

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

TALLADEGA COUNTY BOARD OF EDUCATION

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OWNER TALLADEGA COUNTY BOARD OF EDUCATION  
106 W. SOUTH STREET  
TALLADEGA, ALABAMA 35161-0887

ARCHITECT LATHAN ASSOCIATES ARCHITECTS, P.C.  
300 CHASE PARK SOUTH,  
SUITE 200  
HOOVER, ALABAMA 35244  
EMAIL: RFI@LATHANASSOCIATES.COM

CIVIL LBYD  
880 MONTCLAIR ROAD #600  
BIRMINGHAM, ALABAMA 35213

STUCTURAL STRUCTURAL DESIGN GROUP  
300 CHASE PARK SOUTH, STE 125  
HOOVER, ALABAMA 35244

MECHANICAL/  
PLUMBING PINNACLE ENGINEERING, INC.  
2111 PARKWAY OFFICE CIRCLE, STE 125  
BIRMINGHAM, ALABAMA 35244

ELECTRICAL STEWART ENGINEERING  
P.O. BOX 2233  
ANNISTON, ALABAMA 36202

**DRAWING INDEX** (SET - 78 TOTAL SHEETS)

**GENERAL**

(3 SHEETS)

- T1 - TITLE AND INDEX
- LS1.1 - LIFE SAFETY PLANS
- LS1.2 - STORM SHELTER PLAN AND CALCULATIONS

**CIVIL DRAWINGS**

(7 SHEETS)

- C0.1 - CIVIL NOTES
- C1.0 - SITE DEMOLITION PLAN
- C2.0 - SITE LAYOUT PLAN
- C3.0 - GRADING AND DRAINAGE PLAN
- C4.0 - EROSION CONTROL PLAN
- C5.0 - SITE UTILITY PLAN
- C6.0 - CIVIL DETAILS

**ARCHITECTURAL DRAWINGS**

(25 SHEETS)

- A1.1 - ARCHITECTURAL SITE PLAN
- A1.2 - DEMOLITION PLAN AND PHOTOS
- A2.1 - MAIN LEVEL FLOOR PLAN
- A2.2 - ATTIC FLOOR PLAN
- A2.3 - ROOF PLAN AND ROOF LEGENDS
- A2.4 - TYPICAL ROOF DETAILS
- A2.5 - DOOR AND WINDOW SCHEDULE AND DETAILS
- A2.6 - DOOR DETAILS
- A2.7 - PLAN DETAILS
- A3.1 - BUILDING ELEVATIONS
- A3.2 - BUILDING SECTIONS
- A3.3.1 - WALL SECTIONS
- A3.3.2 - WALL SECTIONS
- A3.3.3 - WALL SECTIONS
- A3.4 - ROOF DETAILS
- A3.5 - ROOF DETAILS
- A3.6 - ENLARGED ENTRY PLAN, ELEVATIONS AND DETAILS
- A4.1 - STAIR PLANS, SECTIONS AND DETAILS
- A5.1 - ENLARGED PLANS, PLUMBING ELEVATIONS, AND DETAILS
- A6.1 - CASEWORK PLAN AND ELEVATIONS
- A6.2 - CASEWORK SECTIONS
- A7.1 - REFLECTED CEILING PLAN AND DETAILS
- A7.2 - ATTIC REFLECTED CEILING PLAN
- A8.1 - FINISH FLOOR PLAN AND ENLARGED VCT PATTERNS
- A8.2 - FINISH SCHEDULE, LEGEND, AND DETAILS

**STRUCTURAL DRAWINGS**

(19 SHEETS)

- S1.0 - GENERAL NOTES
- S1.1 - GENERAL NOTES CONTINUED
- S1.2 - TYPICAL DETAILS
- S1.3 - TYPICAL DETAILS
- S1.4 - TYPICAL DETAILS

**STRUCTURAL DRAWINGS CONT.**

- S1.5 - TYPICAL DETAILS
- S2.1 - FOUNDATION PLAN
- S2.2 - ATTIC FRAMING PLAN
- S2.3 - ROOF FRAMING PLAN
- S3.1 - SECTIONS AND DETAILS
- S3.2 - SECTIONS AND DETAILS
- S3.3 - SECTIONS AND DETAILS
- S3.4 - SECTIONS AND DETAILS
- S3.5 - SECTIONS AND DETAILS
- S3.6 - SECTIONS AND DETAILS
- S3.7 - SECTIONS AND DETAILS
- S3.8 - SECTIONS AND DETAILS
- S3.9 - SECTIONS AND DETAILS
- S3.10 - SECTIONS AND DETAILS

**FIRE PROTECTION DRAWINGS**

(3 SHEETS)

- FP0.1 - FIRE PROTECTION LEGEND, ABBREVIATIONS, SCHEDULES, AND DETAILS
- FP1.1 - FIRE PROTECTION FLOOR PLAN
- FP1.2 - FIRE PROTECTION ATTIC FLOOR PLAN

**PLUMBING DRAWINGS**

(6 SHEETS)

- P0.1 - PLUMBING LEGEND, ABBREVIATIONS, SCHEDULES, AND DETAILS
- P1.1 - PLUMBING GRAVITY FLOOR PLAN
- P1.2 - PLUMBING GRAVITY ATTIC FLOOR PLAN
- P2.1 - PLUMBING PRESSURE FLOOR PLAN
- P2.2 - PLUMBING PRESSURE ATTIC FLOOR PLAN
- P3.1 - PLUMBING RISERS

**MECHANICAL DRAWINGS**

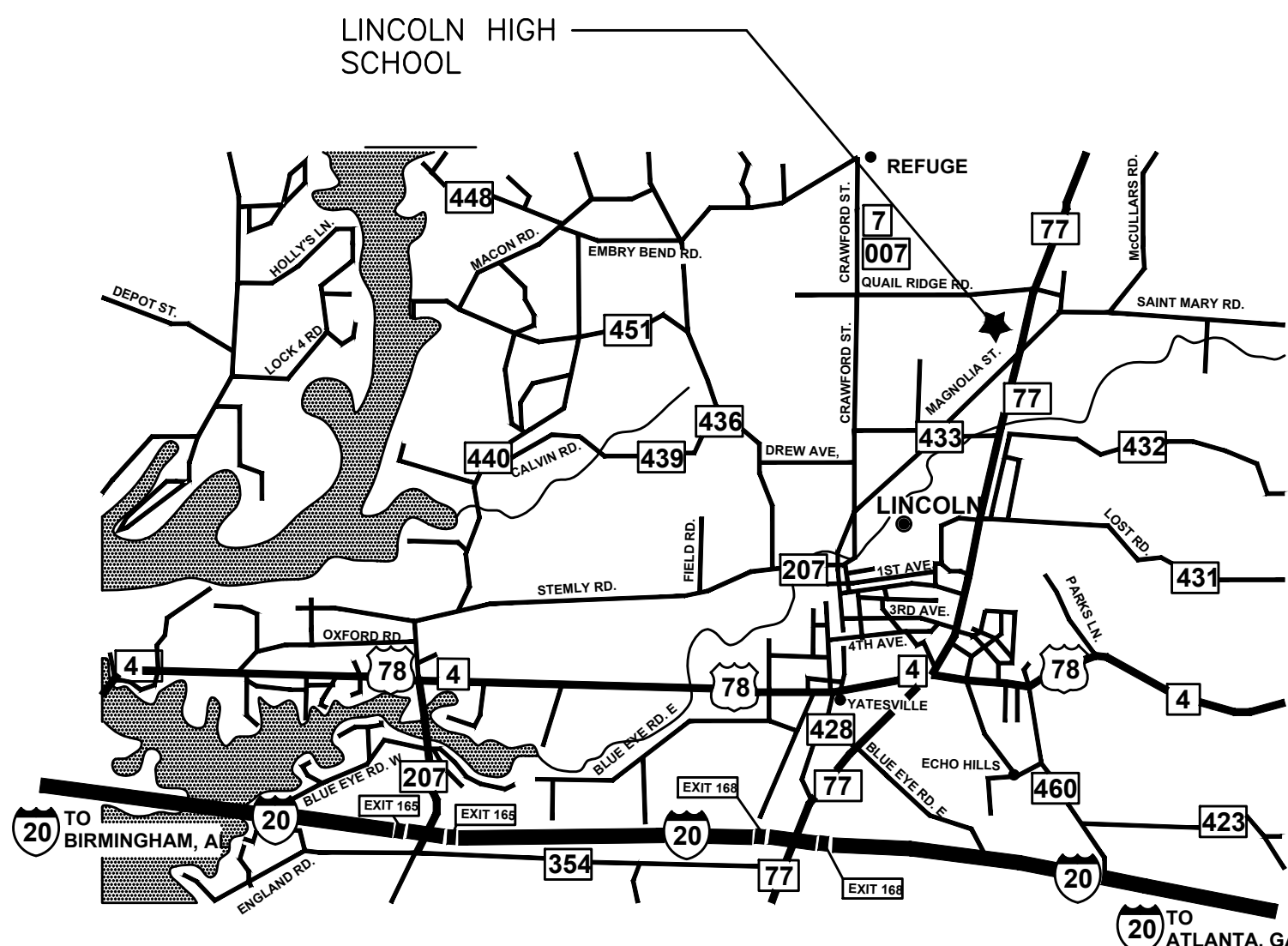
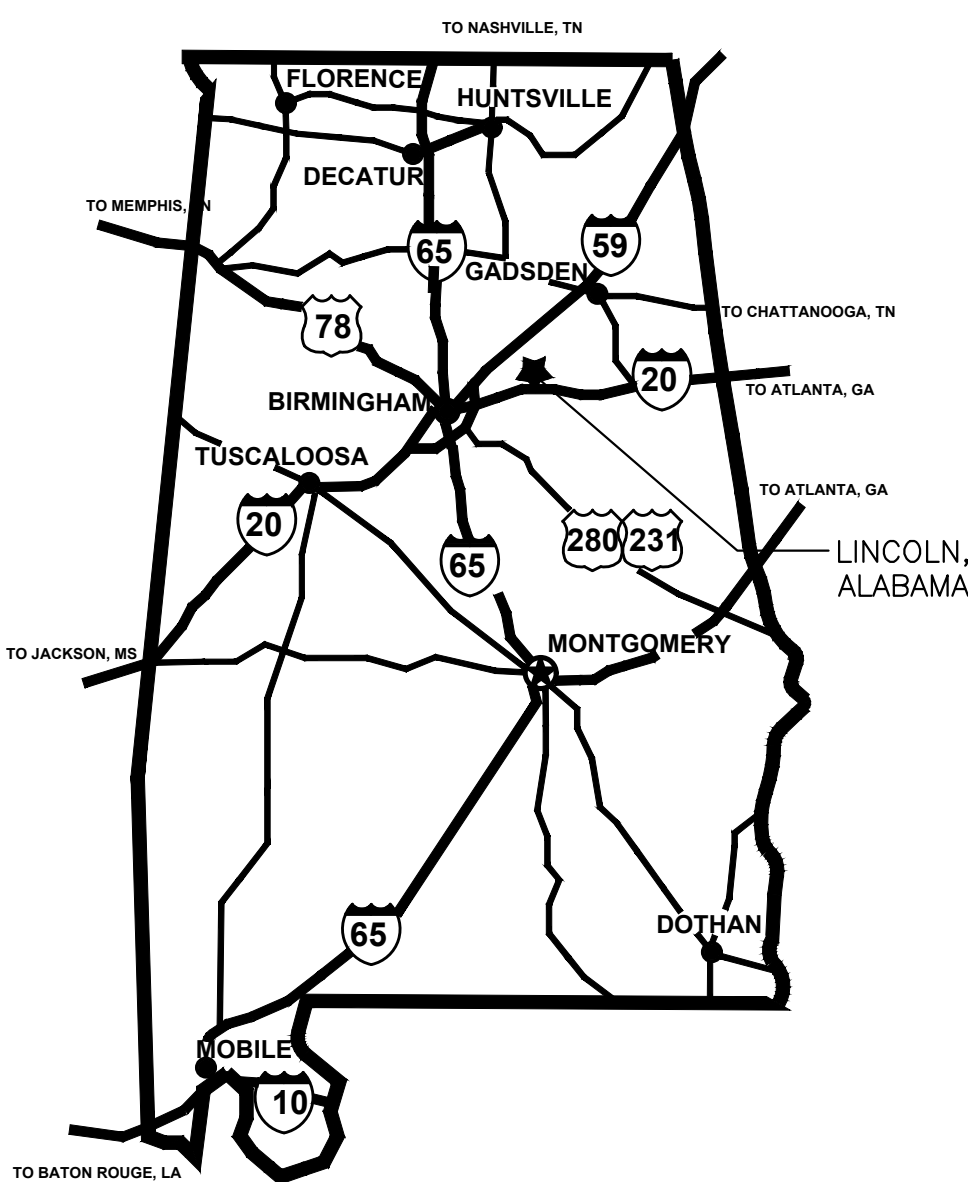
(7 SHEETS)

- M0.1 - MECHANICAL LEGEND, ABBREVIATIONS, SCHEDULES, AND DETAILS
- M1.1 - MECHANICAL FLOOR PLAN
- M1.2 - MECHANICAL ATTIC FLOOR PLAN
- M1.3 - MECHANICAL ROOF PLAN
- M2.1 - MECHANICAL DETAILS
- M2.2 - MECHANICAL DETAILS AND CONTROL DIAGRAMS
- M2.3 - MECHANICAL OUTSIDE AIR CALCULATIONS AND CONTROL DIAGRAMS

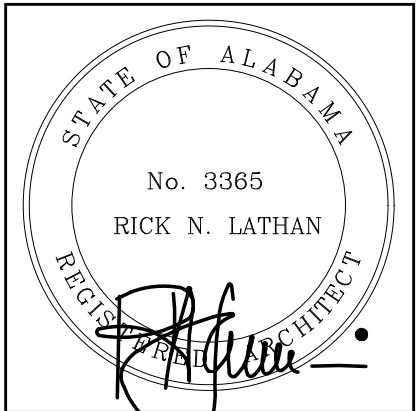
**ELECTRICAL DRAWINGS**

(8 SHEETS)

- E1.1 - SCHEDULES, SYMBOLS, AND NOTES
- E2.1 - MASTER PLAN AND SINGLE LINE DIAGRAM
- E3.1 - MAIN FLOOR PLAN - LIGHTING
- E3.2 - ATTIC FLOOR PLAN - LIGHTING
- E4.1 - MAIN FLOOR PLAN - POWER
- E4.2 - ATTIC FLOOR PLAN - POWER
- E5.1 - MAIN FLOOR PLAN - AUXILIARIES
- E5.2 - ATTIC FLOOR PLAN - AUXILIARIES



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SHEET TITLE:  
TITLE AND INDEX

PROJ. MGR.: L. BRYANT  
DRAWN: PPH & E.B.  
DATE: JANUARY 31, 2023

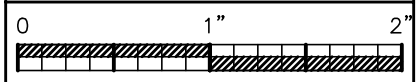
REVISIONS

JOB NO. 22-20

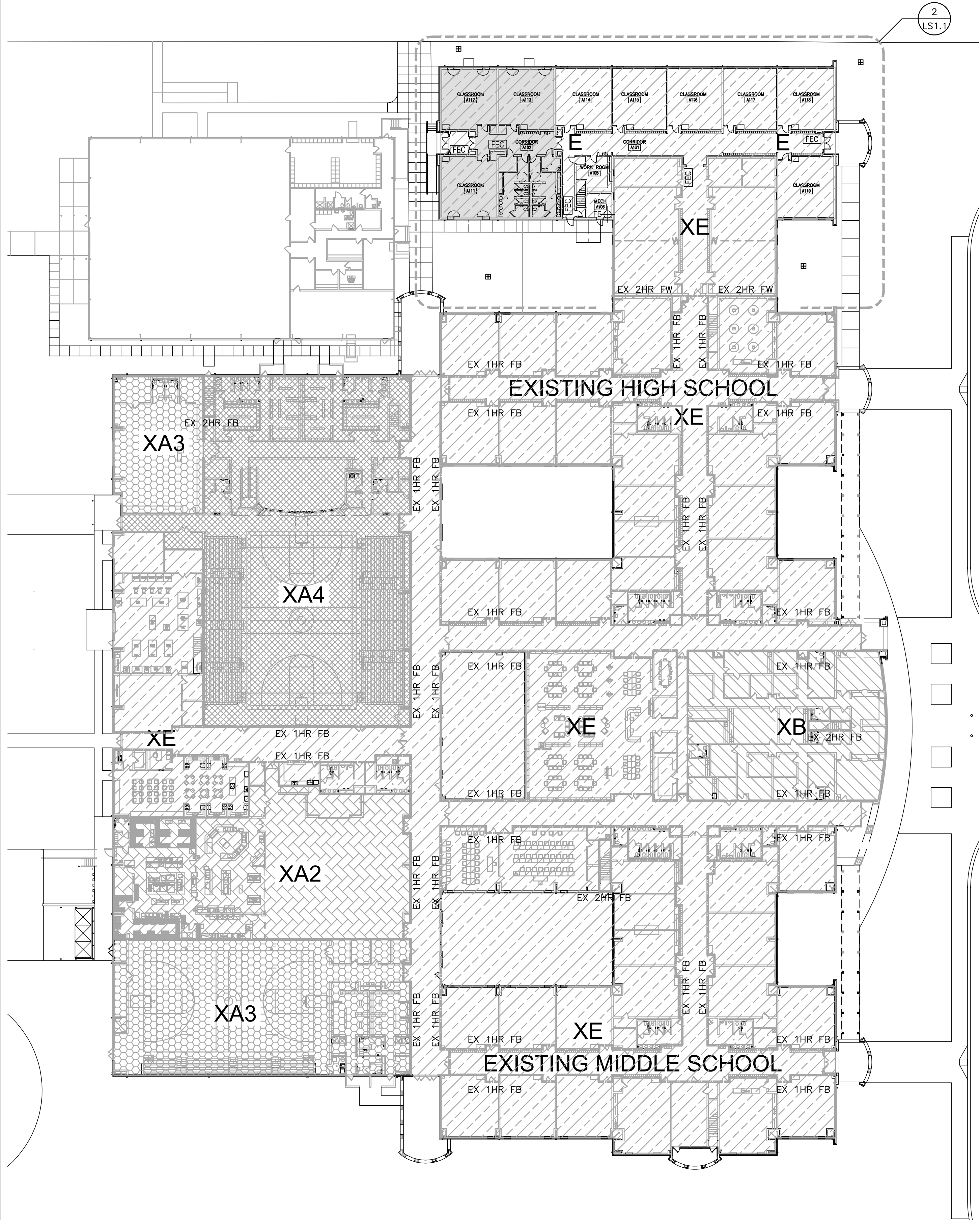
SHEET NO:

**T1**

1 OF 3







**1 OVERALL LIFE SAFETY PLAN**  
1/32" = 1'-0"

DOOR/WINDOW RATING LEGEND	
(20) 20 MINUTE DOOR AND FRAME	(90) 90 MINUTE WINDOW OR DOOR SYSTEM PER ASTM E119
(45) 45 MINUTE DOOR AND FRAME	(90) 90 MINUTE RATING AND TORNADO IMPACT RATED
(60) 60 MINUTE DOOR AND FRAME	(TS) TORNADO IMPACT RATED SHUTTER
(90) 90 MINUTE DOOR AND FRAME	(SM) SMOKE BARRIER

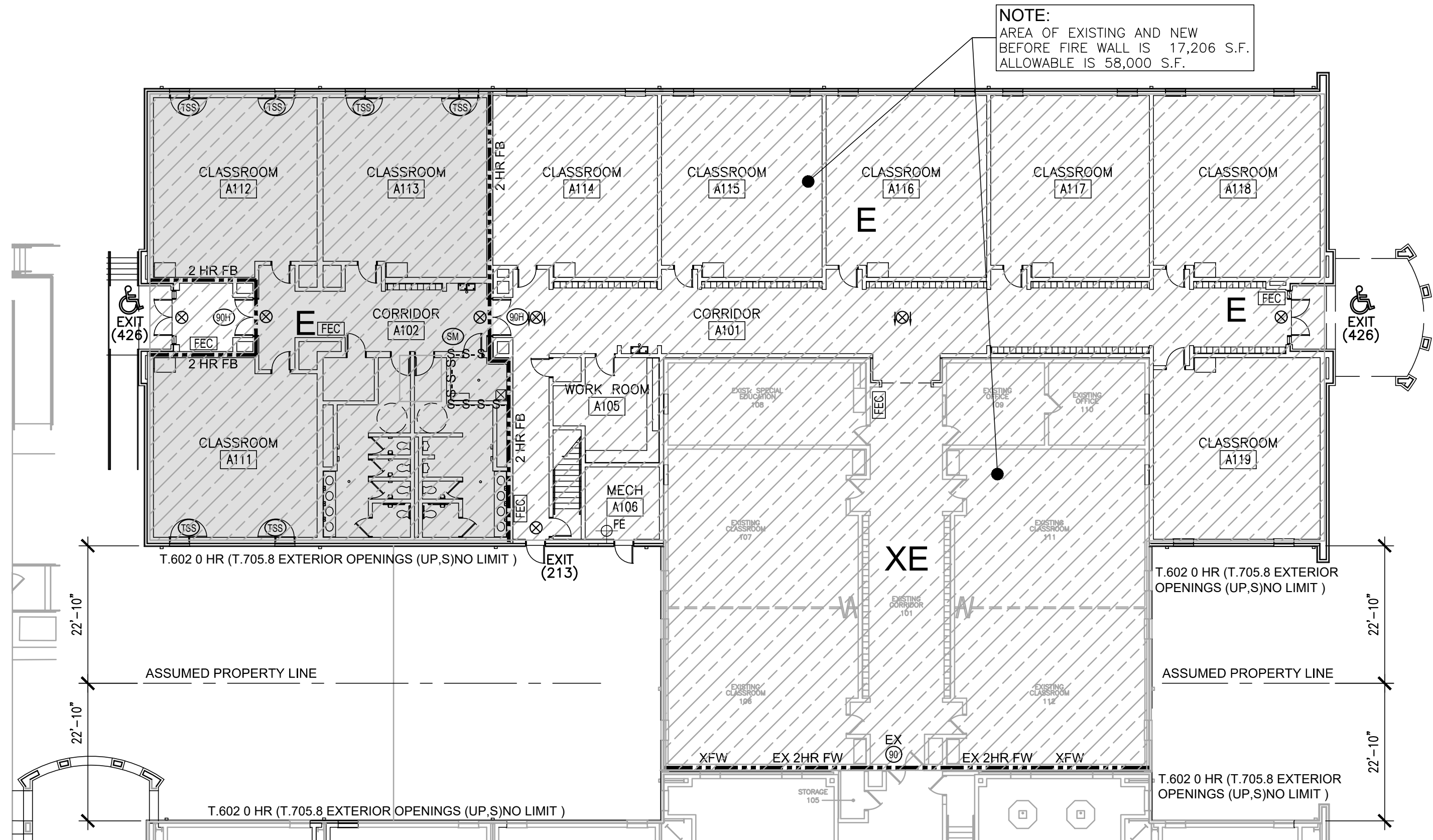
WALL TYPE LEGEND	
---	1 HR WALL
---	2 HR WALL
S-S-S-S-S-S-S-S-S-S-S-S	SMOKE BARRIER

LIFE SAFETY NOTES	
FIRE EXTINGUISHER AND CABINET (PROVIDE FIRE RATED CABINETS IN RATED WALLS.)	
FIRE EXTINGUISHER	ACCESSIBLE
EXIT SIGN	EXIT (320)
DIRECTION	EXIT CAPACITY
SHELTER LOCATION	
EXTEND AND KEY ALL RATED WALLS TO SHAFT WALL SYSTEM, AND/OR BOTTOM OF ROOF ASSEMBLY	
STENCIL LABEL ALL RATED WALLS & DRAFT STOPS ABOVE CEILING EACH SIDE @ 20'-0" O.C. MAX.	
ALL RATED DOORS AND FRAMES TO BE LABELED WITH EMBOSSED LABELS INDICATING RATING IN MINUTES	
PROVIDE FOAM FILL INSULATION AS SPECIFIED IN ALL WALLS BETWEEN TOILETS AND CLASSROOMS.	
COORDINATE W/ ELECTRICAL & MECHANICAL AND PROVIDE CONCRETE EQUIPMENT PAD AS REQUIRED	
HE - HORIZONTAL EXIT	XHE - EXISTING HORIZONTAL EXIT
FB - FIRE BARRIER	XFB - EXISTING FIRE BARRIER
FP - FIRE PARTITION	XFP - EXISTING FIRE PARTITION
FW - FIRE WALL	XFW - EXISTING FIRE WALL

2021 INTERNATIONAL BUILDING CODE RESEARCH		
EXISTING OCCUPANCY CLASSIFICATION:	GROUP E	
EXISTING TYPE OF CONSTRUCTION:	TYPE IIB (S1)	
NEW ADDITION OCCUPANCY CLASSIFICATION:	GROUP E	
NEW ADDITION TYPE OF CONSTRUCTION:	TYPE IIB (S1)	
EXISTING BUILDING AREA:	134,712 S.F.	
NEW ADDITION AREA:	11,806 S.F.	
TABLE 504.4 ALLOWABLE NUMBER OF STORIES:	ALLOWABLE STORIES: 3	ACTUAL STORIES: 1
TABLE 506.2 ALLOWABLE AREA:	AREA FACTOR: S1	58,000 S.F.
TABLE 601 AND 705.5 FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:	CONSTRUCTION TYPE: IIB	
	STRUCTURAL FRAME: 0	
	BEARING WALLS: 0	
	T. 705.5 EXTERIOR: < 5' 1hr	
	> 5' < 10' 1hr	
	> 10' < 30' 0	
	> 30' 0	
	INTERIOR: 0	
	NONBEARING WALLS: < 5' 1hr	
	T. 705.5 EXTERIOR: > 5' < 10' 1hr	
	> 10' < 30' 0	
	> 30' 0	
	INTERIOR: 0	
	FLOOR CONSTRUCTION: 0	
	ROOF CONSTRUCTION: 0	
TABLE 1020.2 CORRIDOR FIRE-RESISTANCE RATING PARTITIONS AND OPENING PROTECTIVES	GROUP E SPRINKLERED	0

CHAPTER 29 - PLUMBING SYSTEMS											
OCCUPANCY	USE	LOAD	WATERCLOSETS			LAVATORIES			DRINKING FOUNTAINS		SERVICE SINKS
			RATIO	MALE	FEMALE	RATIO	MALE	FEMALE	RATIO	ALL	
B		1.84	1/25 FIRST 50	.4	1/25 FIRST 50	.4	1/40 FIRST 50	.02	1/40 FIRST 50	.02	1
E		356.59	1/50	3.57	1/50	3.57	1/50	3.57	1/100	3.57	
S1,S2		.94	1/100	0	1/100	0	1/100	0	1/1000	0	
REQUIRED TOTALS				4		4		4		4	
PROVIDED TOTALS				4		4		4		4	

NOTE: CALCULATION BASED ON NEW ADDITION ALONE.



**2 PARTIAL LIFE SAFETY PLAN**  
1/16" = 1'-0"

OCCUPANCY USE LEGEND				
A4	A3	A2	B	E
GROUP A4 EXISTING GROUP XA4	GROUP A3 EXISTING GROUP XA3	GROUP A2 EXISTING GROUP XA2	GROUP B EXISTING GROUP B	GROUP E EXISTING GROUP E

**LATHAN ARCHITECTS**

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TALLADEGA COUNTY BOARD OF EDUCATION

STATE OF ALABAMA  
No. 3365  
RICK N. LATHAN  
REGISTERED PROFESSIONAL ARCHITECT

SHEET TITLE:  
LIFE SAFETY PLANS

PROJ. MGR.: L. BRYANT  
DRAWN: HR  
DATE: JANUARY 31, 2023  
REVISIONS

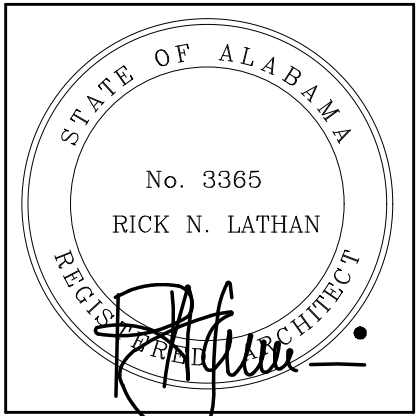
JOB NO. 22-20  
SHEET NO:  
**LS1.1**  
2 OF 3





LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



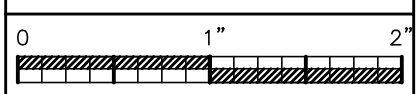
SHEET TITLE:  
STORM SHELTER PLAN AND  
CALCULATIONS

PROJ. MGR.: L. BRYANT  
DRAWN: HR  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:

LS1.2

3 OF 3



EXISTING TORNADO STORM SHELTER CALCULATION  
2020 ICC 500 (DCM Memo Updated Guidance on Tornado Storm Shelter  
Requirements for Public K-12 School February 18, 2021 and Department of Finance  
DCM Memo Updated Guidance on Mandatory Tornado  
Storm Shelters Required by IBC October 21, 2020)

GROSS AREA OF CLASSROOM/INSTRUCTIONAL SPACE:	7,203.35 S.F.
REQUIRED OCCUPANT CAPACITY (STUDENT AND FACULTY):	7,203 / 30 = 240.11 PERSONS + 10% 24 = 265
REQUIRED USEABLE SHELTER FLOOR AREA:	265(5) = 1,315 S.F. + 20 S.F. (2- WHEELCHAIR) = 1,335 S.F.
PROVIDED USEABLE SHELTER FLOOR AREA:	CORRIDOR A102 (100% USEABLE) = 414 S.F. CLASSROOMS A111, A112, AND A113: 2,377.25 S.F. - 35% = 1,545.21 S.F. TOTAL USEABLE PROVIDED = 1,959.21 S.F.
ACTUAL CAPACITY OF STORM SHELTER:	389 : 387(5) + 2 WHEELCHAIRS (20) = 1,955 S.F.

SHELTER LEGEND	
LOCATION	DOOR TYPE
	90 MINUTE TORNADO IMPACT RATED DOOR AND FRAME.
	TORNADO IMPACT RATED SHUTTER
	2 HR FIRE BARRIER
	TRAVEL DISTANCE

FIRE RATED WALLS:  
FIRE RATED WALLS INDICATED ON THIS SHEET ARE TORNADO STORM SHELTER WALLS ONLY. SEE LIFE SAFETY PLANS ON SHEET LS1.1 FOR ALL OTHER REQUIRED FIRE RATED WALLS.

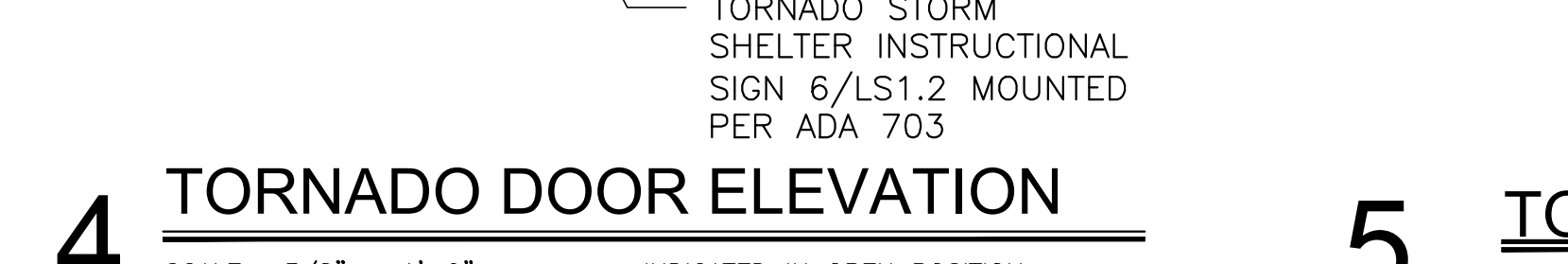
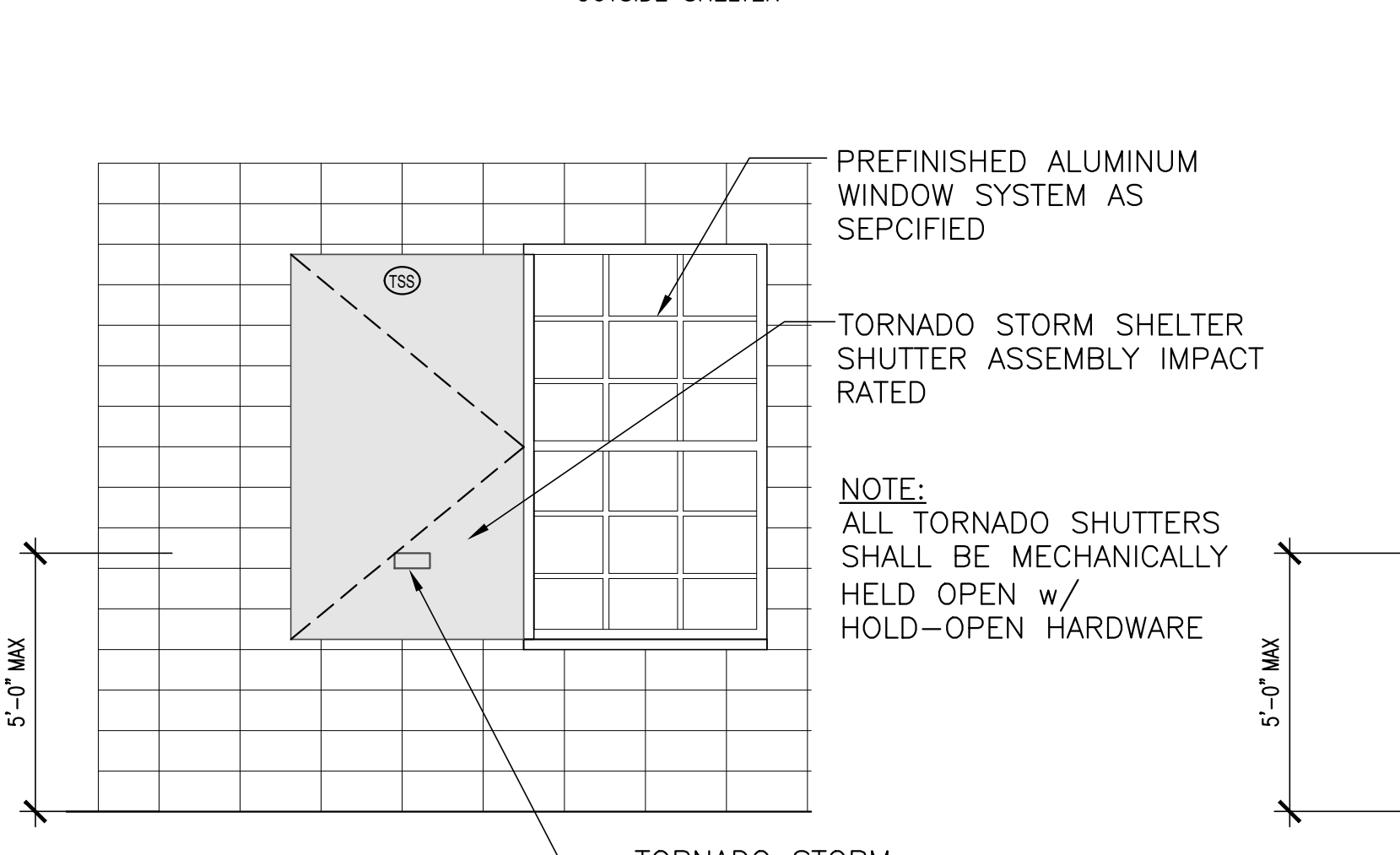
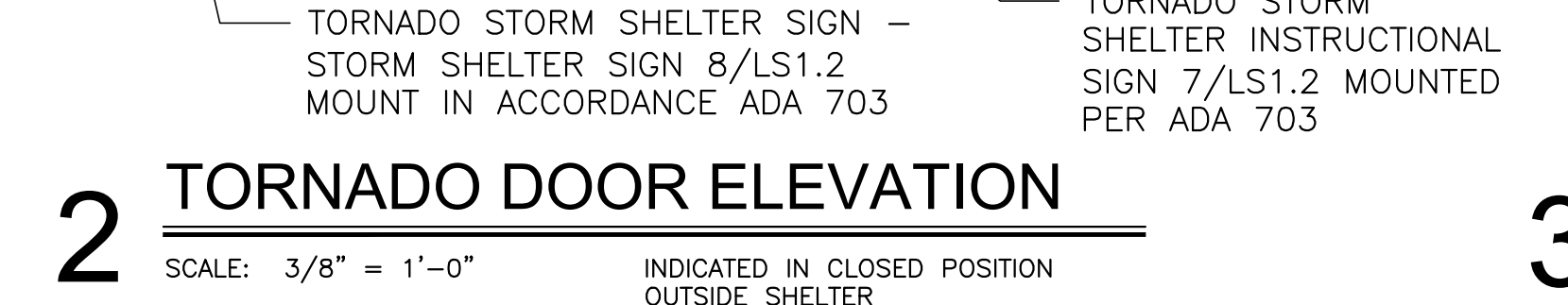
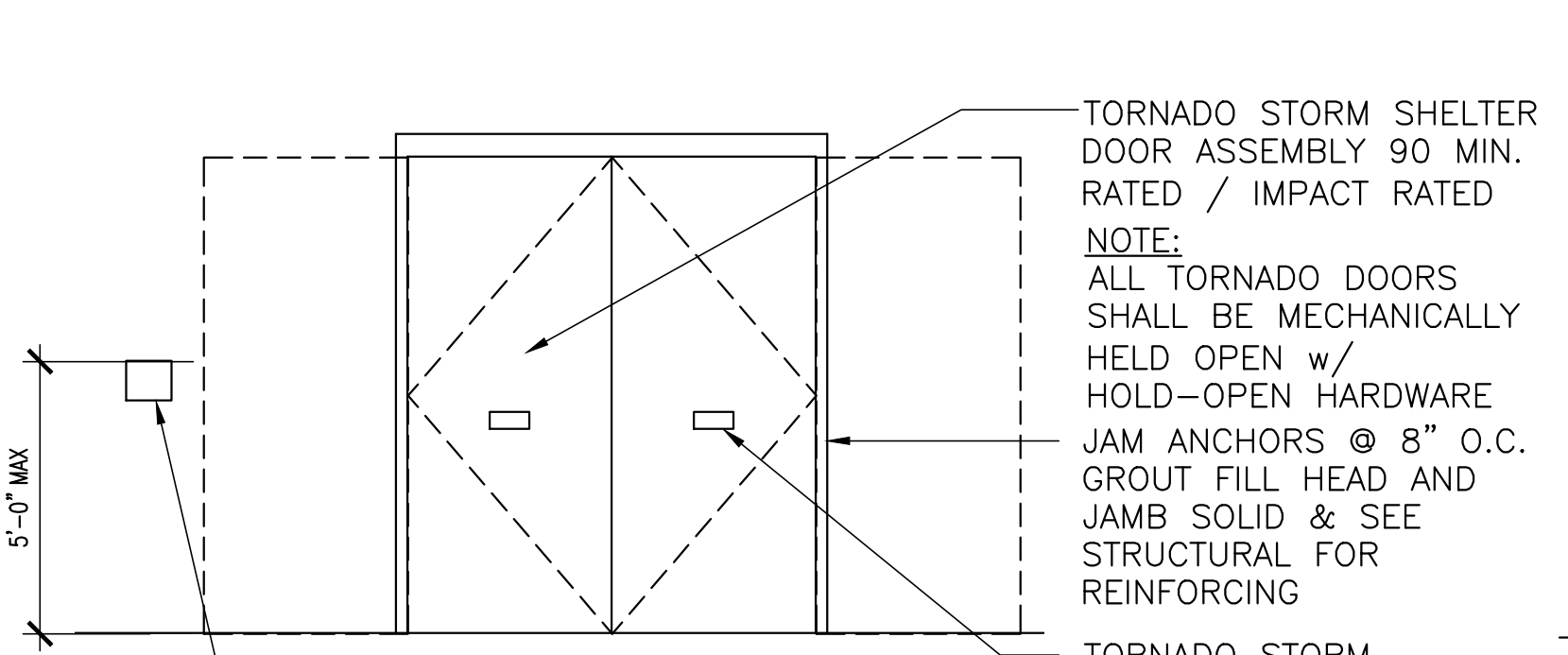
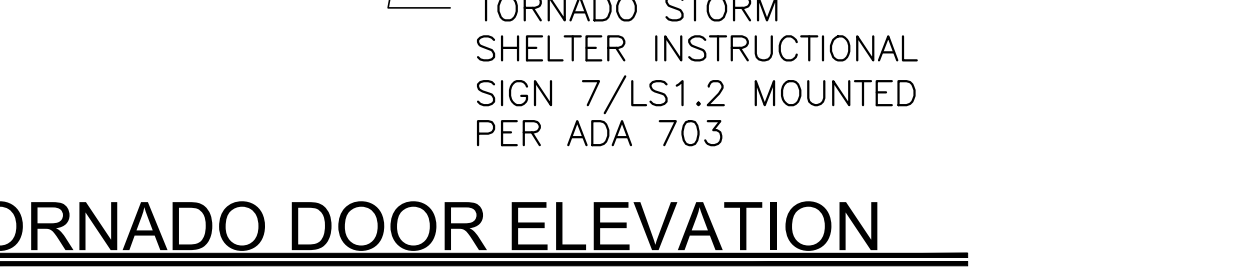
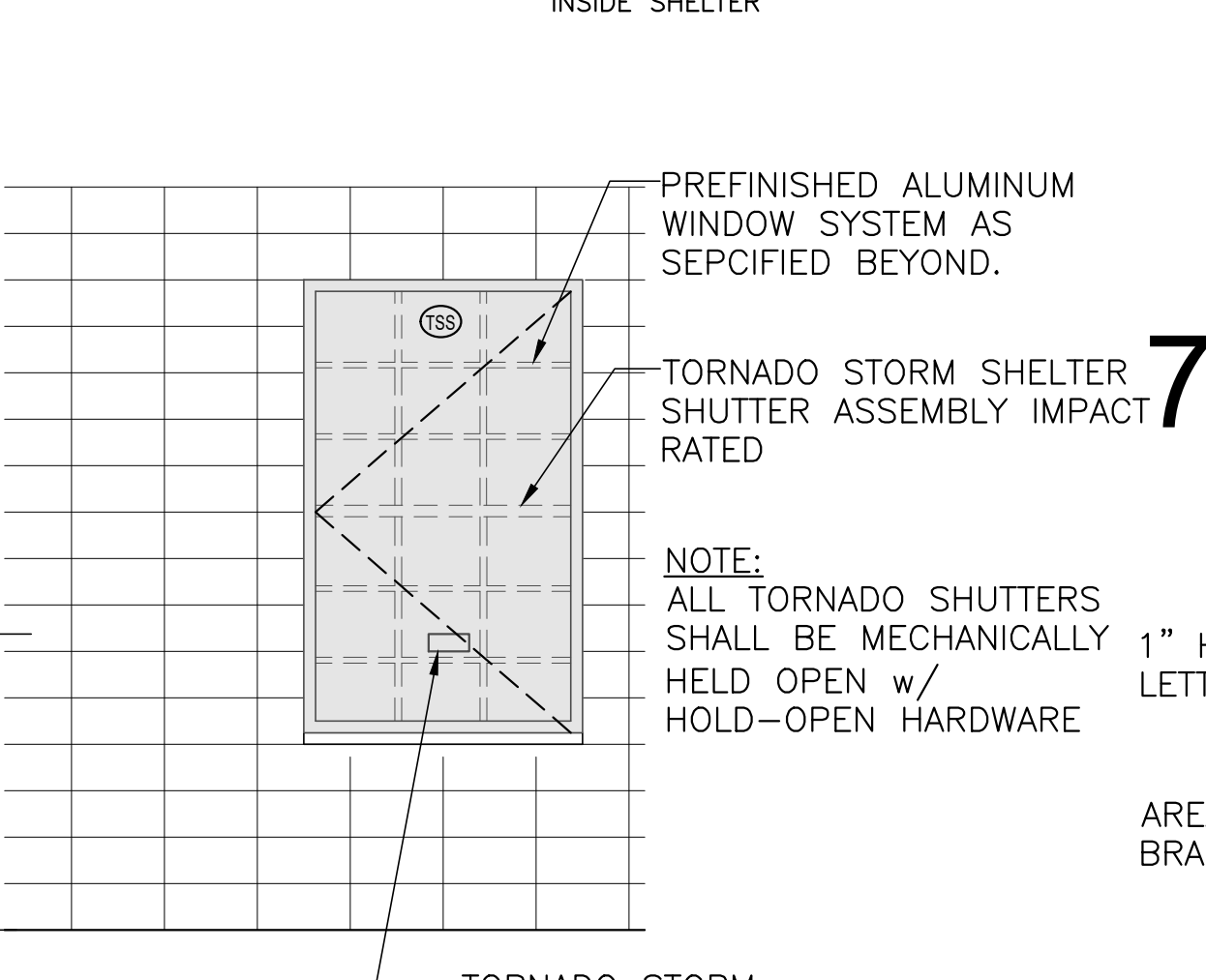
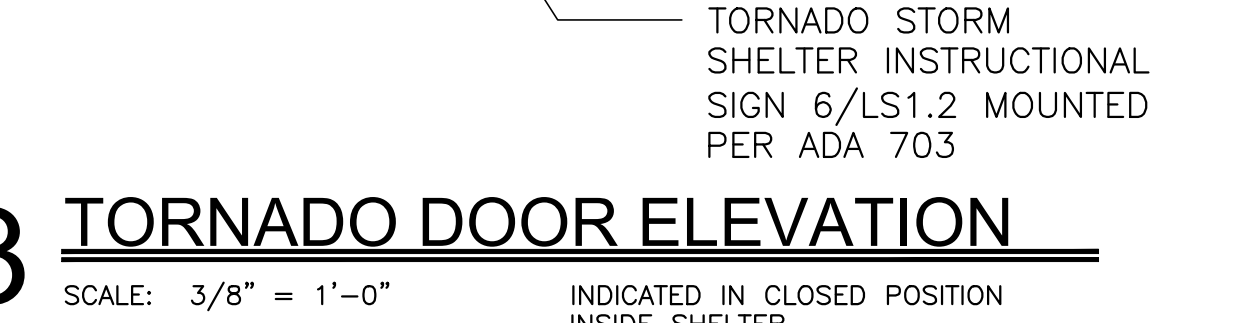
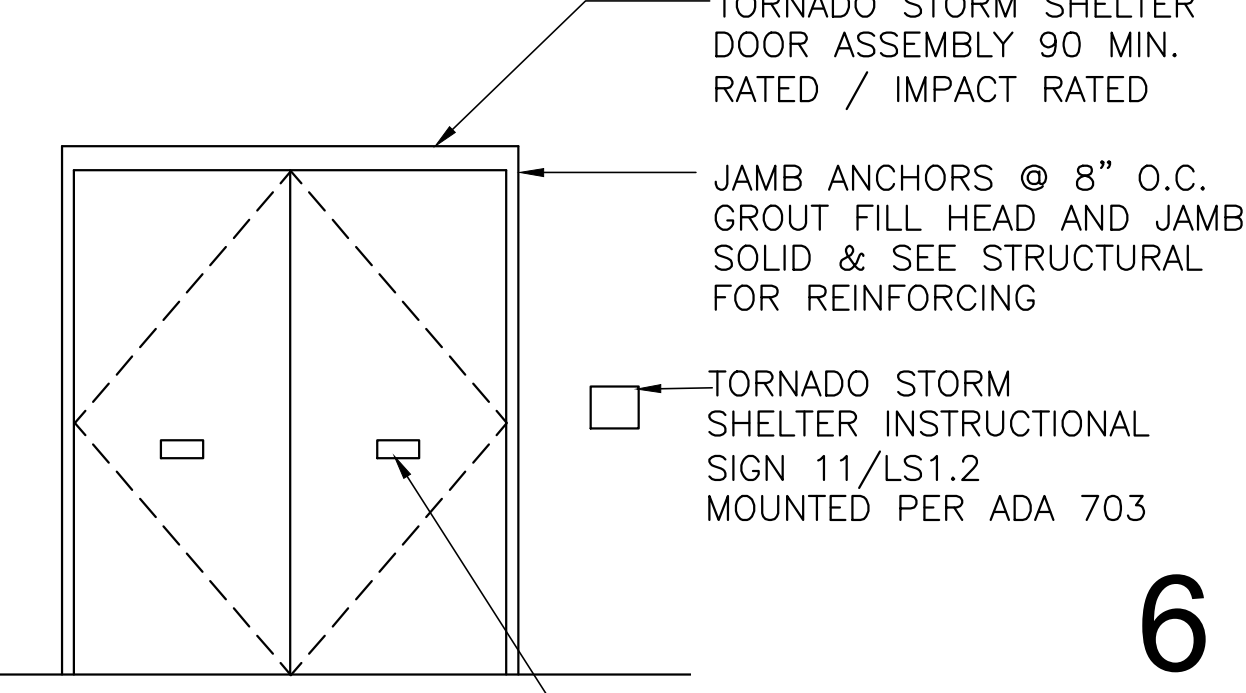
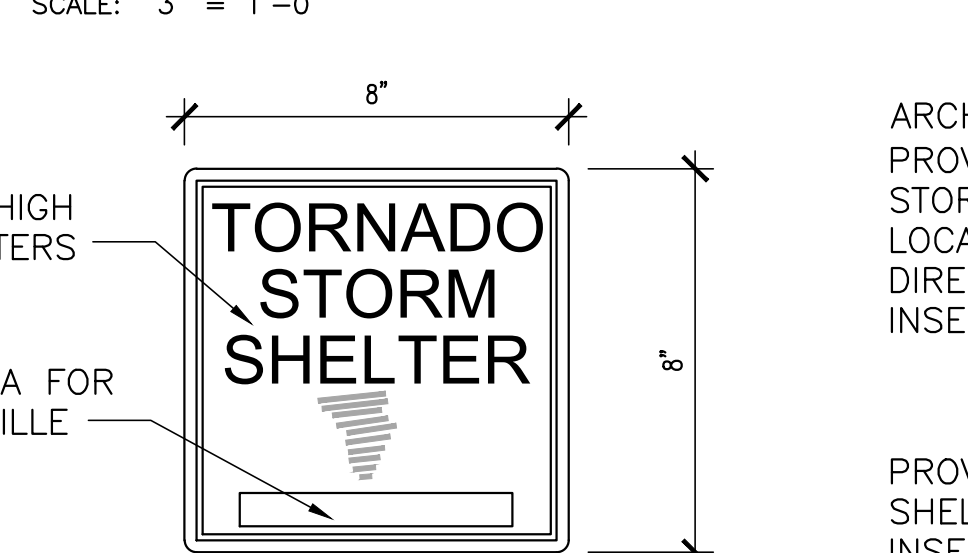
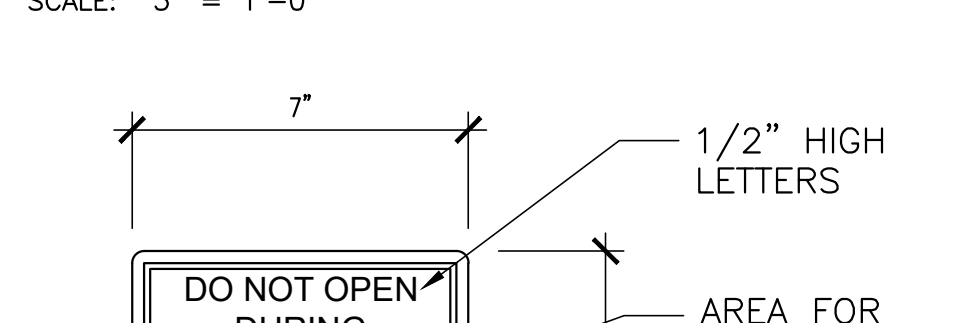
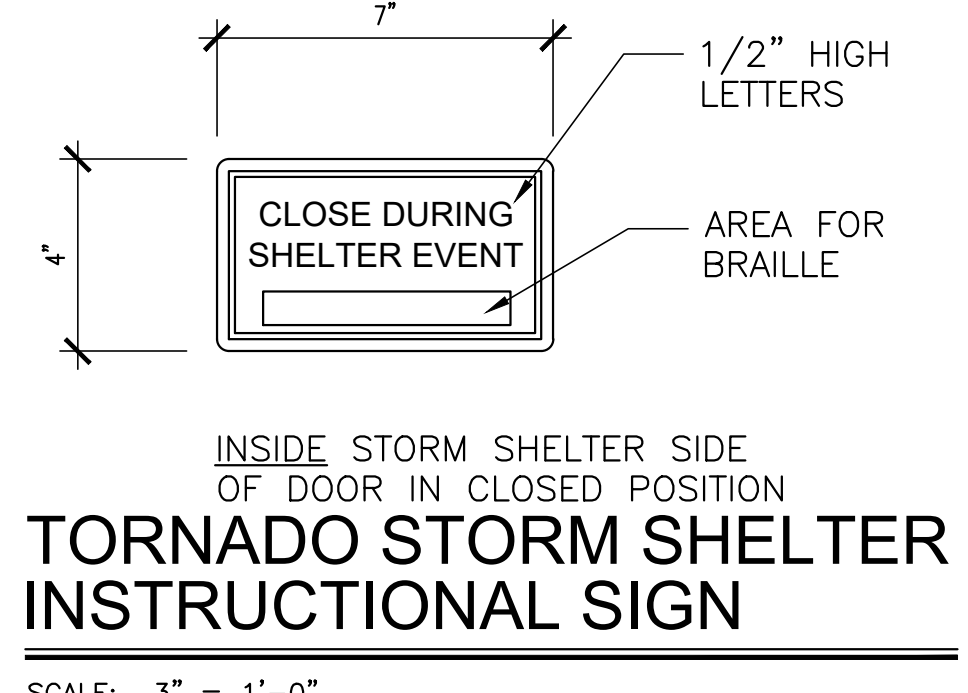
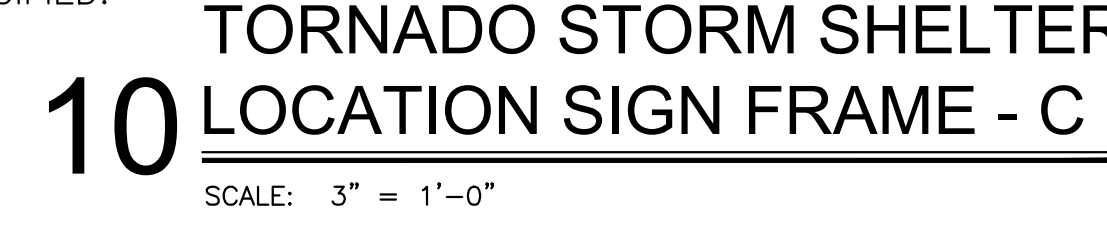
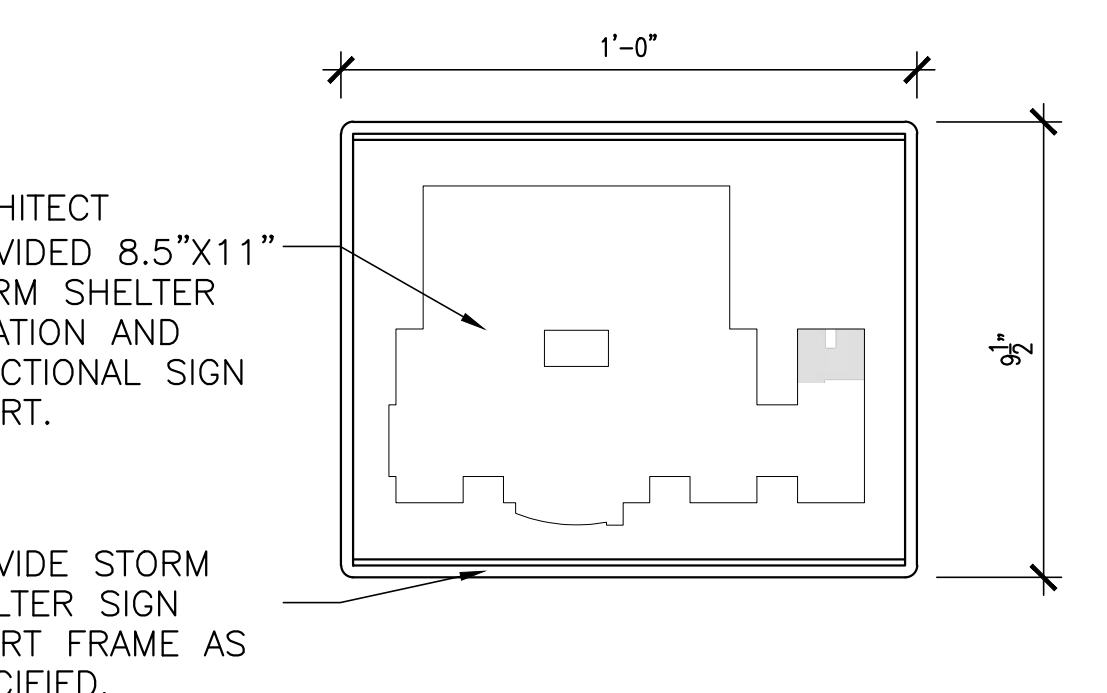
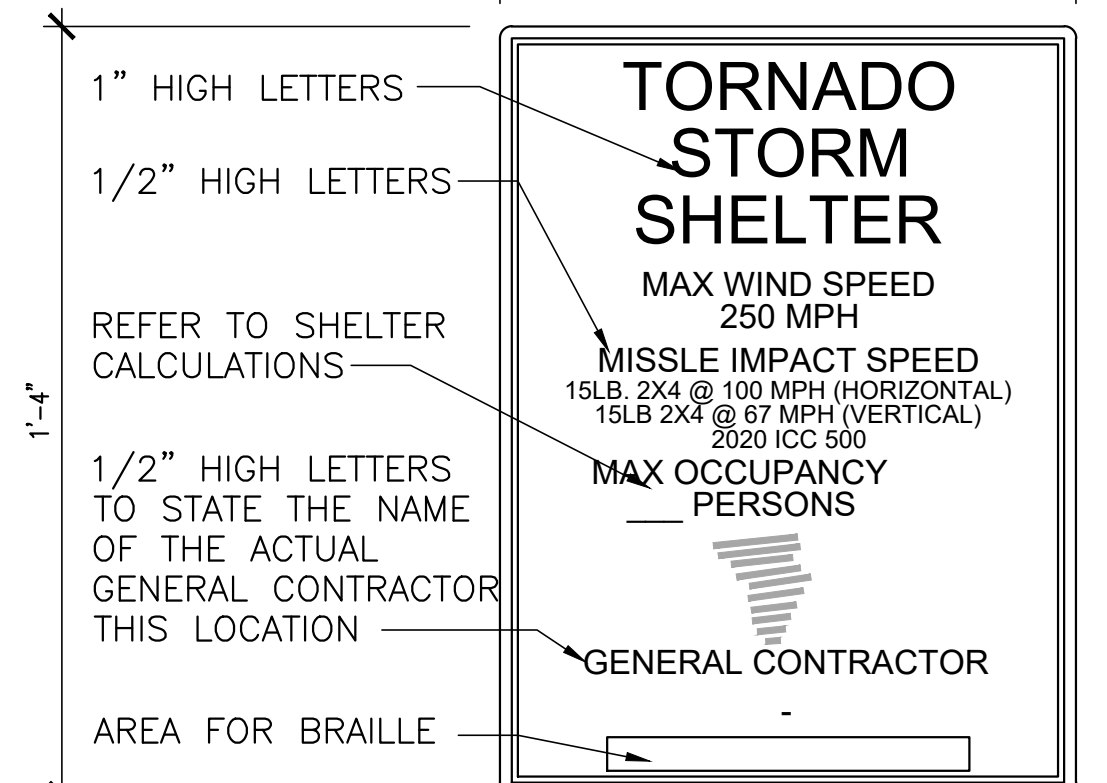
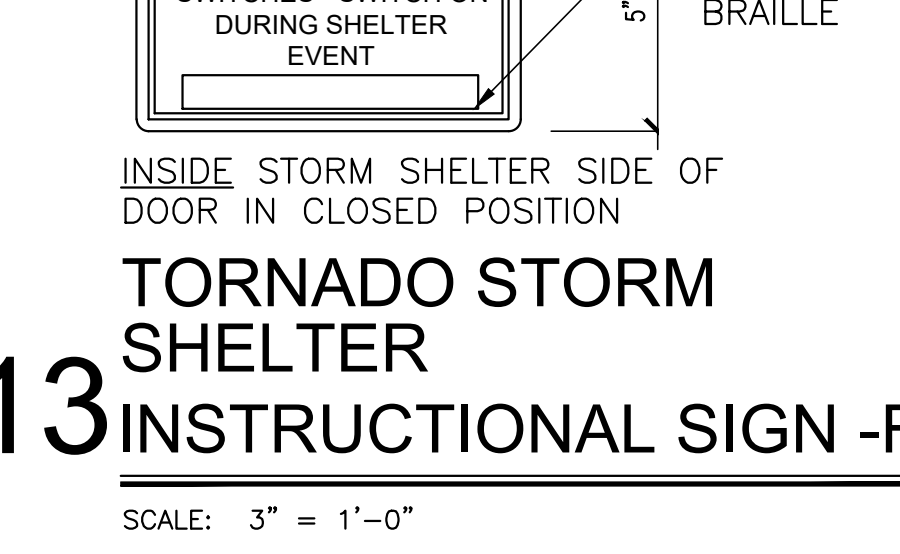
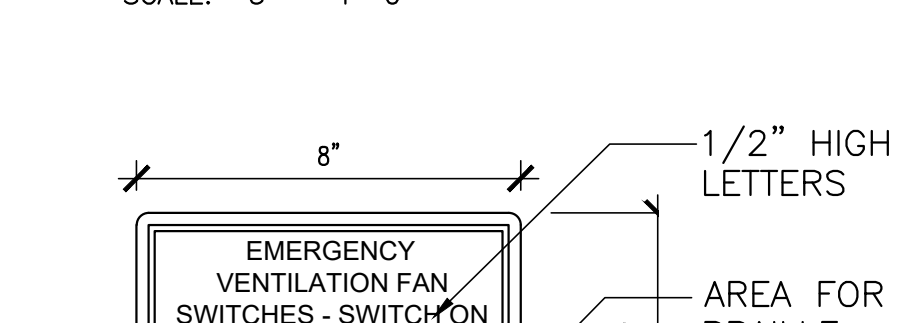
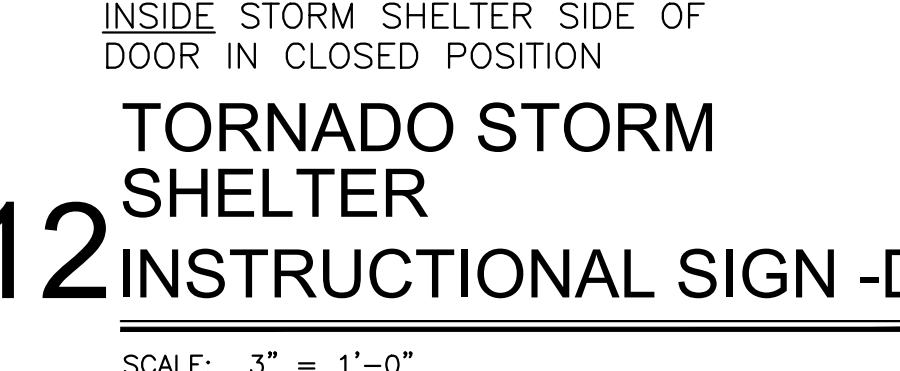
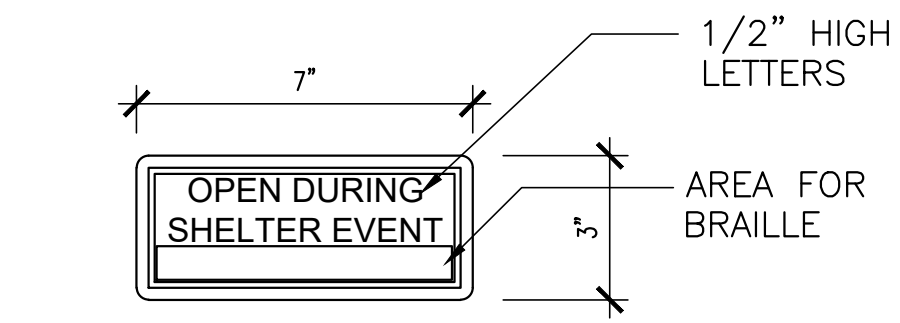
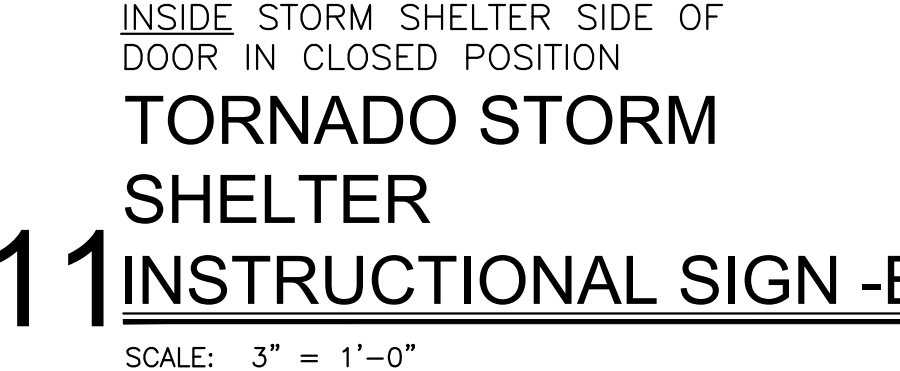
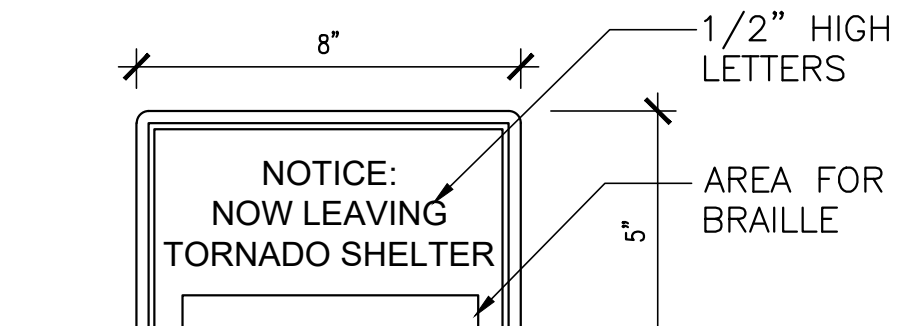
- NOTE:
1. ALL PENETRATIONS 2" OR GREATER MUST BE PROTECTED WITH A STORM SHELTER BAFFLE OR STORM SHELTER LOUVER SYSTEM. SEE ENGINEER FOR CONDITIONS AND DETAILS.
  2. PROVIDE A COLD JOINT AT ALL AREAS WHERE STORM SHELTER SLAB MEETS THE NORMAL SLAB CONDITION. SEE STRUCTURAL.
  3. ALL SIGNS SHALL BE IN ACCORDANCE WITH 2010 ADA STANDARD. VERIFY EXACT PLACEMENT WITH ARCHITECT PRIOR TO INSTALLATION.
  4. ALL TORNADO RESISTANT DOOR, FRAMES, AND WINDOWS SHALL RECEIVE BOTH FEMA 361/ICC-500 2020 LABEL AND THE 90 MINUTE FIRE LABEL.

SHELTER SIGN LEGEND	
SYMBOL	DESCRIPTION
	SECTION 508 STORM SHELTER PLAQUE WALL MOUNTED PER ADA 703 (9/LS1.2)
	SECTION 508 STORM SHELTER SIGN WALL MOUNTED PER ADA 703 (8/LS1.2)
	SECTION 508 STORM SHELTER IDENTIFYING SIGN WALL MOUNTED PER ADA 703 (10/LS1.2)
	SIGN "D" OPEN DURING SHELTER (12/LS1.2)
	SIGN "E" LEAVING SHELTER SIGN (11/LS1.2)
	SIGN "F" FAN SWITCH SIGN (13/LS1.2)
	STORM INSTRUCTIONAL SIGN MOUNTED PER ADA 703 (6/LS1.2 AND 7/LS1.2)
	FIRST AID KIT

TABLE 702.2 SANITATION FACILITIES

REQUIRED SANITATION FACILITIES COMMUNITY TORNADO STORM SHELTER > 50: CAPACITY OF SHELTER IS 389 PERSONS	
REQUIRED TOILET FACILITIES	2
PROVIDED TOILET FACILITIES	8
REQUIRED LAVATORIES	1
PROVIDED LAVATORIES	8
PROVIDED WATER FOUNTAINS	2

NOTE: FINAL PLACEMENT OF ALL SIGNS SHALL BE COORDINATED WITH ARCHITECT AND OWNER.



1 TORNADO STORM SHELTER PLAN  
3/32" = 1'-0"

2 TORNADO DOOR ELEVATION  
SCALE: 3/8" = 1'-0" INDICATED IN CLOSED POSITION OUTSIDE SHELTER

4 TORNADO DOOR ELEVATION  
SCALE: 3/8" = 1'-0" INDICATED IN OPEN POSITION

3 TORNADO DOOR ELEVATION  
SCALE: 3/8" = 1'-0" INDICATED IN CLOSED POSITION INSIDE SHELTER

5 TORNADO DOOR ELEVATION  
SCALE: 3/8" = 1'-0" INDICATED IN CLOSED POSITION

6 TORNADO STORM SHELTER INSTRUCTIONAL SIGN  
SCALE: 3" = 1'-0"

7 TORNADO STORM SHELTER INSTRUCTIONAL SIGN  
SCALE: 3" = 1'-0"

8 TORNADO STORM SHELTER SIGN - B  
SCALE: 3" = 1'-0"

9 TORNADO STORM SHELTER PLAQUE- A  
SCALE: 3" = 1'-0"

10 TORNADO STORM SHELTER LOCATION SIGN FRAME - C  
SCALE: 3" = 1'-0"

11 TORNADO STORM SHELTER INSTRUCTIONAL SIGN - E  
SCALE: 3" = 1'-0"

12 TORNADO STORM SHELTER INSTRUCTIONAL SIGN - D  
SCALE: 3" = 1'-0"

13 TORNADO STORM SHELTER INSTRUCTIONAL SIGN - F  
SCALE: 3" = 1'-0"



GENERAL NOTES:

- LBYD, INC. SHALL NOT HAVE AUTHORITY OVER THE SITE OR BUILDING CONTRACTOR'S WORK OR RESPONSIBILITIES. LBYD IS NOT RESPONSIBLE FOR SITE SAFETY PROCEDURES OR METHODS OF CONSTRUCTION.
- ALL EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE AND OTHER UTILITIES MAY EXIST. CONTRACTOR MUST HAVE EXISTING UTILITIES LOCATED BY UNDERGROUND LINE LOCATORS AS WELL AS FIELD VERIFIED BY ONSITE PERSONNEL PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO LBYD IMMEDIATELY.
- EXISTING UTILITIES TO REMAIN MAY BE LOCATED WITHIN PROPOSED DEMOLITION AREAS. CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING IN THESE AREAS TO ENSURE NO UTILITY SERVICE INTERRUPTIONS TO FACILITIES THAT REMAIN OR TO ADJACENT PROPERTIES.
- ALL EXISTING IMPROVEMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE REMOVED UNLESS SPECIFICALLY NOTED, "TO REMAIN".
- THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO PROTECT ADJACENT PROPERTIES AND IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS ON OR OFF SITE DUE TO THE CONSTRUCTION OF THIS PROJECT. ANY DAMAGE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL VERIFY SITE BOUNDARY AND EXISTING TOPOGRAPHY. NOTIFY LBYD OF ANY DISCREPANCIES PRIOR TO SUBMITTING PRICES OR ORDERING MATERIALS
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL BENCHMARKS AND PROPERTY CORNERS. ANY REPLACEMENT WILL BE AT THE CONTRACTOR'S EXPENSE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS REQUIRED TO CONSTRUCT THIS PROJECT AND PAY ALL PERMIT FEES. ALL PERMITS MUST BE IN-HAND PRIOR TO CONSTRUCTION.
- BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY THE OWNER AND PERFORMED BY ARRINGTON ENGINEERING & LAND SURVEYING CO., INC. DATED 12/19/2022.
- TOPOGRAPHIC INFORMATION WAS PERFORMED VIA GROUND RUN FORMAT.

SITE DEMOLITION NOTES:

- CONTRACTOR SHALL COORDINATE WITH OWNER AND THE UTILITY PROVIDER PRIOR TO THE DISCONNECTING OR REMOVAL OF ANY UTILITY SERVICE TO THE EXISTING BUILDINGS. ALL UTILITIES TO BE REMOVED ARE TO BE CAPPED OR PLUGGED OR TERMINATED ACCORDING TO THE UTILITY OWNERS REQUIREMENTS.
- REFER TO SITE GRADING AND UTILITY PLANS FOR PROPOSED DRAINAGE AND UTILITY INSTALLATION AND REMOVAL.
- REFER TO LAYOUT PLANS FOR ADDITIONAL INFORMATION RELATING TO PAVING, CURB, SIDEWALKS, HARDSCAPES, ETC. REMOVE EXISTING CURBS AS NEEDED TO INSTALL PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL COORDINATE WITH OWNER AND THE UTILITY PROVIDER PRIOR TO THE DISCONNECTING OF ANY UTILITY SERVICE TO THE EXISTING BUILDINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL, RELOCATION OR PROTECTION OF ALL ABOVE AND BELOW GROUND EXISTING IMPROVEMENTS THAT ARE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS UNLESS NOTED.
- ALL DEMOLITION AND CONSTRUCTION DEBRIS SHALL BE TRANSPORTED AND DISPOSED OF AT LEAST WEEKLY IN A LEGAL AND APPROVED MANNER.
- ALL EXISTING PAVING, CURBS, HARDSCAPE, ETC. SHALL BE SAW CUT AT THE LIMITS OF REMOVAL IN ORDER TO PROVIDE A CLEAN EDGE. EXISTING PAVING AT EDGE SHALL BE MILLED BACK A MINIMUM OF 24" TO ENSURE SMOOTH TRANSITION.

SITE LAYOUT NOTES:

- ALL HANDICAP RAMPS, SIGNS, SYMBOLS, AND PAINTED ISLANDS AND ACCESS ROUTES MUST CONFORM TO THE LATEST ADA REQUIREMENTS.
- THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
- ALL DIMENSIONS AND COORDINATES SHOWN ARE TO THE OUTSIDE FACE OF BUILDING, TO THE BACK OF CURB, OR TO THE EDGE OF SURFACING UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL PLANS FOR SPECIFIC BUILDING INFORMATION.
- ALL STRIPING TO BE PER THE LATEST EDITION OF THE MUTCD UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SITE CONSTRUCTION TRAFFIC CONTROL PLAN AND OBTAINING ANY REQUIRED APPROVALS FROM THE LOCAL JURISDICTIONAL AUTHORITY. THE SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL TAKE INTO ACCOUNT THE ENTERING AND EXITING OF CONSTRUCTION TRAFFIC ONTO THE ROADWAY AND THE IMPACT TO THE FLOW OF TRAFFIC. THIS PLAN SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD. THIS SITE CONSTRUCTION TRAFFIC CONTROL PLAN SHALL BE IN ADDITION TO ANY TRAFFIC CONTROL PLAN PROVIDED IN THE PLAN SET FOR ROADWAY IMPROVEMENTS.
- CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ELEVATIONS OF ALL AT-GRADE STRUCTURES AND UTILITIES TO REMAIN (VALVE BOXES, MANHOLES, INLETS, VAULTS, ETC) TO MATCH PROPOSED FINISHED GRADES.

GRADING NOTES:

- THE OWNER SHALL BE RESPONSIBLE FOR PROVIDING COMPACTION TESTING.
- ALL TOPSOIL SHALL BE STRIPPED WITHIN THE PROPOSED LIMITS OF GRADING AND SHALL BE STOCKPILED ON-SITE IN AN APPROVED LOCATION FOR LATER USE WITH ANY EXCESS TO BE DISPOSED OF OFF-SITE ONCE ALL LANDSCAPED AREAS HAVE BEEN BROUGHT TO FINISH GRADE UNLESS OTHERWISE NOTED ON THE PLANS.
- SUBGRADE SHALL BE PROOF ROLLED WITH A HEAVILY LOADED DUMP TRUCK AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL. ANY AREAS SHOWING SIGNS OF PUMPING, RUTTING, OR ANY UNSUITABLE (ORGANIC, SOFT, WET, LOOSE) MATERIAL FOUND IN PLACE SHALL BE UNDERCUT AND REPLACED, OR MOISTURE CONDITIONED AND COMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.
- ALL EXPOSED SUBGRADE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 12" AND RECOMPACTED TO THE SPECIFIED DENSITY AND MOISTURE CONTENT LISTED BELOW.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING THE SUBGRADE AFTER IT HAS BEEN INITIALLY PREPPED DUE TO INCLMENT WEATHER AND CONSTRUCTION TRAFFIC.
- FILL MATERIAL SHALL HAVE THE FOLLOWING PROPERTIES: VIRTUALLY FREE OF ORGANICS, NO ROCK FRAGMENTS GREATER THAN 4" WITHIN 4" OF FINISH GRADE. LIQUID LIMIT NOT EXCEEDING 50, PLASTICITY INDEX NOT EXCEEDING 25, MINIMUM STANDARD PROCTOR (ASTM D-698) OF 100 PCF, COMPACTED 98% IN PAVED AND STRUCTURAL AREAS, 95% NON-STRUCTURAL AND LANDSCAPED AREAS, PLACED IN 8" LOOSE LIFTS, AND WITHIN ±2.0% OF OPTIMUM MOISTURE CONTENT. STRUCTURAL AREAS INCLUDE ZONES OF INFLUENCE AROUND THE BUILDING, PAVEMENT AREAS, FILL SLOPES, ETC.
- COMPACTION TESTS SHALL BE TAKEN AT THE RECOMMENDATION OF THE ON-SITE GEOTECHNICAL ENGINEER, BUT AT A MINIMUM EVERY 2,500 SQUARE FEET OF AREA PER 8" LIFT.
- COMPACTION WITHIN LIMITED SPACES (I.E. MANHOLES, INLETS, UTILITY TRENCHES) SHOULD BE BACKFILLED AND COMPACTED SYSTEMATICALLY, AT THE DIRECTION OF THE ON-SITE GEOTECHNICAL ENGINEER. STONE BACKFILL SHALL BE INSTALLED IN 12" LOOSE LIFTS AND COMPACTED WITH 6-8 PASSES OF A VIBRATORY COMPACTOR
- CLEARING LIMITS SHALL BE 5' OUTSIDE OF ALL PROPOSED GRADED AREAS OR NOT BEYOND THE PROPERTY LINES WHICHEVER IS LESS.
- NO GRADING OFF-SITE OR IN ANY ROAD RIGHT-OF-WAY WITHOUT PROPER APPROVALS AND PRIOR NOTIFICATION.
- COORDINATE THE SEQUENCING OF ALL GRADING OPERATIONS WITH THE EROSION CONTROL PLAN.
- THE MAXIMUM SLOPE IN HANDICAP PARKING AREAS SHALL NOT EXCEED 2.0% GRADE IN ANY DIRECTION. SLOPE IN THE DIRECTION OF TRAVEL IN ALL HANDICAP ACCESS ROUTES SHALL NOT EXCEED 5.0% GRADE AND 2.0% CROSS SLOPE.
- ALL GRADING ADJACENT TO EXISTING OR PROPOSED BUILDINGS SHALL BE SLOPED AWAY FROM THE STRUCTURES AT A MINIMUM OF 1.0% GRADE. THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM THE STRUCTURES. NOTIFY LBYD OF ANY DISCREPANCIES.
- PROPOSED GRADES INDICATED ON THIS PLAN ARE TO FINISH GRADE. THE CONTRACTOR SHALL MAKE SUBGRADE ADJUSTMENTS FOR TOPSOIL, PAVING, BUILDING PAD, ETC.
- RETAINING WALL GRADES: GTW INDICATES FINISHED GRADE AT TOP OF WALL, GBW INDICATES FINISHED GRADE AT BOTTOM OF WALL. SEE ARCHITECTURAL AND STRUCTURAL PLANS FOR FOOTING ELEVATIONS RELATIVE TO FINISHED GRADE AT BOTTOM OF WALL.
- A GEOTECHNICAL REPORT HAS BEEN PREPARED BY TERRACON CONSULTANTS, INC., PROJECT NUMBER E1225186, DATED DECEMBER 7, 2022 AND IS AVAILABLE FOR INFORMATION PURPOSES. THE CONTRACTOR SHALL REVIEW THIS REPORT, VISIT THE SITE AND COMPLETE ANY ADDITIONAL EXPLORATIONS THAT IT FEELS NECESSARY IN ORDER TO PROVIDE A SATISFACTORY BID.
- A DEWATERING SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. PREVENT SURFACE WATER AND GROUND WATER FROM ENTERING EXCAVATIONS, FROM PONDING ON PREPARED SUBGRADES, AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. PROTECT SUBGRADES FROM SOFTENING, UNDERMINING, WASHOUT, AND DAMAGE BY RAIN OR WATER ACCUMULATION. REROUTE SURFACE WATER RUNOFF AWAY FROM EXCAVATED AREAS. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. DO NOT USE EXCAVATED TRENCHES AS TEMPORARY DRAINAGE DITCHES. INSTALL A

DEWATERING SYSTEM TO KEEP SUBGRADES DRY AND CONVEY GROUND WATER AWAY FROM EXCAVATIONS. MAINTAIN UNTIL DEWATERING IS NO LONGER REQUIRED. IF GROUNDWATER DEWATERING IS REQUIRED, CONTRACTOR IS TO OBTAIN ANY PERMITS AS MAY BE REQUIRED PRIOR TO DISCHARGE OF EFFLUENT FROM DEWATERING.

- GRADING ADJACENT TO THE BUILDING SHALL BE COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FOUNDATION WALLS, STEM WALLS, DRAINS, AND OTHER CONDITIONS. THE CONTRACTOR SHALL NOTIFY LBYD INC. OF ANY DISCREPANCIES.

STORM DRAINAGE NOTES:

- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL STORM PIPE MATERIALS TO LBYD PRIOR TO INSTALLATION AND/OR FABRICATION.
- ALL PROPOSED STORM INLETS (GRATES, CURB, YARD, AREA DRAINS) ARE TO BE LOCATED AT THE LOWPOINTS. GRADING SHALL BE TO DIRECT RUNOFF TO THESE INLETS. NOTIFY LBYD OF ANY DISCREPANCIES.
- STORM DRAINAGE SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBYD OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED STORM PIPE GRADES AND POINTS OF CONNECTION PRIOR TO INSTALLATION. LBYD SHALL BE NOTIFIED OF ANY DEVIATIONS PRIOR TO CONSTRUCTION.
- PROPOSED STORM PIPES 30" AND LESS SHALL BE BEDDED IN 4" OF CRUSHED AGGREGATE AND STORM PIPES 36" AND GREATER SHALL BE BEDDED IN A 6" OF CRUSHED AGGREGATE.
- ALL STORM PIPES 15" AND LESS SHALL BE SMOOTH LINED HIGH DENSITY POLYETHYLENE (HDPE) OR SCHEDULE 40 POLYVINYL CHLORIDE (PVC) WITH WATER-TIGHT JOINTS UNLESS OTHERWISE NOTED. INSTALLED PER MANUFACTURERS RECOMMENDATIONS. ALL STORM PIPES 18" AND GREATER SHALL BE CLASS 3 REINFORCED CONCRETE PIPE (RCP) BELL AND SPIGOT INSTALLED WITH WATERTIGHT JOINTS UNLESS OTHERWISE NOTED.
- ALL STORM MANHOLES SHALL BE PRECAST CONE, RISER, AND BASE SECTIONS WITH GASKETED JOINTS MEETING ALDOT SPECIAL DRAWING #MH-621-2.
- ALL YARD INLETS SHALL BE PRECAST INLET BOXES 3'-1" x 3'-1" OR 4'2 x 4'-2" DEPENDING ON MAXIMUM PIPE DEFLECTIONS. YARD INLET TOP TO BE PRECAST WITH A RING AND COVER ACCESS PROVIDED THROUGH THE TOP.
- ALL CONCRETE COLLARS SHALL BE PER ALDOT SPECIAL DRAWING # CC-530.
- CONTRACTOR SHALL PROVIDE CAST IRON DOWNSPOUT BOOTS, CLEANOUTS AND COLLECTOR LINES FROM ALL EXTERIOR DOWNSPOUTS TO CONNECT TO PRIMARY STORM DRAINAGE SYSTEM. COORDINATE WITH EXTERIOR ELEVATIONS, ROOF AND PLUMBING PLANS FOR DOWNSPOUT LOCATIONS. COORDINATE DOWNSPOUT MODEL NUMBER WITH THE ARCHITECT.
- CONTRACTOR SHALL COORDINATE ROOF DRAIN COLLECTOR LINES, DOWNSPOUTS AND BOOTS WITH FOOTING ELEVATIONS ON THE STRUCTURAL PLANS PRIOR TO POURING FOOTINGS. TOP OF FOOTINGS SHALL BE A MINIMUM OF 3' BELOW GRADE AT ALL ROOF DRAIN DOWNSPOUT LOCATIONS TO ENSURE ADEQUATE COVER TO TRANSITION TO BELOW GRADE PIPING.
- PROVIDE 4" PVC SCHEDULE 40 GRAVITY DRAIN LINE FROM ALL BELOW GRADE UTILITY VAULTS TO THE NEAREST STORM DRAINAGE INLET OR DAYLIGHT AT GRADE.

