

LATHAN • McKEE ARCHITECTS

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

ADDENDUM NO. 2
NEW CLASSROOM ADDITION FOR ASHVILLE HIGH SCHOOL
Architect Job No. 24-106
August 26, 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

NON-MANDATORY PRE-BID MEETING:

Wednesday, September 3, 2025, at
10:00 a.m., local time, held at
St. Clair County Board of Education, Annex
175 College St.
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 & ATTACHMENT – ACCOUNTING OF SALES TAX:** Revised to delete Alternate #1 and Alternate #2, attached to be used in lieu of previous version.

SPECIFICATIONS

1. **SECTION 01010 – ALTERNATES:** Revise as follows:
 - a. **DELETE:** ~~Alternate No. 1 (Additive) Partition Walls~~ its entirety from specifications.
 - b. **DELETE:** ~~Alternate No. 2 (Additive) Lightning Protection~~ its entirety from specifications.

2. **SECTION 01030 – SPECIAL PROJECT REQUIREMENTS:** Revise as follows:

TIME FOR COMPLETION

All work under this Contract shall be complete and ready for Owner occupancy within ~~One Hundred Eighty (180)~~ **Four Hundred Twenty (420)** consecutive calendar days from written Notice To Proceed. The work under this contract shall commence within Ten (10) calendar days from date of Notice To Proceed.

3. **SECTION 08320 – TORNADO RESISTANT WINDOW SYSTEMS:** **DELETE** Section 08320 in its entirety from specifications.
4. **SECTION 316613 – AGGREGATE PIERS:** **ADD** Section 316613 in its entirety to specifications.

DRAWINGS

1. **SHEET P0.1 – PLUMBING – SCHEDULES, DETAILS, & NOTES:**
 - a. Revised to add the gas valve mark used on the plumbing plans to the Lab Fixture Schedule.
2. **SHEET P3.0 – PRESSURE – RENOVATION FLOOR PLAN:**
 - a. Revised to include a gas piping riser diagram.
3. **SHEET M0.2 – MECHANICAL – DETAILS:**
 - a. Revised Fire Damper Installation Detail to show access door size.
4. **SHEET M2.1 – HVAC – RENOVATION FLOOR PLAN:**
 - a. Revised to add fire damper.
5. **SHEET S1.0 – GENERAL NOTES:**
 - a. Updated General Notes for Aggregate Piers.
6. **SHEET S2.1 – FOUNDATION PLAN:**
 - a. Updated footing step locations for Storm Drain.
7. **SHEET S3.1 – SECTIONS AND DETAILS:**
 - a. Updated Detail #3 to include 8" and 12" CMU.

CLARIFICATIONS

1. **Sheet E2.1 – Master Plan and Single Line Diagram:**
 - a. Supply and install a permanent plaque at both the new panel MPA and existing panel MP near the gym that denotes "SERVICE 1 of 2" (or 2 of 2) and denote the location of the other service as per NEC 230.2(E) and 225.37.
2. **Specification Section 15760 – Heat Pump Units:** Fujitsu is the basis of design manufacturer and is to be added as an approved manufacturer.
3. **Specification Section 15763 – Energy Recovery Units:** Greenheck is the basis of design manufacturer and is to be added as an approved manufacturer.

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

12300 Laminate Clad Casework

Manufacturer

PR Bean Company, LLC

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: N/A

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.

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:

	<u>ESTIMATED SALES TAX AMOUNT</u>
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.

PART 1 GENERAL

1.01 INTRODUCTION

- A. Aggregate piers are columns of compacted aggregate used to reinforce the ground to increase bearing capacity and reduce settlement of a structure. They also can serve to increase slope stability. The piers can be constructed with a down-hole vibrator or a down-hole tamper.

1.02 INTENT

- A. The intent of the aggregate piers specified herein is to provide soil reinforcement within the limits indicated on the project drawings to achieve the degree of improvement required to meet the performance criteria in Section 3.02 of these specifications.

1.03 REFERENCES

- A. Reference documents as provided to the aggregate pier contractor shall include:
 - 1. This specification.
 - 2. Project drawings.
 - 3. Project geotechnical report.
 - 4. Contract documents.

1.04 DEFINITIONS

- A. Aggregate Piers are columns of compacted aggregate used to reinforce the ground to increase bearing capacity and reduce settlement of a structure. They also can serve to increase slope stability. The piers can be constructed with a down-hole vibrator or down-hole tamper.
- B. Down-Hole Vibrators are specially-designed, high-energy depth vibrators. The horizontal vibrations are created by a motor and eccentric weight located near the tip of the vibrator. Extension tubes are bolted to the vibrator to allow it to be lowered to the necessary treatment depth.
- C. Bottom Feed Vibrators are down-hole vibrators which are equipped with a tremie pipe through which the aggregate is fed to the tip of the vibrator. This equipment is most often used in soil conditions which are too soft or cohesionless to remain open when pre-drilled.
- D. Down-Hole Tampers are proprietary high-energy impact apparatus. The vertical tamping energy is provided by a hammer which is connected to a round, beveled tamper. The apparatus is lowered into a pre-drilled hole to the required treatment depth.
- E. Field Quality Control Representative (FQCR): The individual given specific inspection tasks identified in this specification.

1.05 SCOPE OF WORK

- A. The work shall consist of installation, monitoring and testing of the aggregate piers as required by the aggregate pier system design to meet the performance criteria presented in Section 3.02 of these specifications.
- B. In connection with the aggregate pier program, the aggregate pier contractor shall provide all labor, materials, and equipment to accomplish the following items of work:
 - 1. Pre-drilling of holes as necessary and stockpiling of spoil within 100 feet of a completed pier.
 - 2. Construction of the aggregate piers to the lines and grades on the construction drawing.
- C. It shall be the aggregate pier contractor's responsibility to determine and implement the systems and criteria to ensure that the specified performance is achieved.

1.06 SUBMITTALS

- A. The following shall be submitted to the Owner's representative by the aggregate pier contractor with the bid documents:
 - 1. A list of at least five previously completed projects of similar scope and purpose for approval by the Owner's representative. The list shall include a description of the project, relative size, and contact person with phone number.
- B. The following shall be submitted to the Owner's representative by the aggregate pier contractor two weeks prior to the start of the work:
 - 1. Resumes of the management, supervisory, and key personnel.
 - 2. A ground improvement design based on information contained in the project geotechnical report, prepared by an engineer licensed in the state of the work to be performed that demonstrates that the program achieves the specified performances criteria as specified in section 3.02 of these specifications.
 - 3. A shop drawing for review, indicating the spacing, location, and depth of the aggregate piers to achieve the criteria outlined in this specification.
 - a. Submit all shop drawings electronically. Electronic copies will be returned to the Architect.
 - 4. Modulus test detail and setup to confirm that the installation procedure produces the pier modulus used in the design.
- C. The following shall be submitted to the Owner's representative by the aggregate pier contractor during the work:
 - 1. Accurate daily records that include the type and size of compaction equipment and pre-drill auger diameter used, and, for each aggregate pier, the identification number and depth of the pier tip.
 - 2. Any change in the subsurface conditions observed during the work.

3. The modulus test data, analysis of the data, and the concluding recommended design parameters, prepared by an engineer licensed in the state of the work.
- D. The following shall be submitted to the Owner's representative by the aggregate pier contractor after the work is completed:
 1. A report documenting the observations and results of the tests. This report will certify that the bearing pressure has been achieved within settlement tolerances.
 2. A warranty document good for one year.

1.07 QUALIFIED CONTRACTORS

- A. The aggregate pier contractor shall meet the requirements stated in section 1.08 of these specifications.
- B. Pre-Qualified Contractors
 1. Hayward Baker Inc.
 2. Geopier Foundation Company, Inc.

1.08 QUALITY ASSURANCE

- A. The aggregate pier program shall be performed by a specialist aggregate pier contractor with at least five continuous years of documented experience in aggregate piers.
- B. The aggregate pier contractor shall provide experienced management, supervisory and key personnel to implement the aggregate pier program.
- C. As detailed in Section 1.06, the aggregate pier contractor shall provide evidence of aggregate pier project experience.
- D. The Owner's representative (FQCR) will ensure that procedures and documentation conform to these specifications.

PART 2 EQUIPMENT AND MATERIALS

2.01 EQUIPMENT

- A. Down-Hole Vibrator
 1. Should the aggregate pier contractor use a down-hole vibrator, the vibrator shall be capable of providing at least 80 HP of rated energy and a centrifugal force of 15 tons. An appropriate metering device should be provided at such a location that inspection of amperage increase may be verified during the operation of the equipment. The metering device may be an ammeter directly indicating the performance of the vibrator tip. Complete equipment specifications should be submitted to the Engineer prior to commencement of the fieldwork.

B. Down-Hole Tamper

1. Should the aggregate pier contractor use a down-hole tamper, the tamper shall have a diameter that is at least 90% of the pre-drilled hole diameter, have beveled sides, and be long enough to reach the full depth of the pre-drilled hole. The tamper shall have a minimum Construction Industry Manufacturer's Association (CIMA) rating of 1,225 ft-lb and shall apply direct downward impact energy to each lift of aggregate. A minimum tamper energy level of 490,000 ft-lbs of force per minute shall be applied by the energy source.

2.02 BACKFILL MATERIALS

A. Down-Hole Vibrator Method: The backfill aggregate should consist of hard, angular to sub-angular durable rock fragments, with the majority of particles in the range of 1/8th inch to 1-1/2 inches such as ASTM C33 size No. 57, or shall be other graded aggregate selected by the installer and successfully used in the modulus test.

B. Down-Hole Tamper Method:

1. Aggregate used for piers constructed above the water table shall be Type I, Grade B in accordance with ASTM D1241, or shall be other graded aggregate selected by the installer and successfully used in the modulus test.
2. For aggregate used for piers constructed below the water table, the gradation shall be the same as Type I Grade B, except that particles passing the number 40 sieve shall be eliminated. Alternately, No. 57 stone or other stone selected by the installer may be used.
3. When type I Grade B material is used, potable water or other suitable source shall be used to increase the aggregate moisture content when required.

PART 3 EXECUTION

3.01 AGGREGATE PIER CONSTRUCTION

The general procedures are as follows:

A. Stable Ground Conditions: The following general procedures shall be followed when the pre-drilled hole remains open during construction.

1. Pre-drilling to the design depth will be performed with an auger diameter equal to the finished column diameter.
2. Down-Hole Vibrator Method: The quantity of aggregate initially added shall be such that the vibrator tip is able to penetrate to within 12 inches of the design depth. The vibrator will be raised and lowered repeatedly, such that on each re-penetration, the tip of the vibrator advances to within 12 inches of the previous penetration depth.
3. Down-Hole Tamper Method: Following placement of the first 12-inch lift of aggregate, the tamper is to be lowered to the top of the aggregate and activated. The full energy of the impactor and weight of the excavator shall

be used for at least 30 seconds per lift, and subsequent lifts shall not exceed 12 inches in thickness.

4. The aggregate shall be removed and replaced with fresh aggregate if cave-ins occur during the aggregate placement such that the volume of caved-in soil is greater than 10 percent of the aggregate being compacted.

B. Unstable Ground Conditions: The following general procedures will be followed when a pre-drilled hole will not remain open before or during pier construction.

1. Down-Hole Vibrator Method: If the hole will remain temporarily stable, the hole may be filled with aggregate to a level above the instability as long as the vibrator is still able to penetrate to within 1 foot of the pre-drilled depth. If the hole will not remain temporarily stable, a Bottom Feed Down-Hole vibrator may be used.
2. Down-Hole Tamper Method: A casing with a minimum outside diameter equal to 100% of the pier diameter is advanced to the full treatment depth. The first 12-inch lift of aggregate will be placed, and the tamper lowered to the top of the aggregate. The full energy of the impactor and weight of the excavator shall be used for at least 30 seconds per lift, and subsequent lifts shall not exceed 12 inches in thickness. The casing is extracted after each lift is compacted with the bottom of the casing always maintained below the top of the aggregate.

C. Obstructions: Aggregate piers shall be constructed within 6 inches of the design location. Obstructions encountered during excavation or drilling that will prevent installation of the aggregate piers to design depth, or cause the aggregate pier to stray from its specified location during installation shall be removed. To the extent the obstructions are shown in the geotechnical report, removal of obstructions shall be performed at no additional cost to the owner.

Obstructions include, but are not limited to, boulders, timbers, concrete, bricks, utility lines, etc., that prevent installing the aggregate piers to the required depth, or cause the aggregate pier to drift from the required locations. Dense natural rock or weathered rock shall not be deemed obstructions, and piers may be terminated short of design lengths on such materials. The aggregate pier design engineer shall be notified within 24 hours to verify that the short piers are acceptable.

3.02 PERFORMANCE CRITERIA

A. Construct appropriate aggregate piers with granular backfill material beneath all column foundations and load-bearing wall foundations to provide the following criteria upon completion:

1. Column Footings: An allowable soil bearing capacity of 7500 pounds per square foot (psf) with a maximum total settlement of 1 inch and a maximum differential settlement of 0.50-inch.

B. Aggregate piers should be constructed to a depth sufficient to satisfy the settlement criteria above. A modulus test shall be performed to verify the parameter values selected for the pier aggregate.

3.03 FIELD QUALITY ASSURANCE

A. Inspections

1. All aggregate pier operations shall be performed under the observation and documentation of the FQCR.
2. Monitoring and logging of aggregate pier operations for both test and production work shall be done by the FQCR.
3. The FQCR will provide site observation and documentation to ensure performance of the aggregate pier work. This inspection may include the following: recording of pre-drill hole depth, observance of the aggregate pier contractor's procedures, and recording of compaction energy information.
4. The foundation bearing surface shall be compacted and firm prior to the construction of the foundation.

B. Modulus Test

Testing to determine specification compliance will be provided by the aggregate pier contractor, and will consist of at least one modulus test of an aggregate pier.

The results of the Modulus Test shall meet the following criteria to pass:

1. The geotechnical engineer shall approve of the location of the Modulus Test.
2. Deflections of the top of the test pier shall be measured by a suitable method.
3. Deflections at the bottom of the test pier shall be measured by means of a telltale installed at the bottom of the test aggregate pier. Performance will be deemed acceptable when, at the specified design stress, deflection at the bottom of the pier does not exceed 20% of the deflection at the top of the pier.
4. Load increments, decrements, and duration, shall be determined using ASTM D1143 as general guidelines.
5. Surficial disturbance shall be compensated for by applying a seating load equal to 5% of the total load to the loaded steel plate before applying load increments.
6. The modulus testing shall be performed as described in the Design Submittal.

3.04 Rejection of Aggregate Piers

- A. If an aggregate pier is installed in an incorrect location or exceeds the specified tolerances, the aggregate pier contractor shall replace the pier. Pier replacement may be avoided if alternate remedial procedures are approved by the Designer. Unless the rejection is caused by obstruction, refusal in rock or dense soil or errors in the project drawings, the cost of all labor and material required for the replacement shall not be the responsibility of the Owner.

3.05 Excavation of Pier Tops, and Utilities

- A. Excavations conducted after aggregate pier installation shall be performed such that the horizontal distance between the edge of any aggregate pier and the nearest edge of the excavation is such that the pier is not affected. If installed aggregate piers are located within the zone of influence of excavation, the General Contractor

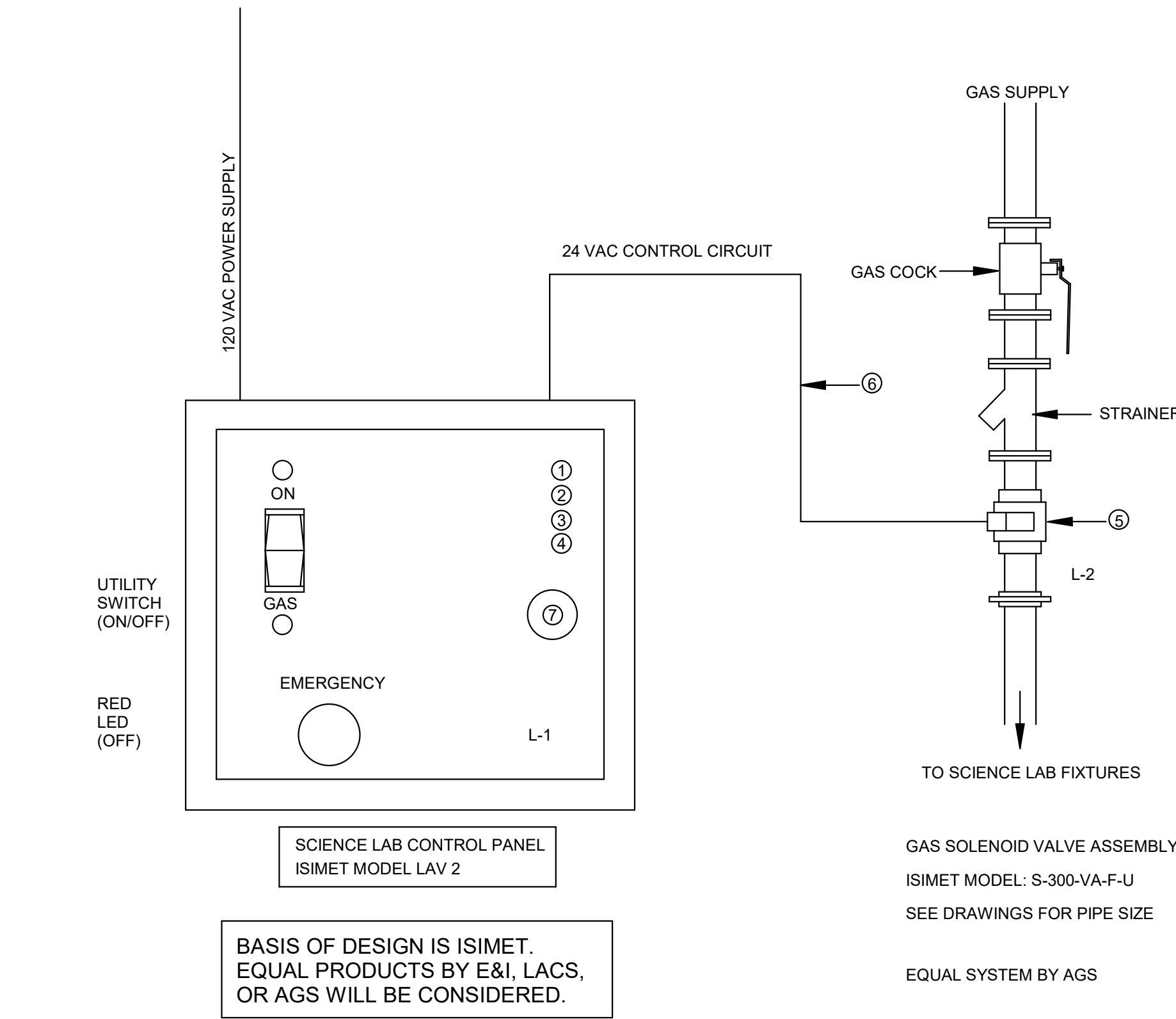
and Engineer shall collaborate to develop solutions to excavation or construction methods that will avoid detrimental impact to the installed aggregate piers.

3.06 Footing Excavations

- A. Prior to placement of structural concrete, aggregate pier tops shall be excavated in a manner that will prevent the soil matrix surrounding the aggregate piers from softening, and ensure that a direct connection between the aggregate pier and concrete footing will be achieved.
- B. The following excavation procedures shall be followed:
 - 1. Over-excavation below the bottom of the footing shall be backfilled with the material and procedures described in 3.07A.
 - 2. The footing bearing surface shall be free of all water and compacted prior to placement of any reinforcement. Compaction can be by any heavy tamping type compaction equipment designed for compaction in small spaces. The entire surface area of the footing bottom shall be compacted to ensure that any loose surface soil and/or loose surface aggregate is densified.
 - 3. Footing concrete shall be placed immediately following approval of the completed footing excavation work. It is ideal that approval of the excavation work be stated on the same day that the excavation takes place. If the bearing soils are expansive or sensitive, it is imperative that the footing concrete be placed on the same day that the excavation takes place.
 - 4. If footing concrete cannot be placed on the same day that excavation takes place, a minimum 3-inch thick mud mat shall be placed immediately following approval of the footing excavation.

END OF SECTION 316613

PLUMBING LEGEND			
-----	DOMESTIC COLD WATER	WH	WALL HYDRANT
-----	DOMESTIC HOT WATER SUPPLY	DN	DOWN
-----	DOMESTIC HOT WATER RETURN	WH - #	WATER HEATER
-----	SOIL, WASTE, OR SANITARY SEWER	GPH	GALLONS PER HOUR
-----	VENT	GPM	GALLONS PER MINUTE
-----G-----	NATURAL GAS	HW	HOT WATER
-----EX G-----	EXISTING NATURAL GAS	HWR	HOT WATER RETURN
-----	PIPE TURNING DOWN	TYP	TYPICAL
-----	PIPE TURNING UP	VS	VENT STACK
-----	TEE DOWN	VSTR	VENT THROUGH ROOF
-----	TEE UP	MFD	MECHANICAL FLOOR DRAIN
-----	UNION	EX	EXISTING
-----	BALL VALVE	#	RISER NUMBER
CO	CLEANOUT	BFF	BELOW FINISHED FLOOR
FD	FLOOR DRAIN		CONNECT TO EXISTING
P-#	PLUMBING FIXTURE		GAS VALVE
			PRESSURE REDUCING VALVE



EMERGENCY GAS SHUT-OFF SYSTEM DETAIL

GENERAL NOTES:

1. UL LISTED ASSEMBLY WITH NEMA RATED 16 GAUGE CONTROL PANEL.
2. PROVIDE WITH SECURE ON SWITCH.
3. PROVIDE WITH -R RESET CIRCUIT TO ISOLATE/PROTECT CIRCUIT BOARD.
4. PROVIDE WITH AUTOMATIC END OF DAY SHUTOFF FEATURE SET FOR 10 HOURS.
5. PROVIDE COMPLETE WITH GAS SOLENOID VALVE SUPPLIED BY ISIMET.
6. CONTROL CIRCUIT/ LOW VOLTAGE WIRING IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR.
7. PROVIDE WITH KEYED RESET OPTION.

EMERGENCY GAS SHUT-OFF SYSTEM SPECIFICATIONS:

SYSTEM:

ISIMET LA-1.0 EMERGENCY GAS SHUT-OFF ASSEMBLY COMPLETE WITH LA-1211-R CONTROL PANEL, S-300-VA-F-U GAS SOLENOID ASSEMBLY SIZED PER PIPE SIZE ON DRAWINGS. PROVIDE WITH END OF DAY SHUT-OFF FEATURE.

CONTROL PANEL:

PANEL SHALL BE BRUSHED STAINLESS STEEL WITH CONCEALED WALL BOX PROVIDED WITH PANEL SERVICE SWITCH, LOW VOLTAGE TRANSFORMER AND FUSE BLOCK. WALL BOX SHALL BE NEMA 1 RATED. COORDINATE WITH THE ELECTRICAL SECTION.

PANEL SHALL HAVE INTEGRAL PRINTED CIRCUIT BOARD WITH LOGIC DEVICE TO PROVIDE 120-VAC OUTPUT CIRCUITS TO ACTIVATE UTILITIES AS SHOWN ON DRAWINGS. NUMBER OF OUTPUT CIRCUITS AS NOTED ON DRAWINGS. ACTIVATION OF OUTPUT CIRCUITS SHALL BE ENABLED ONLY BY SWITCH ON AND THEN KEYING. COORDINATE WITH THE ELECTRICAL SECTION.

THE PANEL SHALL BE EQUIPPED WITH A SERVICE SWITCH FOR EACH OUTPUT CIRCUIT AND A MOMENTARY ENABLING KEY SWITCH. DEACTIVATION OF OUTPUT CIRCUITS SHALL NOT REQUIRE ENGAGEMENT OF ENABLING KEY. PANEL SHALL BE PROVIDED WITH N/O MOMENTARY PANIC BUTTON ASSEMBLY TO DEACTIVATE OUTPUT CIRCUITS IN CASE OF EMERGENCY. RESET AFTER PANIC SHALL OCCUR BY RE-KEYING. COORDINATE WITH THE ELECTRICAL SECTION.

PROVIDE PANEL WITH ADDITIONAL TERMINALS FOR INTEGRATION OF OPTO-ISOLATED INPUT TERMINAL FOR INTEGRATION WITH FACILITY'S ALARM SYSTEM. A FIRE ALARM SIGNAL SHALL DEACTIVATE ALL UTILITIES CONTROLLED BY THE LA SERIES CONTROL PANEL. COORDINATE WITH THE ELECTRICAL SECTION.

