVILLE HIGH SCHOOL
PROJECT NAME

33125 US-231, ASHVILLE, AL 35963
ST. CLAIR COUNTY BOARD OF EDUCATION

SHEET TITLE:
SECTIONS AND
DETAILS



PROJ. MGR.: HCW
DRAWN: TRM
DATE: JUNE 20, 2025
REVISIONS
1 ADDENDUM #2
08-20-2025

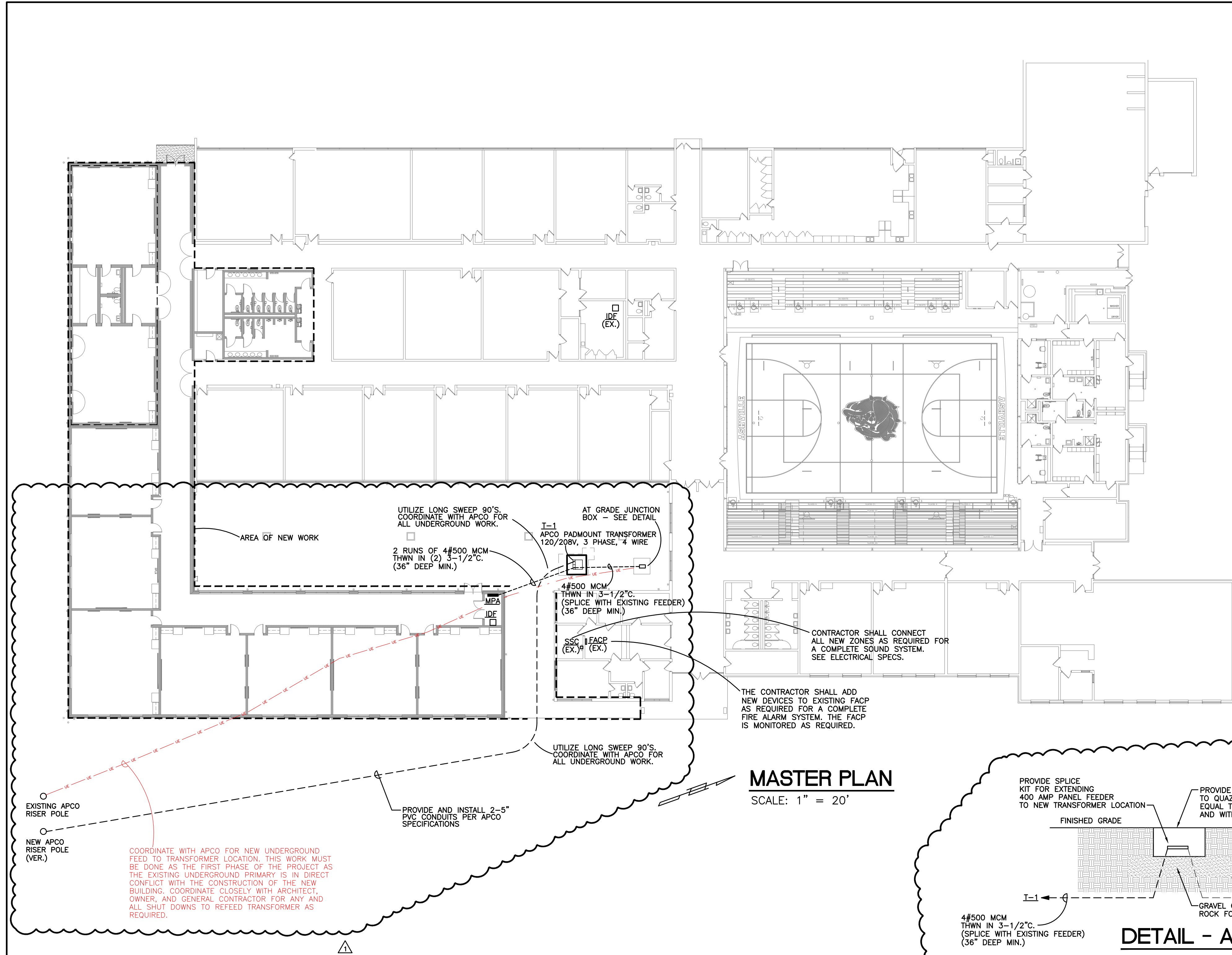
JOB NO. 24-106

SHEET NO:

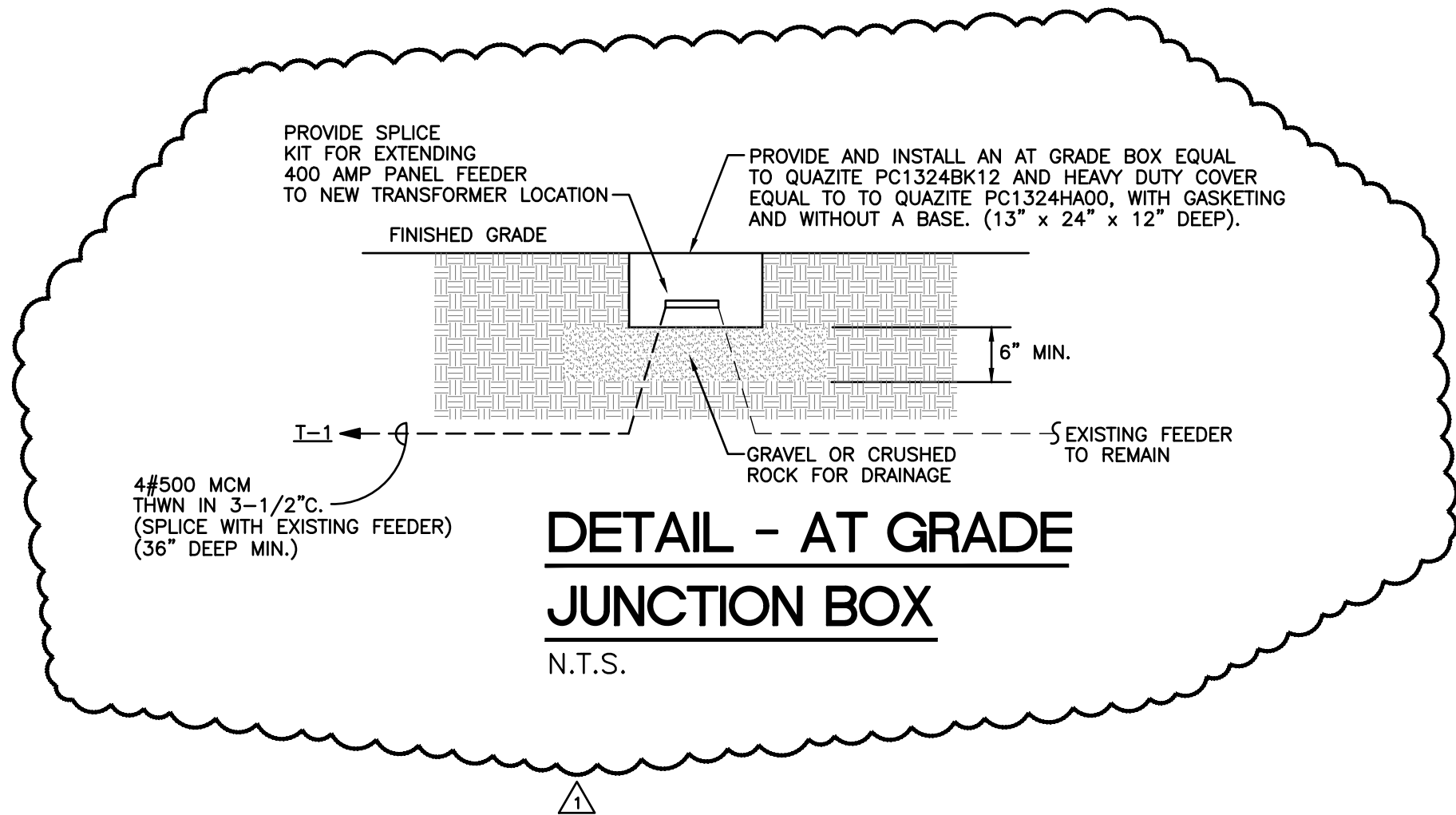
S3.1

8 OF 10

0 1' 2'