EROSION CONTROL NOTES:

- SITE EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, CODES, AND REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY REQUIRED EROSION CONTROL PERMITS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MONITORING, INSPECTIONS, ETC. TO ENSURE THE OWNER THAT THE SITE IS AT ALL TIMES IN ACCORDANCE WITH PERMIT RULES & REGULATIONS. DOCUMENTATION OF INSPECTIONS BY A Q.C.I. OR Q.C.P. SHALL BE MAINTAINED BY THE CONTRACTOR AND PROVIDED TO THE OWNER AT HIS/HER REQUEST. ANY AND ALL FEES, FINES, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING THE CONSTRUCTION PROCESS AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
- EROSION CONTROL DEVICES SHOWN ON THESE PLANS ARE A MINIMUM AND ARE DEPENDENT ON THE CONTRACTOR'S CONSTRUCTION PHASING OF THE PROJECT. ADDITIONAL DEVICES SHALL BE INSTALLED AS REQUIRED TO PREVENT SILTATION, EROSION AND OTHER DEGRADATION OR POLLUTION TO THE SITE OR ADJACENT PROPERTIES, STREAMS, DITCHES, AND PUBLIC ROADWAYS. ADDITIONAL MEASURES MAY INCLUDE, AS MINIMUM, TEMPORARY SEDIMENT BASINS, CONSTRUCTION EXITS PAD, VEHICLE WASH RACKS, SILT FENCING, STRAW AND RIP RAP CHECK DAMS, DIVERSION DITCHES, ETC. THESE ADDITIONAL MEASURES SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
- EROSION CONTROL DEVICES SHALL INCLUDE, BUT NOT LIMITED, TO THE FOLLOWING DEVICES: SILT FENCING, BRUSH BERMS, SEDIMENT BASINS, DETENTION PONDS, STRAW WATTLES, CHECK DAMS, FILTER BERMS, JUTE MATTING, VEGETATIVE FILTER STRIPS, TURF REINFORCEMENT MAT, DIVERSION BERMS, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL EROSION CONTROL DEVICES IN GOOD OPERATING CONDITION DURING ALL LAND DISTURBING ACTIVITIES. THIS RESPONSIBILITY SHALL INCLUDE THE CLEANUP AND/OR REPAIRS TO THE DEVICES AT NO ADDITIONAL COST TO THE OWNER.
- EROSION CONTROL DEVICES SHALL BE MONITORED AND MAINTAINED UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED AND AFTER EACH RAINFALL GREATER THAN 0.75 INCHES IN A 24 HOUR PERIOD, ANY WIND GUSTS GREATER THAN 25 MPH, AND ANY SUSTAINED WINDS GREATER THAN 20 MPH IN A 24 HOUR PERIOD.
- AFTER ALL LAND DISTURBANCE ACTIVITIES HAVE CEASED AND AFTER ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED, THE EROSION CONTROL DEVICES SHALL BE REMOVED BY THE CONTRACTOR AND THE AREA CLEANED AND DRESSED.
- DEWATERING OPERATIONS MAY NOT BE DISCHARGED IN A MANNER THAT CAUSES EROSION OF THE SITE OR POLLUTION TO ADJACENT PROPERTIES, STREAMS, DITCHES, OR PUBLIC ROADWAYS.
- A GRAVELED ACCESS DRIVE OF SUFFICIENT SIZE SHALL BE AT EACH SITE ENTRANCE/EXIT TO PREVENT TRACKING OF DIRT AND SEDIMENT ONTO PUBLIC OR PRIVATE ROADWAYS. IF SEDIMENT REACHES THE ROADWAY, THEN IT MUST BE CLEANED AT THE END OF EACH WORKDAY.
- ALL LAND DISTURBANCE ACTIVITIES SHALL BE CONDUCTED IN A LOGICAL SEQUENCE TO MINIMIZE THE EXPOSURE OF BARE AREAS AT ANY ONE TIME.
- ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN 13 DAYS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ALDOT SPECIFICATIONS SECTION 682 AND 656 OR HYDRAULICALLY APPLIED BY ALDOT SPECIFICATION SECTION 659.
- ALL PREVIOUSLY GRADED AREAS SHALL RECEIVE 4 INCHES OF TOPSOIL AND PERMANENT GRASSING UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLAN.
- PRIOR TO SITE CLEARING, ALL PERIMETER SILT FENCING, BRUSH BERMS, ETC. AND GRAVELED ACCESS DRIVES SHALL BE INSTALLED.
- ALL EXISTING STREAMS, DITCHES, ETC. SHALL BE PROTECTED FROM SEDIMENTS AND SILTS BY SILT FENCING, WATTLES, BRUSH BERMS, ETC.
- WATTLES OR SILT FENCING SHALL BE INSTALLED AT ALL INLETS UPON THE COMPLETION OF EACH INLET.
- GEOTEXTILE SHALL BE PLACED ON ALL 2:1 SIDE SLOPES. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- GEOTEXTILE SHALL BE PLACED ON ALL 3:1 SIDE SLOPES. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- GEOTEXTILE SHALL BE PLACED ON ALL DITCH BOTTOMS & 1' UP EACH SIDE. GEOTEXTILE SHALL BE NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL UNLESS OTHERWISE NOTED ON PLANS. ALL GEOTEXTILES SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.

UTILITY NOTES:

- THE SITE CONTRACTOR IS RESPONSIBLE FOR COMPLETING ALL UTILITY SERVICES (WATER, SEWER, GAS, ELECTRICAL, TELEPHONE, CABLE TV) FROM THE POINT THE RESPECTIVE UTILITY COMPANY COMPLETES THEIR WORK TO THE POINT OF CONNECTION AT THE BUILDING.
- REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, ETC. PLANS FOR ALL PROPOSED UTILITY POINTS OF CONNECTION AT THE BUILDING. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- GRAVITY SEWER SYSTEMS SHALL BE CONSTRUCTED FROM DOWNSTREAM TO UPSTREAM. VERIFY ALL PIPE SLOPES, INVERTS, AND POINTS OF CONNECTION PRIOR TO CONSTRUCTION. NOTIFY LBYD OF ANY DISCREPANCIES.
- THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED GRAVITY SEWER PIPE GRADES AND POINTS OF CONNECTION PRIOR TO INSTALLATION. LBYD SHALL BE NOTIFIED OF ANY DEVIATIONS PRIOR TO CONSTRUCTION.
- BACKFLOW PREVENTION SHALL BE PROVIDED ON THE DOMESTIC SERVICE IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY'S REQUIREMENTS.

- WATER MAINS 4 INCHES IN DIAMETER AND GREATER SHALL BE DIP(CL 350) AND WATER MAINS LESS THAN 3 INCHES IN DIAMETER SHALL BE PVC (SCH.40) UNLESS OTHERWISE INDICATED ON THE PLANS.
- WATER MAINS AND SERVICES SHALL BE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET VERTICAL FROM ALL SANITARY SEWER MAINS AND LATERALS.
- WATER MAINS AND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE LOCAL UTILITY COMPANY'S REQUIREMENTS. ALL MAINS AND SERVICES SHALL BE INSTALLED WITH A MINIMUM OF 36" COVER UNLESS OTHERWISE INDICATED ON PLANS.
- ALL SANITARY SEWER MAINS AND LATERALS SHALL BE PVC (SCH.40) UNLESS OTHERWISE REQUIRED BY THE LOCAL UTILITY COMPANY.
- ALL UNDERGROUND ELECTRICAL, TELEPHONE, AND CABLE TV SHALL BE INSTALLED IN PVC CONDUIT OR CONCRETE ENCASED DUCT BANK WITH PULL WIRE MEETING THE LOCAL UTILITY COMPANY'S REQUIREMENTS. INFORMATION SHOWN ON CIVIL DRAWINGS FOR REFERENCE ONLY. REFER TO ELECTRICAL PLANS FOR SPECIFIC INFORMATION.
- GAS SERVICE SHALL BE PER THE LOCAL UTILITY COMPANY'S REQUIREMENTS. INFORMATION SHOWN ON CIVIL DRAWINGS FOR REFERENCE ONLY. COORDINATE WITH MECHANICAL ENGINEER AND UTILITY COMPANY.
- UTILITY TRENCHES SHALL BE BACKFILLED WITH COMPACTED FILL PLACED IN 6 INCH LOOSE LIFTS. FILL SHALL BE COMPACTED TO 98% STANDARD PROCTOR AND OPTIMUM MOISTURE CONTENT WITHIN ±2.0%.
- WHEN INSTALLING UTILITIES IN EXISTING PAVED AREAS OR IN AREAS WHERE SOILS ARE CONSIDERED UNSUITABLE FOR BEDDING OR BACKFILLING, UTILITY TRENCHES SHALL BE BACKFILLED FULL DEPTH WITH CRUSHED AGGREGATE.
- WHERE UTILITIES ARE TO BE INSTALLED IN AREAS OF EXISTING PAVING, HARDSCAPE, SIDEWALKS, ETC., CONTRACTOR SHALL SAWCUT AND REMOVE EXISTING PAVING, HARDSCAPE, SIDEWALK ETC. AND REPLACE IN LIKE KIND AND RESTRIPE AS NECESSARY. BACKFILL TRENCH FULL DEPTH WITH STONE.
- CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ELEVATIONS OF ALL AT-GRADE STRUCTURES AND UTILITIES TO REMAIN (VALVE BOXES, MANHOLES, INLETS, VAULTS, ETC) TO MATCH PROPOSED FINISHED GRADES.
- PROVIDE 4" PVC SCHEDULE 40 GRAVITY DRAIN LINE FROM ALL BELOW GRADE UTILITY VAULTS TO THE NEAREST STORM DRAINAGE INLET OR DAYLIGHT AT GRADE.



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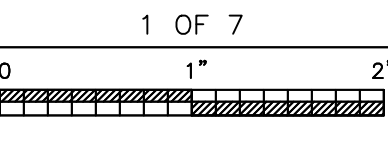
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DRAWN:	LBH
DATE:	JANUARY 31, 2023
REVISIONS	

JOB NO. **22-20**

SHEET NO:

**C0.1**







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SHEET TITLE:  
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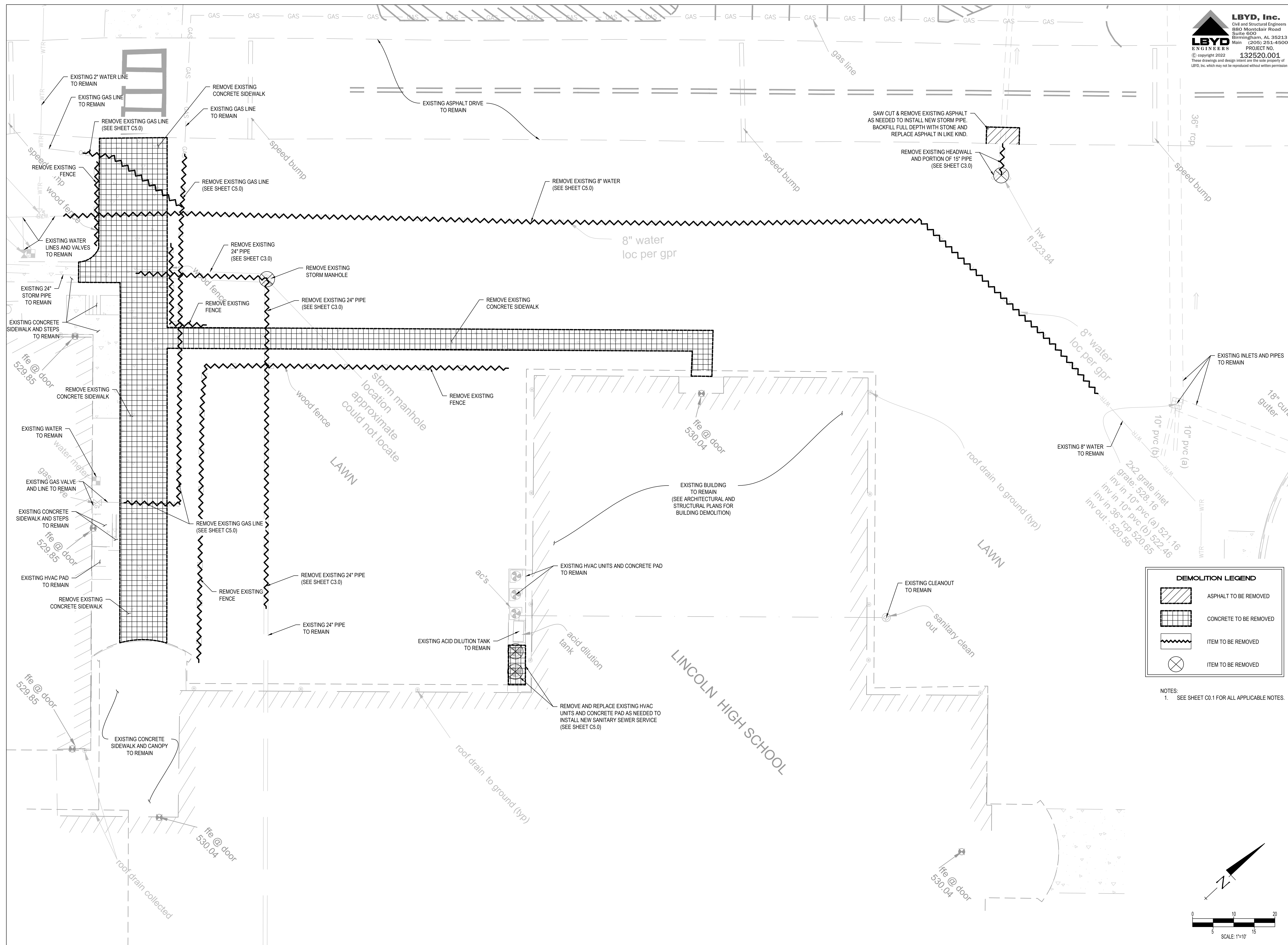
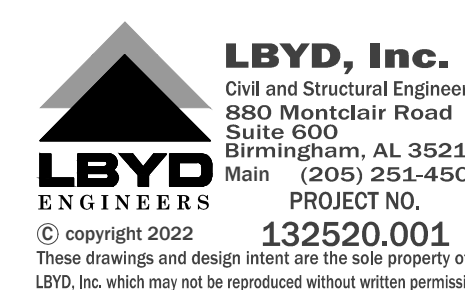
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REVISIONS	

JOB NO. 22-20

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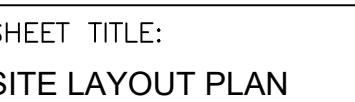
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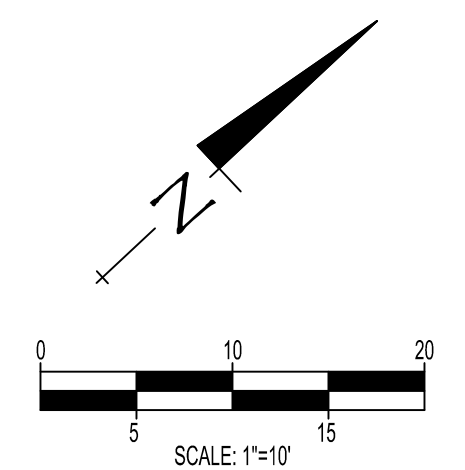
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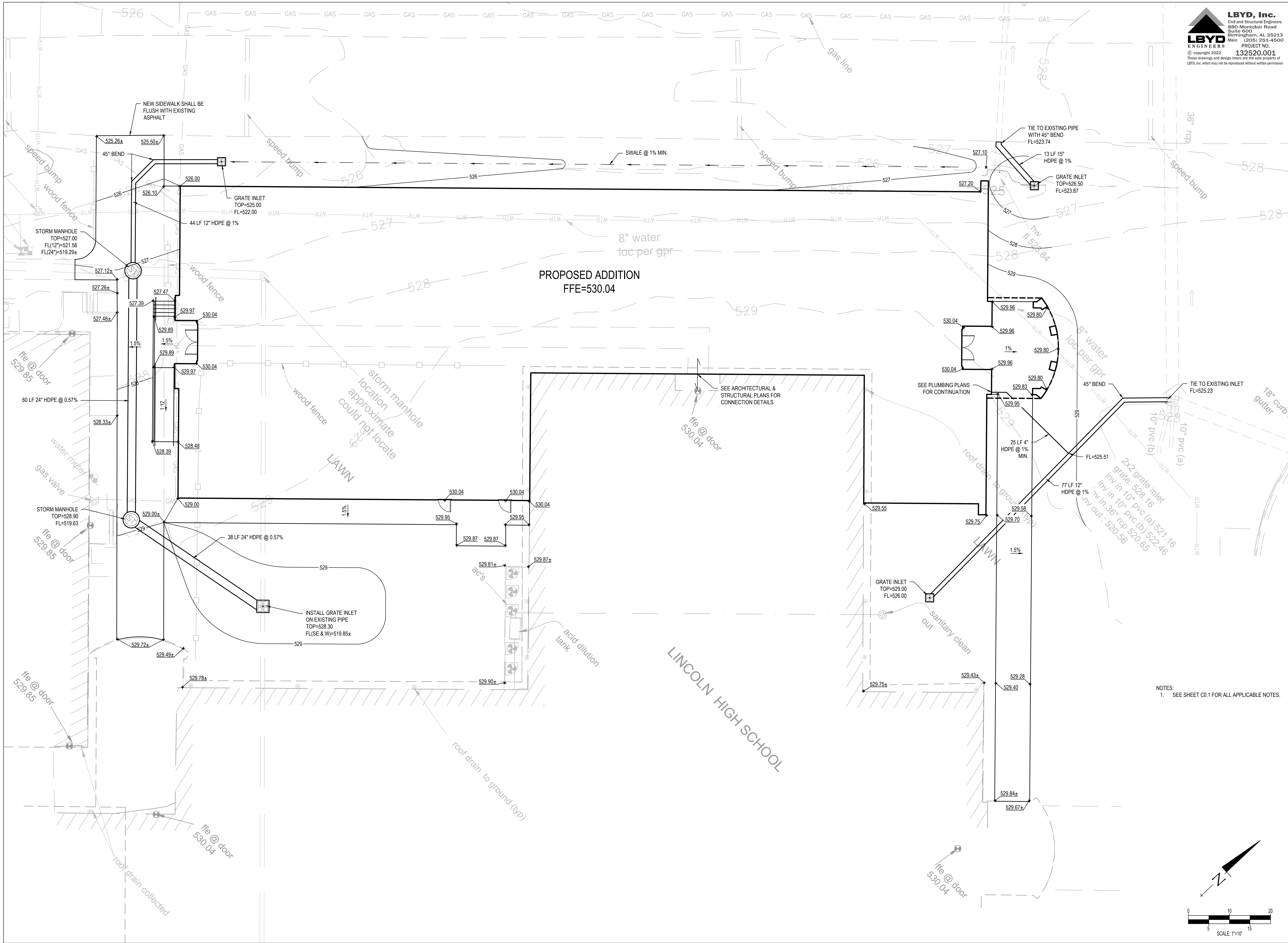
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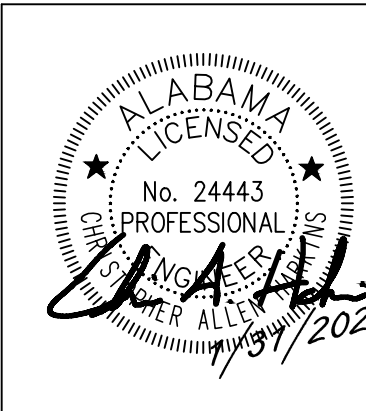






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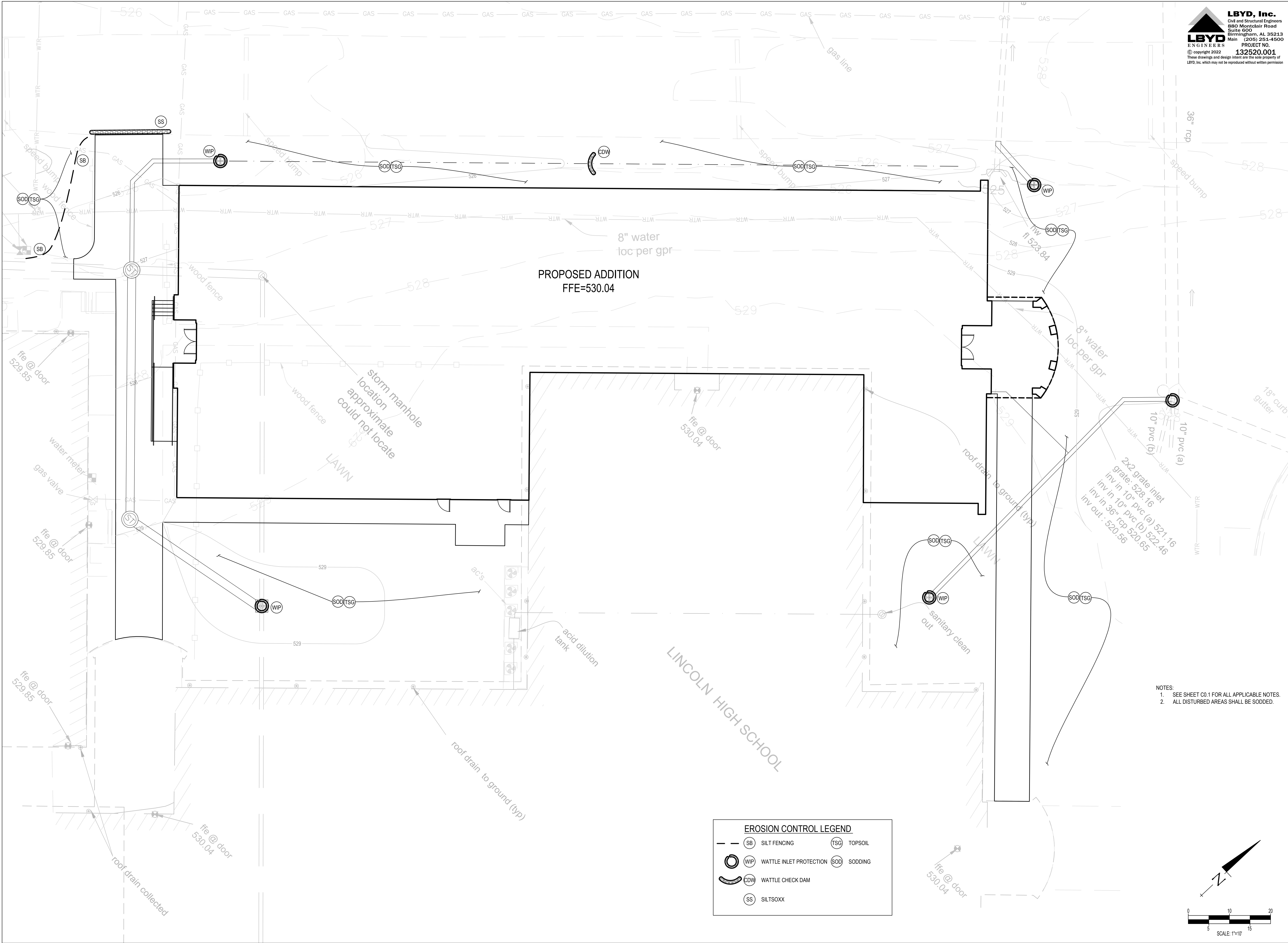


SHEET TITLE:  
GRADING AND  
DRAINAGE PLAN

PROJ. MGR.: CAH  
DRAWN: LBH  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:  
**C3.0**  
4 OF 7  
0 1" 2"  
0 5 10 15 20  
SCALE: 1"=10'





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**LATHAN**  
ARCHITECTS

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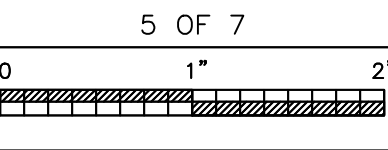
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PLAN**

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DRAWN: LBH  
DATE: JANUARY 31, 2023  
REVISIONS

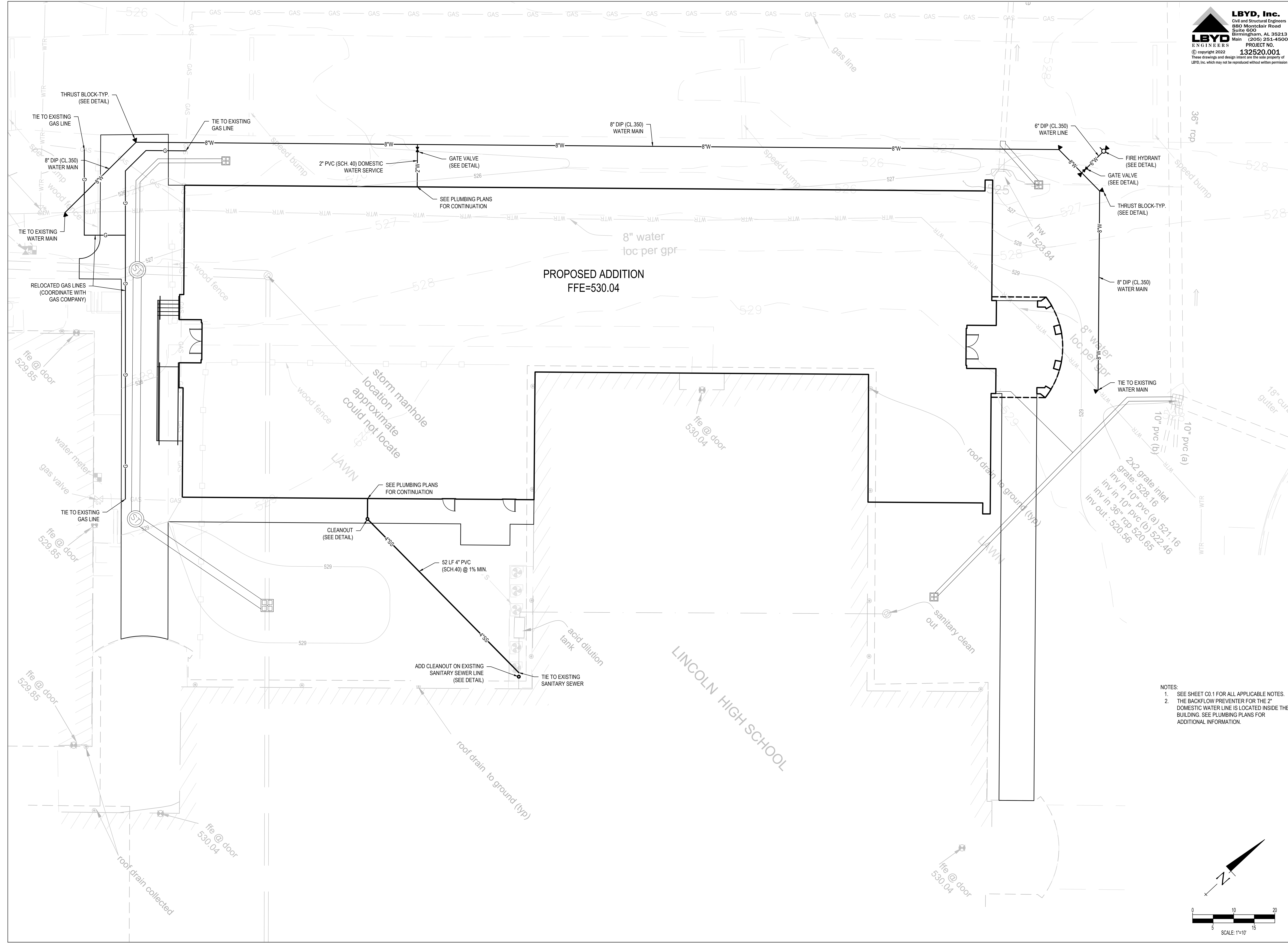
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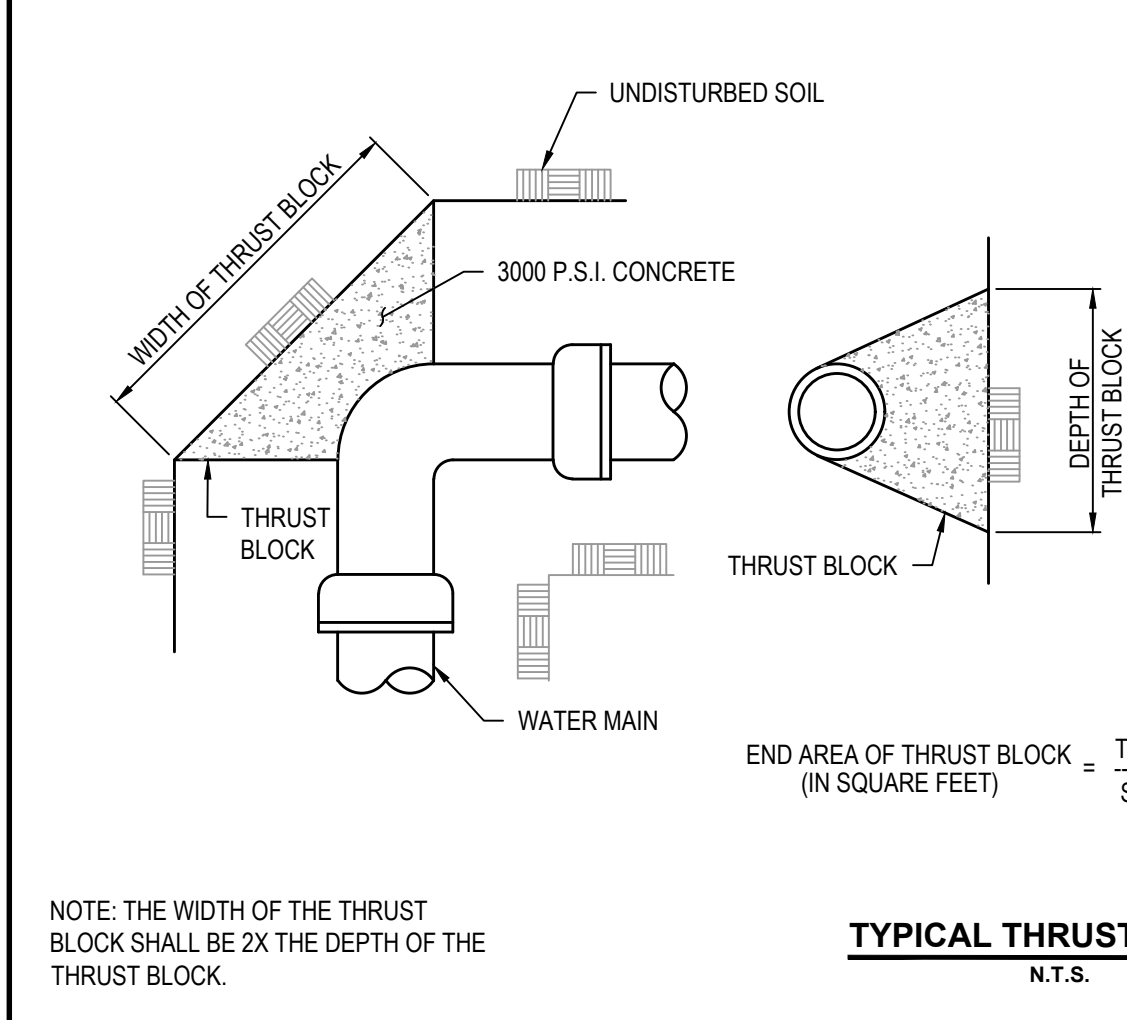
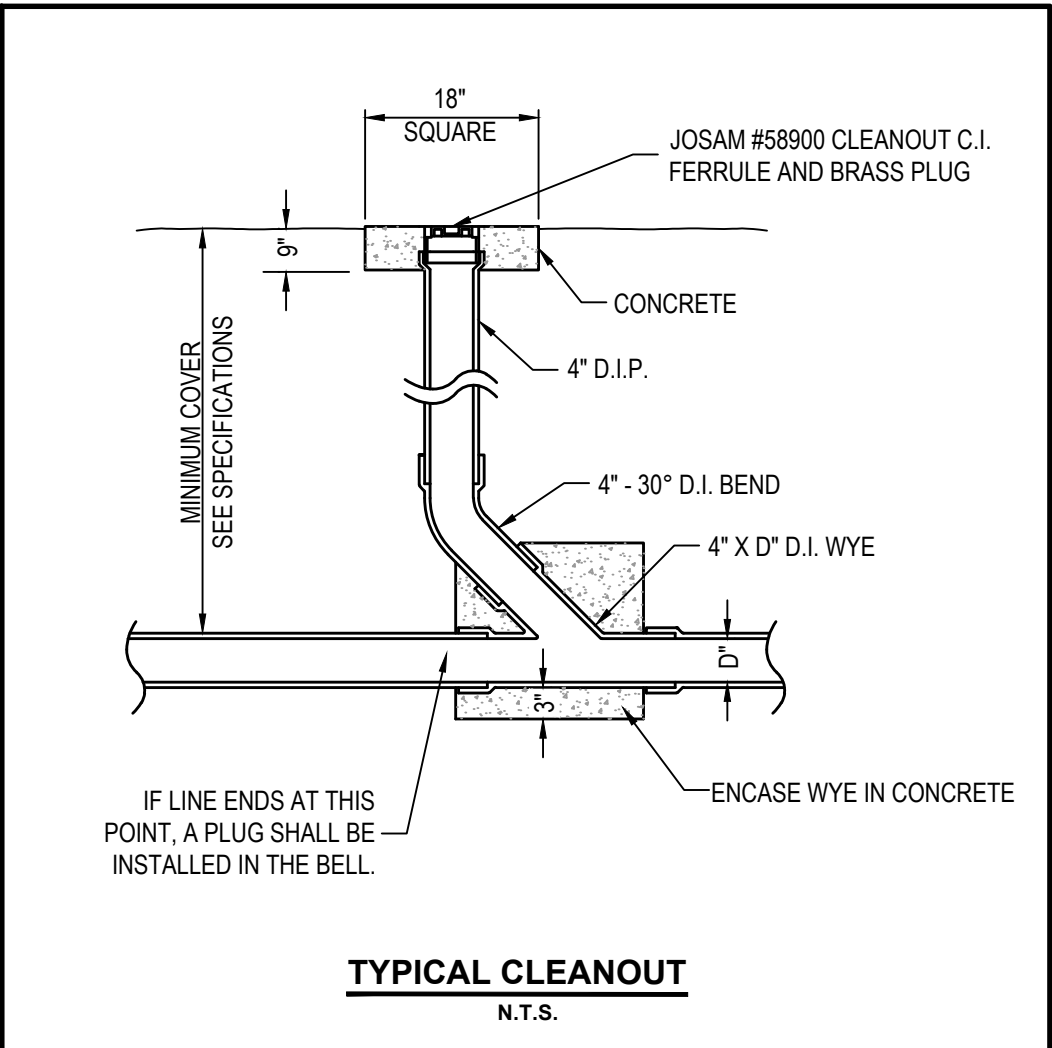
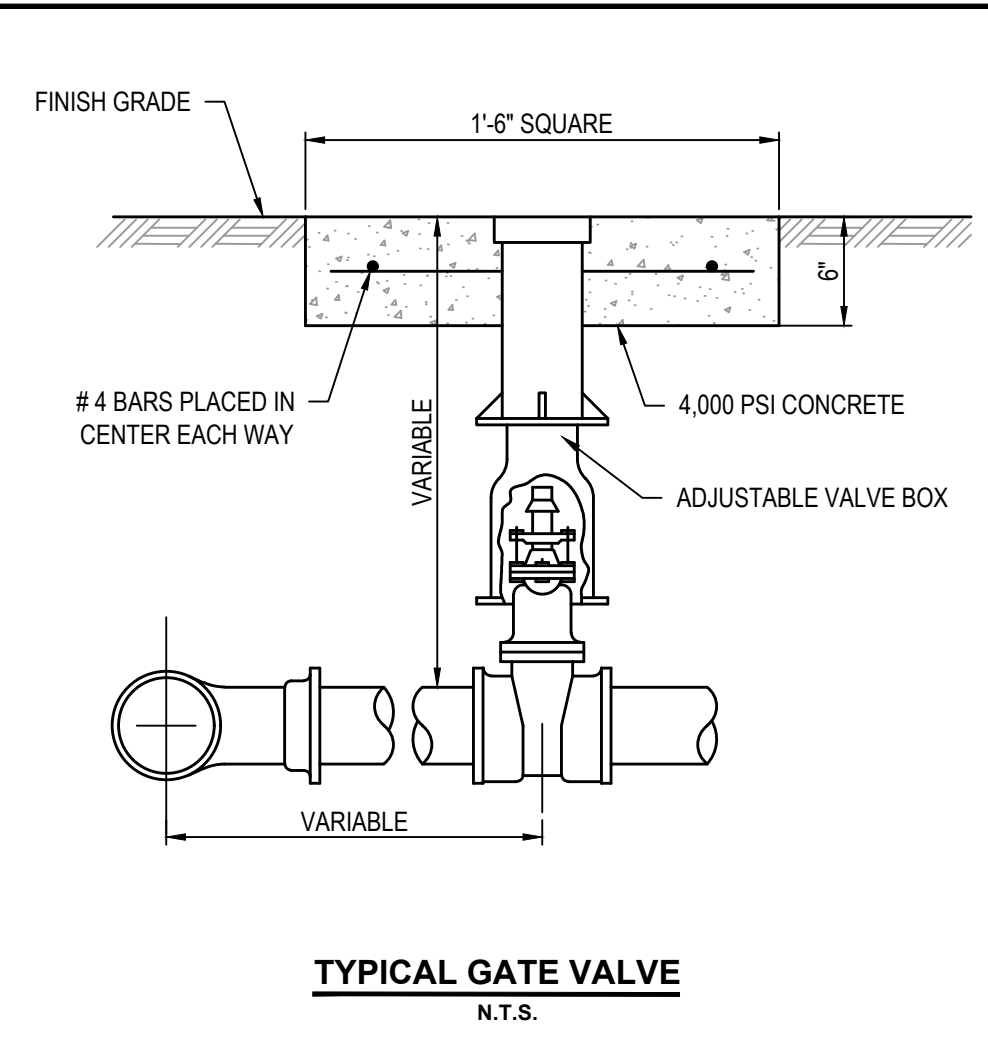
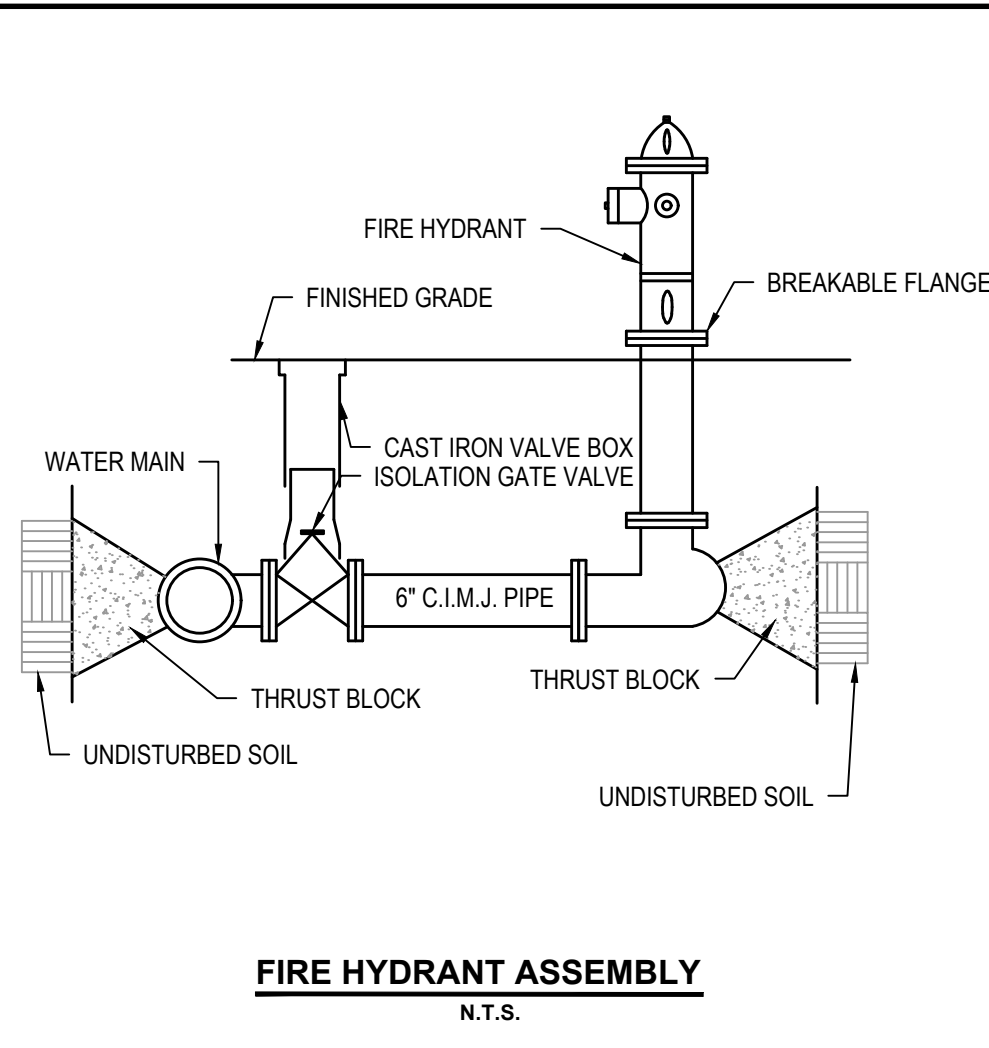
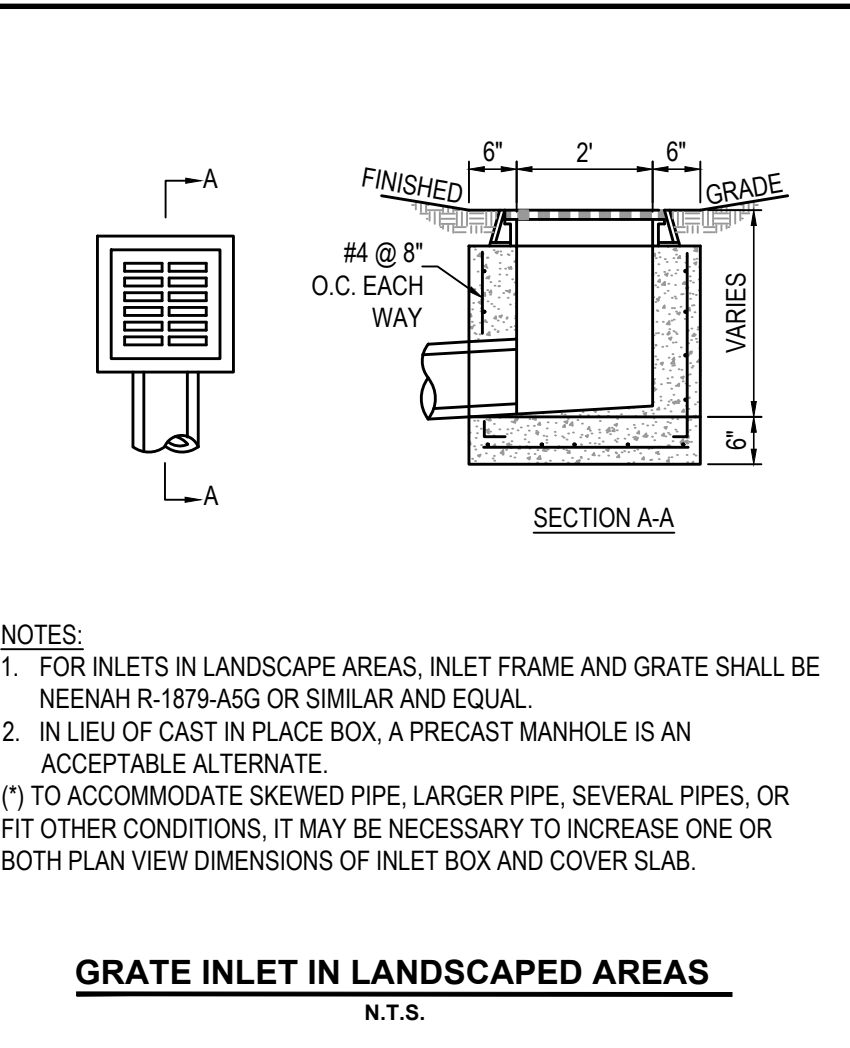
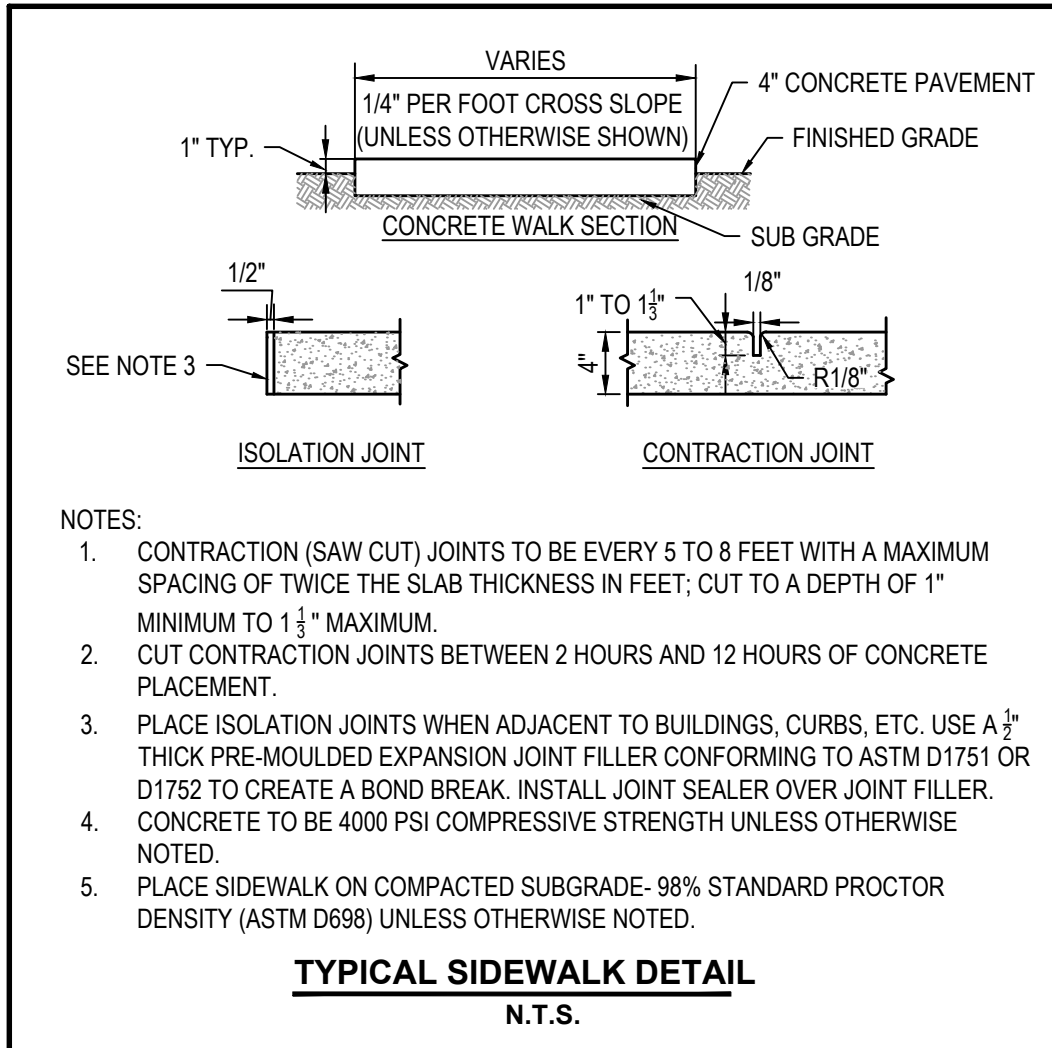
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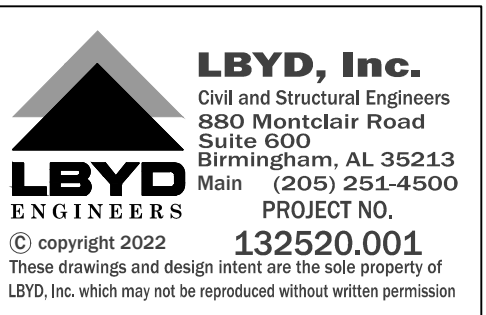
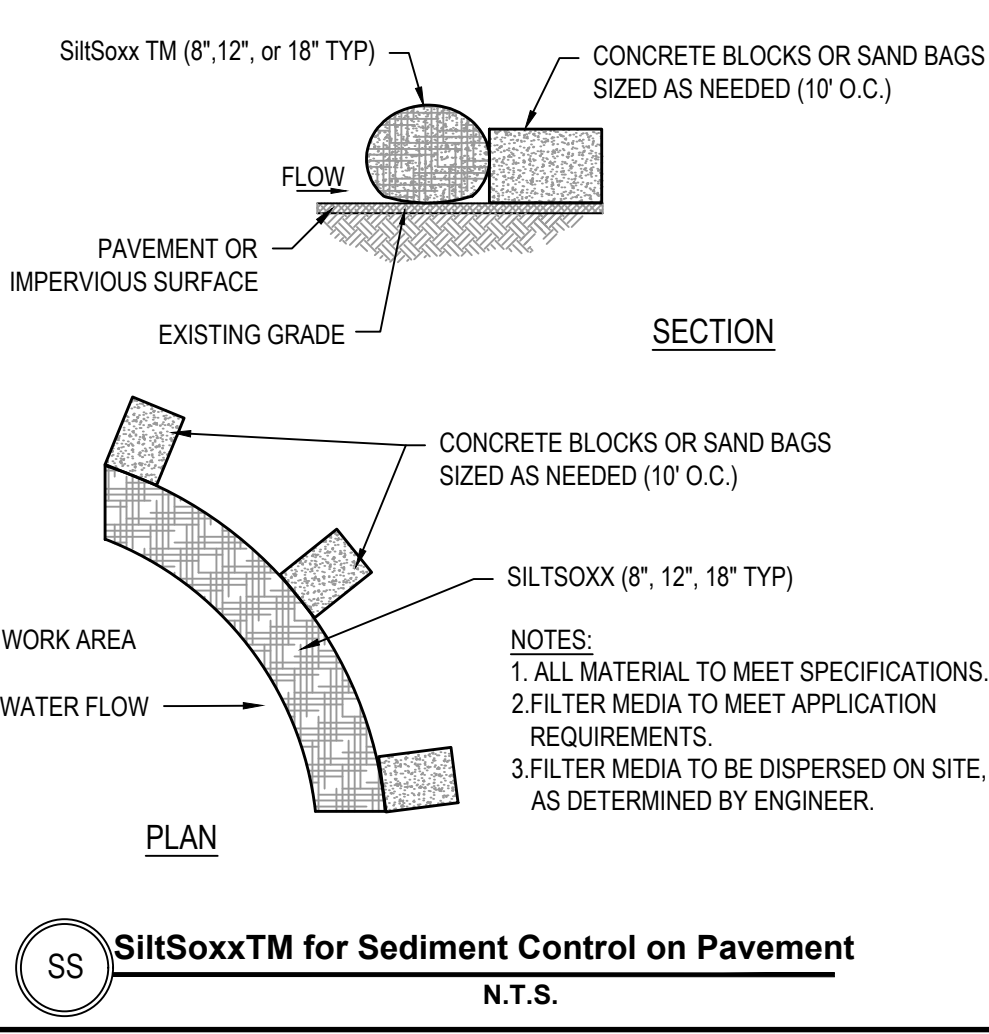
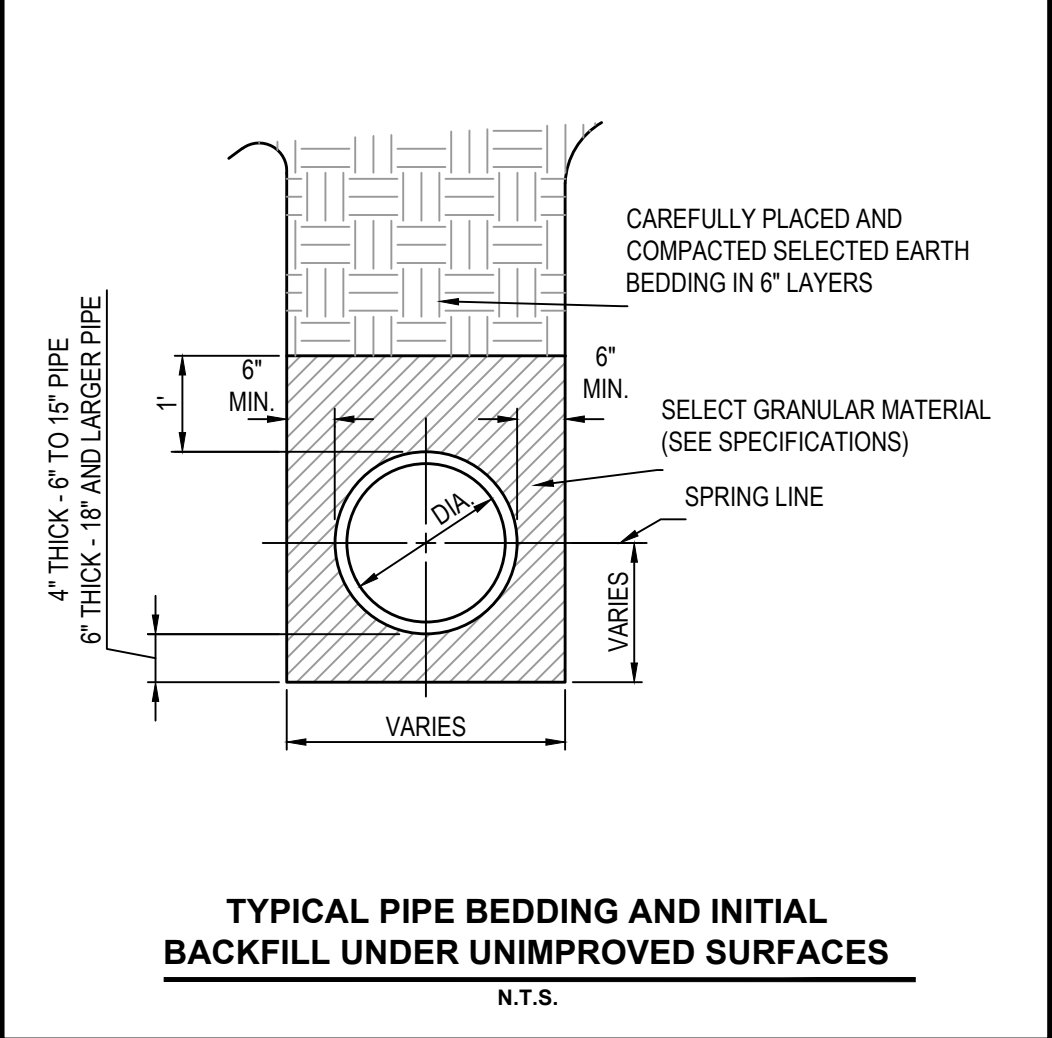
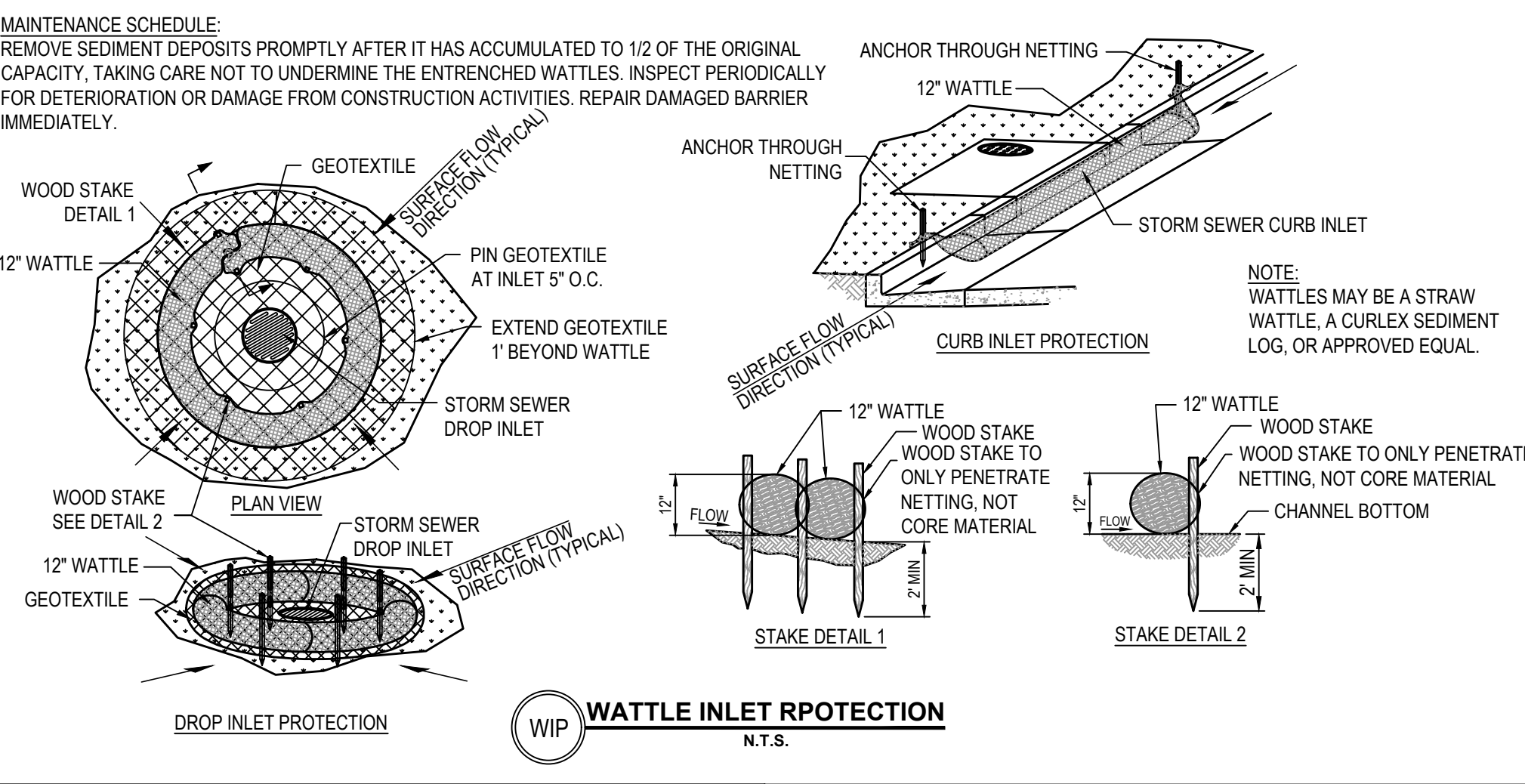
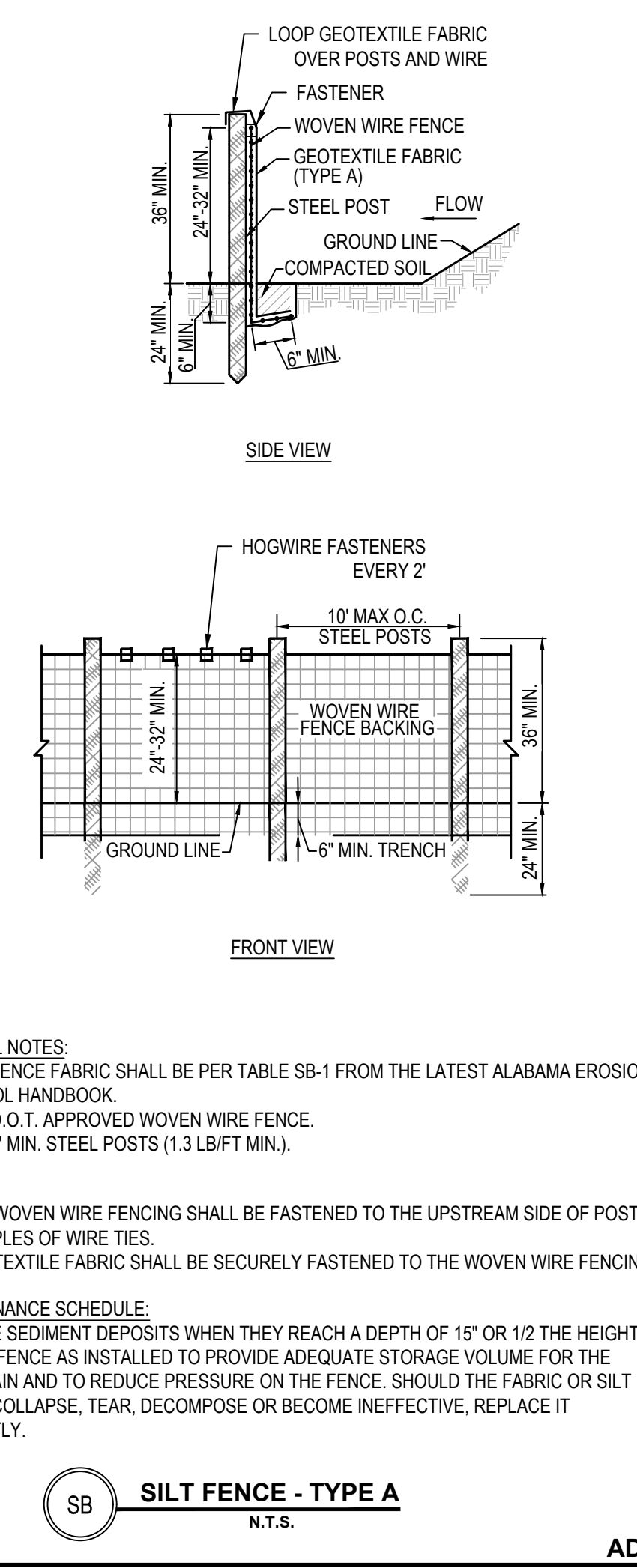
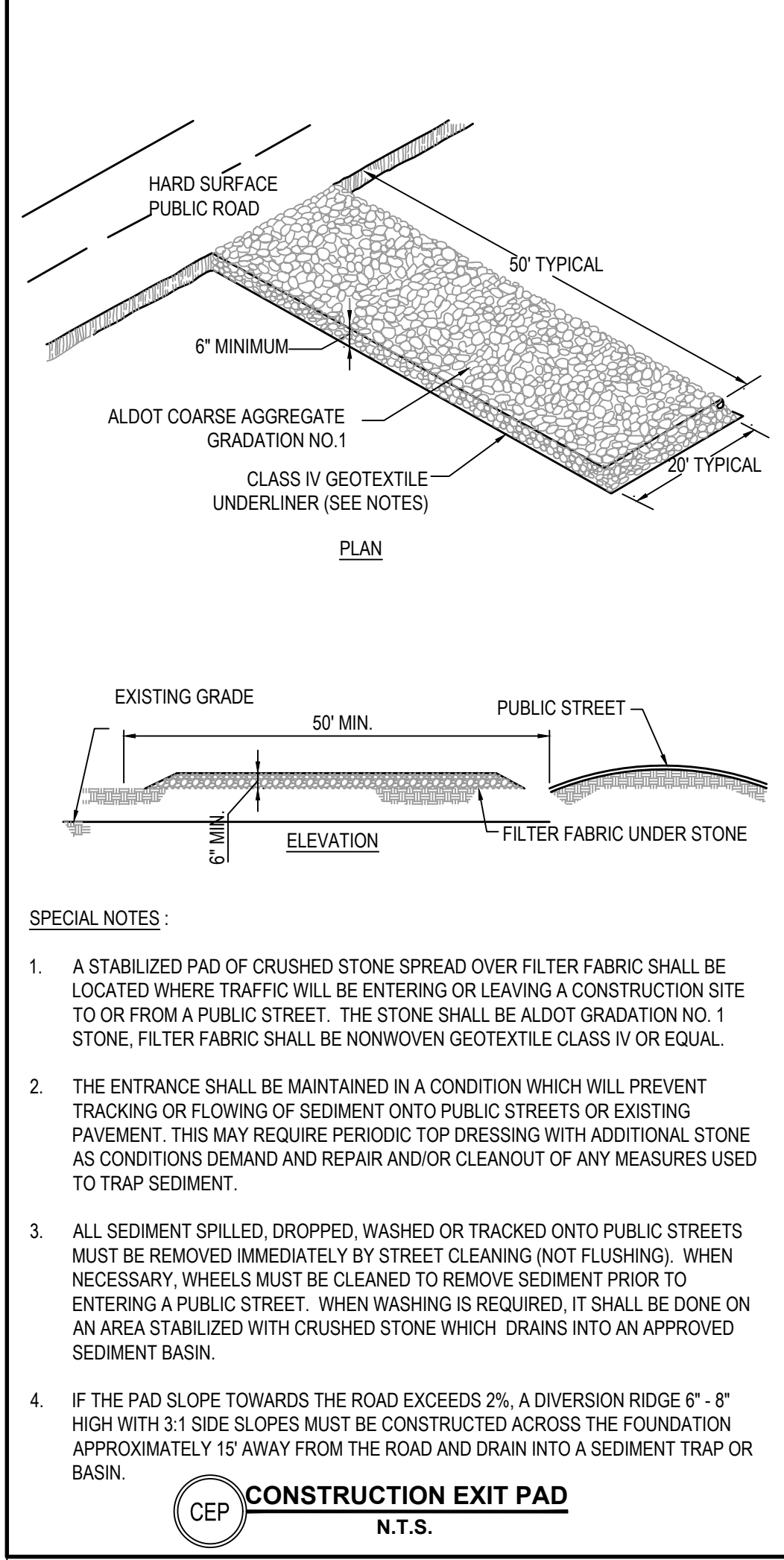
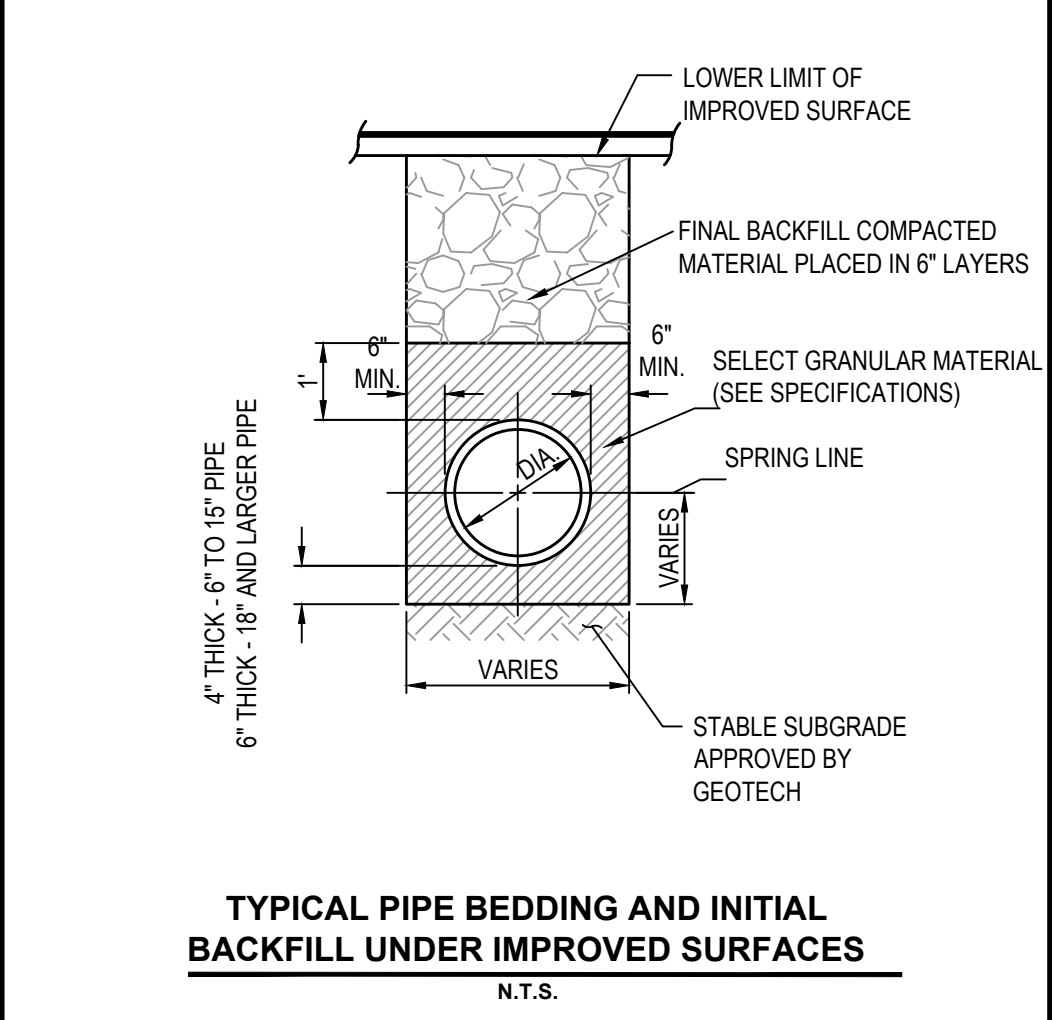
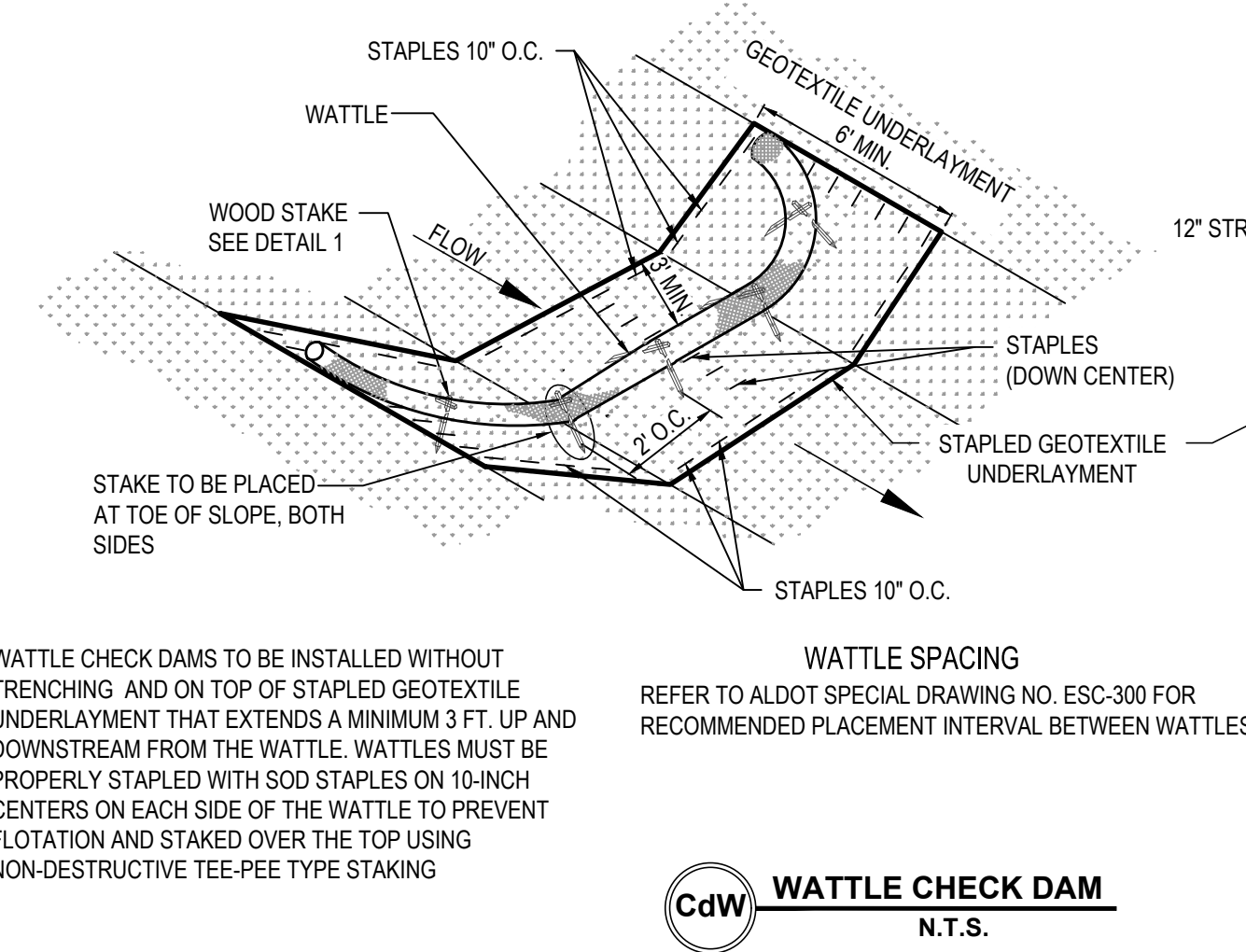
THRUST AT FITTINGS IN POUNDS\*

PIPE SIZE	90° BEND	45° BEND	22.5° BEND	TEE OR PLUG
4"	2,666	1,443	735	1,885
6"	5,998	3,246	1,655	4,241
8"	10,663	5,771	2,942	7,540
10"	16,661	9,017	4,597	11,781
12"	23,992	12,984	6,619	16,965
14"	32,655	17,673	9,010	23,091
16"	42,652	23,083	11,768	30,160
18"	53,981	29,214	14,893	38,170
20"	66,643	36,067	18,387	47,124
24"	96,966	51,937	26,477	67,858

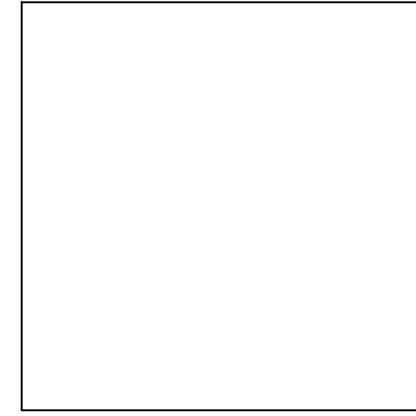
\*BASED ON 150 PSI TEST PRESSURE

SOIL BEARING LOAD

SOIL	BEARING LOAD P.S.F.
MUCK	0
SOFT CLAY	1,000
SILT	1,500
SANDY SILT	3,000
SAND	4,000
SANDY CLAY	6,000
HARD PAN	9,000



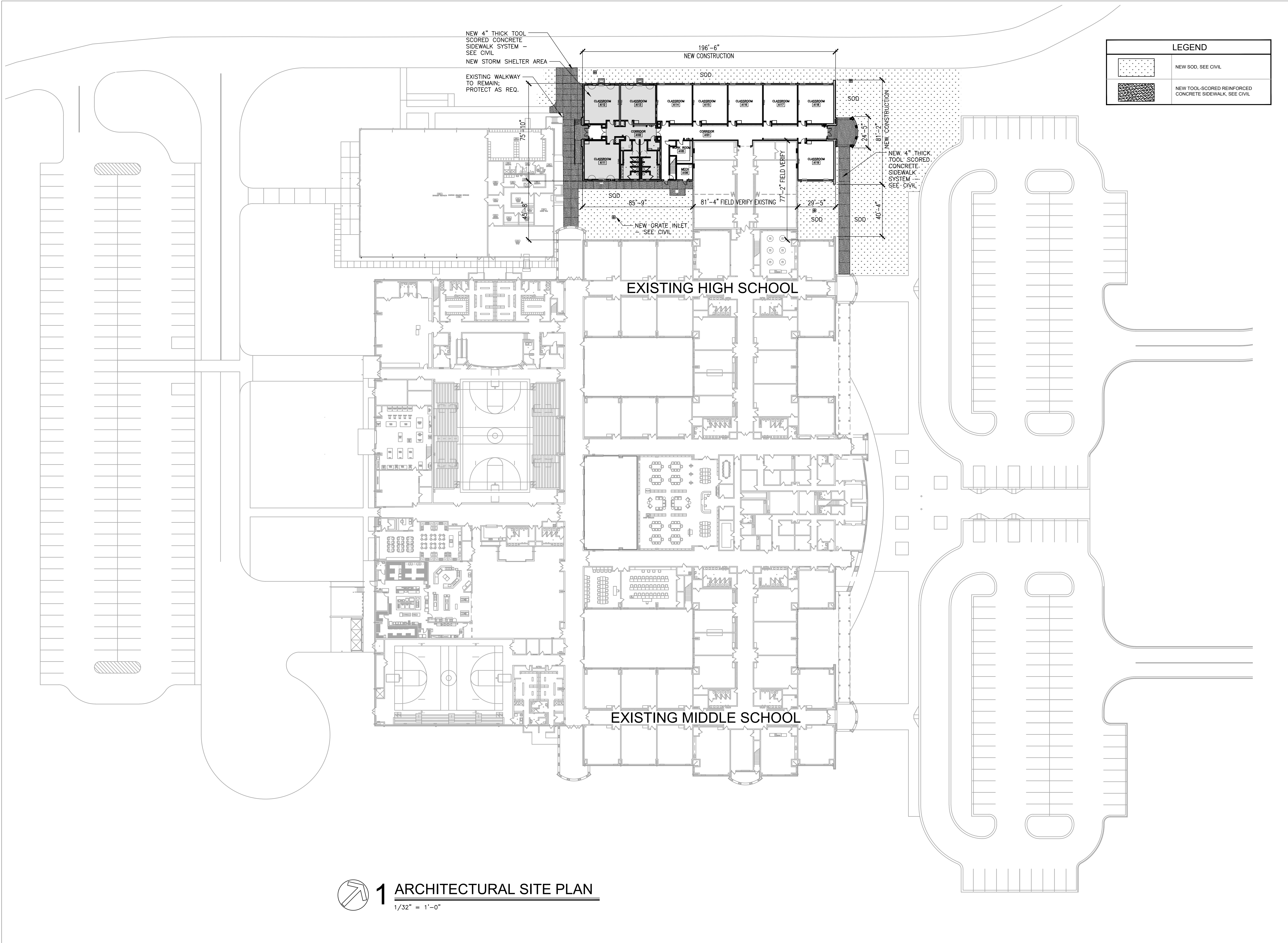
CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



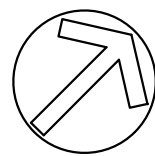
SHEET TITLE:  
CIVIL DETAILS

PROJ. MGR.:	CAH
DRAWN:	LBH
DATE:	JANUARY 31, 2023
REVISIONS	





LEGEND	
	NEW SOD, SEE CIVIL
	NEW TOOL-SCORED REINFORCED CONCRETE SIDEWALK, SEE CIVIL

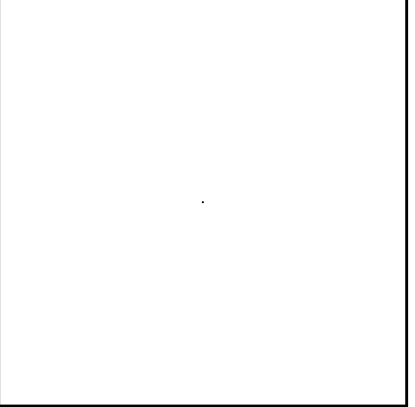


**1** ARCHITECTURAL SITE PLAN  
1/32" = 1'-0"



**LATHAN**  
ARCHITECTS

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



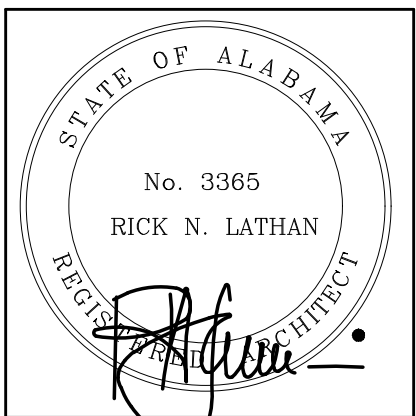
SHEET TITLE:  
ARCHITECTURAL SITE PLAN

PROJ. MGR.: L. BRYANT
DRAWN: PPH, EB
<b>Basco</b>
DATE: JANUARY 31, 2023
REVISIONS

JOB NO. **22-20**

SHEET NO:  
**A1.1**  
1 OF 25





SHEET TITLE:  
DEMOLITION PLAN AND  
PHOTOS

PROJ. MGR.: L. BRYANT

DRAWN: PPH

DATE: JANUARY 31, 2023

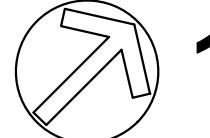
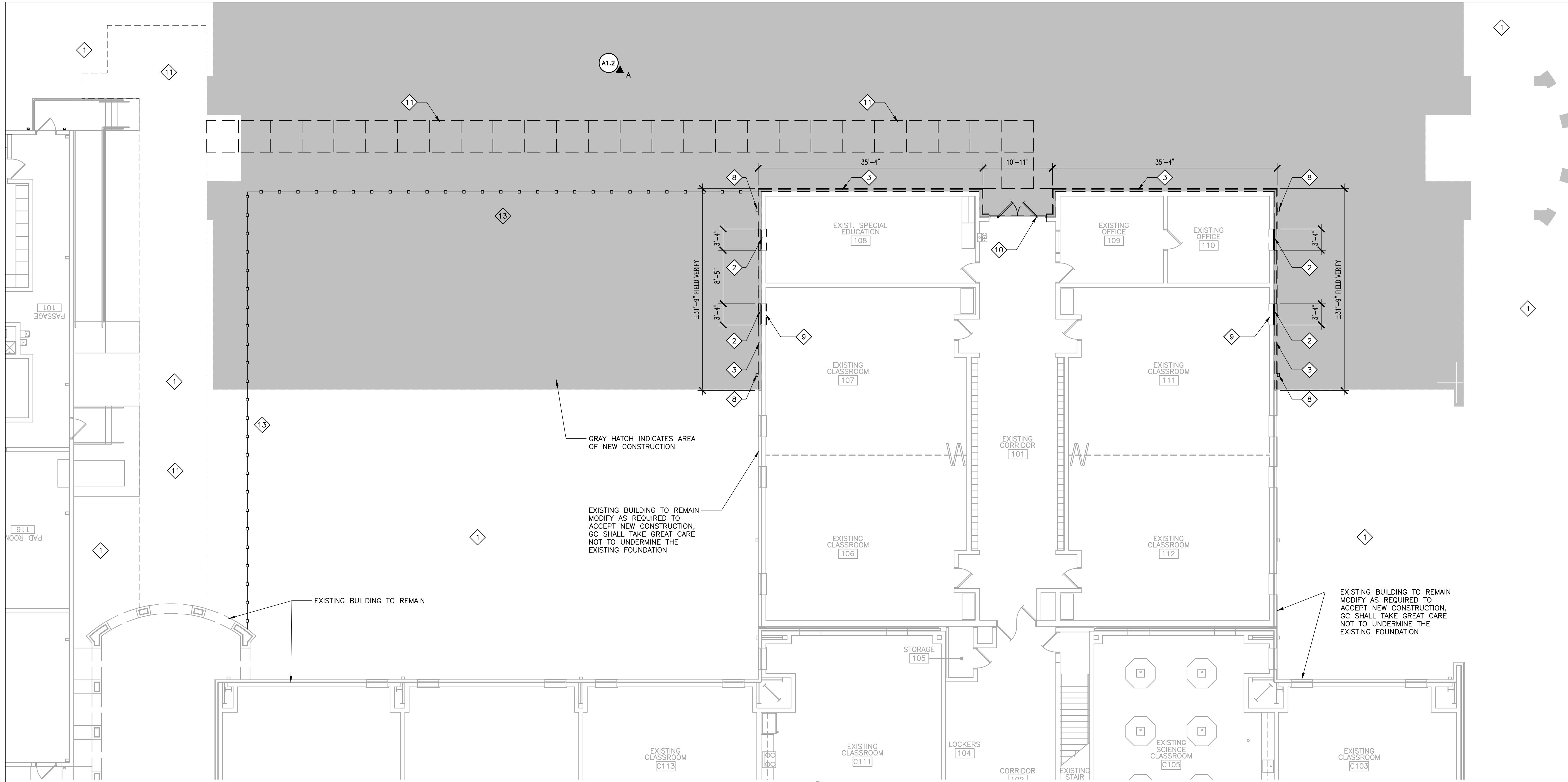
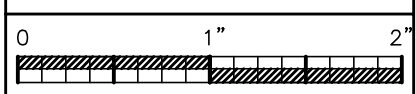
REVISIONS


JOB NO. 22-20

SHEET NO:

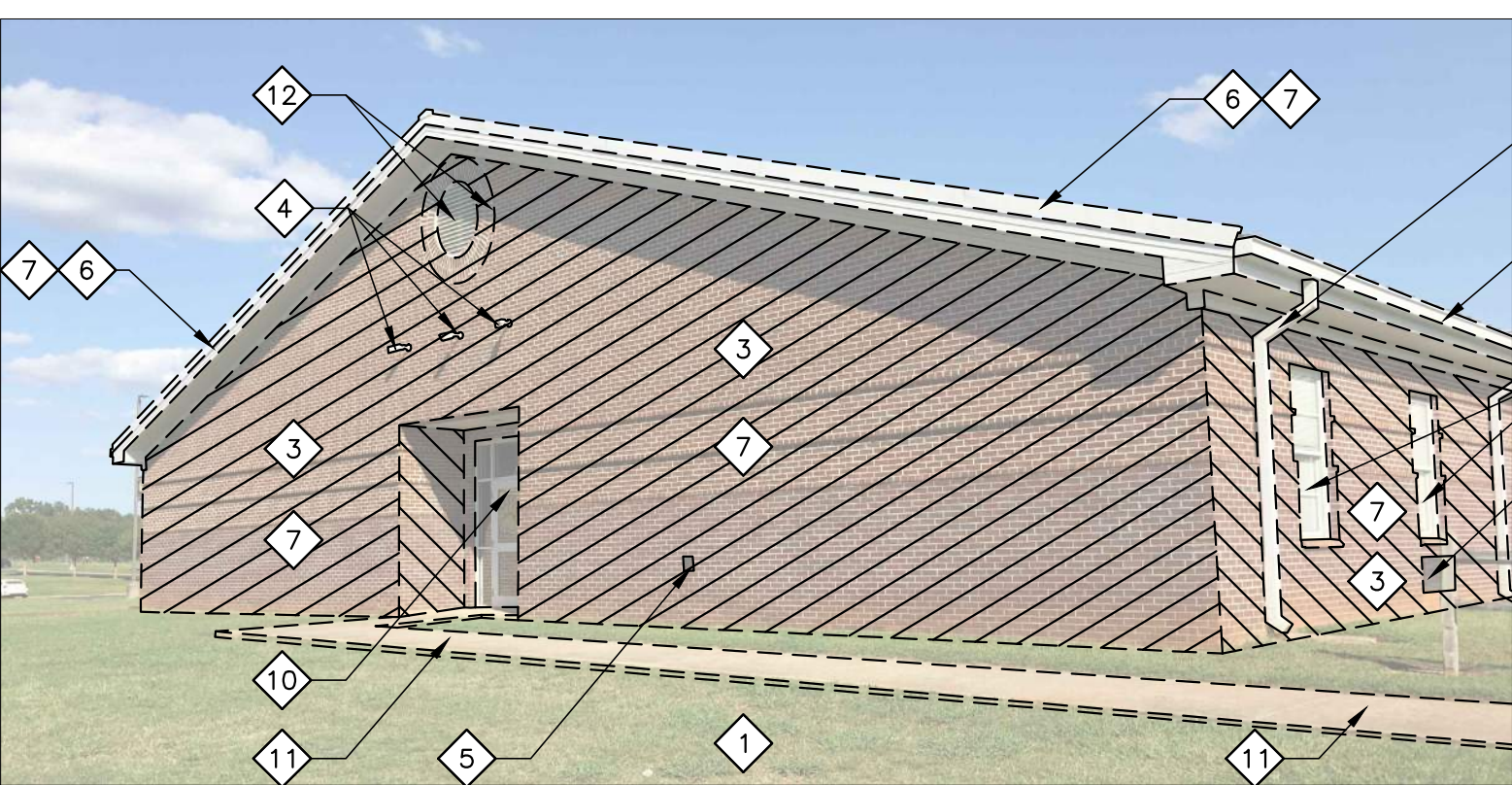
A1.2

2 OF 25



## DEMOLITION PLAN

1/8" = 1'-0"



## DEMOLITION PHOTO

N.T.S.