PROVIDE WITH TWO (2) IP-0 REMOTE PANIC ASSEMBLIES. PROVIDE IN FLUSH MOUNTED BOX.

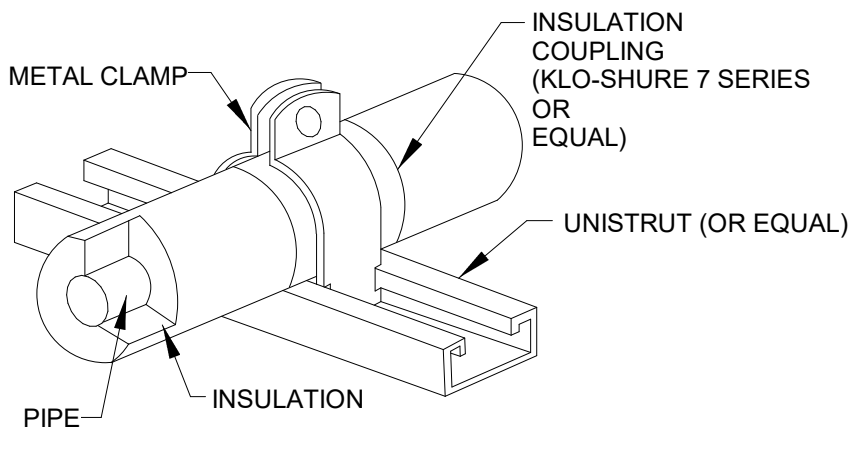
PROVIDE PANEL WITH DRY CONTACT TERMINALS FOR OUTPUT INTEGRATION. ISIMET "PANIC" SHALL PROVIDE A NOTIFICATION SIGNAL TO A SECONDARY ALARM MONITORING SYSTEM. RESET OF CONTROLLER SHALL WITHDRAW NOTIFICATION SIGNAL. COORDINATE WITH THE ELECTRICAL SECTION.

SOLENOIDS

FURNISH AND INSTALL ISIMET SERIES 100 NORMALLY CLOSED GENERAL SERVICE, ZERO DIFFERENTIAL SOLENOIDS AT EACH DOMESTIC WATER UTILITY SERVICE. FURNISH SERIES 300 FOR ALL NATURAL GAS SYSTEMS. SOLENOID COIL SHALL BE 120-VAC. PROVIDE A BALL VALVE UP-STREAM FROM SOLENOID AND WYE STRAINER ON ALL FLUID DELIVERY SYSTEMS. THOROUGHLY FLUSH PIPING SYSTEM PRIOR TO PLACING INTO SERVICE. FINAL CONNECTION TO COIL FROM CONTROL PANEL BY ELECTRICAL CONTRACTOR. SOLENOIDS SHALL CLOSE UPON LOSS OF OPERATING POWER AND REQUIRE RE-KEYING FOR REACTIVATION OF SERVICE. PROVIDE SOLENOIDS IN ISIMET S-SERIES ENCLOSURE, MODEL # S-300-VA-F-U. SOLENOID SIZED AS SHOWN ON DRAWINGS. COORDINATE WITH THE ELECTRICAL SECTION.

WIRING:

DO NOT INSTALL WIRING OR CABLE FOR INTEGRATED SYSTEMS, REMOTE PANIC ASSEMBLIES OR OTHER INTERFACE WIRING WITHIN CONDUIT FOR EITHER 24-VAC CONTROL OR 120-VAC LINE VOLTAGE. EACH WIRING SYSTEM SHOULD BE HOUSED IN INDEPENDENT CONDUIT AND NOT BUNDLED WITH WIRING FOR OTHER SYSTEMS. COORDINATE WITH THE ELECTRICAL SECTION.

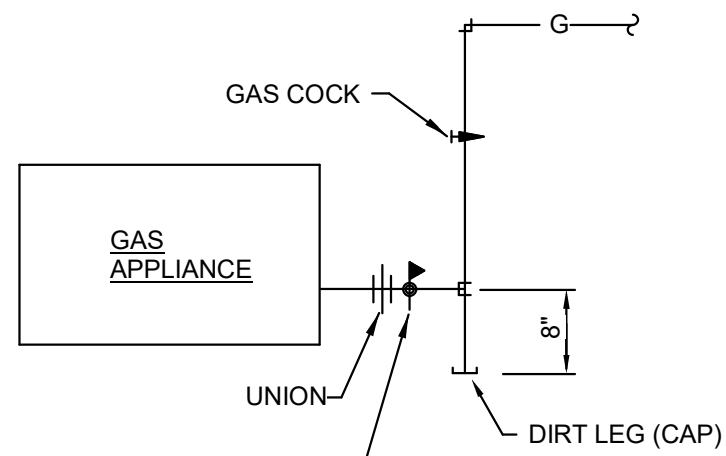


NOTES:

1. APPLICATION: FOR STRUT MOUNTED, 4 INCH AND SMALLER, COVER PIPE WITH FOAMED PLASTIC (ARMAFLEX) OR FIBERGLASS INSULATION.
2. ALLOWED FOR HORIZONTAL OR VERTICAL INSTALLATION.
3. FOR COLD PIPE APPLICATION, APPLY ADHESIVE TO END OF FOAMED PLASTIC INSULATION PRIOR TO INSERTING INTO COUPLING.

STRUT-MOUNTED PIPING SUPPORT INSULATION COUPLING DETAIL

NO SCALE

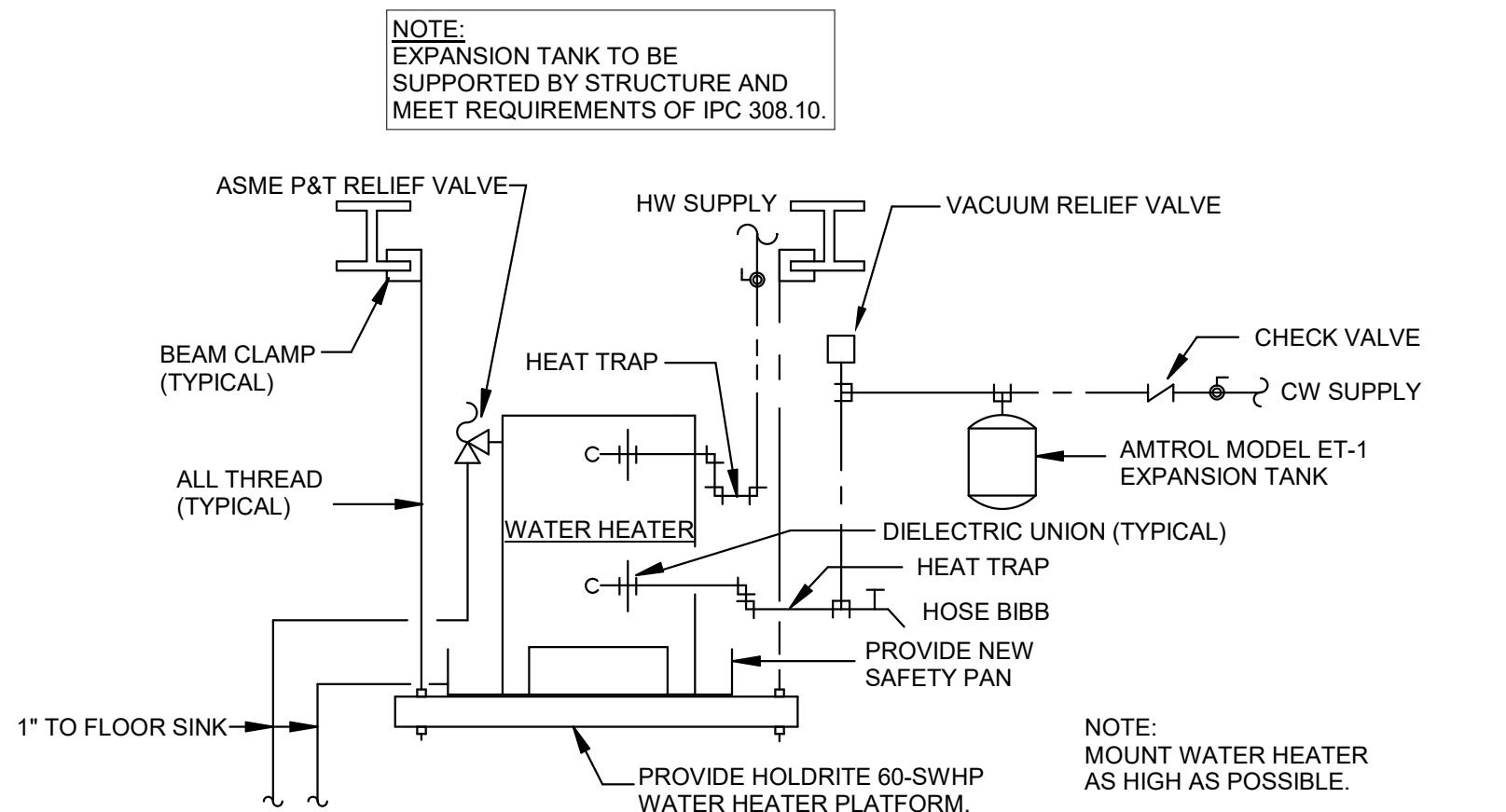


TYP. GAS CONNECTION

NO SCALE

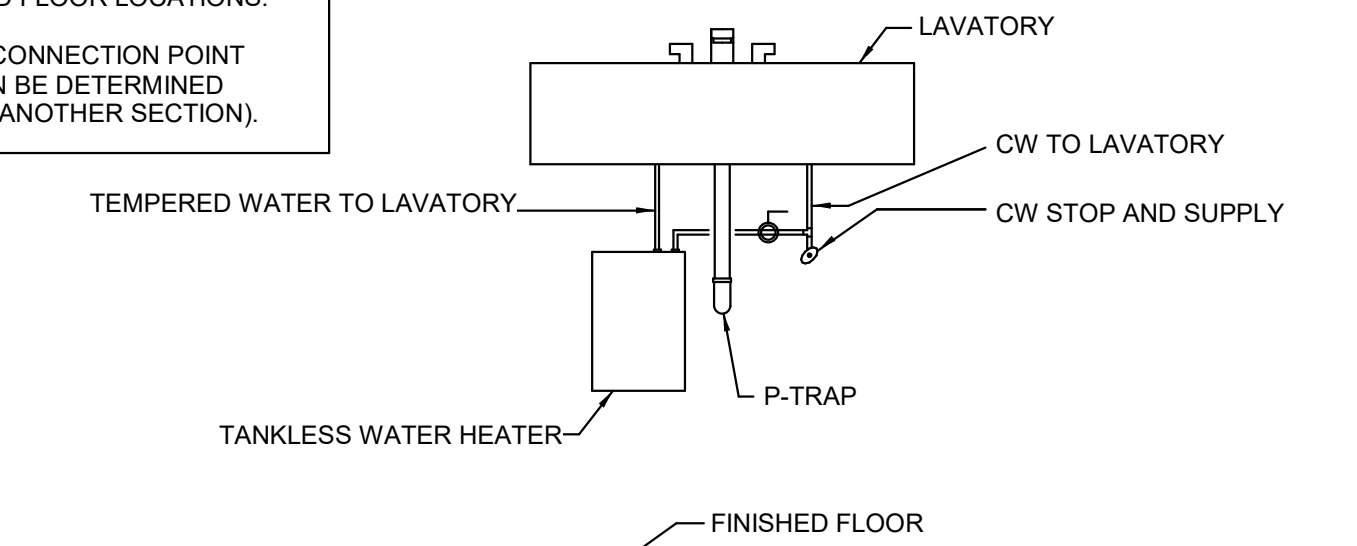
GENERAL NOTES

1. LOCATIONS OF UTILITIES SHOWN ON PLANS ARE APPROXIMATE. VERIFY WITH LOCAL UTILITY PRIOR TO BIDDING.
2. CONTRACTOR SHALL VERIFY EXACT LOCATION, SIZE, AND ELEVATION OF ALL EXISTING SERVICES PRIOR TO INSTALLING ANY NEW PIPE.
3. ALL OUTSIDE CLEANOUTS SHALL BE BROUGHT UP TO GRADE AND EMBEDDED IN 18"X18"X 6" THICK CONCRETE PAD, (J.R. SMITH 4258 OR EQUAL.)
4. WHEREVER DISSIMILAR METALS ARE CONNECTED ON WATER LINES, A DIELECTRIC UNION SHALL BE USED.
5. ALL HORIZONTAL WATER AND VENT PIPING SHALL BE RUN ABOVE CEILING ON PLAN WHERE SHOWN UNLESS OTHERWISE NOTED.
6. ALL HORIZONTAL SANITARY PIPING IS RUN BELOW FLOOR ON PLAN WHERE SHOWN UNLESS OTHERWISE NOTED.
7. ALL WATER PIPING BELOW SLAB ON GRADE SHALL BE BENT UP AT ENDS SO THAT NO JOINTS OCCUR BELOW FLOOR.
8. ALL WATER PIPING INSTALLED IN EXTERIOR WALLS SHALL BE LOCATED ON THE INTERIOR SIDE OF THE EXTERIOR WALL INSULATION.
9. DOMESTIC WATER PIPING LOCATED ABOVE THE CEILING, SHALL BE INSTALLED BELOW CEILING INSULATION.
10. CONTRACTOR SHALL COORDINATE MECHANICAL FLOOR DRAIN LOCATIONS WITH MECHANICAL EQUIPMENT PRIOR TO INSTALLATION.
11. CONTRACTOR SHALL PROVIDE SHOCK ARRESTORS ON ALL BRANCH LINES.
12. CONTRACTOR SHALL COORDINATE ALL SINKS WITH CASEWORK PRIOR TO ORDERING SINKS.
13. PROVIDE DISINFECTION OF WATER PIPING SYSTEM WITH CHLORINE SOLUTION AS PER CODE.
14. INSTALLATION OF BACKFLOW PREVENTER SHALL COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE AND CURRENT INTERNATIONAL PLUMBING CODE.
15. ALL OVERHEAD WATER PIPING TO BE RUN BELOW INSULATION AT BOTTOM OF TRUSSES FOR FREEZE PROTECTION.
16. INSULATION ON ALL PIPING SHALL MEET SMOKE/ FLAME RATING OF 25 & 50.
17. WATER HAMMER ARRESTORS ARE REQUIRED TO PROTECT WATER PIPING SYSTEMS WHERE QUICK-CLOSING VALVES ARE UTILIZED. WATER HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010.
18. THESE DRAWINGS NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. IT IS INTENDED THAT A COMPLETE PLUMBING SYSTEM BE PROVIDED WITH ALL NECESSARY EQUIPMENT, APPURTENANCES AND CONTROLS, COMPLETELY COORDINATED WITH ALL DISCIPLINES. ALL PARAMETERS GIVEN IN THESE DOCUMENTS SHALL BE STRICTLY CONFORMED WITH ANY ITEMS AND LABOR REQUIRED FOR A COMPLETE PLUMBING SYSTEM IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND THESE CONTRACT DOCUMENTS SHALL BE FURNISHED WITHOUT INCURRING ANY ADDITIONAL COST TO THE PROJECT. CAREFULLY REVIEW ALL CONTRACT DOCUMENTS AND THE DESIGN OF OTHER TRADES BEFORE PREPARING SHOP DRAWINGS.
19. COORDINATE PLUMBING PIPING WITH STRUCTURAL, PLUMBING, HVAC, AND ELECTRICAL. MAKE OFFSETS AND TRANSITIONS TO COORDINATE WITH OTHER TRADES WITHOUT ANY ADDITIONAL COST TO THE PROJECT.
20. COORDINATE ALL PLUMBING IN SLAB WITH BUILDING FOOTINGS.
21. NO PIPING TO BE RUN ABOVE ELECTRICAL PANELS. MAINTAIN ALL REQUIRED CLEARANCES.
22. CONTRACTOR SHALL VISIT JOB SITE AND VERIFY EXISTING CONDITIONS BEFORE SUBMITTING A PRICE. ORDERING MATERIALS OR PERFORMING ANY WORK, NOTIFY THE ARCHITECT OF ANY DEVIATION FROM PLUMBING PLAN.
23. SUPPORT PIPE AS REQUIRED BY THE CURRENT INTERNATIONAL PLUMBING CODE.
24. FIRESTOP ALL RATED WALL AND FLOOR PENETRATIONS. SEE ARCHITECTURAL DRAWINGS FOR RATED WALL AND FLOOR LOCATIONS.
25. DO NOT BEGIN WORK UNTIL ELEVATION OF FINAL CONNECTION POINT IS VERIFIED AND GRADING OF ENTIRE SYSTEM CAN BE DETERMINED (EVEN IF FINAL CONNECTION IS SPECIFIED UNDER ANOTHER SECTION).



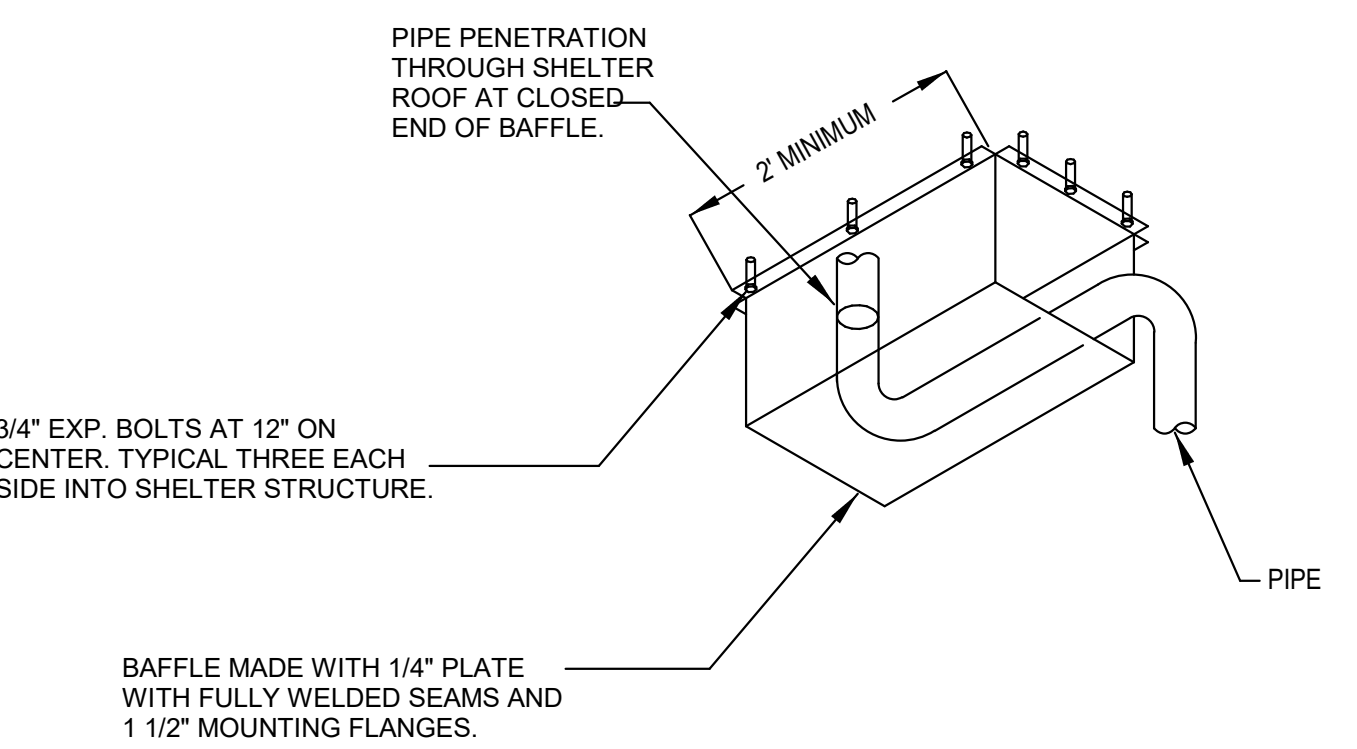
DETAIL OF PIPING AT WATER HEATER

NO SCALE



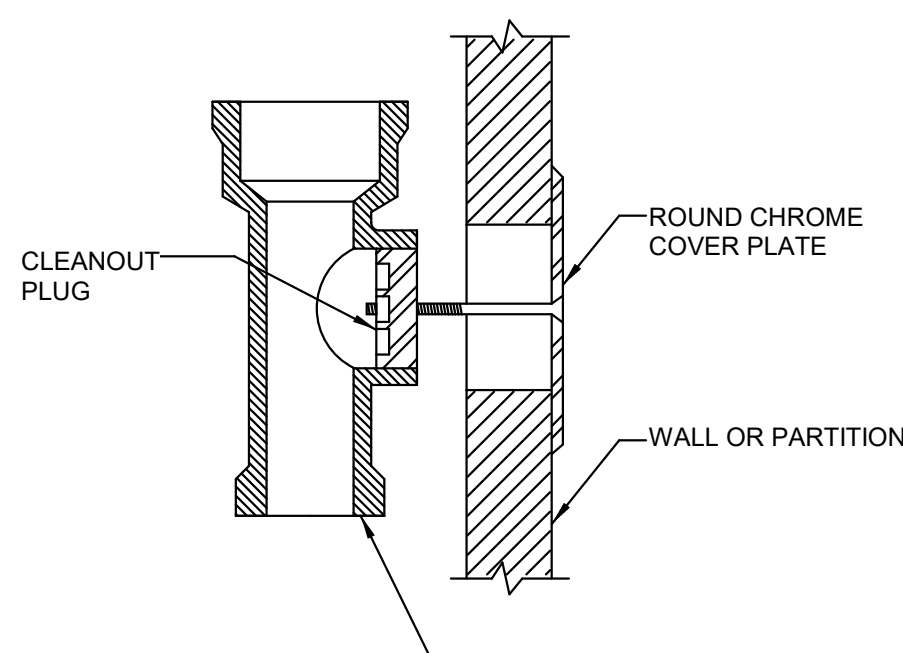
DETAIL OF TANKLESS WATER HEATER AT LAVATORY

NO SCALE



DETAIL OF PIPE PASSING THRU SHELTER ROOF

NO SCALE



WALL CLEANOUT

NO SCALE

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	WASTE	CW	HW	REMARKS
FD	FLOOR DRAIN	3"	-	-	J.R. SMITH #2010 WITH 6" ROUND NICKEL BRONZE GRATE. PROVIDE WITH J.R. SMITH TRAP INSERT.
P-1	WATER CLOSET - ADA COMPLIANT	4"	1"	-	FLOOR MOUNTED - KOHLER K-9607-SS-0 COMPLETE SLOAN #111 FLUSH VALVE WITH YJ BRACKET AND CHURCH "DURA GUARD" MODEL # 2155 SSC SEAT.
P-2	WATER CLOSET	4"	1"	-	FLOOR MOUNTED - KOHLER K-9607-SS-0 COMPLETE SLOAN #111 FLUSH VALVE WITH YJ BRACKET AND CHURCH "DURA GUARD" MODEL #2155 SSC SEAT.
P-3	URINAL - ADA COMPLIANT	2"	1"	-	WALL MOUNTED-KOHLER K-5016-ET COMPLETE, J.R. SMITH #623 FIXTURE SUPPORT, AND SLOAN #188 FLUSH VALVE WITH YJ BRACKET. SET LIP 1/7" AFF.
P-4	URINAL	2"	1"	-	WALL MOUNTED-KOHLER K-5016-ET COMPLETE, J.R. SMITH #623 FIXTURE SUPPORT, AND SLOAN #188 FLUSH VALVE WITH YJ BRACKET.
P-5	LAVATORY	1 1/4"	1/2"	1/2"	UNDERMOUNT - KOHLER K-2210 COMPLETE, SYMMONS S-20-0 FAUCET, MCGUIRE #8872 P-TRAP, MCGUIRE 165 SUPPLIES WITH STOPS. INSULATE ALL WITH "PRO-WRAP" BY MCGUIRE. PROVIDE LAWLER 570 MIXING VALVE MOUNTED BELOW LAVATORY UNLESS OTHERWISE NOTED ON THE DRAWINGS.
P-6	LAVATORY - ADA COMPLIANT	1 1/4"	1/2"	1/2"	WALL HUNG - KOHLER K-2202 (20" X 18") COMPLETE, SYMMONS S-20-0 FAUCET, K7715 OUTLET WITH TALLPIPE, J.R. SMITH #700-M31-2 FIXTURE SUPPORT, MCGUIRE #165 SUPPLIES WITH STOPS AND MCGUIRE #8872 P-TRAP. INSULATE P-TRAP, STOPS AND SUPPLIES WITH "PRO-WRAP" BY MCGUIRE. MOUNT WITH RM MAXIMUM 3/4" AFF. PROVIDE LAWLER 570 THERMOSTATIC MIXING VALVE MOUNTED BELOW LAVATORY. RUN 100' F WATER TO FAUCET. MUST MEET A.D.A. GUIDELINES.
P-7	MOP SINK	3"	1/2"	1/2"	STERN WILLIAMS #58C-1700 (24" X 24") COMPLETE, T-35 HOSE WITH WALL HOOK, STAINLESS STEEL BACKSPLASH AND CHICAGO FAUCET #887 FAUCET.
P-8	WATER COOLER - ADA COMPLIANT	1 1/2"	1/2"	-	ELKAY # EZSTL8WSSK BI-LEVEL WATER COOLER WITH BOTTLE FILLER STATION. COMPLETE WITH STAINLESS STEEL CABINET AND WATERWAYS THAT ARE MANUFACTURED OF 100% LEAD FREE MATERIAL. J.R. SMITH #834 FIXTURE SUPPORT EBC 1A150 P-TRAP AND EBC 1A10 STOP WITH SUPPLY. FULLY INSULATE P-TRAP WITH EBC IC INSULATOR. INSTALL WITH LOWER SPOUT OUTLET MAXIMUM 36" AFF. MUST MEET A.D.A. INSTALL WITH BOTTLE FILLER. INSTALL COMPLETE. PROVIDE WITH ELKAY MODEL #LKA9RZL CANE APRON AS REQUIRED.
P-9	DRAIN BOX	1 1/2"	-	-	PROVIDE A SIOUX CHIEF MODEL #696-3F DRAIN BOX, #696-LC LOUVERED COVER, #696-CF SECONDARY DRAINAGE FUNNEL, AND J.R. SMITH TRAP SEAL INSERT. BOX TO COME COMPLETE WITH WALL FLANGE AND LOUVER. COORDINATE WITH MECHANICAL. TO RECEIVE CONDENSATE WASTE. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT.
WH	WALL HYDRANT	-	3/4"	-	J.R. SMITH #5509-QT, WITH INTEGRAL BACKFLOW PREVENTER, LATCHING COVER. FREEZE-PROOF AND OF PROPER LENGTH FOR WALL IN WHICH INSTALLED. ALL BRONZE BOX. VALVE SEAT MUST BE ON BUILDING SIDE OF EXTERIOR WALL INSULATION. INSTALL WITH CENTER LINE 24" ABOVE FINISH GRADE. PROVIDE OWNER WITH ONE (1) LOOSE KEY FOR EACH WALL HYDRANT.