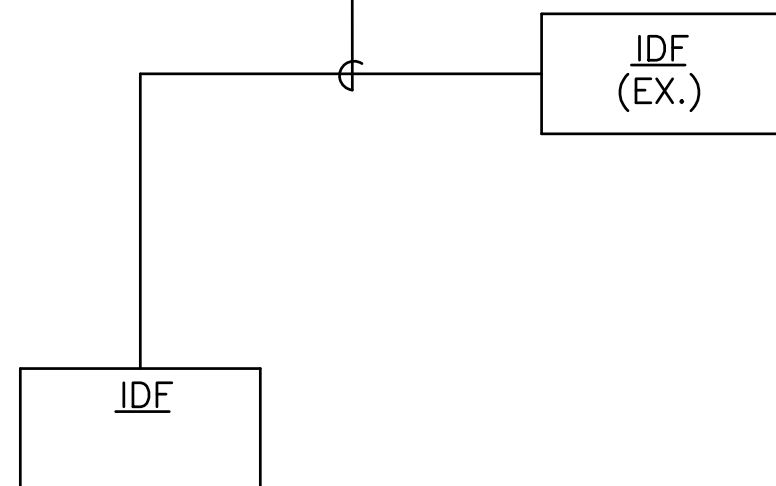


MASTER PLAN
SCALE: 1" = 20'



**DETAIL - AT GRADE
JUNCTION BOX**
N.T.S.

1 - 25 PAIR COPPER CABLE AND
1 - 6 STRAND FIBER OPTIC CABLE
IN 2" INNERDUCT CABLES SUPPLIED
BY OWNER, INSTALLED AND TERMINATED
BY ELECTRICAL CONTRACTOR
(TYPICAL)



MDF FIBER OPTIC CABLE RISER DIAGRAM
N.T.S.

APCO NOTES

- CONTRACTOR SHALL COORDINATE CLOSELY WITH ALABAMA POWER AND SHALL PROVIDE AND INSTALL ANY AND ALL LABOR AND OR MATERIAL, AS REQUIRED BY APCO, REGARDLESS OF ITS BEING OR NOT BEING SHOWN ON ELECTRICAL DRAWINGS.
- ANY AND ALL COSTS ASSOCIATED WITH PROVIDING THIS LABOR AND/OR MATERIAL SHALL BE INCLUDED IN BID PRICE.
- CONTRACTOR SHALL OBTAIN ALL DIRECT CHARGES FROM ALABAMA POWER, AND INCLUDE THESE CHARGES IN BID PRICE. CONTRACTOR IS RESPONSIBLE FOR CONTACTING APCO DURING THE BID PROCESS.

ALUMINUM NOTE

THE CONTRACTOR SHALL HAVE THE CHOICE OF INSTALLING FEEDERS WITH ALL COPPER WIRE AS SPECIFIED, OR INSTALLING ALUMINUM FEEDERS ON ALL WIRE SIZED #3/0 AND LARGER. ALL WIRING SMALLER THAN #3/0 SHALL BE COPPER WITH NO EXCEPTIONS.

| COPPER SIZE: | ALUMINUM SIZE: |
|--------------|----------------|
| 3/0 | 250 MCM |
| 4/0 | 300 MCM |
| 350 MCM | 500 MCM |
| 500 MCM | 750 MCM |
| 600 MCM | 900 MCM |