### GENERAL DEMOLITION NOTES

1. PROVIDE ALL DEMOLITION WORK, WHETHER INDICATED OR NOT, AS REQUIRED TO PROVIDE NEW CONSTRUCTION.
2. DASHED LINES INDICATE GENERAL EXISTING CONSTRUCTION TO BE REMOVED. CONTACT ARCHITECT FOR DEMOLITION CLARIFICATION IF UNCLEAR ON WHICH ITEMS ARE TO BE REMOVED.
3. GENERAL CONTRACTOR SHALL REMOVE ALL ABANDONED CIVIL, ARCHITECTURAL, PLUMBING, MECHANICAL, ELECTRICAL CONSTRUCTION. PROTECT ITEMS TO BE RELOCATED OR DESIGNATED AS SALVAGED.
4. CONTRACTOR SHALL PROTECT EXISTING CONSTRUCTION & SYSTEMS TO REMAIN AND CORRECT ANY DAMAGE RESULTING FROM DEMOLITION WORK. PROTECT FIRE ALARM SYSTEM AND MAINTAIN OPERATIONAL. MAINTAIN EXISTING FIRE WALLS FUNCTIONAL.
5. COORDINATE WITH FINISH LEGEND AND SCHEDULE TO DETERMINE EXISTING SURFACES TO RECEIVE NEW FINISHES. REMOVE EXISTING FINISHES AS REQUIRED AND MAKE EXISTING SURFACES READY TO RECEIVE NEW FINISHES. PATCH AND/OR REPAIR EXISTING ADJACENT CONSTRUCTION TO REMAIN.
6. CONTACT AND COORDINATE W/ ARCHITECT & STRUCTURAL ENGINEER BEFORE REMOVING OR ALTERING ANY STRUCTURAL COMPONENTS.
7. SEE RESPECTIVE CIVIL, STRUCTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
8. COORDINATE WITH THE OWNER BEFORE REMOVING ANY SALVAGEABLE MATERIALS & EQUIPMENT.
9. DEMOLITION WORK SHALL NOT CHANGE THE INTEGRITY OF EXISTING STRUCTURE, FIRE ALARM SYSTEM & FIRE RATED CONSTRUCTION TO REMAIN. ANY EXISTING FIRE RATED CONSTRUCTION TO REMAIN WHICH HAS BEEN AFFECTED BY DEMOLITION WORK MUST BE CORRECTED AND MADE TO MEET THE ORIGINAL RATING.
10. COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS TO DETERMINE LIMITS OF DEMOLITION REQUIRED FOR NEW CONSTRUCTION.
11. COORDINATE ALL UTILITY OUTAGES OVER WEEKENDS OR HOLIDAYS WITH OWNER PRIOR TO DEMOLITION.
12. DO NOT IMPEDE SCHOOL DAY TO DAY OR SPECIAL EVENT OPERATIONS. MAINTAIN ALL UTILITIES OPERATIONAL AS REQUIRED. PROVIDE TEMPORARY REROUTING OF ANY UTILITIES AS NECESSARY.

### DEMOLITION LEGEND

---	EXISTING CONSTRUCTION TO BE REMOVED
---	EXISTING CONSTRUCTION TO REMAIN
---	EXISTING DOOR AND ASSOCIATED CONSTRUCTION TO BE REMOVED
---	EXISTING DOOR TO REMAIN
---	AREA OF NEW BUILDING FOOTPRINT
---	DIRECTION OF PHOTO

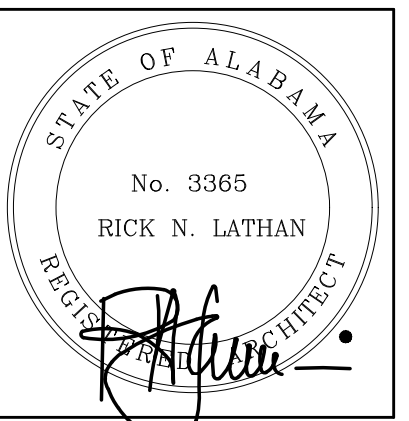
### GENERAL DEMOLITION KEY NOTES

1. FOR EXTENTS OF DEMOLITION, SEE CIVIL.
2. SELECTIVELY REMOVE EXISTING WINDOW, FRAME AND CONSTRUCTION AS REQUIRED TO ALLOW FOR NEW TOOTHED MASONRY INFILL TO MATCH EXISTING COURSING. (TYPICAL)
3. REMOVE EXISTING BRICK VENEER ON PORTION OF EXISTING EXTERIOR MASONRY WALL CONSTRUCTION AS INDICATED PREP EXISTING CONDITIONS TO ACCEPT NEW CONSTRUCTION AS REQUIRED.
4. COORDINATE WITH THE OWNER PRIOR TO REMOVAL OF ANY SALVAGEABLE MATERIALS SUCH AS BUT NOT LIMITED TO CAMERAS, SPEAKERS AND LIGHT FIXTURES. ALL SALVAGED MATERIALS TO BE STORED AND REINSTALLED AS DIRECTED BY OWNER.
5. REMOVE OR RELOCATE EXISTING UTILITIES AS REQUIRED. SEE ENGINEERING DRAWINGS.
6. REMOVE PORTION OF EXISTING ROOF, ROOF OVERHANG, RAKE EAVES, SOFFIT, FRAME EXTENSIONS AND GUTTER AS NECESSARY FOR NEW CONSTRUCTION TO BE COMPLETED. INTEGRATE WITH EXISTING.
7. PREPARE EXISTING CONSTRUCTION AS REQUIRED TO ACCEPT NEW CONSTRUCTION IN THIS AREA.
8. REMOVE PORTION OF EXISTING GUTTER AND DOWNSPOUT SYSTEM AS REQUIRED TO PROVIDE NEW CONSTRUCTION. INTEGRATE WITH EXISTING.
9. REMOVE EXISTING MECHANICAL THRU-WALL UNITS AND ASSOCIATED CONSTRUCTION. PREP AREA AS REQUIRED FOR NEW IN-FILL MASONRY CONSTRUCTION. SEE MECHANICAL FOR NEW LOCATIONS, RELOCATE ACCORDINGLY & REROUTE THE ELECTRICAL AND REFRIGERANT LINES AS REQUIRED AND RESTORE OPERATION FULLY.
10. REMOVE EXISTING STOREFRONT FRAME, DOORS, SIDELITES, AND ASSOCIATED CONSTRUCTION. PREP AND MODIFY EXISTING AREA TO ACCEPT NEW CONSTRUCTION.
11. REMOVE EXISTING SIDEWALKS AND ASSOCIATED CONSTRUCTION TO ACCEPT NEW CONSTRUCTION IN THIS AREA.
12. REMOVE EXISTING PREFINISHED LOUVER SYSTEM, BRICK SURROUNDS, AND ASSOCIATED CONSTRUCTION AS REQUIRED.
13. REMOVE FENCING SYSTEM AND ASSOCIATED CONSTRUCTION AS REQUIRED





CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



HEET TITLE:  
MAIN LEVEL FLOOR PLAN

PROJ. MGR.: L. BRYANT
DRAWN: PPh, EB
<b>IRASCO</b>
DATE: JANUARY 31, 2023
REVISIONS

JOB NO. 22-20




SHEET NO:

## A2.1

OF 25

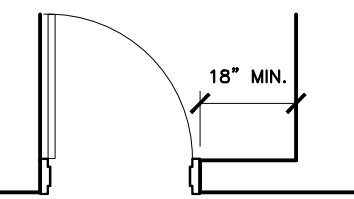
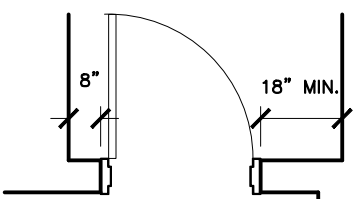
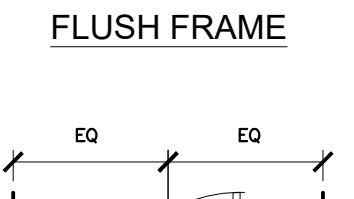

$$1/8'' = 1'-0''$$

DOOR FIRE RATING LEGEND	
DOOR TYPE (2)	NO RATING
DOOR TYPE + S (2S)	SMOKE BARRIER RATING
DOOR TYPE + A (2A)	20 MINUTE RATING
DOOR TYPE + B (2B)	45 MINUTE RATING
DOOR TYPE + C (2C)	60 MINUTE RATING
DOOR TYPE + D (2D)	90 MINUTE RATING
DOOR TYPE + E (2E)	180 MINUTE RATING

WALL TYPE LEGEND	
	NEW 4" BRICK VENEER W/ AIR SPACE AND FIRE INSULATION ON REINFORCED CMU WITH DAMPPROOFING. PROVIDE BRICK WALL TIES @ 16" O.C.
	8" OR 12" CONCRETE MASONRY WALL SEE PLAN FOR WALL WIDTH CHANGES SEE LIFE SAFETY PLAN FOR FIRE RATING
	8" OR 12" CONCRETE MASONRY WALL WITH FOAM FILL SOUND ATTENUATION

SYMBOLS LEGEND	
TV N.C.	TV FURNISHED BY OWNER - INSTALLED BY GC
FEC	RECESSED FIRE EXTINGUISHING CABINET WITH EXTINGUISHER
+	INTERIOR FLOOR ELEVATION
F.D.	FLOOR DRAIN
EWC	ELECTRIC WATER COOLER
MB	MARKER BOARD
WA	WIND ANGLE
A200	ROOM NUMBER
CJ	CONJOINT JOINT
EJ	EXPANSION JOINT
DS/SB	DOWNSPOUT WITH SPLASHLOCK
TC	DOOR TYPE DOOR RATING HARDWARE SYMBOL
TC	DOOR TYPE DOOR RATING HARDWARE SYMBOL TORNADO HOLD OPEN
A	ELEV. MARK SHEET NUMBER
1	SECT. MARK SHEET NUMBER
A	ELEV. MARK SHEET NUMBER PHOTO
5	ELEV. MARK SHEET NUMBER INTERIOR ELEVATION
NEW DOOR AND SWIN	
EXISTING DOOR	
EXTERIOR WINDOW	
STOREFRONT	
ARCHITECTURAL LOUVER	
AREA OF CONCRETE	

### DOOR PLACEMENT LEGEND

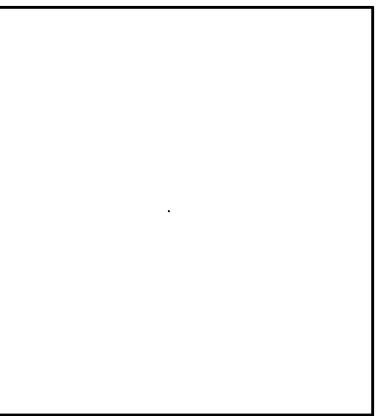
 <p><u>FLUSH FRAME</u></p>	 <p><u>OFFSET FRAME</u></p>
 <p><u>CENTERED FRAME</u></p>	

GENERAL NOTES	
EXTEND & KEY RATED WALLS TO BOTTOM OF ROOF DECK - SEE LIFE SAFETY DRAWINGS FOR RATED WALL LOCATIONS.	
COORDINATE W/ ELECTRICAL & MECHANICAL AND PROVIDE CONCRETE EQUIPMENT PAD AS REQUIRED	
SEE ELEVATIONS AND ROOF PLAN FOR DOWNSPOUT LOCATIONS	
SEE CIVIL DRAWINGS FOR CONTINUATION OF SIDEWALKS	
ALL PLAN DIMENSIONS ARE TO FACE OF CMU AND TO OUTSIDE OF BRICK, STONE AND TO FACE OF GYP. BD. UNLESS NOTED OTHERWISE	
WINDOWS ARE DIMENSIONED TO THE CENTER LINE	
SLOPE ALL SIDEWALKS AWAY FROM THE BUILDING	
SLOPE FINISH FLOOR TO FLOOR DRAINS. SEE PLUMBING FOR LOCATIONS OF FLOOR DRAINS.	
PROVIDE BULL-NOSE AT ALL OUTSIDE CMU CORNERS	
PROVIDE NEW MASONRY VENEER TO MATCH EXISTING ADJACENT MASONRY VENEER ACCORDINGLY AND AS DIRECTED/APPROVED BY THE ARCHITECT.	





CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
ATTIC FLOOR PLAN

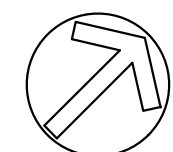
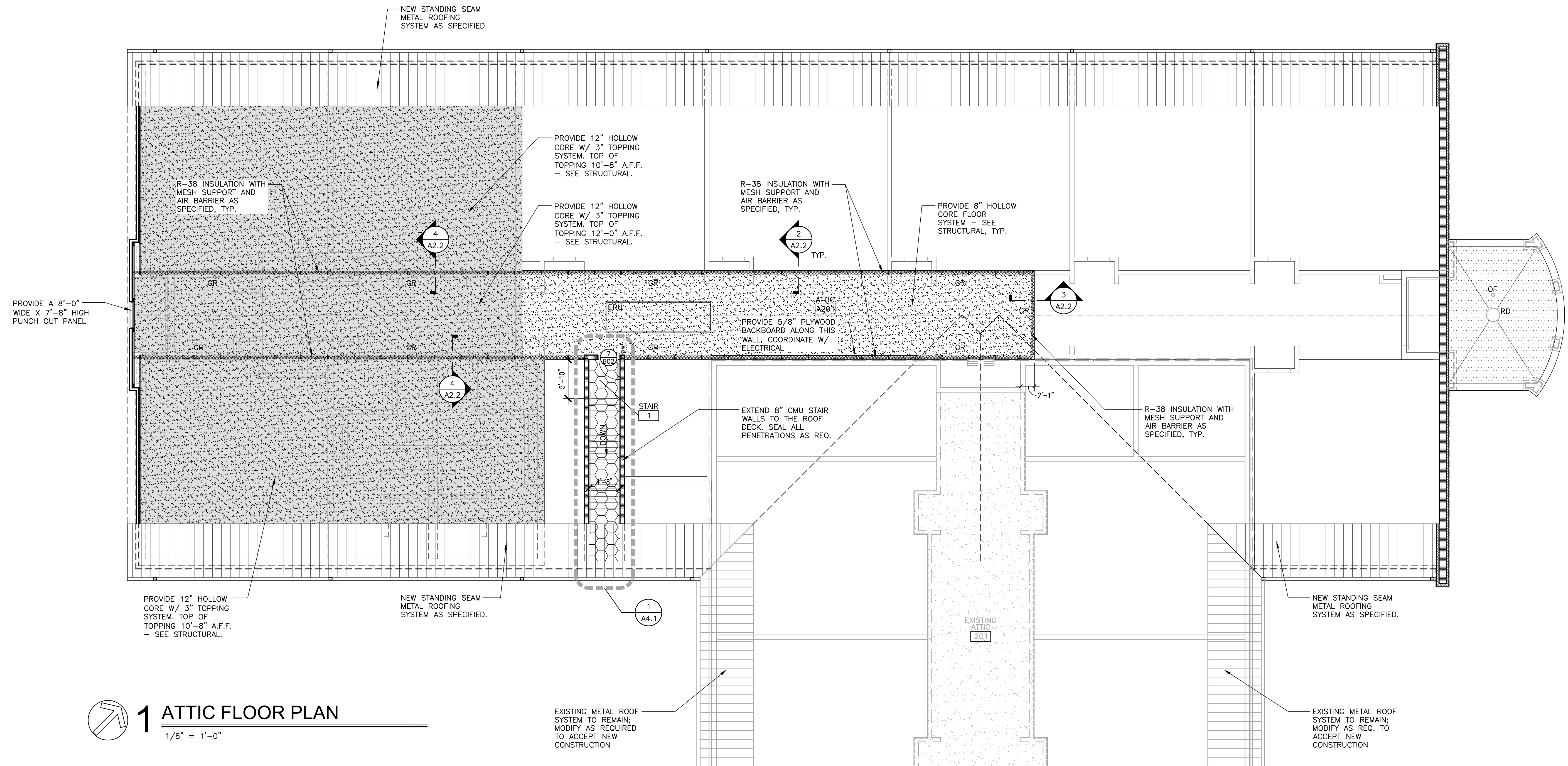
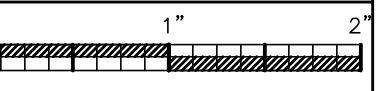
PROJ. MGR.: L. BRYANT
DRAWN: PPh & E.B.
<b>Rasco</b>
DATE: JANUARY 31, 2023
REVISIONS

OB NO. 22-20

HEET NO:

## A2.2

OF 25



## 1 ATTIC FLOOR PLAN

$$1/8" = 1'-0"$$

ATTIC FLOOR LEGEND	
	8" HOLLOW CORE WITHOUT TOPPING SLAB - (NON RATED) TOP OF HOLLOW CORE 12-40' A.F.F.
	2 HOUR RATED TORNADO SHELTER CAP WITH 12" HOLLOW CORE W/ 3" TOPPING SYSTEM PER UL DESIGN J957. APPLY A CLEAR CONCRETE SEALER OVER SURFACE OF TOPPING SLAB PRIOR TO TRUSS INSTALLATION.
	EXISTING ATTIC TO REMAIN.
	LOW SLOPE ROOFING SYSTEM AS SPECIFIED. SEE ROOF PLAN.
	METAL ROOFING SYSTEM AS SPECIFIED. SEE ROOF PLAN.
	PROVIDE A UL RATED SMOKE BARRIER CAP @ THE BOTTOM OF TRUSSES. SEAL ALL PENETRATIONS AS REQUIRED. SEE LIFE SAFETY.
GR	METAL STUD GUARDRAIL SYSTEM MECHANICALLY ATTACHED TO TRUSSES
OF	OVERFLOW DRAIN
RD	ROOF DRAIN

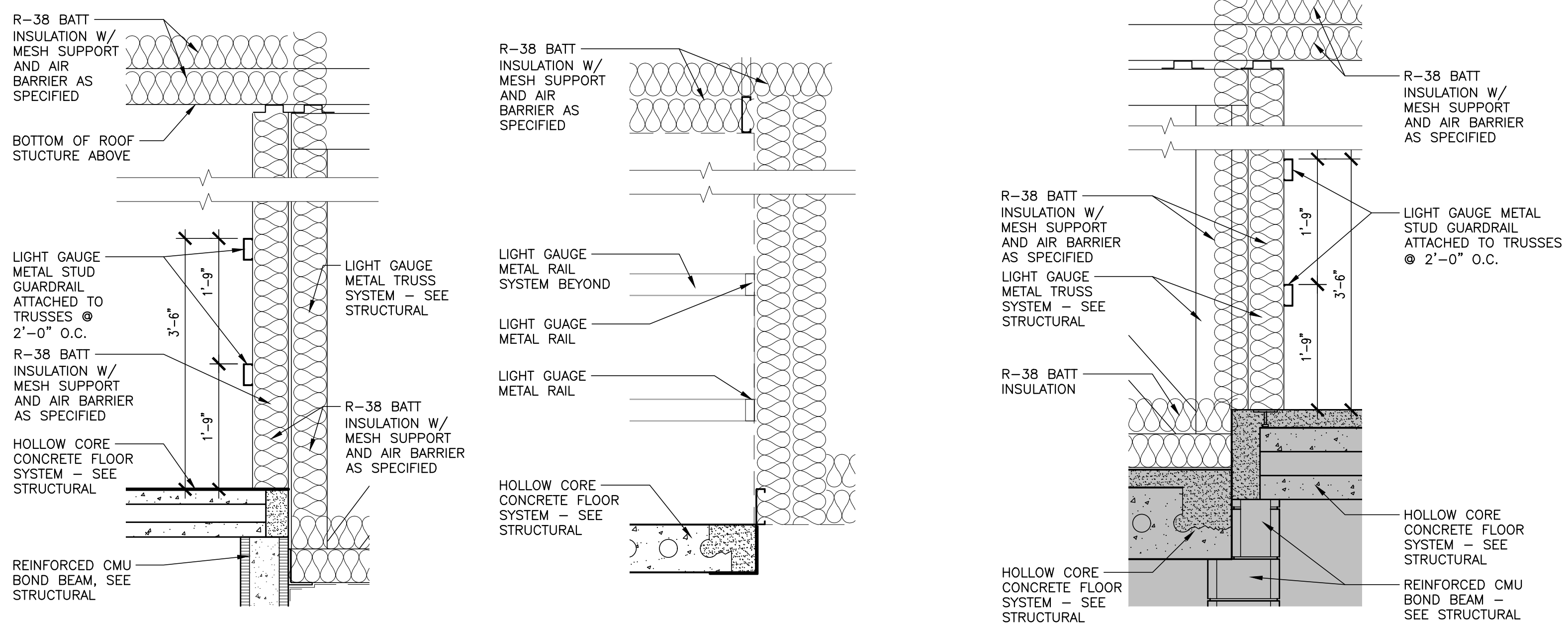
## 2 ATTIC DETAIL

$$3/4" = 1'-0"$$

### 3 ATTIC DETAIL

$$3/4'' = 1'-0''$$

#### 4 ATTIC DETAIL

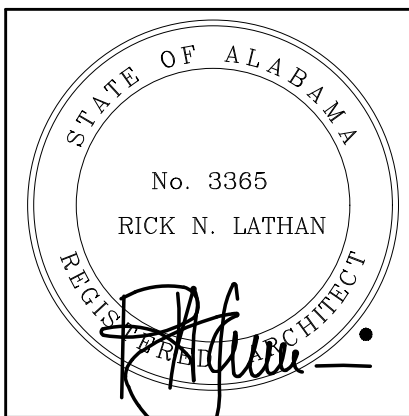
$$3/4'' = 1'-0''$$






LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



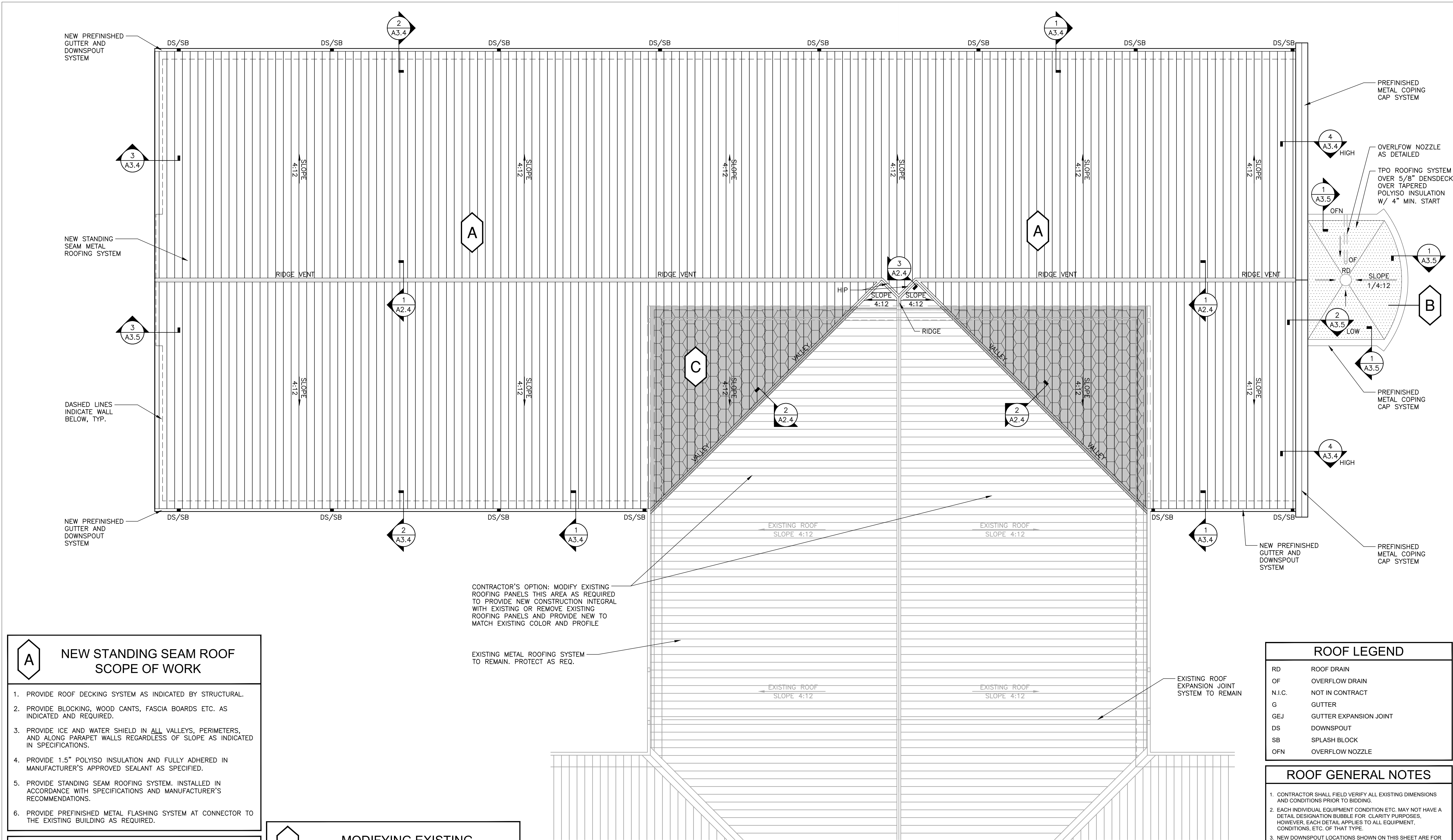
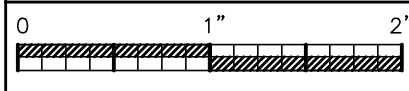
SHEET TITLE:  
ROOF PLAN AND ROOF  
LEGENDS

PROJ. MGR.: L. BRYANT  
DRAWN: PPh & E.B.  
**Basco**  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. **22-20**  
SHEET NO:

**A2.3**

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**A** NEW STANDING SEAM ROOF SCOPE OF WORK

1. PROVIDE ROOF DECKING SYSTEM AS INDICATED BY STRUCTURAL.
2. PROVIDE BLOCKING, WOOD CANTS, FASCIA BOARDS ETC. AS INDICATED AND REQUIRED.
3. PROVIDE ICE AND WATER SHIELD IN ALL VALLEYS, PERIMETERS, AND ALONG PARAPET WALLS REGARDLESS OF SLOPE AS INDICATED IN SPECIFICATIONS.
4. PROVIDE 1.5" POLYISO INSULATION AND FULLY ADHERED IN MANUFACTURER'S APPROVED SEALANT AS SPECIFIED.
5. PROVIDE STANDING SEAM ROOFING SYSTEM. INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
6. PROVIDE PREFINISHED METAL FLASHING SYSTEM AT CONNECTOR TO THE EXISTING BUILDING AS REQUIRED.

**B** NEW TPO ROOF SCOPE OF WORK

1. PROVIDE ROOF DECKING SYSTEM AS INDICATED BY STRUCTURAL.
2. PROVIDE BLOCKING, WOOD CANTS, FASCIA BOARDS ETC. AS INDICATED AND REQUIRED.
3. PROVIDE ICE AND WATER SHIELD IN ALL VALLEYS, PERIMETERS, AND ALONG PARAPET WALLS REGARDLESS OF SLOPE AS INDICATED IN SPECIFICATIONS.
4. PROVIDE TAPERED POLYSOCYANURATE INSULATION SYSTEM WITH 4" MINIMUM START FULLY ADHERED IN MANUFACTURER'S APPROVED SEALANT AS SPECIFIED.
5. PROVIDE 5/8" DENSGLASS COVER BOARD FULLY ADHERED IN MANUFACTURER'S APPROVED SEALANT AS SPECIFIED.
6. PROVIDE TPO ROOFING SYSTEM AS SPECIFIED. INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
7. PROVIDE PREFINISHED METAL FLASHING SYSTEM AT CONNECTOR TO THE EXISTING BUILDING AS REQUIRED.

**C** MODIFYING EXISTING STANDING SEAM ROOFING

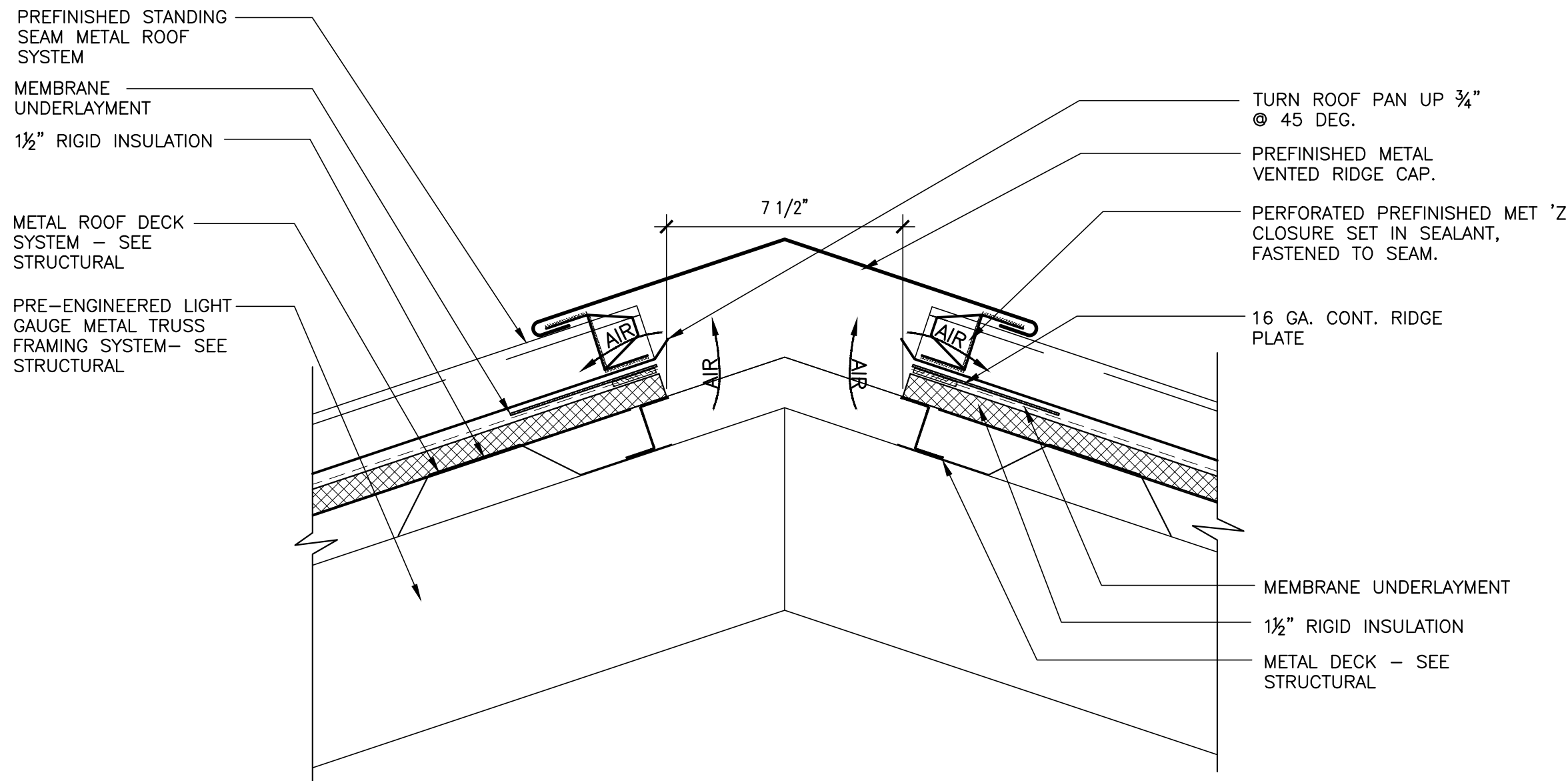
1. REMOVE EXISTING METAL ROOFING SYSTEM, ROOF INSULATION, AND ASSOCIATED CONSTRUCTION DOWN TO THE EXISTING METAL DECKING AS REQUIRED. CLEAN AND PREP THE EXISTING METAL DECKING AS REQUIRED TO ACCEPT NEW TRUSS CONSTRUCTION. MODIFY EXISTING METAL ROOF PANELS IN SUCH A WAY TO ALLOW FOR BLENDING IN OF NEW METAL ROOFING PANELS.
2. PROVIDE ROOF DECKING SYSTEM AS INDICATED BY STRUCTURAL. PROVIDE BLOCKING, WOOD CANTS, FASCIA BOARDS ETC. AS INDICATED AND REQUIRED.
3. PROVIDE ICE AND WATER SHIELD IN ALL VALLEYS, PERIMETERS, AND ALONG PARAPET WALLS REGARDLESS OF SLOPE AS INDICATED IN SPECIFICATIONS.
4. PROVIDE 1.5" POLYISO INSULATION AND FULLY ADHERED IN MANUFACTURER'S APPROVED SEALANT AS SPECIFIED.
5. PROVIDE STANDING SEAM ROOFING SYSTEM AS SPECIFIED. INSTALLED IN ACCORDANCE WITH SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATIONS.
6. PROVIDE PREFINISHED METAL FLASHING SYSTEM AT CONNECTOR TO THE EXISTING BUILDING AS SPECIFIED.

**1** ROOF PLAN  
1/8" = 1'-0"

TPO ROOF SYSTEM R-VALUE	
OUTSIDE AIR FILM	R.17
TPO ROOFING	R.1
5/8" GYPSUM BOARD	R.56
4" MINIMUM START TAPERED POLYISO INSULATION	R23.6
INTERIOR AIR FILM (HEAT FLOW DOWN)	R.92
TOTAL R-VALUE	R25.35

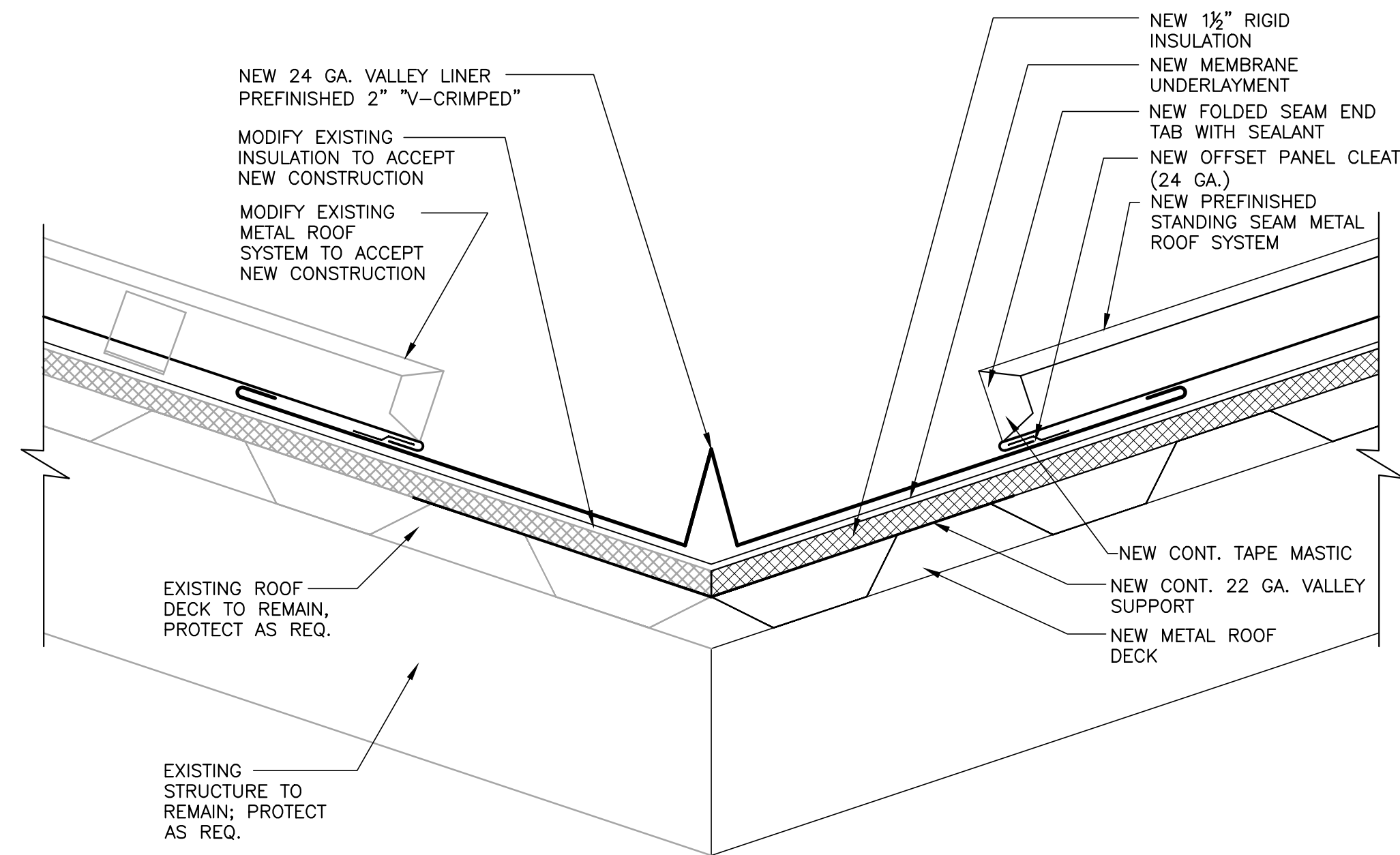
ROOF DETAIL MARKER	
	DETAIL NUMBER SHEET NUMBER
	DIRECTION OF ROOF SLOPE MARKER NEW /EXISTING DOWNWARD SLOPE
	RISE : RUN 1/4:12
	TPO MEMBRANE ROOFING SYSTEM
	PREFINISHED METAL STANDING SEAM ROOFING SYSTEM
	EXISTING METAL ROOFING SYSTEM TO REMAIN
	EXISTING METAL ROOFING SYSTEM TO BE REMOVED SEE NOTES





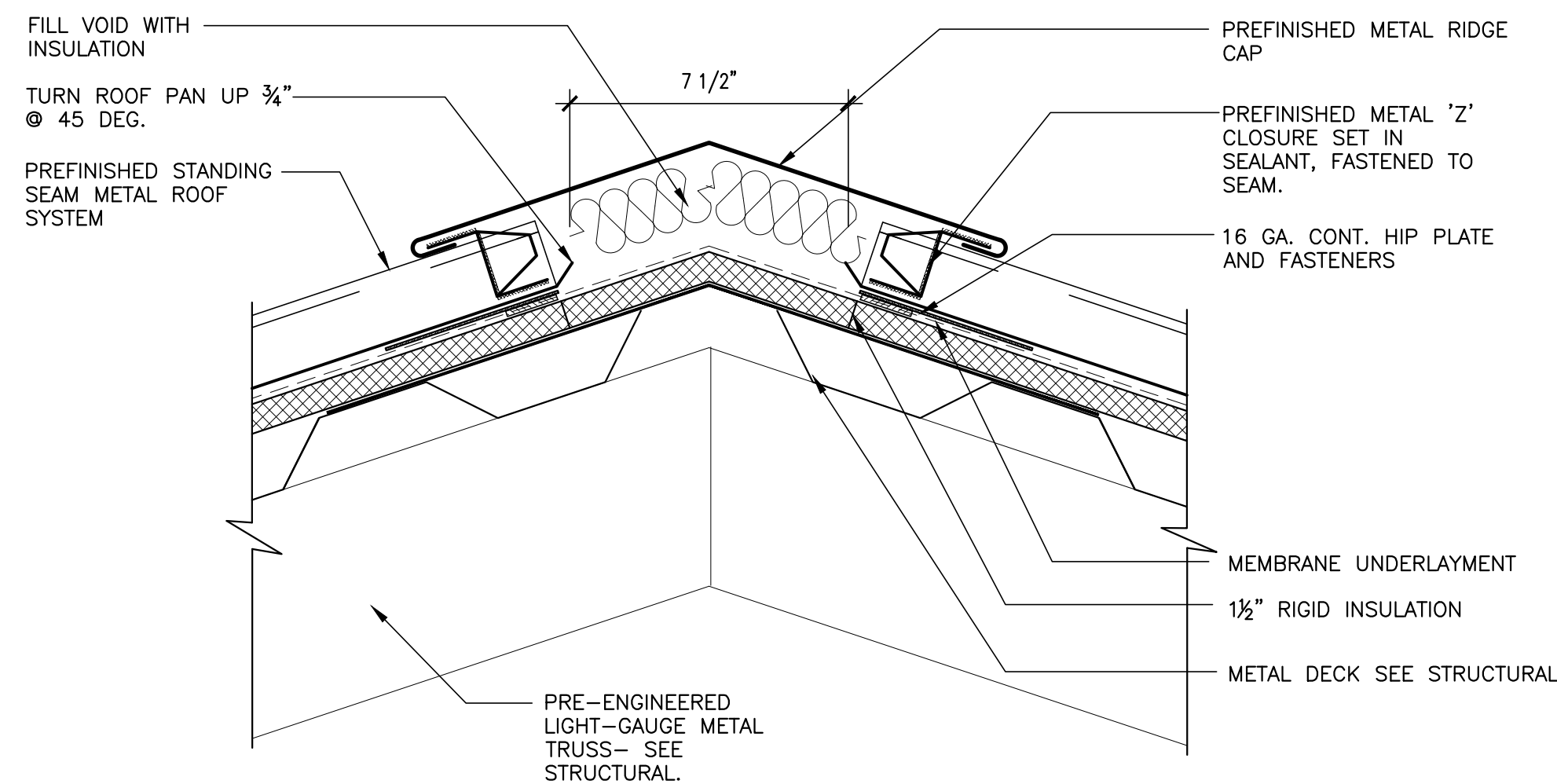
**1 RIDGE VENT DETAIL**

3" = 1'-0"



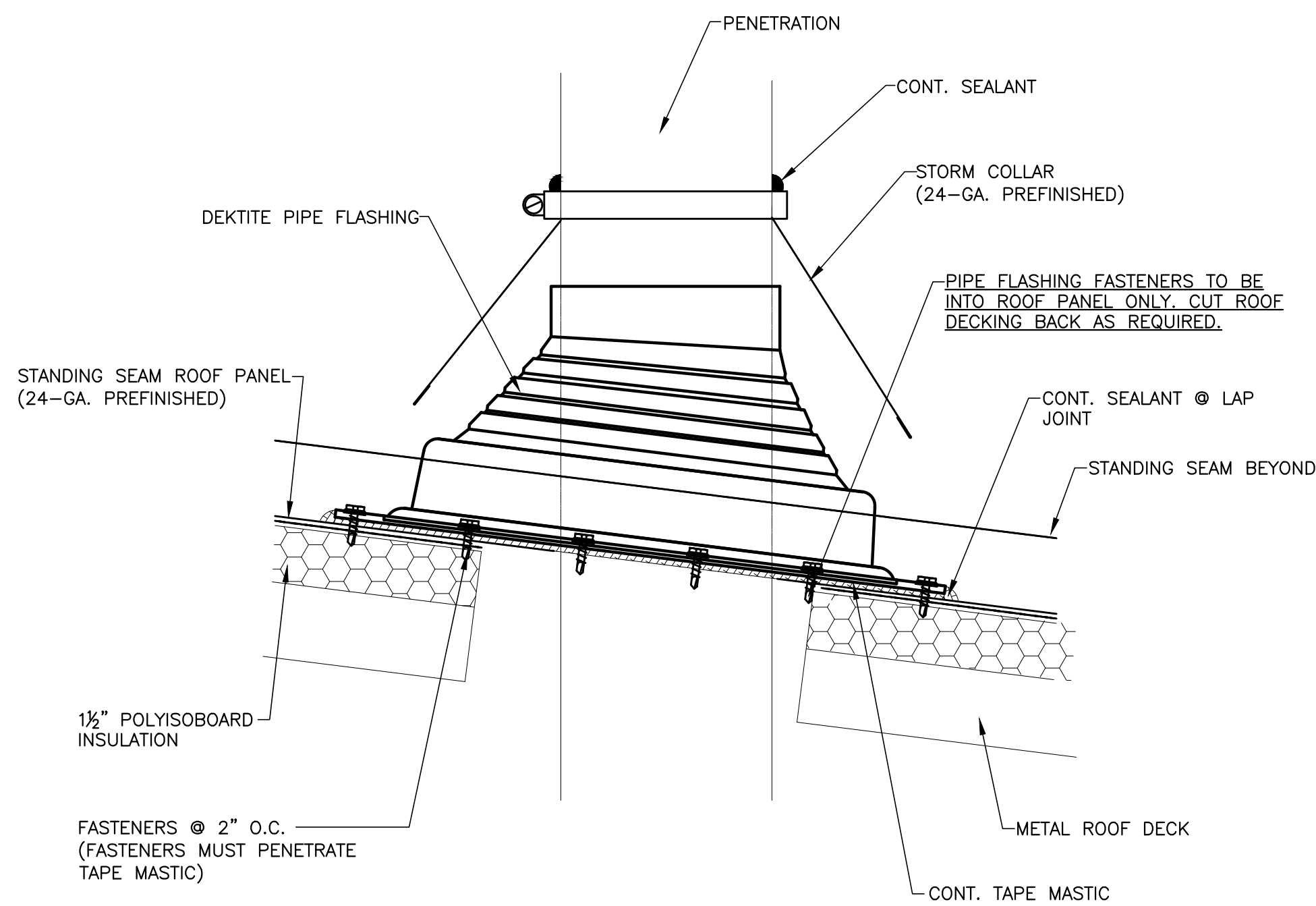
**2 VALLEY FLASHING DETAIL**

3" = 1'-0"



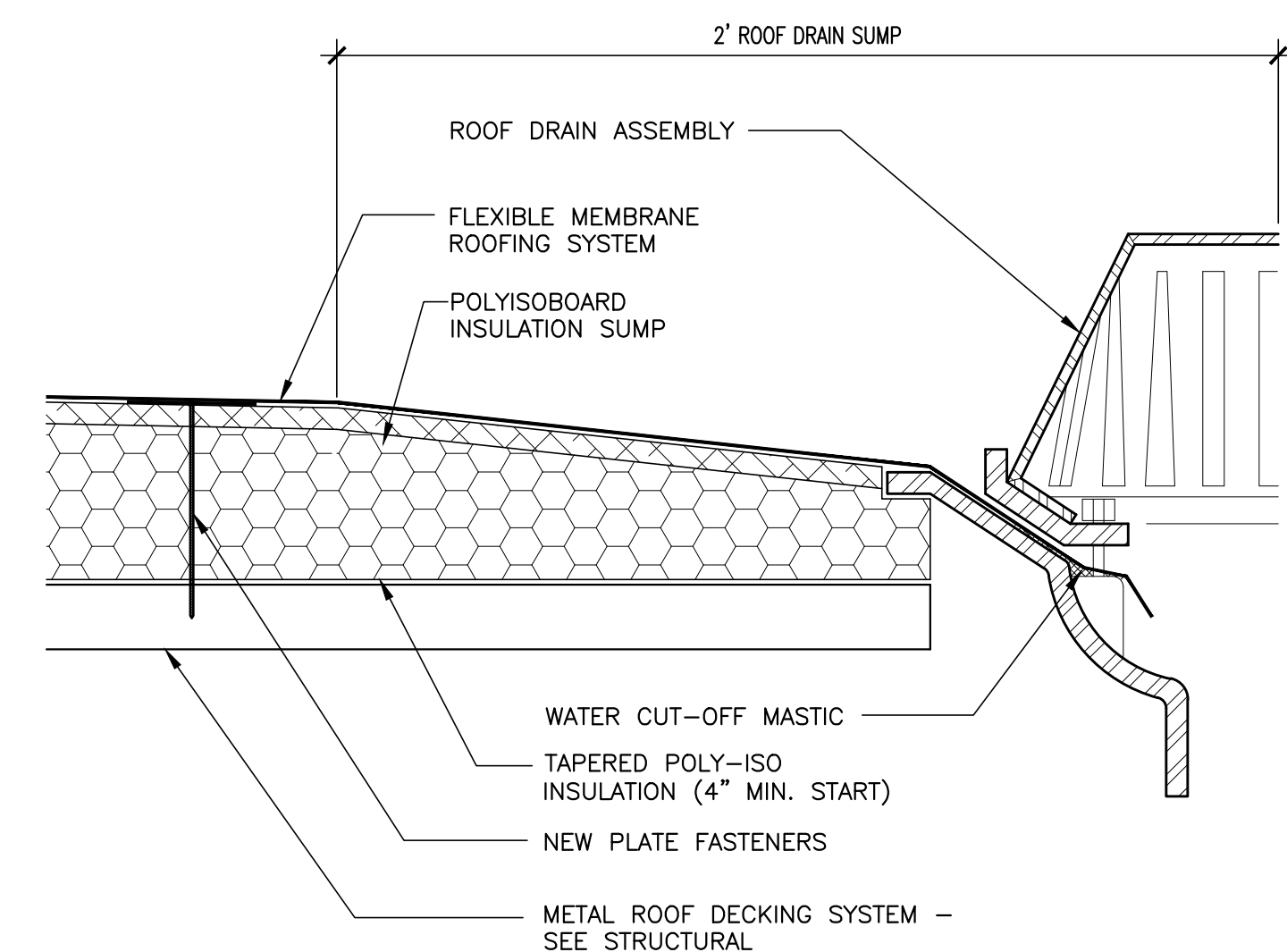
**3 HIP FLASHING DETAIL**

3" = 1'-0"



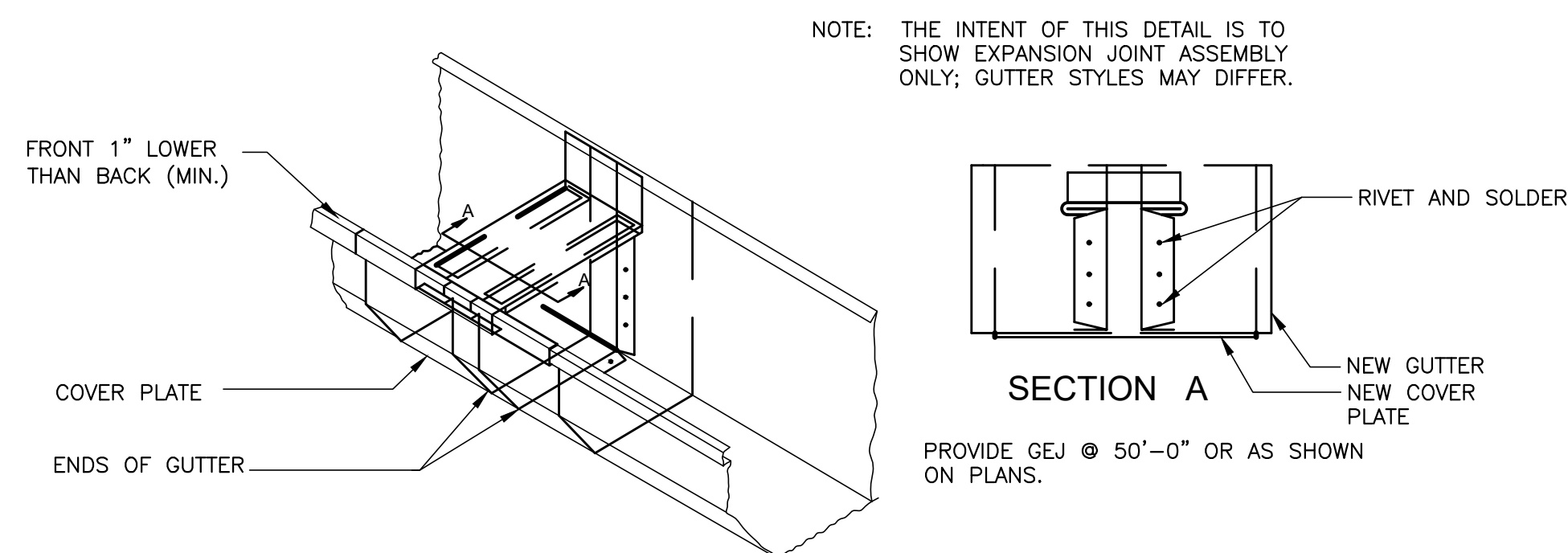
**4 PIPE FLASHING DETAIL**

3" = 1'-0"



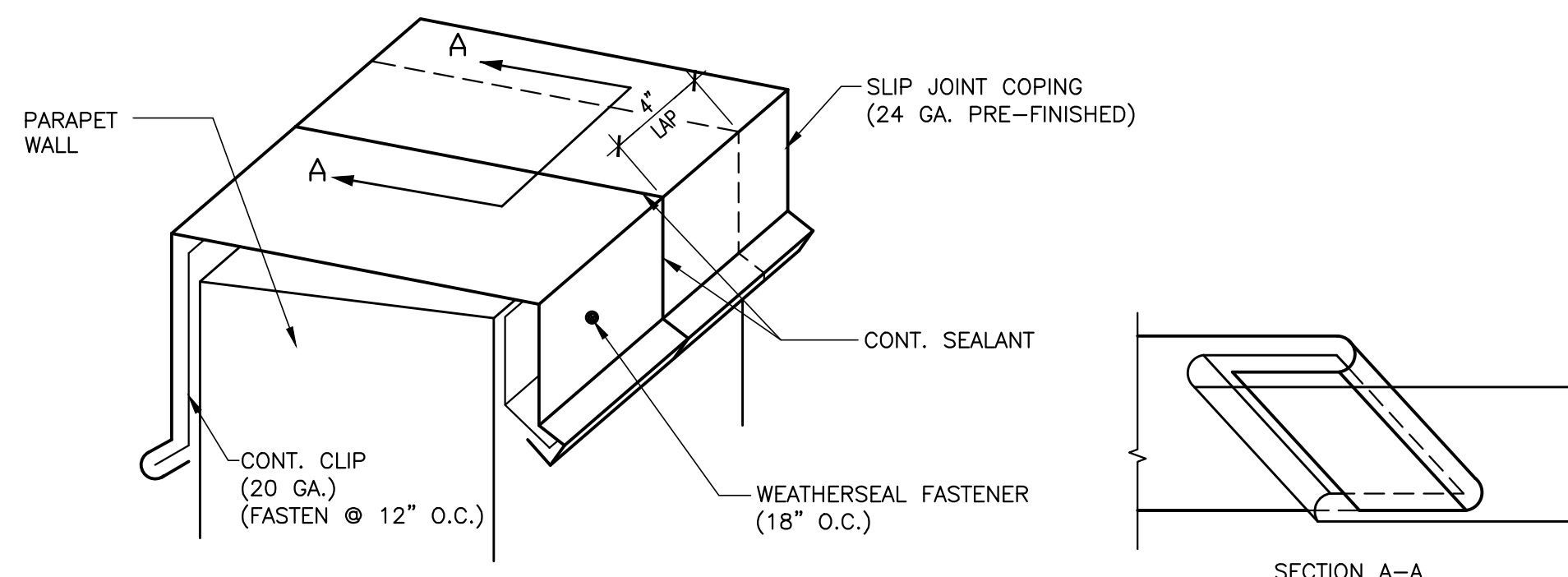
**5 ROOF DRAIN DETAIL**

3" = 1'-0"



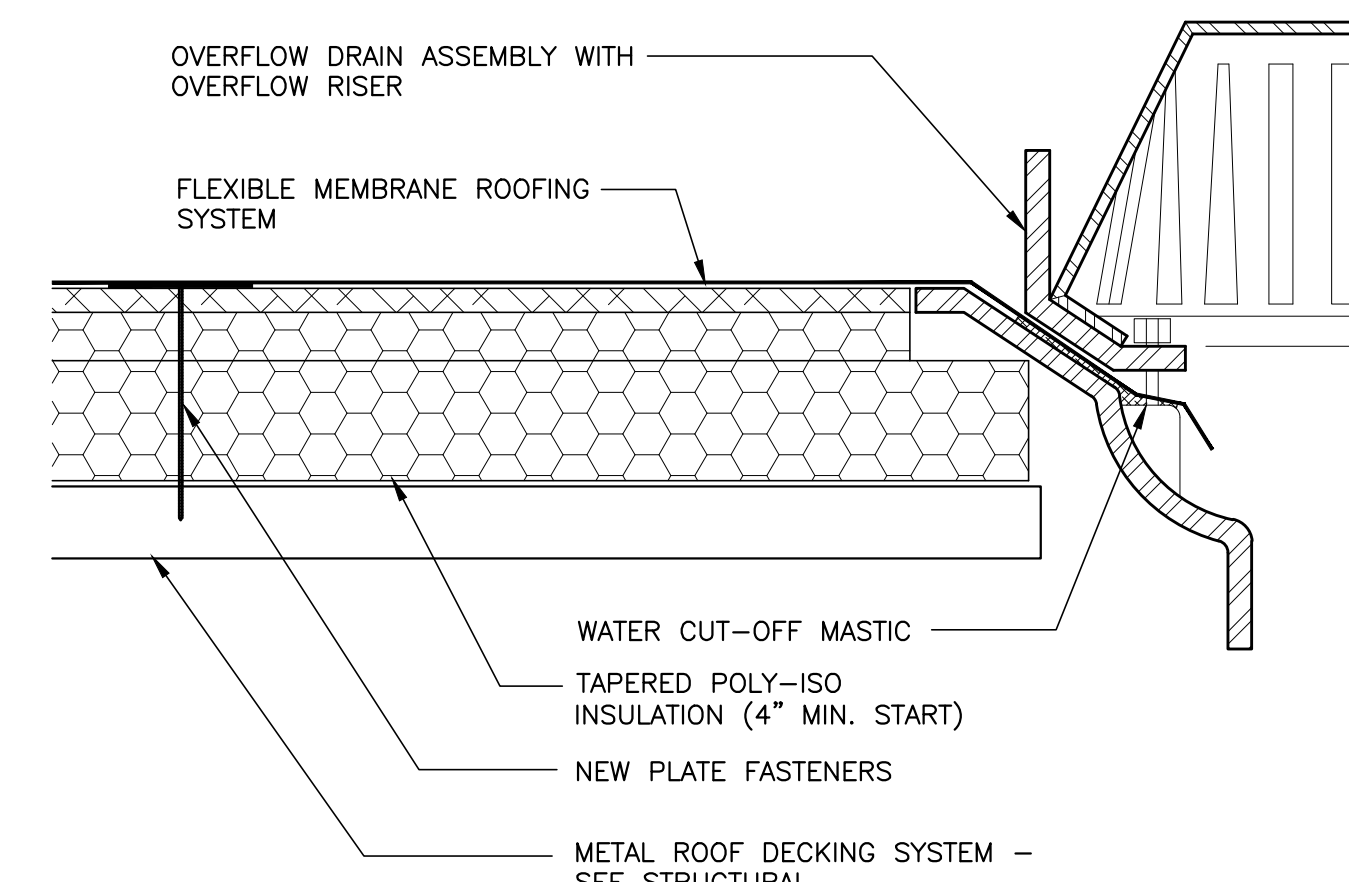
**6 GUTTER EJ DETAIL**

3" = 1'-0"



**7 COPING CAP DETAIL**

3" = 1'-0"



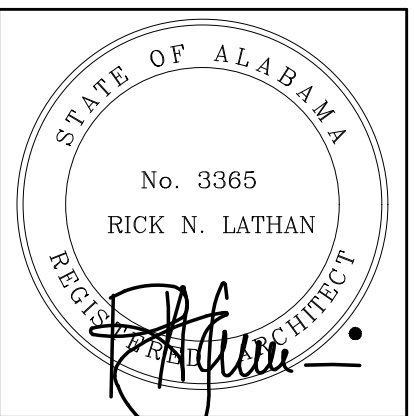
**8 OVERFLOW DRAIN DETAIL**

3" = 1'-0"



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CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



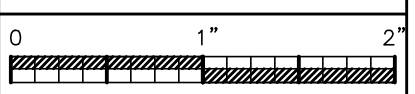
SHEET TITLE:  
TYPICAL ROOF DETAILS

PROJ. MGR.: L. BRYANT  
DRAWN: PPh & EB  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. **22-20**  
SHEET NO:

**A2.4**

6 OF 25

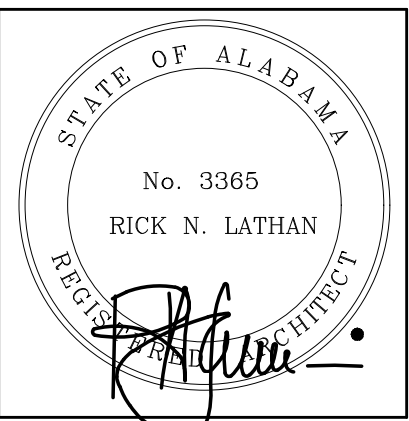






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LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
DOOR AND WINDOW  
SCHEDULE AND DETAILS

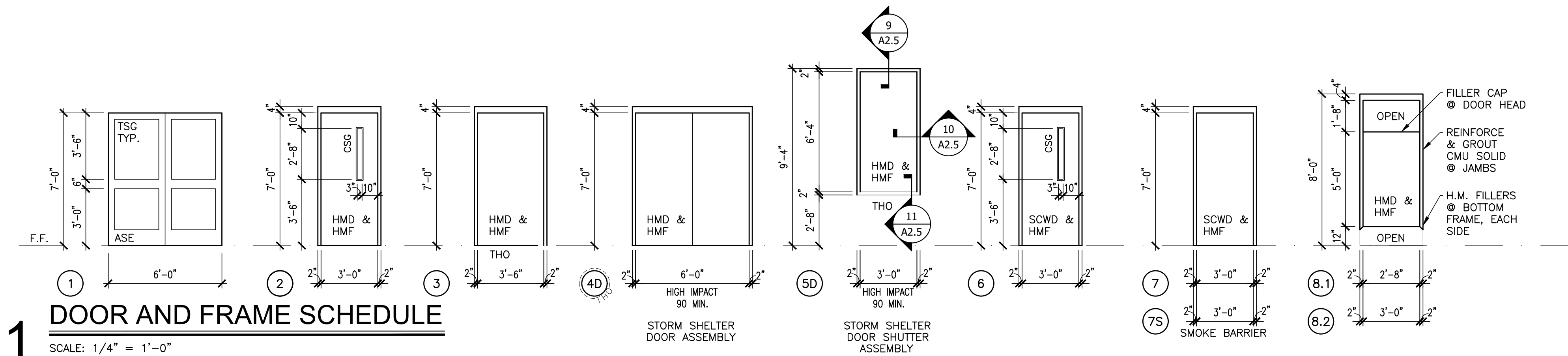
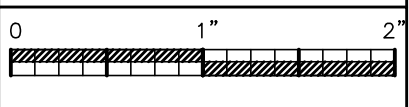
PROJ. MGR.: L. BRYANT  
DRAWN: EB  
Raso  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20

SHEET NO:

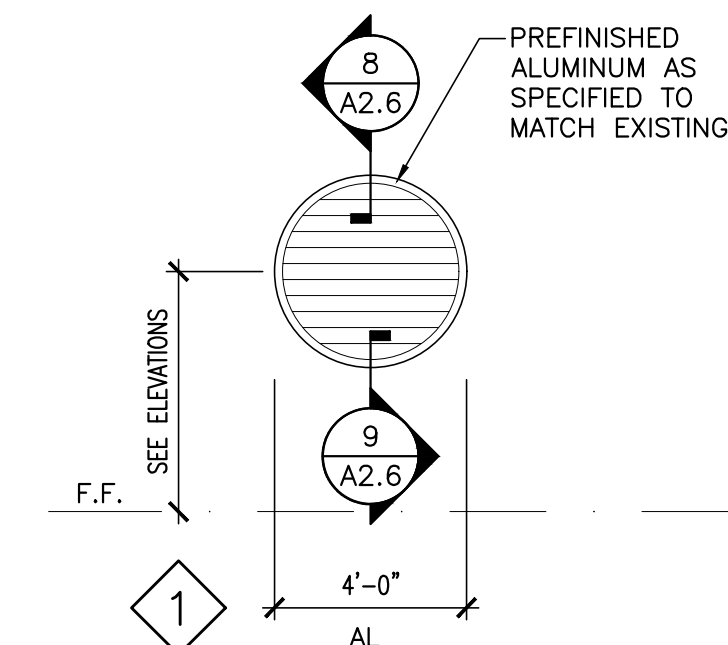
A2.5

7 OF 25



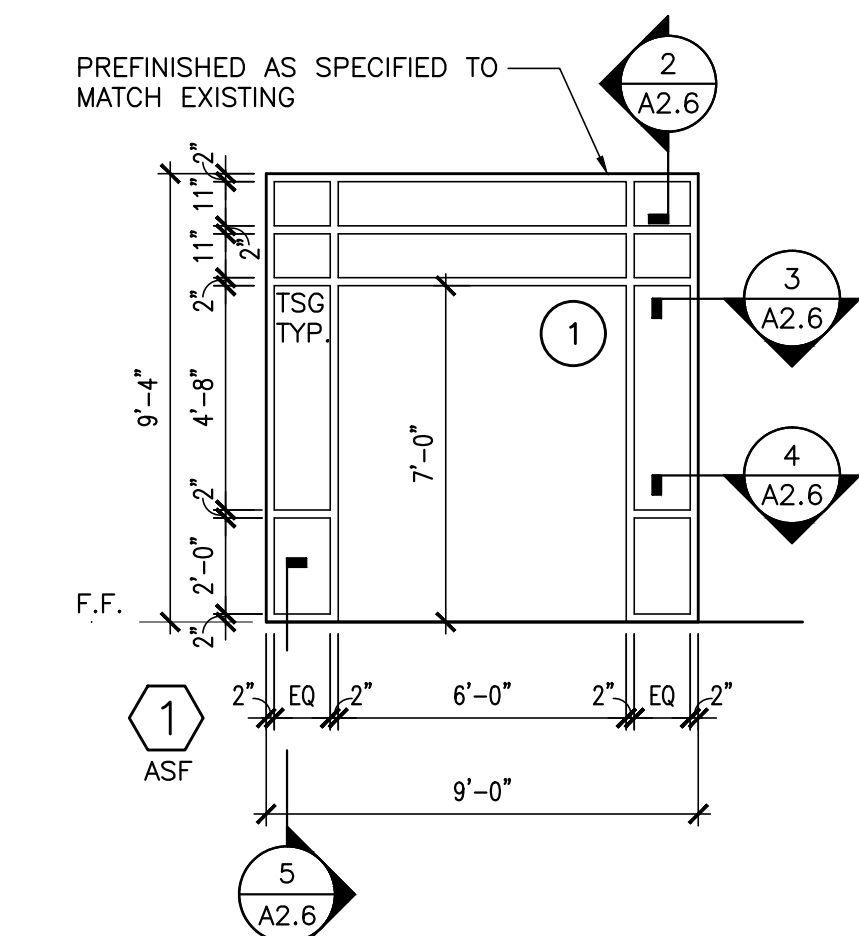
## 1 DOOR AND FRAME SCHEDULE

SCALE: 1/4" = 1'-0"



## 2 LOUVER SCHEDULE

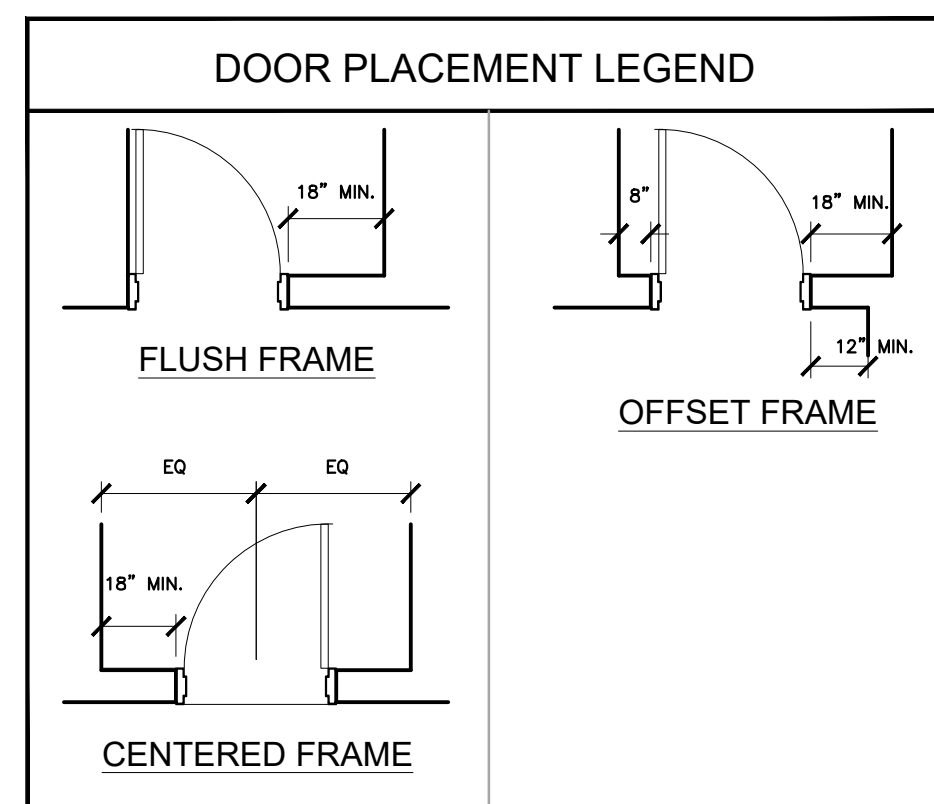
SCALE: 1/4" = 1'-0"



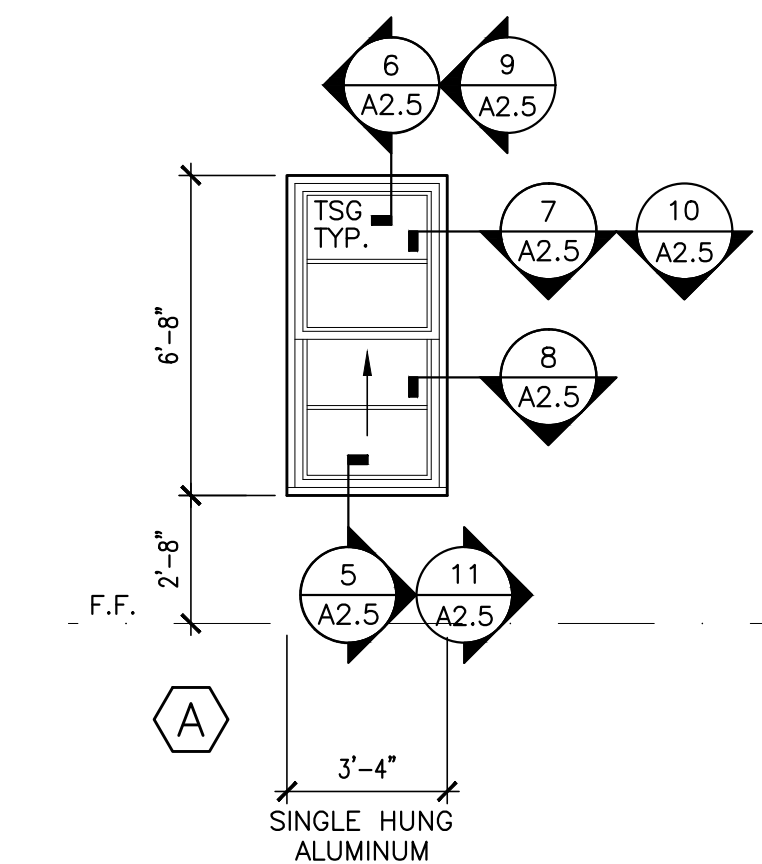
## 3 STOREFRONT SCHED.

SCALE: 1/4" = 1'-0"

DOOR AND WINDOW LEGEND	
AL	PREFINISHED ALUMINUM LOUVER SYSTEM AS SPECIFIED
CSG	3/4" 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
HMD	HOLLOW METAL DOOR
HMF	HOLLOW METAL FRAME
ASE	PREFINISHED ALUMINUM STOREFRONT ENTRANCE SYSTEM AS SPECIFIED
ASF	PREFINISHED ALUMINUM STOREFRONT FRAME SYSTEM AS SPECIFIED
THO	TORNADO STORM SYSTEM W/ MECHANICAL HOLD OPENS
NOTES:	
1. PROVIDE LOW-E TSG GLAZING AT ALL WESTERN, EASTERN, AND SOUTHERN FACING GLAZING. PROVIDE TSG AT ALL NORTHERN FACING GLAZING.	
2. PROVIDE CFG WHERE GLASS IS INDICATED IN RATED DOORS AND WINDOWS.	

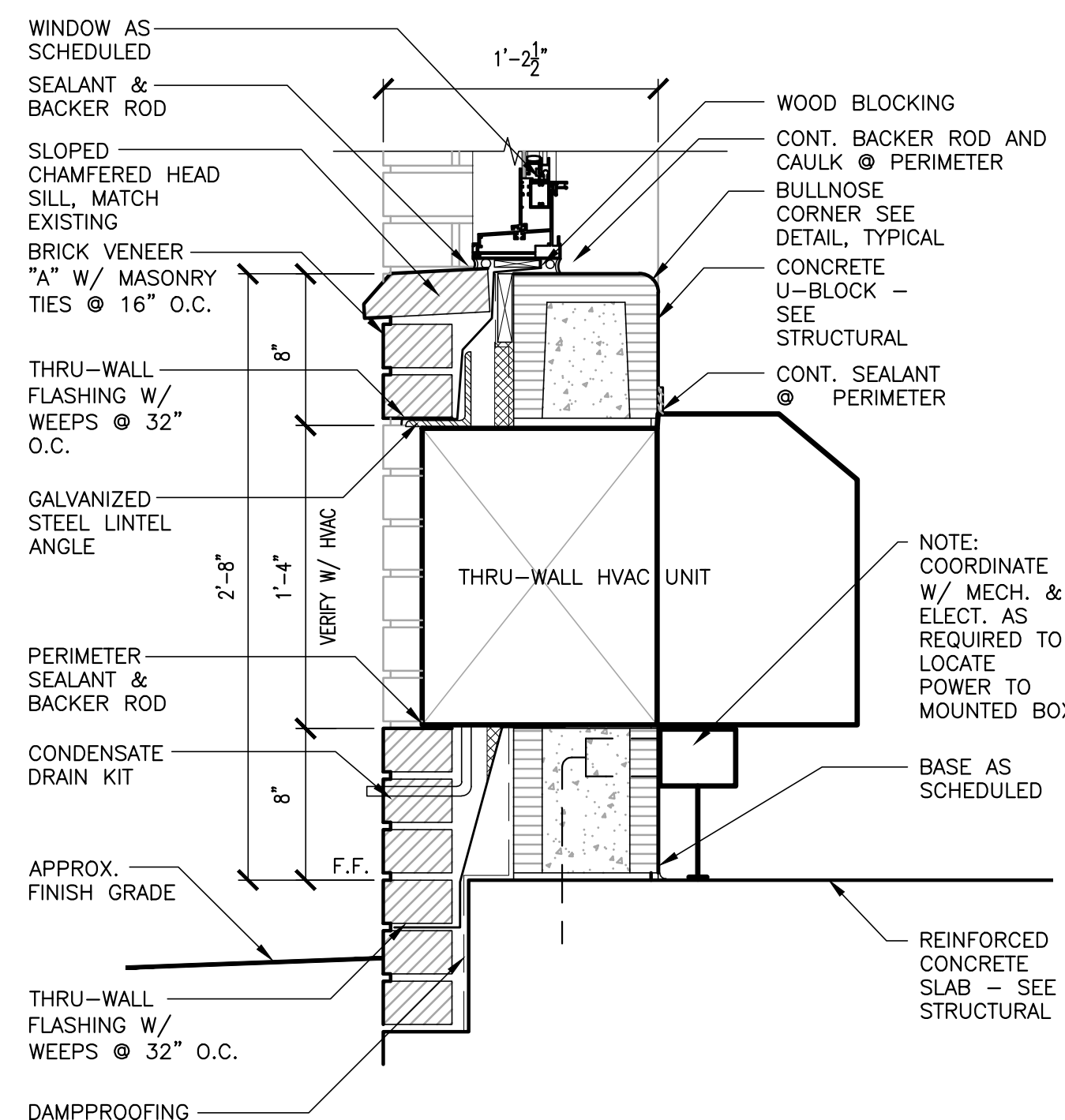


DOOR FIRE RATING LEGEND	
DOOR TYPE (2)	NO RATING
DOOR TYPE + S (2S)	SMOKE BARRIER RATING
DOOR TYPE + A (2A)	20 MINUTE RATING
DOOR TYPE + B (2B)	45 MINUTE RATING
DOOR TYPE + C (2C)	60 MINUTE RATING
DOOR TYPE + D (2D)	90 MINUTE RATING
DOOR TYPE + E (2E)	180 MINUTE RATING



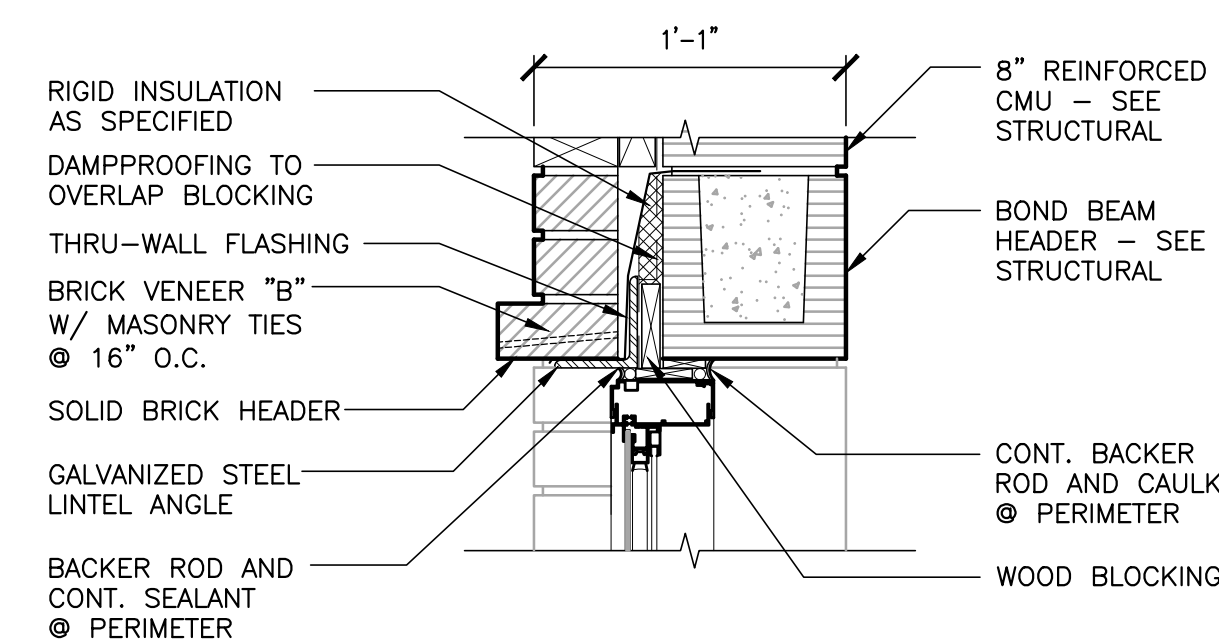
## 4 WIN. SCHEDULE

SCALE: 1/4" = 1'-0"



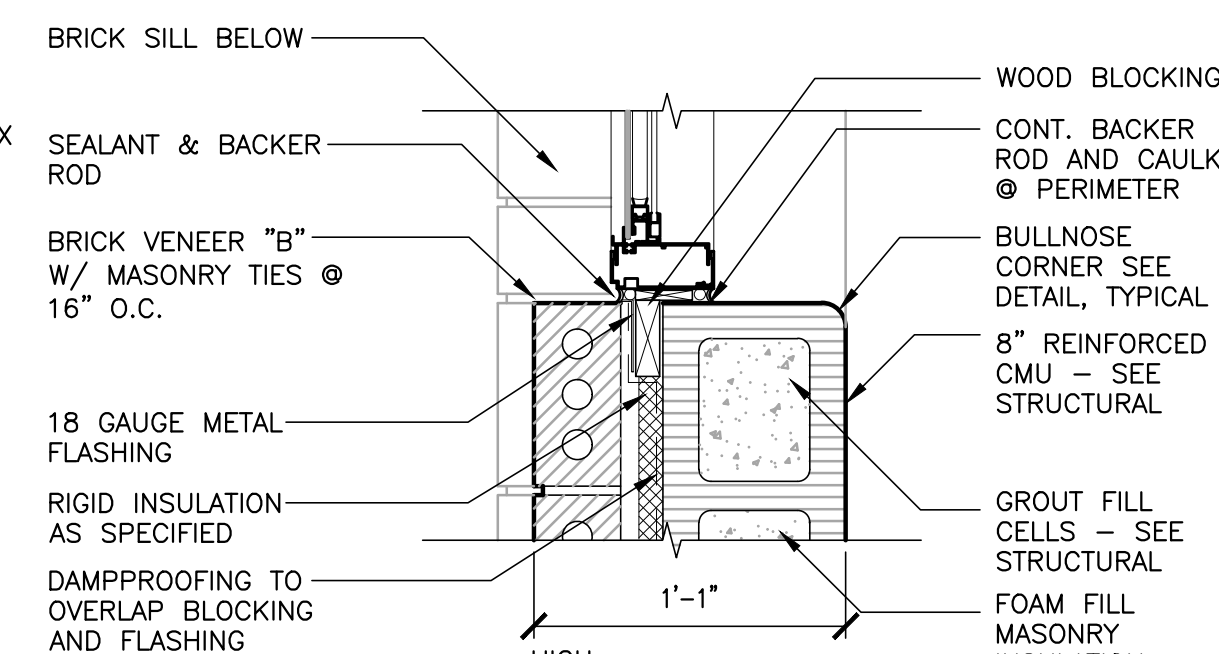
## 5 SILL DETAIL

SCALE: 1 1/2" = 1'-0"



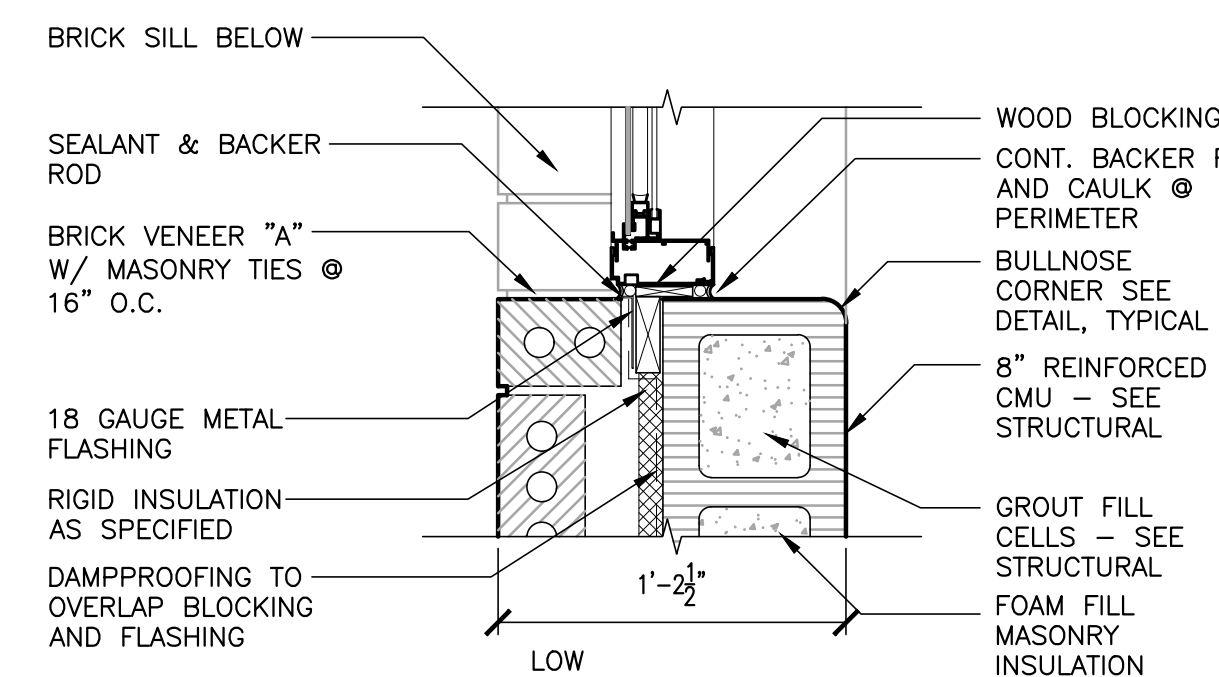
## 6 HEAD DETAIL

SCALE: 1 1/2" = 1'-0"