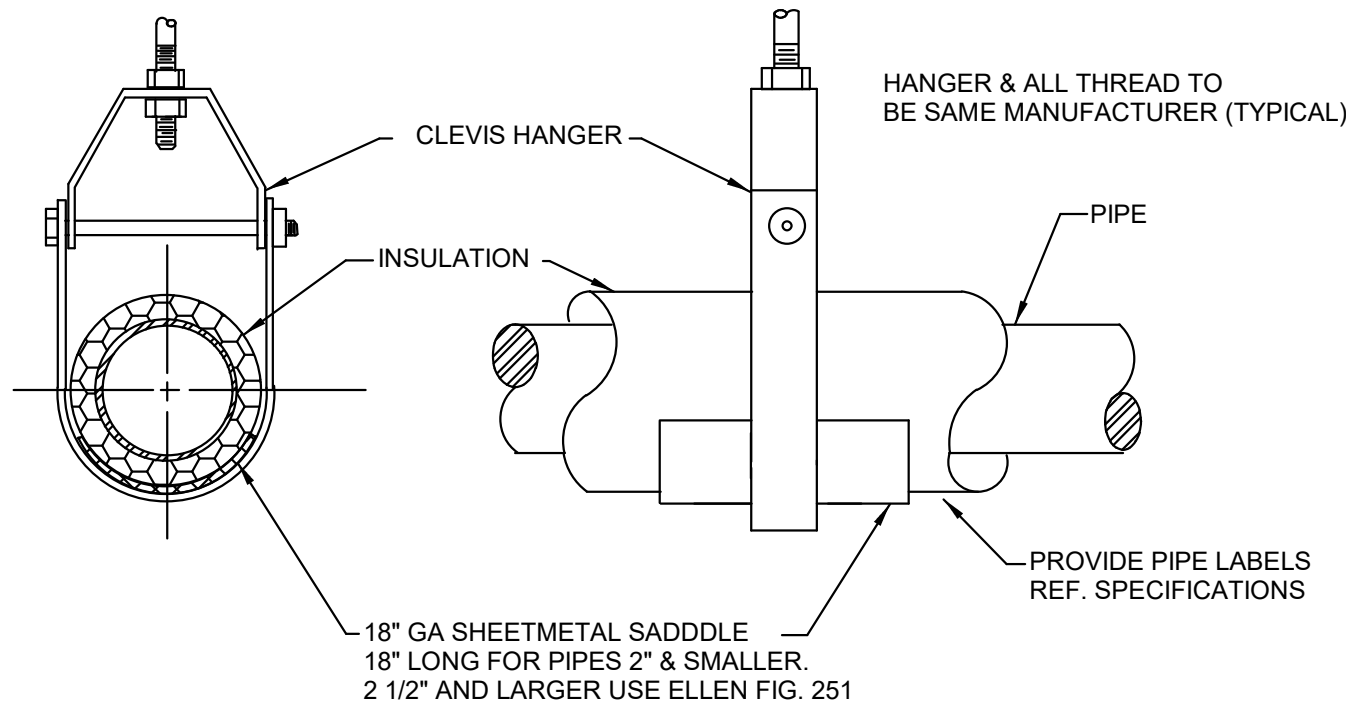
NOTE: TEMPERING VALVES ON LAVATORIES OF ALL PUBLIC LAVATORIES CONFORM TO ASSE 1070/CSA B125.3.2021 IPC 419.5 TEMPERED WATER FOR PUBLIC HAND-WASHING FACILITIES. TEMPERED WATER SHALL BE DELIVERED THROUGH AN APPROVED WATER-TEMPERATURE LIMITING DEVICE THAT CONFORMS TO ASSE 1070/CSA B125.3.

LAB FIXTURE SCHEDULE

MARK	FIXTURE	REMARKS
L-1	EMERGENCY GAS SHUT-OFF CONTROL PANEL	PROVIDE COMPLETE EMERGENCY GAS SHUT-OFF SYSTEM WITH CONTROL PANEL & SOLENOID VALVE. FLUSH MOUNTED ON WALL. SEE PLANS FOR LOCATION. COORDINATE MOUNTING HEIGHT AND LOCATION WITH GENERAL CONTRACTOR. SEE DETAIL.
L-2	EMERGENCY GAS SHUT-OFF SOLENOID VALVE	MOUNT ABOVE CEILING. CONNECT TO EMERGENCY GAS SHUT-OFF CONTROL PANEL.

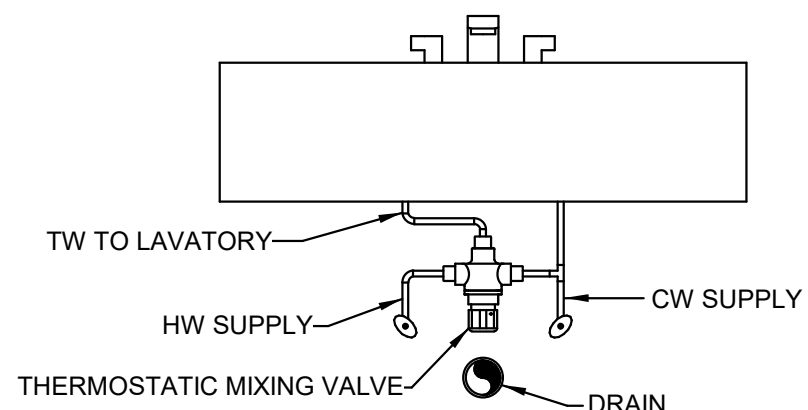
WATER HEATER SCHEDULE

MARK	FIXTURE	ELEC. INFO.	REMARKS
ET-1	EXPANSION TANK		AMTROL THERM - X-TROL #ST-5 EXPANSION TANK, PRE-CHARGED, WELDED STEEL CONSTRUCTION. ISOLATION BETWEEN WATER AND AIR SHALL BE BY A BUTYL DIAPHRAM.
TWH-1	TANKLESS WATER HEATER	208V, 1 PHASE, 3.6 KW	EEMAX MODEL AM005240T WITH INTEGRAL ASSE 1070 MIXING VALVE. PROVIDES 68°F TEMP. RISE AT 0.5 GPM. MOUNT BELOW LAVATORY WHERE SHOWN ON DRAWINGS. 208V, 1 PHASE, 3.6 KW. PIPE TO HW INLET OF FAUCET.
TWH-2	TANKLESS WATER HEATER	208V, 1 PHASE, 3.6 KW	EEMAX MODEL AM005240T WITH INTEGRAL ASSE 1070 MIXING VALVE. PROVIDES 68°F TEMP. RISE AT 0.5 GPM. MOUNT BELOW LAVATORY WHERE SHOWN ON DRAWINGS. 208V, 1 PHASE, 3.6 KW. PIPE TO HW INLET OF FAUCET.
WH-1	ELECTRIC WATER HEATER	208V, 1 PHASE, 4.5 KW	LOCHINVAR LDU-20 AK, 20 GALLON STORAGE, 19 GALLON RECOVERY AT 100°F RISE. NEW P&T RELIEF VALVE. SET OUTLET TEMPERATURE AT 125°F. INSTALL AS DETAILED ON DRAWINGS. 208V, 1 PHASE, 4.5 KW. VERIFY VOLTAGE WITH ELECTRICAL SECTION.



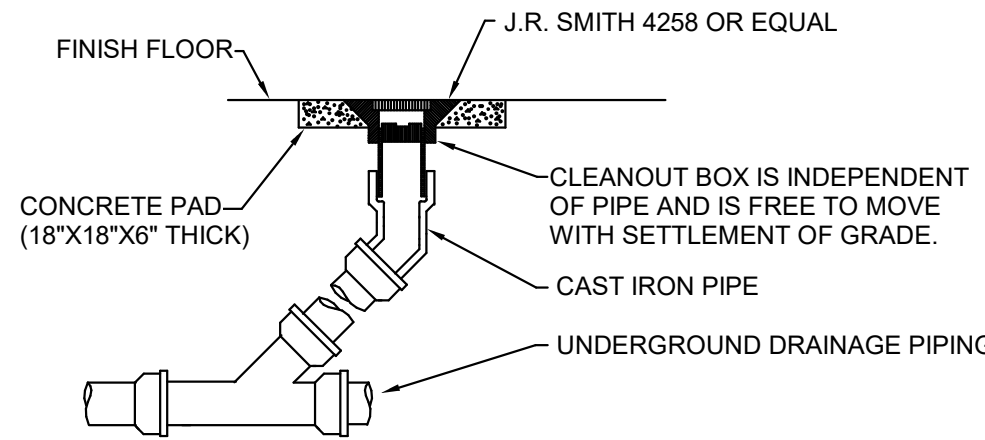
SUSPENDED PIPE SUPPORT

NO SCALE



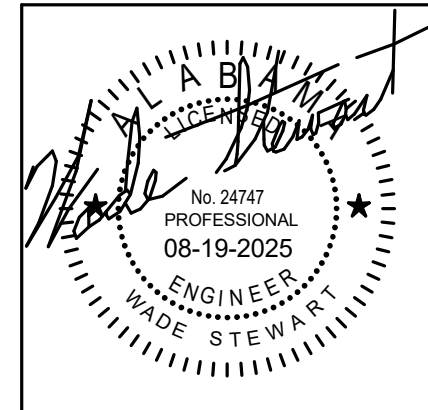
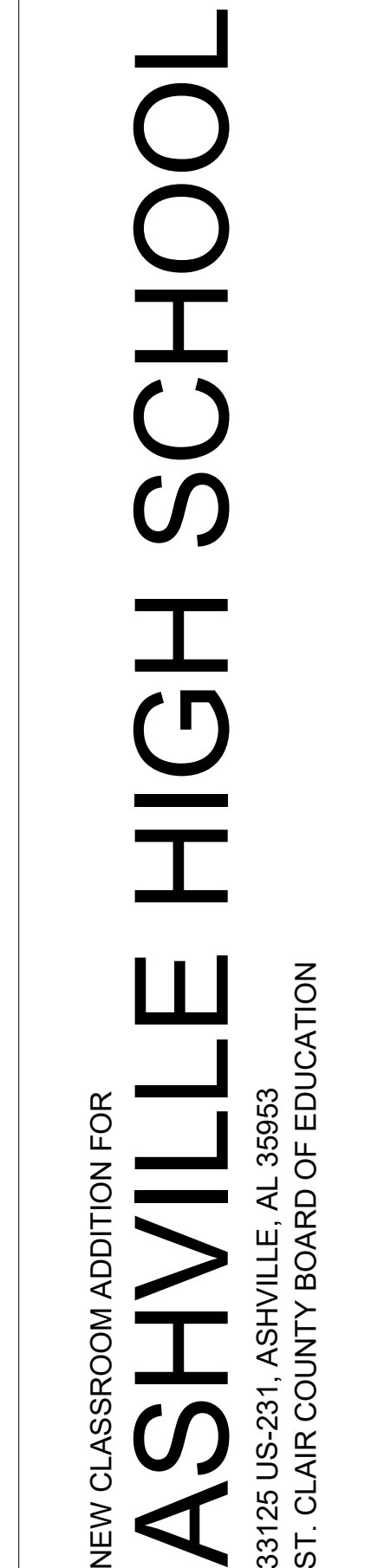
DETAIL OF TMV BELOW LAVATORY

NO SCALE



DETAIL OF CLEANOUT TO GRADE

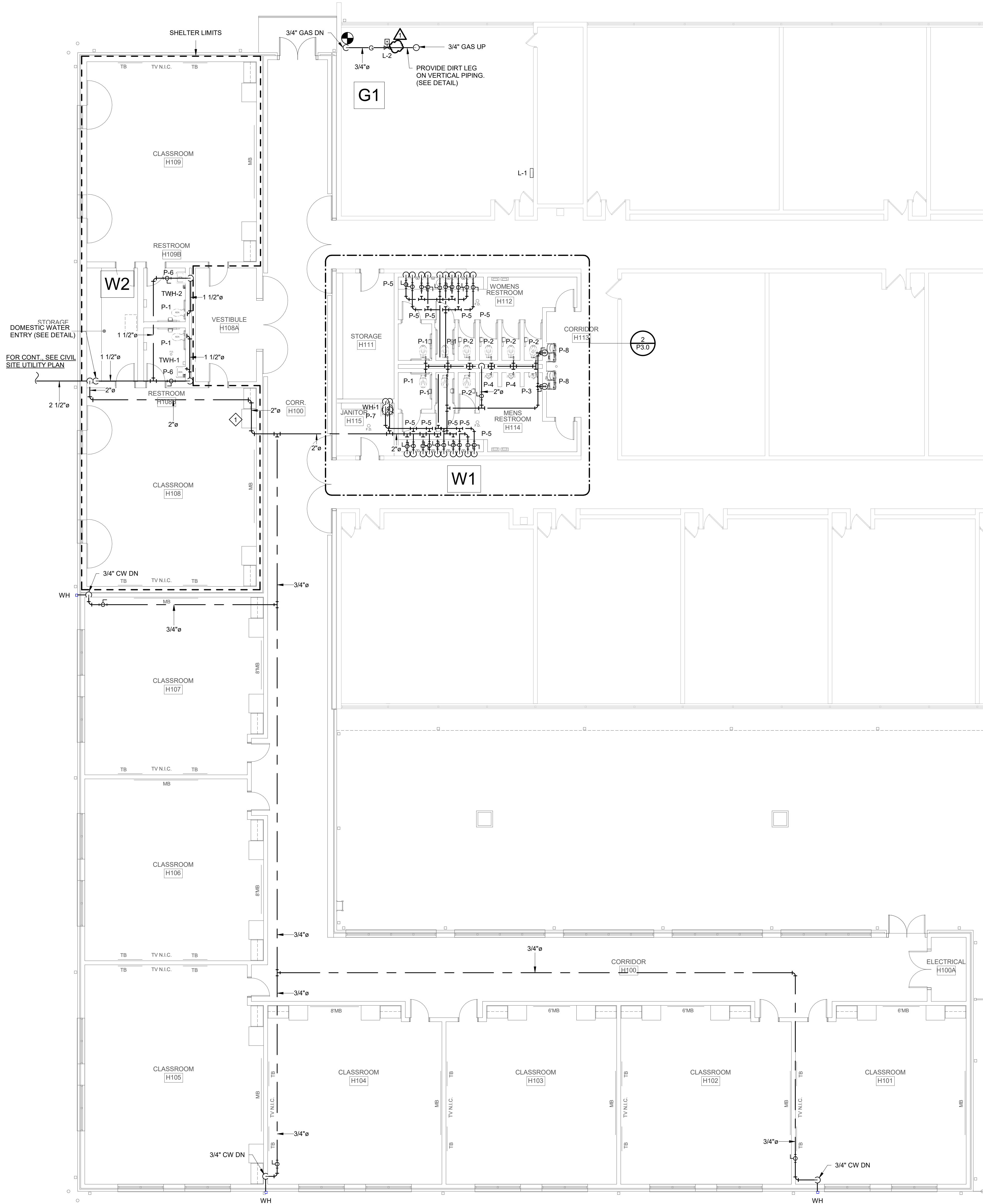
NO SCALE



PROJ. MGR.:	JWS
DRAWN:	SMC
DATE:	08.19.2025
REVISIONS	
1	8/19/2025 Addendum 2

JOBNO.	24-106
SHEET NO:	P0.1
0	1" = 2'

1 PRESSURE - RENOVATION FLOOR PLAN
1/8" = 1'-0"



SHELTER KEY NOTES

- 1 SHELTER PENETRATION (SEE DETAIL)

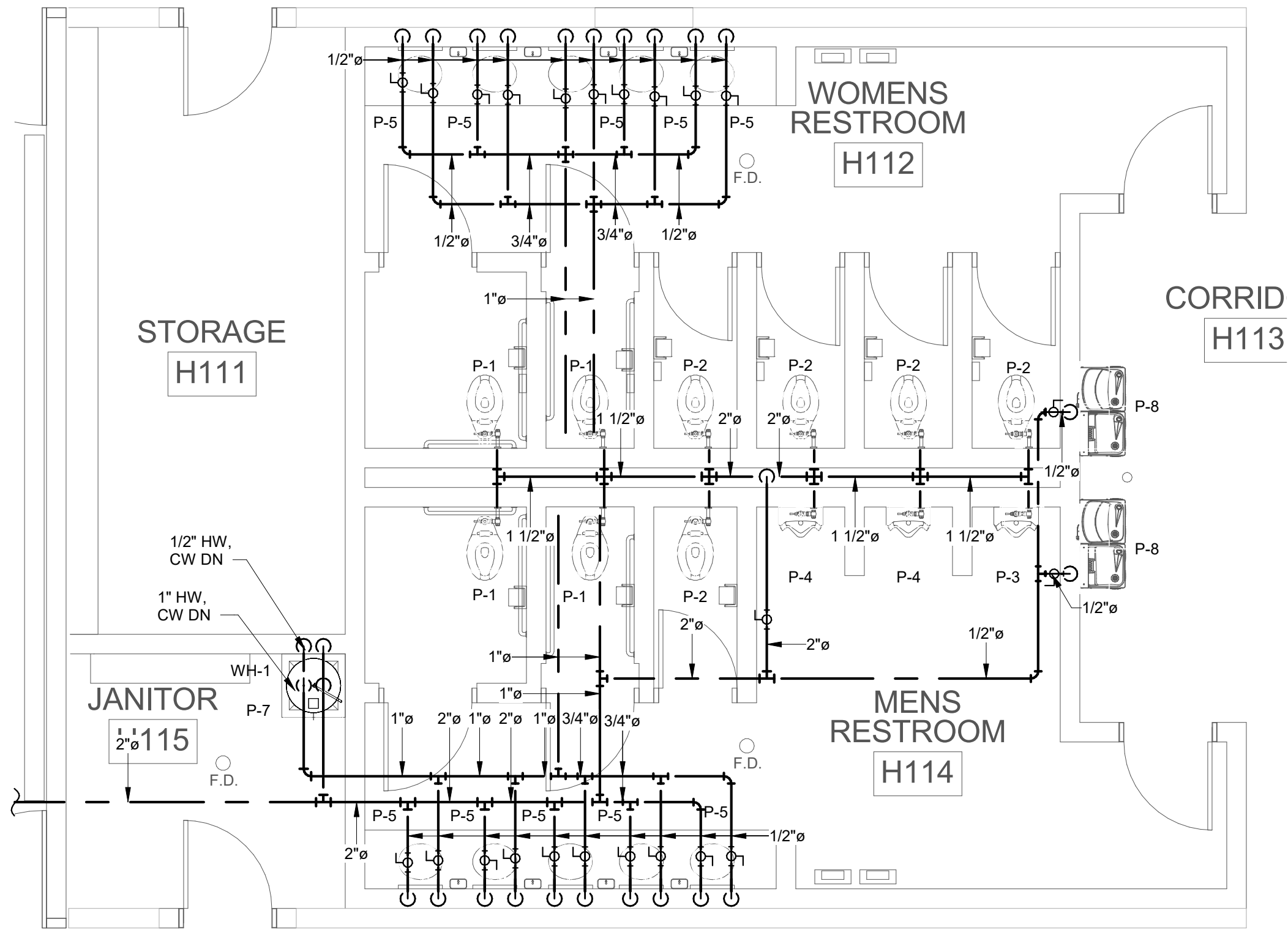
PIPE PENETRATION THROUGH SHELTER ROOF AT CLOSED END OF BAFFLE.

3/4" EXP. BOLTS AT 12" ON CENTER, TYPICAL THREE EACH SIDE INTO SHELTER STRUCTURE.

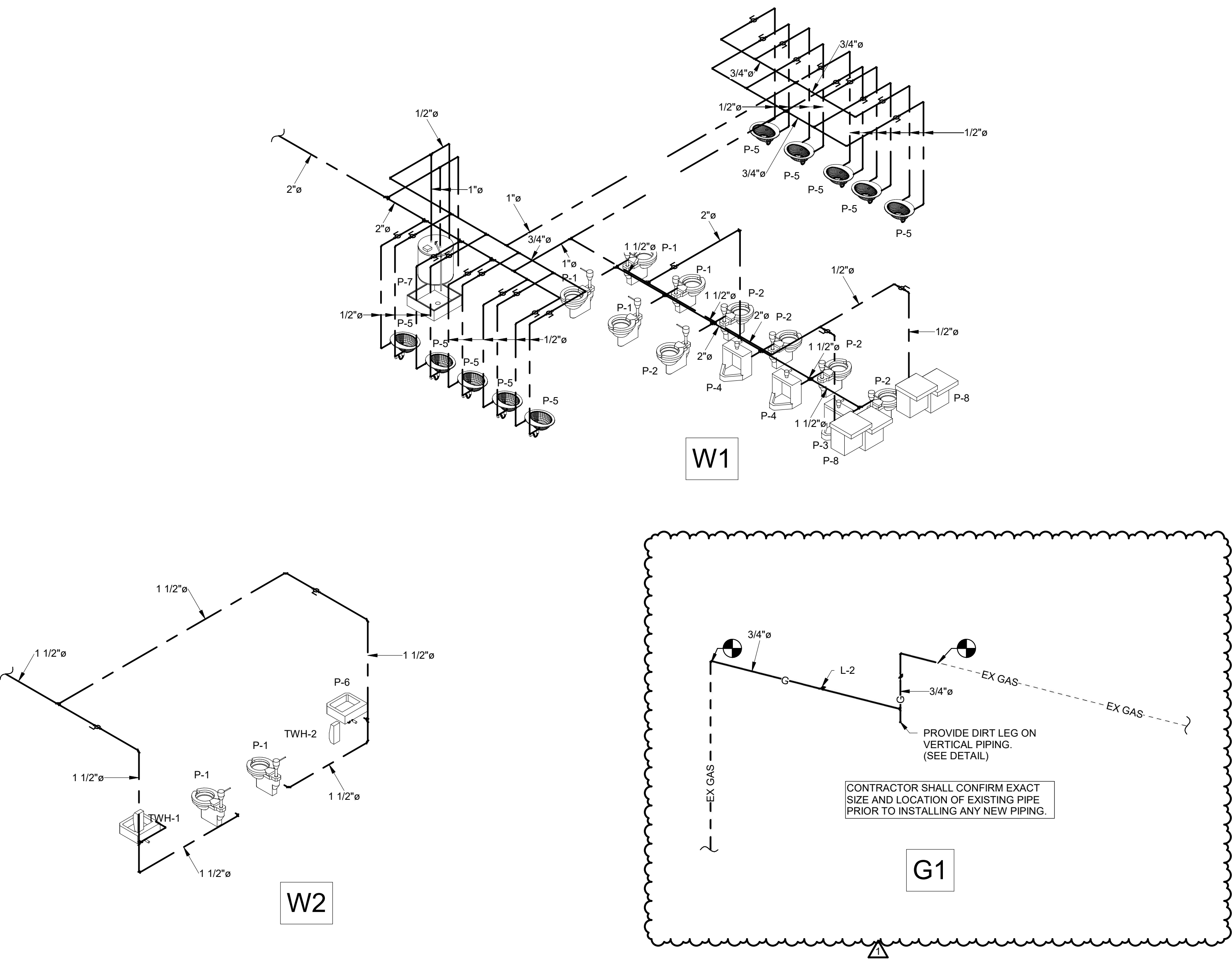
BAFFLE MADE WITH 1/4" PLATE WITH FULLY WELDED SEAMS AND 1 1/2" MOUNTING FLANGES.