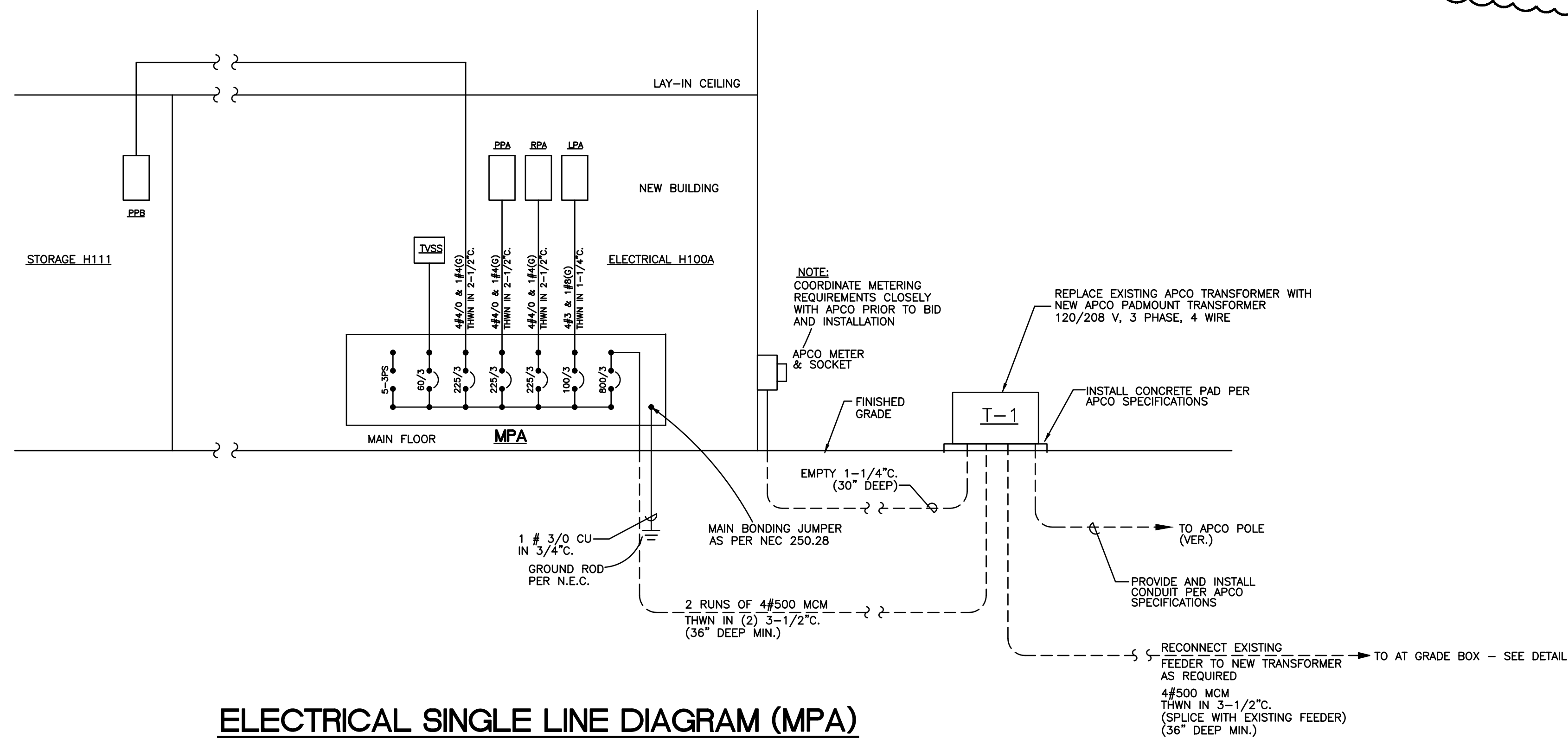
CONTRACTOR SHALL INCREASE CONDUIT SIZES ACCORDINGLY TO MEET N.E.C. FILL REQUIREMENTS.