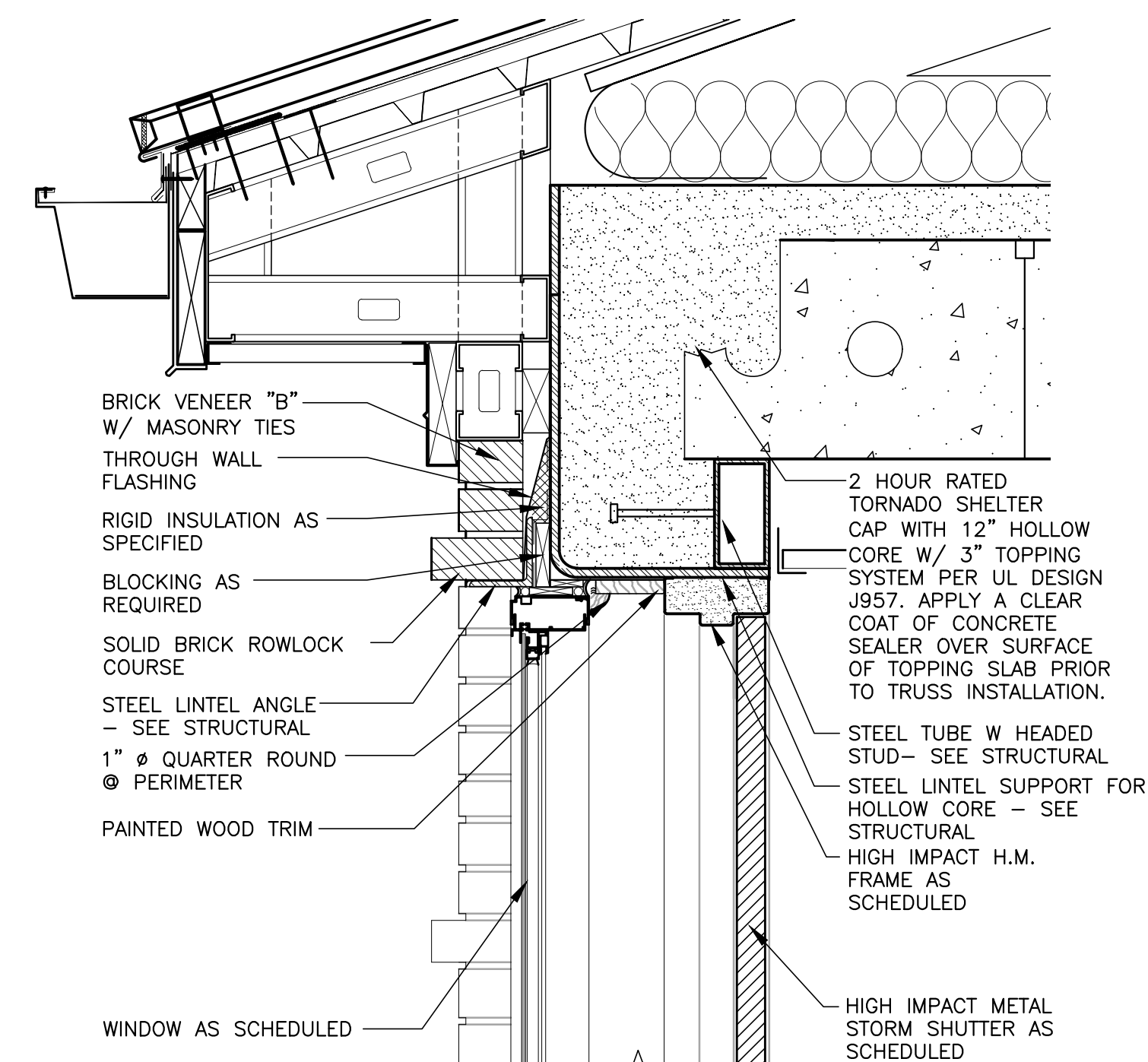
## 7 JAMB DETAIL

SCALE: 1 1/2" = 1'-0"



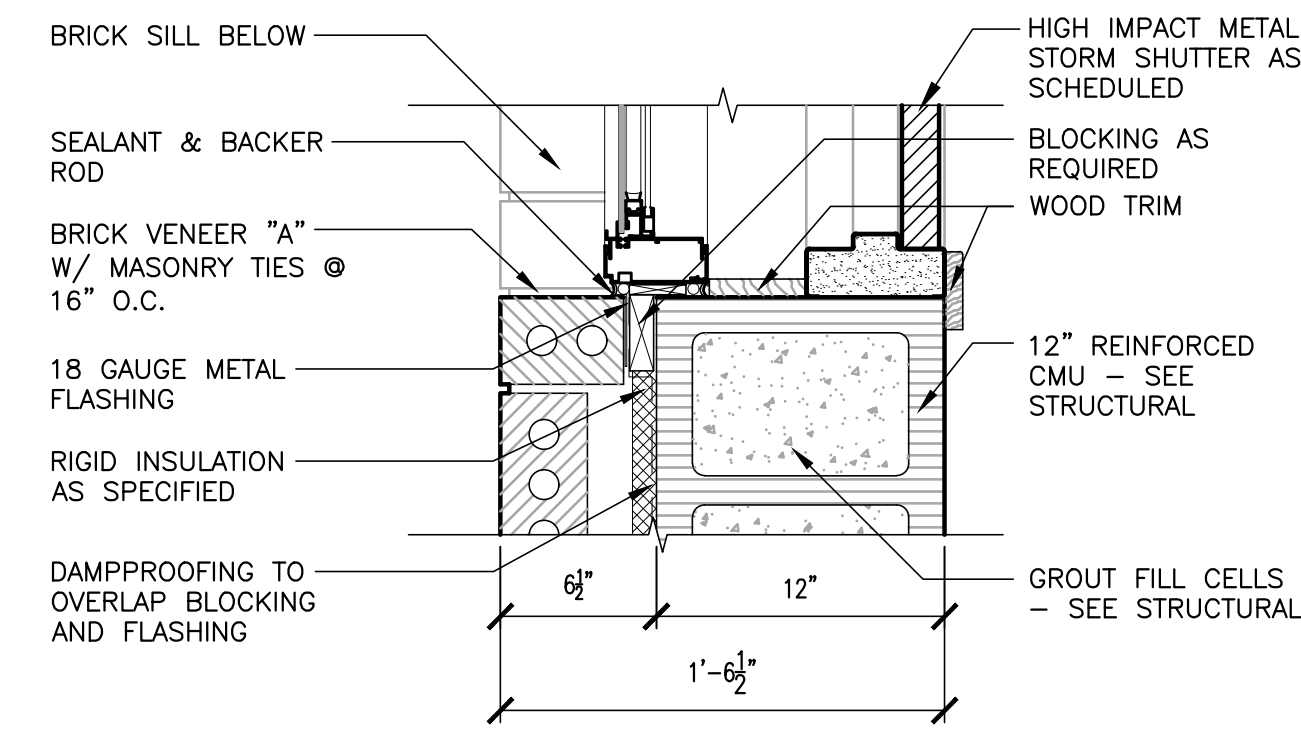
## 8 JAMB DETAIL

SCALE: 1 1/2" = 1'-0"



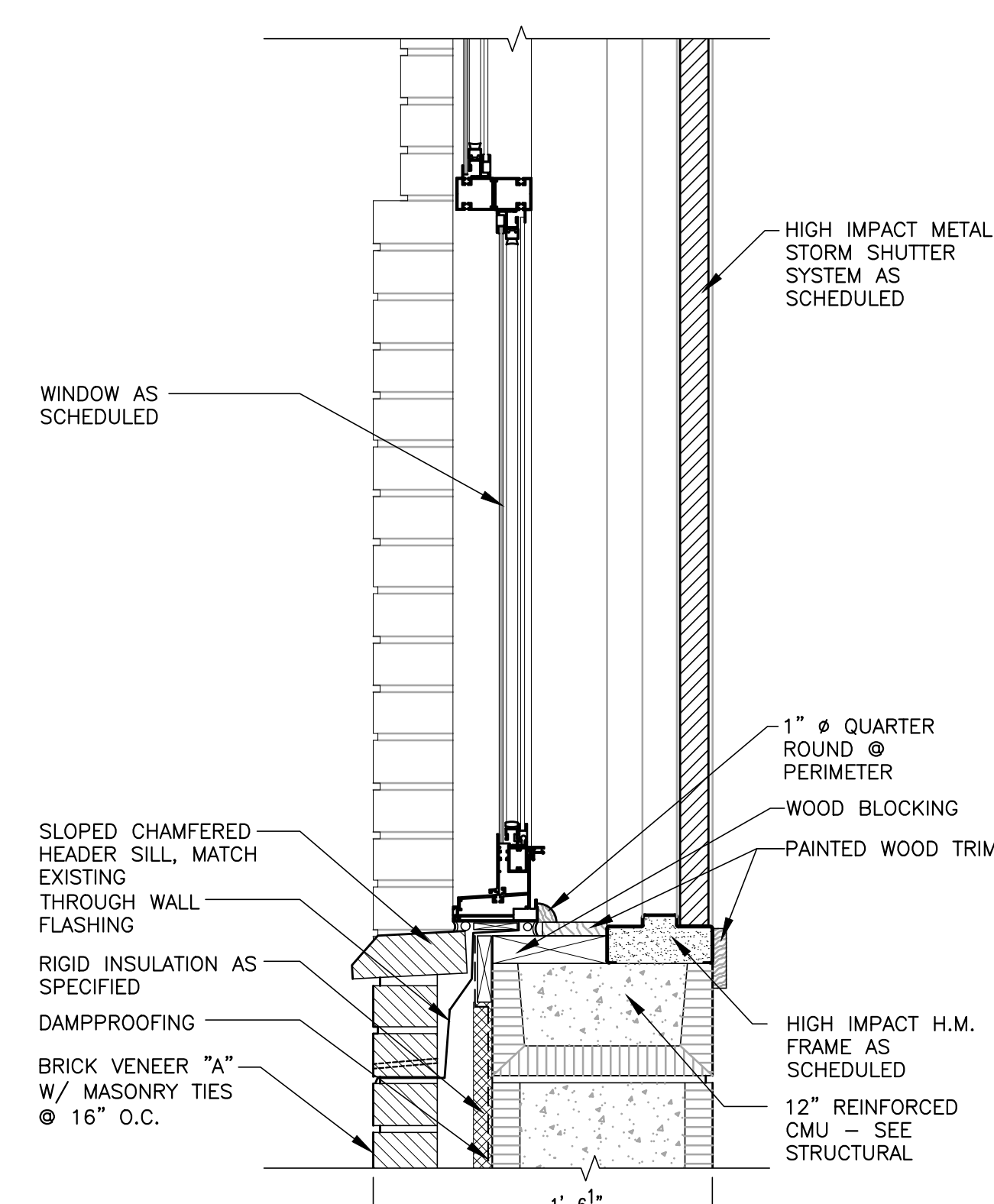
## 9 HEAD DETAIL (© SHELTER WINDOW)

SCALE: 1 1/2" = 1'-0"



## 10 JAMB DETAIL (© SHELTER WINDOW)

SCALE: 1 1/2" = 1'-0"



## 11 SILL DETAIL (© SHELTER WINDOW)

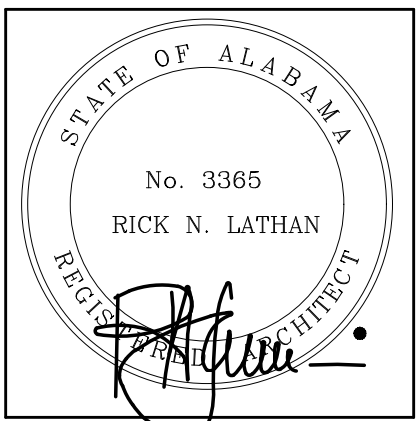
SCALE: 1 1/2" = 1'-0"





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CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
DOOR DETAILS

PROJ. MGR.: L. BRYANT  
DRAWN: EB  
DATE: JANUARY 31, 2023

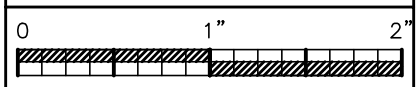
REVISIONS

JOB NO. 22-20

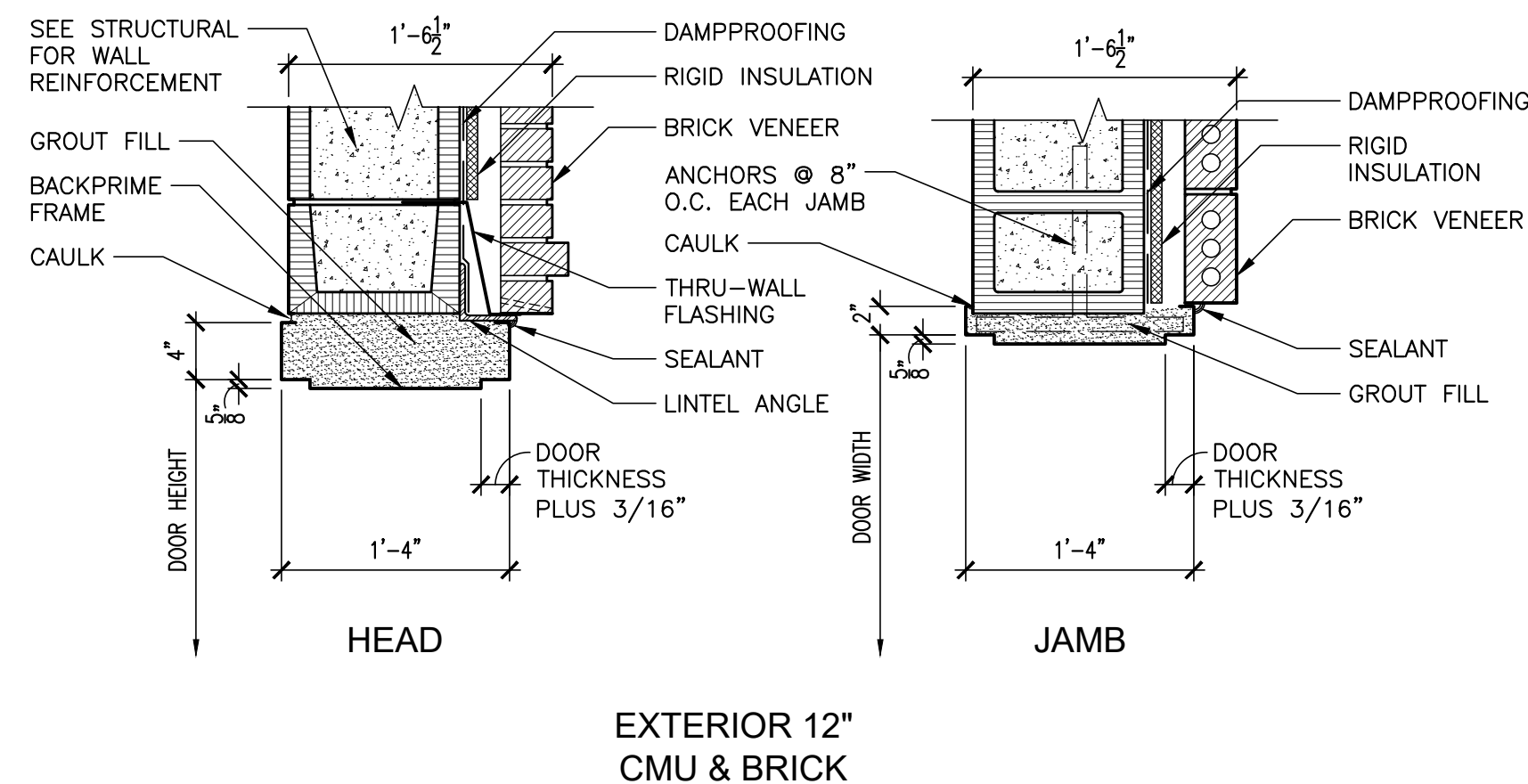
SHEET NO:

A2.6

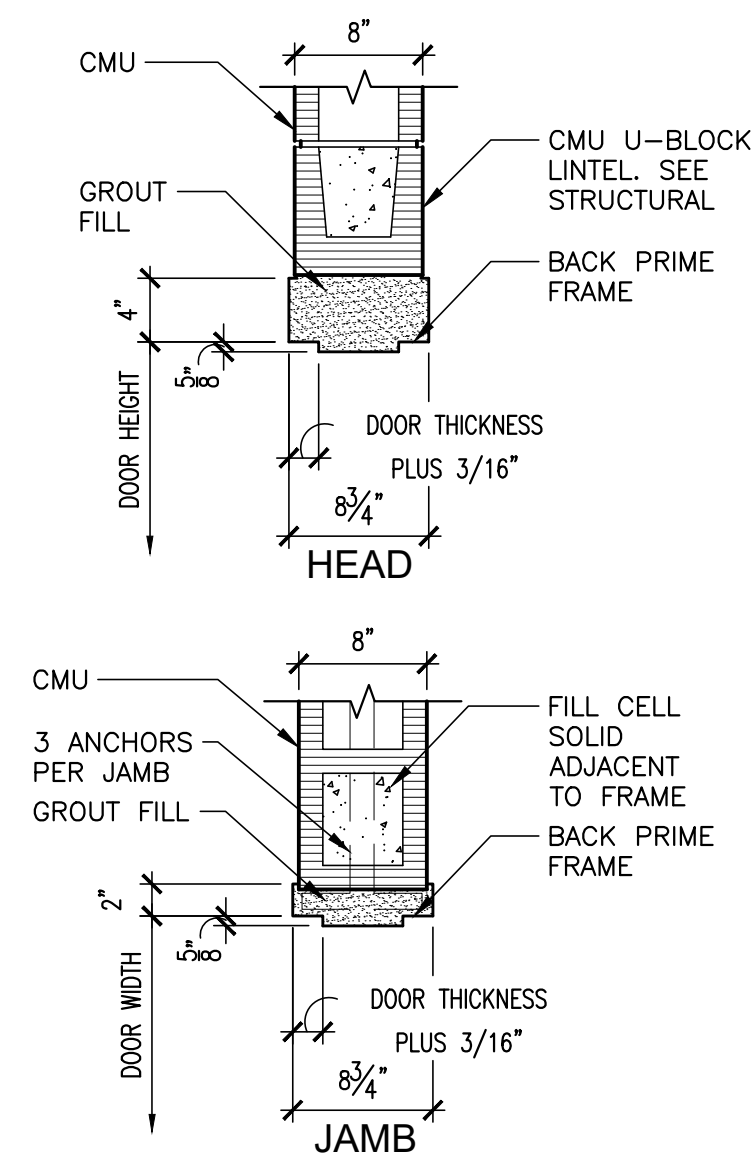
8 OF 25



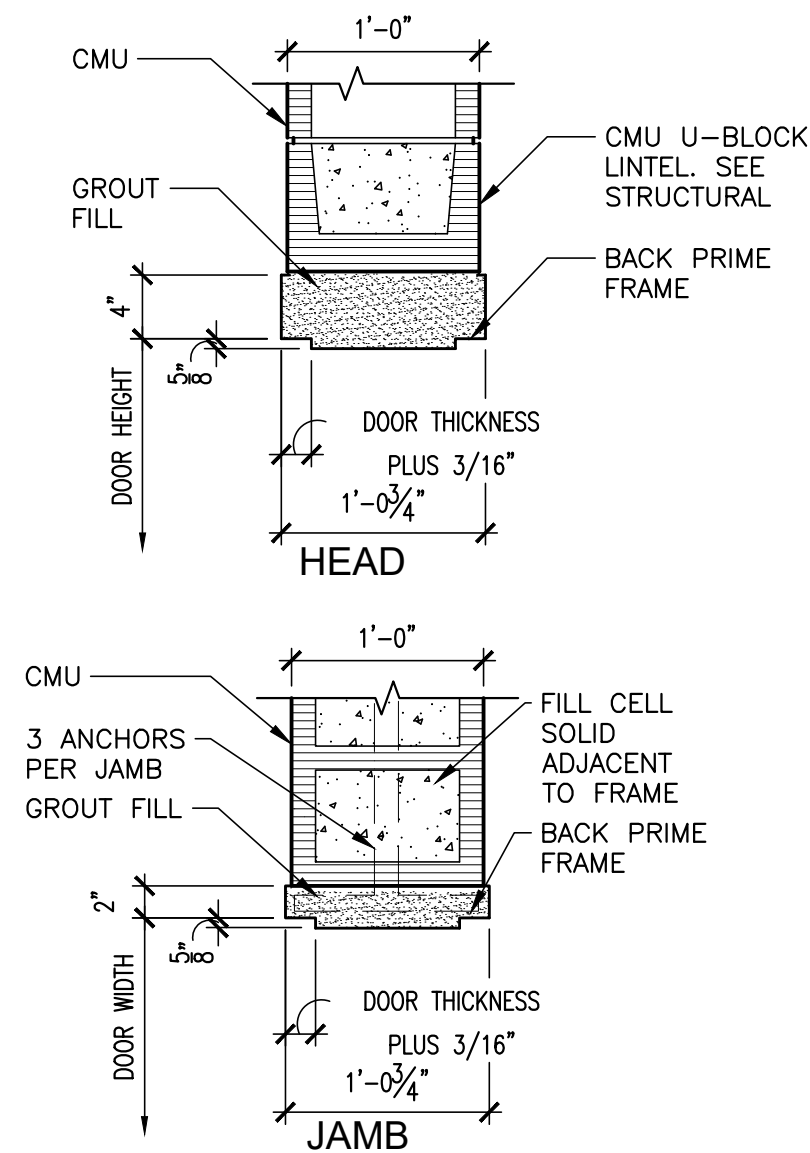
NOTE: SEE STRUCTURAL FOR TORNADO STORM SHELTER CMU AND REINFORCING INFORMATION. DOORS AND FRAMES MUST HAVE BOTH THE FEMA 361/ICC-500 2020 LABEL AND THE 90 MIN. FIRE LABEL AS SPECIFIED. MEET ALL TORNADO STORM SHELTER DOOR AND FRAME REQUIREMENTS AS INDICATED IN THE SPECIFICATIONS AND ICC-500 2020. BOLTING THE FRAMES TO THE CMU WALLS AND HEAD METHOD IS NOT PERMITTED. PROVIDE MASONRY TIE ANCHORS AT EACH COURSE VERTICALLY AND HORIZONTALLY.



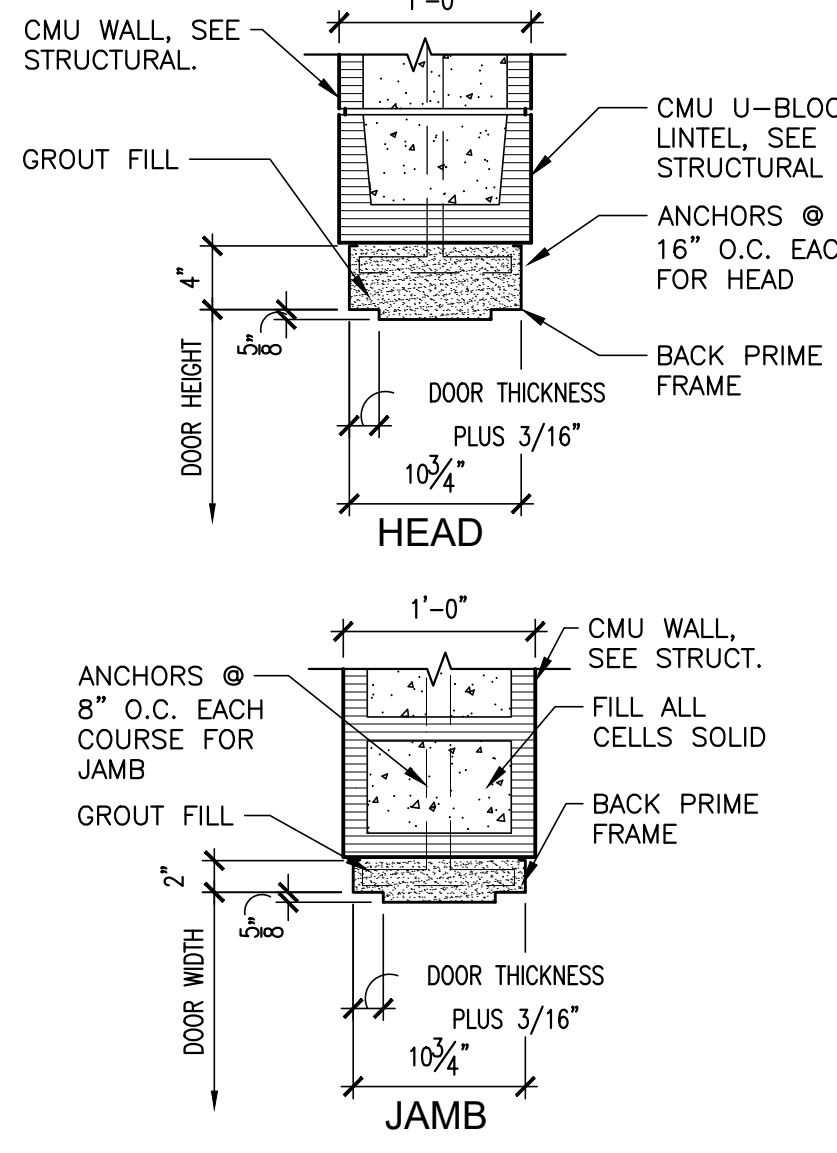
EXTERIOR 12"  
CMU & BRICK



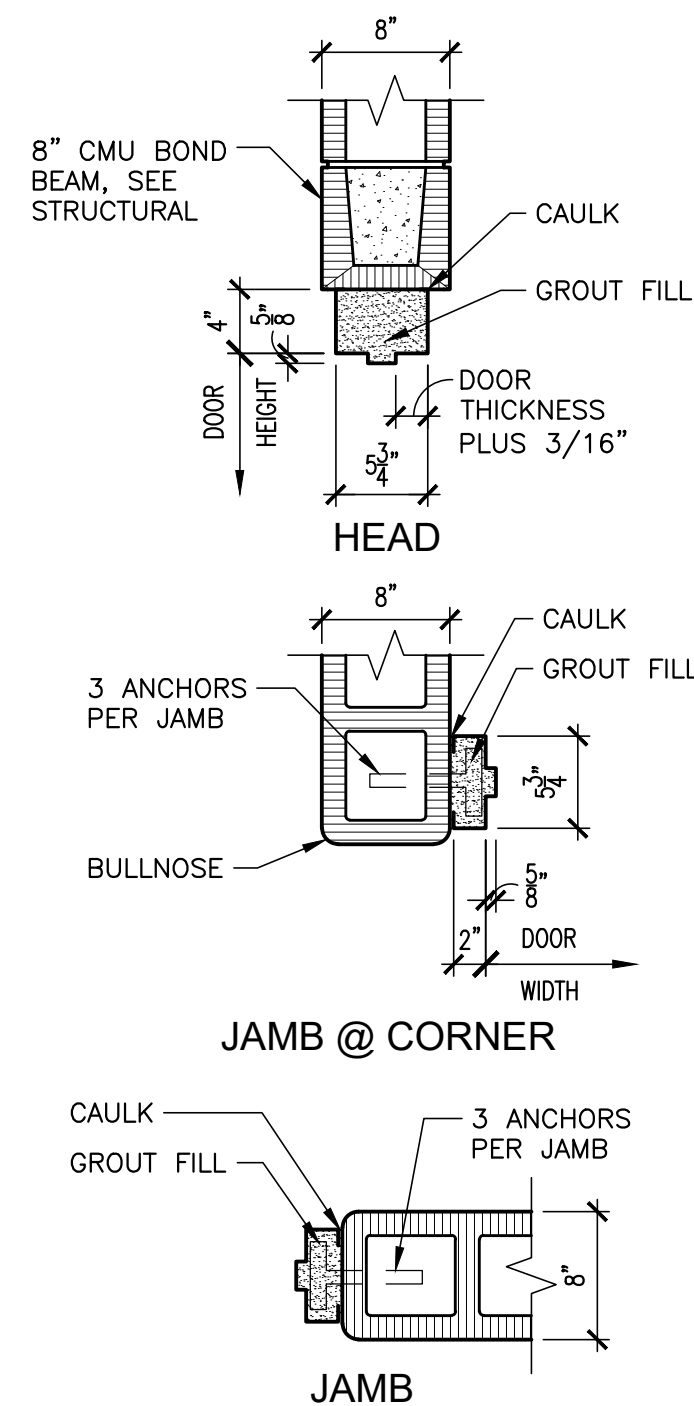
INTERIOR 8" CMU



INTERIOR 12"  
CMU



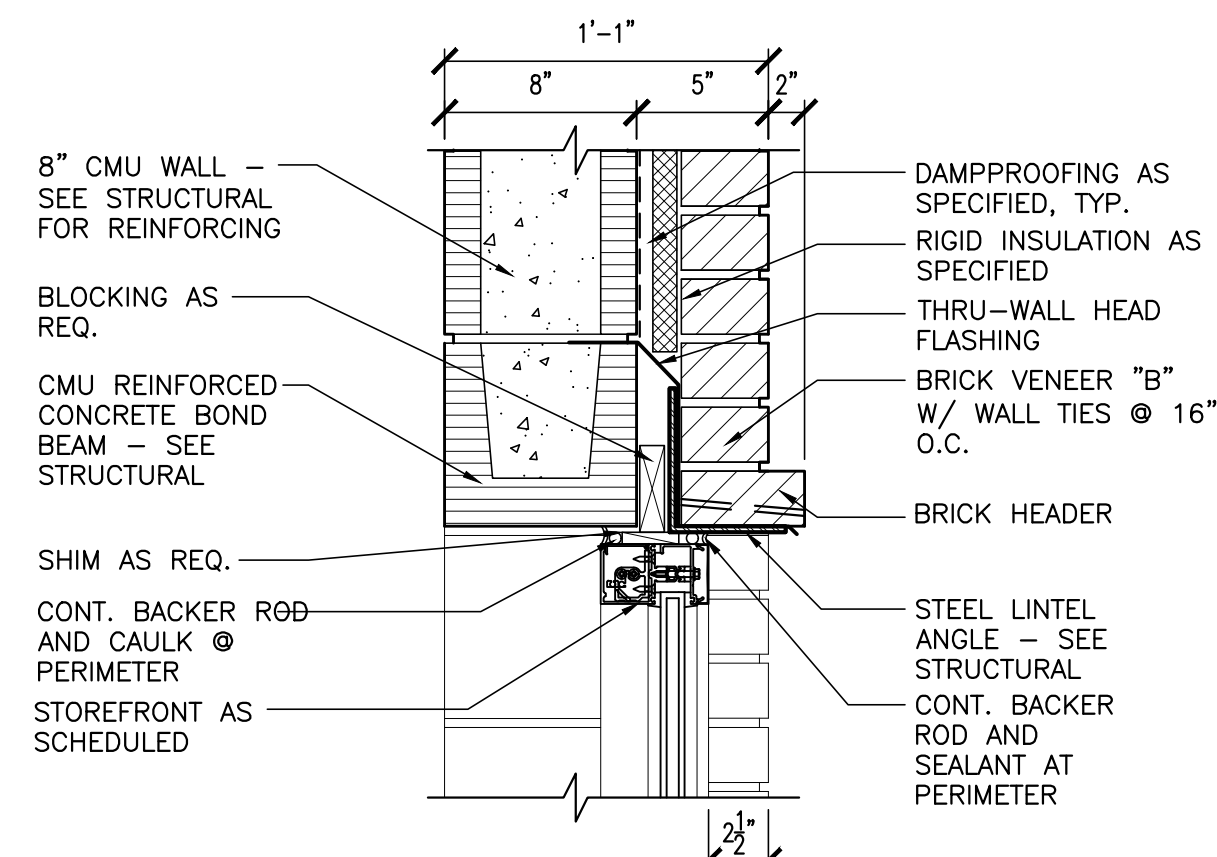
STORM SHELTER  
DOORS @ INTERIOR  
12" CMU



INTERIOR  
CMU @ TOILET STALLS

## 1 HOLLOW METAL FRAME DETAILS

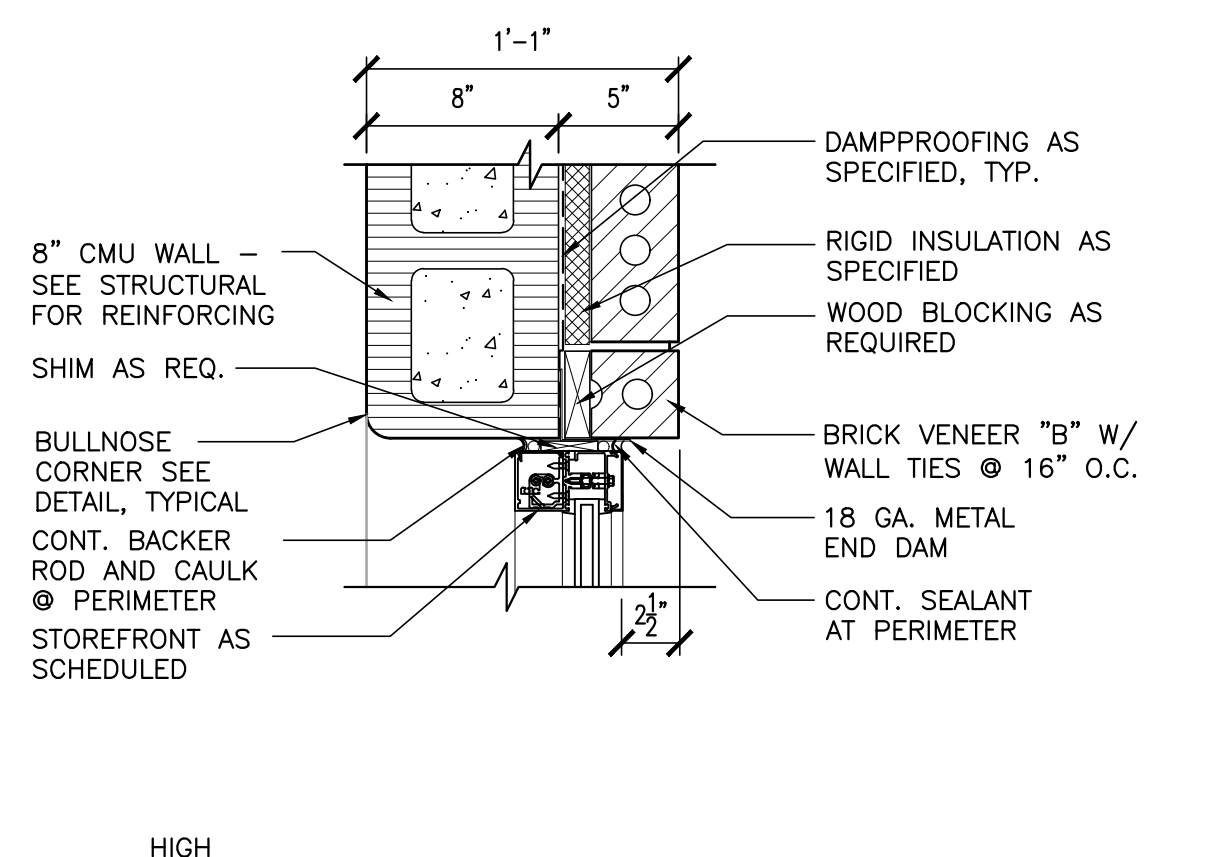
SCALE: 1" = 1'-0"



## 2 DETAIL

@HEAD

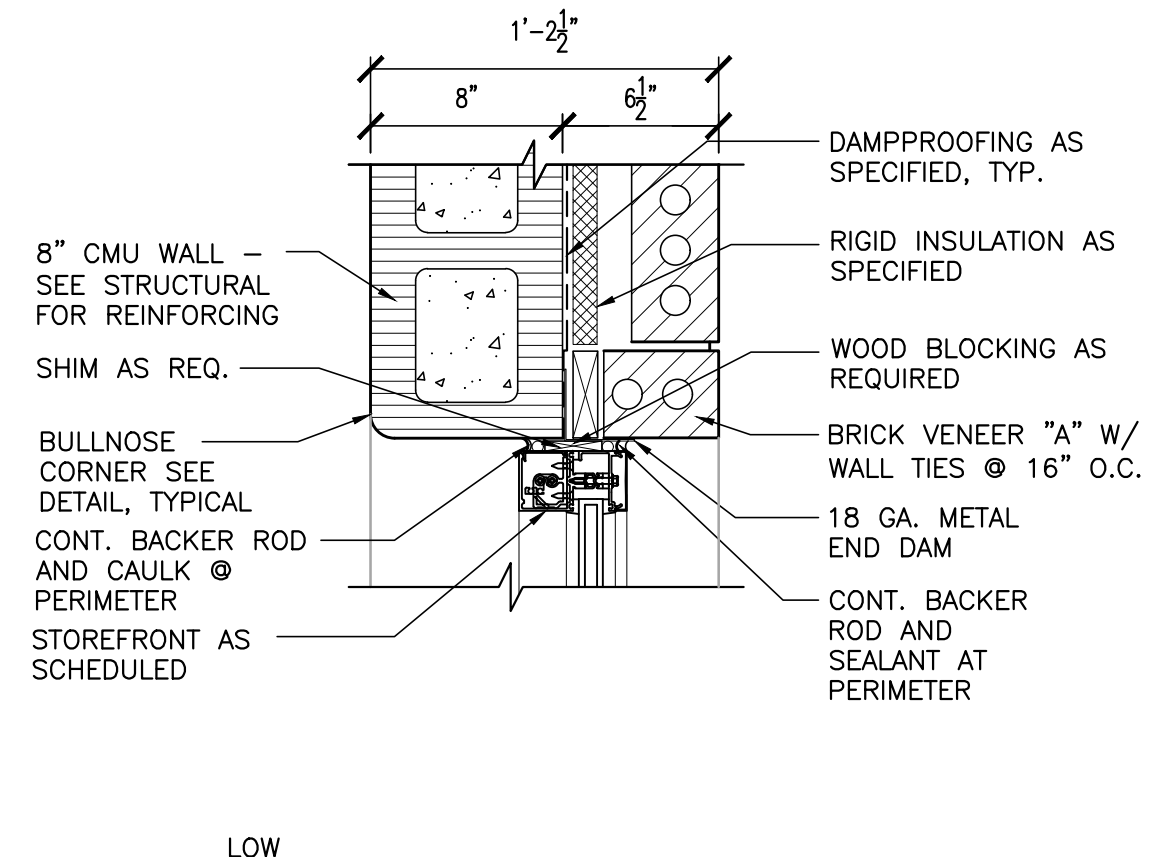
SCALE: 1 1/2" = 1'-0"



## 3 DETAIL

@JAMB

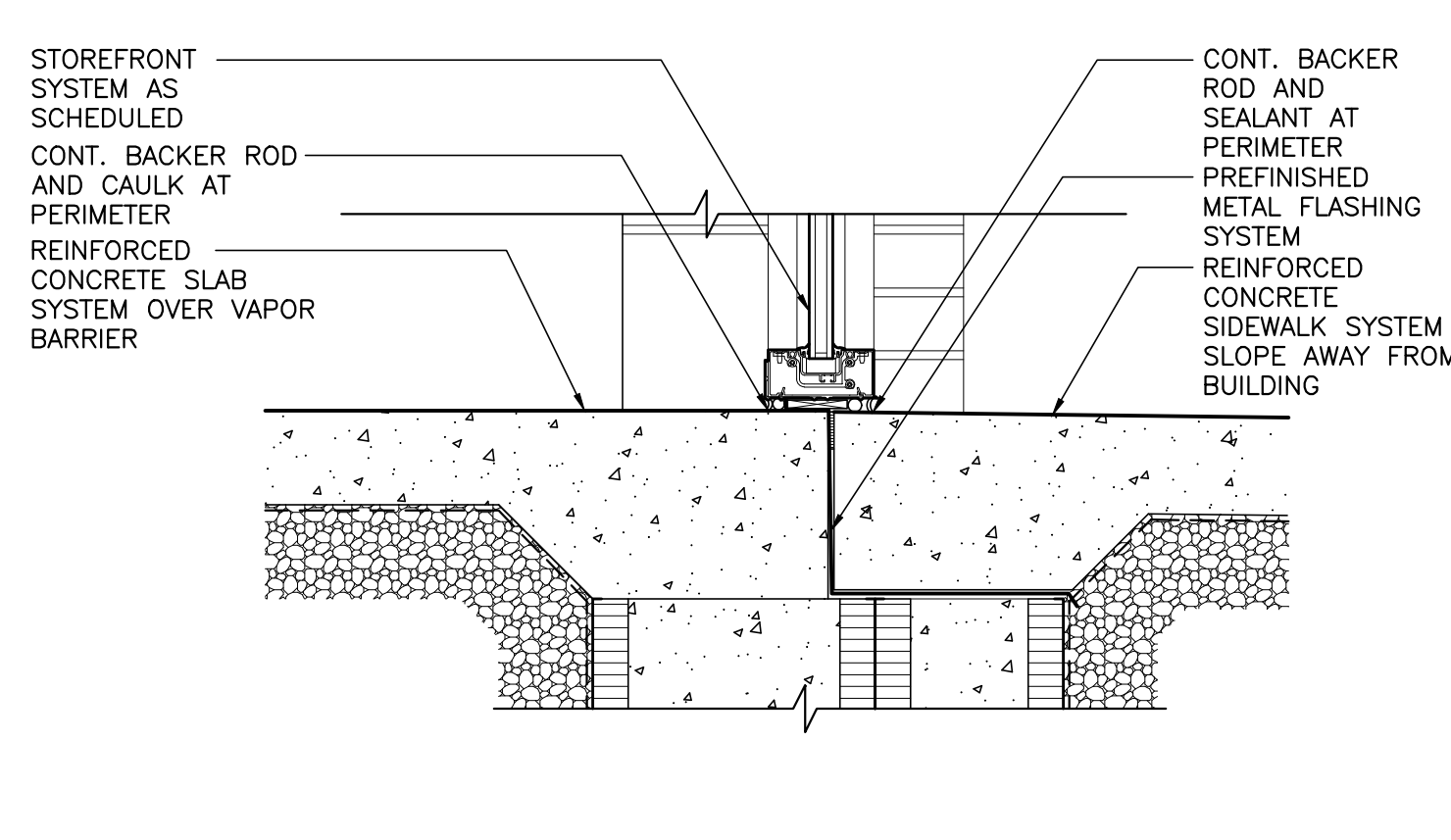
SCALE: 1 1/2" = 1'-0"



## 4 DETAIL

@JAMB

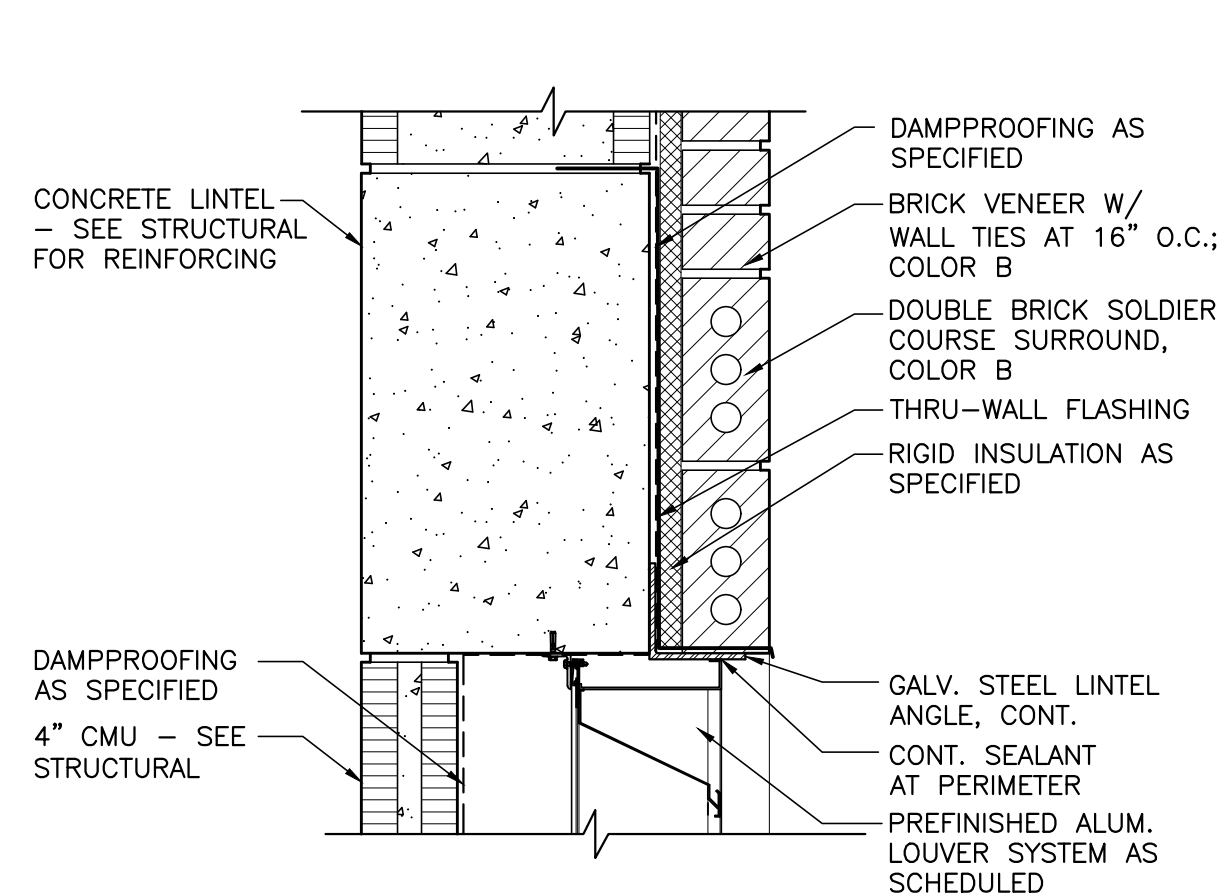
SCALE: 1 1/2" = 1'-0"



## 5 DETAIL

@SILL

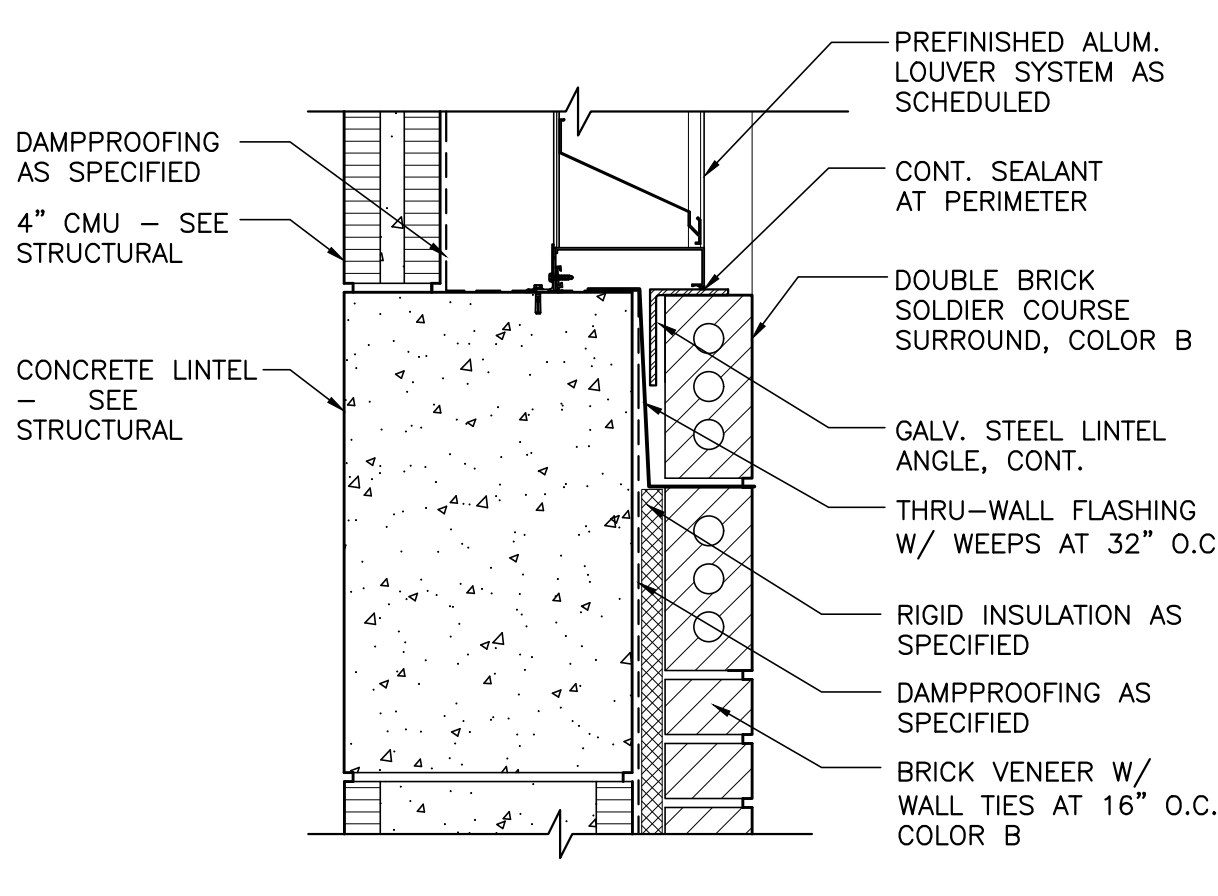
SCALE: 1 1/2" = 1'-0"



## 6 DETAIL

@HEAD

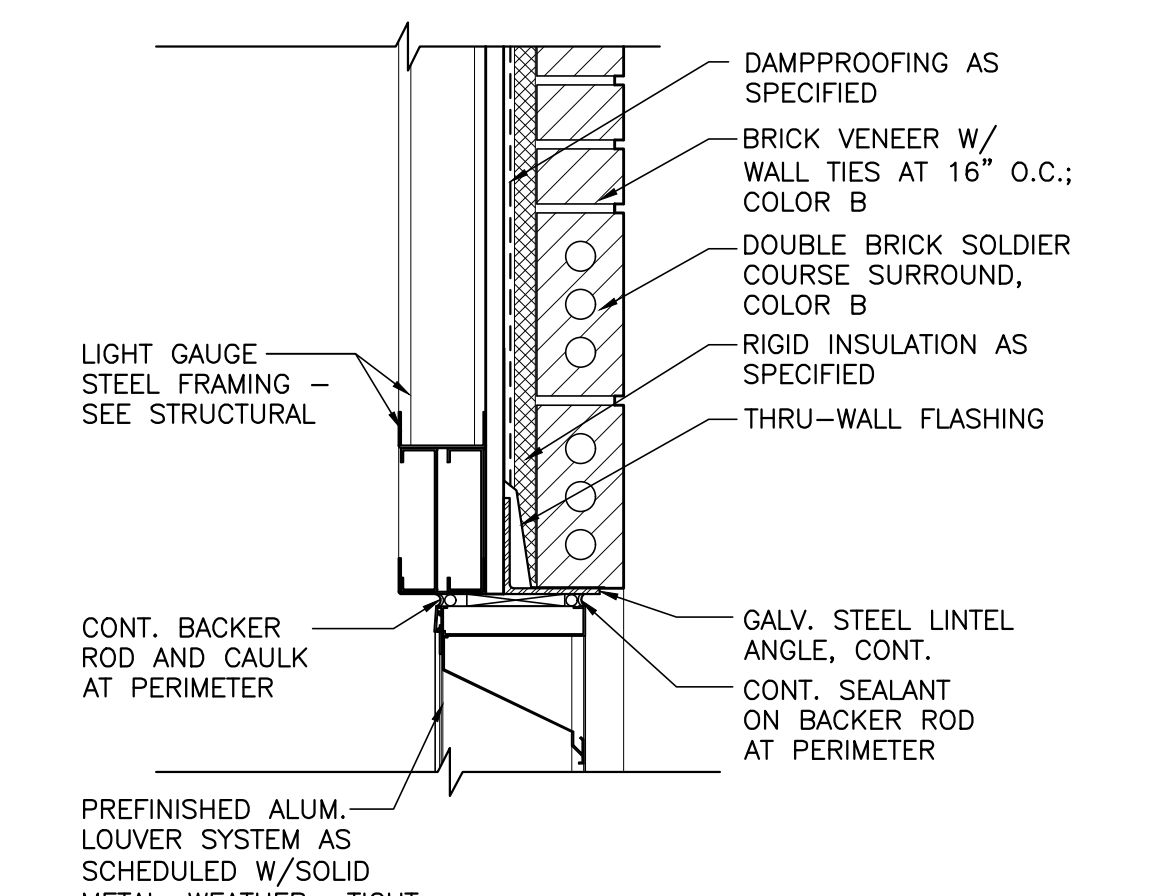
SCALE: 1 1/2" = 1'-0"



## 7 DETAIL

@SILL

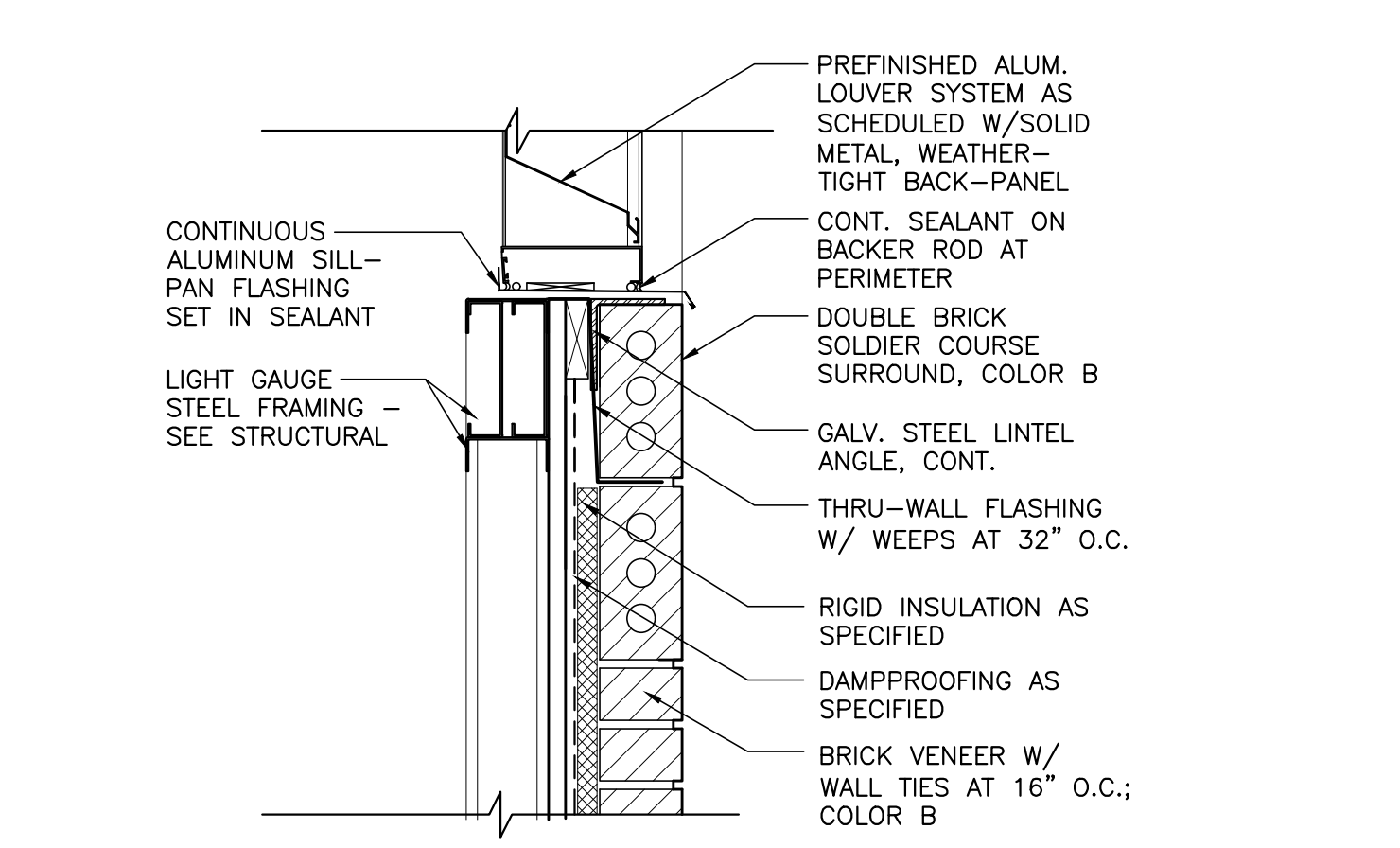
SCALE: 1 1/2" = 1'-0"



## 8 DETAIL

@HEAD

SCALE: 1" = 1'-0"



## 9 DETAIL

@SILL

SCALE: 1" = 1'-0"









CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
BUILDING ELEVATIONS

ROJ. MGR.: L. BRYANT

RAWN:	PPh
-------	-----

asco

DATE: JANUARY 31, 2023

## REVISIONS

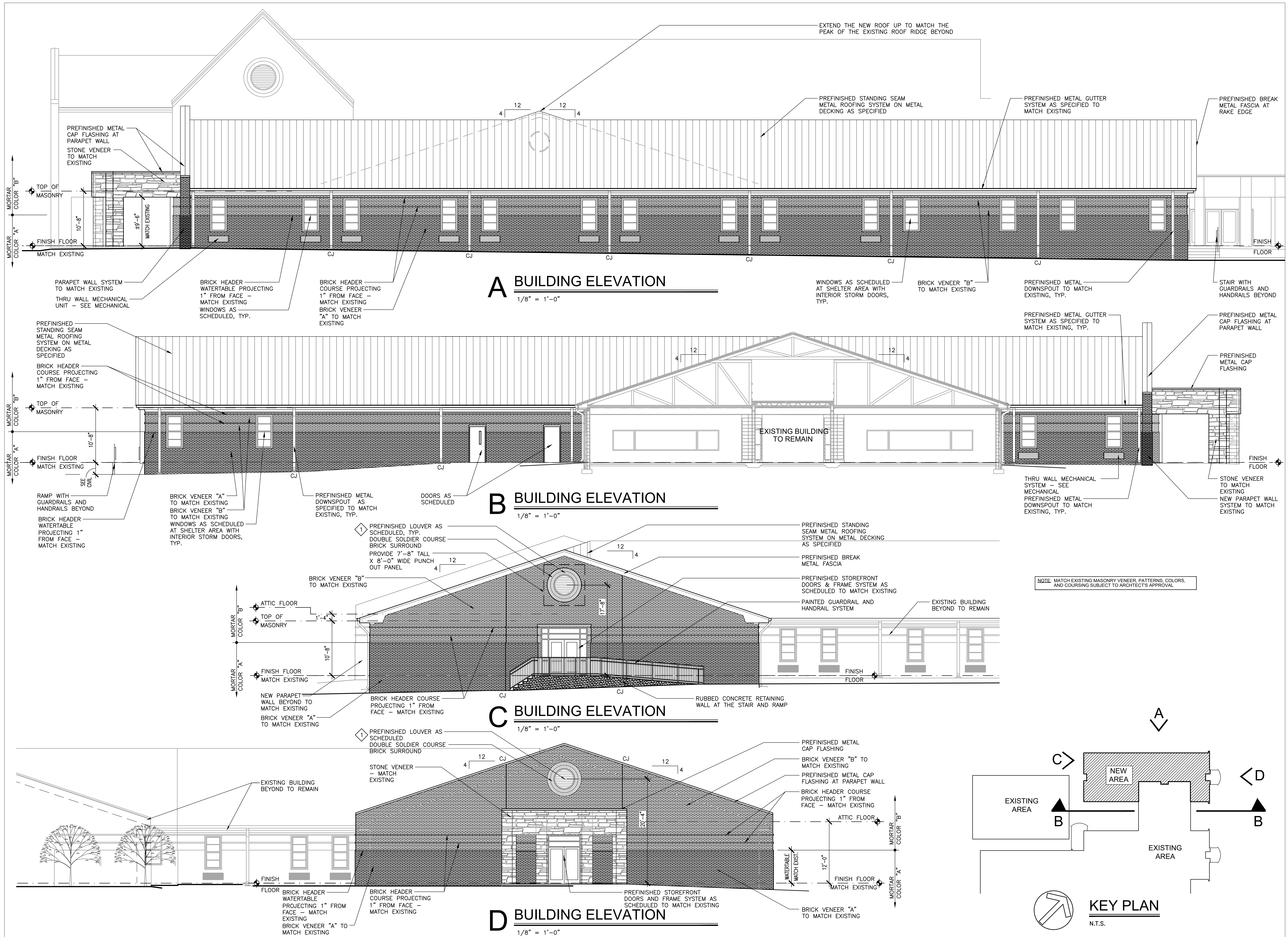
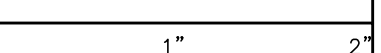
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OB NO. 22-20

SHEET NO:

### A3.1

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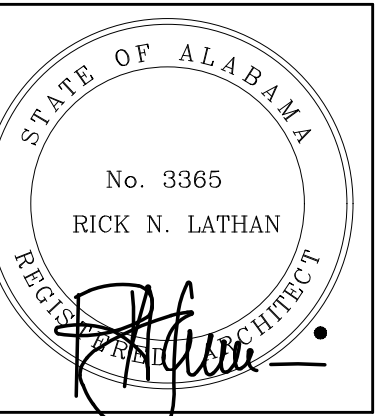






LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
BUILDING SECTIONS

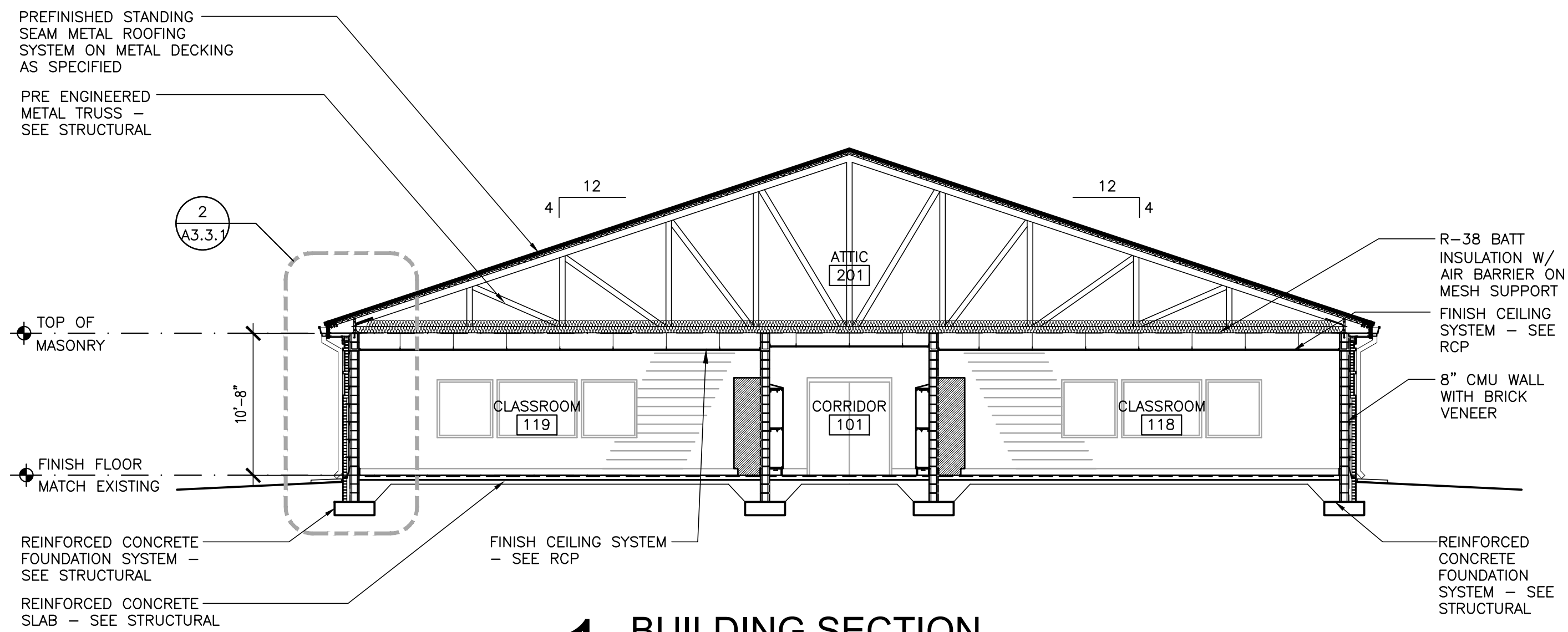
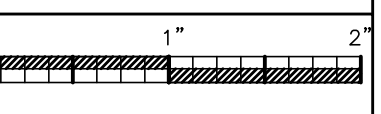
PROJ. MGR.: L. BRYANT  
DRAWN: PPH  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20

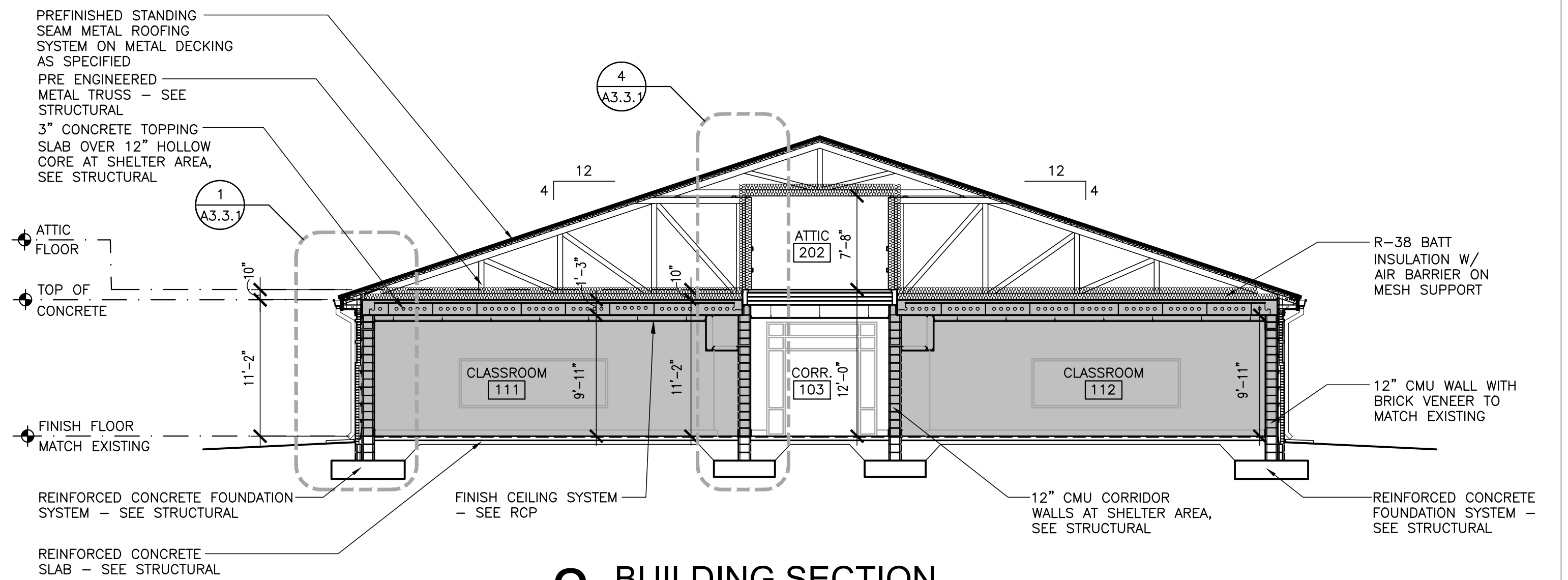
SHEET NO:

A3.2

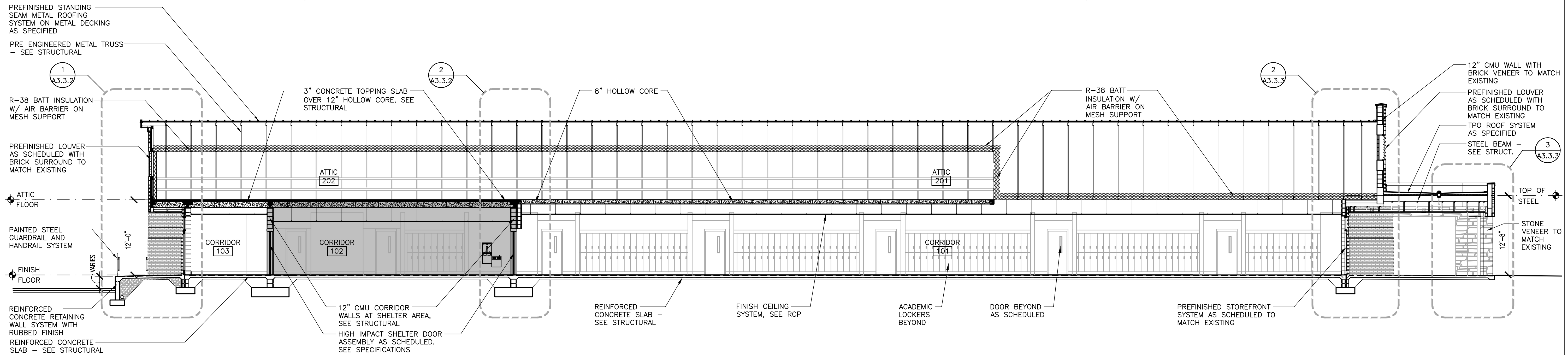
11 OF 25



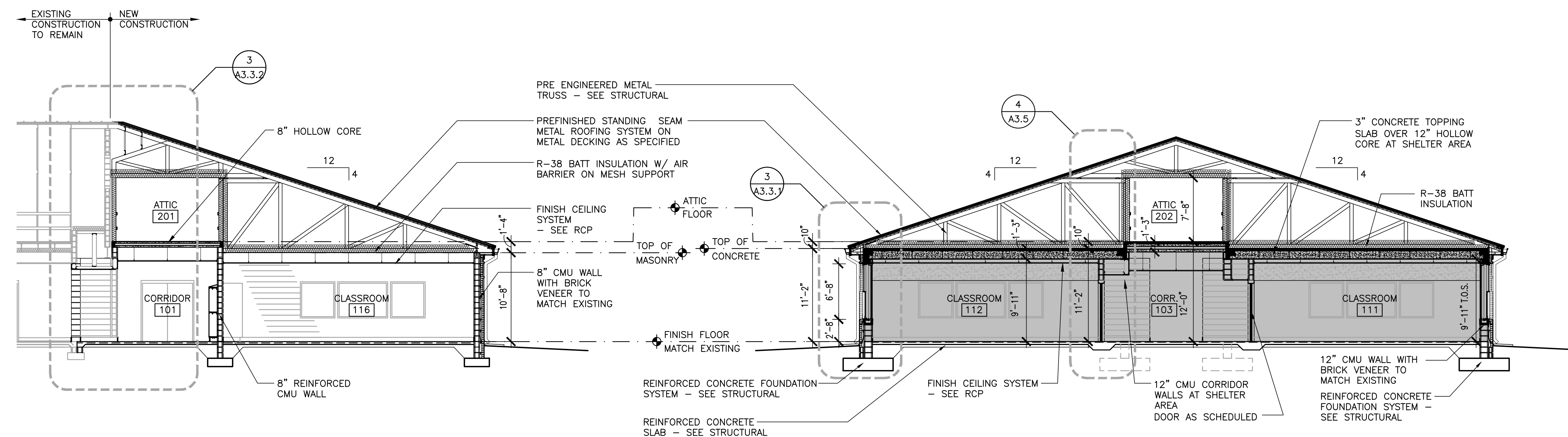
1 BUILDING SECTION  
1/8" = 1'-0"



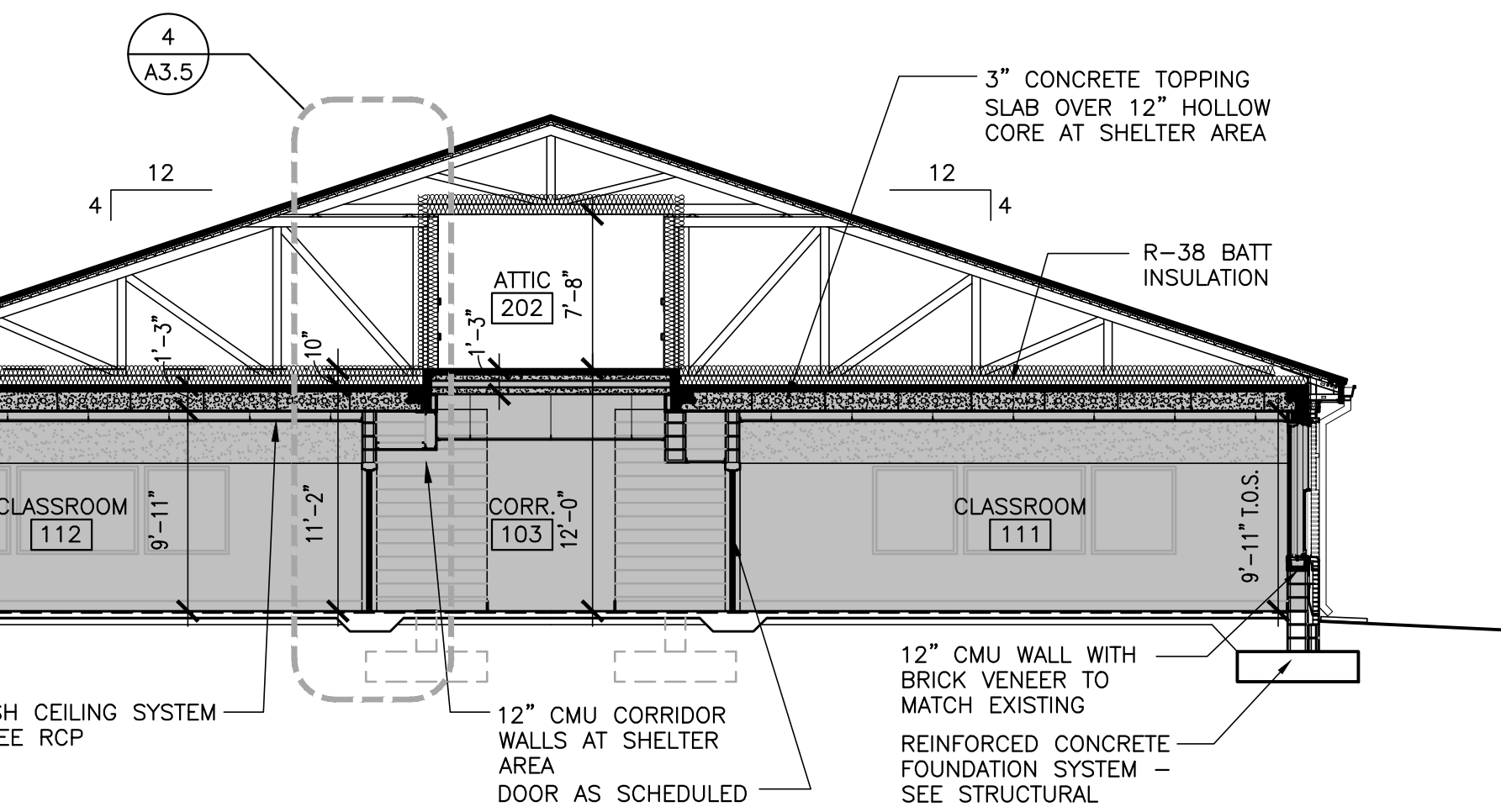
2 BUILDING SECTION  
1/8" = 1'-0"



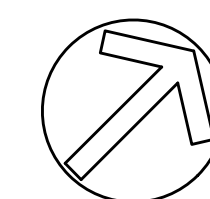
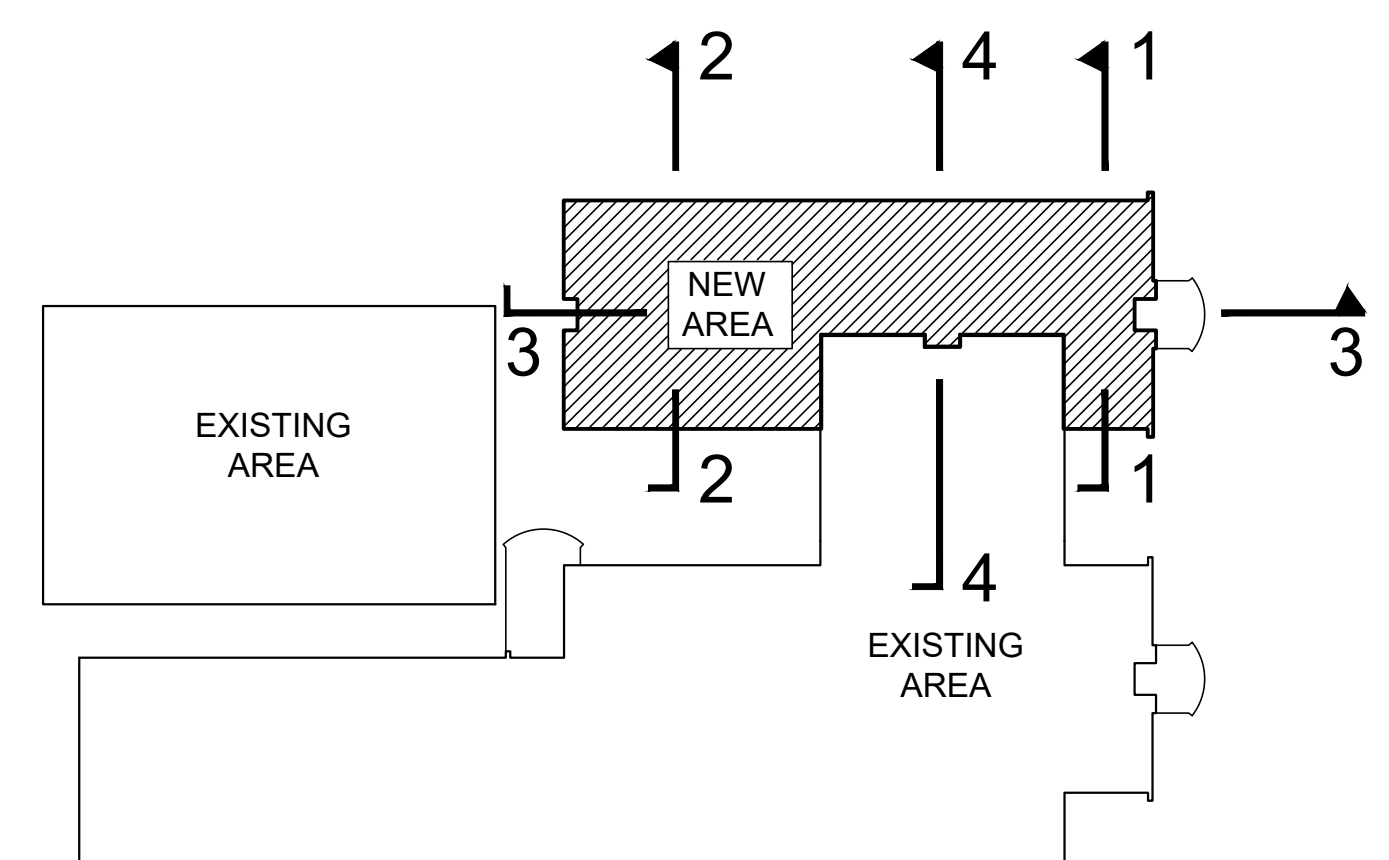
3 BUILDING SECTION  
1/8" = 1'-0"



4 BUILDING SECTION  
1/8" = 1'-0"



5 BUILDING SECTION  
1/8" = 1'-0"



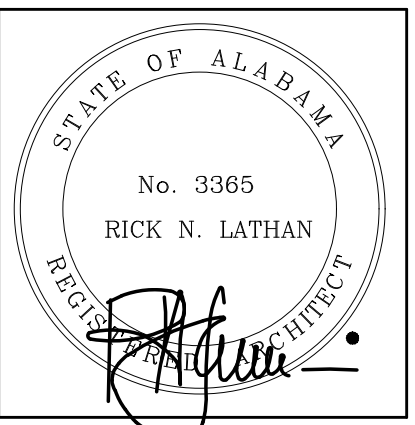
KEY PLAN  
N.T.S.





LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
WALL SECTIONS

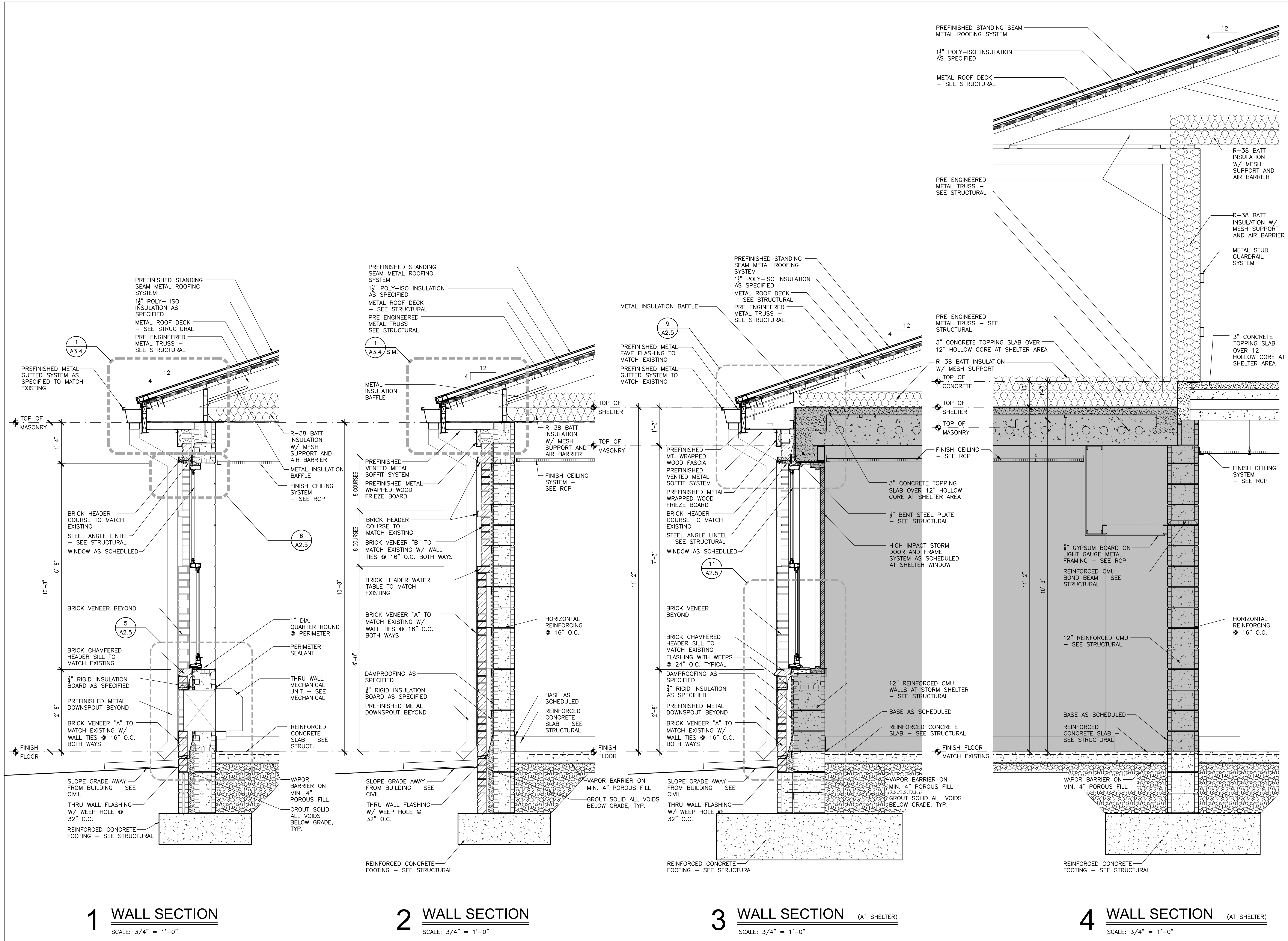
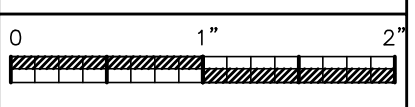
PROJ. MGR.: L. BRYANT  
DRAWN: PPH  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20

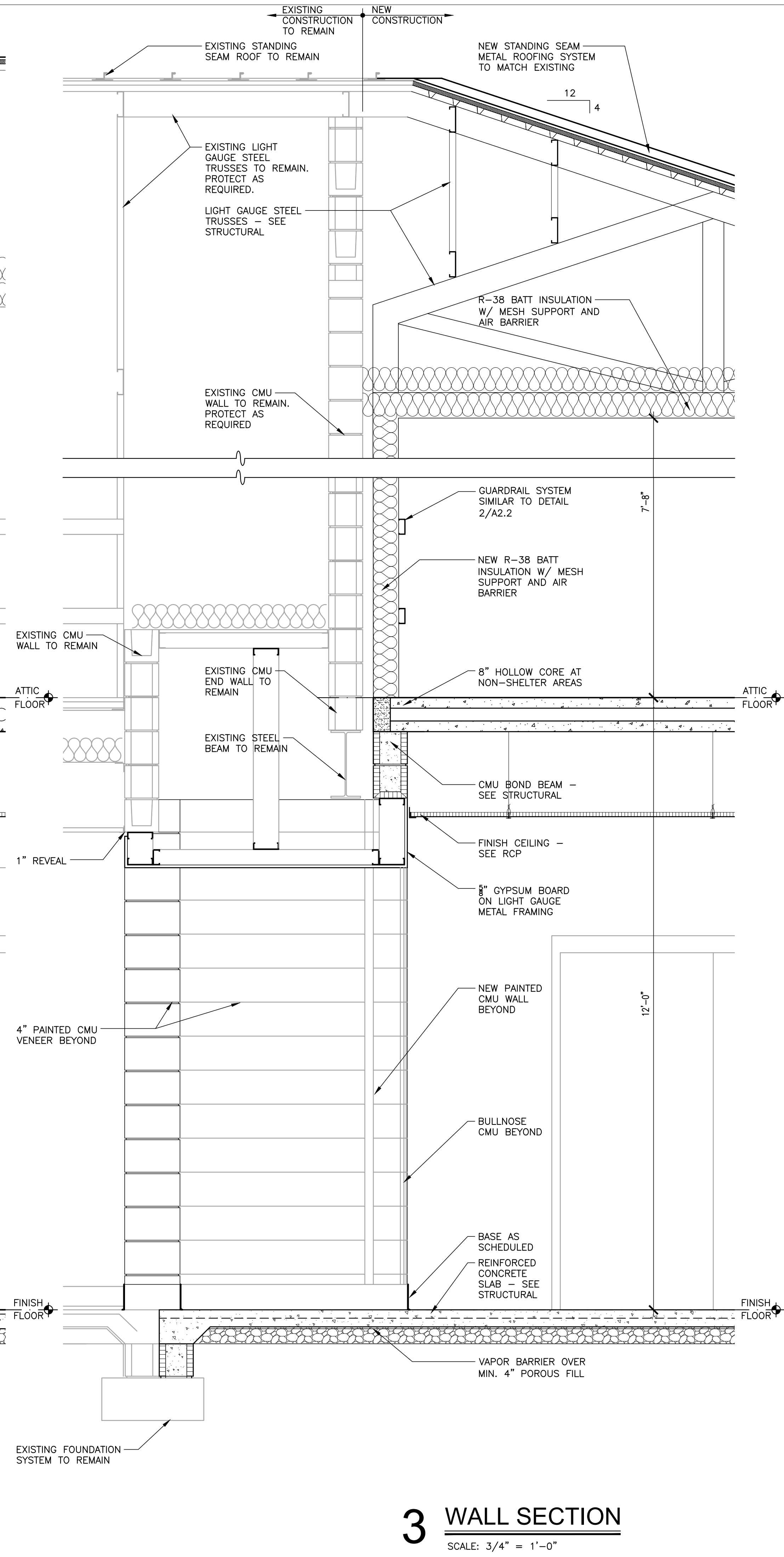
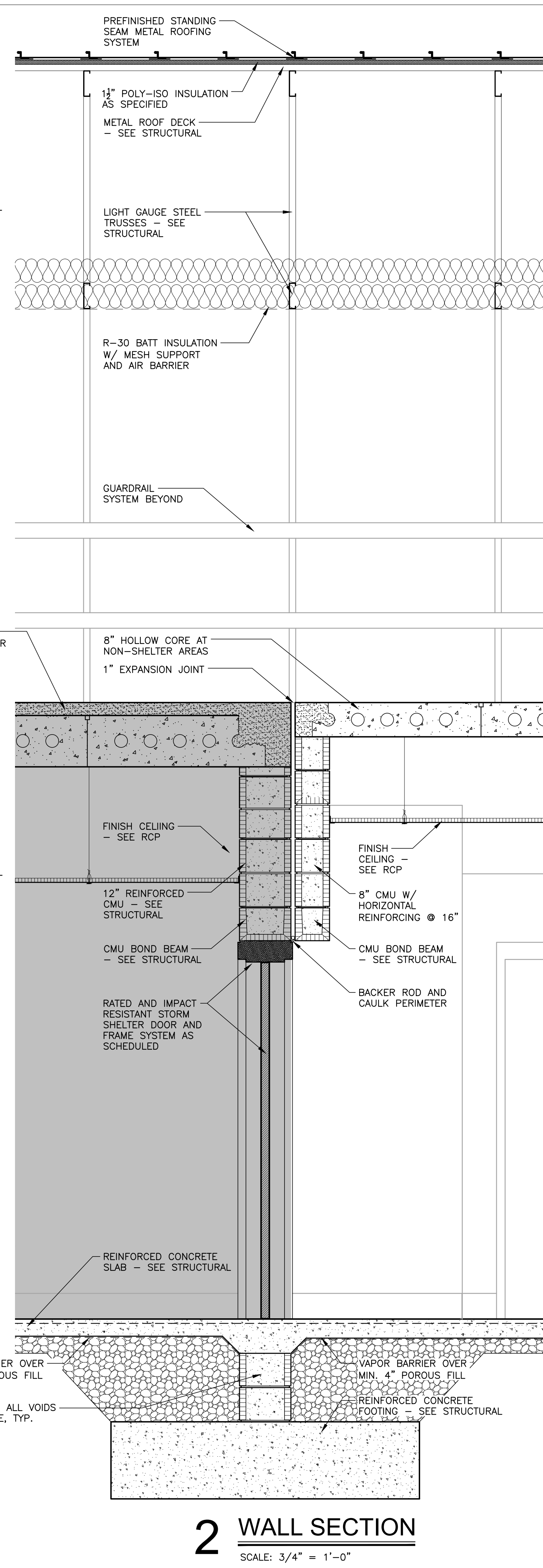
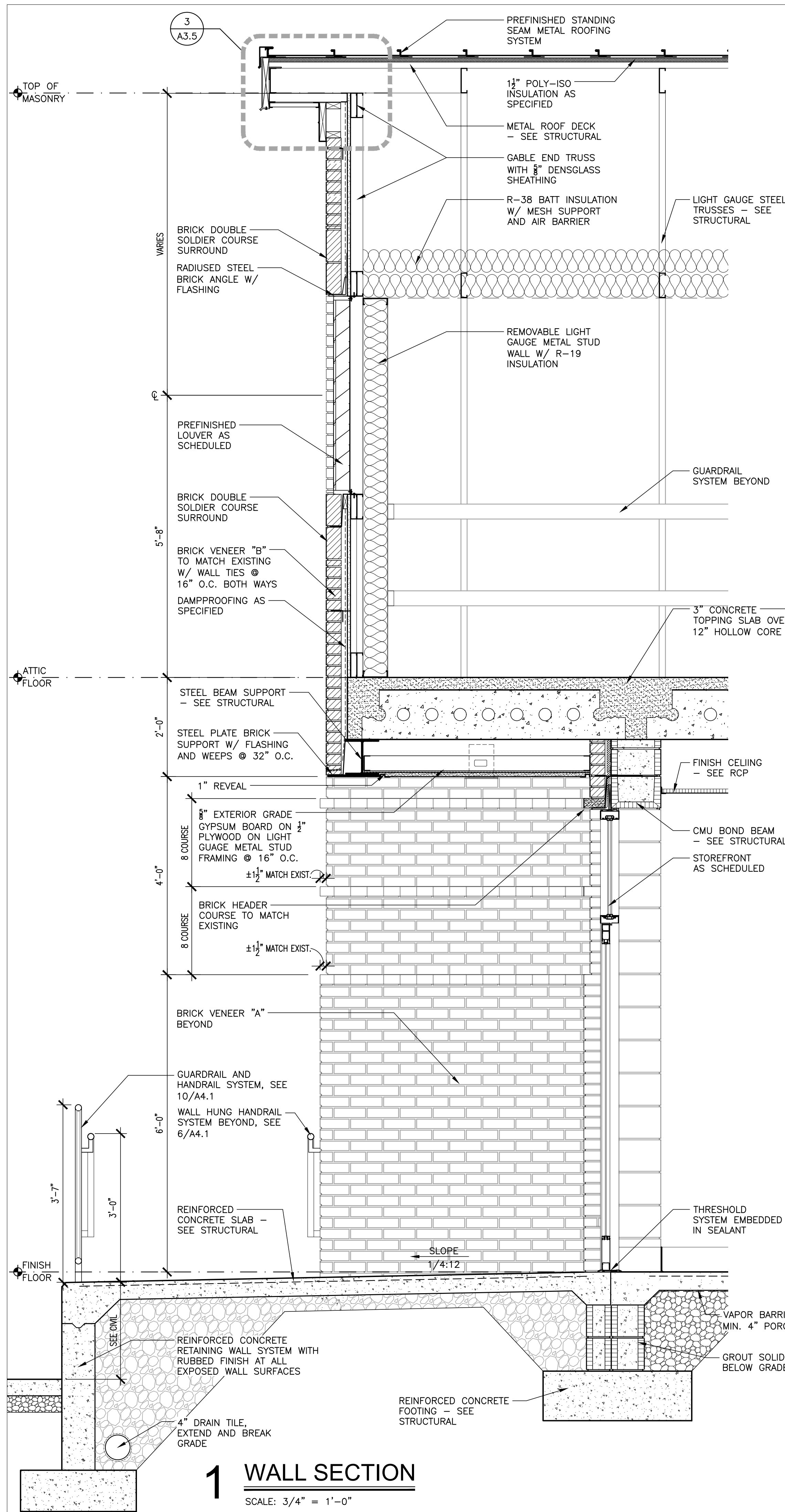
SHEET NO:

**A3.3.1**

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**LATHAN ARCHITECTS**

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

STATE OF ALABAMA  
No. 3365  
RICK N. LATHAN  
REGISTERED ARCHITECT

SHEET TITLE:  
WALL SECTIONS

PROJ. MGR.: L. BRYANT  
DRAWN: PPH  
DATE: JANUARY 31, 2023  
REVISIONS

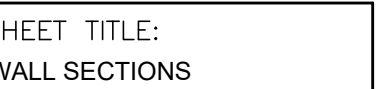
JOB NO. **22-20**  
SHEET NO:  
**A3.3.2**  
13 OF 25

0 1" 2'





CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



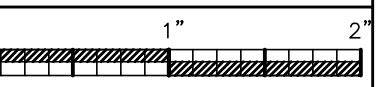
PROJ. MGR.: L. BRYANT
DRAWN: PPh, EB
<b>asco</b>
DATE: JANUARY 31, 2023
REVISIONS

OB NO. 22-20

SHEET NO:

### A3.3.3

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SCALE:  $3/4" = 1'-0"$

0015 3 (1" 1' 2')

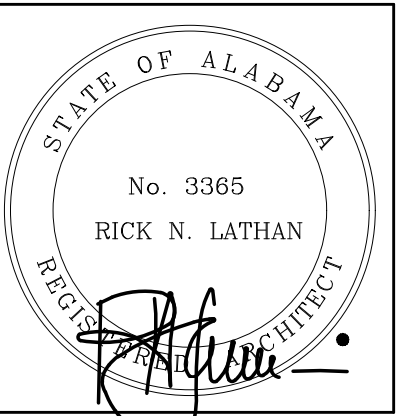
00115 3 1/4" 4' 0"





LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
DETAILS

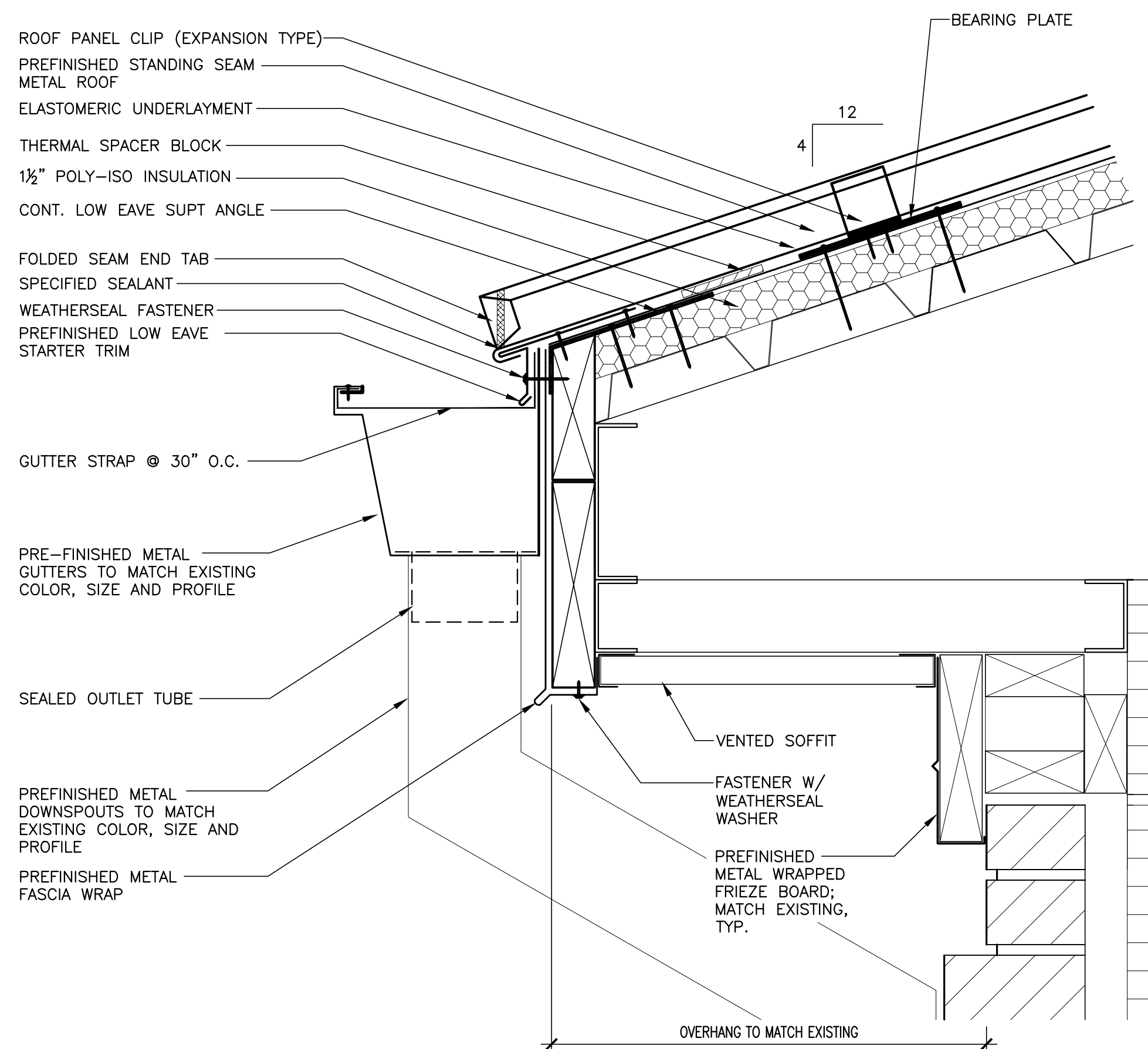
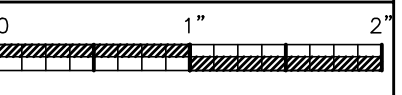
PROJ. MGR.: L. BRYANT  
DRAWN: EB  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20

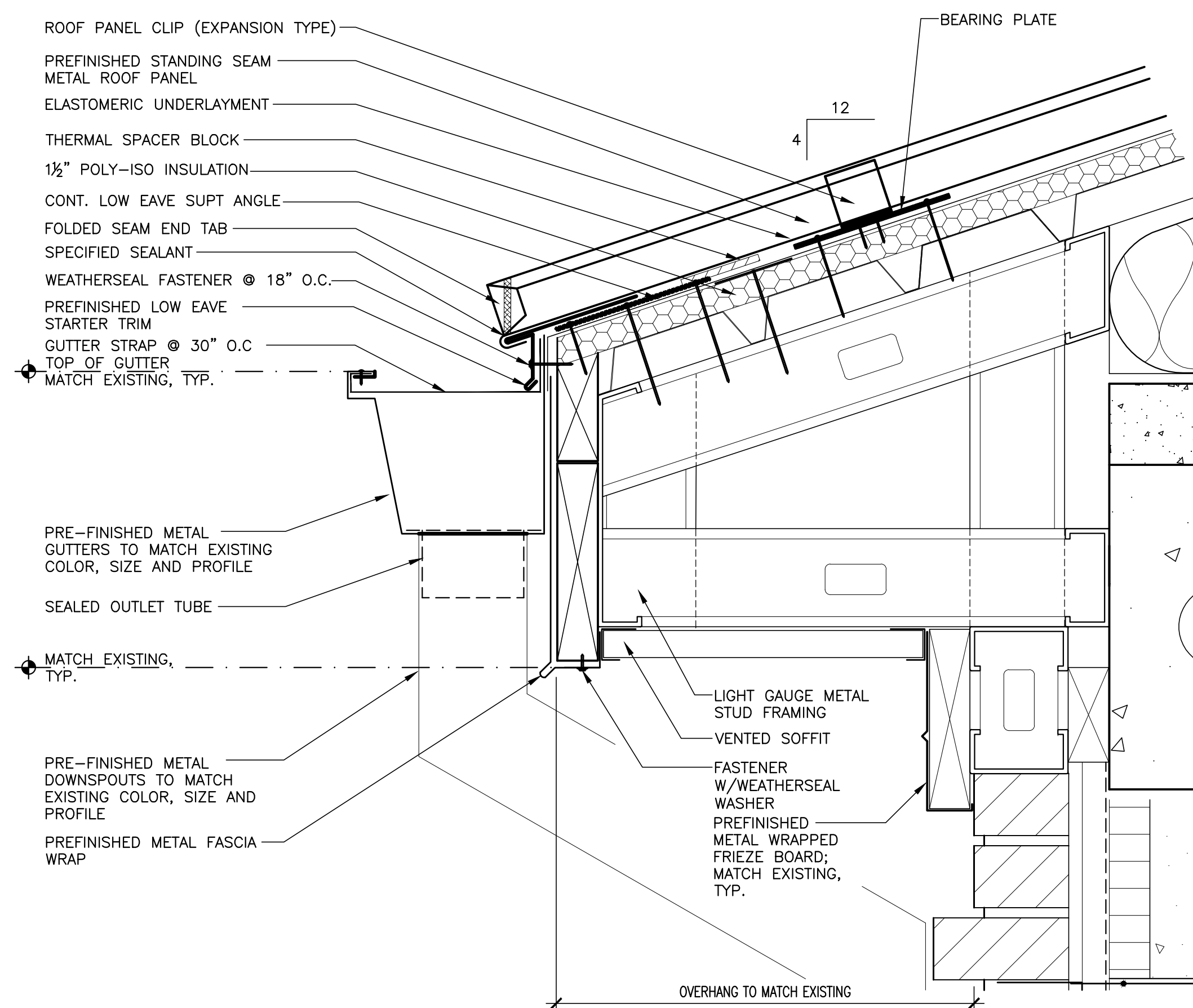
SHEET NO:

A3.4

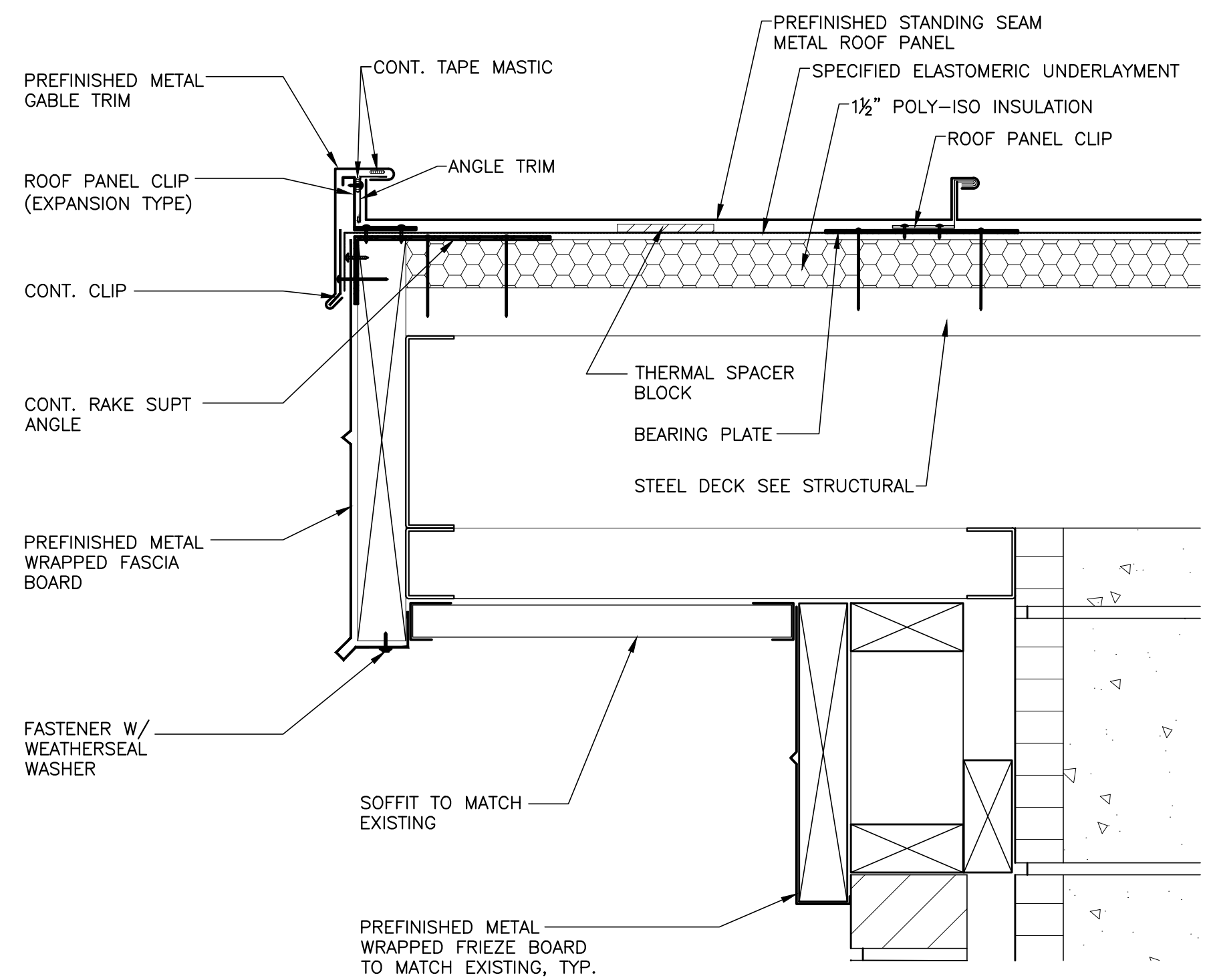
15 OF 25



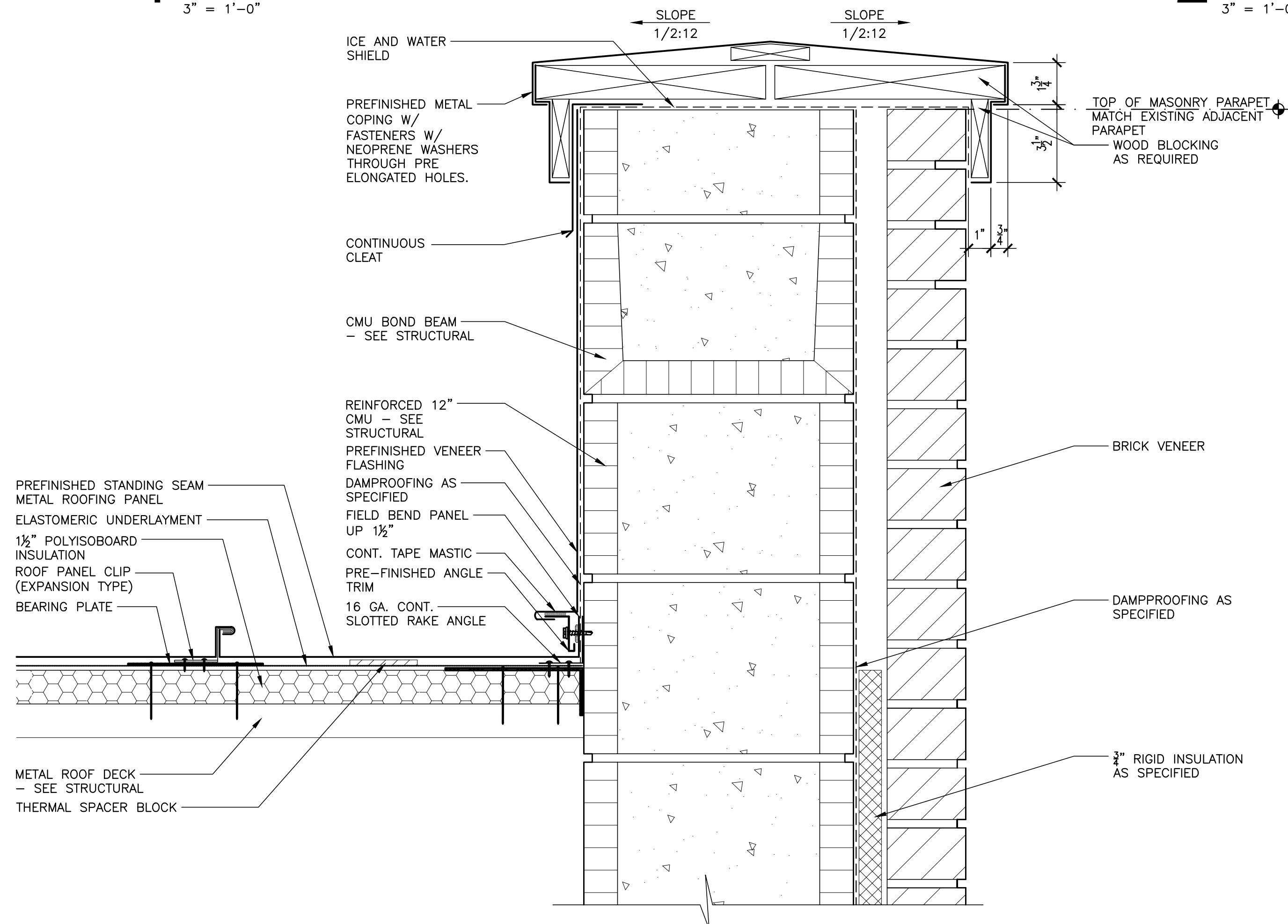
**1** ROOF DETAIL  
3" = 1'-0"



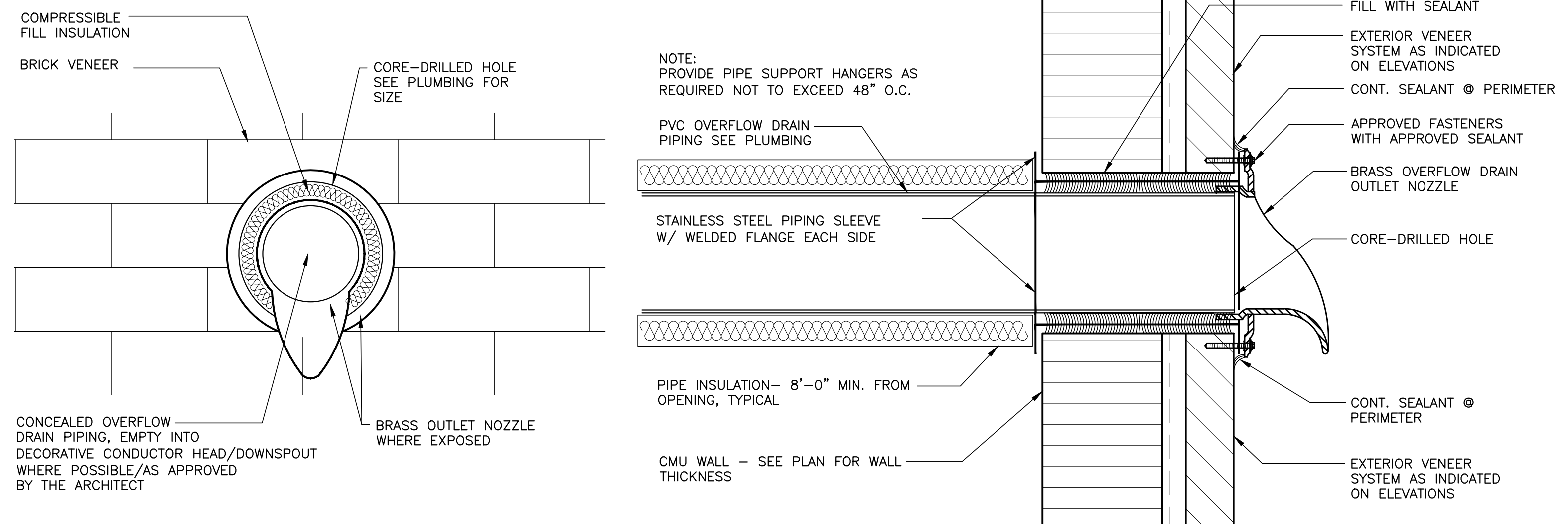
**2** ROOF DETAIL  
3" = 1'-0"



**3** ROOF DETAIL  
3" = 1'-0"

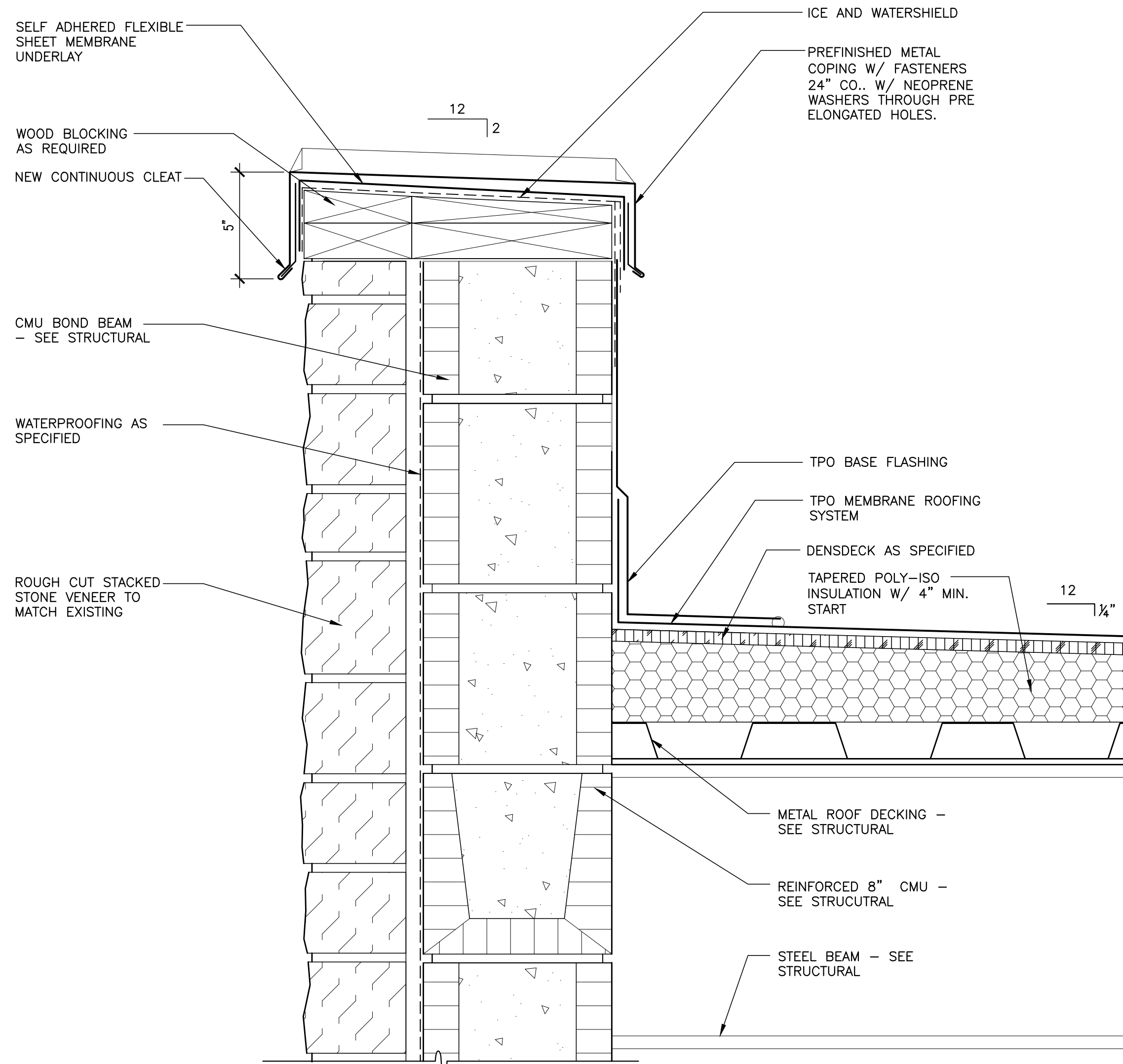


**4** ROOF DETAIL  
3" = 1'-0"



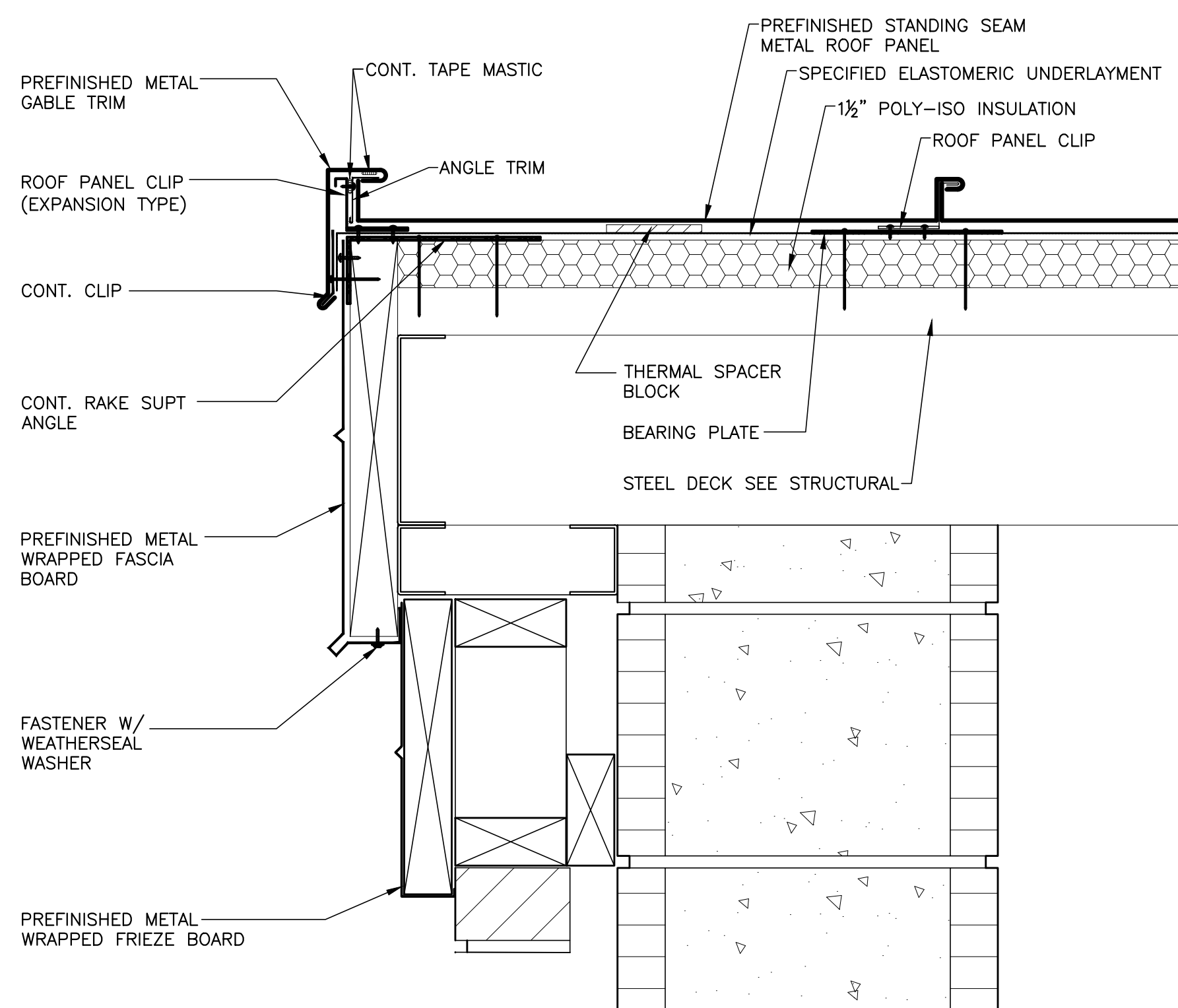
**5** OVERFLOW NOZZLE DETAIL  
3" = 1'-0"





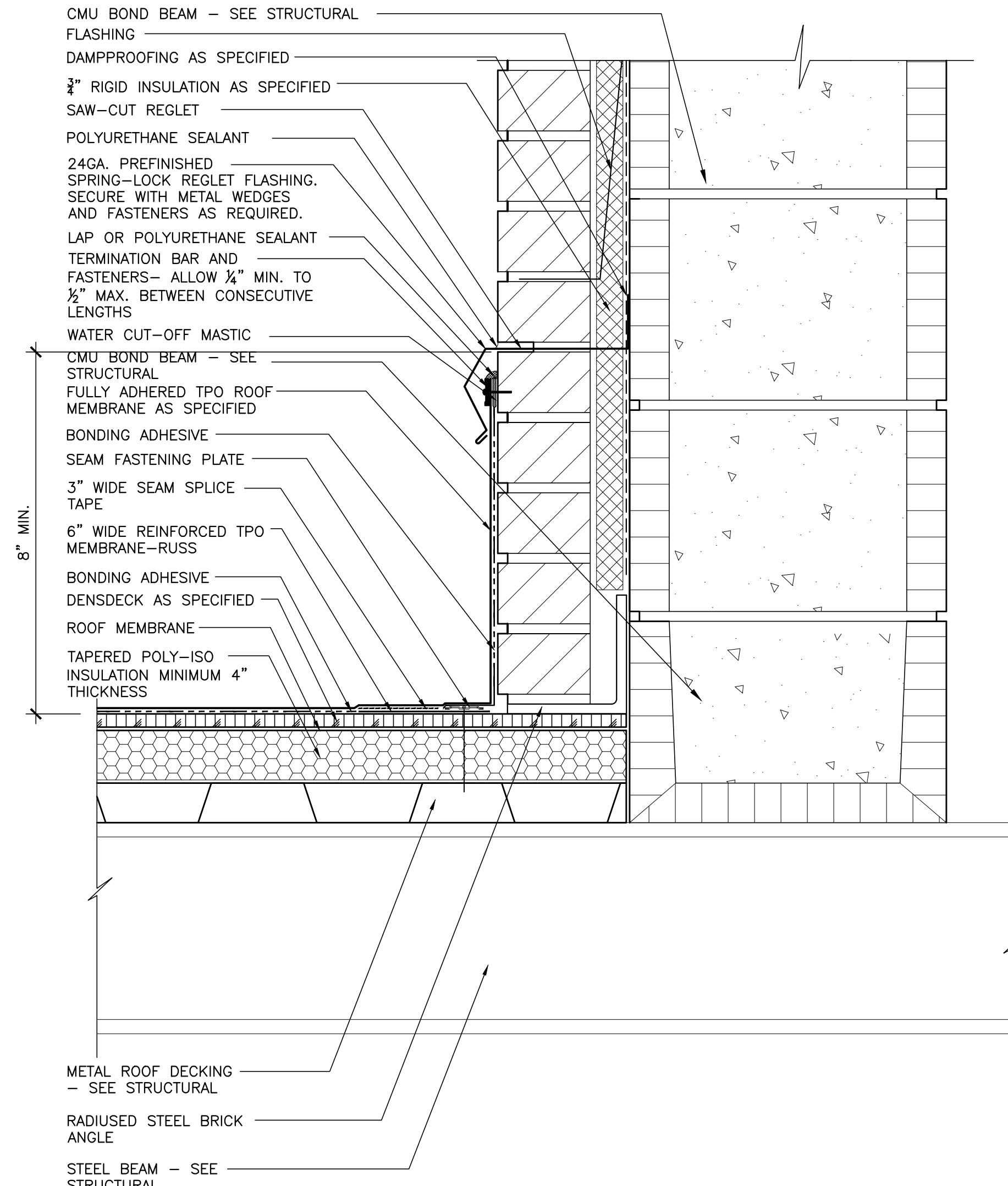
**1 ROOF DETAIL**

3" = 1'-0"



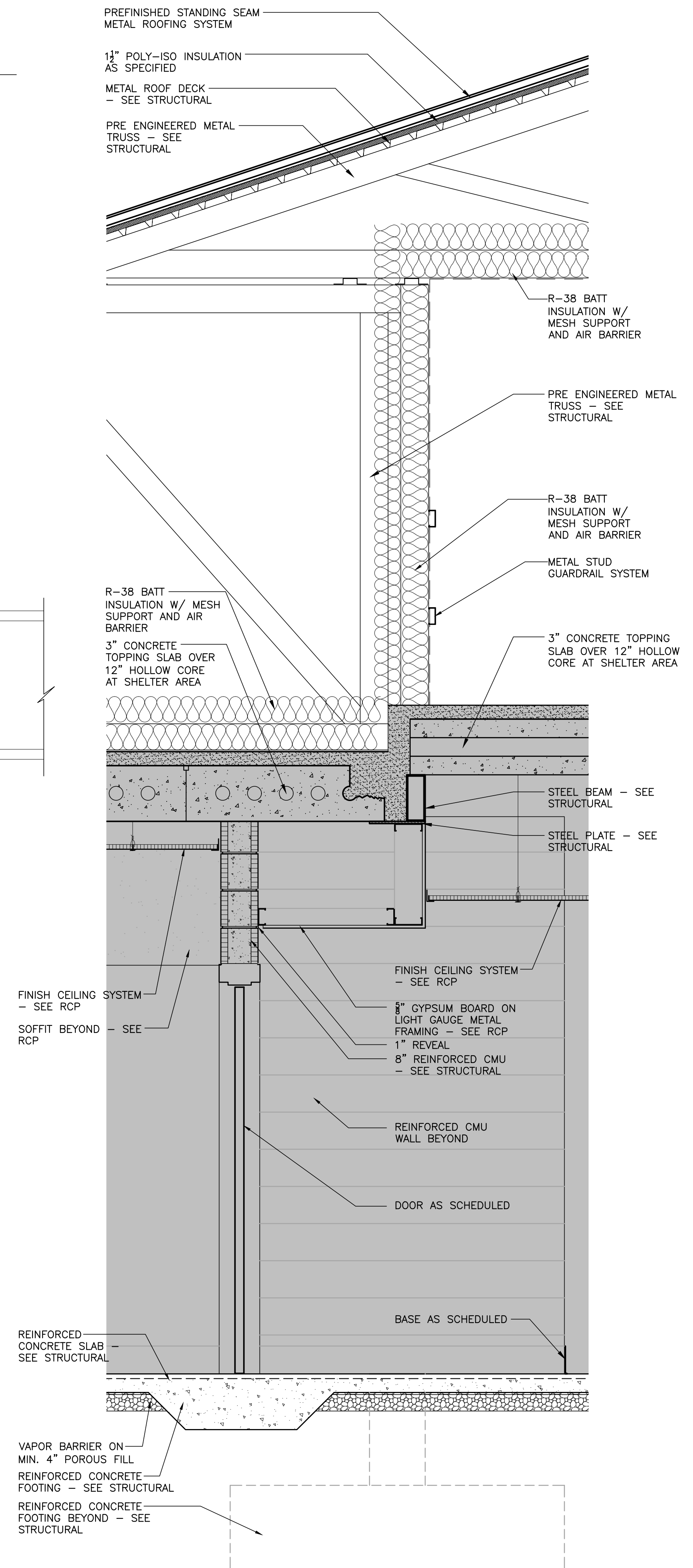
**3 ROOF DETAIL**

3" = 1'-0"



**2 ROOF DETAIL**

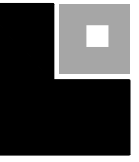
3" = 1'-0"



**4 WALL SECTION**

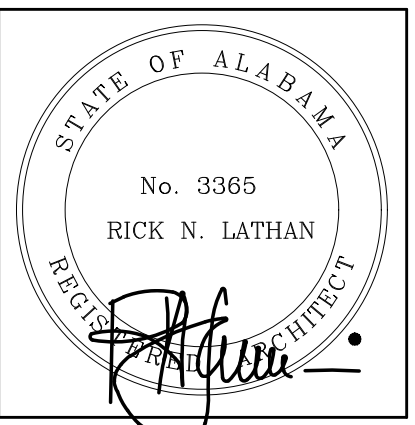
(AT SHELTER)

3/4" = 1'-0"



**LATHAN**  
ARCHITECTS

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
DETAILS

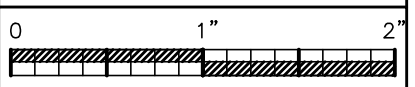
PROJ. MGR.: L. BRYANT  
DRAWN: EB  
**Raso**  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. **22-20**

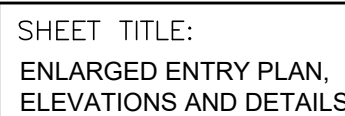
SHEET NO:

**A3.5**

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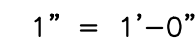
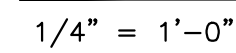
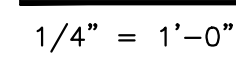
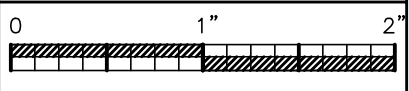
PROJ. MGR.: L. BRYANT
DRAWN: PPh, EB
<b>Rasco</b>
DATE: JANUARY 31, 2023
REVISIONS

















JOB NO. 22-20

SHEET NO:

### A3.6

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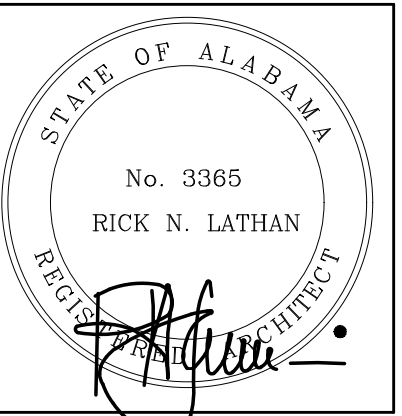
SYMBOLS LEGEND	
TV N.I.C. TV FURNISHED BY OWNER - INSTALLED BY GC	 DOOR TYPE  DOOR RATING  HARDWARE SYMBOL
FEC RECESSED FIRE EXTINGUISHER CABINET WITH EXTINGUISHER	 NEW DOOR AND SWING  EXISTING DOOR
+ INTERIOR FLOOR ELEVATION	 EXTERIOR WINDOW  STOREFRONT
F.D. FLOOR DRAIN	 ELEV. MARK  SHEET NUMBER
EWC ELECTRIC WATER COOLER	 SECT. MARK  SHEET NUMBER
MB MARKER BOARD	 AREA OF CONCRETE  ELEV. MARK
WA WIND ANGLE	 SHEET NUMBER  PHOTO
A200 ROOM NUMBER	 INTERIOR ELEVATION
CJ CONTROL JOINT	
EJ EXPANSION JOINT	
DS/SB DOWNSPOUT WITH SPLASHBLOCK	





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CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



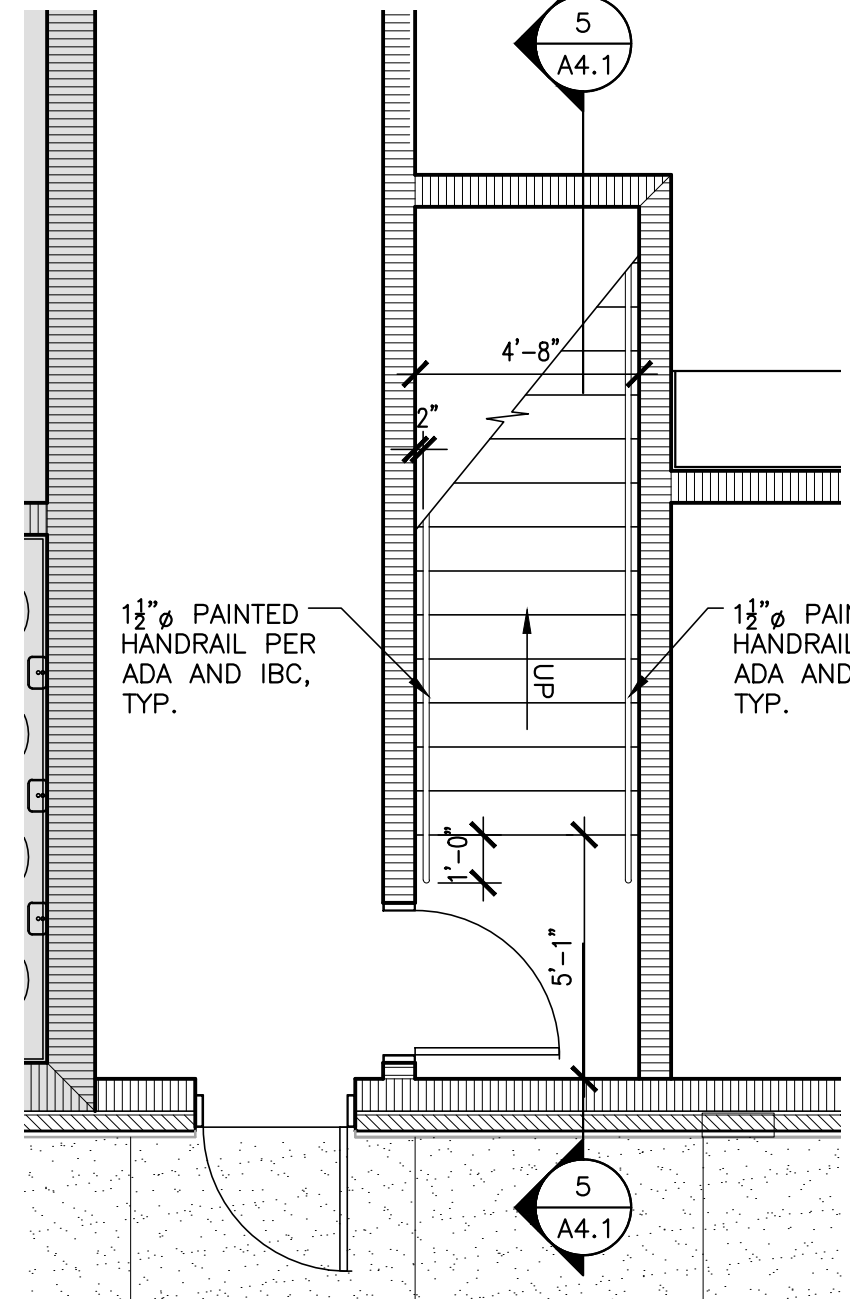
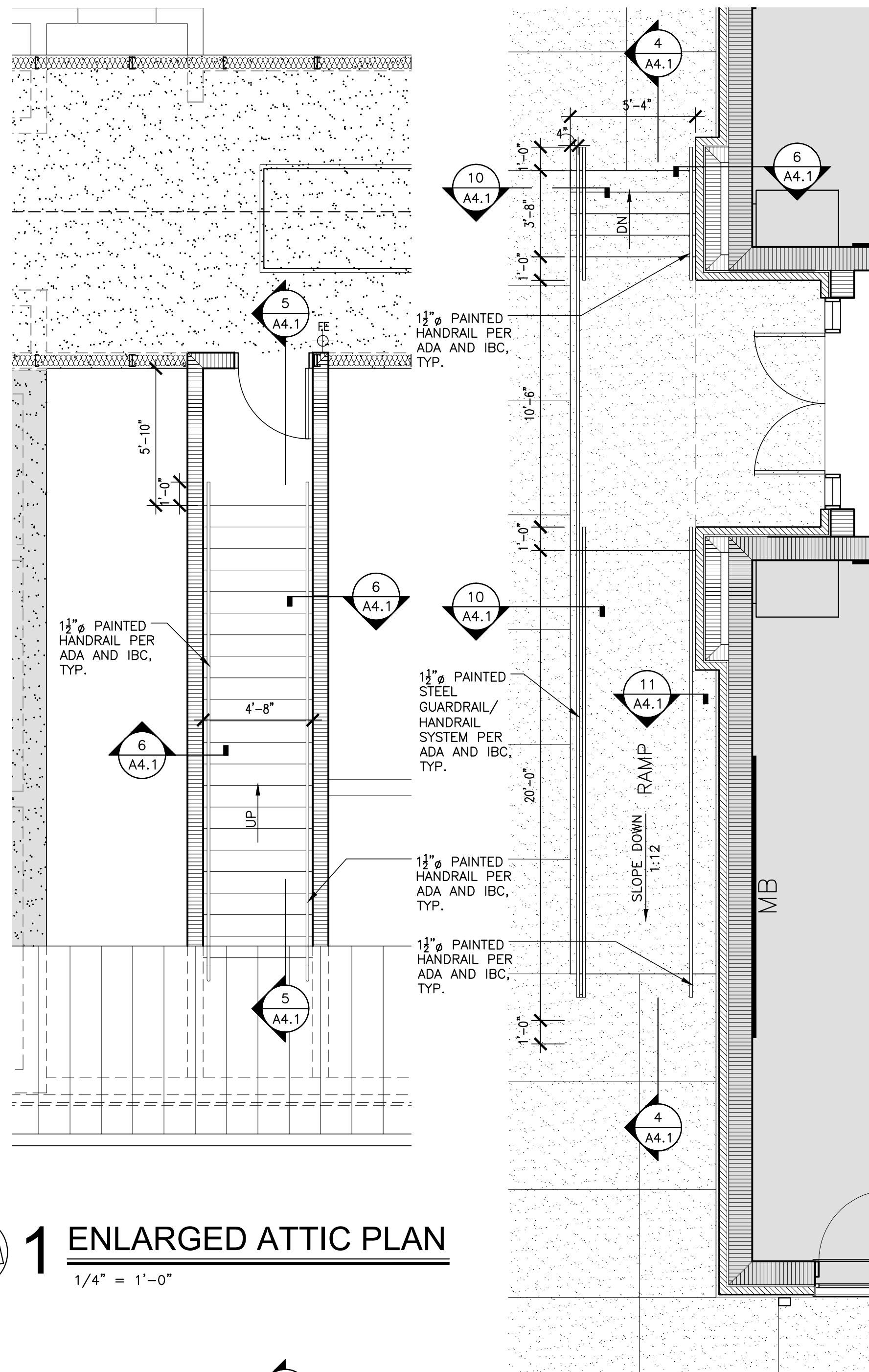
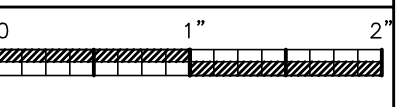
SHEET TITLE:  
STAIR PLANS, SECTIONS  
AND DETAILS

PROJ. MGR.: L. BRYANT  
DRAWN: PPH, EB  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:

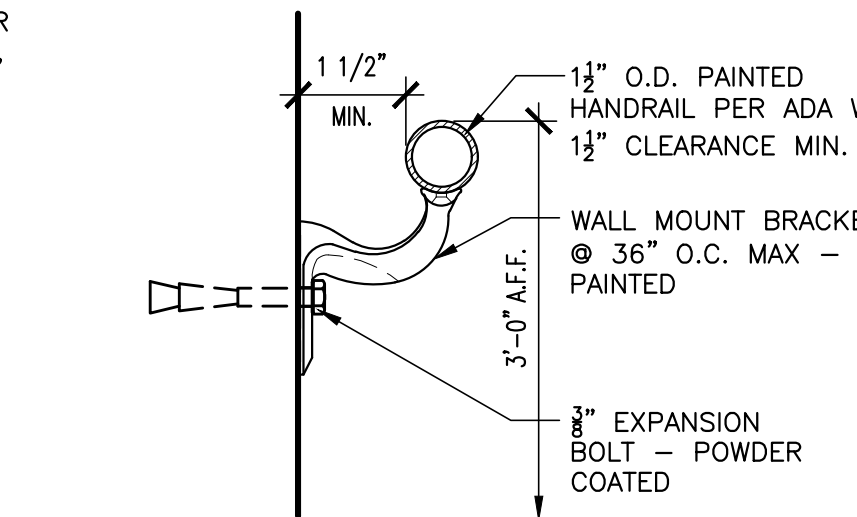
**A4.1**

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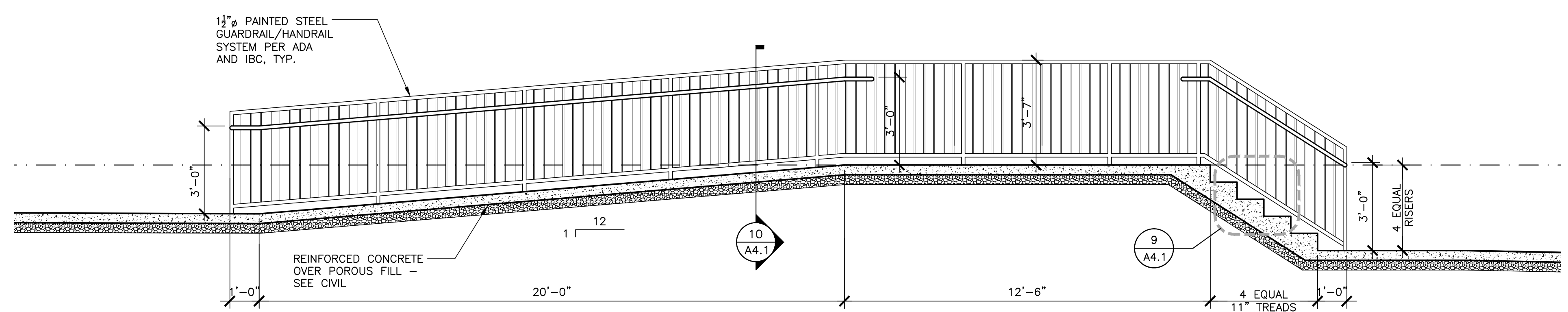


**2 ENLARGED MAIN PLAN**  
1/4" = 1'-0"

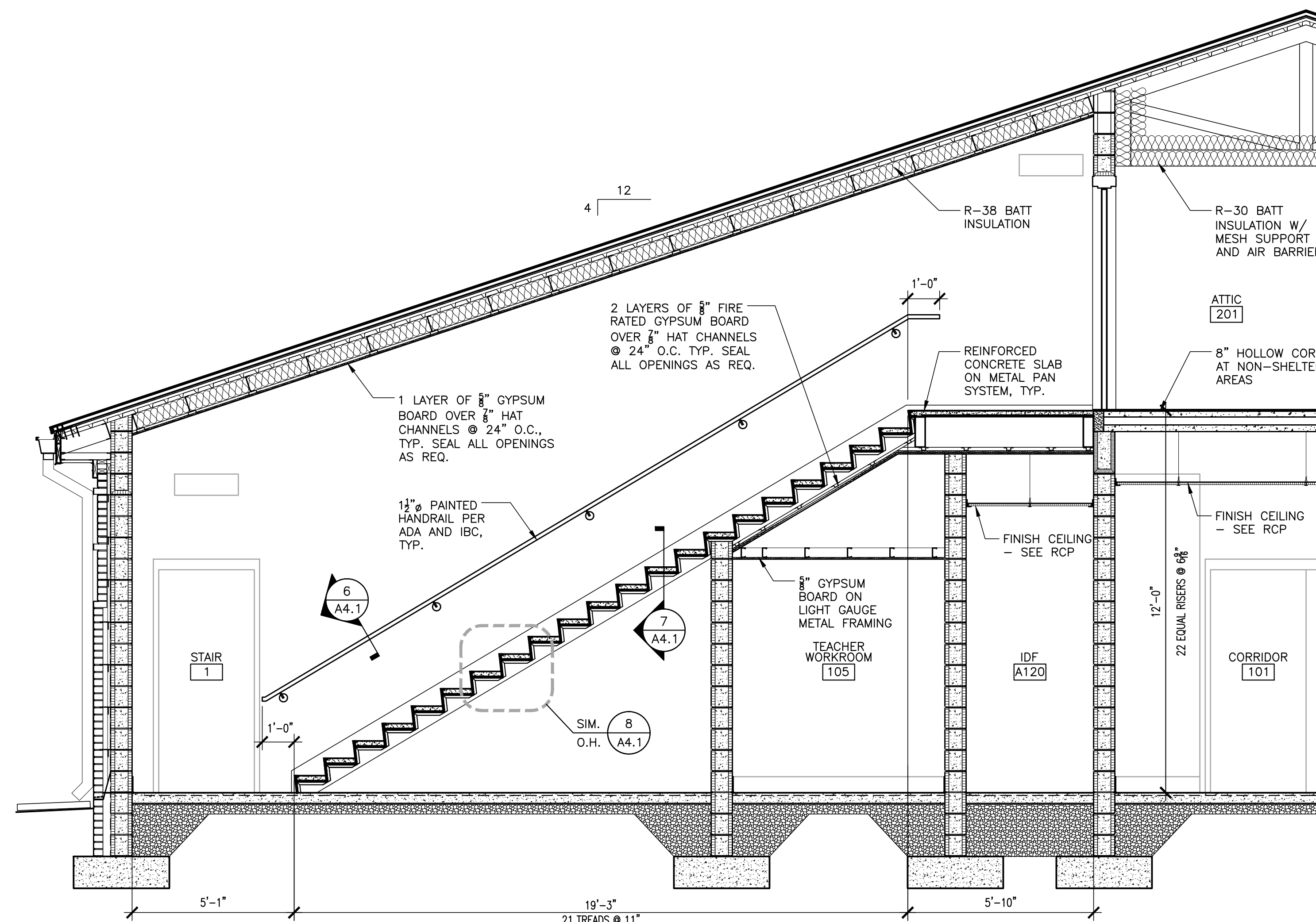
**3 EXTER. STAIR & RAMP**  
1/4" = 1'-0"



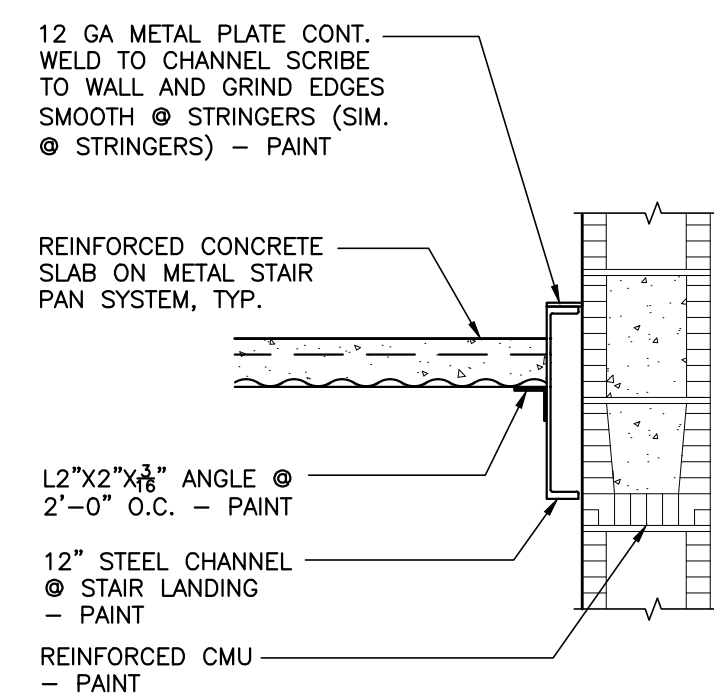
**6 HANDRAIL DETAIL**  
3" = 1'-0"



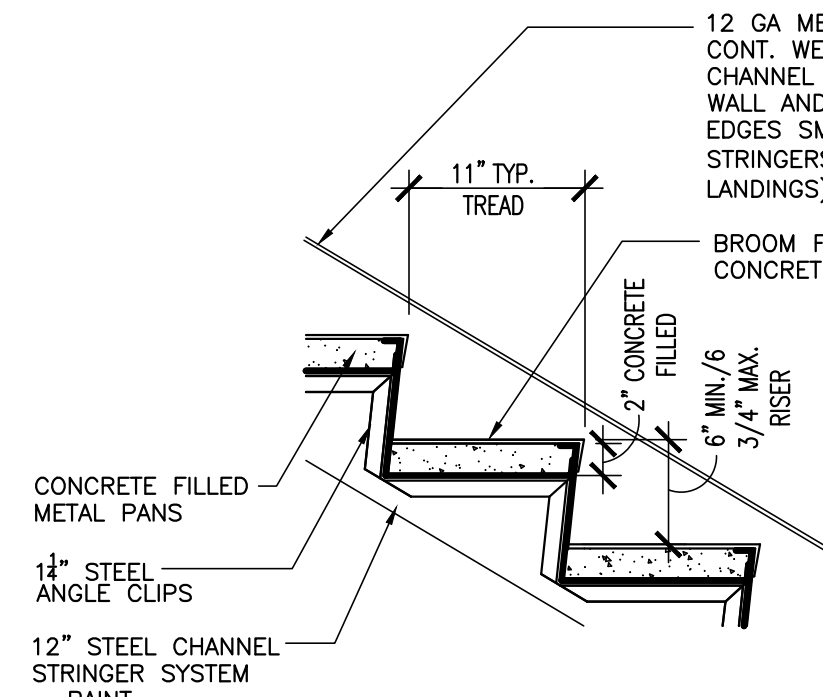
**4 EXTERIOR STAIR & RAMP SECTION**  
3/8" = 1'-0"



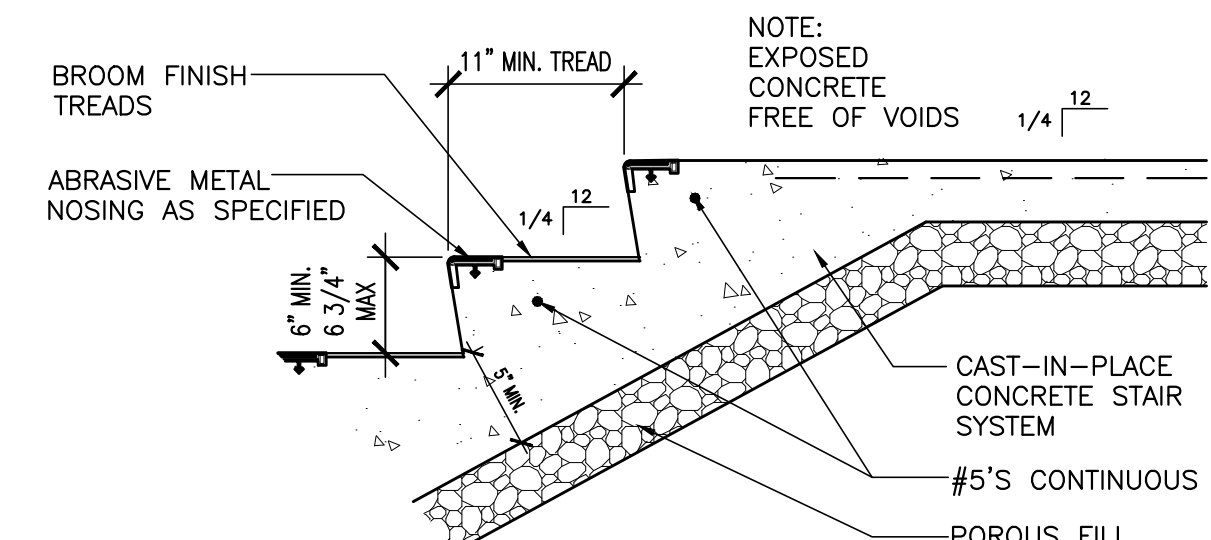
**5 INTERIOR STAIR SECTION**  
3/8" = 1'-0"



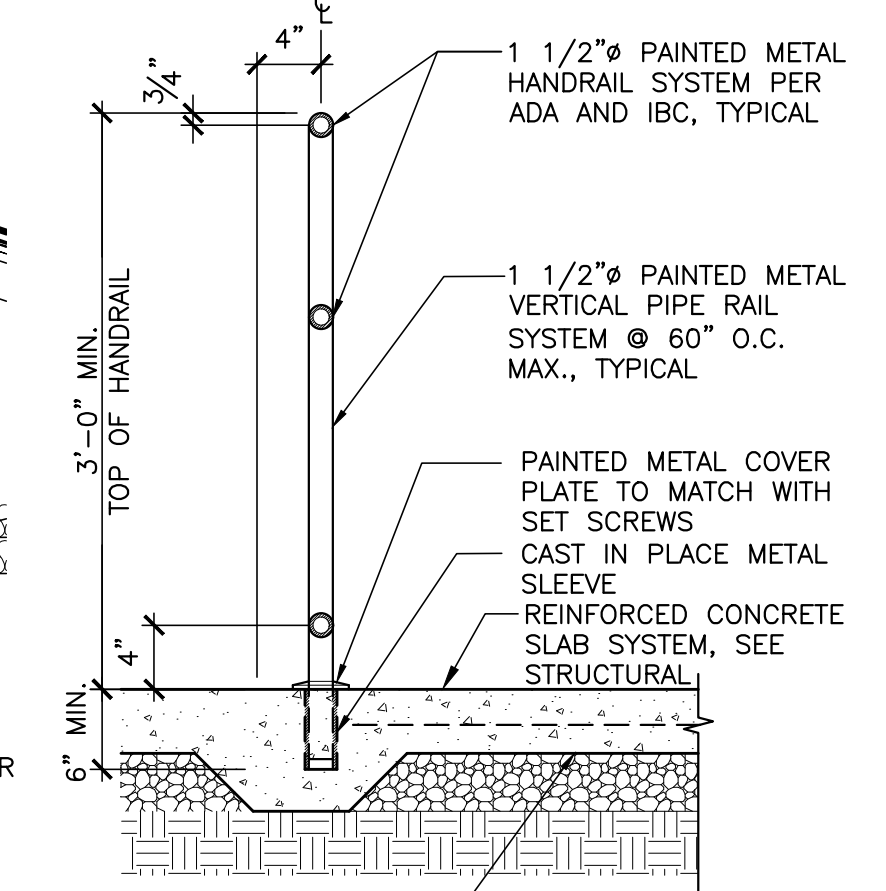
**7 STAIR DETAIL**  
1" = 1'-0"



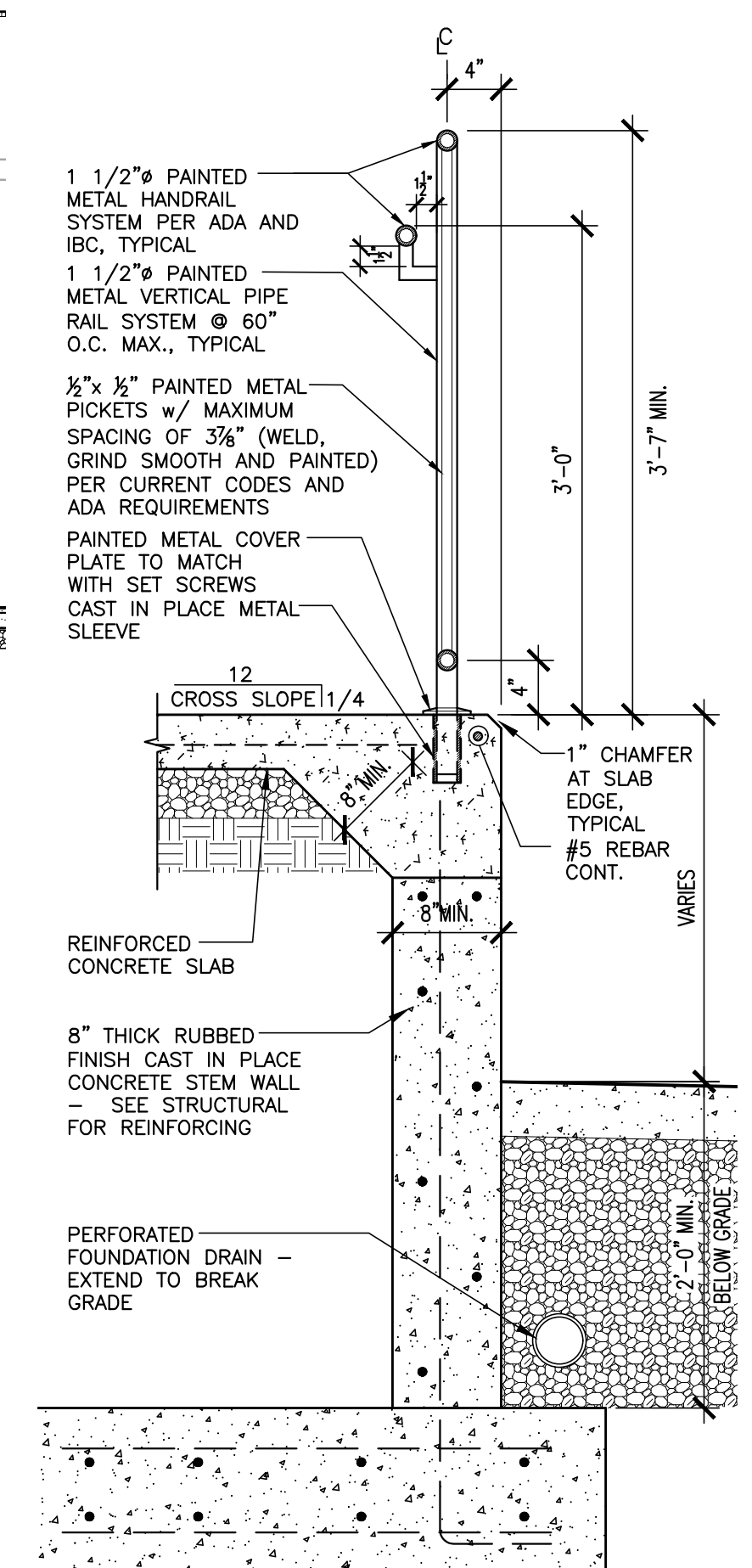
**8 STAIR DETAIL**  
1" = 1'-0"



**9 STAIR DETAIL**  
1" = 1'-0"



**11 HANDRAIL DETAIL**  
1" = 1'-0"



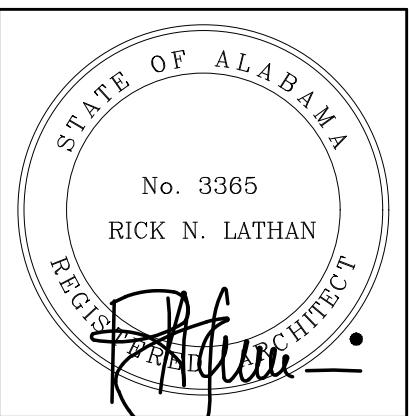
**10 GUARDRAIL DETAIL**  
1" = 1'-0"





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CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
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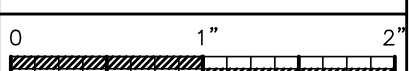
SHEET TITLE:  
ENLARGED PLANS, PLUMBING  
ELEVATIONS, AND DETAILS

PROJ. MGR.: L. BRYANT  
DRAWN: CRB  
Rasco  
DATE: JANUARY 31, 2023  
REVISIONS

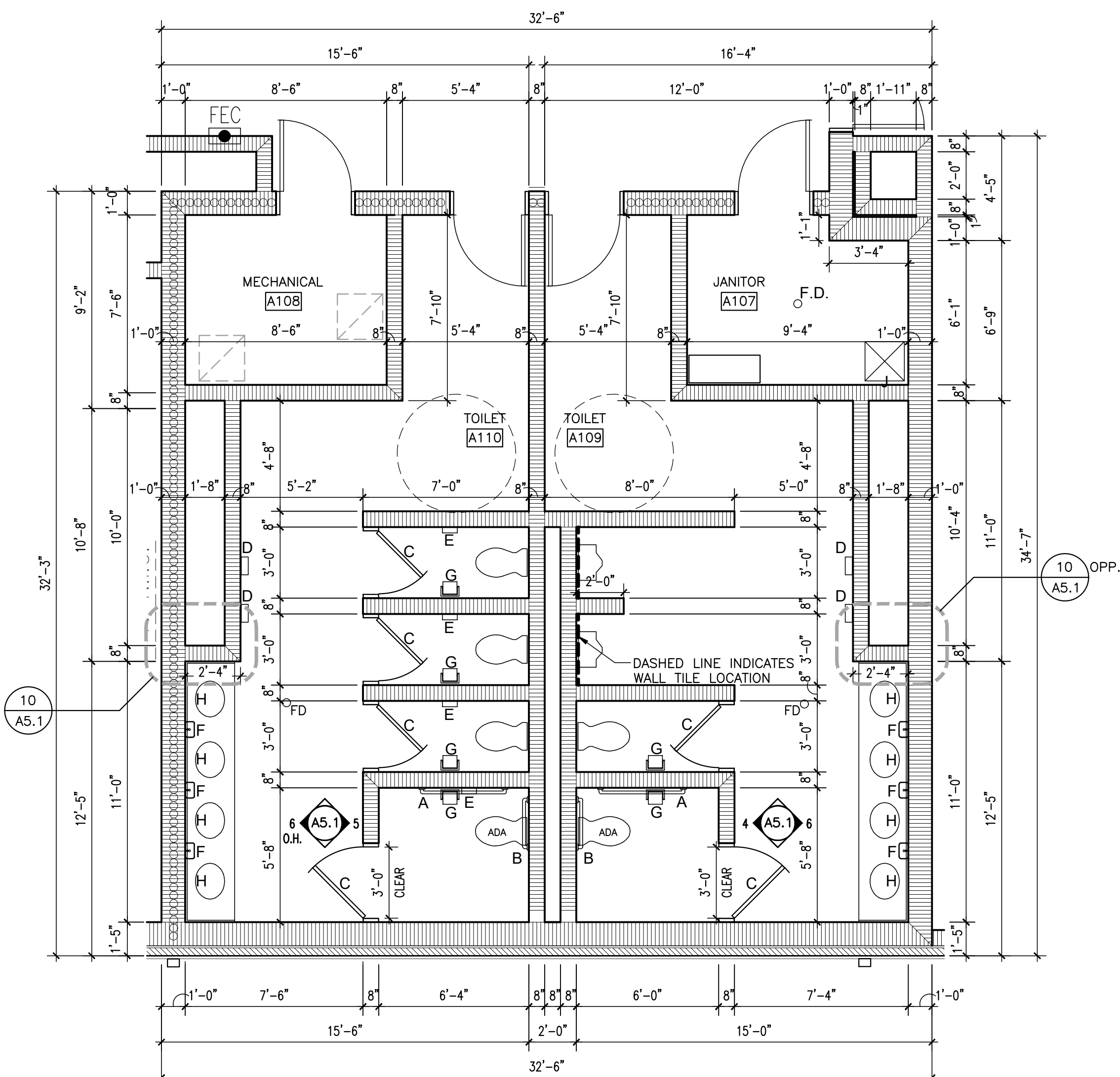
JOB NO. 22-20  
SHEET NO:

**A5.1**

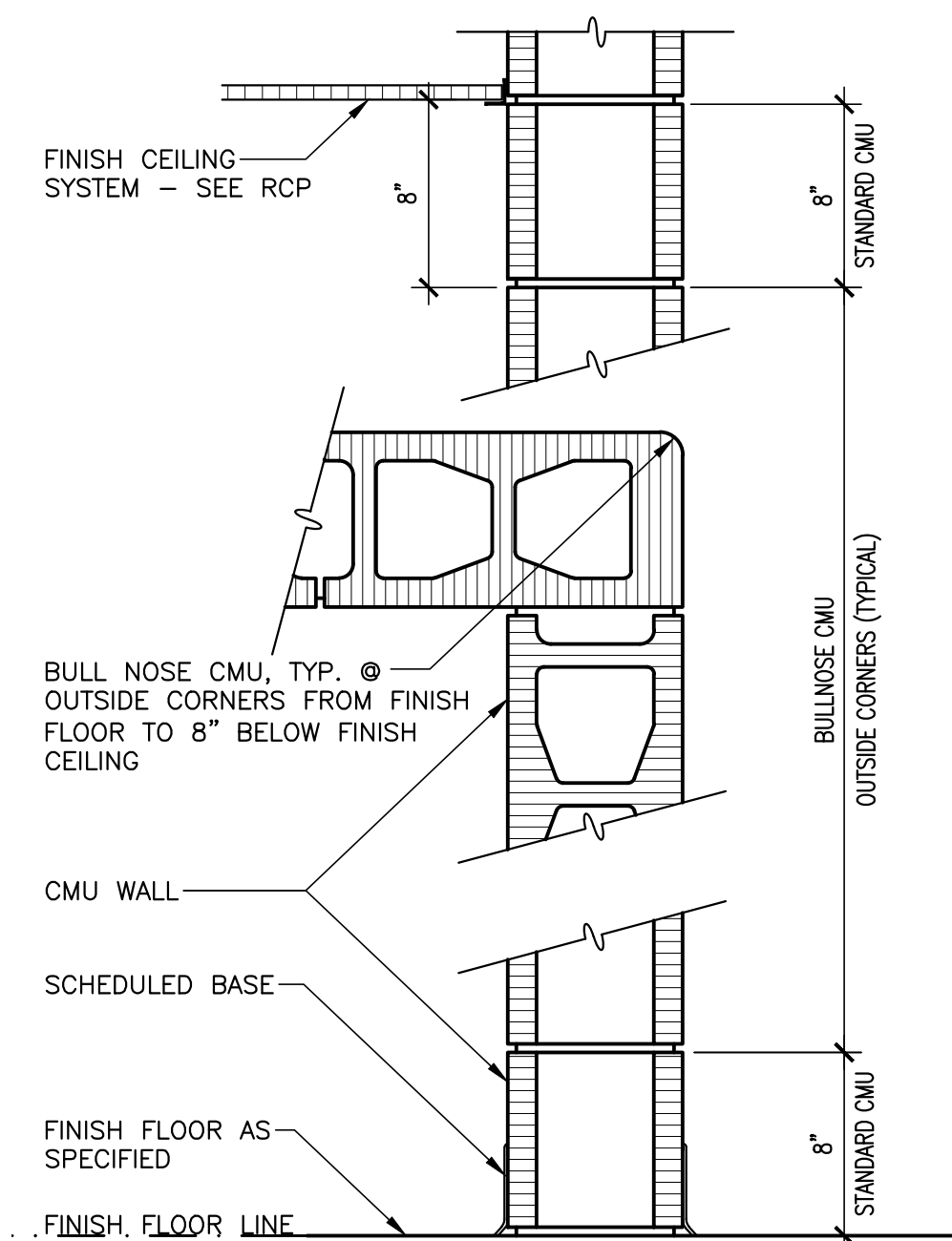
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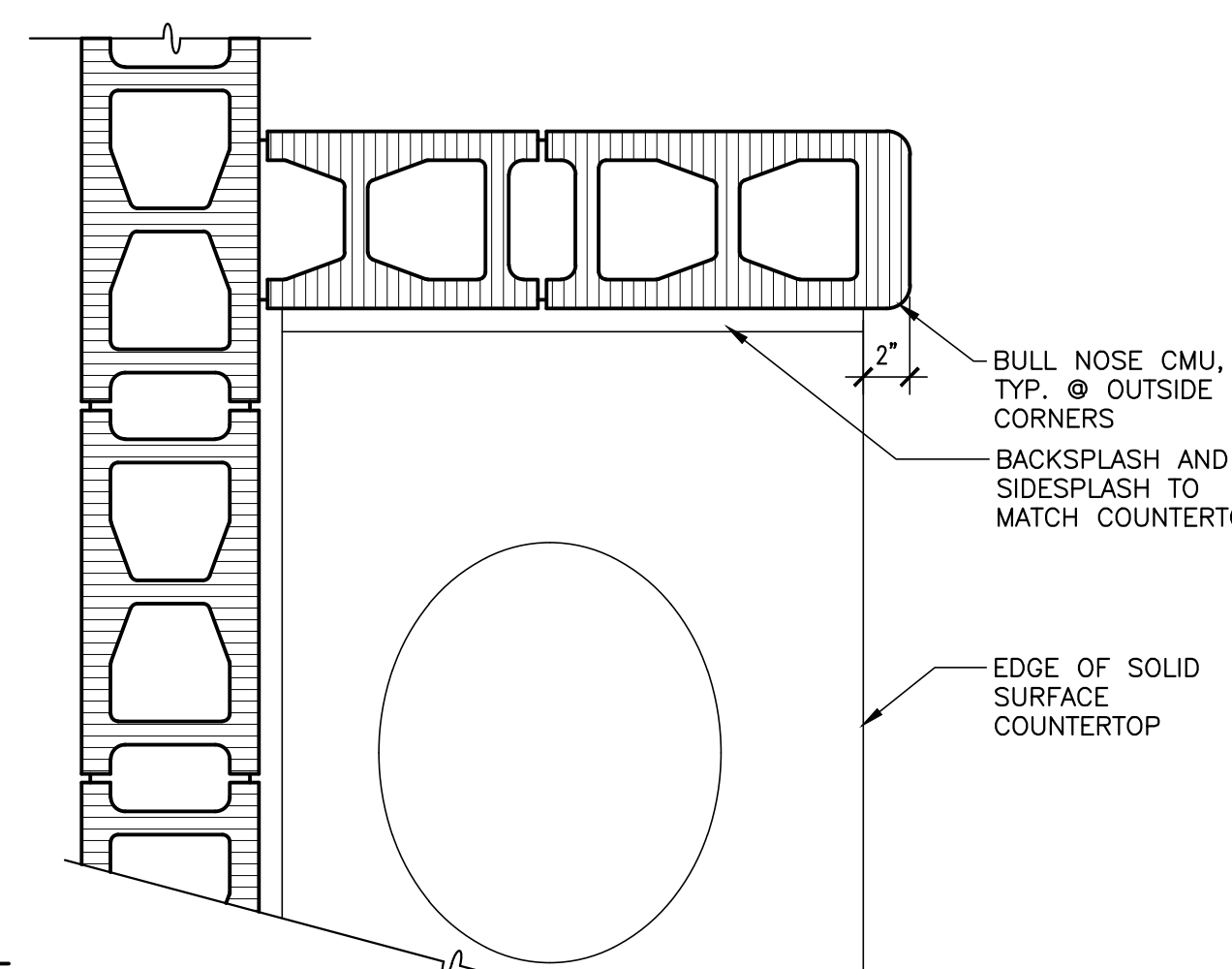
TOILET ACCESSORY LEGEND	
A	42" S.S. GRAB BAR
B	36" S.S. GRAB BAR
C	COAT HOOK
D	ELECTRIC HAND DRYER
E	FEMININE NAPKIN DISPOSAL
F	SOAP DISPENSER - OWNER FURNISHED, CONTRACTOR INSTALLED
G	TOILET TISSUE DISPENSER - OWNER FURNISHED, CONTRACTOR INSTALLED
H	FRAMED MIRROR 18" X 30"
J	MOP HOLDER