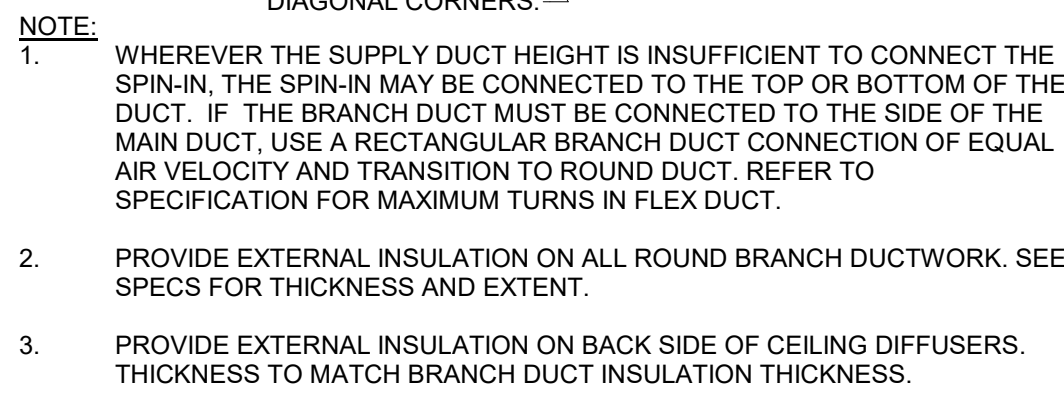
DETAIL OF PIPE PASSING THRU SHELTER ROOF

NO SCALE

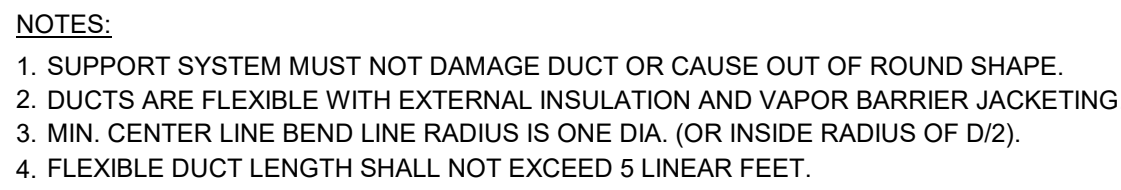


2 PRESSURE - RENOVATION FLOOR PLAN - Callout 1
1/4" = 1'-0"

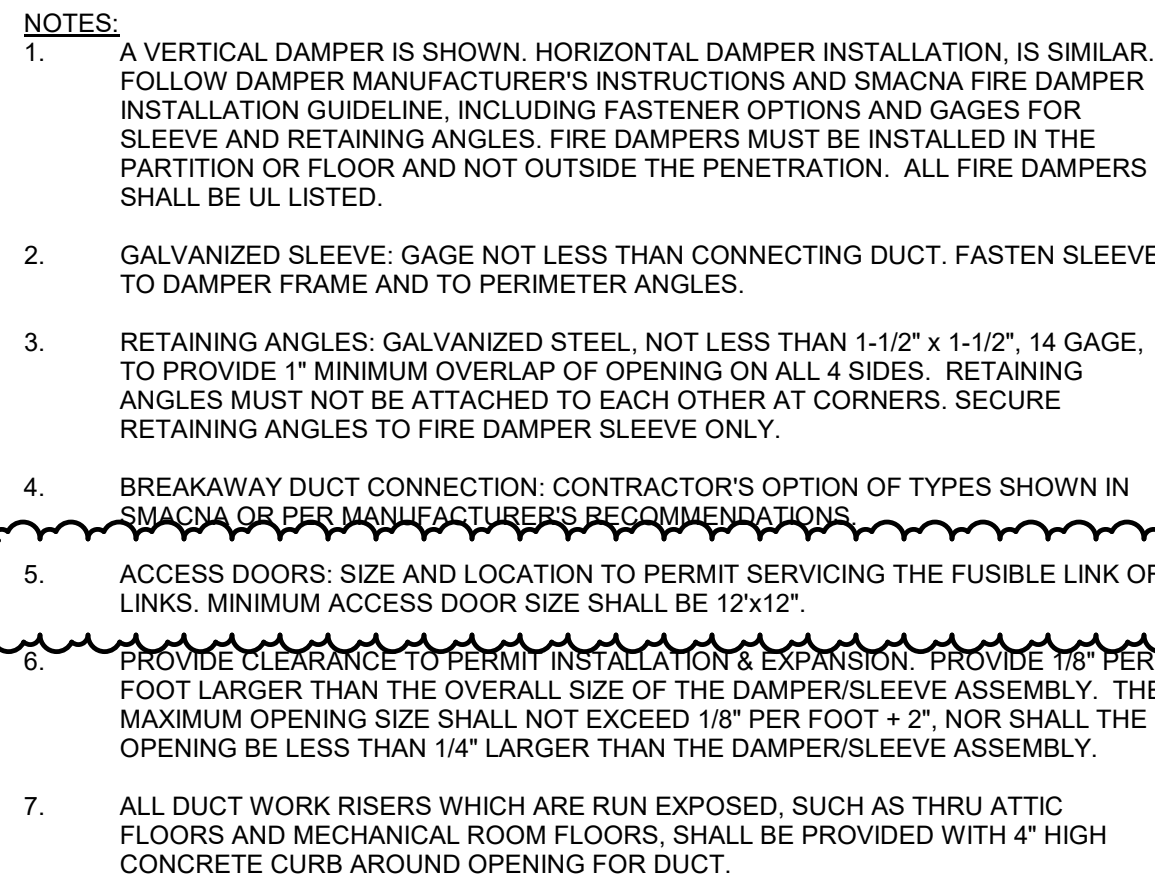




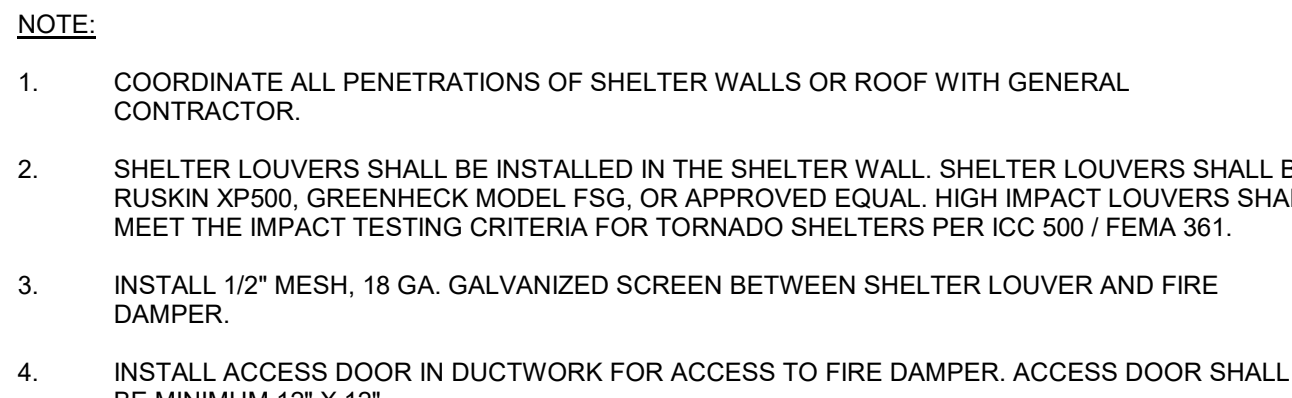
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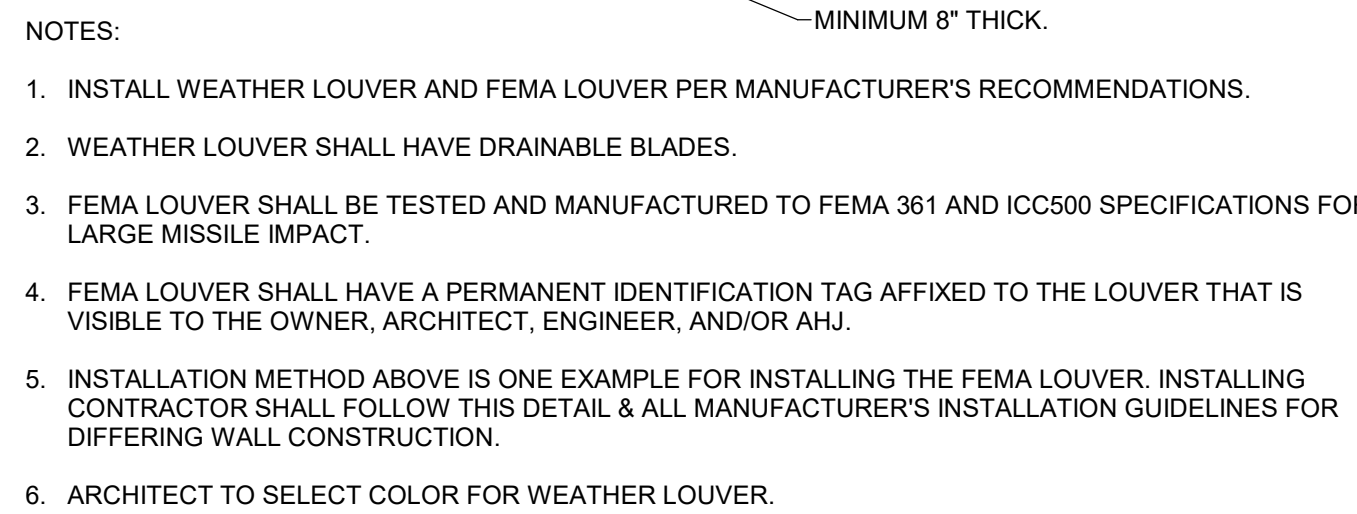
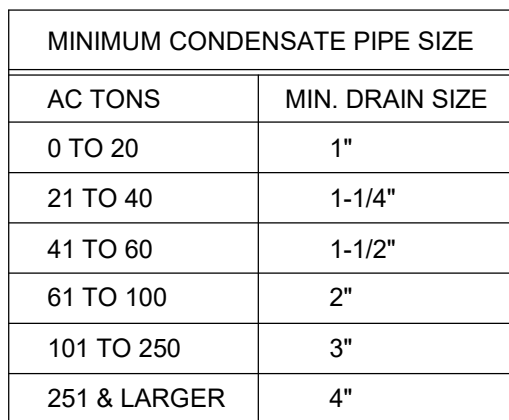
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NO SCALE



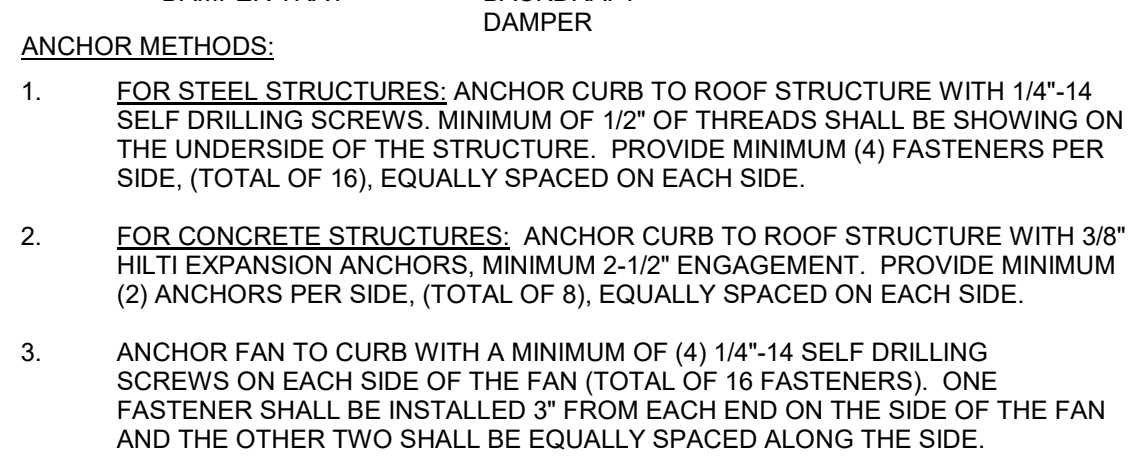
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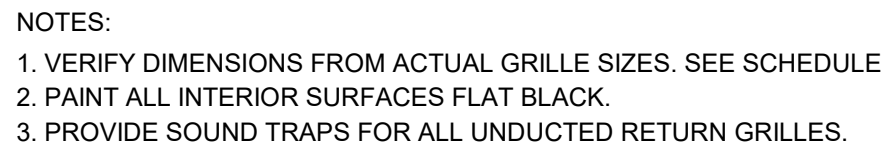
NO SCALE



NO SCALE



NO SCALE

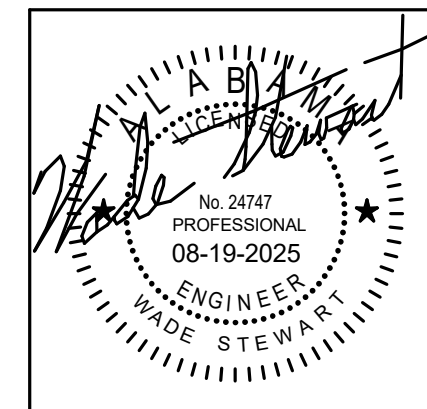
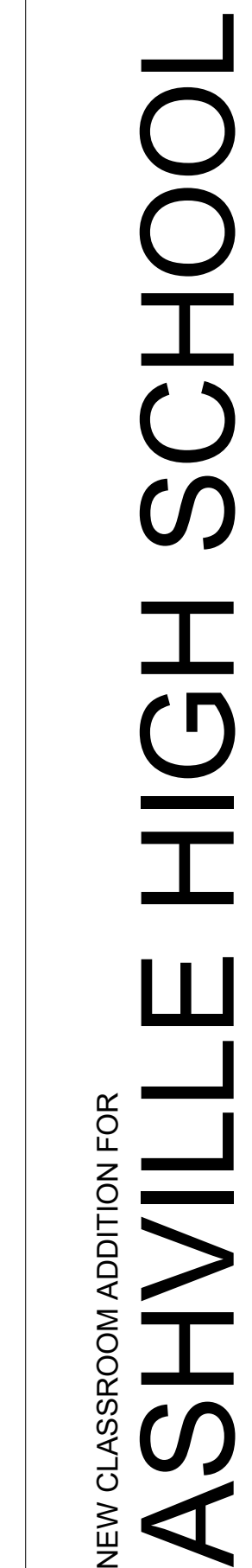
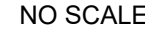


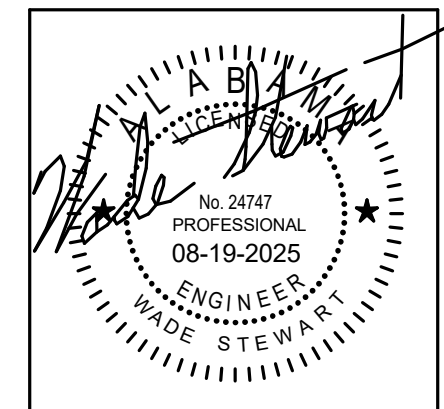
MARK	"A"	"B"	"C"	"D"
R8	8"	6"	12"	6"
R12	12"	10"	16"	10"
R18	19"	16"	18"	12"
R24	24"	22"	28"	12"

NO SCALE



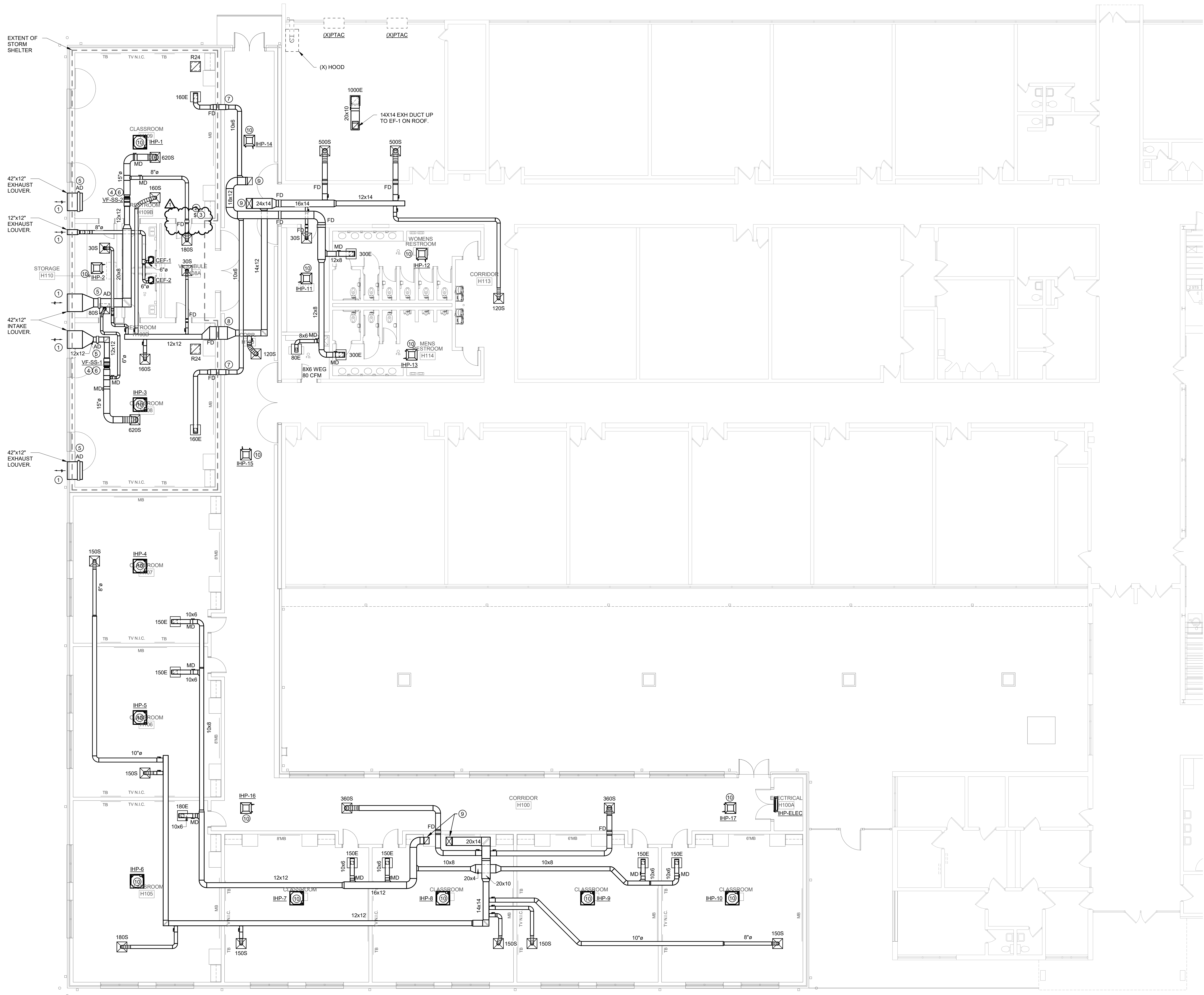
NO SCALE





PROJ. MGR.:	JWS
DRAWN:	LMR
DATE:	08.19.2025
REVISIONS	
1	8/19/2025 Addendum 2

JOBNO.	24-106
SHEET NO:	M2.1



1 HVAC - RENOVATION FLOOR PLAN
1/8" = 1'-0"
0' 4' 8' 16'
SCALE: 1/8" = 1' - 0"

STORM SHELTER CALCULATIONS

MECHANICAL VENTILATION SHALL BE PROVIDED FOR THE STORM SHELTER.

PER ICC-500-2020, CHAPTER 7, PART 702.4.2, "Tornado shelter that rely on mechanical ventilation shall be provided with the minimum mechanical rate of required outdoor air at a minimum rate of 5 cubic feet per minute per occupant for the design occupant capacity. The mechanical ventilation system shall be connected to a standby power system."

THE MECHANICAL VENTILATION SYSTEM CONSISTS OF USING A SUPPLY FAN AND AN EXHAUST FAN TO PROVIDE MINIMUM OUTSIDE AIR AT A RATE OF 5 CUBIC FEET PER OCCUPANT WITHIN THE SHELTER.

ALL FANS ARE ON EMERGENCY POWER AND SHALL BE CONTROLLED BY A WALL MOUNTED "ON/OFF" SWITCH.

SEE OUTSIDE AIR CALCULATIONS BELOW.

TOTAL REQUIRED OCCUPANT LOAD: 287 PEOPLE
TOTAL REQUIRED OUTSIDE AIR: 287 PEOPLE X 5 CFM = 1435 CFM
TOTAL PROVIDED OUTSIDE AIR: 1500 CFM

STORM SHELTER GENERAL NOTES

1. ALL PIPING AND DUCTWORK LOCATED WITHIN THE STORM SHELTER SHALL BE SUPPORTED WITH TRAPEZE HANGERS CONSISTING OF UNISTRUT WITH ALL-THREAD ROAD. ALL THREAD SHALL BE ATTACHED TO THE JOISTS/BEAMS IN THE SHELTER.

2. COORDINATE ALL PENETRATIONS OF SHELTER WALLS OR PROOF WITH GENERAL CONTRACTOR.

3. DO NOT PENETRATE OR CUT BOND BEAMS. WEATHER LOUVERS SHALL BE INSTALLED IN BRICK, IN FRONT OF SHELTER LOUVERS. WEATHER LOUVERS SHALL HAVE DRAINABLE BLADE. WEATHER LOUVERS SHALL BE RUSKIN ELF375 OR APPROVED EQUAL.

4. SHELTER LOUVERS SHALL BE INSTALLED IN THE SHELTER WALL. SHELTER LOUVERS SHALL BE GREENHECK MODEL AFL-501, RUSKIN XP500, OR APPROVED EQUAL. HIGH IMPACT LOUVERS SHALL MEET THE IMPACT TESTING CRITERIA FOR TORNADO SHELTERS PER ICC 500 / FEMA 361 AND SHALL BE LABELED THAT THEY HAVE BEEN TESTED TO MEET THAT REQUIREMENT.

5. SIGNAGE FOR EMERGENCY VENTILATION FAN SWITCHES (REFER TO ARCHITECTURAL SIGNAGE SPECIFICATION FOR SIGN AND TEXT COLOR AND SIZE) (COORDINATED EXACT LOCATION WITH ARCHITECT) SIGNAGE TO SAY THE FOLLOWING:

"EMERGENCY VENTILATION FANS TO BE SWITCHED ON UPON A LOSS OF POWER IN THE SHELTER. DURING A STORM EVENT."

"ALL SHELTER CLASSROOM AND STORAGE DOORS ARE TO BE OPENED IF EMERGENCY VENTILATION FANS ARE ON."

"EMERGENCY VENTILATION FANS ARE TO BE SWITCHED OFF UPON POWER RESTORED."