PANELBOARD SCHEDULE - AREA M

| MARK | TYPE | MAINS | | | BRANCHES | | | | | LUG LOCATION | TYPE MOUNTING | AREA PANEL LOCATED | AVAILABLE FAULT CURRENT | REMARKS |
|------|--------|-------|------|--------------------|----------|-----------------------|--------|---|--------|--------------|---------------|--------------------|-------------------------|---------------------------------------|
| | | TYPE | AMPS | SERVICE | 1 POLE | 2 POLE | 3 POLE | SPARES | SPACES | | | | | |
| MFA | I-LINE | M/B | 800 | 120/208V 3ø, 4W | | | | 1-60 1-90 1-100 1-110 3-225 | 5-3PS | BOTTOM | SURFACE | ELEC H100A | 31,000 | SEE NOTES 1, 2, 3, 4, & 5 |
| LPA | NG0D | LUGS | 100 | 120/208V 3ø, 4W | 7-20 | | | 6-20/1 | 17-1PS | BOTTOM | SURFACE | ELEC H100A | 20,000 | SEE NOTES 1, 2, & 4 |
| RPA | NG0D | LUGS | 225 | 120/208V 3ø, 4W | 32-20 | | 1-60 | 6-20/1 | 13-1PS | BOTTOM | SURFACE | ELEC H100A | 24,000 | SEE NOTES 1, 2, & 4 54 SPACE PANEL |
| PPA | NG0D | LUGS | 225 | 120/208V 3ø, 4W | | 3-20 7-25 | | 6-20/1 | 16-1PS | BOTTOM | SURFACE | ELEC H100A | 22,000 | SEE NOTES 1, 2, & 4 |
| PPB | NG0D | LUGS | 225 | 120/208V 3ø, 4W | 6-20 | 6-20 2-25 *1-30 | | 6-20/1 | 12-1PS | TOP | SURFACE | STOR H111 | 10,000 | SEE NOTES 1, 2, & 4 |

- NOTES:
- ALL PANELBOARDS SHALL BE CAPABLE OF WITHSTANDING AND INTERRUPTING THE AVAILABLE FAULT CURRENTS AS LISTED ABOVE.
 - ALL PANELBOARDS SHALL HAVE MICARTA LABELS SHOWING PANELBOARD DESIGNATION, AND OPERATING VOLTAGE. I-LINE PANELBOARDS SHALL ALSO HAVE MICARTA LABELS AT EACH BREAKER.
 - SHALL BE EQUIPPED WITH BUILT-IN SURGE PROTECTION, CAPABLE OF WITHSTANDING A TRANSIENT SURGE OF 160,000 AMPS. (60/3 BREAKER CALLED FOR IN MFA FOR THIS PURPOSE).
 - NO SERIES RATING WILL BE ALLOWED ON ANY PANELBOARDS.
 - SHALL BE RATED FOR SERVICE ENTRANCE EQUIPMENT.

- PANELBOARD NOTES:
- MANUFACTURER OF SWITCHBOARDS AND/OR PANELBOARDS SHALL PERFORM FAULT CURRENT CALCULATIONS, COORDINATION STUDY, AND ARC FLASH HAZARD ANALYSIS, AND LABEL ALL SWITCHBOARDS AND/OR PANELBOARDS, IN ACCORDANCE WITH NFPA 70E-2020 (ARTICLE 130) AND NFPA 70-2020 (ARTICLE 110.16).
 - CONTRACTOR SHALL FIELD MARK ELECTRICAL SERVICE EQUIPMENT WITH A CONSPICUOUS AND PERMANENT LABEL THAT INDICATES THE AVAILABLE FAULT CURRENT PER NEC 110.24.
 - CONTRACTOR SHALL FIELD MARK ELECTRICAL PANELS WITH A CONSPICUOUS AND PERMANENT LABEL THAT INDICATES WHERE PANELS ARE FED FROM PER NEC 408.4(B).



ELECTRICAL SINGLE LINE DIAGRAM (MPA)
N.T.S.

**STEWART ENGINEERING
ELECTRICAL CONSULTANTS**

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300 East 7th Street (36207)
Anniston, Alabama
Phone: 256/237-0891
Fax No.: 256/237-1077
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Engineer:
J. Lance Junkin, P.E.
Alabama Reg. 14817

Project Number:
2563