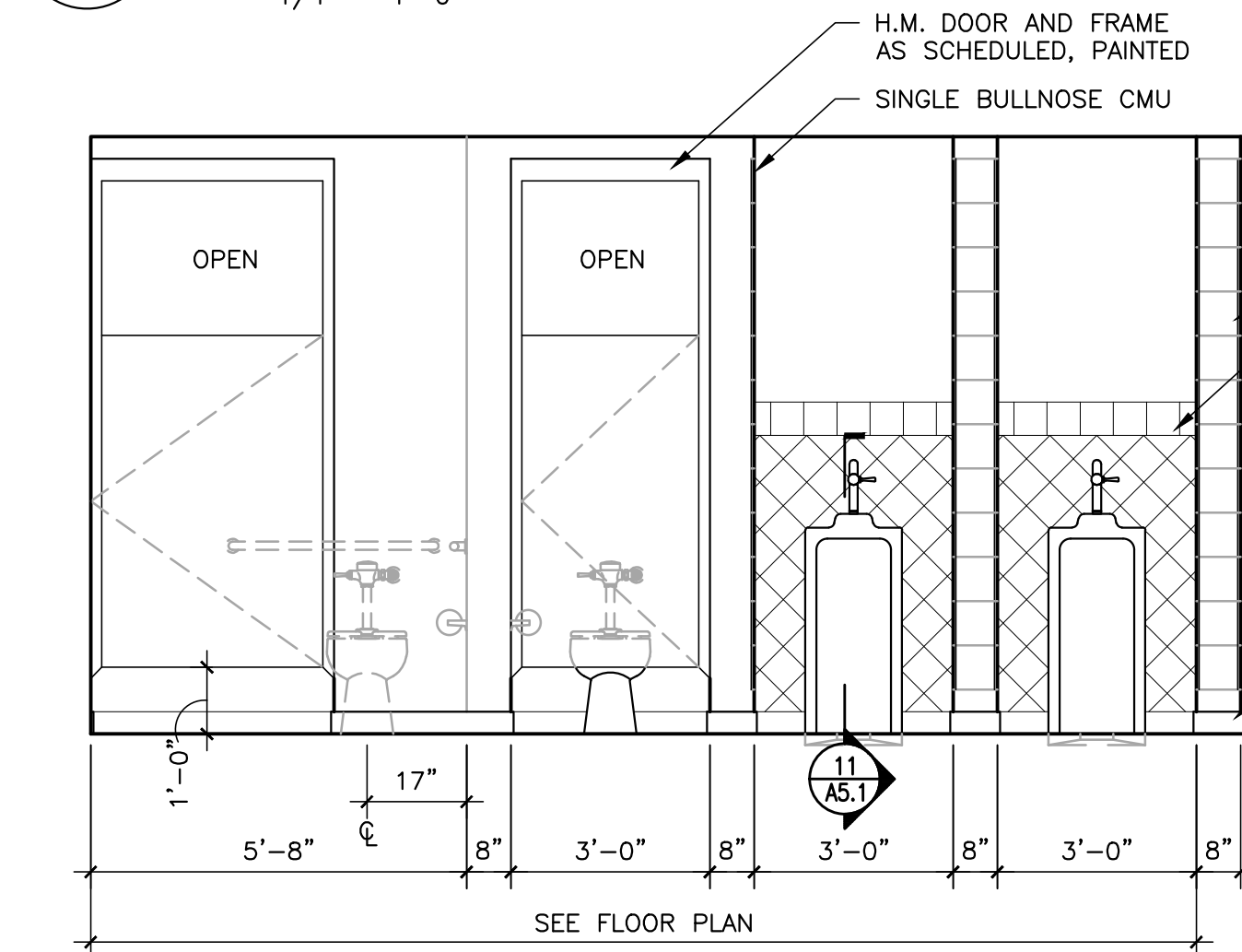
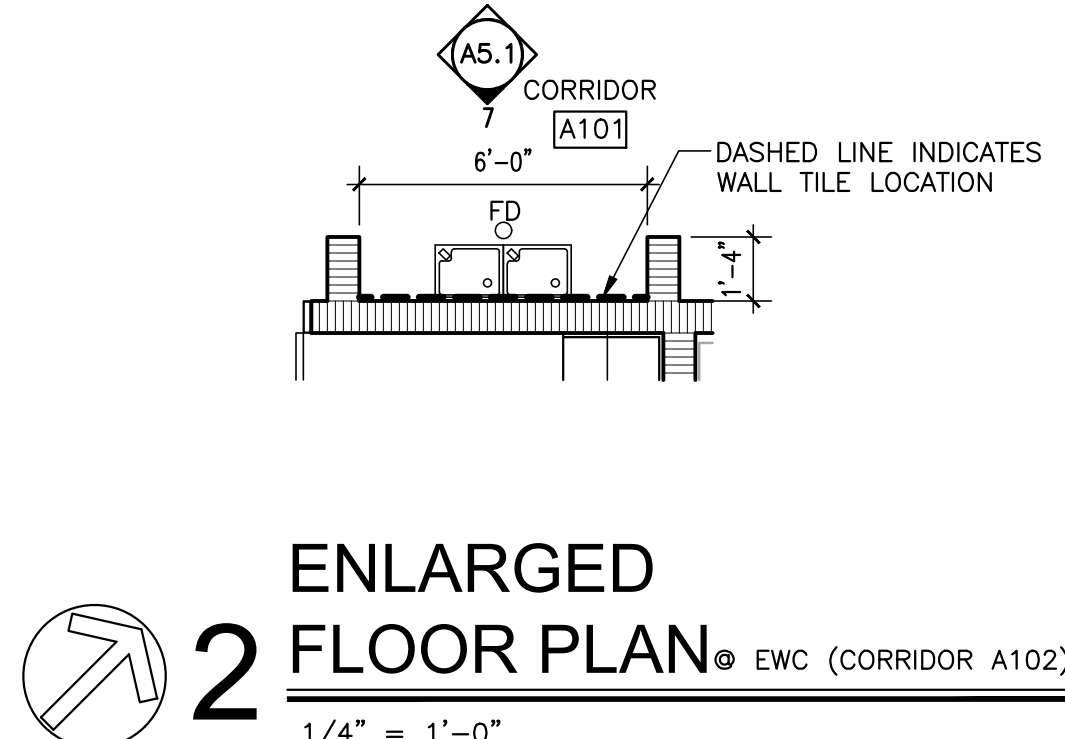
**1 ENLARGED FLOOR PLAN**  
1/4" = 1'-0"



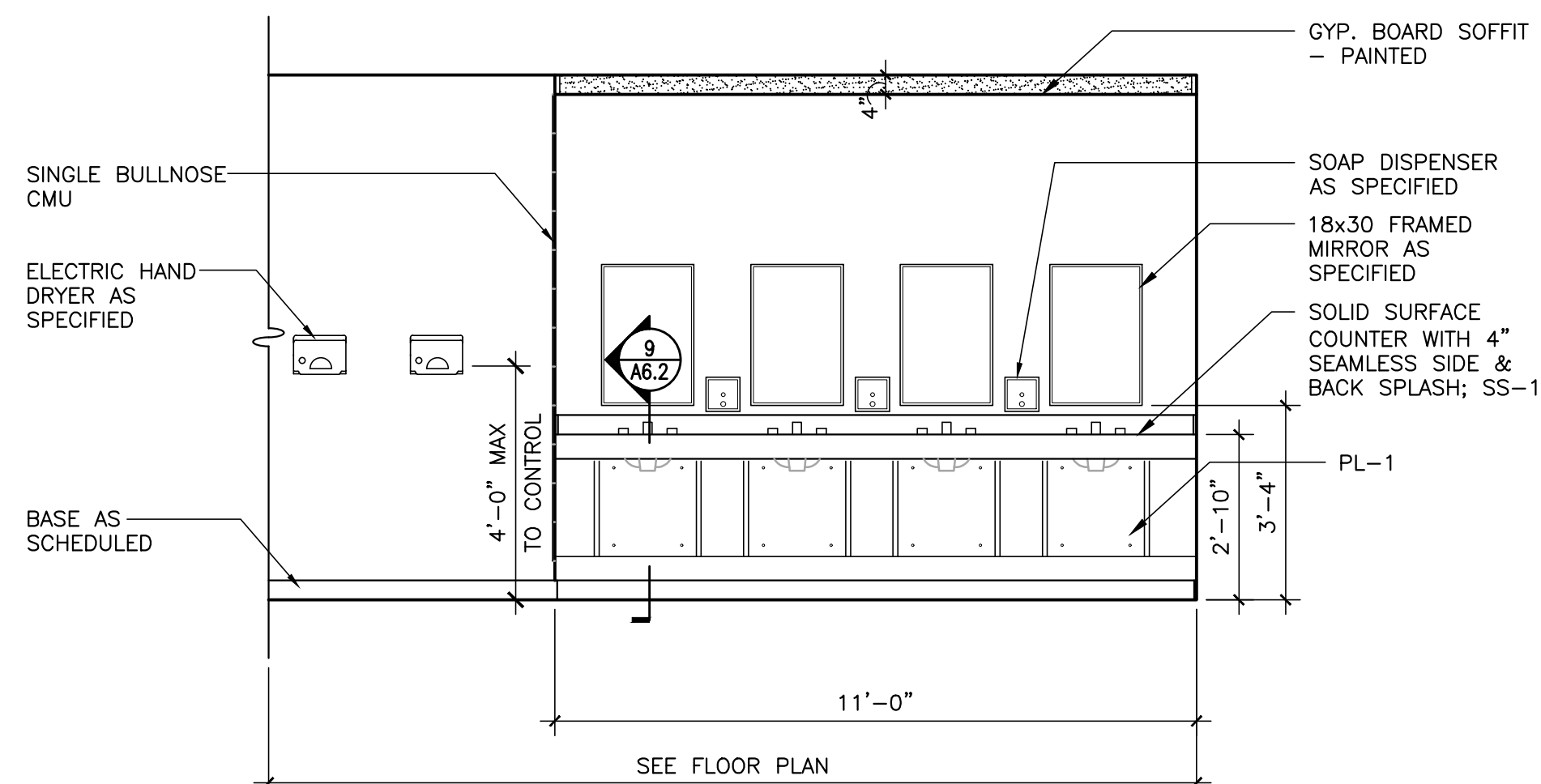
**9 DETAIL @ BULLNOSE CMU**  
1-1/2" = 1'-0"



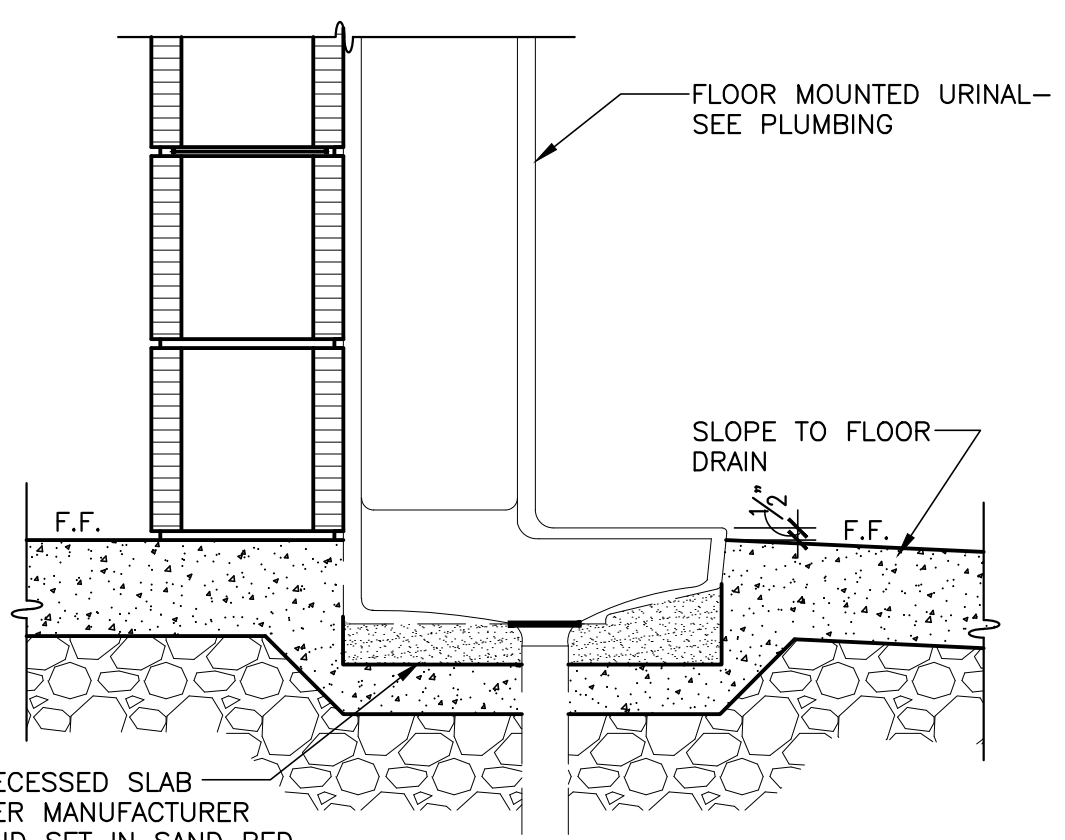
**10 DETAIL @ VANITY**  
1-1/2" = 1'-0"



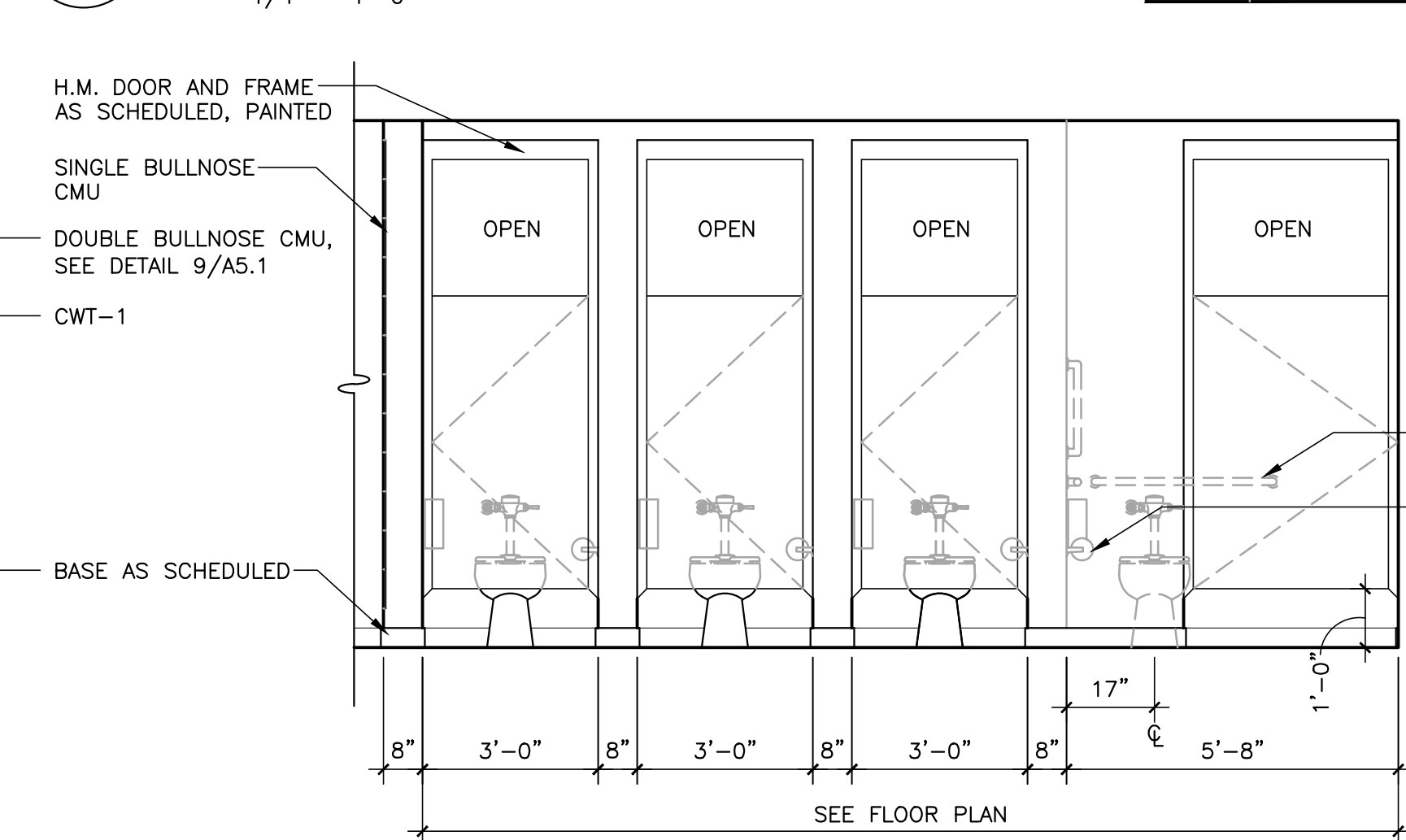
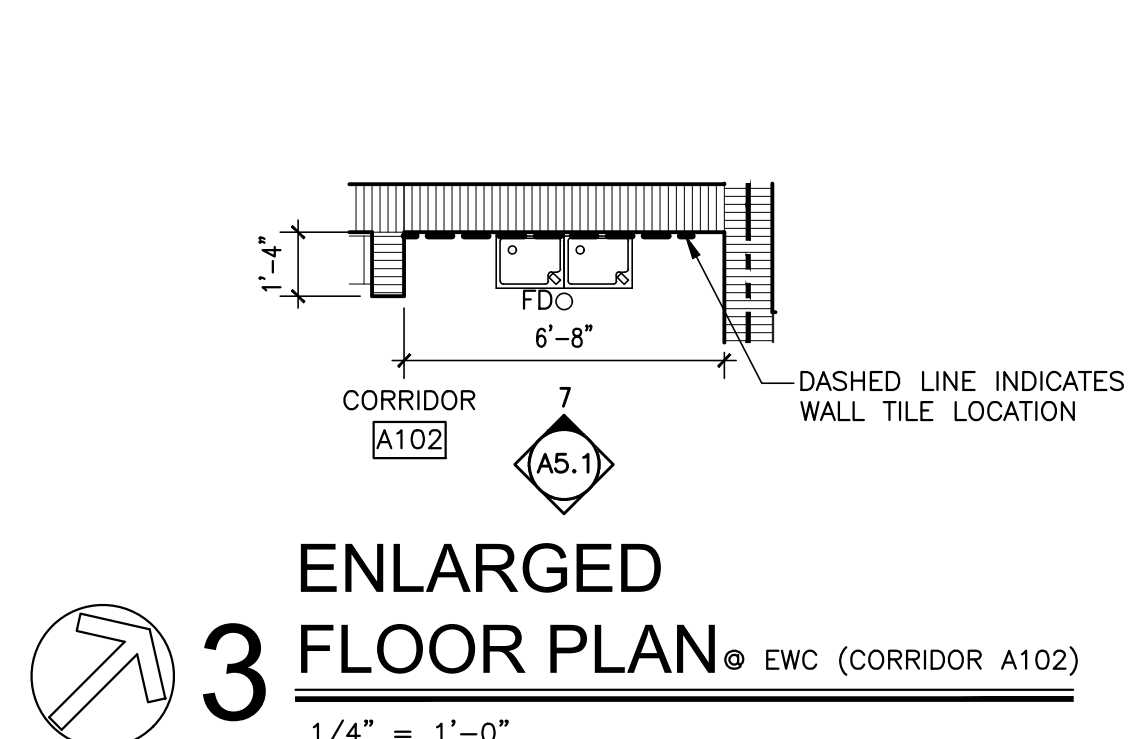
**4 ELEVATION @ TOILET A109**  
3/8" = 1'-0"



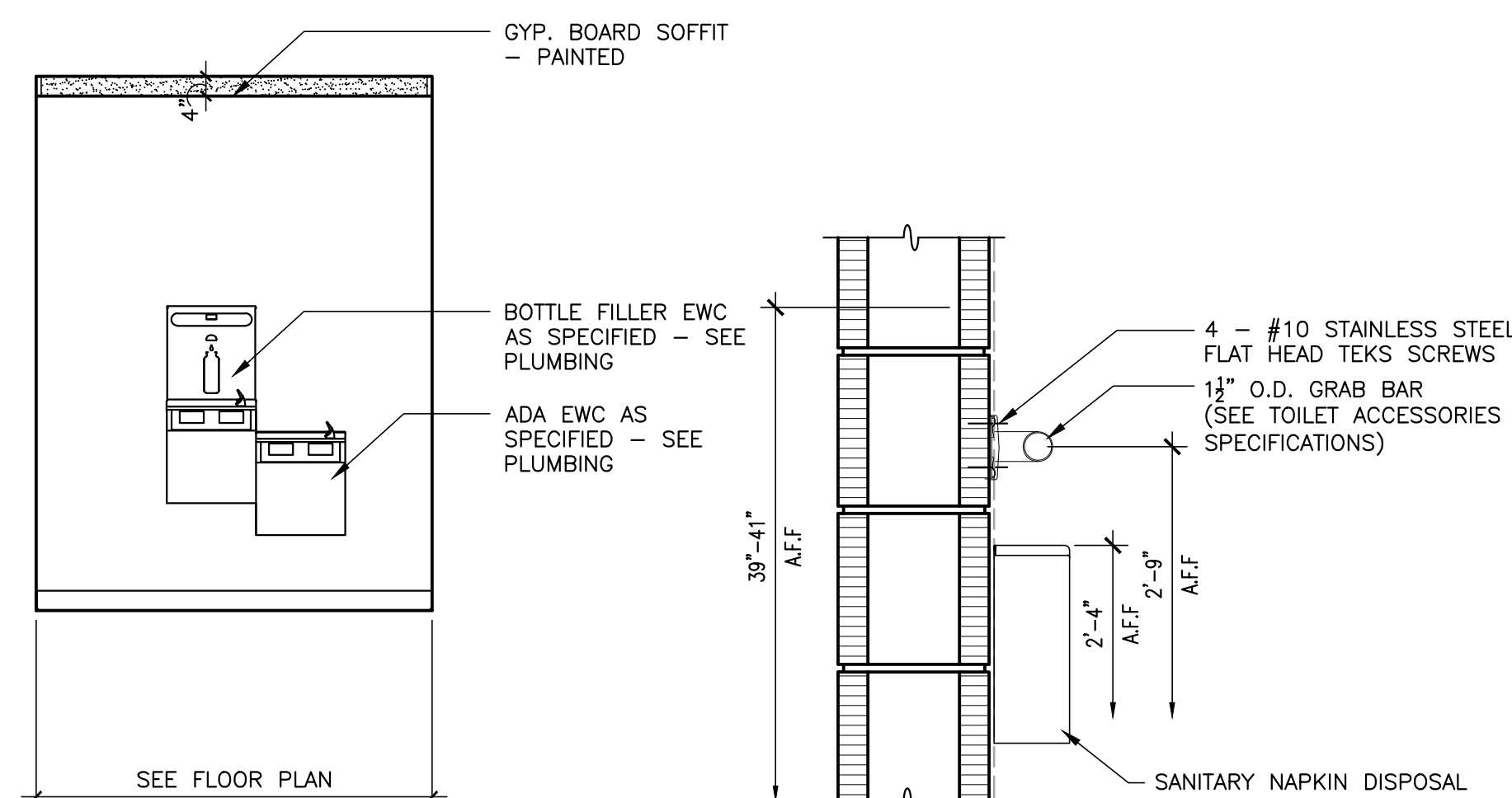
**6 ELEVATION @ TOILET A109 AND A110**  
3/8" = 1'-0"



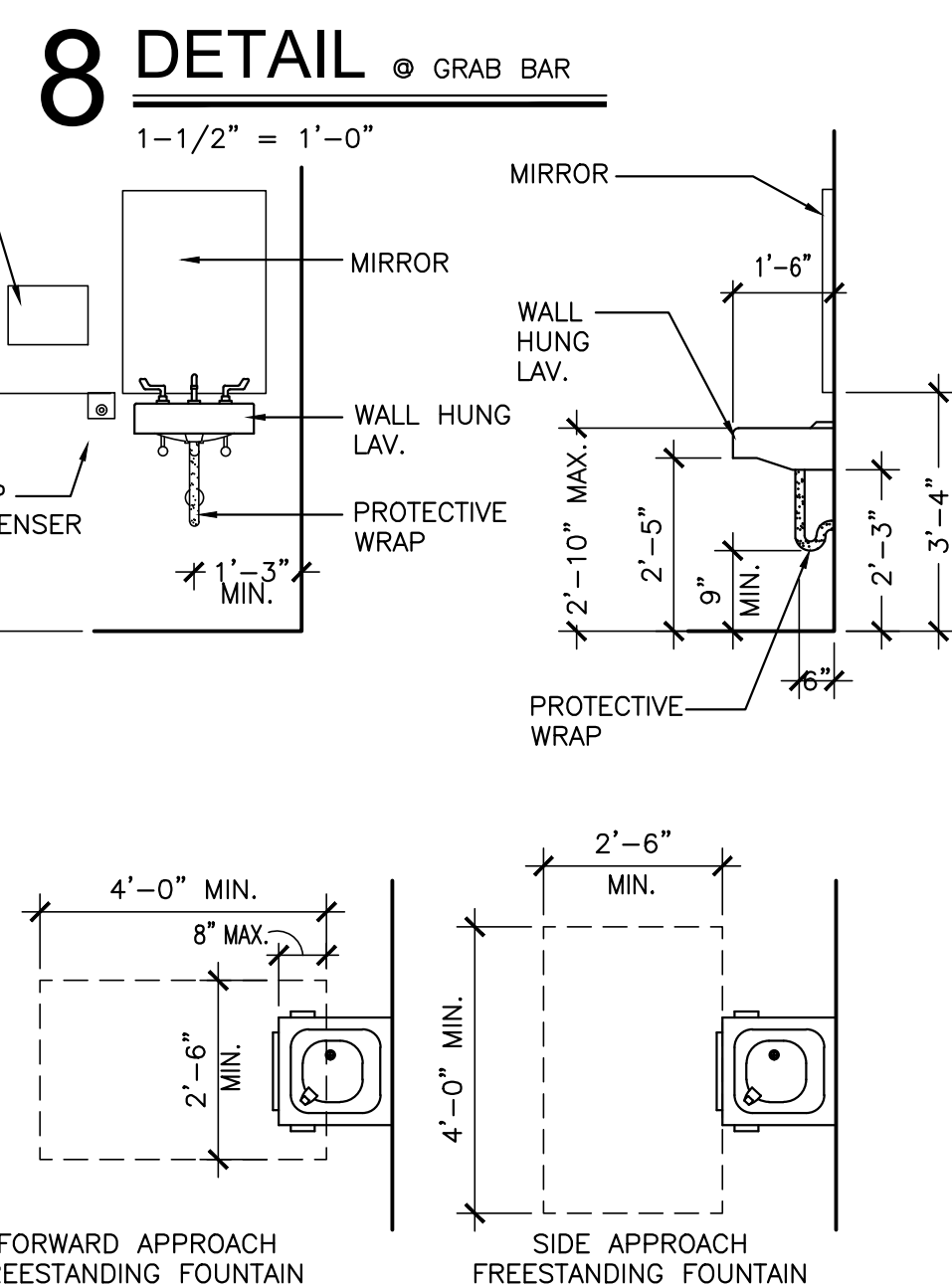
**11 DETAIL @ FLOOR MOUNTED URINAL**  
1-1/2" = 1'-0"



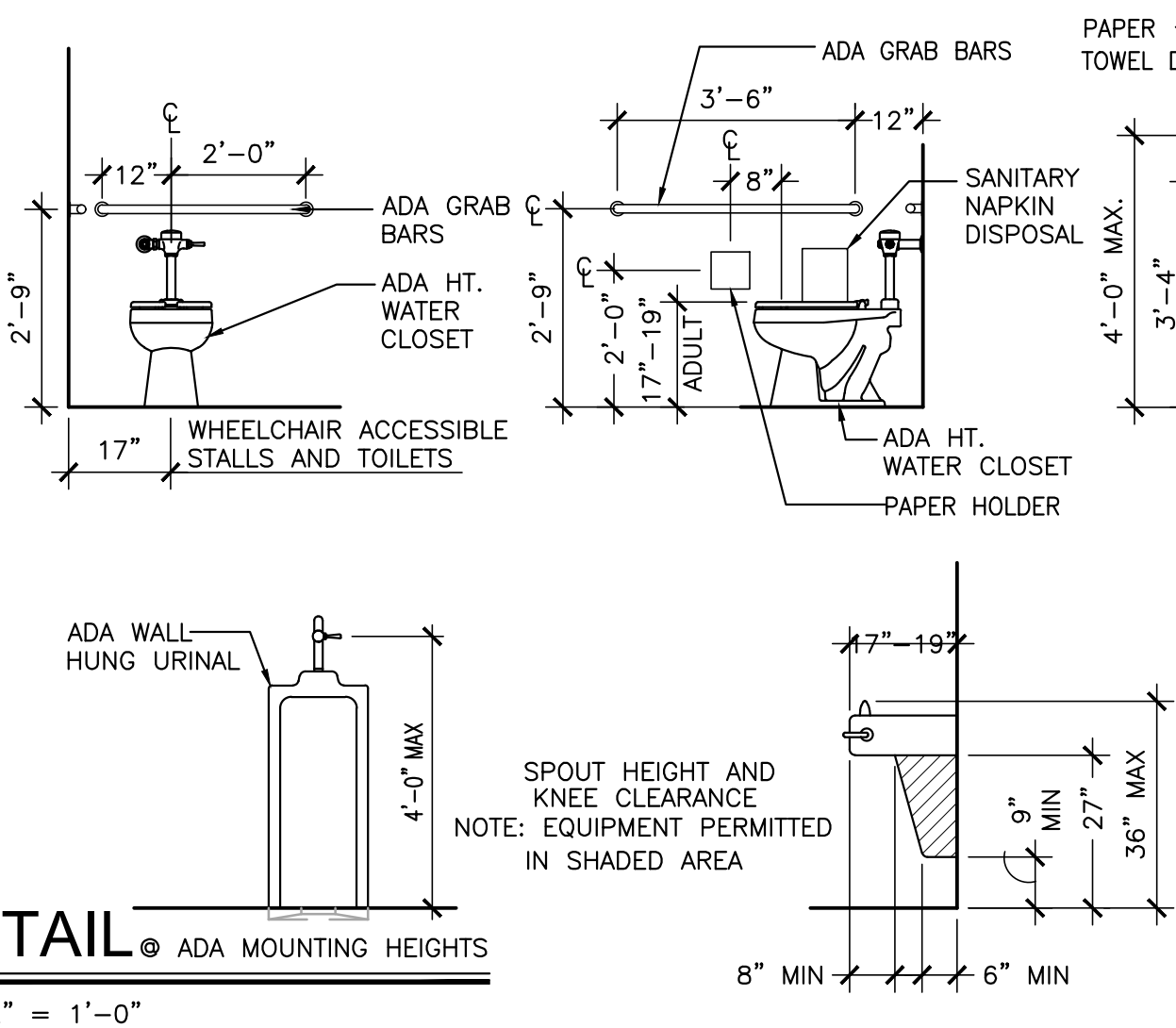
**5 ELEVATION @ TOILET A110**  
3/8" = 1'-0"



**7 ELEVATION @ TYPICAL EWC**  
3/8" = 1'-0"



**12 DETAIL @ ADA MOUNTING HEIGHTS**  
1-1/2" = 1'-0"





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CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

STATE OF ALABAMA  
No. 3365  
RICK N. LATHAN  
REGISTERED ARCHITECT

SHEET TITLE:  
CASEWORK PLAN AND  
ELEVATIONS

PROJ. MGR.: L. BRYANT  
DRAWN: CRB  
Basco  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:  
A6.1  
20 OF 25  
0 1" 2'

1 MAIN FLOOR PLAN  
1/8" = 1'-0"

2 ENLARGED FLOOR PLAN  
1/2" = 1'-0"

3 ELEVATION  
3/8" = 1'-0"

4 ELEVATION  
3/8" = 1'-0"

5 ELEVATION  
3/8" = 1'-0"

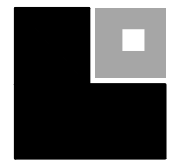
6 ELEVATION  
3/8" = 1'-0"

7 ELEVATION  
3/8" = 1'-0"

8 ELEVATION  
3/8" = 1'-0"

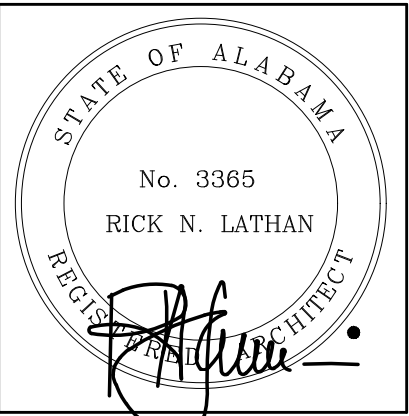
9 ELEVATION  
3/8" = 1'-0"





LATHAN  
ARCHITECTS

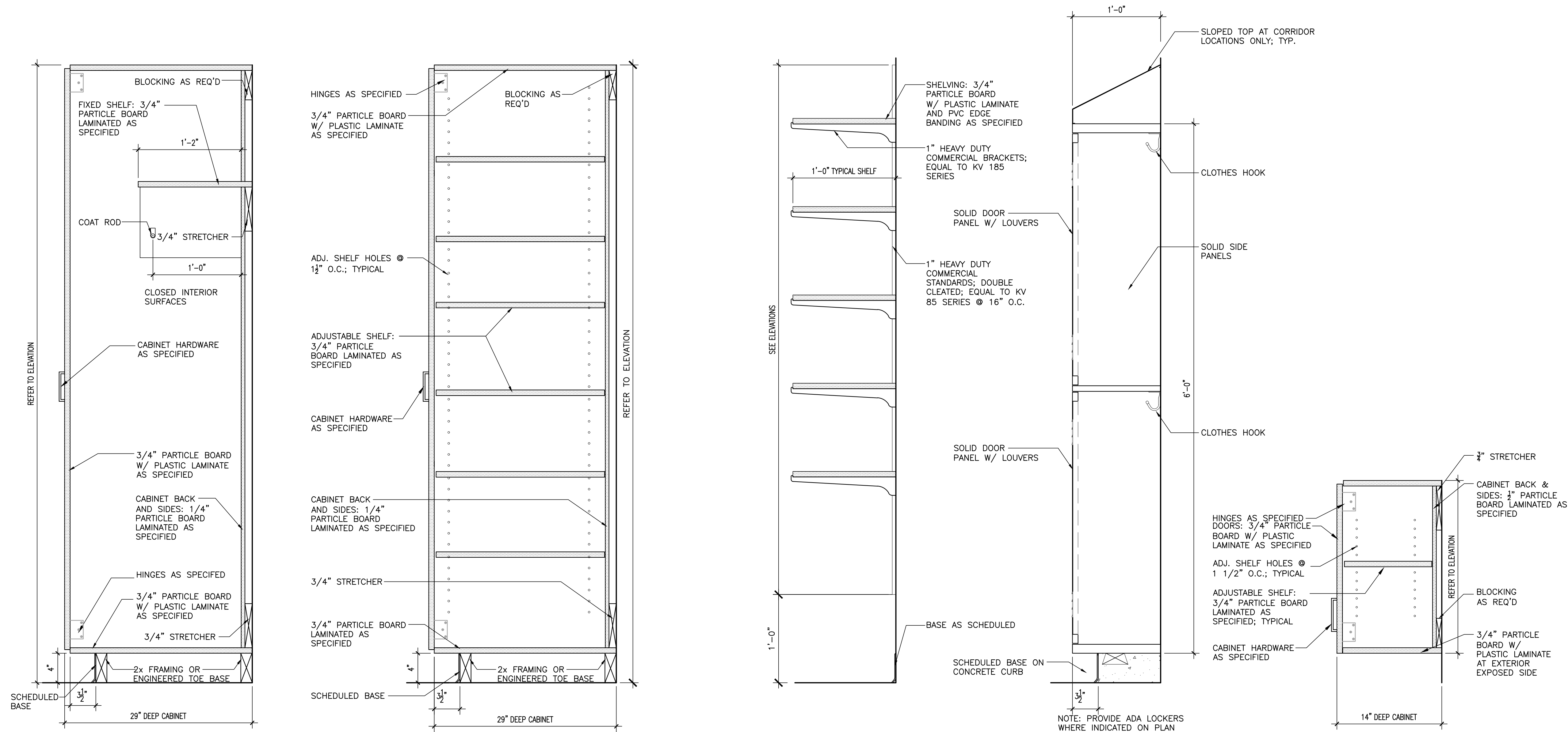
CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
CASEWORK SECTIONS

PROJ. MGR.: L. BRYANT  
DRAWN: CRB  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. **22-20**  
SHEET NO:  
**A6.2**  
21 OF 25  
0 1' 2'



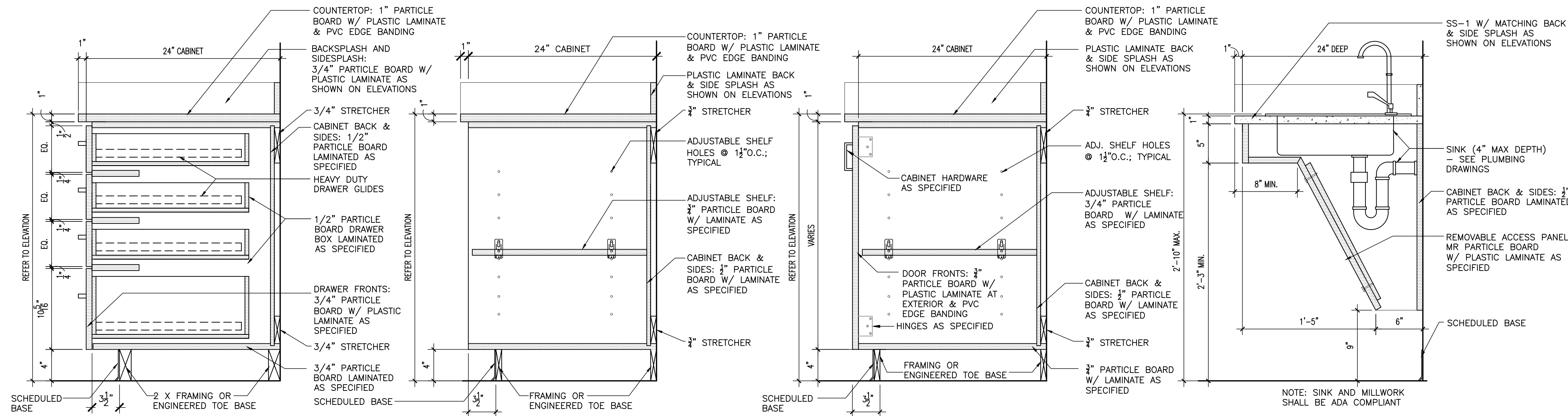
**1 SECTION** • TEACHER'S CABINET  
1-1/2" = 1'-0"

**2 SECTION** • TEACHER'S CABINET  
1-1/2" = 1'-0"

**3 SECTION** • ADJUSTABLE OPEN SHELVING  
1-1/2" = 1'-0"

**4 SECTION** • LOCKER  
1-1/2" = 1'-0"

**5 SECTION** • OVERHEAD CABINET  
1-1/2" = 1'-0"



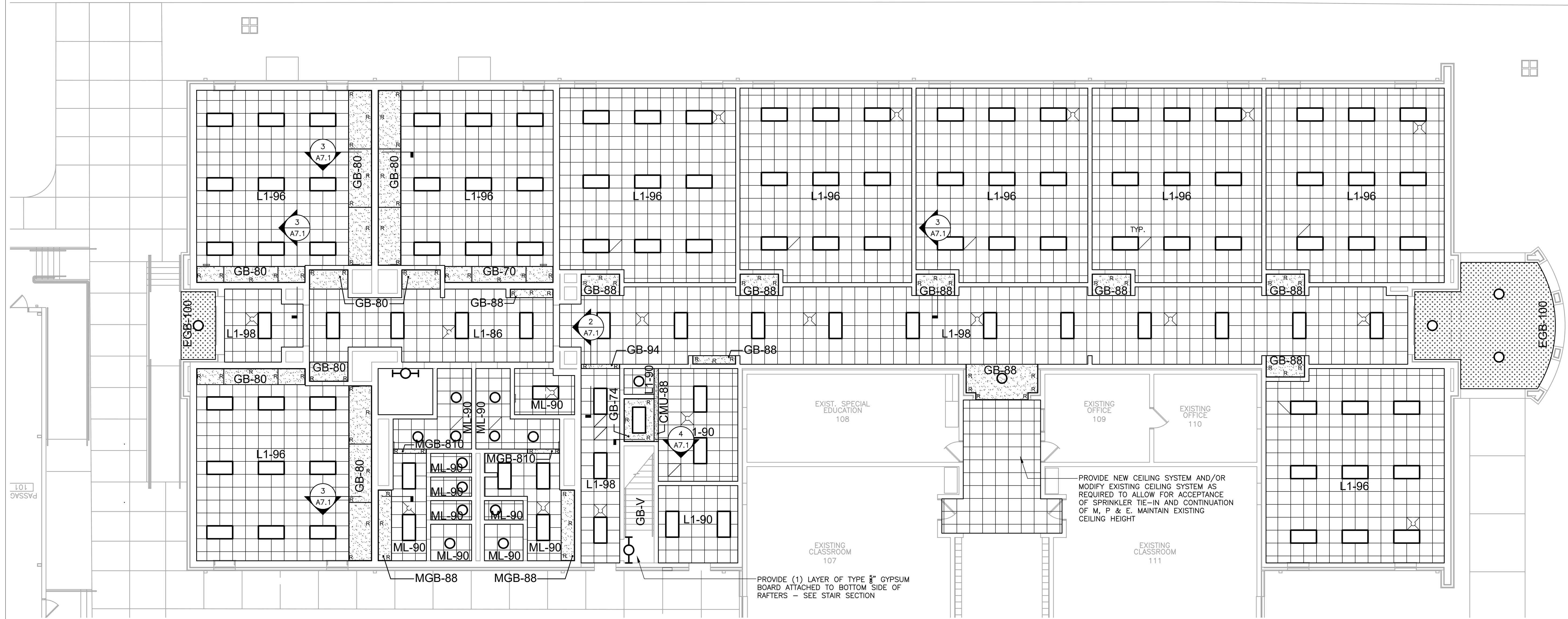
**6 SECTION** • 4 DRAWER BASE CABINET  
1-1/2" = 1'-0"

**7 SECTION** • OPEN BASE CABINET  
1-1/2" = 1'-0"

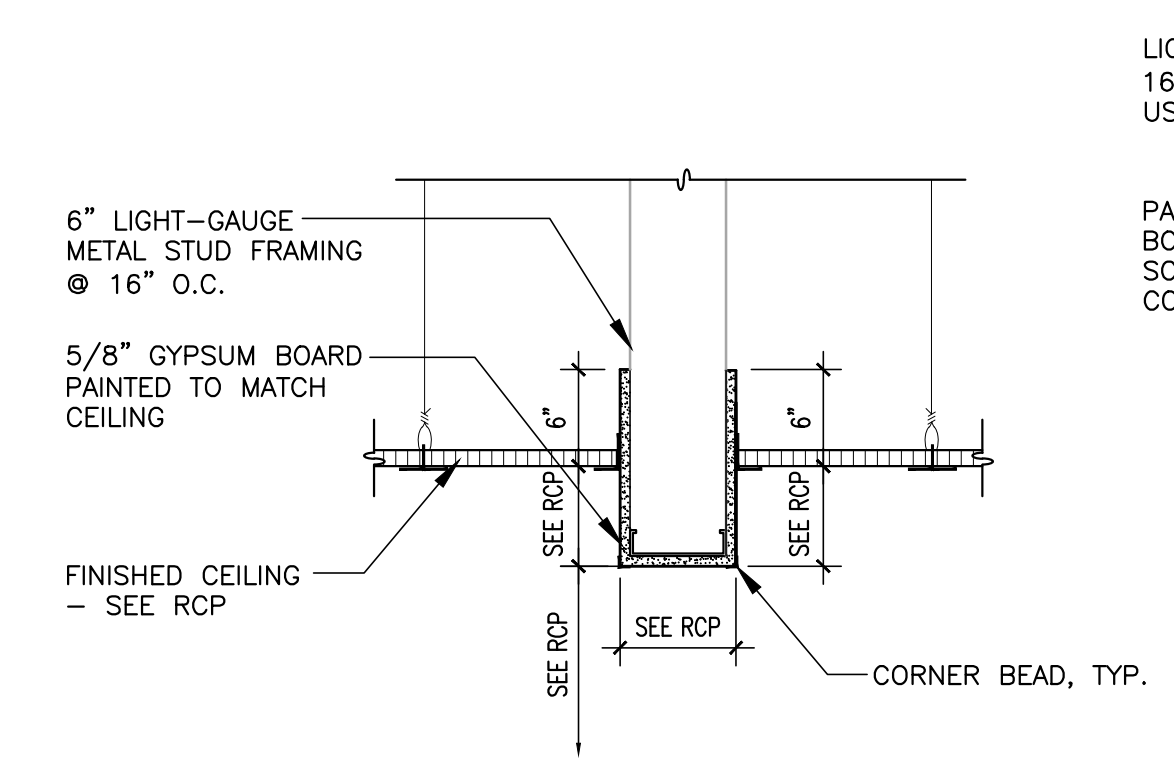
**8 SECTION** • BASE CABINET  
1-1/2" = 1'-0"

**9 SECTION** • VANITY  
1-1/2" = 1'-0"

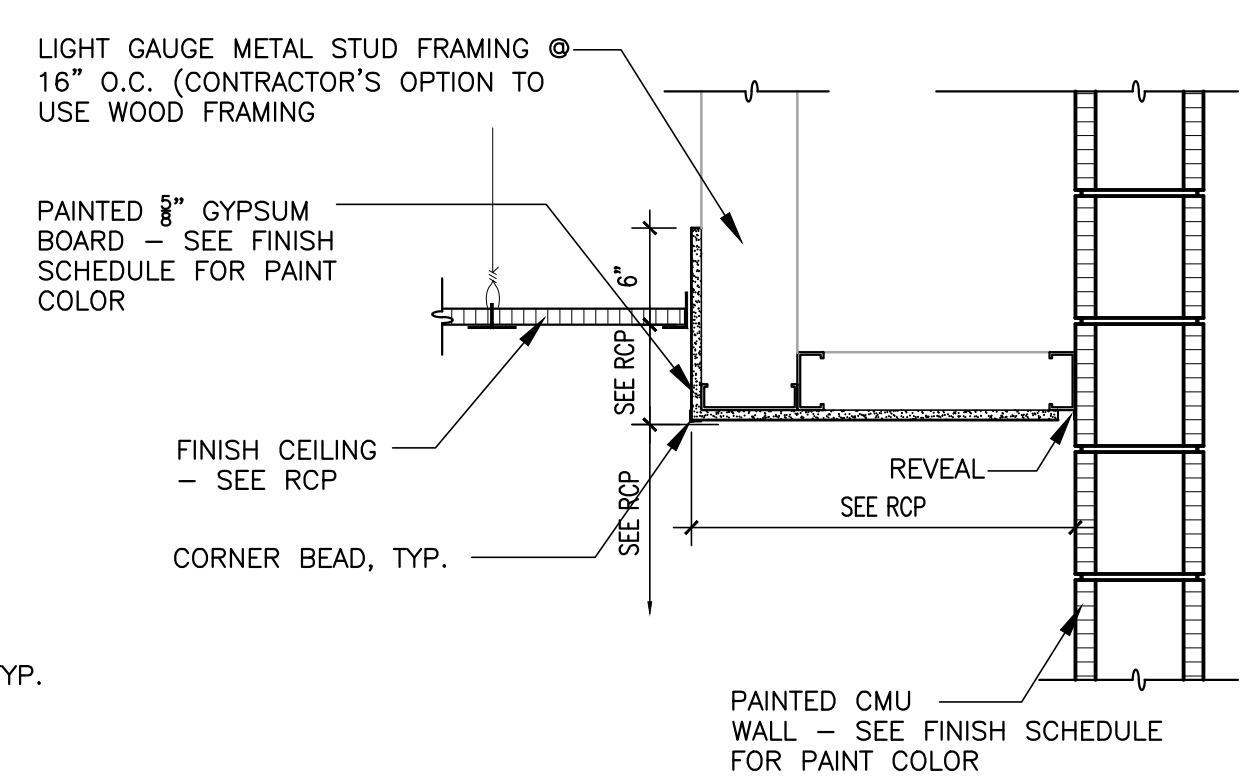




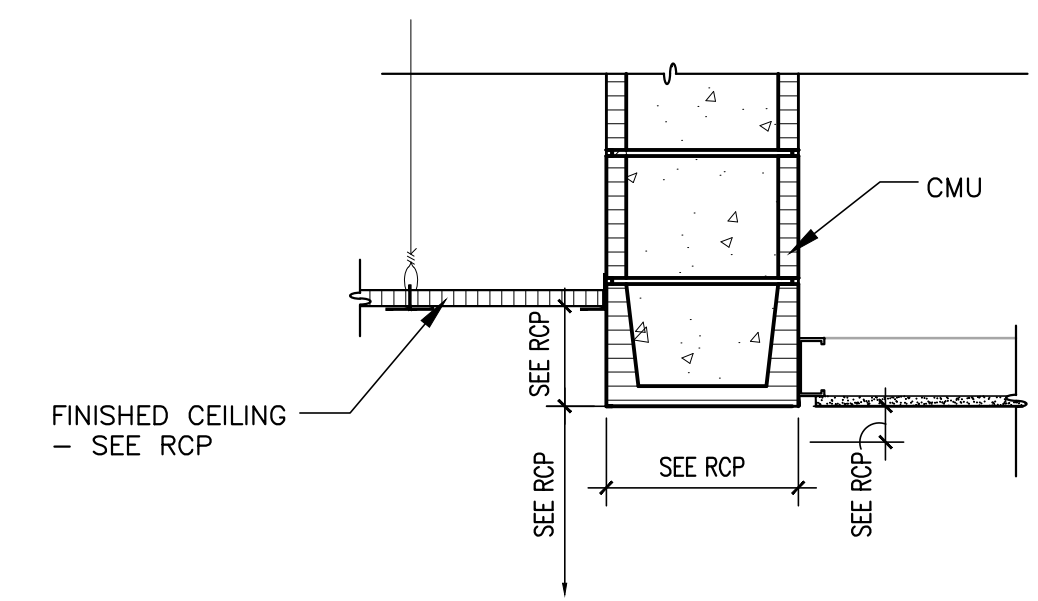
**1 MAIN FLOOR REFLECTED CEILING PLAN**  
1/8" = 1'-0"



**2 DETAIL @ SOFFIT**  
1" = 1'-0"



**3 DETAIL @ SOFFIT**  
1" = 1'-0"



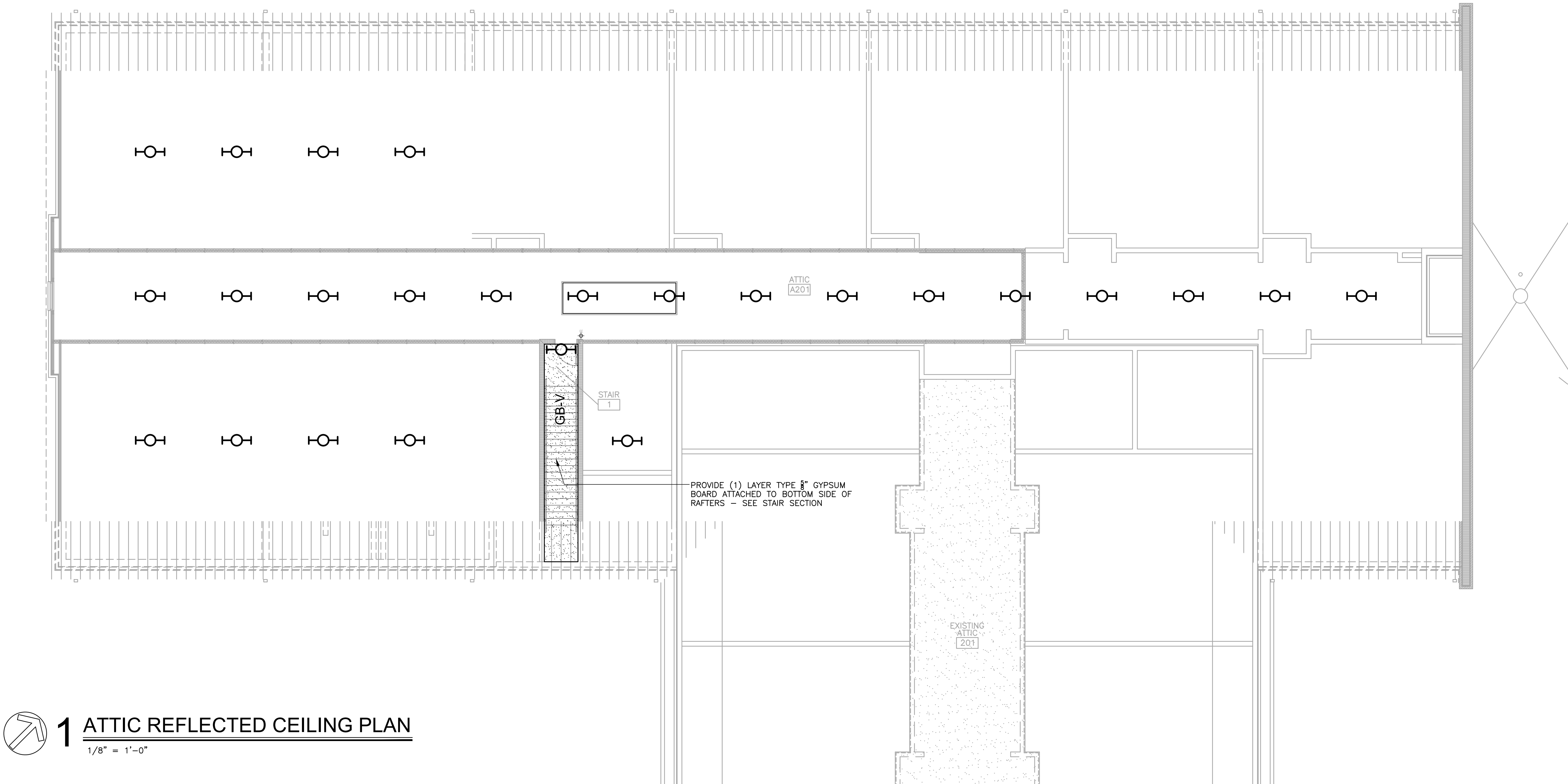
**4 DETAIL @ SOFFIT**  
1" = 1'-0"

CEILING NOTES	
AFF = ABOVE FINISH FLOOR	
ALL CEILING HEIGHTS ARE FROM ADJACENT FINISHED FLOOR	
CEILING HEIGHTS INDICATED ARE MINIMUM HEIGHTS. COORDINATE W/ PLUMBING, MECHANICAL, AND ELECTRICAL TO INSTALL CEILINGS AS HIGH AS POSSIBLE.	
ALL CEILING GRIDS ARE TO BE CENTERED IN ROOM UNLESS SHOWN OR NOTED OTHERWISE	
USE 2x4 LAY-IN CEILING TILES CUT TO FIT AT ALL LOCATIONS LESS THAN 12" AT PERIMETER OF ROOM. WHERE 2x4 TILES OCCUR THEY SHALL MATCH SPECIFIED TILE AS INDICATED FOR EACH ROOM.	
COORDINATE W/ PLUMBING, MECHANICAL AND PLUMBING DRAWINGS AND PROVIDE FRAMING AS REQUIRED TO ACCOMMODATE MECHANICAL AND PLUMBING SYSTEMS	
R - 1" REVEAL AT ALL GYPSUM SOFFITS; HORIZONTAL AS SHOWN, EXTEND VERTICAL - PAINTED TO MATCH SOFFIT	

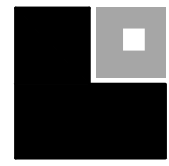
LIGHTING/ELECTRICAL NOTES	
COORDINATE LIGHTING LAYOUTS WITH ELECTRICAL DRAWINGS. CONTACT ARCHITECT WITH ANY DISCREPANCIES	

CEILING LEGEND	
FIXTURE TYPES - SEE ELECTRICAL	
CEILING TYPE	CEILING HEIGHTS
GB - GYPSUM BOARD, PAINTED	74 = 7'-4" AFF
EGB - EXTERIOR GYPSUM BOARD, PAINTED	78 = 7'-8" AFF
L1 - 2 x 2 LAY-IN AS SPECIFIED	86 = 8'-6" AFF
ML - MOISTURE RESISTANT LAY-IN AS SPECIFIED	88 = 8'-8" AFF
MGB - MOISTURE RESISTANT GYP BOARD AS SPECIFIED	90 = 9'-0" AFF
CMU - CMU LINTEL - PAINTED TO MATCH SOFFIT	96 = 9'-6" AFF
R - 1" REVEAL AS SPECIFIED	98 = 9'-8" AFF
REFER TO FINISH SYMBOLS ON PLAN FOR MATERIALS AND CEILING HEIGHTS	100 = 10'-0" AFF
CEILING TYPE	CEILING HEIGHT



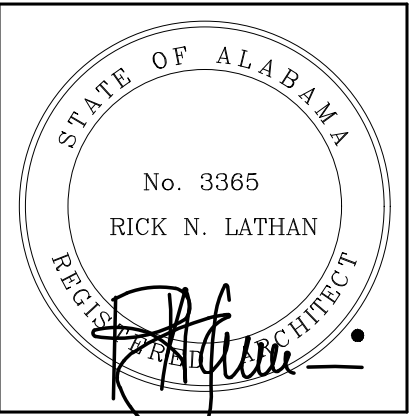






LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
FINISH FLOOR PLAN AND  
ENLARGED VCT PATTERNS

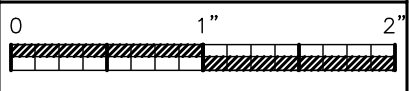
PROJ. MGR.: L. BRYANT  
DRAWN: CRB  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20

SHEET NO:

A8.1

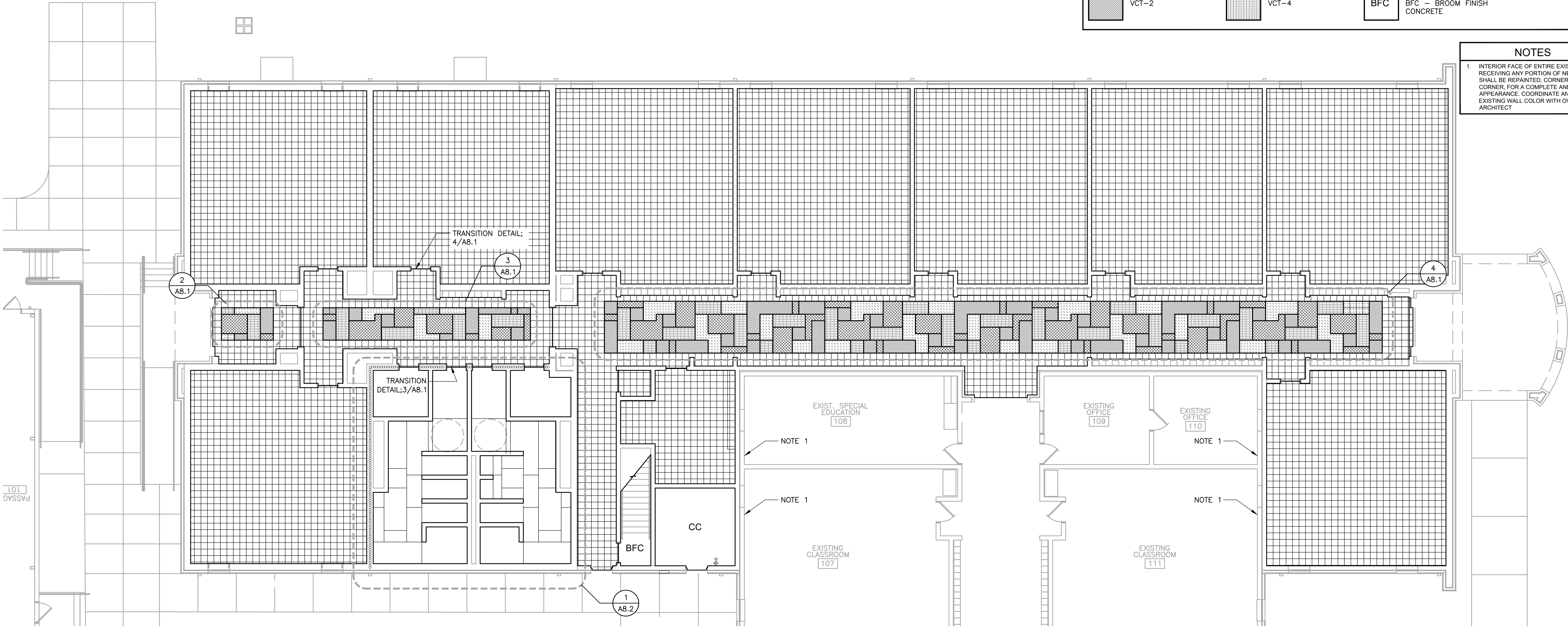
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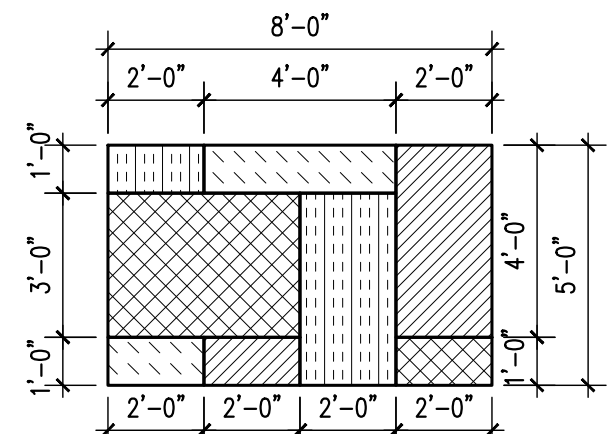
FINISH PATTERN LEGEND			
	VCT-1		VCT-3
	VCT-2		VCT-4
			VCT-5
			BFC - BROOM FINISH CONCRETE
			STC - STAINED CONCRETE

NOTES

1. INTERIOR FACE OF ENTIRE EXISTING WALL RECEIVING ANY PORTION OF NEW WORK SHALL BE REPAINTED, CORNER TO CORNER, FOR A COMPLETE AND FINISHED APPEARANCE. COORDINATE AND MATCH EXISTING WALL COLOR WITH OWNER AND ARCHITECT

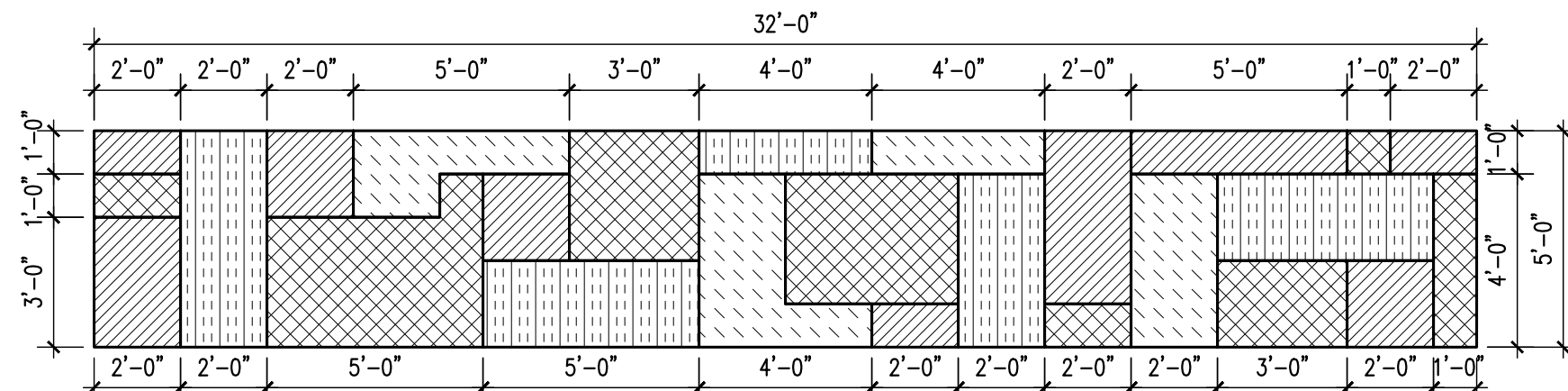


1 MAIN FLOOR FINISH PLAN  
1/8" = 1'-0"

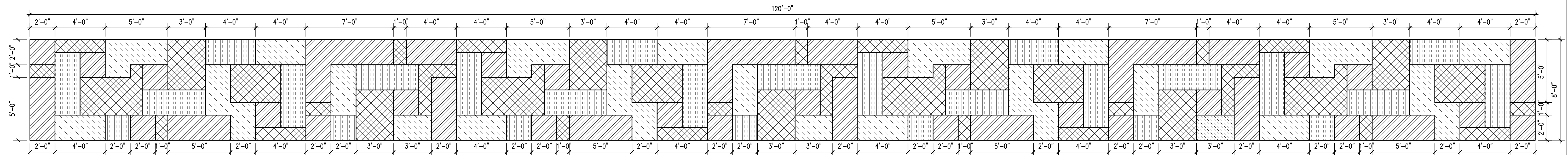


2 ENLARGED VCT PATTERN  
1/4" = 1'-0"

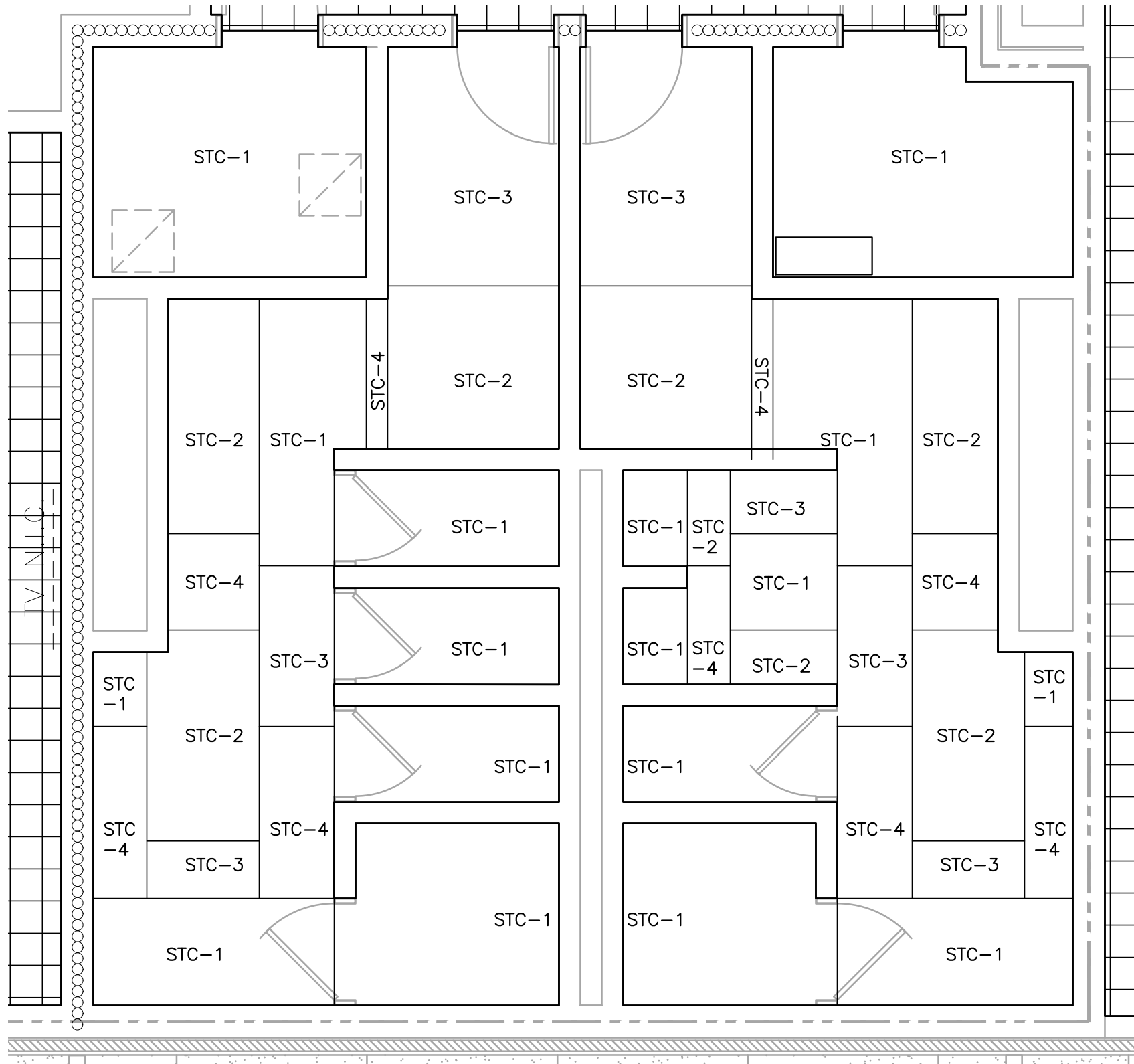
3 ENLARGED VCT PATTERN  
1/4" = 1'-0"



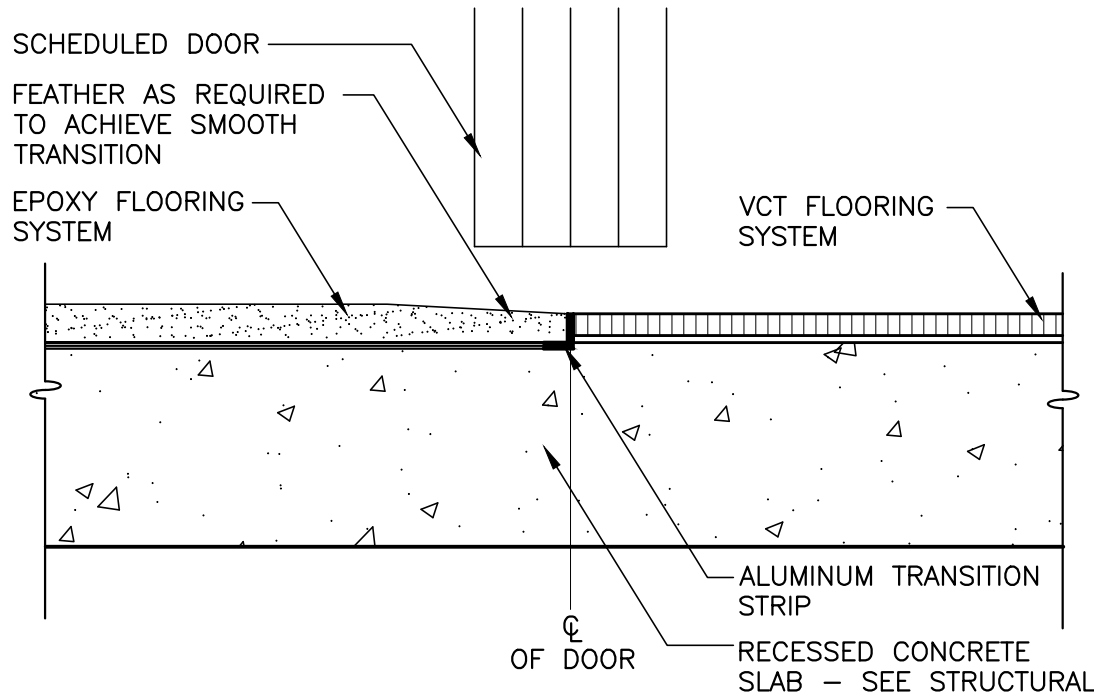
4 ENLARGED VCT PATTERN  
1/4" = 1'-0"



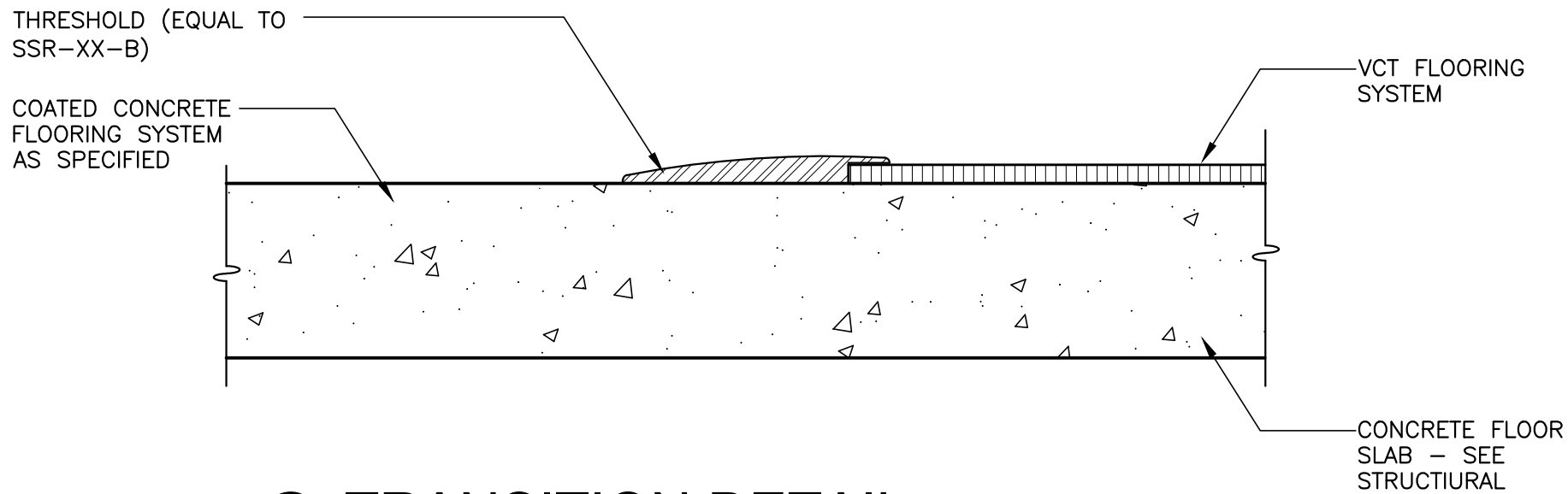




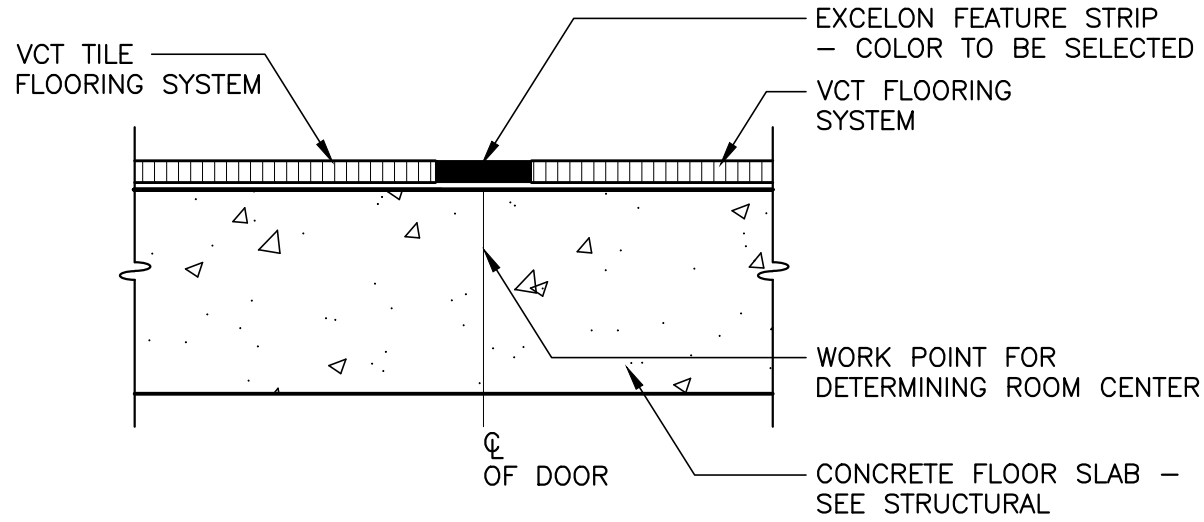
**1 FLOOR PATTERN DETAIL** • TOILET A110, A109  
1/4" = 1'-0"



**2 TRANSITION DETAIL** • EPOXY TO VCT  
NOT TO SCALE



**3 TRANSITION DETAIL** • CONCRETE TO VCT  
NOT TO SCALE



**4 TRANSITION DETAIL** • VCT TO VCT  
NOT TO SCALE

FINISH LEGEND			
ITEM	MANUFACTURER	ITEM NAME / NUMBER	NOTES
<b>PAINT</b>			
PNT-1	SHERWIN WILLIAMS	-	WALL PAINT
PNT-2	SHERWIN WILLIAMS	-	TRIM PAINT
PNT-3	SHERWIN WILLIAMS	-	SOFFIT PAINT
<b>CERAMIC WALL TILE</b>			
CWT-1	DALTILE	COLOR WHEEL COLLECTION - GLAZED CERAMIC, COLOR: TBD	INSTALLED AS SHOWN ON INTERIOR ELEVATIONS
<b>GROUT</b>			
G-1	-	-	-
<b>RESILIENT FLOORING</b>			
VCT-1	ARMSTRONG	STANDARD EXCELON IMPERIAL TEXTURE - EARTHSTONE GREIGE	INSTALLED AS SHOWN ON FINISH PLAN
VCT-2	ARMSTRONG	STANDARD EXCELON IMPERIAL TEXTURE - CLASSIC BLACK	INSTALLED AS SHOWN ON FINISH PLAN
VCT-3	ARMSTRONG	STANDARD EXCELON IMPERIAL TEXTURE - ADOBE	INSTALLED AS SHOWN ON FINISH PLAN
VCT-4	ARMSTRONG	STANDARD EXCELON IMPERIAL TEXTURE - STERLING	INSTALLED AS SHOWN ON FINISH PLAN
VCT-5	ARMSTRONG	STANDARD EXCELON IMPERIAL TEXTURE - FORTRESS WHITE	ACCENT TILE - INSTALLED AS SHOWN ON FINISH PLAN
<b>COATED CONCRETE</b>			
CC	SHERWIN WILLIAMS	SEE SPECIFICATION	-
<b>WALL BASE</b>			
RB-1	-----	PAINT GRADE WOOD, PNT-9	4" HIGH
ERB-1	SPARTACOTE	MATCH COLOR TO ERF-1	4" HIGH
CTB-1	DALTILE	MATCH COLOR TO ERF-1	4" HIGH (W/ QUADEK-K TRIM)
<b>PLASTIC LAMINATE</b>			
PL-1	WILSONART	-	-
PL-2	WILSONART	-	-
<b>SOLID SURFACE COUNTERTOPS</b>			
SS-1	CORIAN SOLID SURFACE	-	-
<b>STAINED CONCRETE</b>			
STC-1	-	COLOR: TBD	-
STC-2	-	COLOR: TBD	-
STC-3	-	COLOR: TBD	-
STC-4	-	COLOR: TBD	-
<b>DOOR STAIN</b>			
DS-1	MASONITE ARCHITECTURAL	WHITE BIRCH (PLAIN SLICED); -----	-

FINISH SCHEDULE												
NOTES: 1 -- REPAINT ENTIRE WALL TO MATCH EXISTING COLOR												
ROOM NO.	ROOM NAME	FLOOR	BASE	MILLWORK		WALL PAINT (PROJECT NORTH)				TRIM	CEILING/ SOFFIT PAINT	NOTES
				FACE	TOP	NORTH	SOUTH	EAST	WEST			
<b>LOWER LEVEL</b>												
1	STAIR	-	RB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A101	CORRIDOR	VCT-1,2,3,4,5	RB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	EPOXY PAINT ON ALL WET WALLS
A102	CORRIDOR	VCT-1,2,3,4,5	RB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	EPOXY PAINT ON ALL WET WALLS
A103	CORRIDOR	VCT-1,2,3,4,5	RB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A104	CORRIDOR	VCT-1	RB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	-
A105	TEACHER WORKROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A106	MECHANICAL	CC	-	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A107	JANITOR	STC-1	CTB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	EPOXY PAINT ON ALL WET WALLS
A108	MECHANICAL	STC-1	CTB-1	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A109	TOILET	STC-1,2,3,4	CTB-1	PL-2	SS-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	EPOXY PAINT ON ALL WET WALLS. SEE 4/A5.1 FOR WALL TILE
A110	TOILET	STC-1,2,3,4	CTB-1	PL-2	SS-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	EPOXY PAINT ON ALL WET WALLS
A111	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	-
A112	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	-
A113	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	PNT-3	-
A114	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A115	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A116	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A117	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A118	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A119	CLASSROOM	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
A120	ADF	VCT-1	RB-1	PL-1	PL-1	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-
<b>UPPER LEVEL</b>												
A201	ATTIC	CC	-	-	-	PNT-1	PNT-1	PNT-1	PNT-1	PNT-2	-	-

CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

SHEET TITLE:  
FINISH SCHEDULE, LEGEND,  
AND DETAILS

PROJ. MGR.: L. BRYANT  
DRAWN: PPH  
  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. **22-20**  
SHEET NO:  
**A8.2**  
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GENERAL NOTES

1.0 DESIGN CRITERIA

1.1 CODES AND SPECIFICATIONS:

- A. GENERAL BUILDING CODE:  
INTERNATIONAL BUILDING CODE, 2021 EDITION
- B. CONCRETE:  
BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-19)
- C. PRECAST CONCRETE:  
PCI DESIGN HANDBOOK, LATEST EDITION  
PCI MANUAL FOR QUALITY CONTROL FOR PLANTS AND PRODUCTIONS FOR PRECAST CONCRETE PRODUCTS, LATEST EDITION
- D. 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
- E. STRUCTURAL STEEL:  
SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (ANSI/AISC 360-16)
- F. STEEL DECK:  
STEEL DECK INSTITUTE DESIGN MANUALS FOR COMPOSITE DECKS, NON-COMPOSITE DECKS, AND ROOF DECKS, LATEST EDITIONS
- G. 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
- H. COLD-FORMED STEEL FRAMING:  
NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, AMERICAN IRON AND STEEL INSTITUTE (AISI 5100-16(2020) W/S2-20)  
OTHER APPLICABLE AISI STANDARDS, AMERICAN IRON AND STEEL INSTITUTE, LATEST EDITION
- I. STORM SHELTER SAFE SPACE:  
ICC/NSA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS (ICC 500-2020)

1.2 DESIGN GRAVITY LOADS (PSF):

- A. 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.
- B. 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  
SHELTER FLOOR (UNREDUCIBLE)-----100  
SHELTER ROOF (UNREDUCIBLE)-----100  
STORAGE-----125  
MECHANICAL ROOM-----150  
MECHANICAL MEZZANINE-----150  
STAIRS & EXITSWAYS-----100
- C. ROOF LIVE LOADS:  
WHERE PERMITTED ROOF LIVE LOADS ARE REDUCED FROM THE BASE VALUE SHOWN BELOW IN ACCORDANCE WITH IBC SECTION 1607.14.
- ROOF-----20  
SHELTER ROOF (UNREDUCIBLE)-----100  
SHELTER COLLAPSE LOAD (UNREDUCIBLE)-----135
- D. 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:

- A. WIND LOADS:  
ULTIMATE DESIGN WIND SPEED (3-SECOND GUST)-----116 MPH  
NOMINAL WIND SPEED (3-SECOND GUST)-----96 MPH  
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
- B. SEISMIC LOADS:  
OCCUPANCY CATEGORY III (GROUP E OCCUPANCIES WITH OCCUPANCY > 250)  
SEISMIC IMPORTANCE FACTOR-----1.25  
MAPPED SPECTRAL RESPONSE ACCELERATIONS:  
Ss-----0.253  
S1-----0.094  
SITE CLASS-----D  
SPECTRAL RESPONSE COEFFICIENTS:  
SDS-----0.270  
SD1-----0.153  
SEISMIC DESIGN CATEGORY-----C  
BASIC SEISMIC-FORCE-RESISTING SYSTEM:  
INTERMEDIATE REINFORCED MASONRY SHEAR WALLS  
DESIGN BASE SHEAR:-----150 KIIPS  
SEISMIC RESPONSE COEFFICIENT, Cs-----0.0962  
RESPONSE MODIFICATION FACTOR, R-----3.5  
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
- C. 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 (Gcpi)----- +/- 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.  
STORM SHELTER HAS NOT BEEN CONSTRUCTED IN AN AREA SUSCEPTIBLE TO FLOODING PER ICC 500 SECTION 402.1.  
PER ICC 500, SPECIAL INSPECTION AND QUALITY ASSURANCE REQUIREMENTS HAVE BEEN INCLUDED WITHIN THE PROJECT SPECIFICATIONS - REFER TO SPEC. SECTION 01410.

2.0 GENERAL CONDITIONS

- 2.1 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.
- 2.2 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 THERETO.

- 2.3 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.
- 2.4 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.
- 2.5 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 SIN 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.
- 2.6 ALL DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS, UNLESS NOTED.
- 2.7 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.
- 2.8 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.
- 2.9 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.
- 2.10 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.
- 2.11 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.
- 2.12 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.
- 2.13 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.
- 2.14 THE OWNER SHALL RETAIN THE SERVICES OF INDEPENDENT AGENCIES TO PERFORM THE CONSTRUCTION MATERIAL TESTING AND CODE REQUIRED SPECIAL INSPECTIONS. AS CONSTRUCTION PROGRESSES, FORWARD COPIES OF TESTING AND INSPECTION REPORTS TO THE STRUCTURAL ENGINEER FOR REVIEW. SDG CANNOT ISSUE A CERTIFICATE OF SATISFACTORY COMPLETION OR ANY OTHER TYPE OF REPORTS AND FINAL CERTIFICATES ISSUED BY EACH OF THE INDEPENDENT AGENCIES.
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- 2.18 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.
- 2.19 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.
- 2.10 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.
- 2.11 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.
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3.0 FOUNDATIONS

- 3.1 GEOTECHNICAL REPORT: FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL ENGINEERING REPORT BY TERRACON CONSULTANTS, INC., TITLED "PROPOSED LINCOLN HIGH SCHOOL CLASSROOM ADDITION, LINCOLN, TALLADEGA COUNTY, ALABAMA, DATED DECEMBER 7, 2022, TERRACON PROJECT NO. E1225186" 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. GEOTECHNICAL RECOMMENDATIONS SHALL TAKE PRECEDENCE OVER THE ITEMS THAT FOLLOW IN THIS SECTION OF THE STRUCTURAL GENERAL NOTES.
- 3.2 MAXIMUM ALLOWABLE BEARING PRESSURE PER GEOTECHNICAL REPORT: 2000 PSF  
NOTE: ALL FOOTING BEARING ELEVATIONS SHALL BE BEARING IN SIMILAR MATERIAL (NATIVE SOILS OR WEATHERED BEDROCK). EXTEND FOOTINGS AS NECESSARY WITH LEAN CONCRETE OR FLOWABLE FILL.
- 3.3 ALL FOUNDATION BEARING SURFACES SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE TO ENSURE THEIR COMPLIANCE WITH PRESSURES NOTED. ALL FOOTING ELEVATIONS ARE ESTIMATED AND MAY BE ADJUSTED IN THE FIELD BY THE GEOTECHNICAL ENGINEER.
- 3.4 COMPACTED FILL WITHIN THE BUILDING AREA (AND EXTENDING 10'-0" OUTSIDE THE EXTERIOR BUILDING LINE) SHALL MEET THE REQUIREMENTS NOTED IN THE GEOTECHNICAL REPORT.
- 3.5 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 WALL. THE GRANULAR MATERIAL SHALL BE PLACED IN A 45 DEGREE WEDGE 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.
- 3.6 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.
- 3.7 FOUNDATION AND RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL CONCRETE HAS ATTAINED THE REQUIRED 28 DAY COMPRESSIVE STRENGTH.
- 3.8 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.
- 3.9 WHERE CONCRETE WALLS SUPPORT EARTH ON BOTH SIDES, BACKFILL EACH SIDE SIMULTANEOUSLY.
- 3.10 WHERE SPREAD FOOTINGS ARE AT THE SAME ELEVATION AS CONTINUOUS WALL FOOTINGS, REINFORCING STEEL IN CONTINUOUS WALL FOOTINGS SHALL EXTEND THRU SPREAD FOOTINGS. WHERE SPREAD FOOTINGS ARE BELOW CONTINUOUS WALL FOOTINGS, CONTINUOUS WALL FOOTINGS ARE TO STEP DOWN ONTO SPREAD FOOTINGS.
- 3.11 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. SPECIFICATIONS FOR VAPOR RETARDER BENEATH SLABS ON GRADE
- 3.12 GRANULAR FILL BENEATH SLABS, UNLESS NOTED OTHERWISE, SHALL BE 4" COMPACTED #57 STONE.