KEYED NOTES

① HIGH IMPACT LOUVERS AND WEATHER LOUVERS. HIGH IMPACT LOUVERS SHALL MEET IMPACT TESTING CRITERIA FOR TORNADO SHELTERS IN ICC 500/FEMA 361. LOUVER TO BE GREENHECK MODEL AFL-501 OR EQUAL. SEE DETAIL. WEATHER LOUVER SHALL BE INSTALLED ON EXTERIOR WALL WITH HIGH IMPACT LOUVER INSTALLED BEHIND WEATHER LOUVER. (EXTERIOR WALL APPLICATION ONLY). TOP OF STORM LOUVER SHALL BE INSTALLED BELOW BOND BEAMS.

② WALL SWITCH FOR SHELTER SUPPLY FANS TO BE ACTIVATED UPON THE LOSS OF POWER DURING A STORM EVENT.

③ SIGNAGE FOR EMERGENCY VENTILATION FAN SWITCH (REFER TO ARCHITECTURAL SIGNAGE SPECIFICATIONS FOR SIGN AND TEXT COLOR AND SIZE)(COORDINATE EXACT LOCATION WITH ARCHITECT.)

④ STORM SHELTER SUPPLY FAN TO RUN WHENEVER THERE IS A STORM EVENT BY TURNING THE WALL SWITCH TO THE "ON" POSITION. NORMALLY, THE STORM SHELTER SUPPLY FAN SHALL BE "OFF".

⑤ AUTOMATIC DAMPER IS NORMALLY CLOSED AND SHALL OPEN WHEN POWER IS LOST. DAMPER SHALL SPRING RETURN TO OPEN POSITION.

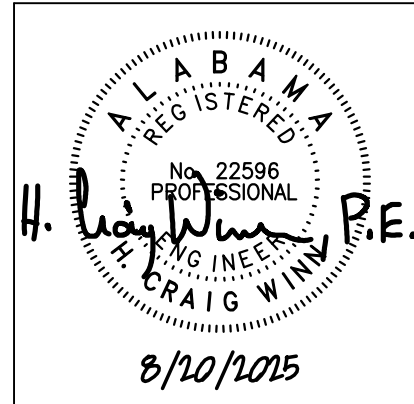
⑥ SUSPEND FAN FROM STRUCTURE WITH SPRING VIBRATION ISOLATORS. PROVIDE FLEXIBLE CONNECTION (WITH GROUNDING STRAP) ON INLET & OUTLET OF FAN.

⑦ 12x12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL.)

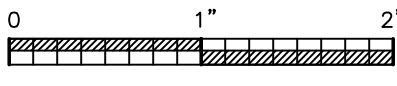
⑧ 30x12 FEMA GRILLE WITH FD ON SHELTER SIDE OF GRILLE. (SEE DETAIL.)

⑨ SA AND EXH DUCT UP AND TRANSITION TO FULL SIZE OF UNIT OPENING.

⑩ SUSPEND UNIT FROM STRUCTURE ABOVE.



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



GENERAL NOTES

1.0 DESIGN CRITERIA

1.1 CODES AND SPECIFICATIONS:

- GENERAL BUILDING CODE:
INTERNATIONAL BUILDING CODE, 2021 EDITION
- CONCRETE:
BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-19)
- PRECAST CONCRETE:
PCI DESIGN HANDBOOK, LATEST EDITION
PCI MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTIONS FOR PRECAST CONCRETE PRODUCTS, LATEST EDITION
- ARCHITECTURAL PRECAST CONCRETE:
PCI MNL-122 ARCHITECTURAL PRECAST CONCRETE, LATEST EDITION
PCI MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTION OF ARCHITECTURAL PRECAST CONCRETE PRODUCTS, LATEST EDITION
- STRUCTURAL STEEL:
SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (ANSI/AISC 360-16)
- STEEL DECK:
STEEL DECK INSTITUTE DESIGN MANUALS FOR COMPOSITE DECKS, NON-COMPOSITE DECKS, AND ROOF DECKS, LATEST EDITIONS
- MASONRY:
SPECIFICATIONS FOR MASONRY STRUCTURES (TMS 602-16)
BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (TMS 402-16)
NATIONAL CONCRETE MASONRY ASSOCIATION'S STANDARD PRACTICES AND "SPECIFICATION FOR THE DESIGN AND CONSTRUCTION OF LOAD BEARING CONCRETE MASONRY", LATEST EDITION
- COLD-FORMED STEEL FRAMING:
NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AMERICAN IRON AND STEEL INSTITUTE (AISI S100-16(2020) W/S2-20)
OTHER APPLICABLE AISI STANDARDS, AMERICAN IRON AND STEEL INSTITUTE, LATEST EDITION
- STORM SHELTER SAFE SPACE:
ICC/NSA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS (ICC 500-2020)

1.2 DESIGN GRAVITY LOADS (PSF):

- DEAD LOADS:
ANY CHANGES IN CONSTRUCTION MATERIALS FROM THOSE SHOWN ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS SHALL BE REPORTED BY THE GENERAL CONTRACTOR TO THE STRUCTURAL ENGINEER FOR VERIFICATION OF LOAD-CARRYING CAPACITY OF THE STRUCTURE.
- FLOOR LIVE LOADS:
NON-REDUCIBLE PARTITION LIVE LOAD OF 20 PSF HAS BEEN INCLUDED PER IBC SECTION 1607.5.
LIVE LOAD REDUCTIONS AS DETERMINED BY IBC SECTION 1607.12 HAVE BEEN TAKEN WHERE PERMITTED.
FLOOR (REDUCIBLE)-----100
STORAGE-----125
CORRIDORS-----100
MECHANICAL ROOM AND ATTIC-----125
EXTRAYS-----100
- ROOF LIVE LOADS:
WHERE PERMITTED ROOF LIVE LOADS ARE REDUCED FROM THE BASE VALUE SHOWN BELOW IN ACCORDANCE WITH IBC SECTION 1607.14.
MECHANICAL-----125
SHELTER ROOF (UNREDUCIBLE)-----100
SHELTER COLLAPSE LOAD (UNREDUCTIBLE)-----100
- ROOF SNOW LOADS:
GROUND SNOW LOAD (Pg)-----5.0
IMPORTANCE FACTOR (I)-----1.1
EXPOSURE FACTOR (Ce)-----1.0
THERMAL FACTOR (Ct)-----1.0

1.3 DESIGN LATERAL LOADS:

- WIND LOADS:
ULTIMATE DESIGN WIND SPEED (3-SECOND GUST)-----113MPH
NOMINAL WIND SPEED (3-SECOND GUST)-----90MPH
RISK CATEGORY-----III
WIND IMPORTANCE FACTOR (I)-----1.00
WIND EXPOSURE CATEGORY-----C
ENCLOSURE CATEGORY-----ENCLOSED
INTERNAL PRESSURE COEFFICIENTS-----+/- 0.18
SEE TYPICAL DETAILS FOR COMPONENT AND CLADDING LOADS
- SEISMIC LOADS:
OCCUPANCY CATEGORY III
SEISMIC IMPORTANCE FACTOR-----1.25
MAPPED SPECTRAL RESPONSE ACCELERATIONS:
SS-----0.263
S1-----0.099
SITE CLASS-----D
SPECTRAL RESPONSE COEFFICIENTS:
SSS-----0.279
S01-----0.159
SEISMIC DESIGN CATEGORY-----B
BASIC SEISMIC-FORCE-RESISTING SYSTEM:
INTERMEDIATE REINFORCED MASONRY SHEAR WALLS
DESIGN BASE SHEAR:
ADDITION-----65 KIPS
SEISMIC RESPONSE COEFFICIENT, Cs-----0.1742
RESPONSE MODIFICATION FACTOR, R-----3.5
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
- STORM SHELTER SAFE SPACE WIND LOADS:
TYPE OF SHELTER-----TORNADO
SHELTER DESIGN WIND SPEED-----250 MPH
WIND IMPORTANCE FACTOR (I)-----1.0
WIND EXPOSURE CATEGORY-----C
INTERNAL PRESSURE COEFFICIENTS (Gcp1)-----+/- 0.55
TOPOGRAPHIC FACTOR (Kzt)-----1.0
DIRECTIONALITY FACTOR (Kd)-----1.0

HOST BUILDING CONNECTIONS TO SHELTER HAVE BEEN DESIGNED PER INTENT OF ICC 500.

PER ICC 500, SPECIAL INSPECTION AND QUALITY ASSURANCE REQUIREMENTS HAVE BEEN INCLUDED WITHIN THE PROJECT SPECIFICATIONS - REFER TO SPEC. SECTION 01410.

PER ICC 500, THE STORM SHELTER ENVELOPE MEETS THE STATIC AND CYCLIC PRESSURE AND IMPACT TEST REQUIREMENTS. APPLICABLE INFORMATION CAN BE FOUND BASED ON THE FOLLOWING:
WALLS: FULLY GROUTED 12" CMU WALLS WITH #588" O.C. (MINIMUM) AND HORIZONTAL REINFORCING AT 16" O.C. TTU'S REPORT "DEBRIS IMPACT RESISTANCE OF BUILDING ASSEMBLIES" SUBMITTED TO N.I.S.T., (AUGUST 2006) -- TABLE A.6
TEST NO. 35 (PAGE A-48) UP HS THESIS "LARGE WIND MISSILE IMPACT PERFORMANCE OF PUBLIC AND COMMERCIAL BUILDING ASSEMBLIES" (CHRISTOPHER P. BRADEN) (2004) -- TABLE 3.7 - TEST NAME "E(G0)W3-BHC" (PAGE 39)
ROOF: 12" DEEP PRECAST HOLLOW CORE SLAB PANELS WITH 4" (3" MINIMUM WITH CAMBER) CONCRETE TOPPING SLAB (W/ #4 @12 EW) TTU'S REPORT "DEBRIS IMPACT RESISTANCE OF BUILDING ASSEMBLIES" SUBMITTED TO N.I.S.T., (AUGUST 2006) -- TABLE A.6 - TEST NO. 35 (PAGE A-48) UP HS THESIS "LARGE WIND MISSILE IMPACT PERFORMANCE OF PUBLIC AND COMMERCIAL BUILDING ASSEMBLIES" (CHRISTOPHER P. BRADEN) (2004) -- TABLE 3.7 - TEST NAME "E(G0)W3-BHC" (PAGE 39)

2.0 GENERAL CONDITIONS

- THE STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE A PORTION OF THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL REFERENCE AND COORDINATE WITH OTHER DISCIPLINE'S DRAWINGS. ANY DISCREPANCIES OR OMISSIONS SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT AND STRUCTURAL DESIGN GROUP.
- ALL REPORTS, PLANS, SPECIFICATIONS, COMPUTER FILES, FIELD DATA, NOTES, AND OTHER DOCUMENTS AND INSTRUMENTS PREPARED BY STRUCTURAL DESIGN GROUP AS INSTRUMENTS OF SERVICE SHALL REMAIN THE PROPERTY OF STRUCTURAL DESIGN GROUP. STRUCTURAL DESIGN GROUP SHALL RETAIN ALL COMMON LAW, STATUTORY, AND OTHER RESERVED RIGHTS, INCLUDING THE COPYRIGHT THEREOF.

- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO FABRICATION/CONSTRUCTION. NOTIFY STRUCTURAL ENGINEER AND ARCHITECT OF ANY DISCREPANCIES PRIOR TO FABRICATION/CONSTRUCTION.
- WHERE SHOP DRAWINGS, CALCULATIONS, OR SUBMITTALS ARE CALLED FOR IN THE PROJECT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) AND ARE NOT PROVIDED BY THE CONTRACTOR, THE CONTRACTOR ASSUMES TOTAL RESPONSIBILITY FOR THE DESIGN AND ASSOCIATED WORK.
- ENGINEER'S SHOP DRAWING REVIEW IS LIMITED TO REVIEW FOR GENERAL CONFORMANCE WITH THE DESIGN INTENT REFLECTED IN THE STRUCTURAL PORTION OF THE CONTRACT DOCUMENTS. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE DRAWINGS, SPECIFICATIONS OR OTHER PROJECT CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED OR IMPLIED FOR THE CORRECTNESS OF DIMENSIONS OR DETAILS. THIS REVIEW DOES NOT AUTHORIZE CHANGES TO THE CONTRACT UNLESS STATED IN A SEPARATE WRITTEN FORM OR CHANGE ORDER. CONTRACTOR SHALL CONFIRM AND CORRELATE ALL QUANTITIES AND DIMENSIONS, SELECT FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATE HIS WORK WITH THAT OF OTHER TRADES, AND PERFORM HIS WORK IN A SAFE AND SATISFACTORY MANNER. CONTRACTOR SHALL ALSO REFER TO THE REQUIREMENTS OF THE GENERAL AND SUPPLEMENTARY GENERAL CONDITIONS.
- ALL DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS, UNLESS NOTED.
- VERIFY ALL DIMENSIONS AND DETAILS SHOWN ON THESE DRAWINGS. ANY DISCREPANCIES OR OMISSIONS FOUND SHALL BE REPORTED TO THE ENGINEER AND OTHER DESIGN PROFESSIONALS AS APPROPRIATE FOR RESOLUTION PRIOR TO PROCEEDING WITH ANY RELATED WORK.
- THESE DRAWINGS DO NOT INCLUDE PROVISIONS TO SATISFY JOB SITE SAFETY REQUIREMENTS. CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING SAFETY DURING CONSTRUCTION AND FOR CONFORMANCE TO ALL APPLICABLE OSHA STANDARDS. JOBSITE VISITS BY ENGINEER SHALL NOT CONSTITUTE APPROVAL, AWARENESS OR LIABILITY FOR ANY HAZARDOUS CONDITIONS.
- STRUCTURAL DESIGN GROUP IS NOT RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS, SAFETY PROCEDURES, CONSTRUCTION SUPERVISION OR SITE SAFETY, AND DOES NOT HAVE THE AUTHORITY TO STOP WORK FOR THESE ITEMS. DRAWINGS FURTHER DO NOT PROVIDE ENGINEERING CONTROLS FOR SILICA STANDARD OR ANY OTHER SAFETY STANDARD.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR BRACING AND SHORING ALL EXCAVATIONS, Dewatering of excavation from either surface water, ground water or seepage, TEMPORARY AND EXISTING STRUCTURES, AND PARTIALLY COMPLETED PORTIONS OF THE WORK TO ASSURE THE SAFETY OF ANY PERSON COMING IN CONTACT WITH THE WORK.
- THE STRUCTURAL INTEGRITY OF THE BUILDING IS DEPENDENT UPON COMPLETION ACCORDING TO THE PLANS AND SPECIFICATIONS. THE STRUCTURAL ENGINEER OF RECORD ASSUMES NO LIABILITY FOR THE STRUCTURE DURING CONSTRUCTION. THE METHOD OF CONSTRUCTION AND SEQUENCE OF OPERATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL SUPPLY ANY NECESSARY BRACING, GUYS, ETC. TO PROPERLY BRACE THE STRUCTURE AGAINST WIND, DEAD AND LIVE LOADS UNTIL THE BUILDING IS COMPLETED ACCORDING TO THE PLANS AND SPECIFICATIONS. ANY QUESTIONS REGARDING TEMPORARY BRACING REQUIREMENTS SHOULD BE FORWARDED TO A STRUCTURAL ENGINEER FOR REVIEW.
- MECHANICAL UNITS AND ANY OTHER EQUIPMENT SUPPORTED BY THE STRUCTURE WITH WEIGHTS IN EXCESS OF 200 LBS SHALL BE BROUGHT TO THE ATTENTION OF THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
- WHERE NOTED IN DRAWINGS AND SPECIFICATIONS TO INSTALL PRODUCTS PER THE MANUFACTURER'S RECOMMENDATIONS, IT SHALL BE REQUIRED THAT THE CONTRACTOR FOLLOWS THE MANUFACTURER'S RECOMMENDATIONS.
- STRUCTURAL OBSERVATION IS VISUAL OBSERVATION OF THE IN PLACE STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED CONSTRUCTION DOCUMENTS AT THE TIME OF THE OBSERVATION AND SHALL NOT BE CONSIDERED AS INSPECTION OR APPROVAL OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING TESTING AND SPECIAL INSPECTIONS PER THE REQUIREMENTS IN THE PROJECT DOCUMENTS.
- OBSERVATION BY THE STRUCTURAL ENGINEER OF RECORD'S OFFICE DOES NOT REPLACE INSPECTIONS AND TESTING BY THE TESTING AGENCY OR SPECIAL INSPECTOR.
- ALL SUBMITTALS: IF THERE ARE QUESTIONS, CLARIFICATIONS, MODIFICATIONS, OR ITEMS WHERE INFORMATION, A RESPONSE, OR APPROVAL IS REQUESTED, SUCH ITEMS SHALL BE WRITTEN ON THE TRANSMITTAL OR COVER SHEET, INDICATING SUCH ITEMS ON THE SHOP DRAWINGS, WITHIN ANY CALCULATIONS, OR PRODUCT DATA IS NOT SUFFICIENT. WHERE SUCH ITEMS ARE NOT SPECIFICALLY LISTED ON THE TRANSMITTAL OR COVER SHEET IN ACCORDANCE WITH THESE GENERAL NOTES AND THE SPECIFICATIONS, SUCH ITEMS ARE NOT TO BE CONSIDERED APPROVED OR CONSIDERED. IF A QUESTION, CLARIFICATION, MODIFICATION, OR REQUEST FOR INFORMATION IS MADE AND NOT SPECIFICALLY RESPONDED TO BY STRUCTURAL DESIGN GROUP, NO APPROVAL OR CONSENT SHALL BE ASSUMED. THE CONTRACTOR SHALL ASSUME TOTAL LIABILITY AND RESPONSIBILITY IN ALL CASES WHERE SPECIFIC WRITTEN RESPONSE FROM STRUCTURAL DESIGN GROUP IS NOT OBTAINED, REGARDLESS OF ANY OTHER ACTIONS TAKEN BY STRUCTURAL DESIGN GROUP.

3.0 FOUNDATIONS

- GEOTECHNICAL REPORT: FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL REPORT BY TERRACON, TITLED "ASHVILLE HIGH SCHOOL CLASSROOM ADDITION, PROJECT NO. E1255061, DATED MAY 13, 2025" ALONG WITH ANY SUPPLEMENTAL CORRESPONDENCE. THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE GEOTECHNICAL REPORT FROM THE OWNER AND FOLLOW ALL REQUIREMENTS AND RECOMMENDATIONS AND REVISIONS. THE CONTRACTOR SHALL TAKE PRECEDENCE OVER THE ITEMS THAT FOLLOW IN THIS SECTION OF THE STRUCTURAL GENERAL NOTES.

3.2 MAXIMUM ALLOWABLE BEARING PRESSURES (PSF) PER GEOTECHNICAL REPORT:
FOOTINGS ON RAMMED AGGREGATE PIERS-----2300 PSF.
- ALL FOUNDATION BEARING SURFACES SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION TO ENSURE THEIR COMPLIANCE WITH PRESSURES NOTED. ALL FOOTING ELEVATIONS ARE ESTIMATED AND MAY BE ADJUSTED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.
- COMPACTED FILL WITHIN THE BUILDING AREA (AND EXTENDING 10'-0" OUTSIDE THE EXTERIOR BUILDING LINE) SHALL MEET THE REQUIREMENTS NOTED IN THE GEOTECHNICAL REPORT.
- BACKFILL FOR FOUNDATION AND RETAINING WALLS SHALL BE A FREE DRAINING GRANULAR MATERIAL, SUCH AS SIZE #57 STONE. BACKFILL SHALL BE COMPACTED SUFFICIENTLY TO PREVENT SUBSIDENCE OF SURFACE ADJACENT TO MATERIAL. THE GRANULAR MATERIAL SHALL BE PLACED IN A 45 DEGREE DEGREE EXTENDING FROM THE BASE OF THE FOOTING TO WITHIN 18" OF FINISH GRADE ON EXTERIOR AND TO UNDERSIDE OF SLAB ON INTERIOR. AT EXTERIOR, CAP GRANULAR BACKFILL WITH 18" OF SOIL.
- GRANULAR BACKFILL SUPPORTING A FOOTING SHALL BE COMPACTED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER OR HIS APPROVED REPRESENTATIVE. PROVIDE A 12" THICK CAP OF PROPERLY COMPACTED CRUSHER RUN STONE BETWEEN THE FOOTING AND THE PROPERLY COMPACTED GRANULAR BACKFILL. EXTEND CRUSHER RUN CAP TWO FEET BEYOND THE PERIMETER OF THE FOOTING OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- FOUNDATION AND RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL CONCRETE HAS ATTAINED THE REQUIRED 28 DAY COMPRESSIVE STRENGTH.
- DO NOT PLACE BACKFILL AGAINST FOUNDATION WALLS UNTIL UPPER BRACING FLOORS ARE IN PLACE FOR AT LEAST SEVEN DAYS AND HAVE ATTAINED 75% OF DESIGN STRENGTH.
- REINFORCING STEEL IN CONTINUOUS WALL FOOTINGS SHALL EXTEND THRU SPREAD FOOTINGS AT THE SAME ELEVATION AS WALL FOOTING. STEP WALL FOOTING DOWN ON SPREAD FOOTING WHERE SPREAD FOOTING IS BELOW CONTINUOUS WALL FOOTINGS.
- SUBGRADE AND GRANULAR FILL SUPPORTING SLABS ON GRADE SHALL BE AS RECOMMENDED BY THE GEOTECHNICAL REPORT AND COMPACTED UNDER THE DIRECT SUPERVISION OF THE GEOTECHNICAL ENGINEER OR HIS APPROVED REPRESENTATIVE. SEE SPECIFICATIONS FOR VAPOR RETARDER BENEATH SLABS ON GRADE.
- GRANULAR FILL BENEATH SLABS, UNLESS NOTED OTHERWISE, SHALL BE 4" COMPACTED #57 STONE.
- VAPOR RETARDER BENEATH SLABS ON GRADE, UNLESS NOTED, SHALL MEET ASTM E 1745, CLASS A, 15 MIL MINIMUM THICKNESS WITH MANUFACTURER'S RECOMMENDED ADHESIVE OR PRESSURE-SENSITIVE TAPE AND PIPE BOOTHS, SUCH AS W.R. MEADOWS INC. PRODUCT PERMINATOR IS.
- NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (TWO HORIZONTAL TO ONE VERTICAL) TO A FOOTING.

4.0 CONCRETE

- CONCRETING OPERATIONS SHALL COMPLY WITH ACE STANDARDS.
- CONCRETE STRENGTH AND DURABILITY REQUIREMENTS: MINIMUM CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS (PSI), TYPE OF CONCRETE, MAXIMUM WATER/CEMENTITIOUS RATIO, AIR CONTENT, SLUMP, AND CONCRETE USE:

STRENGTH TYPE	MAX W/C	AIR	SLUMP	USE	EXPOSURE CATEGORY
3000 NORMAL WT.	0.57	----	3" TO 5"	FOOTINGS	C1
3500 NORMAL WT.	0.50	----	3" TO 5"	SLABS	D0
4000 NORMAL WT.	0.45	4-6%	3" TO 5"	UNLESS NOTED	C0

 - CONCRETE MIX DESIGN SHALL BE WORKABLE WITH LOWEST TOTAL WATER PER CUBIC YARD USING LARGEST PRACTICAL MAXIMUM SIZE OF COURSE AGGREGATE.
- EXPOSURE CLASS DESCRIPTIONS:

FO:	CONCRETE NOT EXPOSED TO FREEZING AND THAWING CYCLES AND PROTECTED FROM MOISTURE.
CO:	CONCRETE DRY AND PROTECTED FROM MOISTURE
C1:	CONCRETE EXPOSED TO MOISTURE BUT NOT TO DEICING CHEMICALS.

- REINFORCING BARS: ASTM A615 GRADE 60.

- WATERSTOPS: FLEXIBLE PVC WATERSTOPS, CR C90-C 572, UNLESS NOTED OTHERWISE, WITH FACTORY-INSTALLED METAL EYELETS, FOR EMBEDDING IN CONCRETE TO PREVENT PASSAGE OF FLUIDS THROUGH JOINTS. FACTORY FABRICATE CORNERS, INTERSECTIONS, AND DIRECTIONAL CHANGES. ACCEPTABLE MANUFACTURER IS THE GREENSTREAK GROUP, INC. 800-325-9504, OR EQUAL. PROFILE SHALL BE FLAT, DUMBBELL WITH CENTER BULB WITH DIMENSIONS OF 6 INCHES BY 3/8 INCH THICK.

- FLEXIBLE WATERSTOP INSTALLATION: INSTALL IN CONSTRUCTION JOINTS AND AT OTHER JOINTS INDICATED TO FORM A CONTINUOUS DIAPHRAGM. INSTALL IN LONGEST LENGTHS PRACTICABLE. SUPPORT AND PROTECT EXPOSED WATERSTOPS DURING PROGRESS OF THE WORK.

- REINFORCING STEEL SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES AND GENERAL NOTES FOR ACTUAL REINFORCING REQUIRED.

- REINFORCING BAR PLACING ACCESSORIES IN ACCORDANCE WITH ACI MANUAL OF STANDARD PRACTICE. WHERE CONCRETE IS EXPOSED IN FINISHED BUILDING, PROVIDE ACCESSORIES WITH RUSTPROOF LEGS. WHERE CONCRETE IS SAND-BLASTED OR BUSH-HAMMERED, PROVIDE ACCESSORIES OF STAINLESS STEEL.

- DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315. REINFORCEMENT SHALL NOT BE WELDED, UNLESS NOTED OR APPROVED BY THE ENGINEER.

- ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.

- ALL REINFORCING MARKED "CONT." INDICATES REINFORCING SHALL BE "CONTINUOUS" AND SHALL BE SPLICED WITH CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.

- PROVIDE CORNER BARS AT ALL CORNERS OF CONTINUOUS REINFORCING IN FOOTINGS, SLABS, OR WALLS. CORNER BARS SHALL BE LONG ENOUGH TO PROVIDE A CLASS "B" LAP SPLICE OF REINFORCING BARS.

- CONCRETE COVERAGE OF REINFORCEMENT, UNLESS NOTED:

FOOTINGS-----	2"	TOP & 3" BOTTOM & SIDES
SLAB FACES NOT EXPOSED TO WEATHER OR EARTH-----	3/4"	
SLAB FACES EXPOSED TO WEATHER-----	1-1/2"	
A. #5 AND LESS-----	1-1/2"	
B. #6 AND GREATER-----	2"	

NOTE: SLAB ON GRADE WMR OR REINFORCEMENT EACH MAY SHALL BE 2" CLEAR FROM TOP OF SLAB. SEE EARTH SUPPORTED SLABS SECTION BELOW.

- WELDED WIRE REINFORCEMENT (WWR): ASTM A106A, MINIMUM LAP AND EMBEDMENT TO BE THE GREATER OF ONE CROSS WEB SPACING PLUS 2 INCHES OR 6 INCHES.

- PROVIDE CORNER BARS AT ALL CORNERS OF CONTINUOUS REINFORCING IN FOOTINGS, SLABS OR WALLS. CORNER BARS SHALL BE LONG ENOUGH TO PROVIDE A CLASS "B" LAP SPLICE OF REINFORCING BARS.

- EARTH SUPPORTED SLABS:

4" THICK (UNLESS NOTED), REINFORCED WITH 6X6 W/2.9/2.9 WMR FLAT SHEETS SUPPORTED 2" CLEAR OF TOP OF SLAB, UNLESS NOTED. WMR TO BE CHAINED AT 36 INCHES EACH WAY MINIMUM. SEE FOUNDATION NOTES FOR SUBGRADE REQUIREMENTS.

PROVIDE CONTROL AND CONSTRUCTION JOINTS AT 3-4 TIMES SLAB THICKNESS IN FEET MAXIMUM OR AS REQUIRED TO PREVENT UNCONTROLLED CRACKING PER ACE RECOMMENDATIONS. AS AN EXAMPLE, FOR A 4" THICK SLAB PROVIDE JOINTS SPACED 12 - 16 FEET MAXIMUM. PANELS TO BE RECTANGULAR WITH LONG SIDE NOT TO EXCEED 1-1/2 TIMES SHORT SIDE. LITTING SHOULD BE STARTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM BEING DISLODGE. CONTRACTOR SUBMIT PLAN SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS.

FLOOR DESIGN AND CONSTRUCTION BASIS IS ACI 302 AND 360, AND IT IS UNREALISTIC TO EXPECT CRACK-FREE OR CURL-FREE FLOORS. IT IS NORMAL TO EXPECT SOME AMOUNT OF CRACKING AND CURLING IN THE SLAB ON GRADE, AND SUCH OCCURRENCE DOES NOT NECESSARILY REFLECT ADVERSELY ON EITHER THE ADEQUACY OF THE FLOOR DESIGN OR THE QUALITY OF ITS CONSTRUCTION.

EARTH SUPPORTED SLABS SHALL BE MOIST CURED FOR A MINIMUM OF SEVEN DAYS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION. CURING COMPOUNDS, UNLESS NOTED, SHALL BE A MINIMUM OF CLEAR, WATERBORNE, MEMBRANE-FORMING CURING COMPOUND MEETING ASTM C 309, TYPE 1, CLASS B, SELF-DISSIPATING, CERTIFIED BY CURING COMPOUND MANUFACTURER TO NOT INTERFERE WITH BONDING OF FLOOR COVERING.

WHERE CONTROL JOINTS TERMINATE INTO NON-PARALLEL CONTROL JOINTS, PROVIDE 244 X 6"-0" BARS MID DEPTH OF SLAB PERPENDICULAR TO TERMINAL CONTROL JOINT.

PROVIDE 244 X 6"-0" BARS MID DEPTH OF SLAB AT REINTRACT CORNERS.

WHERE CONTROL JOINTS TERMINATE AT EMBEDDED STEEL ELEMENTS (SUCH AS EDGE REINFORCEMENT AT LOADING DOCKS), PROVIDE JOINT IN STEEL ELEMENT.

- CONTRACTION JOINTS IN WALLS: WALL JOINTS SHALL NOT BE SPACED FARTHER THAN 15 FEET FOR 8" WALLS, 20 FEET FOR 10" WALLS AND 30 FEET FOR 12" WALLS. WALL JOINTS SHALL ADDITIONALLY NOT BE LOCATED WITHIN 4'-0" OF EXIST PLATES OR CORNERS OF THE WALL. DISCONTINUE 50% OF THE WALL HORIZONTAL REINFORCING THROUGH JOINTS; TRIMMING BACK THE REINFORCING BARS 2" FROM THE CONTROL JOINT EACH SIDE. WALL JOINTS SHALL BE LOCATED WITH ELASTOMERIC SEALANT. SEE WALL CONTRACTION JOINT TYPICAL DETAIL.

- WALL AND SLAB OPENINGS AND SLEEVES SMALLER THAN 12" (IN LARGER DIMENSION) ARE NOT SHOWN ON PLANS. CONTRACTOR SHALL SUBMIT ALL OPENINGS (SIZE AND LOCATIONS) AS A SINGLE COORDINATED SLEEVE PLAN FOR REVIEW AND APPROVAL.

- CAST IN PLACE ALL SLEEVES AND INSERTS.

- SLAB CRACKS THAT DEVELOP ON EXPOSED LEVELS SHOULD BE INJECTED WITH EPOXY TO LIMIT DETERIORATION OF THE REBAR.

- FOR ALL CONCRETE EXPOSED TO VIEW IN THE FINISHED CONFIGURATION OF THE STRUCTURE, PROVIDE RUBBED FINISH AT A MINIMUM. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.

5.0 ARCHITECTURAL AND STRUCTURAL PRECAST CONCRETE

- REFER TO ARCHITECT'S DRAWINGS AND SPECIFICATIONS FOR DIMENSIONAL, FINISHING, AND OTHER REQUIREMENTS OF THE ARCHITECTURAL PRECAST.
- PRECAST MANUFACTURER IS TO BE RESPONSIBLE FOR THE DESIGN OF ALL PRECAST MEMBERS AND THEIR CONNECTIONS TO THE STRUCTURE AS WELL AS THE DESIGN OF THE ANY REQUIRED TOPPING SLABS FOR GRAVITY AND LATERAL LOADS. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED BEARING THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
 - CONNECTIONS OF THE PRECAST TO THE STRUCTURE SHALL NOT RESTRAIN THE STRUCTURE'S 1" DOWNWARD MOVEMENT AT ALL BEAMS AND 1" UPWARD MOVEMENT AT ROOF BEAMS.
- ERECTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY BRACING UNTIL ALL CONNECTIONS HAVE BEEN MADE AND TOPPING HAS BEEN CAST.
- PRECAST MANUFACTURER SHALL PROVIDE STABILIZING ANGLES AND SIMILAR MISCELLANEOUS METALS, AS REQUIRED, FOR ALL PRECAST WORK.
- ALL EXPOSED STEEL CONNECTIONS AND SUPPORT ANGLES, PLATES, BARS AND BOLTS IN CONJUNCTION WITH ALL PRECAST CONCRETE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION AND FIELD TOUCHED UP WITH ZINC RICH PAINT.
- ADJUSTMENT AND POSSIBLY RESETTING OF PRECAST MAY BE REQUIRED TO ALIGN PRECAST DUE TO SUPPORT DEFLECTION AND/OR ROTATION.
- SUPPORTING BEAMS AND STRUCTURE WILL DEFLECT AND/OR ROTATE. PRECAST MANUFACTURER AND ERECTOR SHALL COORDINATE CONNECTION/ERECTION SEQUENCE TO ACCOUNT FOR THIS MOVEMENT AND MAKE FINAL ADJUSTMENTS TO ALIGN AND PLUMB BRACING. THIS MAY REQUIRE ADJUSTING CONNECTIONS OR RECONNECTING.

6.0 PRECAST CONCRETE HOLLOW CORE SLABS

- PRECAST MANUFACTURER IS TO BE RESPONSIBLE FOR THE DESIGN OF ALL PRECAST MEMBERS AND THEIR CONNECTIONS TO THE STRUCTURE. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED BEARING THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
 - PRECAST MANUFACTURER SHALL LIMIT USE TO 2" MAXIMUM OF THE TOPPING SLAB FOR COMPOSITE ACTION IN THE DESIGN OF THE PRECAST PANELS TO ALLOW FOR A 1" MAXIMUM CAMBER IN THE SELF-WEIGHT INSTALLED CONDITION.
 - THE REMAINING 1" OF THE TOPPING SLAB IS TO BE APPLIED AS SUPERIMPOSED DEAD LOAD TO THE PRECAST PANELS.
 - PRECAST MANUFACTURER IS TO PROVIDE ANTICIPATED CAMBER & DEFLECTION CALCULATIONS FOR ALL PRECAST PANELS SO THAT IT CAN BE VERIFIED THAT THE POSITIVE CAMBER IN THE SELF-WEIGHT INSTALLED CONDITION HAS BEEN LIMITED TO 1" MAXIMUM.

- PRECAST MANUFACTURER IS RESPONSIBLE FOR ADDING AND INCLUDING IN THE BASE BID ANY ADDITIONAL REINFORCING STEEL IN THE TOPPING SLAB AS MAY BE REQUIRED TO CONTROL LONG-TERM CREEP ISSUES WITH THE PRESTRESSED SLAB PANELS.

- STORM SHELTER PRECAST PANELS SHALL BE DESIGNED FOR 100 PSF SHELTER ROOF LIVE LOAD + SHELTER COLLAPSE LOAD IN ADDITION TO OTHER LOADS (SW, DL, CL, & WL).

PER ICC 500, THE STORM SHELTER ENVELOPE MEETS THE STATIC AND CYCLIC PRESSURE AND IMPACT TEST REQUIREMENTS. APPLICABLE INFORMATION CAN BE FOUND BASED ON THE FOLLOWING:

ROOF: 12" DEEP PRECAST HOLLOW CORE SLAB PANELS WITH 4" (3" MINIMUM WITH CAMBER) CONCRETE TOPPING SLAB (W/ #4 @12 EW) TTU'S REPORT "DEBRIS IMPACT RESISTANCE OF BUILDING ASSEMBLIES" SUBMITTED TO N.I.S.T., (AUGUST 2006) -- TABLE A.6 - TEST NO. 35 (PAGE A-48) UP HS THESIS "LARGE WIND MISSILE IMPACT PERFORMANCE OF PUBLIC AND COMMERCIAL BUILDING ASSEMBLIES" (CHRISTOPHER P. BRADEN) (2004) -- TABLE 3.7 - TEST NAME "E(G0)W3-BHC" (PAGE 39)

- PRECAST MANUFACTURER IS TO BE RESPONSIBLE FOR DETERMINING AND VERIFY ANY NECESSARY STEPS, SUCH AS THE REINFORCING OF PRECAST PANELS AND/OR THE USE OF A CONCRETE BONDING AGENT, IN ORDER TO OBTAIN COMPOSITE ACTION OF THE PRECAST PANELS WITH THE STRUCTURAL TOPPING SLAB. ANY NECESSARY STEPS SHALL BE INDICATED ON THE SUBMITTED CALCULATIONS AND SHOP DRAWINGS BY THE PRECAST MANUFACTURER.

- PRECAST MANUFACTURER IS TO PROVIDE WEEP HOLES IN ALL CORES AT EACH END OF ALL PRECAST PANELS. CONTRACTOR HAS THE OPTION TO FIELD INSTALL WEEP HOLES PER PRECAST MANUFACTURER'S WRITTEN INSTRUCTIONS.

- PRECAST MANUFACTURER SHALL DESIGN HOLLOW CORE SLABS FOR THE SUPERIMPOSED LOADS LISTED BELOW PLUS SELF-WEIGHT PLUS ALL MASONRY BLOCK WEIGHTS, LIVE LOADS, WIND LOADS, OTHER LOADS SHOWN IN THESE DRAWINGS. DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI-318 AND PCI DESIGN HANDBOOK, LATEST EDITION.

4" TOPPING SLAB -----50 PSF
COLLATERAL DEAD LOAD -----20 PSF

FOR LIVE LOADS, SEE GENERAL NOTES 1.2.B & 1.2.C, PLAN NOTES, AND SECTION NOTES

FOR WIND LOADS, SEE GENERAL NOTE 1.3.C, COMPONENTS AND CLADDING WIND LOAD TABLES ON S1.4, TYPICAL DETAILS, PLAN NOTES, AND SECTION NOTES

FOR HOUSEKEEPING PADS UNDER MECHANICAL UNITS, COORDINATE SIZE AND LOCATION OF HOUSEKEEPING PADS WITH MECHANICAL DRAWINGS

- ANY CONNECTIONS SHOWN ON CONTRACT DRAWINGS ARE SHOWN FOR GENERAL ARRANGEMENT ONLY. THE CONTRACTOR SHALL COORDINATE ALL PRECAST CONNECTIONS AND EMBEDDED ITEMS WITH THE PRECAST MANUFACTURER.

- STORM SHELTER:
REINFORCE 4" TOPPING SLAB WITH #4 BARS @12" O.C. EACH WAY AT MID-DEPTH OF TOPPING.

NON-SHELTER:
REINFORCE 4" TOPPING SLAB WITH 6X6 W/1.4/W/1.4 WMR FLAT SHEETS AT MID-DEPTH OF TOPPING.

- CONDUITS AND PIPING SHALL NOT BE PLACED IN THE TOPPING SLAB.

- ERECTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY BRACING UNTIL ALL CONNECTIONS HAVE BEEN MADE AND TOPPING HAS BEEN CAST.

- PRECAST MANUFACTURER SHALL PROVIDE STABILIZING ANGLES AND SIMILAR MISCELLANEOUS METALS, AS REQUIRED, FOR ALL PRECAST WORK.

- ALL EXPOSED STEEL CONNECTIONS AND SUPPORT ANGLES, PLATES, BARS, AND BOLTS IN CONJUNCTION WITH ALL PRECAST CONCRETE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION AND FIELD TOUCHED UP WITH ZINC RICH PAINT.

- PRECAST CONCRETE HOLLOW CORE SLAB LOCATIONS SHOWN ON THE DRAWINGS ARE ESTIMATED AND SHALL BE VERIFIED BY THE PRECAST MANUFACTURER.

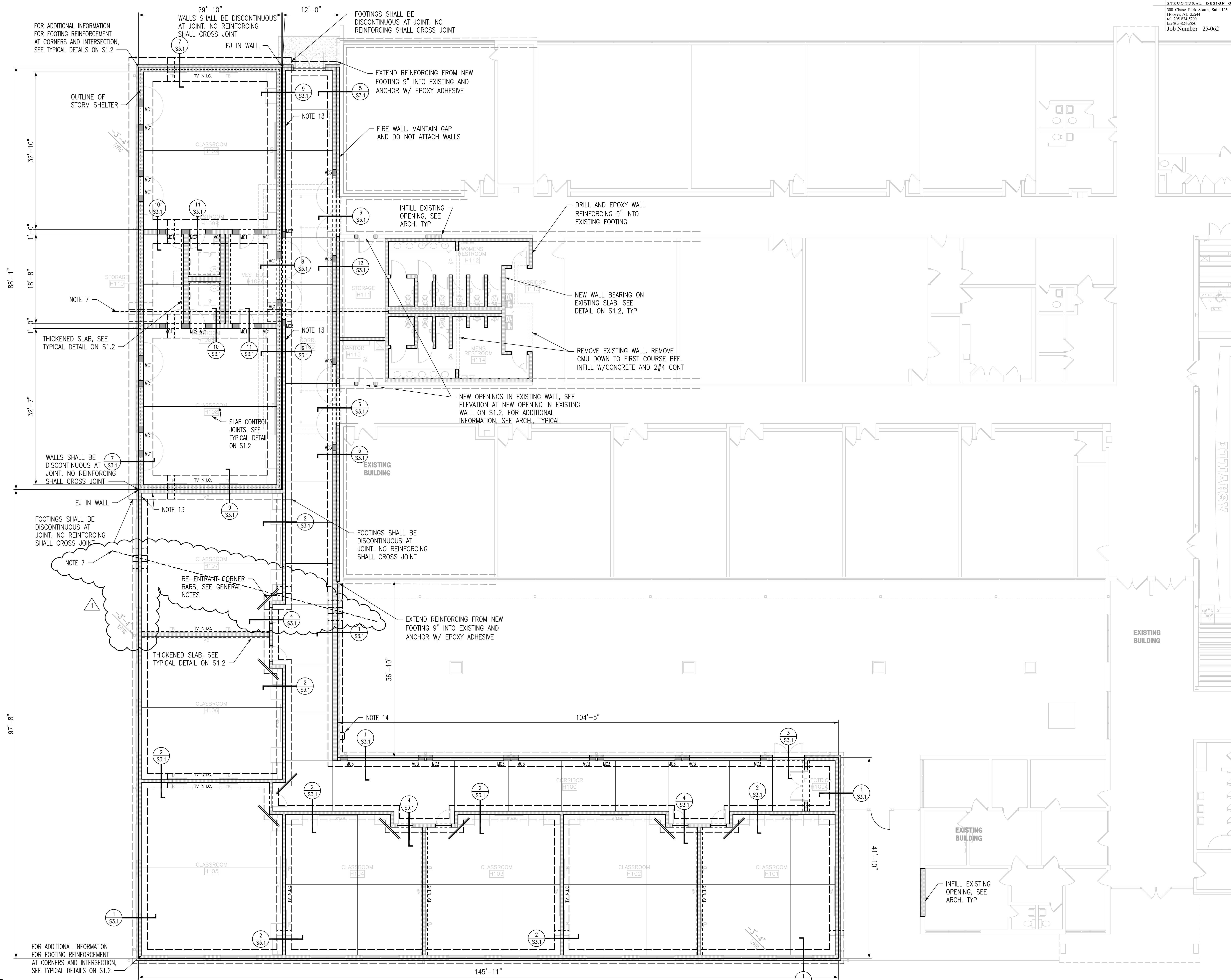
- FIELD CUT OPENINGS THROUGH HOLLOW CORE PRECAST CONCRETE SLAB PANELS SHALL BE LOCATED TO AVOID CUTTING PRESTRESS STRANDS, UNLESS GIVEN APPROVAL BY THE PRECAST MANUFACTURER PRIOR TO COMMENCING WORK.

- ALL OPENINGS IN THE PRECAST PANELS SHALL BE SHOWN ON THE PRECAST PLAN SHOP DRAWINGS. EXACT LOCATIONS AND OPENING DIMENSIONS SHALL BE INDICATED. ANY DETAILING NECESSARY FOR THE SUPPORT OF THE PANELS AT THE OPENINGS SHALL BE INDICATED ON THE SHOP DRAWINGS. ANY ADDITIONAL STEEL FRAMING REQUIRED AT SLAB OPENINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND INCLUDED IN THE BASE BID AND SHALL BE PROVIDED AT NO ADDITIONAL EXPENSE TO THE OWNER.

- BEARING STRIPS SHALL BE RANDOM ORIENTED FIBER REINFORCED MATERIAL CAPABLE OF SUPPORTING A COMPRESSIVE STRESS OF 3000 PSI WITH NO CRACKING, SPLITTING, OR DELAMINATION.

7.0 STRUCTURAL STEEL

- FABRICATE AND ERECT ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". FABRICATOR SHALL BE QUALIFIED BY PARTICIPATING IN THE AISC QUALITY CERTIFICATION PROGRAM AND HOLD THE AISC BUILDING FABRICATOR QMS CERTIFICATION (BQ).
- THE STEEL FRAME IS "NON-Self-SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL THE REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE.
- STRUCTURAL STEEL: ASTM A992 FOR WIDE FLANGE BEAMS AND COLUMNS AND STEEL CHANNELS; A572 FOR S, M, HP SHAPES AND STEEL ANGLES; ASTM A36 FOR STIFFENER PLATES, BASE PLATES, COLUMN CAP PLATES, BEAM CONNECTION PLATES.
- HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500, GRADE C.
- WELDED CONNECTIONS: E70XX ELECTRODES, MINIMUM SIZE FILLET WELD 3/16". WELDING QUALIFICATION, PROCEDURES AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.1, THE STRUCTURAL WELDING CODE - STEEL.
- THREADED AND PLAIN STEEL RODS: ASTM A36
- HIGH STRENGTH THREADED RODS: ASTM A193 B7
- ANCHOR RODS: ASTM F1554 GRADE 36 ANCHOR AND HEAVY HEX NUT OR ASTM F1554 GRADE 55 ANCHOR AND HEAVY HEX NUT WITH SUPPLEMENTARY REQUIREMENT S1, UNLESS OTHERWISE INDICATED.
 - IF ANCHOR ROD ASSEMBLIES ARE NOT ENCASED IN MINIMUM OF 3" OF CONCRETE, ANCHOR ROD ASSEMBLIES ARE TO BE HOT-DIP GALVANIZED.
- HEADED STUDS: TYPE B SHEAR STUD CONNECTORS MADE FROM ASTM A108, GRADE 1015 OR 1020, COLD-FINISHED CARBON, AND COMPLYING WITH AWS D1.1.
- CONNECTIONS:
 - BEARING TYPE A325-N ACCORDANCE WITH RCSC (LRFD OR ASD VERSION) "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". BOLTS THROUGH 4" WIDE BEAM FLANGES SHALL BE 5/8" DIAMETER. OTHERWISE, BOLTS SHALL BE 3/4" DIAMETER.
 - BOLTS SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT BOLTS MAY BE USED. ACTUAL NUMBER, UNLESS SPECIFIED, TO BE IN ACCORDANCE WITH AISC.