- 3.13 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 BOOTIS, SUCH AS W.R. MEADOWS INC. PRODUCT PERMINATOR 15.
- 3.14 NO EXCAVATION SHALL BE CLOSER THAN AT A SLOPE OF 2:1 (TWO HORIZONTAL TO ONE VERTICAL) TO A FOOTING.

4.0 CONCRETE

- 4.1 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.
- 4.2 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            |
|-----------------|---------|------|----------|----------------|
| 3000 NORMAL WT. | 0.57    | ---- | 3" TO 5" | FOOTINGS       |
| 3500 NORMAL WT. | 0.50    | ---- | 3" TO 5" | SLABS ON GRADE |
| 4000 NORMAL WT. | 0.45    | 4-6% | 3" TO 5" | UNLESS NOTED   |
- A. CONCRETE MIX DESIGN SHALL BE WORKABLE WITH LOWEST TOTAL WATER PER CUBIC YARD USING LARGEST PRACTICAL MAXIMUM SIZE OF COURSE AGGREGATE.

4.3 REINFORCING BARS: ASTM A615 GRADE 60.

- 4.4 WATERSTOPS: FLEXIBLE PVC WATERSTOPS, CR CDO-572, UNLESS NOTED OTHERWISE, WITH FACTORY-INSTALLED METAL VEELETS. 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, DUMBELL WITH CENTER BULB WITH DIMENSIONS OF 6 INCHES BY 3/8 INCH THICK.
- A. 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.
- 4.5 REINFORCING STEEL SHOWN IN SECTIONS AND DETAILS ARE A SCHEMATIC INDICATION THAT REINFORCING EXISTS. SEE SCHEDULES, SECTION NOTES AND DRAWINGS FOR ACTUAL REINFORCING REQUIRED.
- 4.6 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.
- 4.7 DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315. REINFORCEMENT SHALL NOT BE WELDED, UNLESS NOTED OR APPROVED BY THE ENGINEER.
- 4.8 ALL SPLICES SHALL BE CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.
- 4.9 ALL REINFORCING MARKED "CONT." INDICATES REINFORCING SHALL BE "CONTINUOUS" AND SHALL BE SPLICED WITH CLASS "B" TENSION LAP SPLICE, UNLESS NOTED.
- 4.10 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.
- 4.11 CONCRETE COVERAGE OF REINFORCEMENT, UNLESS NOTED:
- | FOOTINGS-----                                   | 2" TOP & 3" BOTTOM & SIDES |
|---|----------------------------|
| COLUMNS & PEDESTALS-----                        | 1-1/2" CLEAR OF TIES       |
| BASEMENT WALLS-----                             | 2" BOTH FACES              |
| FOUNDATION RETAINING WALLS-----                 | 2" BOTH FACES              |
| SUMP AND PIT WALLS-----                         | 3" BOTH FACES              |
| BEAMS-----                                      | 1-1/2" CLEAR OF STIRRUPS   |
| SLAB FACES NOT EXPOSED TO WEATHER OR EARTH----- | 3/4"                       |
| #5 AND LESS-----                                | 1-1/2"                     |
| #6 AND GREATER-----                             | 2"                         |
- NOTE: SLAB ON GRADE WWR OR REINFORCEMENT EACH WAY SHALL BE 2" CLEAR FROM TOP OF SLAB. SEE EARTH SUPPORTED SLABS SECTION BELOW.

- 4.12 PEDESTAL, COLUMN AND WALL VERTICAL REINFORCING: DOWEL TO FOUNDATION WITH HOOKED BARS OF SAME SIZE AND SPACING AS VERTICAL REINFORCING.
- 4.13 WELDED WIRE REINFORCEMENT (WWR): ASTM A385, MINIMUM LAP AND EMBEDMENT TO BE THE GREATER OF ONE CROSS WIRE SPACING PLUS 2 INCHES OR 6 INCHES.
- 4.14 EARTH SUPPORTED SLABS:
- 4" THICK (UNLESS NOTED), REINFORCED WITH 6X6 W/L.4/W2.9 WWR FLAT SHEETS SUPPORTED 2" CLEAR OF TOP OF SLAB, UNLESS NOTED. WWR TO BE CHAIRED 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 ACT 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. CUTTING SHOULD BE STARTED AS SOON AS CONCRETE HAS HARDENED SUFFICIENTLY TO PREVENT AGGREGATE FROM BEING DISLOGE. CONTRACTOR SUBMIT PLAN SHOWING LOCATION OF CONSTRUCTION AND CONTROL JOINTS.
- FLOOR DESIGN AND CONSTRUCTION BASIS IS ACT 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 OCCURENCE 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 2#4 X 6'-0" BARS MID DEPTH OF SLAB PERPENDICULAR TO TERMINAL CONTROL JOINT.
- PROVIDE 2#4 X 6'-0" BARS MID DEPTH OF SLAB AT REENTRANT CORNERS.
- WHERE CONTROL JOINTS TERMINATE AT EMBEDDED STEEL ELEMENTS (SUCH AS EDGE REINFORCEMENT AT LOADING DOCKS), PROVIDE JOINT IN STEEL ELEMENT.

- 4.15 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 EMBED 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 LOCATION. LOCATE CONTROL JOINTS EACH SIDE OF THE WALL. SEAL JOINTS WITH ELASTOMERIC SEALANT. SEE WALL CONTRACTION JOINT TYPICAL DETAIL.
- 4.16 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.
- 4.17 CAST IN PLACE AL SLEEVES AND INSERTS.
- 4.18 NO CONDUIT OR PIPE SHALL BE CAST IN THE SLAB ON GRADE WITHOUT THE WRITTEN APPROVAL OF STRUCTURAL DESIGN GROUP.

5.0 ARCHITECTURAL AND STRUCTURAL PRECAST CONCRETE

- 5.1 REFER TO ARCHITECT'S DRAWINGS AND SPECIFICATIONS FOR DIMENSIONAL, FINISHING, AND OTHER REQUIREMENTS OF THE ARCHITECTURAL PRECAST.
- 5.2 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.
- 5.3 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.
- A. 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.
- 5.4 ERECTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY BRACING UNTIL ALL CONNECTIONS HAVE BEEN MADE AND TOPPING HAS BEEN CAST.
- 5.5 PRECAST MANUFACTURER SHALL PROVIDE STABILIZING ANGLES AND SIMILAR MISCELLANEOUS METALS, AS REQUIRED, FOR ALL PRECAST WORK.
- 5.6 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.
- 5.7 PRECAST CONCRETE HOLLOW CORE SLAB LOCATIONS SHOWN ON THE DRAWINGS ARE ESTIMATED AND SHALL BE VERIFIED BY THE PRECAST MANUFACTURER.
- 5.9 CONTRACTOR IS TO COORDINATE (MECHANICAL, ELECTRICAL, PLUMBING, ETC.) OPENINGS IN HOLLOW CORE PRECAST CONCRETE SLAB PANELS WITH PRECAST MANUFACTURER.
- A. ALL 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.
- 6.10 ALL OPENINGS IN THE PRECAST PANELS SHALL BE SHOWN ON THE PRECAST PANEL 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.
- 6.11 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
- 7.1 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 (BU).
- 7.2 THE STEEL FRAME IS "NON-SUPPOTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE.
- 7.3 STRUCTURAL STEEL: ASTM A992 FOR WIDE FLANGE BEAMS AND COLUMNS; A36 FOR S, M AND HP SHAPES AND CHANNELS; ASTM A36 FOR STIFFENER PLATES, BASE PLATES, COLUMN CAP PLATES, BEAM CONNECTION PLATES AND STEEL ANGLES.
- 7.4 HOLLOW STRUCTURAL SECTIONS (HSS): ASTM A500, GRADE B.
- 7.5 STRUCTURAL STEEL PIPE: ASTM A53, GRADE B.
- 7.6 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.
- 7.7 THREADED AND PLAIN STEEL RODS: ASTM A36
- 7.8 HIGH STRENGTH THREADED RODS: ASTM A193 B7

- 5.3 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.
- A. 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.
- 5.4 ERECTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY BRACING UNTIL ALL CONNECTIONS HAVE BEEN MADE AND TOPPING HAS BEEN CAST.
- 5.5 PRECAST MANUFACTURER SHALL PROVIDE STABILIZING ANGLES AND SIMILAR MISCELLANEOUS METALS, AS REQUIRED, FOR ALL PRECAST WORK.
- 5.6 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.
- 5.7 ADJUSTMENT AND POSSIBLY RESETTNG OF PRECAST MAY BE REQUIRED TO ALIGN PRECAST DUE TO SUPPORT DEFLECTION AND/OR ROTATION.
- 5.8 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 PRECAST. THIS MAY REQUIRE ADJUSTING CONNECTIONS OR RECONNECTING.

6.0 PRECAST CONCRETE HOLLOW CORE SLABS

- 6.1 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.
- A. 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.
1. THE REMAINING 1" OF THE TOPPING SLAB IS TO BE APPLIED AS SUPERIMPOSED DEAD LOAD TO THE PRECAST PANELS.
2. 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.
3. 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.
4. STORM SHELTER PRECAST PANELS SHALL BE DESIGNED FOR 235 PSF SHELTER ROOF LIVE LOAD + SHELTER COLLAPSE LOAD IN ADDITION TO OTHER LOADS (Sw, DL, COL, & WL).
- B. PRECAST MANUFACTURER IS TO BE RESPONSIBLE FOR DETERMINING AND VERIFY ANY NECESSARY STEPS, SUCH AS THE ROUGHENING 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.
- C. 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.
- 6.2 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 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.
- 3" TOPPING SLAB-----38 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

- 6.3 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.
- 6.4 REINFORCE 3" TOPPING SLAB WITH 6X6 W/L.4/W1.4 WWR FLAT SHEETS AT MID-DEPTH OF TOPPING.
- A. CONDUITS AND PIPING SHALL NOT BE PLACED IN THE TOPPING SLAB.
- 6.5 ERECTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TEMPORARY BRACING UNTIL ALL CONNECTIONS HAVE BEEN MADE AND TOPPING HAS BEEN CAST.
- 6.6 PRECAST MANUFACTURER SHALL PROVIDE STABILIZING ANGLES AND SIMILAR MISCELLANEOUS METALS, AS REQUIRED, FOR ALL PRECAST WORK.
- 6.7 ALL EXPOSED



9.0 MASONRY

- 9.1 MASONRY CONSTRUCTION SHALL CONFORM TO TMS 602-16 SPECIFICATION.
- 9.2 ALL MASONRY MATERIALS AND CONSTRUCTION SHALL COMPLY WITH THE RECOMMENDATIONS OF BRICK INSTITUTE OF AMERICA (BIA) AND NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA) AND MINIMUM REQUIREMENTS ESTABLISHED BY THE LOCAL BUILDING CODE.
- 9.3 MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNIT (f'm) SHALL BE 2000 PSI AT 28 DAYS.
- 9.4 NET COMPRESSIVE STRENGTH FOR EACH CMU UNIT SHALL MEET OR EXCEED 2000 PSI AT 28 DAYS. FOR TYPE N MORTAR, NET COMPRESSIVE STRENGTH FOR BLOCK SHALL BE GREATER THAN 2650 PSI.
- 9.5 GROUT COMPRESSIVE STRENGTH SHALL BE 2500 PSI AT 28 DAYS. GROUT SHALL ADDITIONALLY COMPLY WITH TABLE 6 OF TMS 602 FOR DIMENSIONS OF GROUT SPACES AND POUR HEIGHTS. COURSE GROUT SHALL BE USED WHERE POSSIBLE.
- 9.6 ALL MASONRY SHALL BE NORMAL WEIGHT IN ACCORDANCE WITH ASTM C90.
- 9.7 MORTAR SHALL BE TYPE S OR M. TYPE N MORTAR ALLOWED ONLY IF THE CMU NET COMPRESSIVE STRENGTH IS GREATER THAN 2650 PSI.
- 9.8 ALL MASONRY SHALL BE STACK BOND, UNLESS NOTED.
- 9.9 ALL BLOCK CELLS AND CAVITIES BELOW GRADE SHALL BE FILLED WITH CONCRETE OR GROUT.
- 9.10 MASONRY REINFORCING LAP SPlice LENGTHS PER SCHEDULE, SEE MASONRY LAP SPlice LENGTHS TYPICAL DETAIL.
- 9.11 THE CONTRACTOR SHALL PROVIDE DETAILED SHOP DRAWINGS OF THE CMU REINFORCEMENT.
- A. SHOP DRAWINGS SHALL INCLUDE AN ELEVATION VIEW OF EACH REINFORCED WALL WITH ALL VERTICAL AND HORIZONTAL REINFORCING AS WELL AS WALL OPENINGS/PENETRATIONS SHOWN. REINFORCING SHOP DRAWINGS NOT CONTAINING THESE ELEVATION DRAWINGS WILL BE RETURNED AS AN INCOMPLETE SUBMITTAL.
- 9.12 MODIFY CMU BLOCKS AS REQUIRED TO INSTALL REINFORCING AS NOTED/SHOWN.
- 9.13 PROVIDE CONTRACTION (CONTROL) JOINTS IN ALL CONCRETE MASONRY WALLS AT LOCATIONS APPROVED BY THE ARCHITECT AT A MAXIMUM SPACING OF 2.0 TIMES THE WALL HEIGHT OR 25'-0", WHICHEVER IS LESS.
- 9.14 CONTRACTION JOINTS IN CMU WALLS SHALL BE DISCONTINUOUS AT MASONRY BOND BEAMS. BOND BEAM REINFORCING SHALL EXTEND CONTINUOUS WITH MASONRY LAP SPICES AND CORNER BARS. SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
- 9.15 WHEN REINFORCING IS SPECIFIED, PROVIDE REINFORCING AT EACH SIDE OF CONTRACTION JOINTS, OPENINGS AND WALL ENDS.
- 9.16 EXTEND REBAR AT WALL OPENINGS A MINIMUM OF 2'-0" PAST THE OPENING AT ALL CORNERS, UNLESS NOTED OTHERWISE. AT WINDOWS, PROVIDE A MINIMUM OF 2#4 BARS AT THE SILLS OF THE WINDOWS, UNLESS NOTED OTHERWISE.
- 9.17 AT CMU PARTITIONS OVER 8'-0" TALL, SUPPORTED BY SLAB ON GRADE, PROVIDE THICKENED SLAB PER TYPICAL DETAILS.
- 9.18 WHERE ANY CMU WALL IS NOT SUPPORTED AT THE TOP, PROVIDE MINIMUM #5@16 VERTICAL REINFORCING, UNLESS NOTED OTHERWISE.
- 9.19 PROVIDE WALL TOP SUPPORT AT 8'-0" O.C. FOR ALL INTERIOR NON-LOAD BEARING CMU WALLS WHERE CONTINUOUS WALL SPAN BETWEEN PERPENDICULAR BRACING WALLS EXCEEDS 20'-0". SEE TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
- 9.20 PROVIDE HORIZONTAL JOINT REINFORCING IN REINFORCED MASONRY WALLS AS DIRECTED BY THE ARCHITECT. AT WALL CORNERS AND INTERSECTIONS, PROVIDE PREFABRICATED T AND L SHAPES, FIELD BENDING IS NOT PERMITTED. MINIMUM OF LADDER TYPE ZINC COATED CONFORMING TO ASTM A82 HODMAN & BARNARD 220 LADDER-MESH OR EQUIVALENT AT EVERY OTHER BLOCK COURSE ABOVE FOOTING. REINFORCEMENT SHOULD CONSIST OF TWO OR MORE LONGITUDINAL WIRES, NO. 9 GAUGE OR LARGER, WELDED WITH NO. 9 GAUGE OR LARGER CROSS WIRES. LAP SPlice HORIZONTAL JOINT REINFORCING A MINIMUM OF 12".
- 9.21 PROVIDE DOVETAIL ANCHORS AT 16" O.C., UNLESS NOTED OTHERWISE, WHERE MASONRY WALLS ABUT CONCRETE SURFACES.
- 9.22 PROVIDE GROUT FILLED LINTEL BLOCKS AT TOP OF ALL CMU WALLS REINFORCED WITH 2#4 BARS CONTINUOUS, UNLESS NOTED OTHERWISE.
- 9.23 CONDUITS, REFRIGERANT PIPING (WITH ANY REQUIRED INSULATION INCLUDED), CONDENSATE DRAIN LINES, ETC. UP TO 2" IN OUTSIDE DIAMETER MAY EXTEND CONTINUOUS THRU MASONRY WALLS & BOND BEAMS. COORDINATE WITH MECHANICAL, ELECTRICAL, PLUMBING, ETC. DRAWINGS FOR SIZE AND LOCATION. DO NOT INTERRUPT CONTINUOUS REINFORCING STEEL IN PLACEMENT OF CONDUITS, PIPING, DRAIN LINES, ETC.
- 9.24 WHERE MASONRY WALLS SUPPORT EARTH ON BOTH SIDES, BACKFILL EACH SIDE SIMULTANEOUSLY.
- 9.25 WHERE TOP OF FOOTING SUPPORTING MASONRY WALLS IS MORE THAN 2'-8" BELOW FINISH FLOOR, PROVIDE #6 AT 16" O.C., UP TO THE FIRST COURSE ABOVE FINISH FLOOR ELEVATION, IN ADDITION TO THE SPECIFIED REINFORCEMENT, UNLESS NOTED OTHERWISE.
- 9.26 THE MASONRY WALLS ARE "NON-SELF-SUPPORTING". ADEQUATE TEMPORARY SUPPORT MUST BE PROVIDED BY THE CONTRACTOR UNTIL REQUIRED CONNECTIONS OR ELEMENTS ARE IN PLACE. BRACING SHALL BE PER THE FOLLOWING, AND CONTRACTOR SHALL PROVIDE ADDED REINFORCING AND GROUT IF REQUIRED BY THE BRACING.
- A. THE "2012 STANDARD PRACTICE FOR BRACING MASONRY WALLS UNDER CONSTRUCTION".
- B. THE "MASONRY WALL BRACING HANDBOOK" AS PUBLISHED BY THE MASON CONTRACTORS ASSOCIATION OF AMERICA (MCAA) SHOULD BE USED IN CONJUNCTION WITH THE "STANDARD PRACTICE".
- 9.27 PROVIDE 2 COURSES OF GROUT FILLED OPEN BOTTOM BOND BEAM BLOCKS REINFORCED WITH 2#5 BARS CONTINUOUS AT ALL STEEL STAIR ATTACHMENT LOCATIONS, UNLESS NOTED OTHERWISE. CONTRACTOR COORDINATE EXACT LOCATIONS WITH STEEL STAIR DESIGNER.

10.0 COLD-FORMED STEEL FRAMING (NON-LOAD BEARING)

- 10.1 STRUCTURAL PROPERTIES OF COLD-FORMED STEEL FRAMING SHALL BE COMPUTED IN ACCORDANCE WITH AISI "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING" AND OTHER APPLICABLE AISI STANDARDS, LATEST EDITIONS.
- 10.2 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL FRAMING. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FRAMING LAYOUT, SIZES, SPACING, AND SECTIONS. THE GAGE OF THE STUDS, IF SHOWN, SHALL NOT BE REVISED UNLESS IT IS REQUIRED TO BE INCREASED AS DIRECTED BY THE COLD-FORMED STEEL DESIGN ENGINEER. COLD-FORMED STEEL FRAMING SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED FOR FILES OF THE STRUCTURAL ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CONTRACTOR SHALL INCLUDE THE COST OF SHOP DRAWINGS AND CALCULATIONS, INCLUDING ENGINEERING FEES, IN THE BASE BID OF THE CONTRACT.
- 10.3 DEFLECTION LIMITS FOR MEMBERS:
- A. SOFFITS: DL L/240 LL L/240 TL L/180
- B. WALL SUPPORTING BRICK: HORIZONTAL DEFLECTION OF L/600
- C. WALL SUPPORTING STUCCO: HORIZONTAL DEFLECTION OF L/360
- D. WALL SUPPORTING EIFS: HORIZONTAL DEFLECTION OF L/240
- E. WALL PARTITIONS: HORIZONTAL DEFLECTION OF L/180

- 10.4 COLD-FORMED STEEL FRAMING MEMBERS SHALL NOT BE SUPPORTED BY THE STEEL ROOF DECK.
- 10.5 COLD-FORMED STEEL FRAMING MEMBERS ABUTTING STRUCTURE SHALL HAVE VERTICAL SLIP TRACKS TO ACCOMMODATE UP TO 1-1/2" VERTICAL MOVEMENT UP OR DOWN.
- 10.6 VERTICAL STUDS INTERRUPTED BY WALL OPENINGS SHALL BE LOCATED EQUALLY ON EACH SIDE OF THE OPENING. PROVIDE EVEN NUMBER OF FULL HEIGHT STUDS ON EACH SIDE OF OPENING. WELD STUD FLANGES TOGETHER WITH 1/8" FILLET WELD 1" LONG SPACED AT 6" O.C.
- 10.7 WELDED CONNECTIONS: E60XX ELECTRODES, MINIMUM SIZE FILLET WELD 1/8". WELDING QUALIFICATION, PROCEDURES AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.3, THE STRUCTURAL WELDING CODE - SHEET STEEL.
- 10.8 PROVIDE WALL BRACING, CONNECTION DETAILS, WINDOW/DOOR HEADERS, ETC AS RECOMMENDED BY THE STUD MANUFACTURER FOR COLD-FORMED STEEL FRAMING MEMBERS.
- 10.9 TRACK SHALL BE SCREWED TO STUD WITH 2#8 TEK SCREWS EACH FLANGE, OR AS REQUIRED BY DESIGN.
- 10.10 PROVIDE SHOP DRAWINGS SHOWING PLANS, ELEVATIONS AND CONNECTION DETAILS FOR ALL NON-LOAD BEARING COLD-FORMED STEEL FRAMING.
- 10.11 ALL CONNECTIONS OF THE COLD-FORMED STEEL FRAMING MEMBERS TO THE STRUCTURE SHALL BE FULLY DETAILED ON THE COLD-FORMED STEEL FRAMING SHOP DRAWINGS. ANY SPECIAL LOADING IMPOSED ON THE STRUCTURE SHALL BE CLEARLY INDICATED ON THE SHOP DRAWINGS.

11.0 STRUCTURAL COLD-FORMED STEEL FRAMING (LOAD BEARING)

- 11.1 STRUCTURAL PROPERTIES OF COLD-FORMED STEEL FRAMING SHALL BE COMPUTED IN ACCORDANCE WITH AISI "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING" AND OTHER APPLICABLE AISI STANDARDS, LATEST EDITIONS.
- 11.2 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL FRAMING. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR FRAMING LAYOUT, SIZES, SPACING, AND SECTIONS. THE GAGE OF THE STUDS, IF SHOWN, SHALL NOT BE REVISED UNLESS IT IS REQUIRED TO BE INCREASED AS DIRECTED BY THE COLD-FORMED STEEL DESIGN ENGINEER. COLD-FORMED STEEL FRAMING SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED FOR FILES OF THE STRUCTURAL ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE CONTRACTOR SHALL INCLUDE THE COST OF SHOP DRAWINGS AND CALCULATIONS, INCLUDING ENGINEERING FEES, IN THE BASE BID OF THE CONTRACT.
- 11.3 DEFLECTION LIMITS FOR MEMBERS:
- A. SOFFITS: DL L/240 LL L/240 TL L/180
- B. WALL SUPPORTING BRICK: HORIZONTAL DEFLECTION OF L/600
- C. WALL SUPPORTING STUCCO: HORIZONTAL DEFLECTION OF L/360
- D. WALL SUPPORTING EIFS: HORIZONTAL DEFLECTION OF L/240
- E. WALL PARTITIONS: HORIZONTAL DEFLECTION OF L/180
- 11.4 COLD-FORMED STEEL FRAMING MEMBERS SHALL NOT BE SUPPORTED BY THE STEEL ROOF DECK.
- 11.5 PROVIDE WALL BRACING, CONNECTION DETAILS, WINDOW/DOOR HEADERS, ETC AS RECOMMENDED BY THE STUD MANUFACTURER FOR COLD-FORMED STEEL FRAMING MEMBERS, OR AS REQUIRED BY DESIGN.
- 11.6 TRACK SHALL BE SCREWED TO STUD WITH 2#8 TEK SCREWS EACH FLANGE, OR AS REQUIRED BY DESIGN.
- 11.7 FASTEN TRACKS TO CONCRETE SLAB WITH HILTI HIT X-U 0.157" DIAMETER POWDER ACTUATED FASTENERS @ 24 O.C. WITH 1" EMBEDMENT, OR AS REQUIRED BY DESIGN. LOCATE A MINIMUM OF TWO (2) FASTENERS AT JAMBS.
- 11.8 VERTICAL STUDS SHALL BE 100% END BEARING. GAP BETWEEN THE LOAD-BEARING STUD AND THE TRACK SHALL NOT EXCEED 1/8 INCH.
- 11.9 VERTICAL STUDS INTERRUPTED BY WALL OPENINGS SHALL BE LOCATED EQUALLY ON EACH SIDE OF THE OPENING, OR AS REQUIRED BY DESIGN. PROVIDE EVEN NUMBER OF FULL HEIGHT STUDS ON EACH SIDE OF OPENING. WELD STUD FLANGES TOGETHER WITH 1/8" FILLET WELD 1" LONG SPACED AT 16" O.C.
- 11.10 WELDED CONNECTIONS: E60XX ELECTRODES, MINIMUM SIZE FILLET WELD 1/8". WELDING QUALIFICATION, PROCEDURES AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.3, THE STRUCTURAL WELDING CODE - SHEET STEEL.
- 11.11 WALLS SHALL BE SHEATHED WITH EITHER GYPSUM OR PLYWOOD SHEATHING. FOR WALLS WITHOUT SHEATHING, SEE TYPICAL DETAILS.
- 11.12 PROVIDE SHOP DRAWINGS SHOWING PLANS, ELEVATIONS AND CONNECTION DETAILS FOR ALL LOAD-BEARING COLD-FORMED STEEL FRAMING.
- 11.13 ALL CONNECTIONS OF THE COLD-FORMED STEEL FRAMING MEMBERS TO THE STRUCTURE SHALL BE FULLY DETAILED ON THE COLD-FORMED STEEL FRAMING SHOP DRAWINGS. ANY SPECIAL LOADING IMPOSED ON THE STRUCTURE SHALL BE CLEARLY INDICATED ON THE SHOP DRAWINGS.

12.0 PRE-MANUFACTURED COLD-FORMED STEEL TRUSSES

- 12.1 STRUCTURAL PROPERTIES OF COLD-FORMED STEEL FRAMING SHALL BE COMPUTED IN ACCORDANCE WITH AISI "NORTH AMERICAN STANDARD FOR COLD-FORMED STEEL FRAMING" AND OTHER APPLICABLE AISI STANDARDS, LATEST EDITIONS.
- 12.2 GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL COLD-FORMED STEEL TRUSSES AND RAFTERS, SEE SPECIFICATION 05400.
- 12.3 IN ADDITION TO PROVIDING THE COLD-FORMED STEEL TRUSS SYSTEM CALLED FOR IN THESE DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING:
- A. DESIGN OF THE TRUSS SYSTEM AND RAFTER SYSTEM, COLLECTIVELY THE "TRUSSES".
- B. ENGINEERING PROVIDED BY MANUFACTURER SHALL BE A COMPLETE PACKAGE SIMILAR TO THE "WORKS" PACKAGE PROVIDED BY AEGIS METAL FRAMING OR EQUAL.
- C. DESIGN OF ALL TRUSSES & THEIR COMPONENTS, TEMPORARY AND PERMANENT BRACING, TRUSS TO TRUSS CONNECTIONS, TRUSS TO STRUCTURE CONNECTIONS, MISCELLANEOUS STEEL CLOSURE PLATES, ETC.
- D. WHERE TRUSSES ARE SUPPORTED BY CONCRETE AND THE TRUSS TO STRUCTURE CONNECTION DESIGNED BY THE CONTRACTOR CALLS FOR EMBED STEEL PLATES, SUCH PLATES SHALL ALSO BE DESIGNED BY THE CONTRACTOR. THE DESIGN SHALL MEET THE PROVISIONS OF ACI 318-19 CHAPTER 17.
- E. DIMENSIONED TRUSS FRAMING PLAN.
- F. TRUSS ERECTION PLAN.
- G. PLAN SHOWING LOCATION AND DETAILS OF ANY TEMPORARY AND PERMANENT BRACING REQUIRED.
- H. DETAILED AND DIMENSIONED PLAN SHOWING THE LOCATION AND TYPE OF EMBEDS OR CONNECTION MATERIAL REQUIRED TO ANCHOR THE TRUSSES TO THE STRUCTURE. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS REQUIRED TO ANCHOR THE TRUSSES TO THE STRUCTURE.
- I. CALCULATIONS FOR THE ABOVE SHALL BE SUBMITTED FOR THE FILES OF THE ARCHITECT AND ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED. THE ENGINEER SHALL HAVE PERSONALLY SUPERVISED THE DESIGN AND PREPARATIONS OF THE CALCULATIONS. SHOP DRAWINGS CONTAINING CONNECTIONS FOR WHICH THE CALCULATIONS HAVE NOT BEEN RECEIVED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL.

GENERAL NOTES CONTINUED

- 12.4 TRUSS MANUFACTURER SHALL DESIGN FOR THE FOLLOWING SUPERIMPOSED LOADS:
- A. TOP CHORD DEAD LOAD -----10 PSF
- B. BOTTOM CHORD DEAD LOAD -----10 PSF
- C. TOP CHORD LIVE LOAD -----20 PSF
- D. BOTTOM CHORD LIVE LOAD -----N/A
- 12.5 DEFLECTION LIMITS FOR MEMBERS:
- A. SOFFITS: DL L/240 LL L/360 TL L/180
- B. ROOF: DL L/240 LL L/360 TL L/180
- C. END WALL GABLE SUPPORTING BRICK: HORIZONTAL DEFLECTION OF L/600
- D. END WALL GABLE SUPPORTING STUCCO: HORIZONTAL DEFLECTION OF L/360
- E. END WALL GABLE SUPPORTING EIFS: HORIZONTAL DEFLECTION OF L/240
- 12.6 DESIGN TRUSSES TO RESIST THE WIND UPLIFT LOADING FROM THE COMPONENTS AND CLADDING WIND LOAD TABLE PROVIDED IN THE TYPICAL DETAILS.
- 12.7 IN ADDITION TO THE ABOVE LOADS, TRUSSES SHALL BE DESIGNED FOR CONCENTRATED LOADS HUNG FROM OR SUPPORTED BY TRUSSES. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR LOADING INFORMATION AND LOCATION. LOADING AS REQUIRED BY OTHER SUBCONTRACTORS, SUCH AS FIRE PROTECTION, SHALL BE COORDINATED BY THE GENERAL CONTRACTOR.
- 12.8 ALL TEMPORARY AND PERMANENT BRACING MEMBERS AND CONNECTIONS REQUIRED FOR TRUSSES SHALL BE DETAILED ON THE TRUSS MANUFACTURER'S ERECTION PLANS. BRACING MEMBERS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
- 12.9 TEMPORARY BRACING SHALL NOT IMPOSE ANY FORCE ON THE SUPPORTING STRUCTURE. PERMANENT BRACING FORCES SHALL BE TRANSFERRED TO THE ROOF DIAPHRAGM BY THE BRACING DESIGN PROVIDED BY THE TRUSS MANUFACTURER.
- 12.10 WELDED CONNECTIONS: E60XX ELECTRODES, MINIMUM SIZE FILLET WELD 1/8". WELDING QUALIFICATION, PROCEDURES, AND PERSONNEL SHALL BE CERTIFIED ACCORDING TO AWS D1.3, THE STRUCTURAL WELDING CODE - SHEET STEEL.

13.0 POST-INSTALLED REINFORCING, ANCHORS AND FASTENERS

- 13.1 POST-INSTALLED ANCHORS AND/OR REINFORCING SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS AND/OR REINFORCING IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS AND/OR REINFORCING.
- 13.2 THE BELOW PRODUCTS ARE THE DESIGN BASIS FOR THIS PROJECT. PRODUCT DIAMETER AND EMBEDMENT SHALL BE SHOWN IN THE DETAILS.
- 13.3 FOR ANCHORING INTO CONCRETE:
- A. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 308.2 AND ICC-ES AC109 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-2713 & IAPMO-US ER-493)
2. SIMPSON STRONG-TIE "STRONG-BOLT 2" (ICC-ES ESR-3037)
3. SIMPSON STRONG-TIE "TITEN-HD ROD HANGER" (ICC-ES ESR-2713)
4. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-US ER-712) - FOR UNCRACKED CONCRETE ONLY
5. HILTI KWIK BOLT-HZ (KH-EZ), KH-EZ C, KH-EZ S5316, KH-EZ C, KH-EZ E, KH-EZ L, AND KH-EZ P SCREW ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM (ICC ESR-3027)
6. HILTI KWIK BOLT-T2Z EXPANSION ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM AND SI-AT-A22 TOOL WITH ADAPTIVE TORQUE FOR APPLICABLE SIZES (ICC ESR-4266)
7. HILTI KWIK BOLT L1 EXPANSION ANCHOR SAFE SET SYSTEM WITH HOLLOW DRILL BIT AND VACUUM AND SI-AT-A22 TOOL WITH ADAPTIVE TORQUE FOR APPLICABLE SIZES (ICC ESR-678)
8. HILTI HOA UNDERCUT ANCHORS (CCR ESR 1546)
9. HILTI HSL-4 EXPANSION ANCHORS (CCR ESR 4386)
10. DEWALT SCREW-BOLT+ (ICC-ES ESR-3889)
11. DEWALT POWER-STUD+ S02 (ICC-ES ESR-2502)
12. DEWALT POWER-STUD S01 (ICC-ES ESR-2818)
13. DEWALT HANGERMA+ (ICC-ES ESR-3889)
14. DEWALT CCU+ UNDERCUT (ICC-ES ESR-4810)
15. DEWALT POWER-BOLT+ (ICC-ES ESR-3260)
- B. MECHANICAL ANCHORS FOR USE IN THE UNDER SIDE OF NORMAL WEIGHT HOLLOW CORE AND POST TENSION SLAB WHERE EMBEDMENT DEPTH MUST NOT EXCEED 3". PRE-APPROVED PRODUCTS INCLUDE:
1. DEWALT MINI-UNDERCUT+ (ICC-ES ESR-3912)
2. HILTI HD-P T2 DROP-IN ANCHOR (ICC ESR-4236)
- C. ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 308.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 308.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE DRILL BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS, SUCH AS HORIZONTAL TO UPWARD INCLINED ORIENTATION UNDER SUSTAINED TENSION LOADING, SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-19 26.7.2 & 26.7.2(c). INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-19 26.7.2 & 26.7.2(c). PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "SET-36" (ICC-ES ESR-4057)
2. SIMPSON STRONG-TIE "AT-XP" (IAPMO-US ER-263)
3. SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508)
4. HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM WITH CONTINUOUSLY DEFORMED REBAR (ICC ESR-4868)
5. HILTI HIT-RE 500 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM WITH CONTINUOUSLY DEFORMED REBAR (ICC ESR-3814)
6. DEWALT PURE110+ FOR WARM WEATHER/SLOW CURE (ICC-ES ESR-3298); FOR ANCHORS AND REBAR: WHEN DEWALT DUST+ EXTRACTION SYSTEM IS USED, TRADITIONAL HOLE CLEANING METHODS USING STEEL BRUSHES AND COMPRESSED DRY AIR MAY BE COMPLETELY OMITTED PER ICC-ES ESR-3298
7. DEWALT AC208+ FOR COLD WEATHER/RAPID CURE (ICC-ES ESR-4027); FOR ANCHORS AND REBAR: WHEN DEWALT DUST+ EXTRACTION SYSTEM IS USED, TRADITIONAL HOLE CLEANING METHODS USING STEEL BRUSHES AND COMPRESSED DRY AIR MAY BE COMPLETELY OMITTED PER ICC-ES ESR-4027
- D. POWER-ACTUATED FASTENERS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "GAS ACTUATED PINS" (ICC-ES ESR-2811)
2. SIMPSON STRONG-TIE "POWDER ACTUATED PINS" (ICC-ES ESR-2138)
3. HILTI "UNIVERSAL KNURLED SHANK FASTENERS" X-U (ICC ESR-2269)
4. DEWALT "POWER DRIVEN FASTENERS", POWDER ACTUATED (ICC-ES-ESR 2024)
5. DEWALT "TRAK-IT C5", GAS ACTUATED (ICC-ES-ESR 3275)

- 13.4 FOR ANCHORING INTO MASONRY:
- A. SOLID-GROUTED CONCRETE MASONRY
1. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC01 OR ICC-ES AC106. PRE-APPROVED PRODUCTS INCLUDE:
- a. SIMPSON STRONG-TIE "TITEN-HD" & "STAINLESS STEEL TITEN HD" (ICC-ES ESR-1056)
- b. SIMPSON STRONG-TIE "STRONG-BOLT 2" (IAPMO-US ER-240)
- c. SIMPSON STRONG-TIE "WEDGE-ALL" (ICC-ES ESR-1396)
- d. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-US ER-716)
- e. HILTI KH-EZ, KH-EZ C, KH-EZ S5316, KH-EZ C, AND KH-EZ P SCREW ANCHORS (ICC ESR-3056)
- f. HILTI KWIK BOLT-L1 EXPANSION ANCHOR (ICC ER-677)
- g. HILTI KWIK BOLT-T2Z EXPANSION ANCHOR (ICC ESR-4561)
- h. DEWALT "SCREW-BOLT+" (ICC-ES ESR 4042)
- i. DEWALT "POWER-STUD+ S01" (ICC-ES ESR 2966)
2. ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC58. PRE-APPROVED PRODUCTS INCLUDE:
- a. SIMPSON STRONG-TIE "AT-XP" (IAPMO-US ER-281)
- b. SIMPSON STRONG-TIE "SET-XP" (IAPMO-US ER-265)
- c. HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM (ICC ESR-4143); STEEL ANCHOR ELEMENT SHALL BE HILTI-HAS CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR
- d. HILTI HIT-HY 200 V3 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM (ICC ESR-4878)
- e. DEWALT AC100+ GOLD (ICC-ES ESR-3200)
3. POWER-ACTUATED FASTENERS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
- a. SIMPSON STRONG-TIE "GAS ACTUATED PINS" (ICC-ES ESR-2811)
- b. SIMPSON STRONG-TIE "POWDER ACTUATED PINS" (ICC-ES ESR-2138)
- c. HILTI "UNIVERSAL KNURLED SHANK FASTENERS" X-U (ICC ESR-2269)
- d. DEWALT "TRAK-IT C5", GAS ACTUATED (ICC-ES ESR 3275)
- B. HOLLOW CONCRETE MASONRY
1. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC106. PRE-APPROVED PRODUCTS INCLUDE:
- a. SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056)
- b. SIMPSON STRONG-TIE "TITEN TURBO" (IAPMO-US ER-716)
2. ADHESIVE FOR REBAR AND ANCHORS WITH SCREEN TUBES SHALL HAVE BEEN TESTED FOR USE IN ACCORDANCE WITH ICC-ES AC58. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER. PRE-APPROVED PRODUCTS INCLUDE:
- a. SIMPSON STRONG-TIE "SET-XP" (IAPMO-US ER-265)
- b. HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM (ICC ESR-4143); STEEL ANCHOR ELEMENT SHALL BE HILTI-HAS CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR. THE APPROPRIATE SIZE SCREEN TUBE SHALL BE USED PER ADHESIVE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
- c. DEWALT AC100+ GOLD (ICC-ES ESR-3200)
3. POWER-ACTUATED FASTENERS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
- a. SIMPSON STRONG-TIE "GAS ACTUATED PINS" (ICC-ES ESR-2811)
- b. SIMPSON STRONG-TIE "POWDER ACTUATED PINS" (ICC-ES ESR-2138)
- c. HILTI "DRYWALL TRACK FASTENERS" X-DW (ICC ESR-1663)
- C. UNREINFORCED BRICK MASONRY (UBM): ADHESIVE FOR REBAR AND ANCHORS WITH SCREEN TUBES SHALL HAVE BEEN TESTED FOR USE IN ACCORDANCE WITH ICC-ES AC60. THE APPROPRIATE SCREEN TUBE SHALL BE USED AS RECOMMENDED BY THE ADHESIVE MANUFACTURER. PRE-APPROVED PRODUCTS INCLUDE:
1. SIMPSON STRONG-TIE "ET-HP" (ICC-ES ESR-3638)
2. HILTI HIT-HY 270 SAFE SET SYSTEM WITH HILTI HOLLOW DRILL BIT AND VACUUM (ICC ESR-4143); STEEL ANCHOR ELEMENT SHALL BE HILTI-HAS CONTINUOUSLY THREADED ROD OR CONTINUOUSLY DEFORMED STEEL REBAR. THE APPROPRIATE SIZE SCREEN TUBE SHALL BE USED PER ADHESIVE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
3. DEWALT "AC100+ GOLD" (ICC-ES ESR-4105)

- 13.5 FOR FASTENING INTO STEEL: POWER-ACTUATED FASTENERS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ICC-ES AC70. PRE-APPROVED PRODUCTS INCLUDE:
- A. SIMPSON STRONG-TIE "GAS ACTUATED PINS" (ICC-ES ESR-2811)
- B. SIMPSON STRONG-TIE "POWDER ACTUATED PINS" (ICC-ES ESR-2138)
- C. HILTI FASTENERS IN LIEU OF #12 TEK SCREWS:
1. HILTI S-MD 12-24X1-5/8 HHMS SCREWS FOR STUDS, JOISTS AND BEAMS 16 GA ≤ TF ≤ 1/4"
2. HILTI X-HSN 24 PINS FOR JOISTS AND BEAM 1/8" ≤ TF ≤ 3/8"
3. HILTI X-EMP 19 L15 PINS FOR BEAMS TF ≥ 1/4".
- D. DEWALT "POWER DRIVEN FASTENERS", POWDER ACTUATED (ICC-ES-ESR 2024)
- E. DEWALT "TRAK-IT C5", GAS ACTUATED (ICC-ES-ESR 3275)
- 13.6 REFER TO THE PROJECT BUILDING CODE AND/OR EVALUATION REPORT FOR SPECIAL INSPECTIONS AND PROOF LOAD REQUIREMENTS.
- 13.7 SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE LISTED MAY BE SUBMITTED BY THE CONTRACTOR TO THE EOR FOR REVIEW NO LESS THAN TWO WEEKS PRIOR TO BID. SUBSTITUTIONS WILL ONLY BE CONSIDERED FOR PRODUCTS HAVING A RESEARCH REPORT RECOGNIZING THE PRODUCT FOR THE APPROPRIATE APPLICATION UNDER THE PROJECT BUILDING CODE. SUBSTITUTION REQUESTS SHALL INCLUDE CALCULATIONS PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATE THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE EQUIVALENT. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, AND INSTALLATION TEMPERATURE.
- 13.8 INSTALL ANCHORS PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII), OR AS INCLUDED IN THE ANCHOR PACKAGING.
- 13.9 THERE IS TO BE NO GAP BETWEEN CONNECTED PARTS, UNLESS SHIMS ARE PROVIDED. ANCHORS ARE TO SECURE CONNECTED PARTS TOGETHER SNIGLY AND SECURELY.
- 13.10 OVERHEAD ADHESIVE ANCHORS MUST BE INSTALLED USING THE MANUFACTURER'S INSTRUCTIONS AND INSTALLER MUST BE ACI CERTIFIED.
- 13.11 THE CONTRACTOR SHALL ARRANGE FOR AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. THE STRUCTURAL ENGINEER OF RECORD MUST RECEIVE DOCUMENTED CONFIRMATION THAT ALL OF THE CONTRACTOR'S PERSONNEL WHO INSTALL ANCHORS ARE TRAINED PRIOR TO THE COMMENCEMENT OF INSTALLING ANCHORS.
- 13.12 THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S SPECIAL INSPECTION AGENCY FOR CONTINUOUS SPECIAL INSPECTION OF ADHESIVE ANCHORS AND PERIODIC INSPECTION OF MECHANICAL ANCHORS, SEE SPECIAL INSPECTION SCHEDULE FOR ADDITIONAL INFORMATION.
- 13.13 ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.



LATHAN  
ARCHITECTS  
LATHAN • BRYANT • CALMA

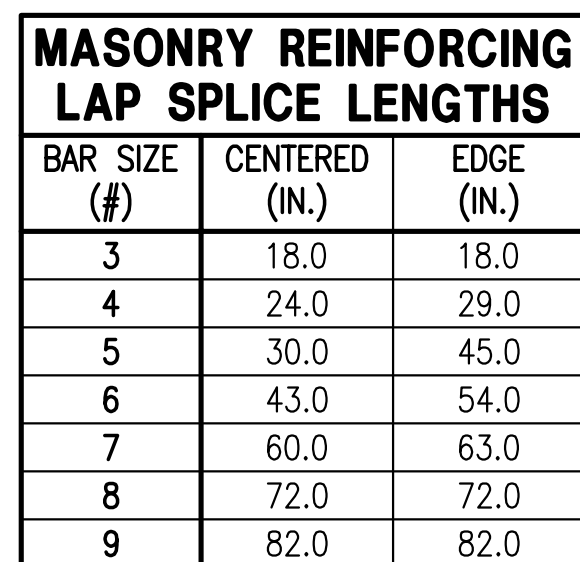
CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
GENERAL NOTES  
CONTINUED

PROJ. MGR.: HOW  
DRAWN: ABS  
DATE: JANUARY 31, 2023  
REVISIONS



- | <h1>VENEER LINTEL SCHEDULE</h1>      |  |
|--------------------------------------|--|
| <b>MAXIMUM<br/>OPENING<br/>WIDTH</b> | <b>STEEL FOR EACH 4" OF<br/>WALL THICKNESS</b> |
| 2'-0"                                | L4x4x3/8 MINIMUM                               |
| 4'-0"                                | L4x4x3/8 MINIMUM                               |
| 6'-0"                                | L4x4x3/8 MINIMUM                               |
| 8'-0"                                | L6x4x3/8 MINIMUM (LLV)                         |
| LARGER                               | CONTACT ENGINEER                               |

- | LOAD BEARING STACK BOND<br>MASONRY LINTEL SCHEDULE |                                   |                   |                   |
|--|-----------------------------------|-------------------|-------------------|
| MAXIMUM<br>OPENING<br>WIDTH                        | LINTEL DIMENSIONS AND REINFORCING |                   |                   |
|  | DEPTH                             | 8" WALL           | 12" WALL          |
| 4'-0"  | 24                                | 2#5 BOT & 2#5 TOP | 2#5 BOT & 2#5 TOP |
| 6'-0"  | 32                                | 2#5 BOT & 2#5 TOP | 2#6 BOT & 2#6 TOP |
| 8'-0"  | 32                                | 2#6 BOT & 2#6 TOP | 2#6 BOT & 2#6 TOP |
| 10'-0"   | 48                                | 2#6 BOT & 2#6 TOP | 2#6 BOT & 2#6 TOP |
| 12'-0"   | 48                                | 2#6 BOT & 2#6 TOP | 2#6 BOT & 2#6 TOP |

- | STORM SHELTER LOAD<br>BEARING STACK BOND<br>MASONRY LINTEL SCHEDULE |                                   |                   |                   |
|---|-----------------------------------|-------------------|-------------------|
| MAXIMUM<br>OPENING<br>WIDTH   | LINTEL DIMENSIONS AND REINFORCING |                   |                   |
|   | DEPTH                             | 8" WALL           | 12" WALL          |
| 4'-0"   | 24                                | 2#5 BOT & 2#5 TOP | 2#5 BOT & 2#5 TOP |
| 6'-0"   | 32                                | 2#5 BOT & 2#5 TOP | 2#6 BOT & 2#6 TOP |
| 8'-0"   | 48                                | 2#6 BOT & 2#6 TOP | 2#6 BOT & 2#6 TOP |
| 10'-0"  | 56                                | 2#6 BOT & 2#6 TOP | 2#6 BOT & 2#6 TOP |

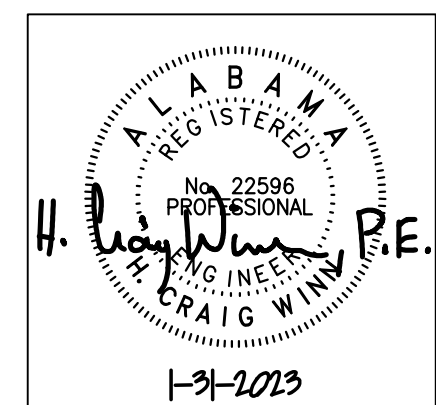
- COLUMN BASE AND**  
**FOOTING DETAIL**  
TYPICAL



**FOOTING, SLAB OR WALL**  
**CORNER REINFORCING DETAIL**  
TYPICAL



**SLAB CONTROL JOINT DETAILS**  
TYPICAL  
JOINT TYPE IS OPTIONAL



SHEET TITLE:  
TYPICAL DETAILS

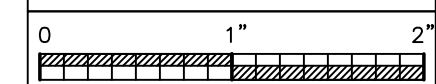
PROJ. MGR.:	HCW
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DATE:	JANUARY 31, 2023
REVISIONS	

JOB NO. 22-20

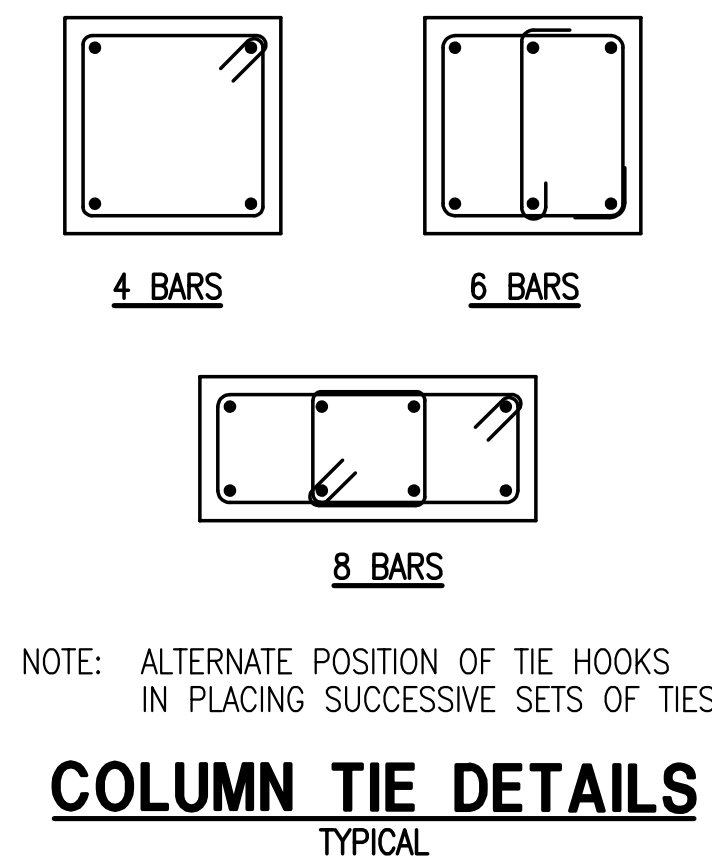
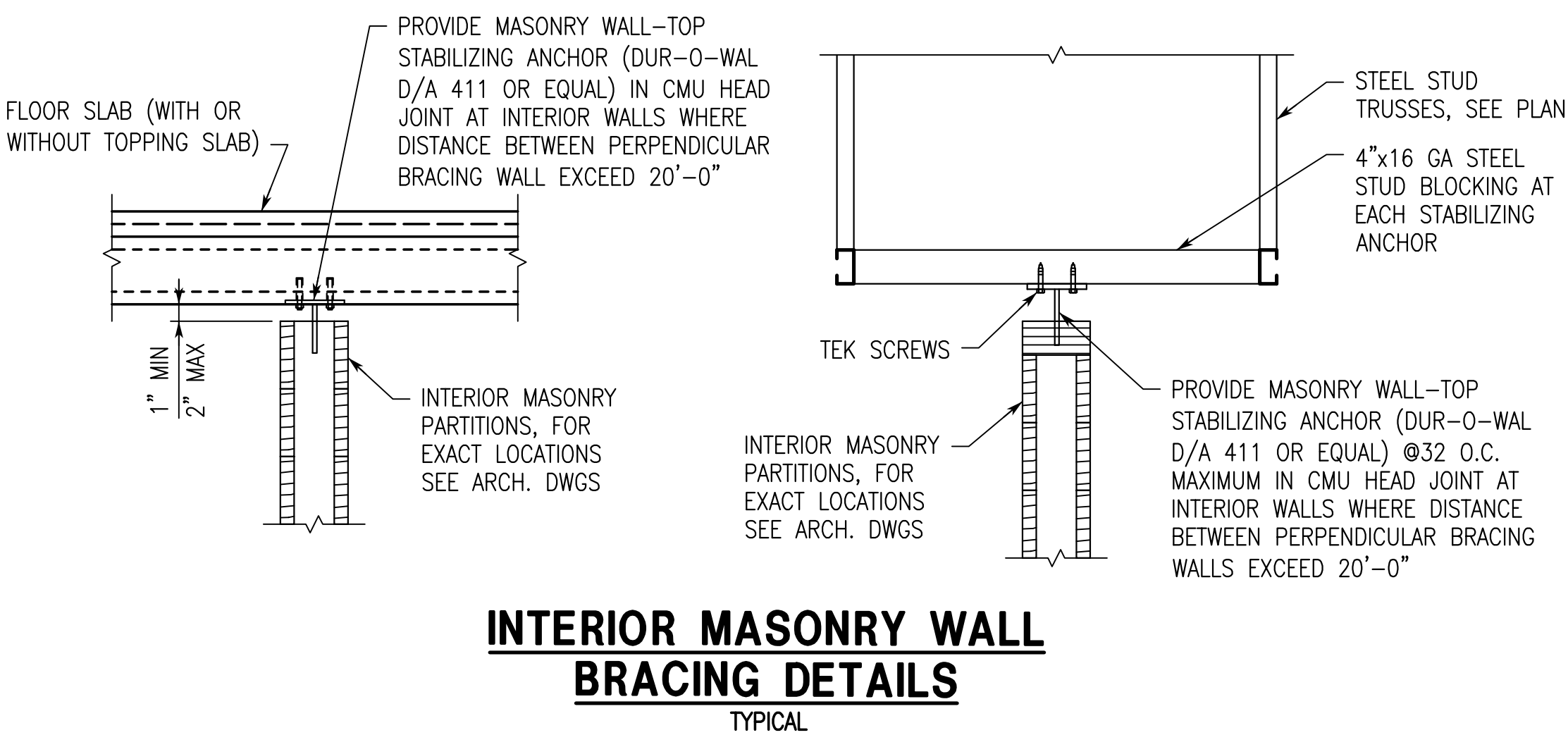
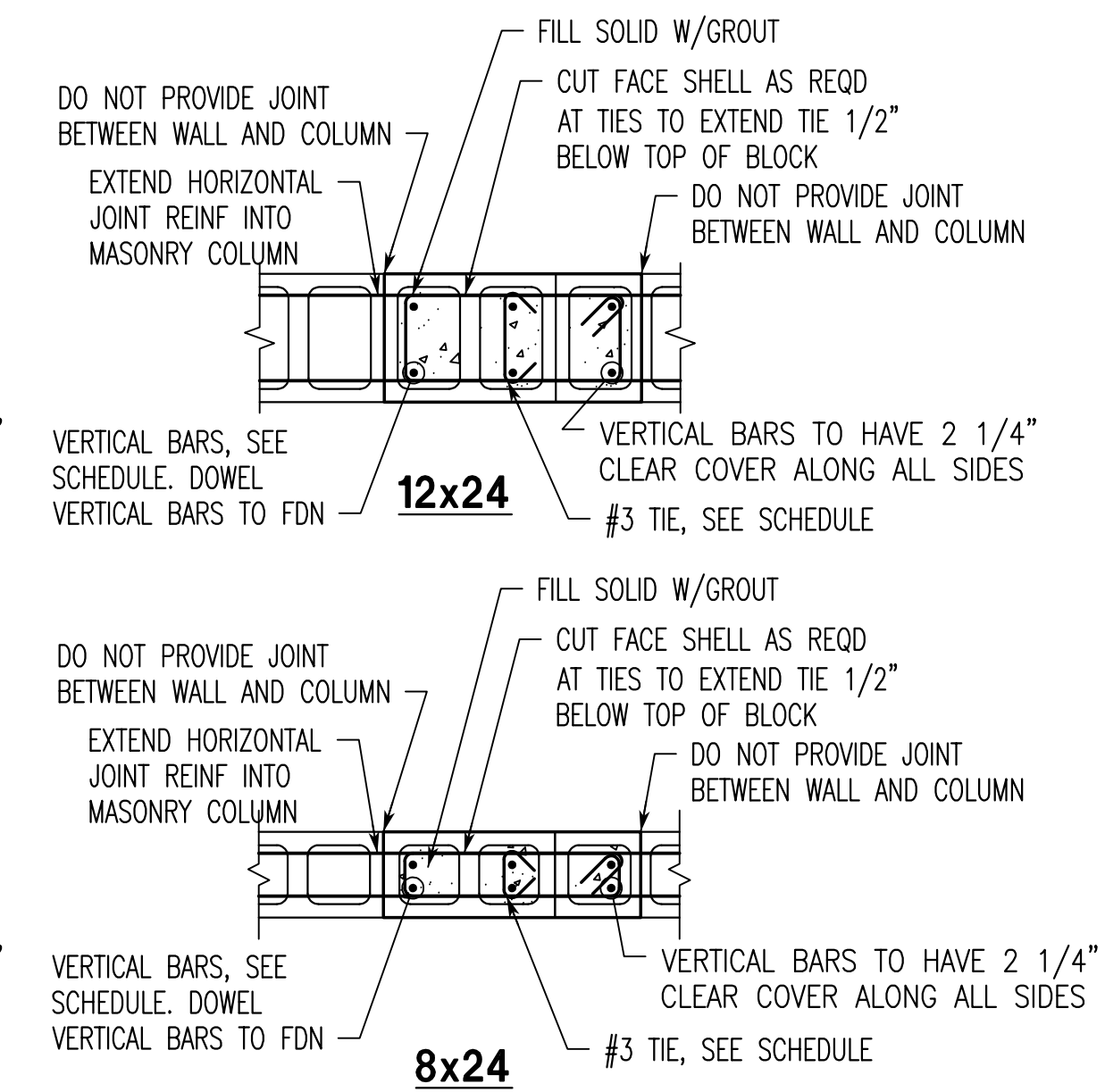
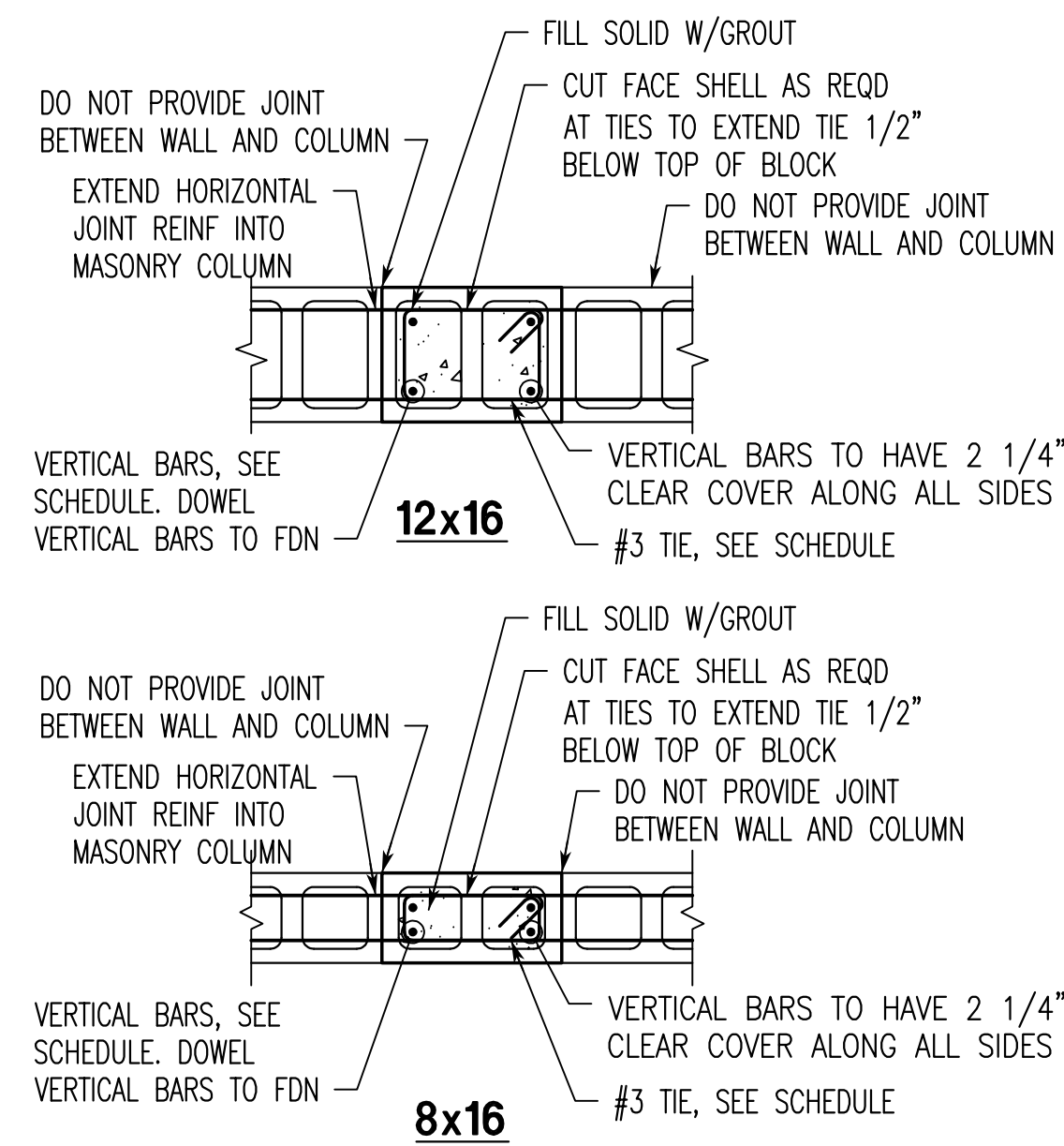
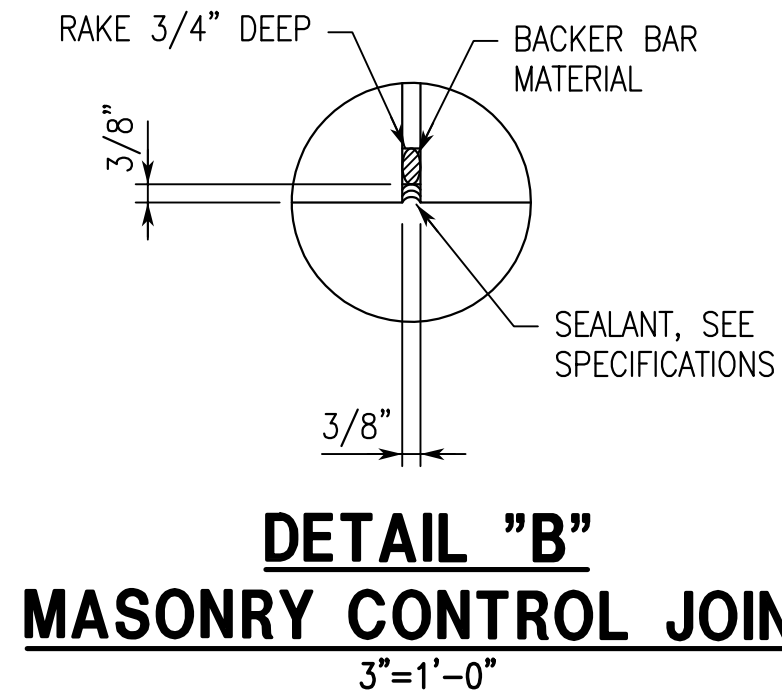
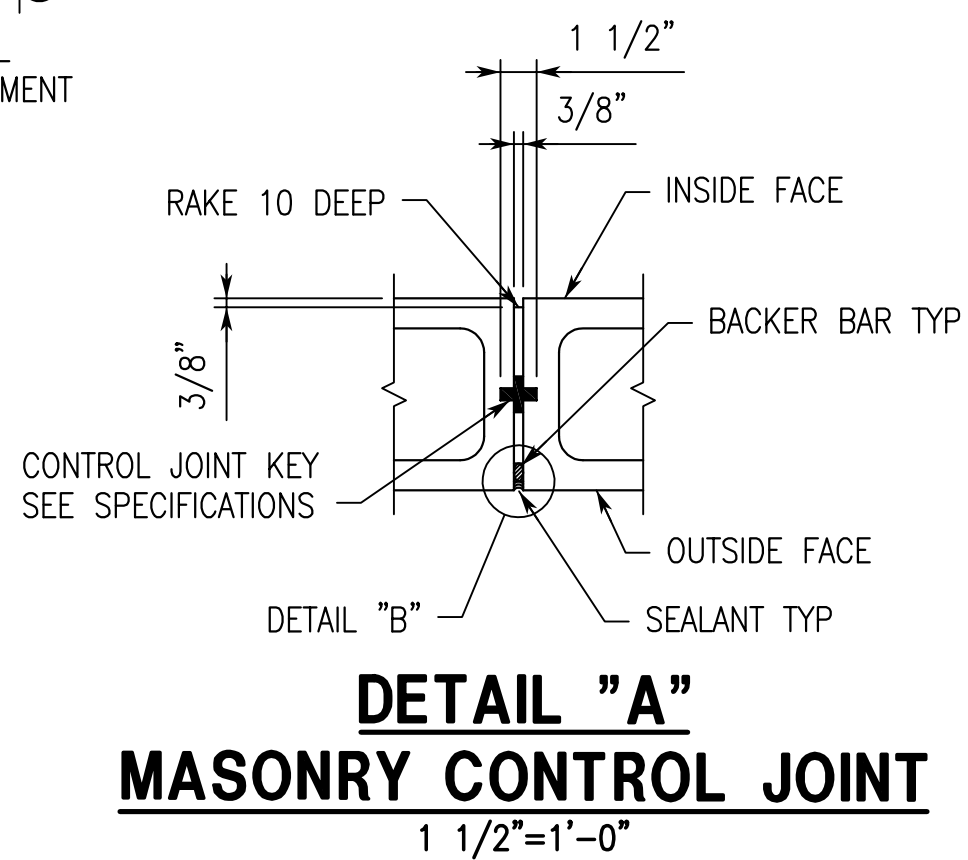
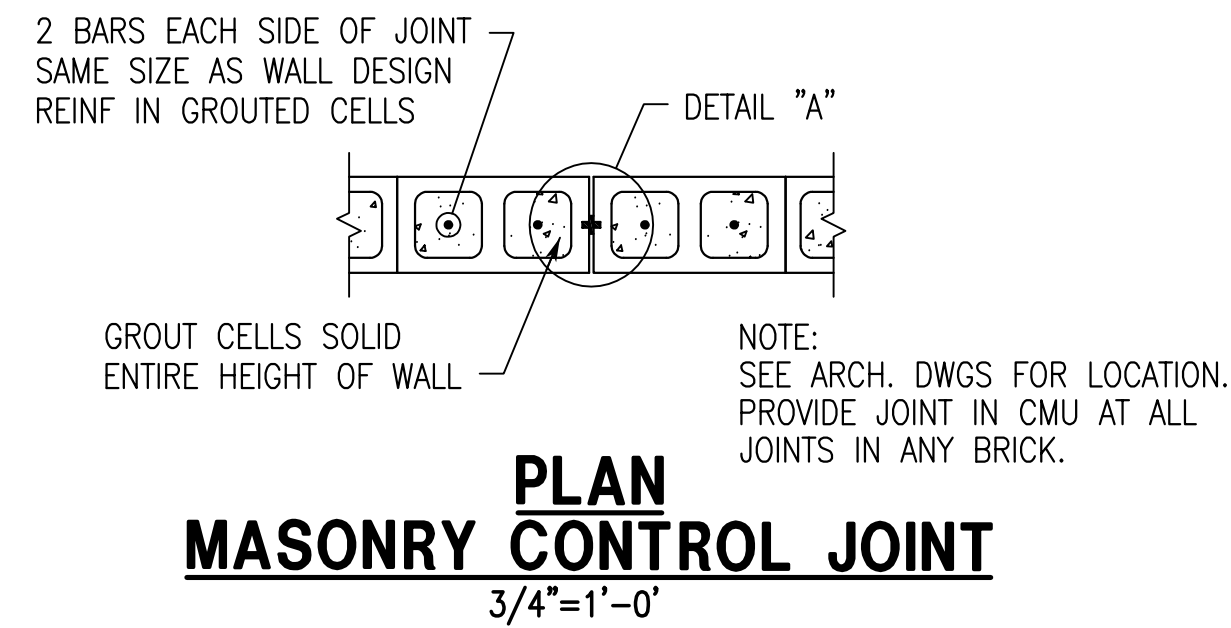
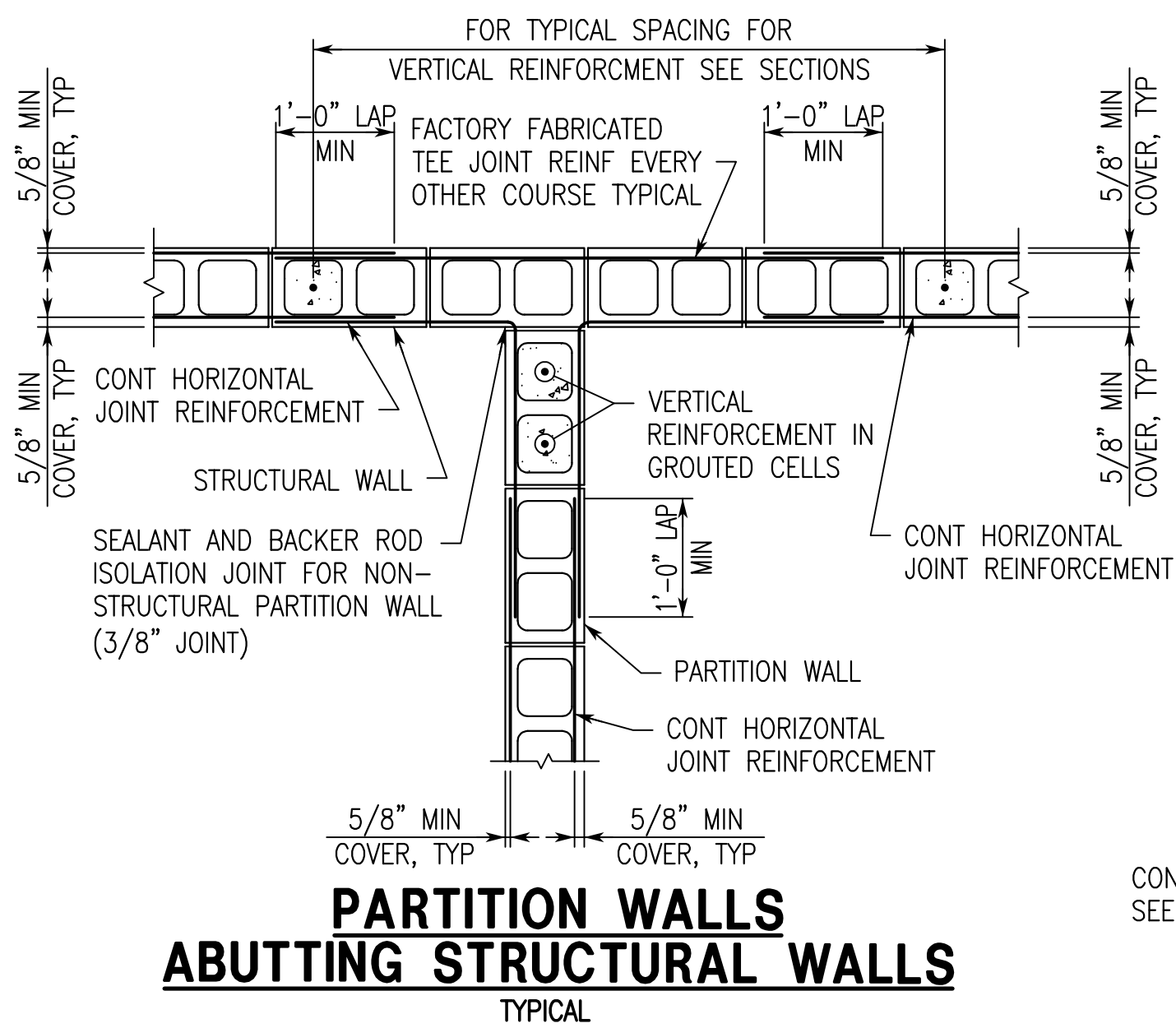
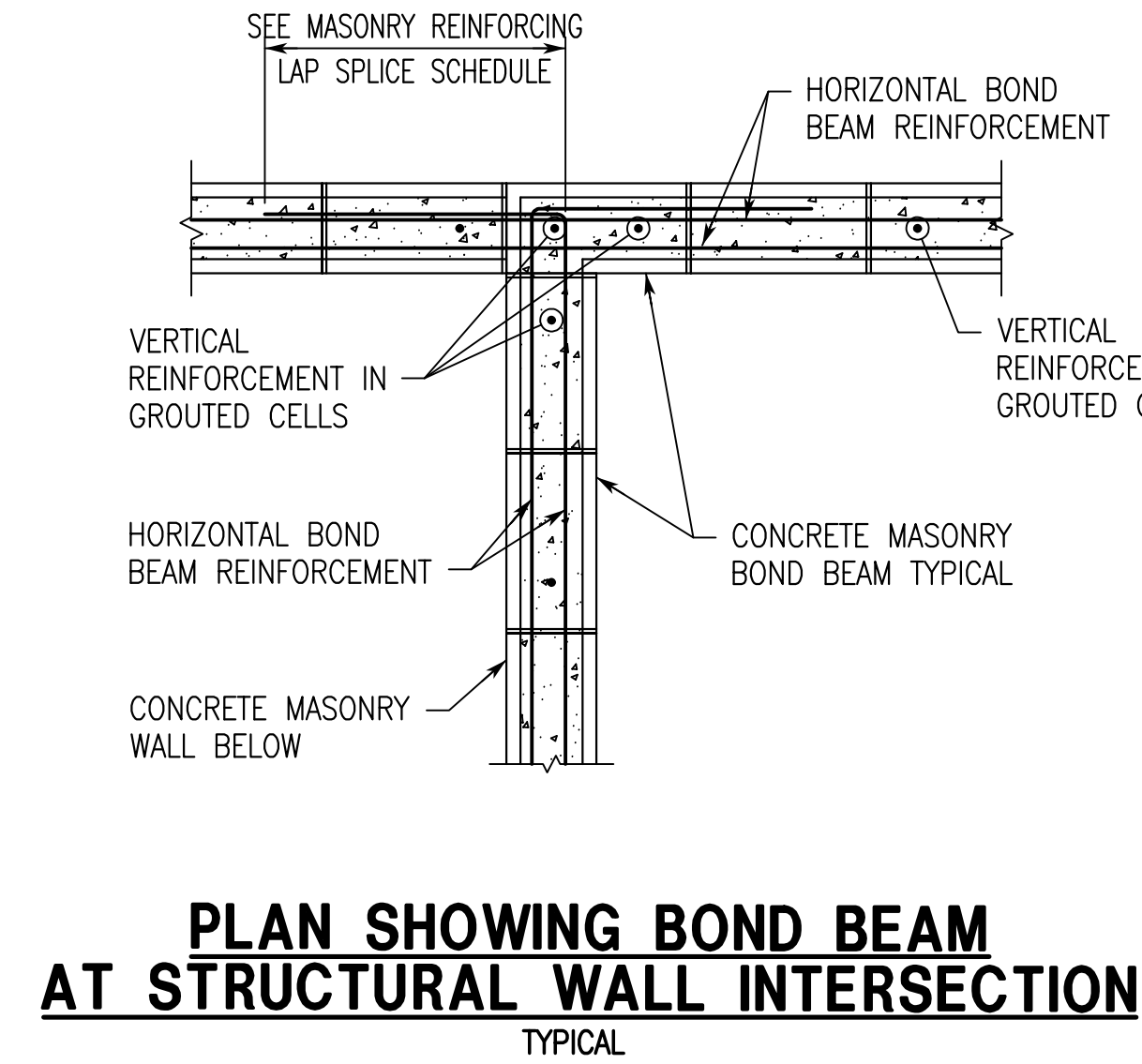
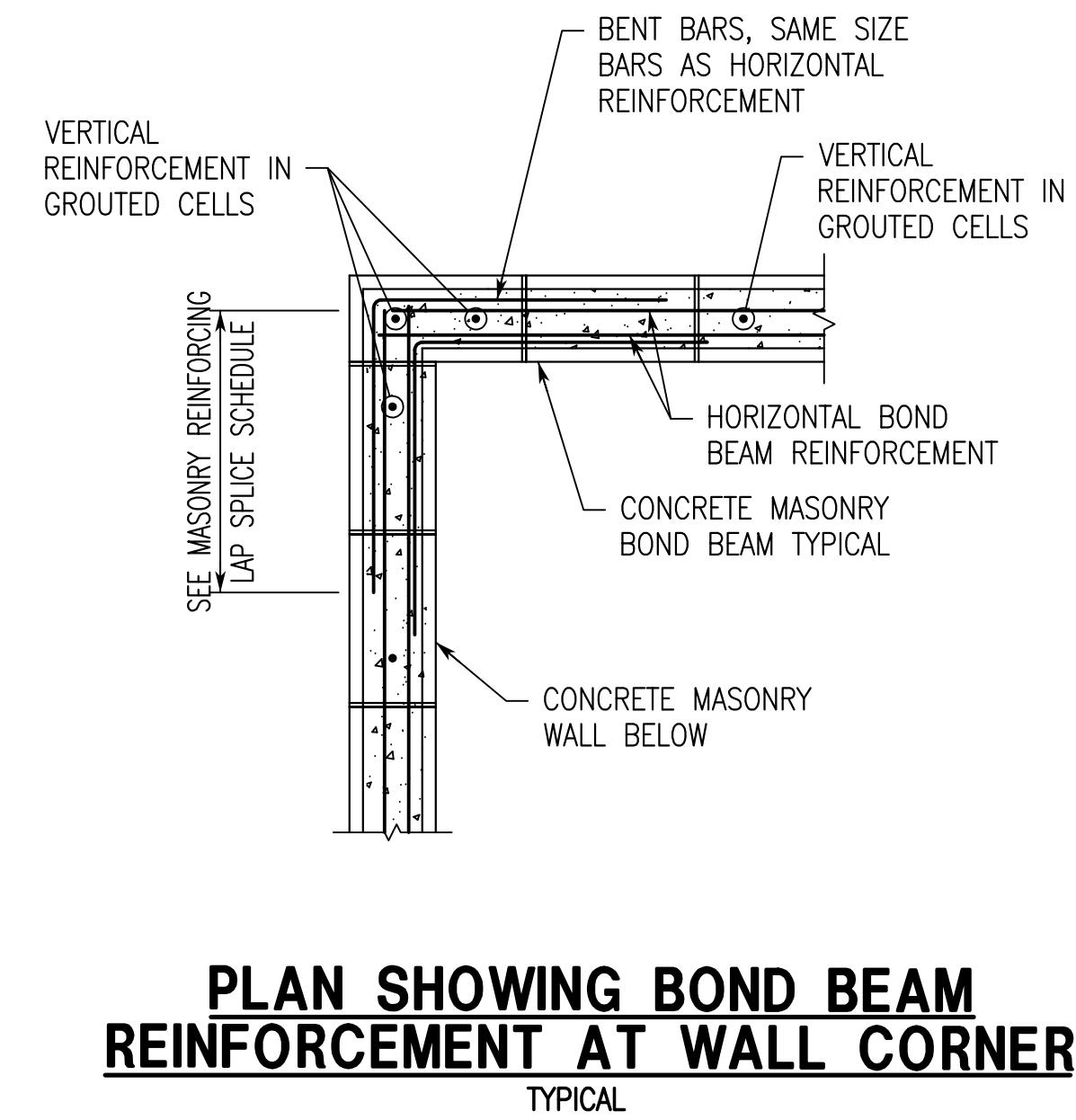
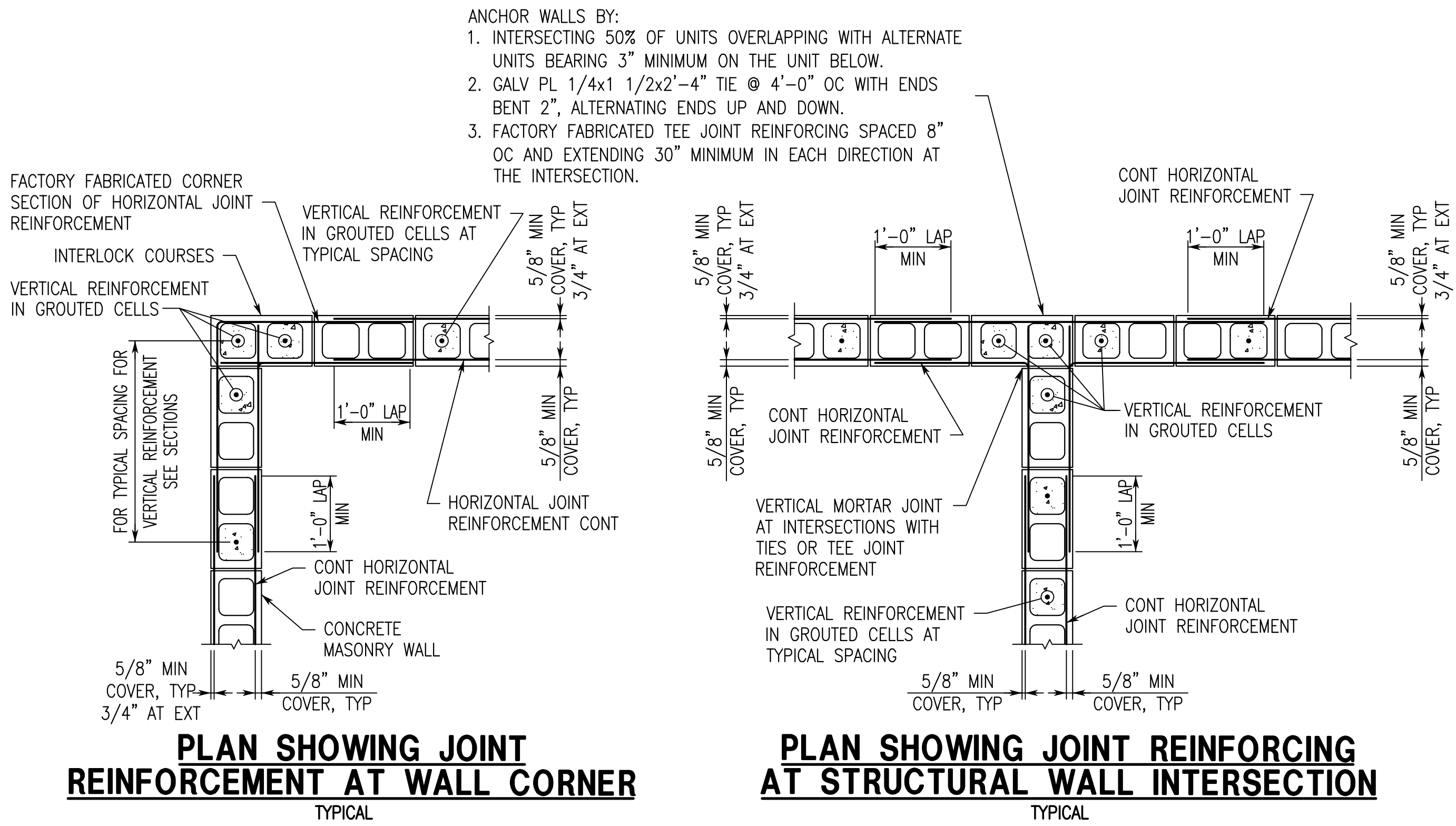
SHEET NO:

## S1.2

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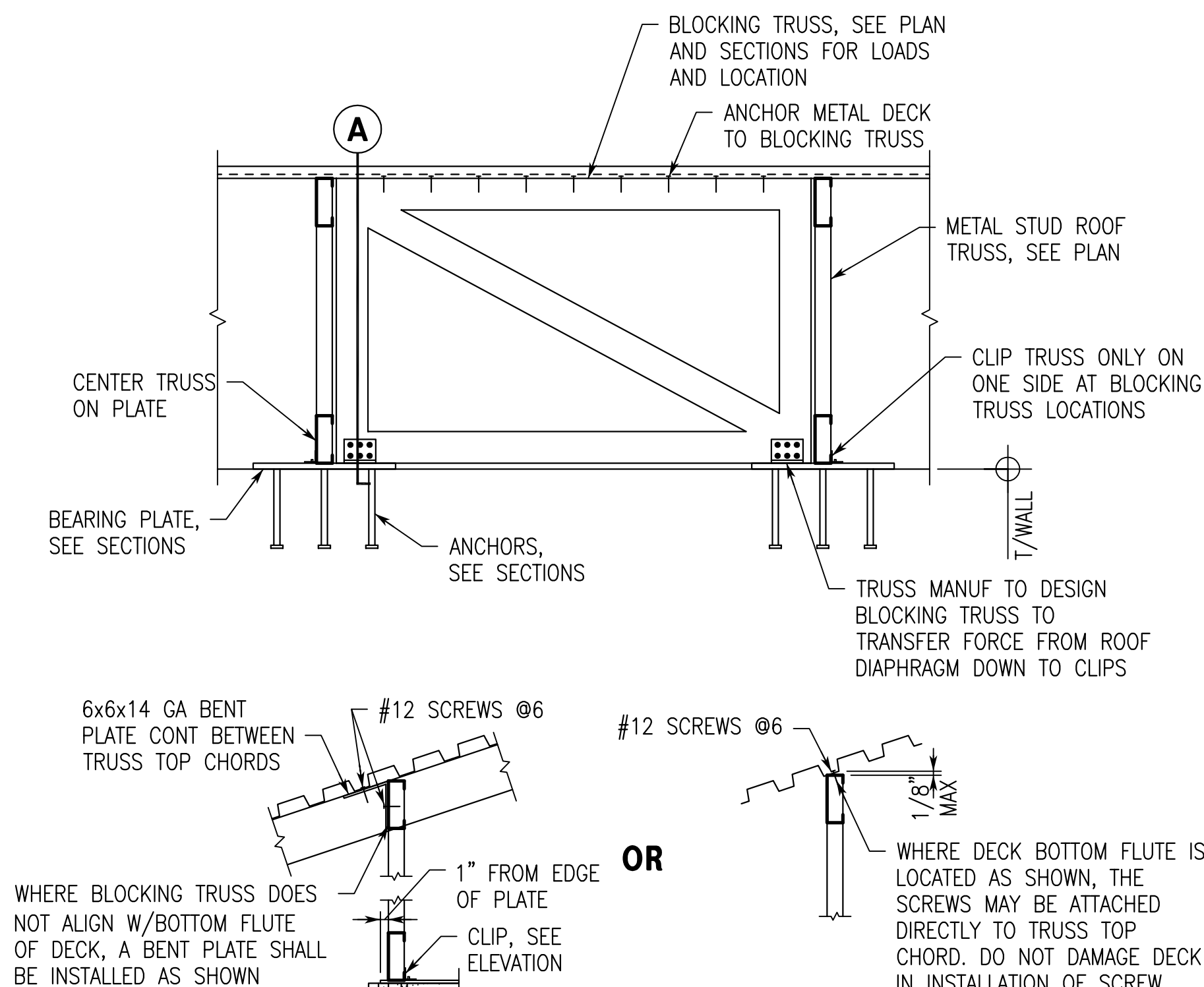




MASONRY COLUMN SCHEDULE (MC)						
COLUMN DESIGNATION		MC1	MC2	MC3	MC4	MC5
COLUMN	SIZE	8x16	12x16	8x24	12x24	12x32
	VERTICALS	4#5	4#5	6#5	6#5	8#6
	TIES	#3@8	#3@8	#3@8	#3@8	#3@8
	NOTES	1,2,3,4	1,2,3,4	1,2,3,4,6	1,2,3,4,5	1,2,3,4

- NOTES:  
1. SEE COLUMN TIE DETAIL ON THIS SHEET.  
2. DOWEL VERTICAL STEEL INTO FOOTING THE THICKNESS OF THE FOOTING MINUS 3" WITH STANDARD HOOK. LAP DOWELS WITH VERTICALS 72 BAR DIA.  
3. EXTEND VERTICALS FULL HEIGHT OF WALL UNLESS NOTED.  
4. PROVIDE FIRST TIE ABOVE FOOTING AT 4" AND FIRST TIE BELOW SLAB/TRUSS/ROOF BEARING AT 4" AND SPACE REMAINING TIES AT SPECIFIED SPACING.  
5. AT SIMILAR CONDITION, PROVIDE 12x26 NOMINAL SIZE MASONRY COLUMN WITH THE SAME REINFORCING AS 12x24 MC4. ADJUST TIE SIZE BASED ON REDUCED MASONRY COLUMN SIZE.  
6. AT SIMILAR CONDITION, PROVIDE 8x25 NOMINAL SIZE MASONRY COLUMN WITH THE SAME REINFORCING AS 8x24 MC3. ADJUST TIE SIZE BASED ON REDUCED MASONRY COLUMN SIZE.