FOUNDATION PLAN

1/8"=1'-0"

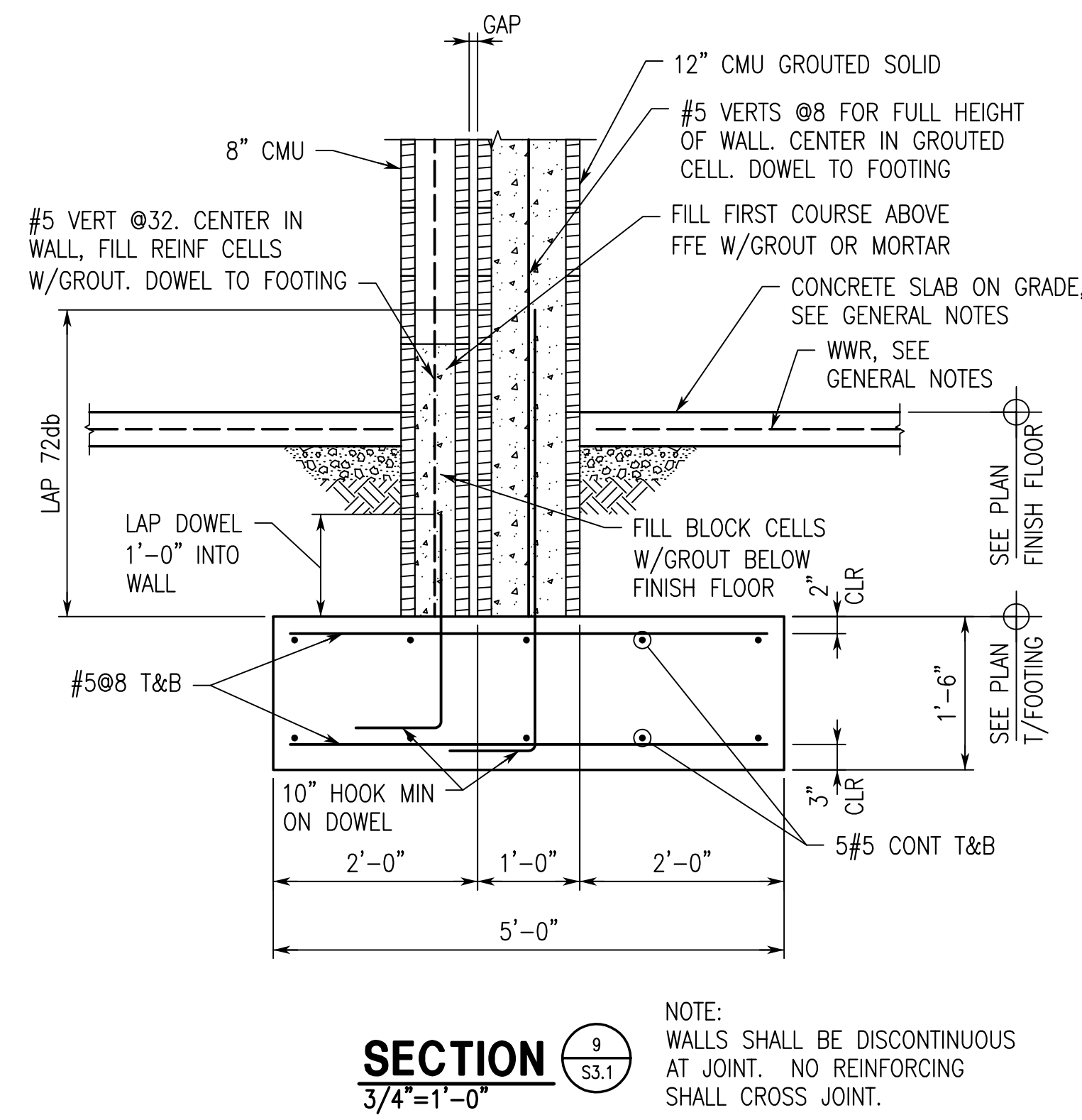
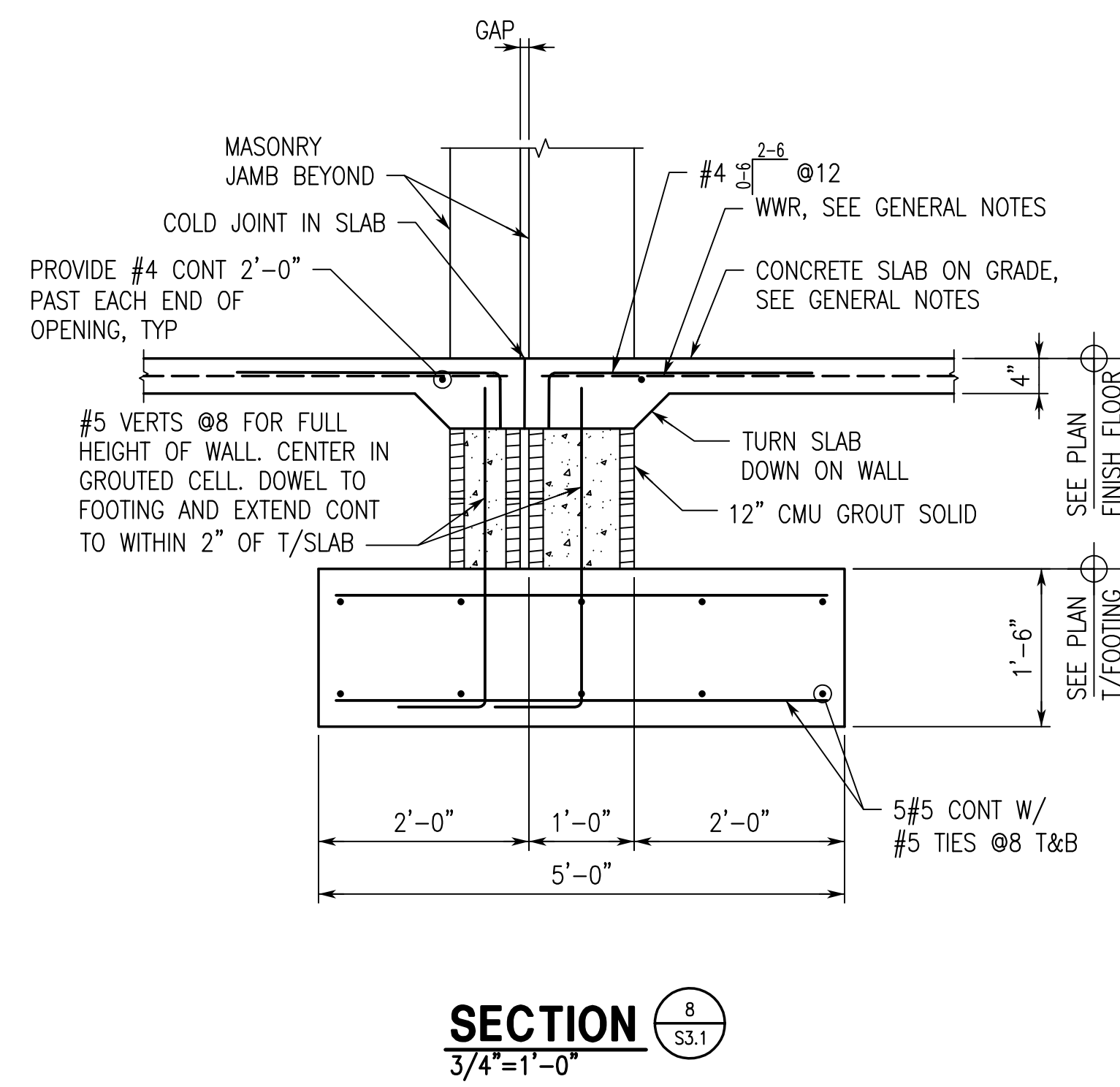
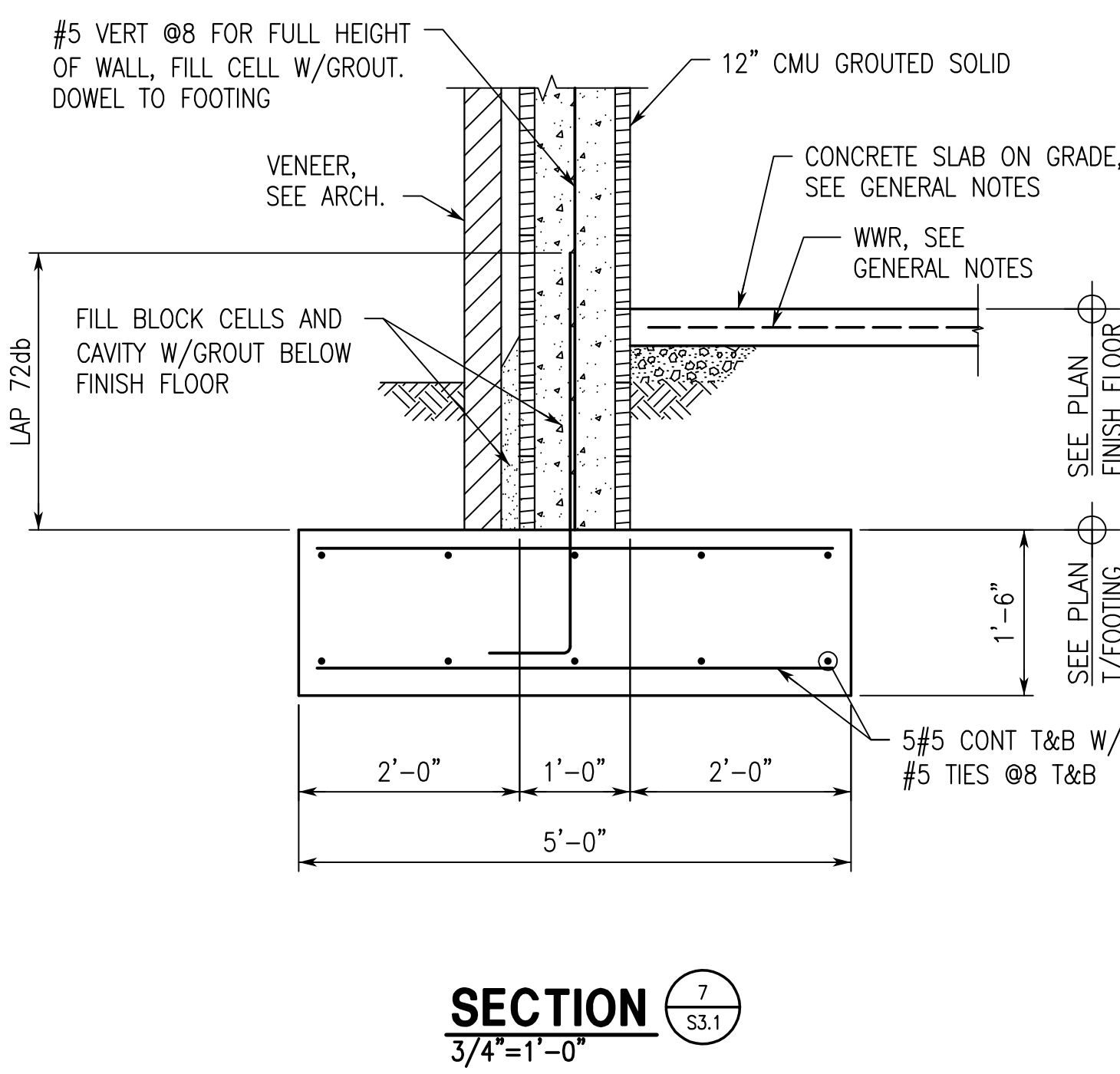
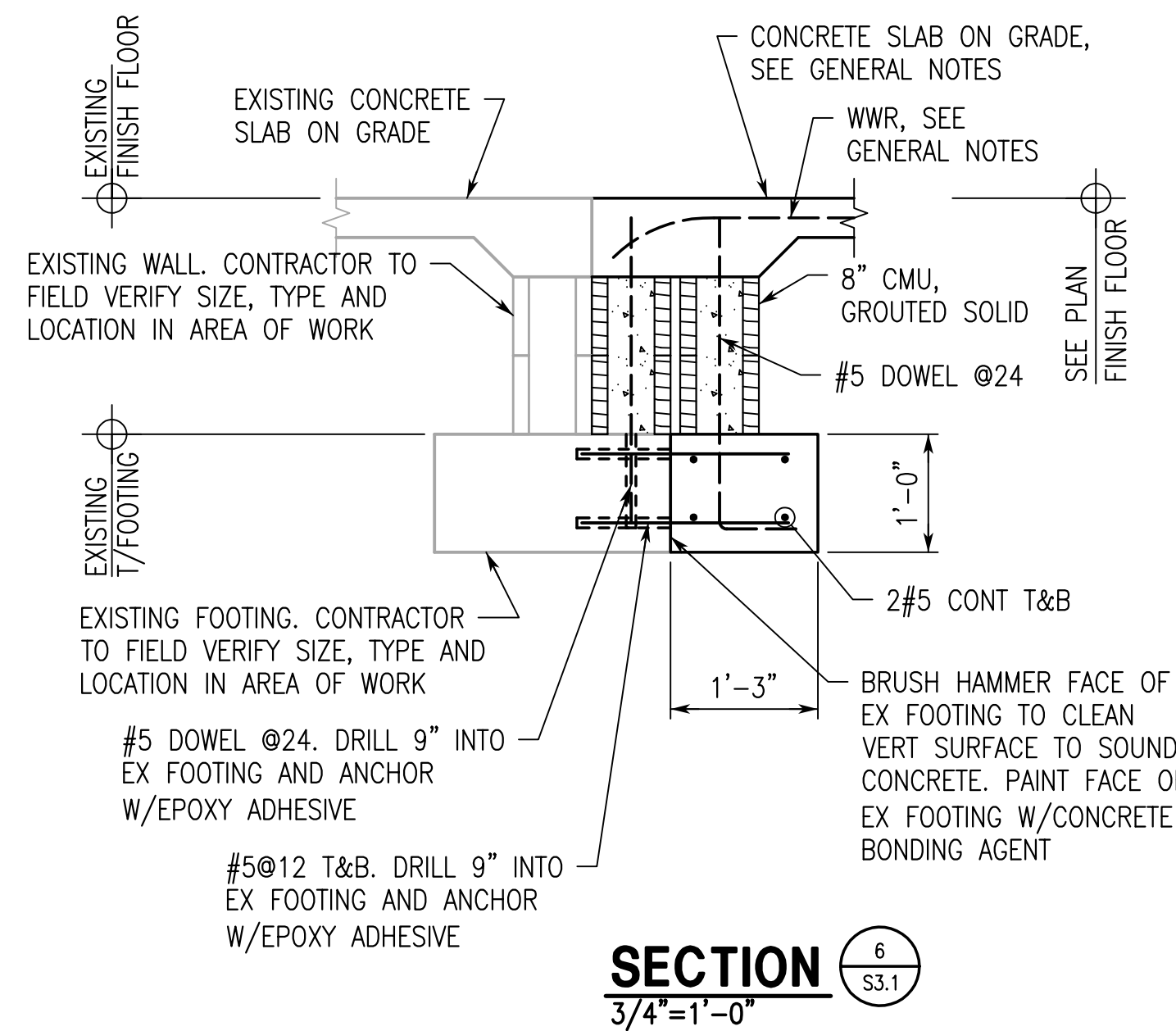
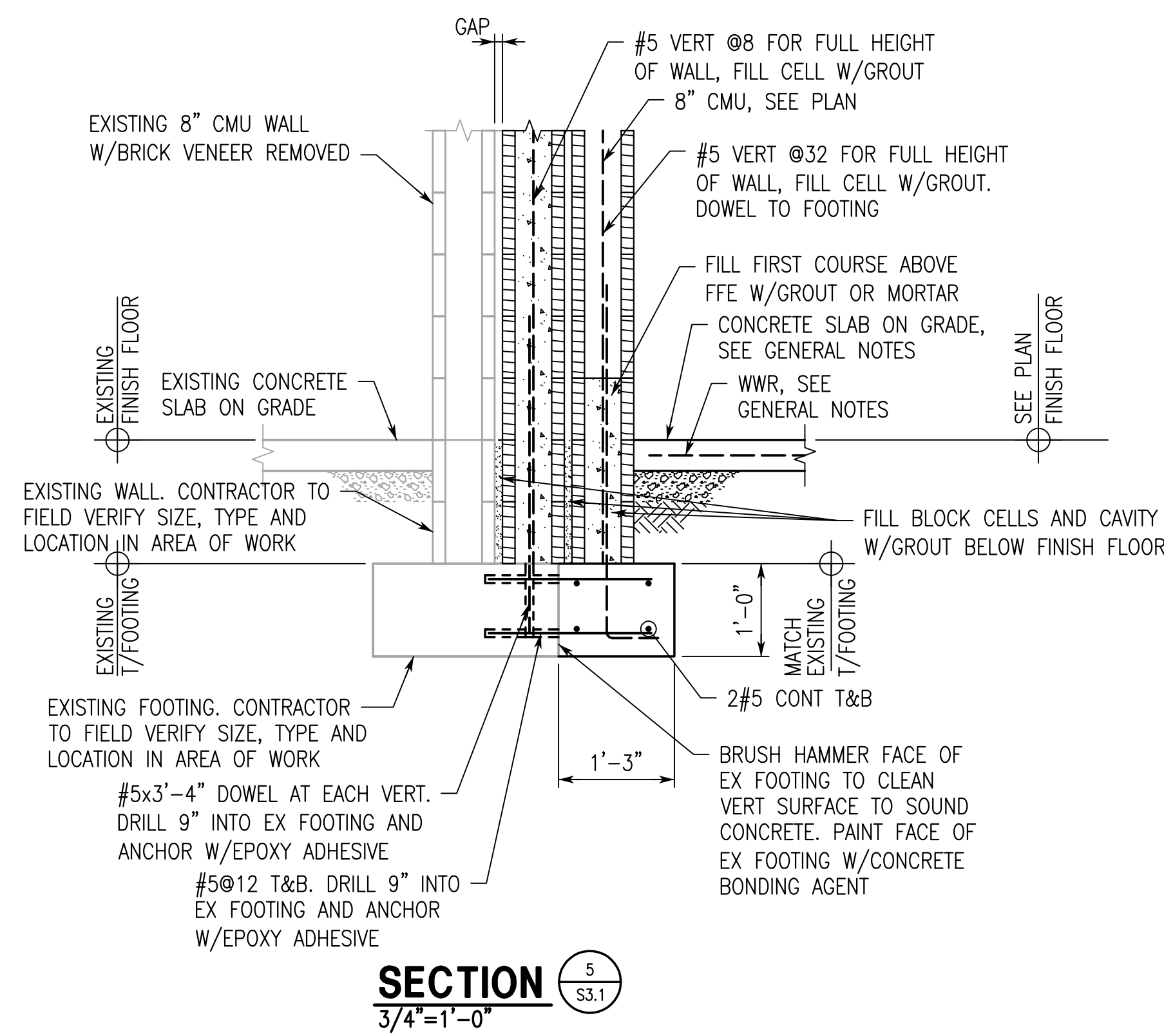
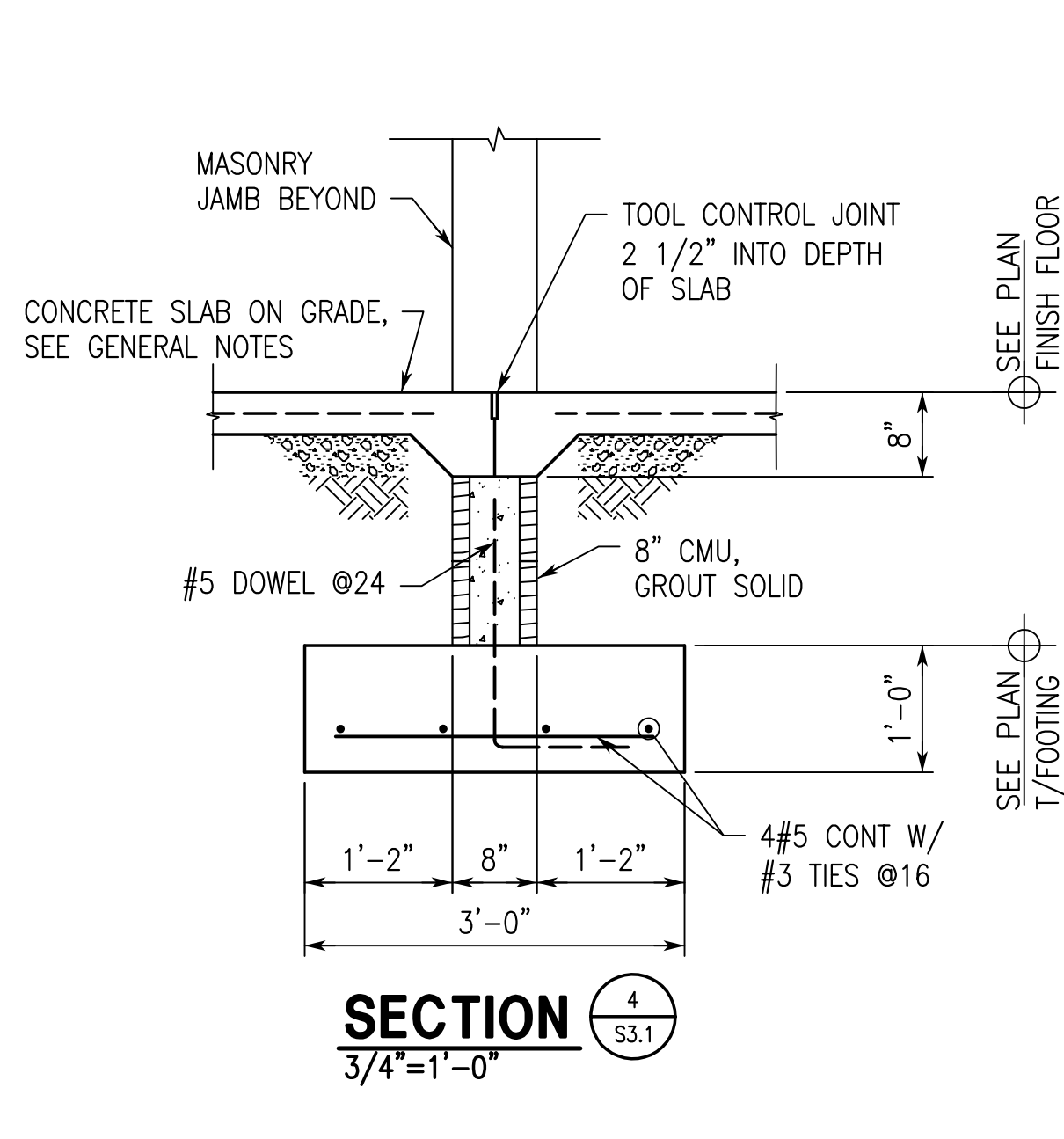
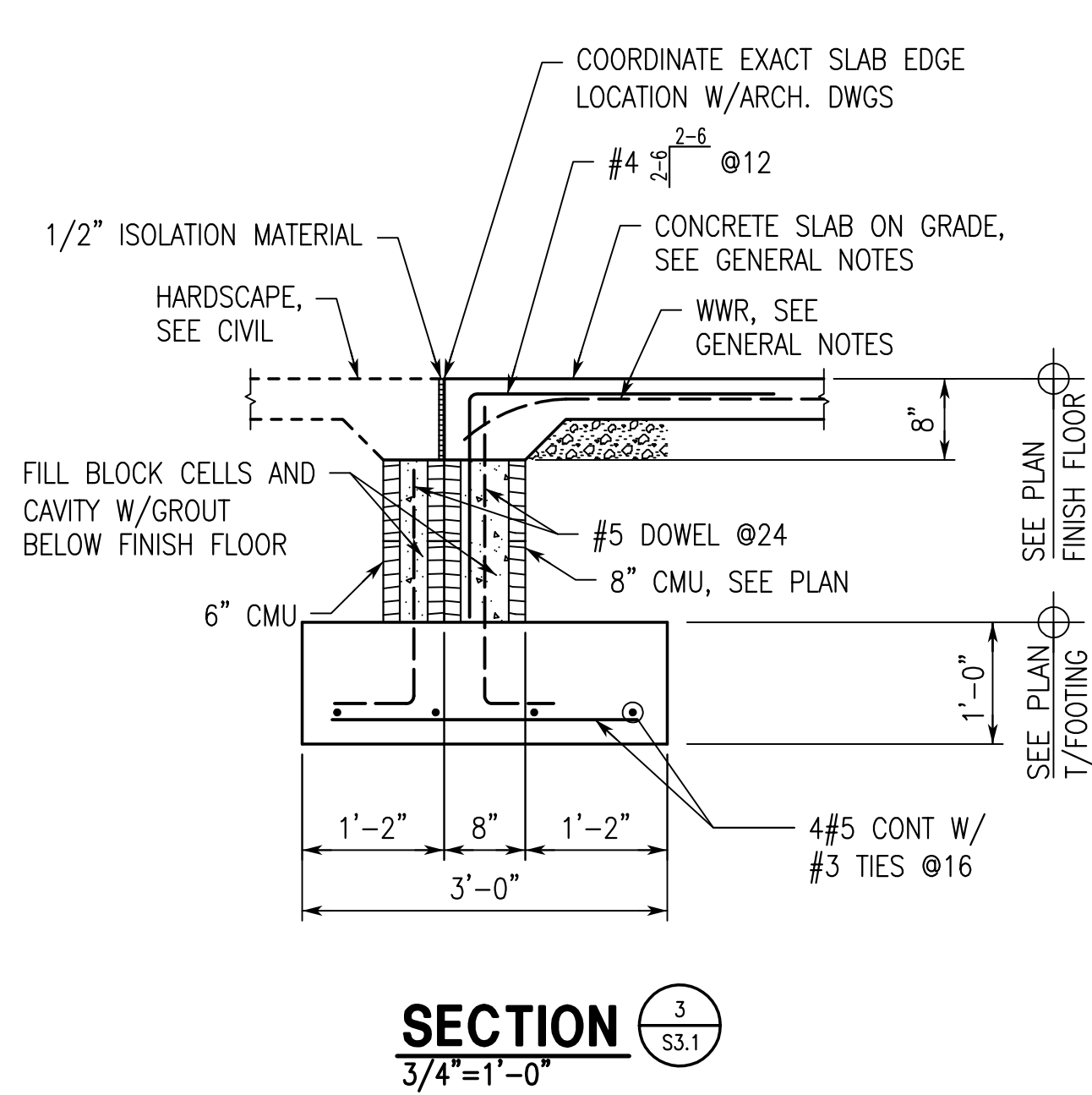
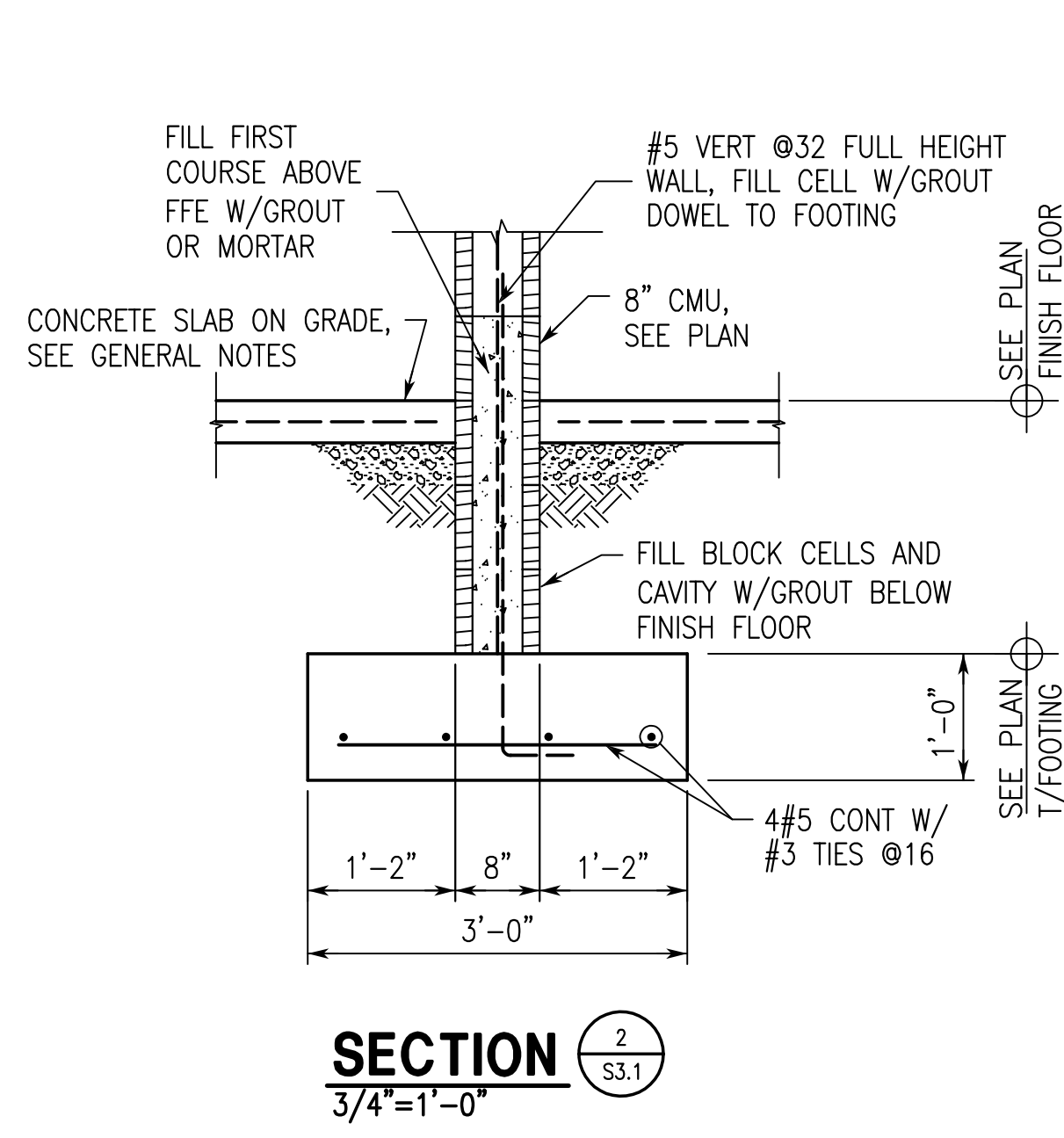
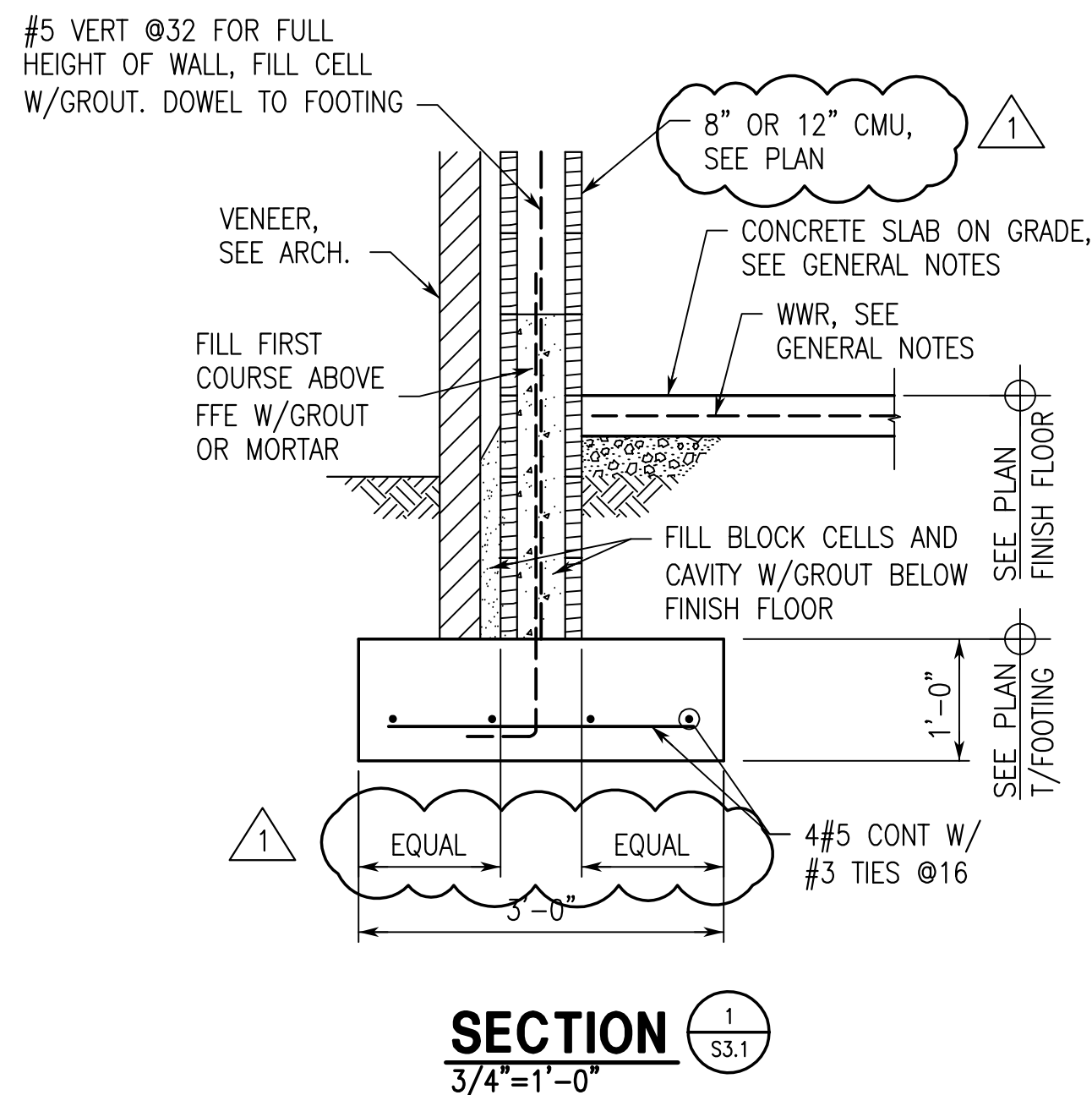
1. FINISH FLOOR (TOP OF SLAB) ELEVATION 0'-0", UNLESS NOTED.
2. TOP OF FOOTING ELEVATION -2'-0", UNLESS NOTED.
3. FOR SLAB ON GRADE CONSTRUCTION, SEE GENERAL NOTES AND TYPICAL DETAILS.
4. FOR SLAB RECESS AND RAMP LOCATIONS, SEE ARCHITECTURAL DRAWINGS.
5. GENERAL CONTRACTOR SHALL COORDINATE TILE JOINT LOCATIONS WITH CONTROL JOINTS.
6. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL CMU WALLS. NOTE ALL EXTERIOR PLAN DIMENSIONS ARE TO EXTERIOR FACE OF CMU ABOVE WATERTABLE.

7. GENERAL CONTRACTOR SHALL COORDINATE ALL FOOTING STEPS WITH CIVIL, PLUMBING AND UTILITY DRAWINGS. FOR FOOTING STEP AT UTILITIES, SEE DETAIL ON S1.2.
8. FOOTING WIDTHS INDICATED ON PLAN MAY NOT BE TO SCALE. COORDINATE WITH SECTION CUTS FOR FOOTING WIDTHS AND ADDITIONAL INFORMATION.
9. FOR PAVEMENT AND HARDSCAPE INFORMATION, SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS.
10. CONTRACTOR SHALL COORDINATE EMBEDS INTO MASONRY WITH LOUVER OR DOOR MANUFACTURER, PROVIDE MODIFICATIONS TO STRUCTURE AS REQUIRED TO FULLY COMPLY WITH MANUFACTURER INSTALLATION DETAILS. SUBMIT ANY MODIFICATIONS TO DESIGN TEAM FOR REVIEW.

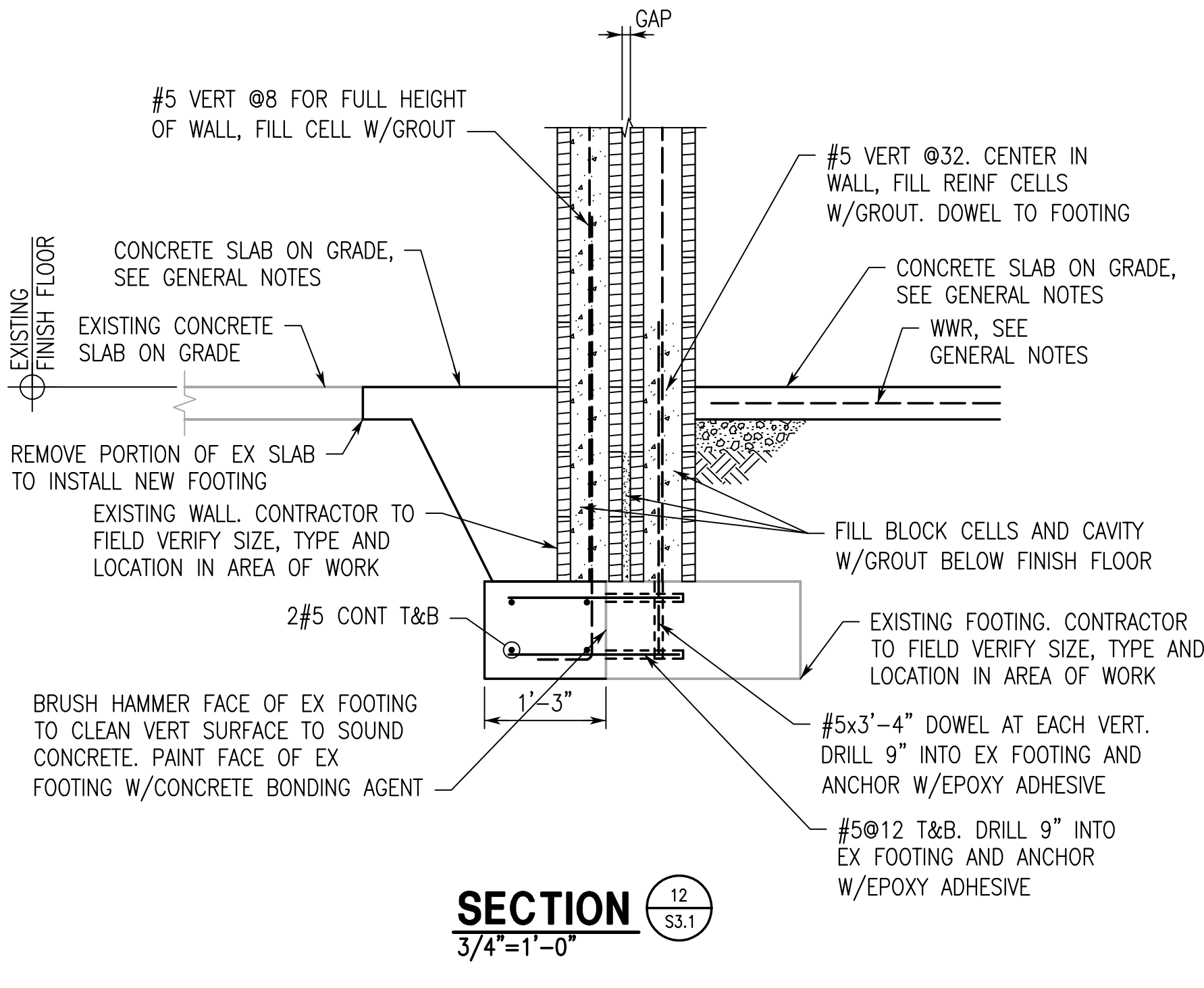
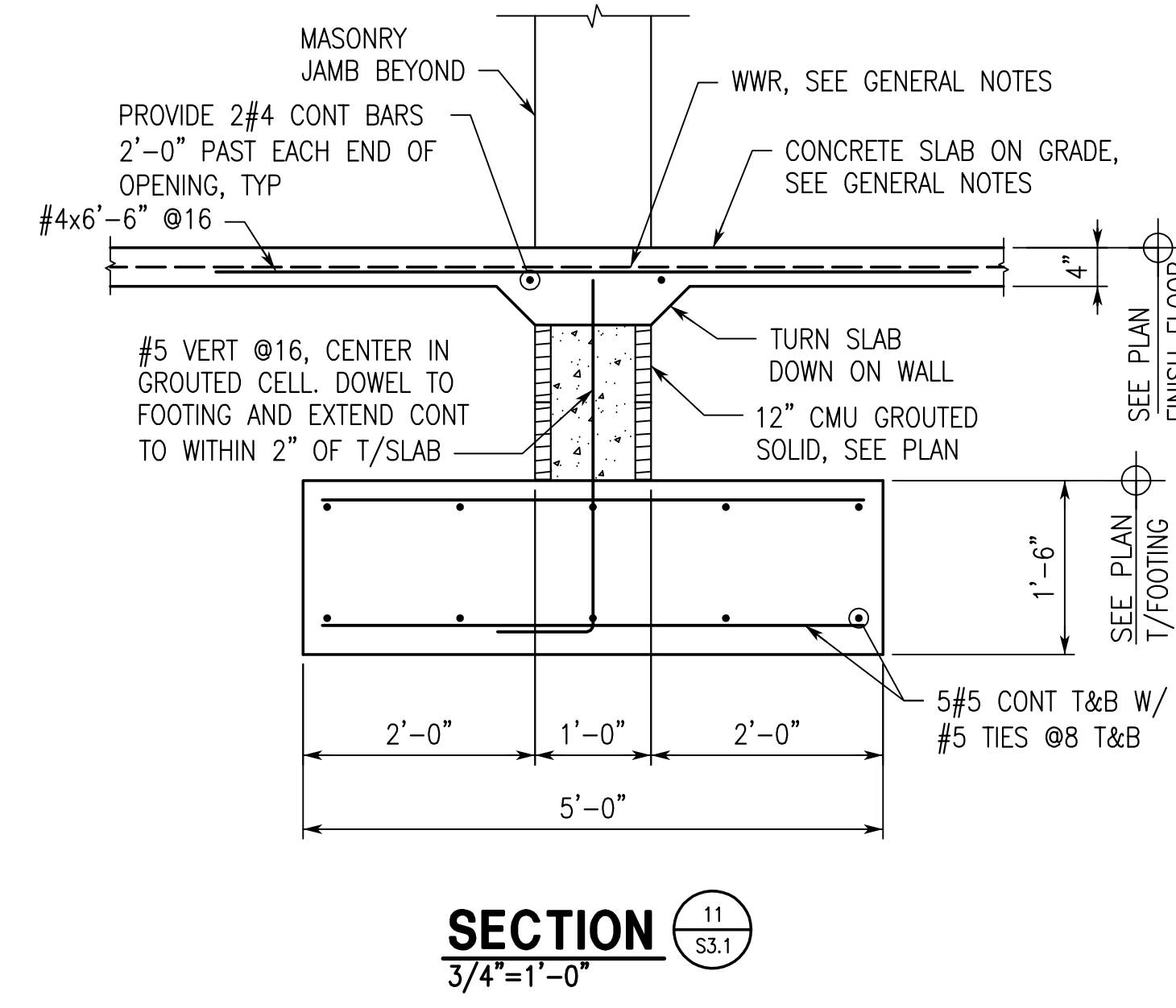
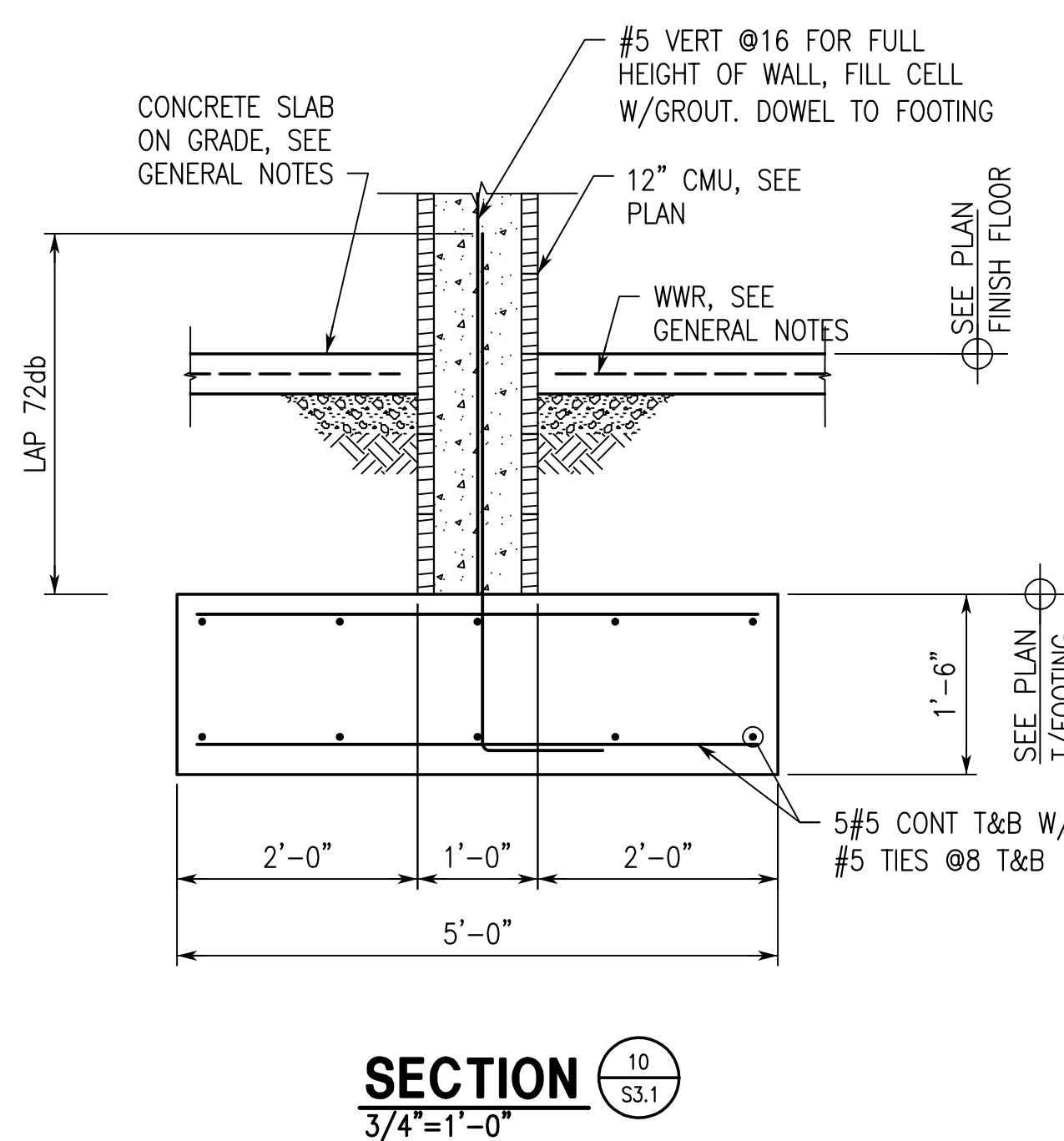
11. GENERAL CONTRACTOR COORDINATE FOOTING ELEVATIONS AND STEP NEW FOOTINGS AS REQUIRED TO MATCH EXISTING FOOTING ELEVATIONS. DOWEL CONTINUOUS REINFORCING 9" INTO EXISTING FOOTING BY DRILLING AND ANCHORING WITH EPOXY ADHESIVE.
12. THE DASHED LINE ON THE PLAN INDICATES AREA TO BE USED AS STORM SHELTER. FOR ADDITIONAL INFORMATION, SEE GENERAL NOTES, PLANS AND SECTIONS.
13. VERTICAL DOWELS AT INDICATED LOCATIONS ARE TO ONLY EXTEND ABOVE TOP OF FOOTING ELEVATIONS BY 1'-0". LAP DOWELS 1'-0" INTO WALL OR MASONRY COLUMN. PROVIDE DECREASED LAP LENGTH WHEN DOWELING NON-STORM SHELTER WALLS OR MASONRY COLUMNS TO STORM SHELTER WALL FOOTINGS.

14. WALL MOUNTED STEEL LADDER SYSTEM, SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. CONNECTIONS TO BUILDING AND CONNECTION DESIGN BY LADDER MANUFACTURER/FABRICATOR, CONTRACTOR TO COORDINATE. DO NOT ANCHOR LADDER TO VENEER. ANCHOR LADDER INTO LOAD BEARING MASONRY WALL WITH THREADED RODS IN PIPE SLEEVES.
15. "MCX" INDICATES MASONRY COLUMN. SEE SCHEDULE ON S1.4 FOR ADDITIONAL INFORMATION.

16. ALL BUILDING FOOTINGS TO BE SUPPORTED ON RAMMED AGGREGATE PIERS DESIGNED BY THE CONTRACTOR. FOOTINGS HAVE BEEN DESIGNED FOR MAXIMUM SOIL BEARING PRESSURE AS INDICATED IN GENERAL NOTES. CONTRACTOR DESIGN PIERS FOR UPLIFT FORCES PER COMPONENTS AND CLADDING TABLE ON SHEET S1.4. ACTUAL LAYOUT OF AGGREGATE PIERS TO BE DETERMINED BY THE CONTRACTOR. FOR ADDITIONAL AGGREGATE PIER INFORMATION SEE THE GENERAL NOTES, SPECIFICATIONS, AND GEOTECHNICAL REPORT.



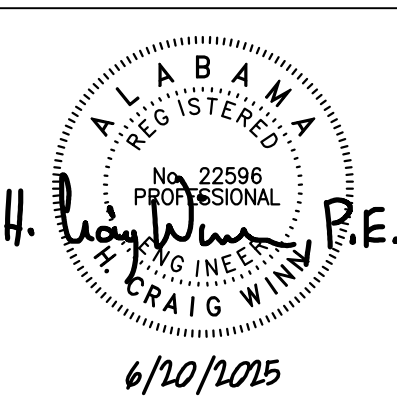
NOTE:
WALLS SHALL BE DISCONTINUOUS
AT JOINT. NO REINFORCING
SHALL CROSS JOINT.



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