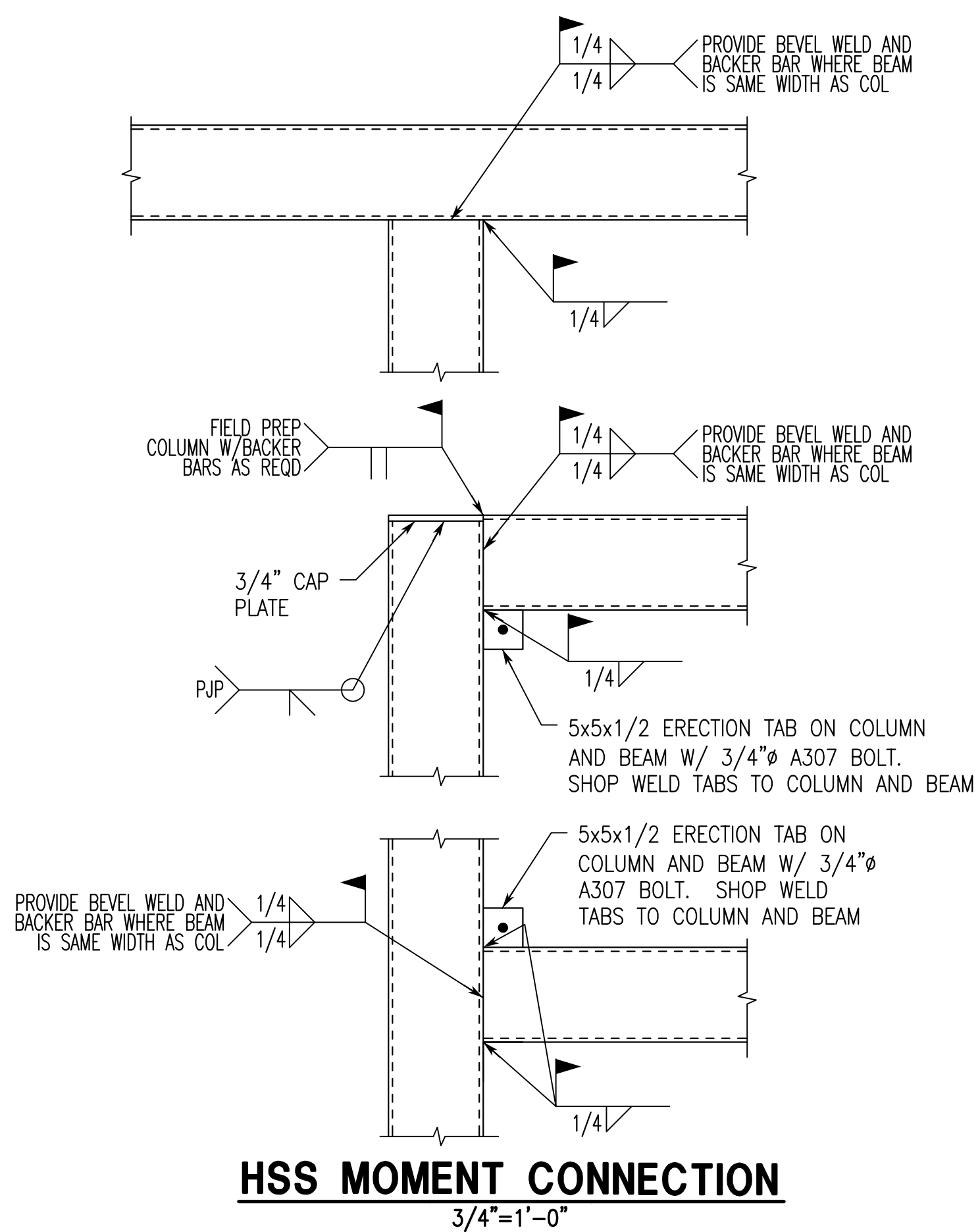


**SECTION A**

**METAL TRUSS**

**BLOCKING TRUSS DETAIL**

NOT TO SCALE  
ALTERNATE CONDITION



## TENSION LAP SPLICE LENGTHS

BAR SIZE	f <sub>C</sub> = 3000 PSI				f <sub>C</sub> = 4000 PSI			
	TOP BARS		OTHER BARS		TOP BARS		OTHER BARS	
	A	B	A	B	A	B	A	B
#3	22"	28"	17"	22"	19"	24"	15"	19"
#4	29"	37"	22"	29"	25"	32"	19"	25"
#5	36"	47"	28"	36"	31"	40"	24"	31"
#6	43"	56"	33"	43"	37"	48"	29"	37"
#7	63"	81"	48"	63"	54"	70"	42"	54"
#8	72"	93"	55"	72"	62"	80"	48"	62"
#9	81"	105"	62"	81"	70"	91"	54"	70"
#10	91"	118"	70"	91"	79"	102"	61"	79"
#11	101"	131"	78"	101"	87"	113"	67"	87"

NOTES:

1. TOP BARS ARE HORIZONTAL REINFORCEMENT WITH MORE THAN 12" OF CONCRETE CAST BELOW THE REINFORCEMENT.
2. FOR TENSION LAP SPLICE LENGTHS FOR 3500 PSI CONCRETE, USE LENGTHS DESIGNATED FOR 3000 PSI CONCRETE.

## PIPING WEIGHTS

PIPE DIAMETER	PIPE WT PER/FOOT (PLF)	FLUID WT PER/FOOT (PLF)	INSULATION & HANGERS (PLF)	TOTAL WT PER/FOOT (PLF)
4"	10.80	6.10	2.00	18.90
6"	19.00	13.80	3.00	35.80
8"	28.60	23.90	4.00	56.50
10"	40.50	37.50	4.00	82.00
12"	49.60	54.00	5.00	108.60
14"	54.60	65.70	5.00	125.30
16"	62.60	87.10	5.00	154.70

NOTES:

1. FROM ANVIL INTERNATIONAL PIPE FITTERS HANDBOOK.
2. ALL PIPES ASSUMED TO BE SCHEDULE 40.
3. FLUID WEIGHT INCLUDES ALLOWANCE FOR GLYCOL CONCENTRATION.
4. PIPING SUPPORT AND THRUST BRACING REQUIREMENTS SHALL BE COORDINATED BY THE GENERAL CONTRACTOR WITH THE STEEL/JOIST FABRICATOR. SEE MECHANICAL/PLUMBING DRAWINGS FOR PIPING SUPPORT AND THRUST BRACING REQUIREMENTS.
5. FOR PIPE SIZES NOT LISTED, CONTACT STRUCTURAL ENGINEER.

### COMPONENTS AND CLADDING WIND LOADS FOR ROOF (PSF)

114 MPH VELOCITY (3-SEC. GUST)		ROOF					OVERHANG				
H = 23'-0" 4:12 Roof Slope	EFFECTIVE WIND AREA (FT²)	Positive Max. Net Pressure 'p' (PSF)	Zone 1 & 2e (Int.) (PSF)	Zone 2n, 2r, & 3e (Edge) (PSF)	Zone 3r (Corner) (PSF)	Zone 1 & 2e (Int) - Max. Net Pressure 'p' (PSF)	Zone 2n & 2r (Edge) - Max. Net Pressure 'p' (PSF)	Zone 3e (Corner) - Max. Net Pressure 'p' (PSF)	Zone 3r (Corner) - Max. Net Pressure 'p' (PSF)		
	10	18.8	-57.3	-83.5	-99.3	-65.7	-92.0	-107.7	-123.5		
	20	16.9	-57.3	-72.2	-85.1	-65.7	-83.5	-93.0	-104.5		
	50	16.0	-34.8	-57.3	-66.3	-50.7	-72.2	-73.6	-79.4		
	100	16.0	-17.9	-46.0	-52.0	-39.4	-63.8	-58.9	-60.4		
	200	16.0	-17.9	-34.6	-52.0	-39.4	-55.3	-44.1	-60.4		
	500	16.0	-17.9	-31.0	-52.0	-39.4	-52.5	-39.4	-60.4		

**NOTES:**

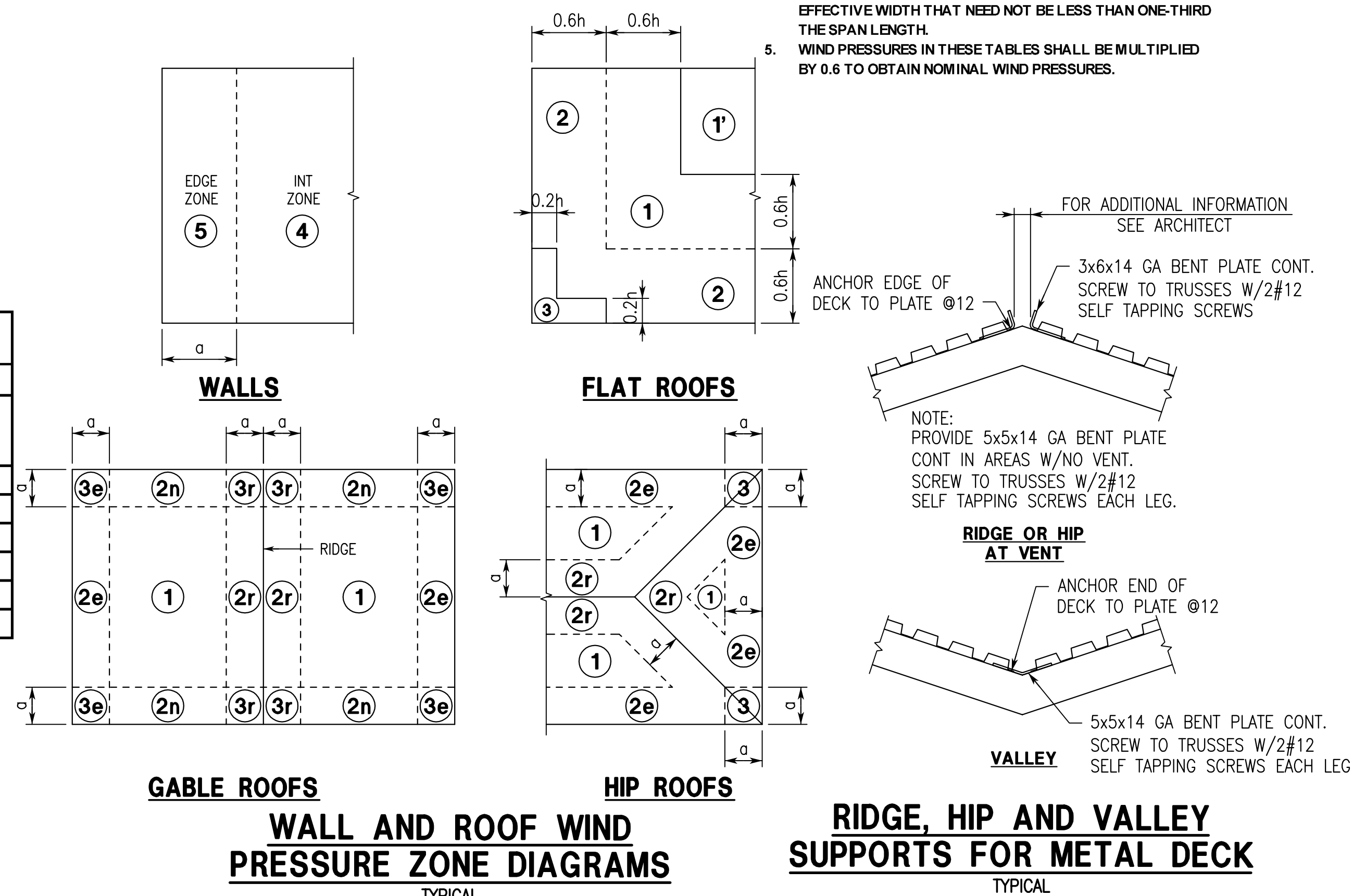
1. WIDTH OF EDGE STRIP "a" = 8" - 2".
2. VALUES SHOWN ABOVE HAVE BEEN ADJUSTED FOR BUILDING HEIGHT AND EXPOSURE ACCORDING TO ASCE 7-16 STANDARD TABLE 6-5.1. VALUES SHOWN ARE THE ULTIMATE, PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE BUILDING SURFACES.
3. EFFECTIVE WIND AREA IS THE SPAN LENGTH MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH.
4. CONSIDER 5 PSF MINIMUM DEAD LOAD FOR UPLIFT CALCULATIONS FOR ROOF FRAMING MEMBERS AND 2 PSF MINIMUM DEAD LOAD FOR UPLIFT CALCULATIONS FOR ROOF DECK.
5. WIND PRESSURES IN THESE TABLES SHALL BE MULTIPLIED BY 0.6 TO OBTAIN NOMINAL WIND PRESSURES.

### COMPONENTS AND CLADDING WIND LOADS FOR STORM SHELTER ROOF (PSF)

250 MPH VELOCITY (3-SEC. GUST)		ROOF					OVERHANG				
H = 16'-6" 0:12 Roof Slope	EFFECTIVE WIND AREA (FT <sup>2</sup> )	Positive Max. Net Pressure 'p' (PSF)	Zone 1' (Int.) (PSF)	Zone 1 (Int.) (PSF)	Zone 2 (Edge) (PSF)	Zone 3 (Corner) (PSF)	Zone 1' & 1 (Int.) - Max. Net Pressure 'p' (PSF)	Zone 2 (Edge) - Max. Net Pressure 'p' (PSF)	Zone 3 (Corner) - Max. Net Pressure 'p' (PSF)		
	10	117.8	-200.9	-311.8	-394.9	-519.6	-235.6	-318.7	-443.4		
	20	113.6	-200.9	-294.6	-372.8	-475.4	-231.4	-289.2	-391.8		
	50	108.1	-200.9	-271.9	-343.6	-417.0	-225.9	-250.3	-323.7		
	100	103.9	-200.9	-254.7	-321.5	-372.8	-221.7	-220.8	-272.1		
	200	103.9	-180.1	-237.5	-299.4	-328.6	-185.9	-191.4	-220.6		
	500	103.9	-152.5	-214.8	-270.2	-270.2	-138.6	-152.4	-152.4		

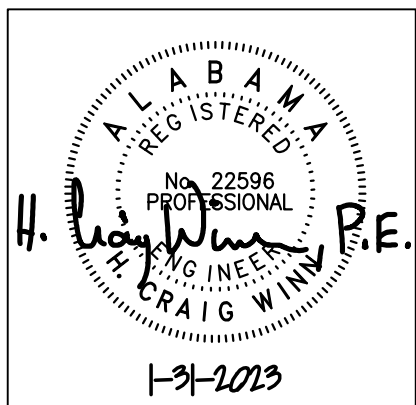
**NOTES:**

1. WIDTH OF EDGE STRIP 'a' = 6'-2".
2. VALUES SHOWN ABOVE HAVE BEEN ADJUSTED FOR BUILDING HEIGHT AND EXPOSURE ACCORDING TO ASCE 7-16 STANDARD TABLE 30.3-1. VALUES SHOWN ARE ULTIMATE
3. PLUS AND MINUS SIGNS INDICATE PRESSURES ACTING TOWARD AND AWAY FROM THE BUILDING SURFACES.
4. EFFECTIVE WIND AREA IS THE SPAN LENGTH MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH.
5. HOLLOW CORE MANUFACTURER IS TO DESIGN SLAB PANELS FOR DEAD LOADS, LIVE LOADS, AND WIND LOADS (DOWNWARD AND UPLIFT) AS INDICATED IN GENERAL NOTES, TYPICAL DETAILS, PLAN NOTES, AND SECTION NOTES, IN ADDITION TO 20 PSF COLLATERAL LOAD AND SELF-WEIGHTS.
6. WIND PRESSURES IN THESE TABLES SHALL BE MULTIPLIED BY 0.6 TO OBTAIN NOMINAL WIND PRESSURES.



## RIDGE, HIP AND VALLEY SUPPORTS FOR METAL DECK

## TYPICAL



SHEET TITLE:  
TYPICAL DETAILS

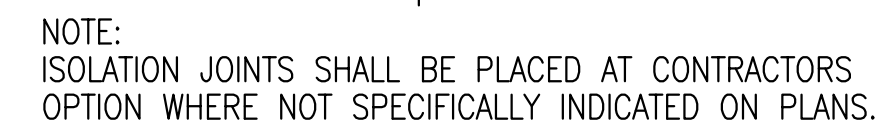
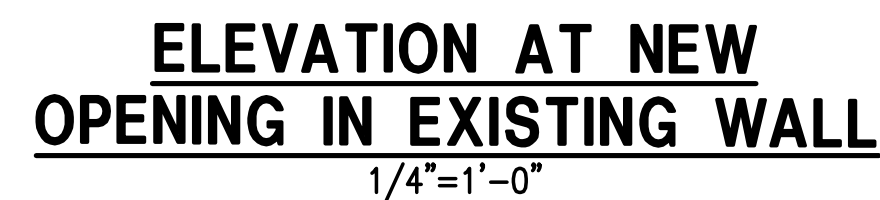
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DRAWN:	ABS
DATE:	JANUARY 31, 2023
REVISIONS	

JOB NO. 22-20

SHEET NO:

## S1.4





**SECTION**  $\frac{1}{S1.5}$   
 $\frac{3}{4}''=1'-0''$

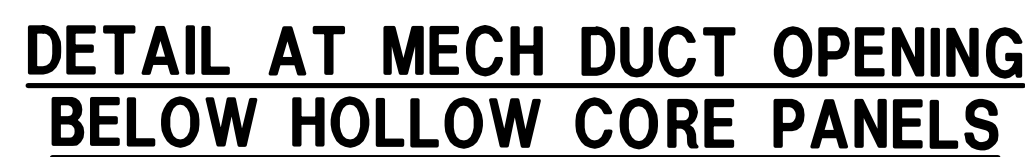


FACE OF CONCRETE

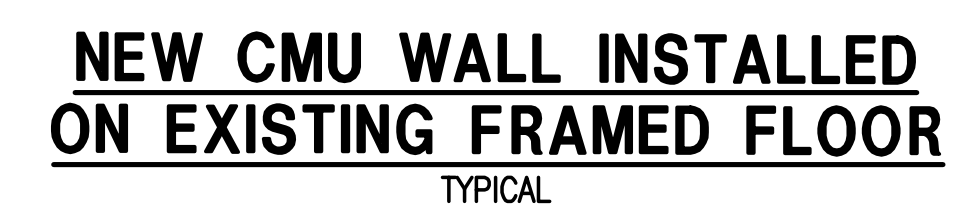
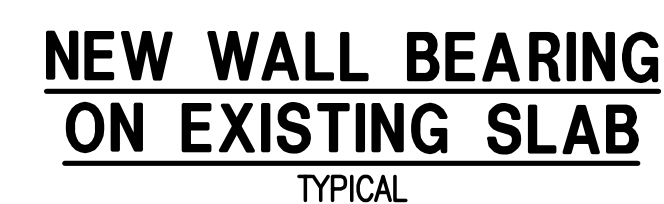
BEAM, SEE PLAN

### ELEVATION

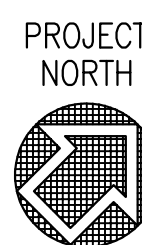
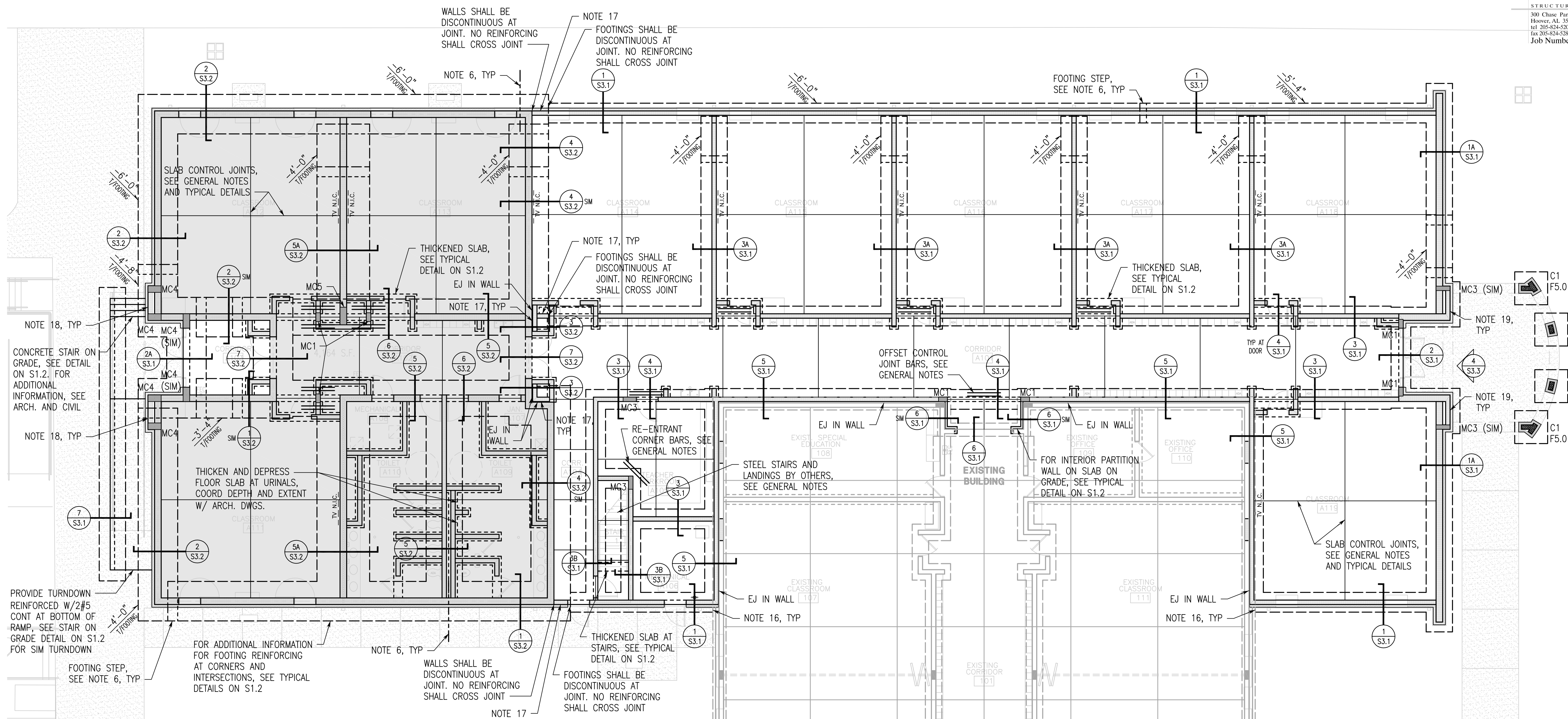
**EMBED PLATE DETAIL AND SCHEDULE**



**SECTION** **(A)** SIM



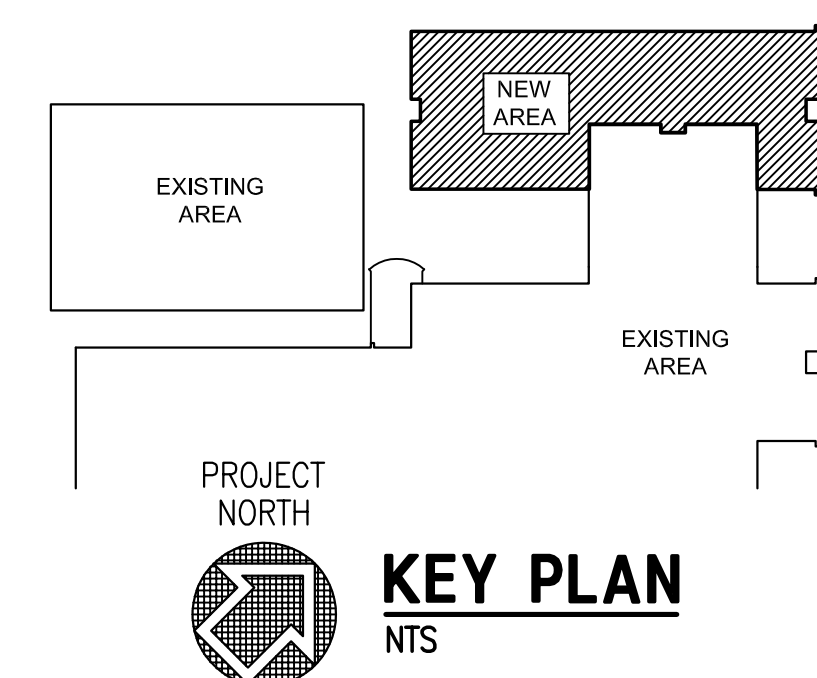




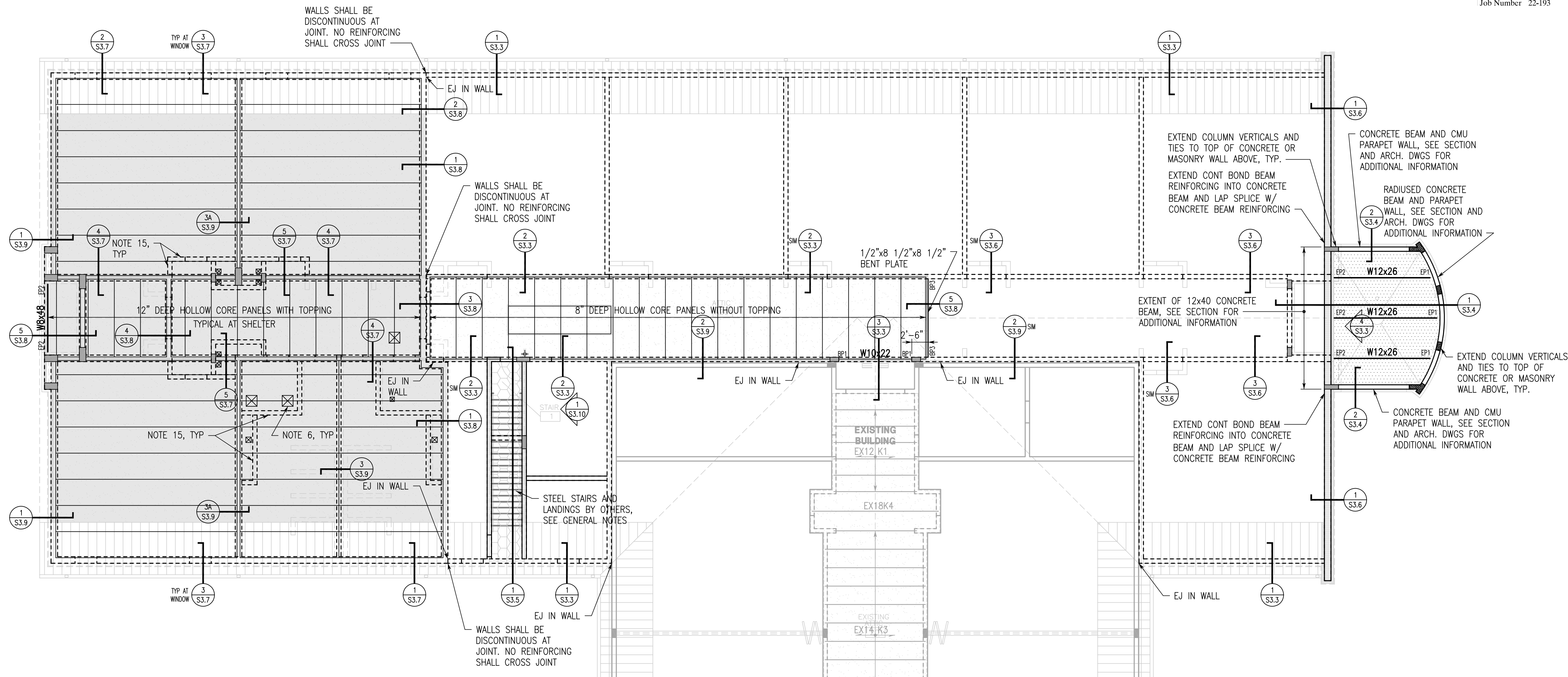
FOUNDATION PLAN  
1/8"=1'-0"

1. FINISH FLOOR (TOP OF SLAB) ELEVATION TO MATCH EXISTING, UNLESS NOTED.
2. TOP OF FOOTING ELEVATION -2'-0" BELOW FINISH FLOOR ELEVATION, 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. FOOTING STEP LOCATIONS SHOWN ARE APPROXIMATE. GENERAL CONTRACTOR COORDINATE LOCATION OF ALL (EXTERIOR & INTERIOR) FOOTING STEPS WITH THE LATEST CIVIL, PLUMBING AND UTILITY DRAWINGS. SEE FOOTING STEP DETAIL ON S1.2.
7. FOOTING WIDTHS INDICATED ON PLAN MAY OR MAY NOT BE TO SCALE. COORDINATE WITH SECTION CUTS FOR FOOTING WIDTHS AND ADDITIONAL INFORMATION.
8. THE [HATCHED SHADED AREA] HATCHED/SHADED AREA ON THE PLAN INDICATES AREA TO BE USED AS STORM SHELTER. FOR ADDITIONAL INFORMATION, SEE GENERAL NOTES, PLANS AND SECTIONS.
9. "MCx" INDICATES MASONRY COLUMN. SEE SCHEDULE ON S1.3 FOR ADDITIONAL INFORMATION.
10. C1 AND C2 INDICATES END AND INTERIOR CONCRETE COLUMNS, RESPECTIVELY, FOR THE ENTRY CANOPY. FOR COLUMN DIMENSIONS, SEE ARCHITECTURAL DRAWINGS. REINFORCE COLUMN WITH #5 VERTICAL IN EACH CORNER AND INFILL WITH ADDITIONAL #5 VERTICALS WITH 6" MAXIMUM SPACING. DOWEL TO FOOTING WITH STANDARD HOOK. USE #3 TIES AT 8" ON CENTER. ALL VERTICALS ARE TO BE SUPPORTED BY THE CORNER OF A TIE. SEE COLUMN BASE AND FOOTING DETAIL ON S1.2 AND COLUMN TIE DETAILS ON S1.3. FOR ADDITIONAL INFORMATION, SEE ARCHITECTURAL DRAWINGS.
11. F5.0 INDICATES 5'-0"x5'-0"x1'-0" CONCRETE SPREAD FOOTING REINFORCED WITH 6#5 EACH WAY TOP AND BOTTOM. SEE COLUMN BASE AND FOOTING DETAIL ON S1.2 FOR ADDITIONAL INFORMATION.
12. CONTRACTOR NOTE: DO NOT PROVIDE MASONRY CONTROL JOINTS IN STORM SHELTER CMU WALLS.
13. FOR PAVEMENT AND HARDSCAPE INFORMATION, SEE ARCHITECTURAL DRAWINGS AND CIVIL DRAWINGS.
14. FOR LOAD BEARING AND NON-LOAD BEARING CMU WALL PLAN DIMENSIONS AS WELL AS OTHER PLAN DIMENSIONS, SEE ARCHITECTURAL DRAWINGS.

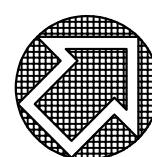
15. CONTRACTOR SHALL COORDINATE EMBEDS INTO MASONRY WITH LOUVER OR DOOR MANUFACTURER. PROVIDE MODIFICATIONS TO STRUCTURE AS REQUIRED TO FULLY COMPLY WITH MANUFACTURERS INSTALLATION DETAILS. SUBMIT ANY MODIFICATIONS TO DESIGN TEAM FOR REVIEW.
16. GENERAL CONTRACTOR COORDINATE FOOTING ELEVATIONS AND STEP NEW FOOTINGS AS REQUIRED TO MATCH EXISTING FOOTING ELEVATIONS. DOWEL CONTINUOUS REINFORCING 9" INTO EXISTING FOOTING BY DRILLING AND ANCHORING WITH EPOXY ADHESIVE.
17. 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.
18. STORM SHELTER 12" CMU BUMP OUT WALL, REINFORCE WITH #6 VERTICAL AT 8" FOR FULL HEIGHT OF WALL. FILL CELLS WITH GROUT. DOWEL TO FOOTING. TIE 12" CMU WALLS TOGETHER HARD. FOR ADDITIONAL INFORMATION, SEE ARCHITECTURAL DRAWINGS.
19. NON-STORM SHELTER 8" OR 12" CMU BUMP OUT WALL, REINFORCE WITH #5 VERTICALS AT 16" FOR FULL HEIGHT OF WALL. FILL CELLS WITH GROUT. DOWEL TO FOOTING. PROVIDE WALL TIES AS REQUIRED AND PER ARCHITECTURAL DRAWINGS. FOR ADDITIONAL INFORMATION, SEE ARCHITECTURAL DRAWINGS.







PROJECT  
NORTH



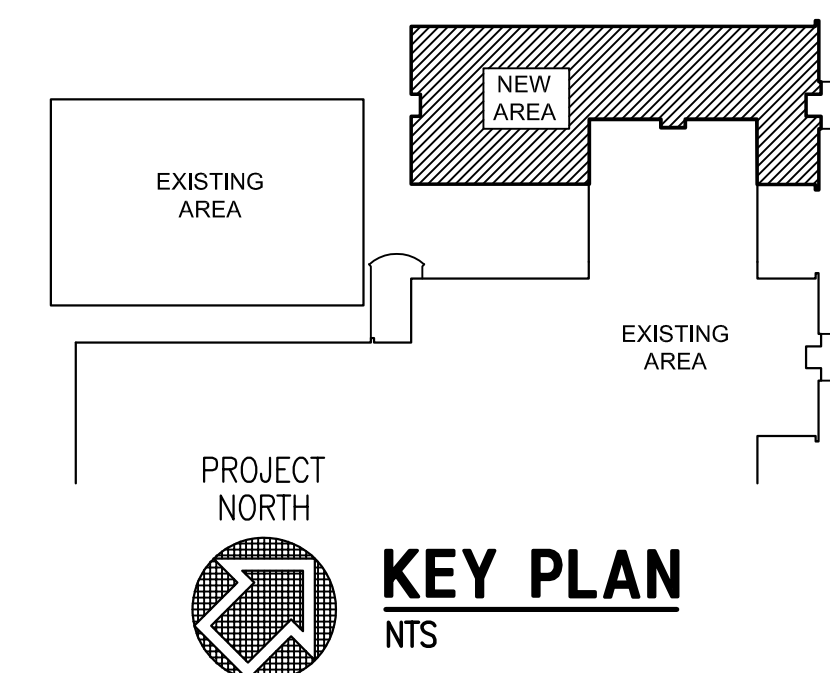
## ATTIC FRAMING PLAN

1/8"=1'-0"

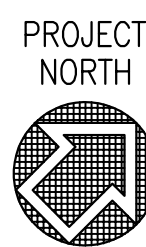
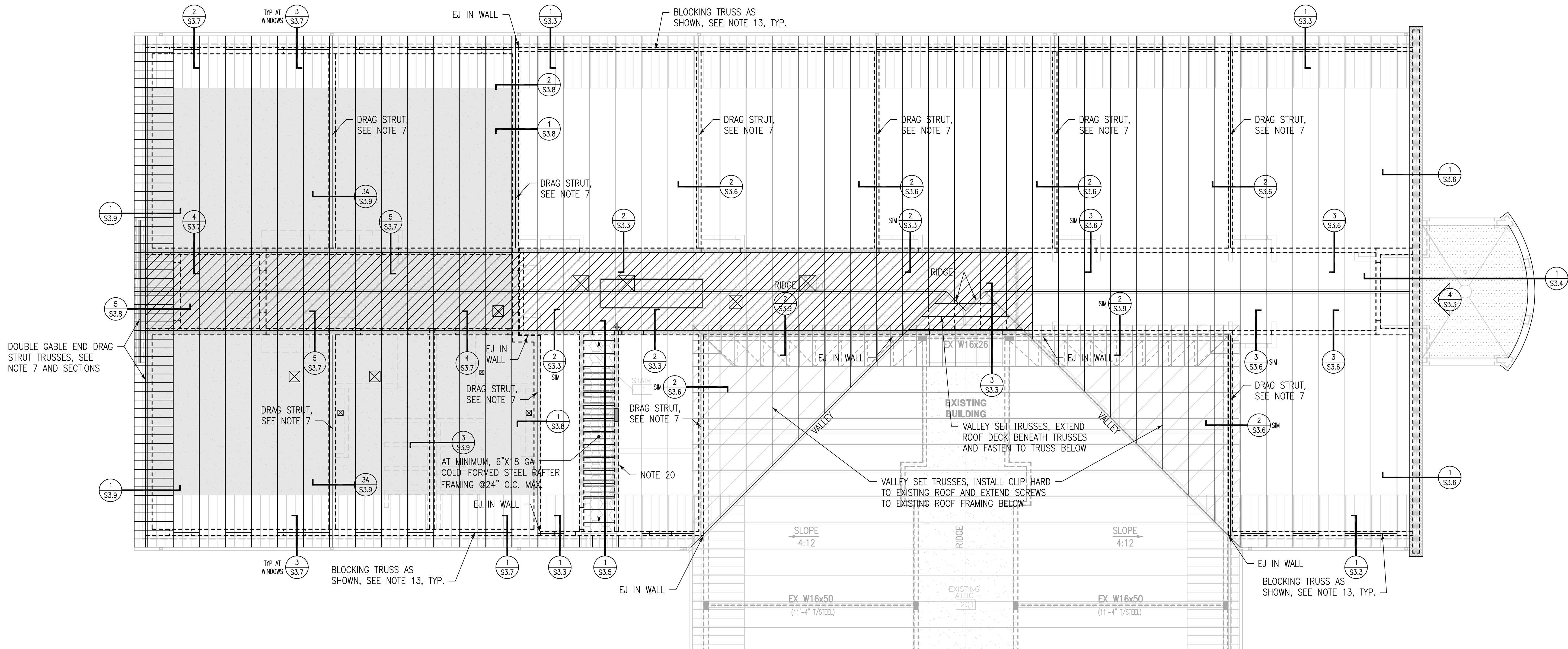
- FINISH FLOOR (TOP OF SLAB) ELEVATION 11'-2" ABOVE MAIN FINISHED FLOOR AT STORM SHELTER, UNLESS NOTED.  
FINISH FLOOR (TOP OF SLAB) ELEVATION 12'-0" ABOVE MAIN FINISHED FLOOR AT CORRIDORS (STORM SHELTER AND NON-STORM SHELTER), UNLESS NOTED.  
TOP OF STEEL ELEVATION 12'-8" ABOVE MAIN FINISHED FLOOR AT ENTRY CANOPY, UNLESS NOTED.
- FLOOR/ROOF SYSTEM:  
STORM SHELTER: 12" THICK PRECAST HOLLOW CORE SLABS WITH MAXIMUM 3" STRUCTURAL TOPPING SLAB, SEE GENERAL NOTES.  
NON-STORM SHELTER: 8" THICK PRECAST HOLLOW CORE SLABS WITH NO STRUCTURAL TOPPING SLAB, SEE GENERAL NOTES.  
ENTRY CANOPY: 1 1/2" x22 GAGE GALVANIZED METAL DECK ON STEEL BEAMS AT 6'-3" MAXIMUM ON CENTER, SEE GENERAL NOTES. ANCHOR METAL DECK TO BEAMS WITH 5/8" PUDDLE WELDS IN 36/4 PATTERN WITH 3/10 SIDELAP SCREWS BETWEEN BEAMS.
- PRECAST HOLLOW CORE SLAB LAYOUT SHOWN IS FOR SCHEMATIC PURPOSES ONLY. PRECAST MANUFACTURER TO VERIFY ACTUAL LAYOUT. HOLLOW CORE MANUFACTURER DESIGN SLABS FOR DEAD LOADS, LIVE LOADS AND WIND LOADS (DOWNWARD AND UPLIFT) AS INDICATED IN GENERAL NOTES AND TYPICAL DETAILS, IN ADDITION TO SELF-WEIGHT DEAD LOAD, 20 PSF COLLATERAL DEAD LOAD AND OTHER APPLICABLE FLOOR LIVE LOADS.
- CUT OR BREAK CORES OF HOLLOW CORE SLABS ONLY AS REQUIRED TO PLACE REINFORCING.
- THE GENERAL CONTRACTOR SHALL COORDINATE AND VERIFY THE SIZE, WEIGHT AND LOCATION OF ALL CONCENTRATED AND MECHANICAL LOADS WITH THE PRECAST MANUFACTURER.
- COORDINATE MECHANICAL OPENINGS WITH MECHANICAL DRAWINGS AND UNIT MANUFACTURER. PRECAST SUPPLIER TO SHOW OPENINGS ON SHOP DRAWINGS AND PROVIDE ANY SUPPORT FOR OPENINGS. CONTRACTOR TO PROVIDE PENETRATION PROTECTION AT ANY STORM SHELTER WALL/ROOF PENETRATION.
- PROVIDE MASONRY AND VENEER LINTELS AT ALL OPENINGS, SEE SCHEDULES ON S1.2.
- "BP" INDICATES BEAM BEARING PLATE, SEE TYPICAL DETAIL ON SHEET S1.5.
- THE HATCHED AREA ON THE PLAN INDICATES REINFORCED SHELTER ROOF. THIS AREA IS NOT TO BE OCCUPIED ON THIS FLOOR AS STORM SHELTER. FOR ADDITIONAL INFORMATION, SEE

GENERAL NOTES, PLANS AND SECTIONS.

- CONTRACTOR NOTE: DO NOT PROVIDE MASONRY CONTROL JOINTS IN STORM SHELTER CMU WALLS.
- WHERE MECHANICAL DUCTS EXTEND THRU LOAD BEARING WALLS BELOW HOLLOW CORE SLABS, PROVIDE MASONRY BOND BEAM PER DETAIL/SCHEDULE ON S1.5.
- CONTRACTOR NOTE: ALL MECHANICAL OPENING SIZES AND LOCATIONS IN LOAD BEARING MASONRY WALLS SHOULD BE COORDINATED BY THE CONTRACTOR AND INDICATED ON THE MASONRY WALL REBAR SHOP DRAWINGS.
- CONTRACTOR SHALL COORDINATE EMBEDS INTO MASONRY WITH LOUVER OR DOOR MANUFACTURER. PROVIDE MODIFICATIONS TO STRUCTURE AS REQUIRED TO FULLY COMPLY WITH MANUFACTURERS INSTALLATION DETAILS. SUBMIT ANY MODIFICATIONS TO DESIGN TEAM FOR REVIEW.
- CONTRACTOR SHALL COORDINATE MECHANICAL DUCT LAYOUT AND ROUTE. DUCT LAYOUT IS TO BE PROVIDED TO STRUCTURAL EOR FOR REVIEW AND APPROVAL PRIOR TO MASONRY WALL CONSTRUCTION. SUBMITTED LAYOUT TO HAVE ROUTE, SIZE, ELEVATION, ETC. AS WELL AS ANY REQUIRED WALL OPENINGS (LOCATION, SIZE, ETC.).
- CONTRACTOR TO PROVIDE PENETRATION PROTECTION AT ANY AND ALL STORM SHELTER WALL/ROOF PENETRATIONS LARGER THAN 3 1/2" SQUARE INCHES IN AREA FOR RECTANGULAR PENETRATIONS OR 2 1/16" INCHES IN DIAMETER. ALL PENETRATIONS/OPENINGS (MECHANICAL, ELECTRICAL, PLUMBING, ETC.) SHALL BE A MINIMUM OF 6 INCHES CLEAR FROM EACH OTHER WHERE INSTALLED IN MULTIPLE ROWS AND/OR COLUMNS.
- "EP" INDICATES EMBED PLATE, SEE TYPICAL DETAIL WITH SCHEDULE ON SHEET S1.5.
- CONTRACTOR BUILD ALL CMU PARTITION WALLS (EXCEPT TOILET AND URINAL PARTITION WALLS) WITHIN THE STORM SHELTER HARD TO UNDERSIDE OF HOLLOW CORE SLAB.



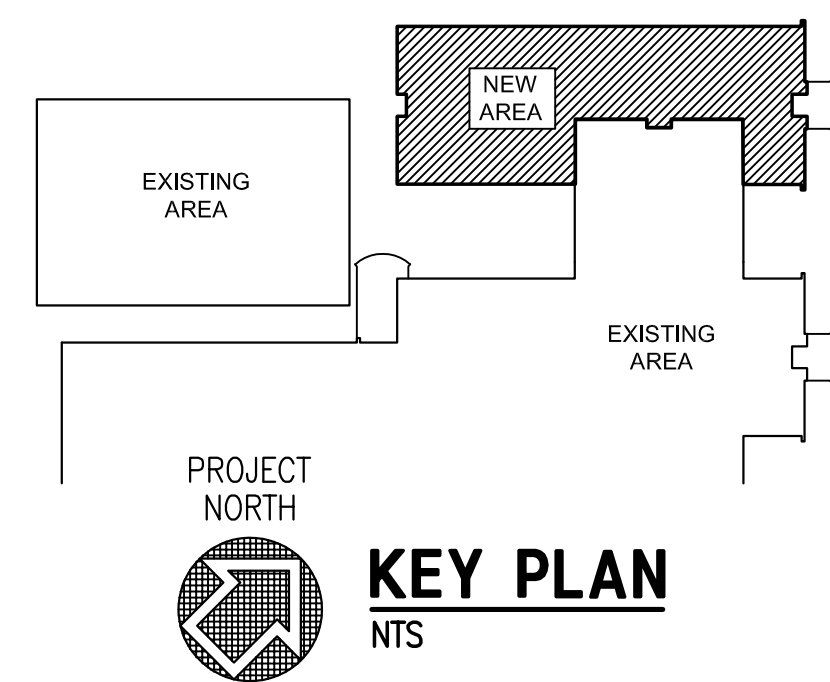




## ROOF FRAMING PLAN

1/8"=1'-0"

- FINISH FLOOR (TOP OF SLAB) ELEVATION 11'-2" ABOVE MAIN FINISHED FLOOR AT STORM SHELTER, UNLESS NOTED.  
FINISH FLOOR (TOP OF SLAB) ELEVATION 12'-0" ABOVE MAIN FINISHED FLOOR AT CORRIDORS (STORM SHELTER AND NON-STORM SHELTER), UNLESS NOTED.  
TOP OF CMU WALL ELEVATION 10'-8" ABOVE MAIN FINISHED FLOOR AT NON-STORM SHELTER, UNLESS NOTED.  
TOP OF CMU WALL ELEVATION 12'-0" ABOVE MAIN FINISHED FLOOR AT NON-STORM SHELTER CORRIDOR, UNLESS NOTED.
- ROOF SYSTEM: 1 1/2" x 22 GA GALV METAL DECK ON PRE-MANUFACTURED METAL STUD TRUSSES AT 4'-0" MAXIMUM ON CENTER. SEE GENERAL NOTES. ANCHOR METAL DECK TO TRUSSES WITH #12 SCREWS IN 36/4 PATTERN WITH 2#10 SIDELAP SCREWS BETWEEN TRUSSES.
- TOP OF CMU IS EITHER LEVEL OR SLOPING UNIFORMLY BETWEEN NOTED ELEVATIONS.
- TRUSS MANUFACTURER TO COORDINATE DRAFT STOP TRUSS LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- FOR WALL LOCATIONS, SEE ARCHITECTURAL DRAWINGS.
- GENERAL CONTRACTOR SHALL COORDINATE THE LOAD MAGNITUDE AND LOCATION OF ANY EQUIPMENT SUPPORTED FROM THE METAL STUD TRUSSES. THESE LOADS AND LOCATIONS ARE TO BE SHOWN ON THE TRUSS SHOP DRAWINGS. ANY ATTACHMENT OF EQUIPMENT TO THE TRUSSES SHALL BE BY THE EQUIPMENT SUPPLIERS.
- PROVIDE DRAG STRUT TRUSS AS NOTED ON PLAN. TRUSS MANUFACTURER TO DESIGN TRUSS AND CONNECTION TO STRUCTURE FOR A SERVICE LOAD OF 160 PLF (SERVICE) FOR THE LENGTH OF THE TRUSS.
- PROVIDE MASONRY AND VENEER LINTELS AT ALL OPENINGS. SEE SCHEDULES ON S1.2.
- "BP" INDICATES BEAM BEARING PLATE. SEE TYPICAL DETAIL ON SHEET S1.5.
- GENERAL CONTRACTOR SHALL COORDINATE METAL STUD TRUSS LAYOUT WITH MECHANICAL EQUIPMENT AND DUCT LOCATIONS.
- HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY THE GENERAL CONTRACTOR WITH THE TRUSS MANUFACTURER. FOR PIPING WEIGHTS, SEE TYPICAL DETAIL ON S1.4.
- WHERE MECHANICAL DUCTS MUST EXTEND THRU LOAD BEARING WALLS BELOW HOLLOW CORE SLABS, PROVIDE MASONRY BOND BEAM PER DETAIL/SCHEDULE ON S1.5.
- TRUSS MANUFACTURER TO PROVIDE ALL MISC STEEL CLOSURE PLATES, SUCH AS RIDGE, HIP AND VALLEY PLATES.
- BLOCKING TRUSS/PLATE SHALL BE LOCATED AS SHOWN ON PLAN. TRUSS/PLATE SHALL BE DESIGNED BY TRUSS MANUFACTURER TO TRANSFER 2000 LBS (SERVICE) OF FORCE DOWN TO TOP OF WALL. SEE DETAIL ON S1.4. ANCHOR TOP CHORD OF BLOCKING TRUSS TO ROOF DECK AS DIRECTED BY TRUSS MANUFACTURER TO TRANSFER 500 LBS/FT (SERVICE) SHEAR FORCE.
- METAL STUD SOFFIT FRAMING SHALL BE DESIGNED BY CONTRACTOR TO HANG FROM ROOF STRUCTURE. CONTRACTOR SHALL ENGAGE METAL STUD ENGINEER AND PROVIDE CALCULATIONS AND SHOP DRAWINGS FOR SOFFIT DESIGN. DESIGN SOFFIT FOR DEAD WEIGHT PLUS ANY SUSPENDED EQUIPMENT AND A 5 PSF HORIZONTAL LOAD OVER SURFACE. TRUSS MANUFACTURER TO DESIGN TRUSSES IN THIS AREA FOR MINIMUM 250 PLF DEAD WEIGHT FROM SOFFIT.
- HANGER LOCATIONS FOR PIPING LARGER THAN 3 INCHES IN DIAMETER MUST BE COORDINATED BY THE GENERAL CONTRACTOR WITH THE TRUSS MANUFACTURER. FOR PIPING WEIGHTS, SEE TYPICAL DETAIL ON S1.4.
- BLOCKING TRUSSES/PLATES, BRIDGING, PERMANENT BRACING, MISCELLANEOUS STEEL CLOSURE PLATES, ETC. SHALL BE DESIGNED AND INDICATED ON THE TRUSS LAYOUT SHOP DRAWINGS. FOR ADDITIONAL INFORMATION, SEE GENERAL NOTES.
- CONTRACTOR NOTE: ALL MECHANICAL OPENING SIZES AND LOCATIONS IN LOAD BEARING MASONRY WALL SHOULD BE COORDINATED BY THE CONTRACTOR AND INDICATED ON THE MASONRY WALL REINFORCING SHOP DRAWINGS.
- METAL STUD SUPPORT FRAMING SHALL BE DESIGNED BY CONTRACTOR TO SUPPORT INTAKE HOODS, RELIEF HOODS, ETC. CONTRACTOR SHALL ENGAGE METAL STUD ENGINEER AND PROVIDE CALCULATIONS AND SHOP DRAWINGS FOR ALL NECESSARY METAL STUD FRAMING DESIGNS.
- ATTIC HATCH PATTERN INDICATES MECHANICAL ATTIC IN THE PLANE OF THE TRUSSES. PREFABRICATED CFS TRUSS MANUFACTURER SHALL DESIGN TRUSSES AS REQUIRED TO PROVIDE MAXIMUM HEAD HEIGHT IN THESE AREAS. FOR ADDITIONAL INFORMATION, SEE ARCH. AND MECH. DWGS.
- EXTEND TOP OF WALL ELEVATION UP TO DECK BEARING ELEVATION AT STAIR SHAFT. PROVIDE 3/8x5 x CONT. PLATE W/ 1/2"x8x8" LONG HEADED STUDS @16 IN TOP OF WALL. PROVIDE AND ANCHOR 12 GA TRACK TO INSIDE FACE OF STAIR SHAFT CMU WALL. ANCHOR STEEL ROOF DECK TO TRACK W/ #12 SCREWS @12 AND TO PLATE W/ 5/8" PUDDLE WELDS @6.





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ARCHITECTS  
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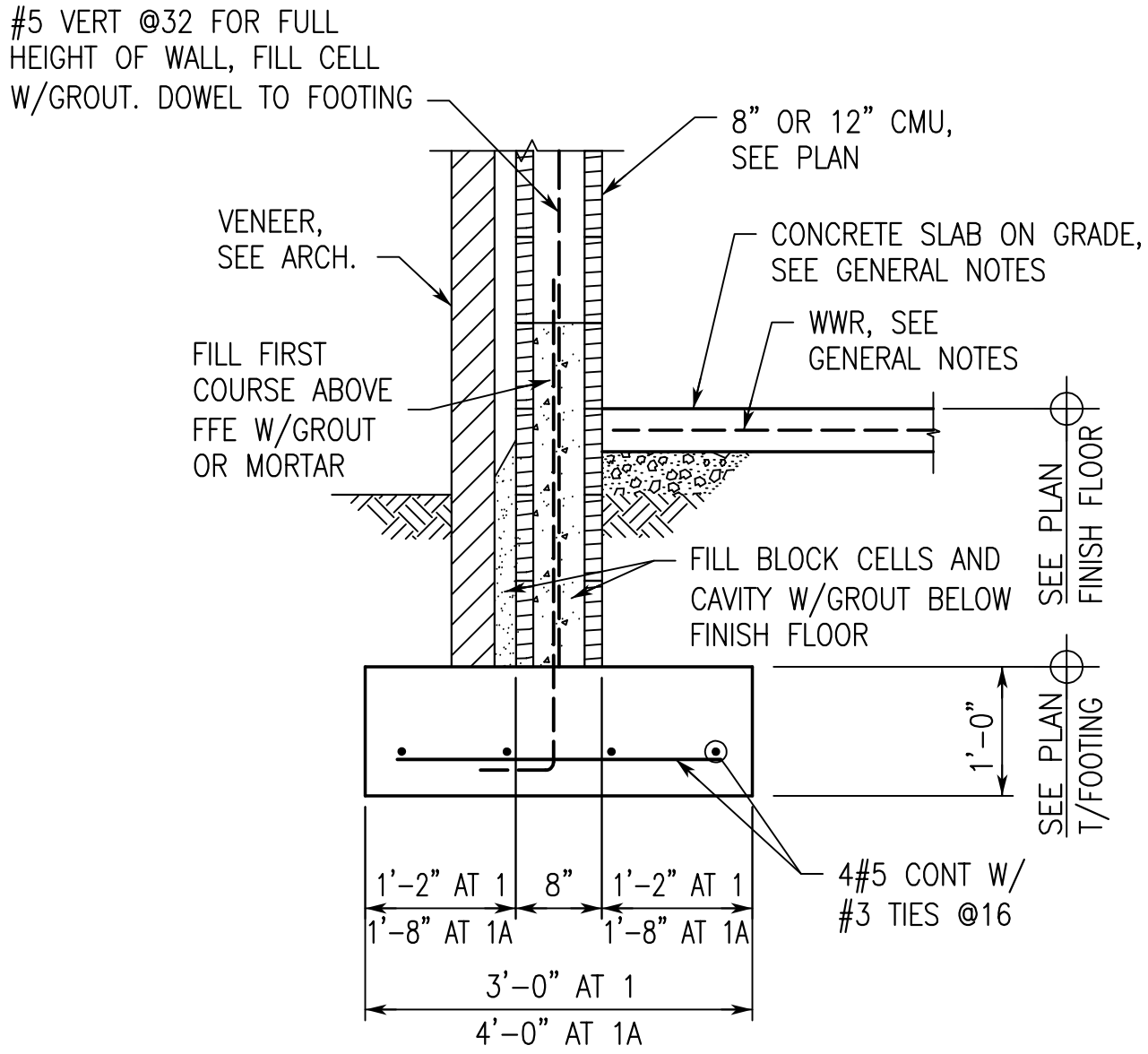
CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

ALABAMA  
REGISTERED  
PROFESSIONAL  
ENGINEER  
H. Lathan P.E.  
1-21-2023

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SECTIONS  
AND DETAILS

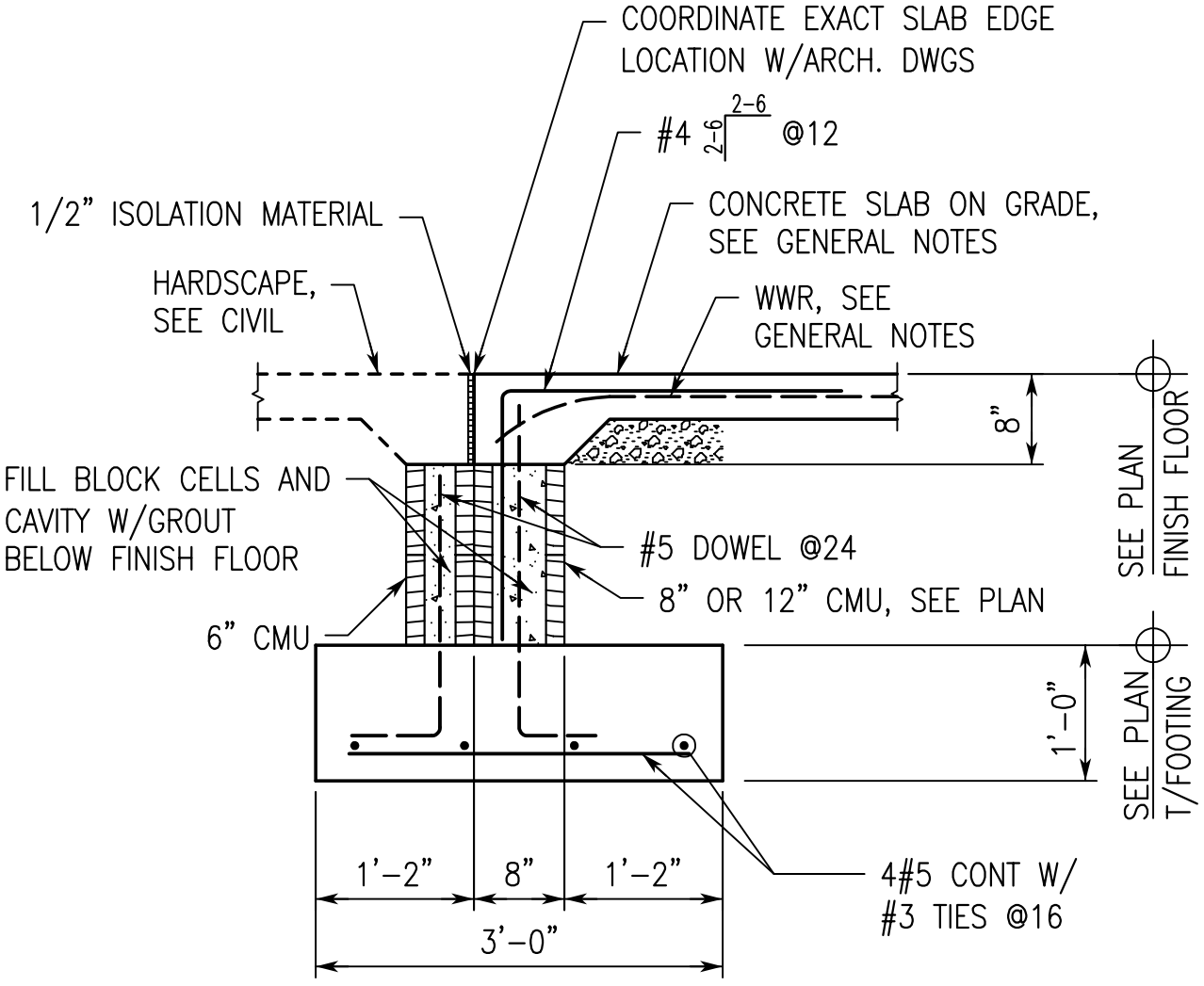
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DRAWN: ABS  
DATE: JANUARY 31, 2023  
REVISIONS

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SHEET NO.  
S3.1  
10 OF 19  
0 1" 2"



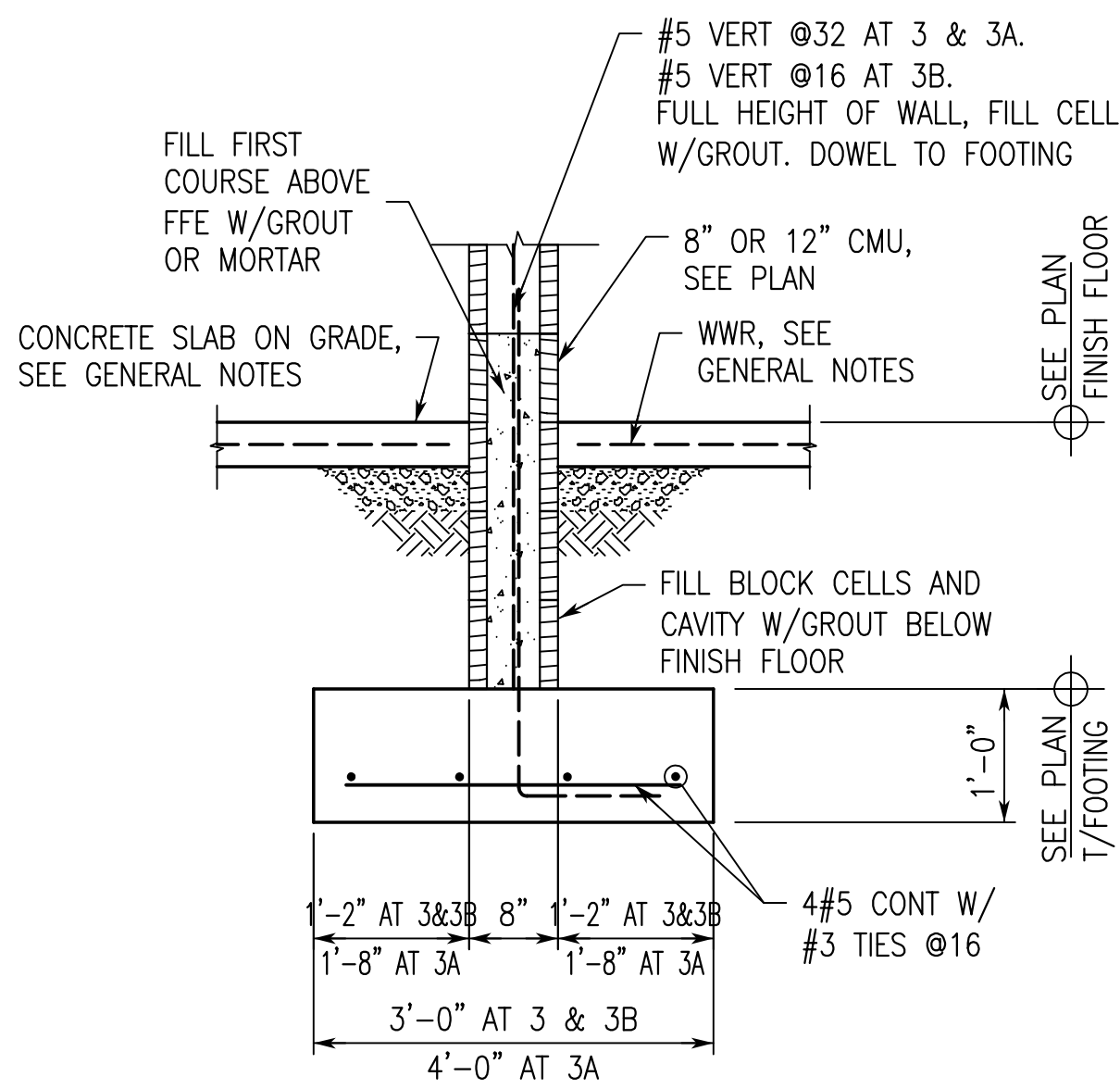
SECTION 1  
3/4"=1'-0"

NOTE:  
WHERE FOOTING HAS BEEN WIDEN AT WALL BUMP OUT, PROVIDE 2#5 CONT ADDITIONAL AND EXTEND #3 TIES @16 FOR WIDEN FOOTING.

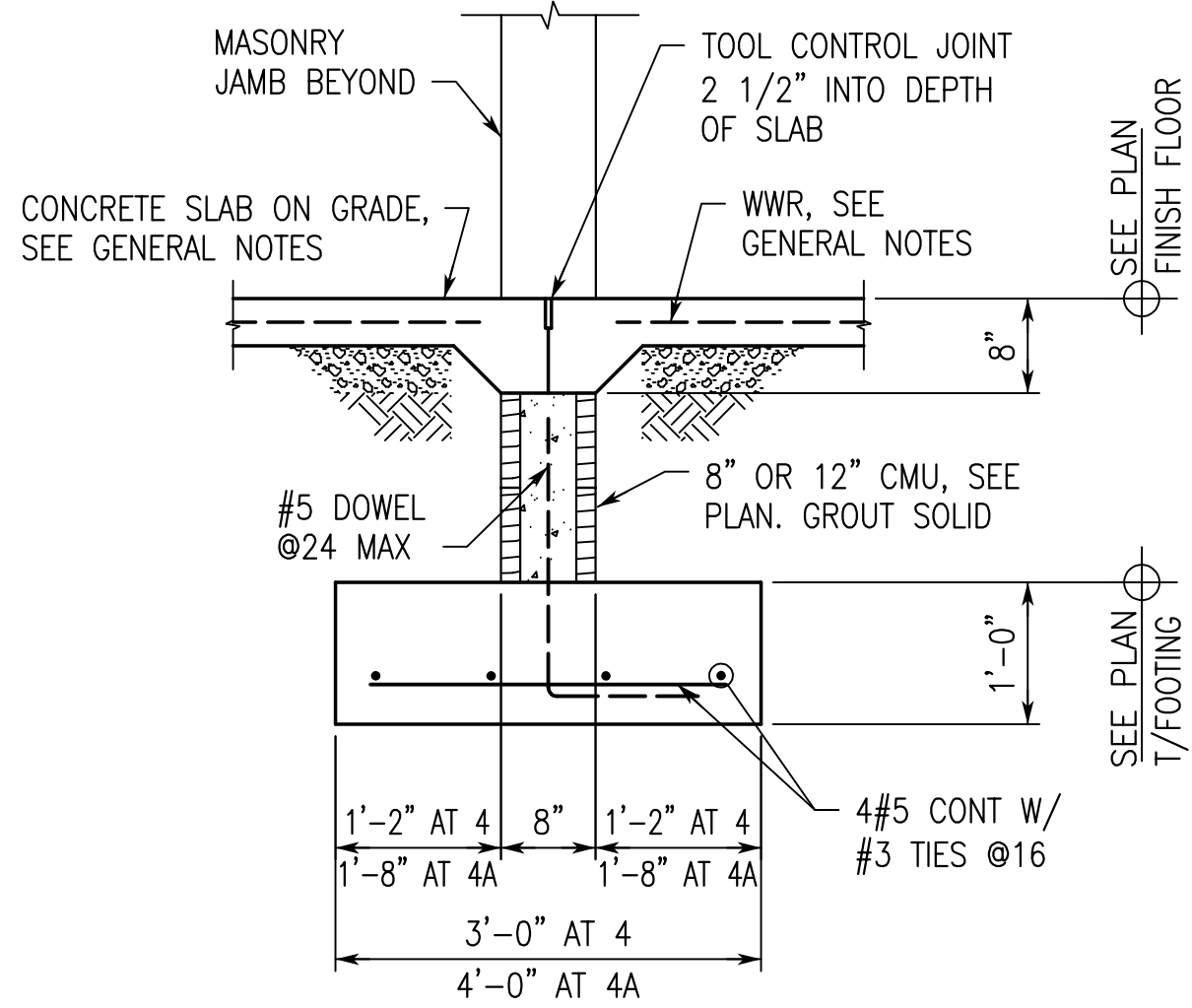


SECTION 2  
3/4"=1'-0"

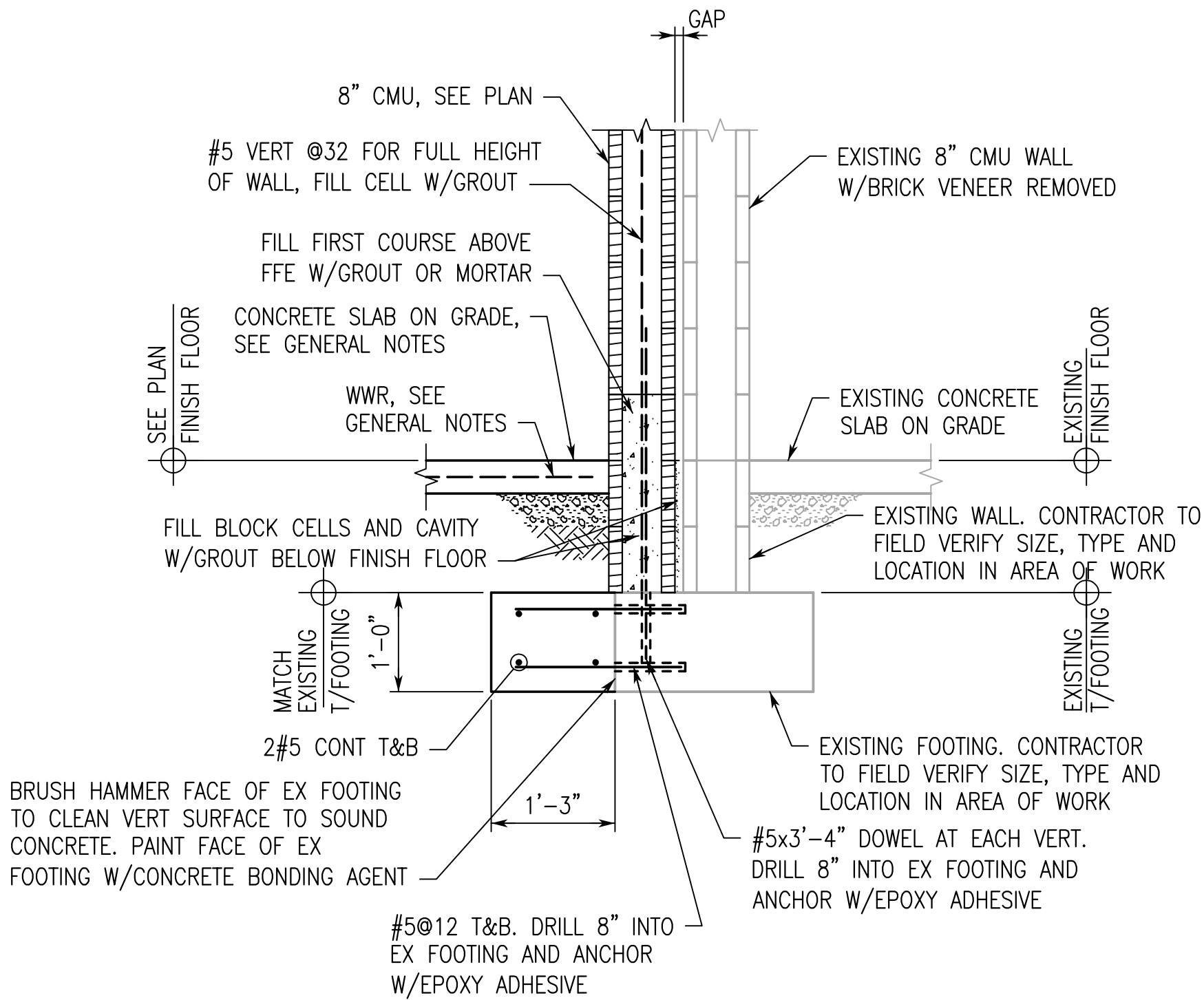
NOTE:  
AT SECTION 2A/S3.1, REFER TO SECTION 2/S3.2 FOR FOOTING AND FOOTING REINFORCING INFORMATION. PROVIDE #5 DOWELS @8 CENTERED IN 12" CMU WALL AND GROUT SOLID.



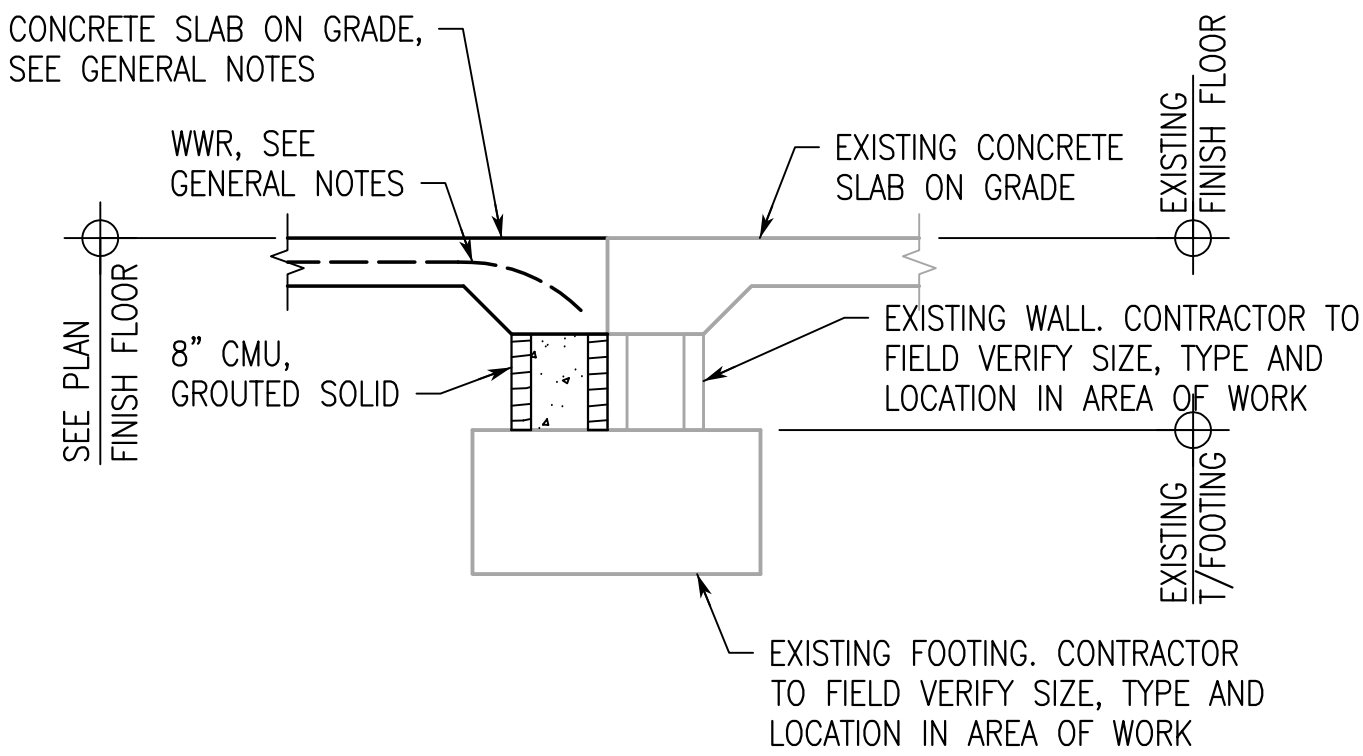
SECTION 3  
3/4"=1'-0"



SECTION 4  
3/4"=1'-0"

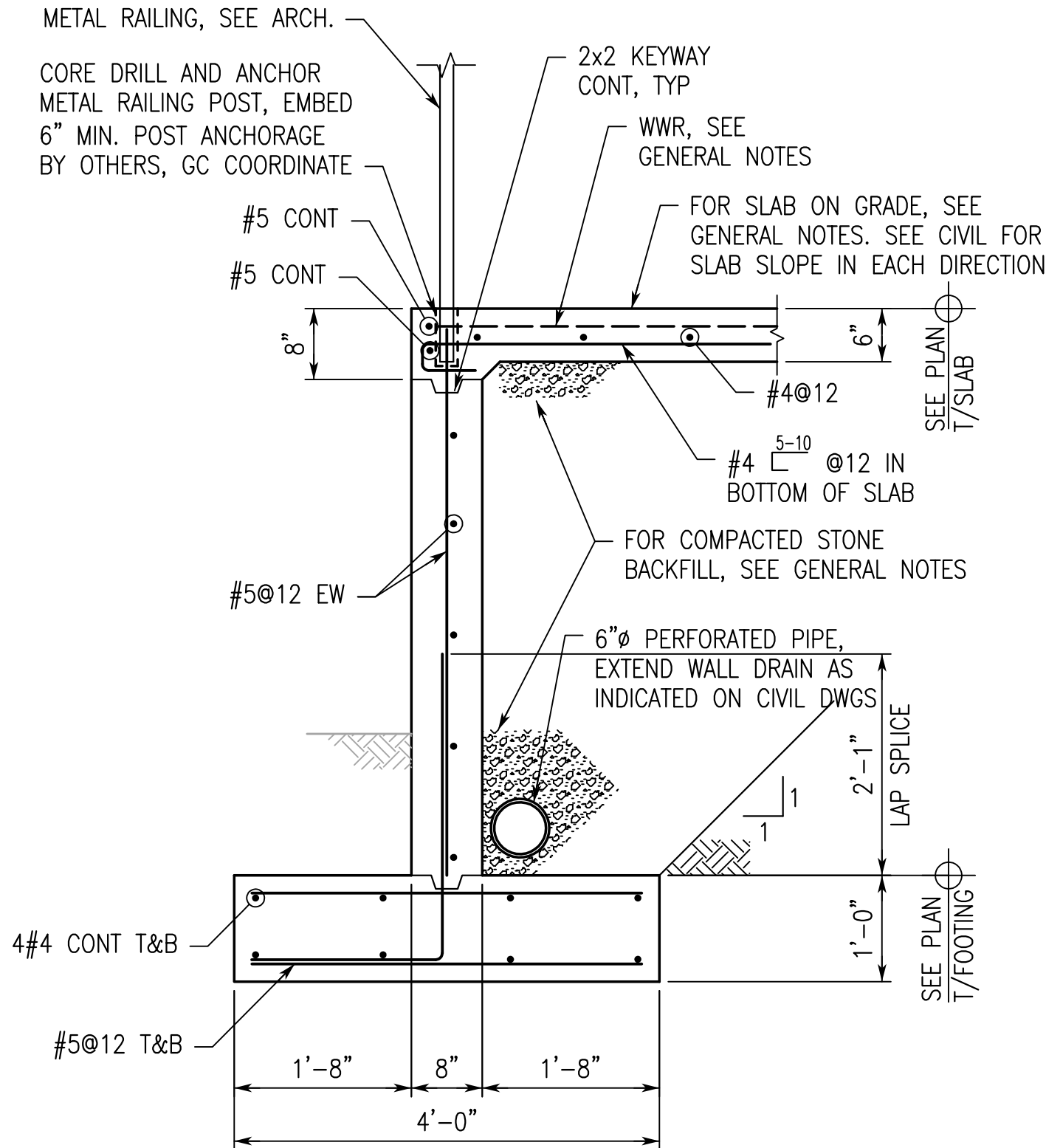


SECTION 5  
3/4"=1'-0"



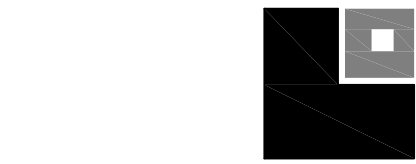
SECTION 6  
3/4"=1'-0"

NOTE:  
AT SIMILAR CONDITION, EXISTING 8" CMU WALL WITH BRICK VENEER REMOVED IS PRESENT AND NEW INTERIOR PARTITION WALL ON SLAB ON GRADE IS TO BE ADDED. FOR ADDITIONAL INFORMATION, SEE ARCH.



SECTION 7  
3/4"=1'-0"





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**SECTIONS  
AND DETAILS**

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DRAWN: ABS  
DATE: JANUARY 31, 2023  
REVISIONS

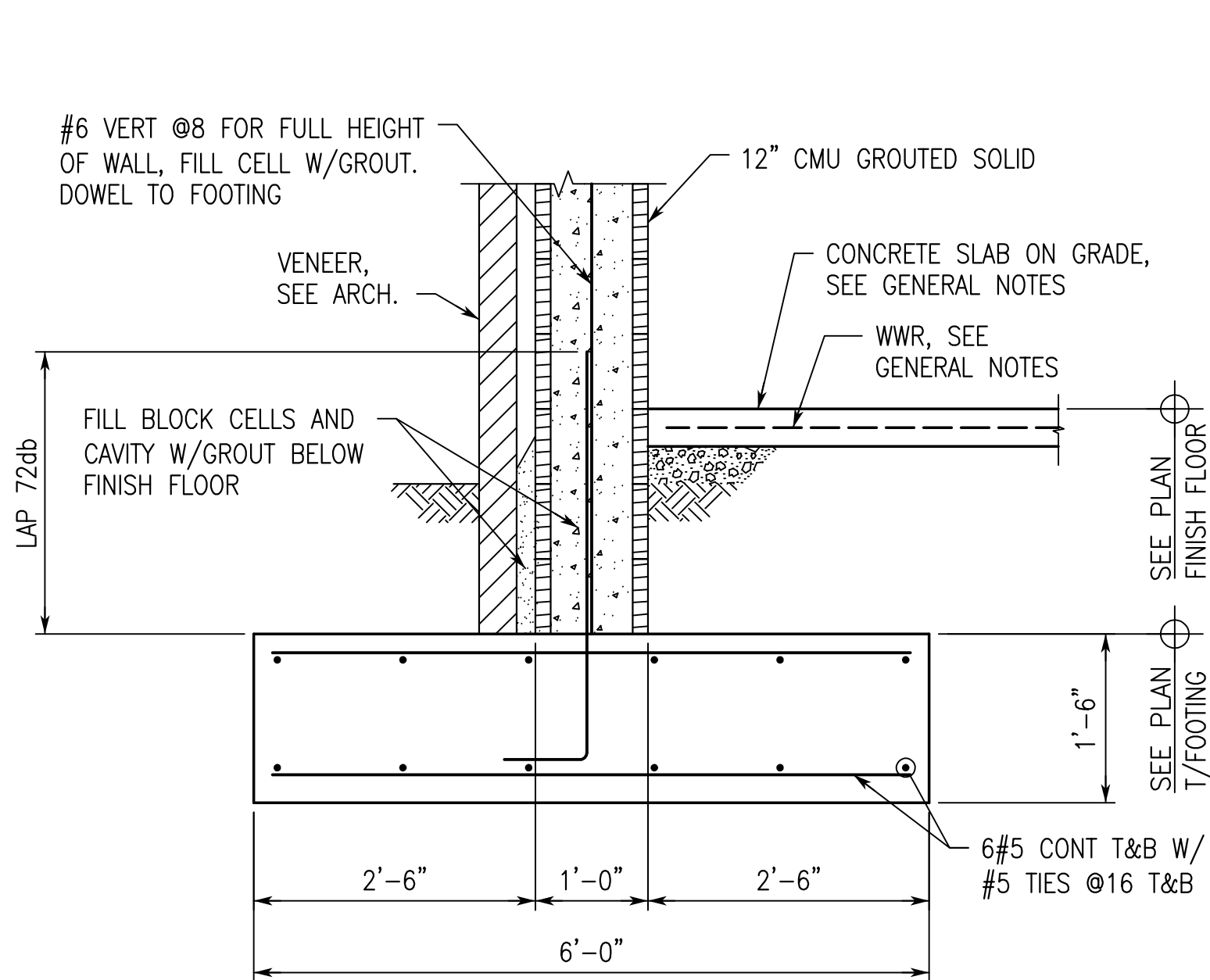
JOB NO. 22-20

SHEET NO:

**S3.2**

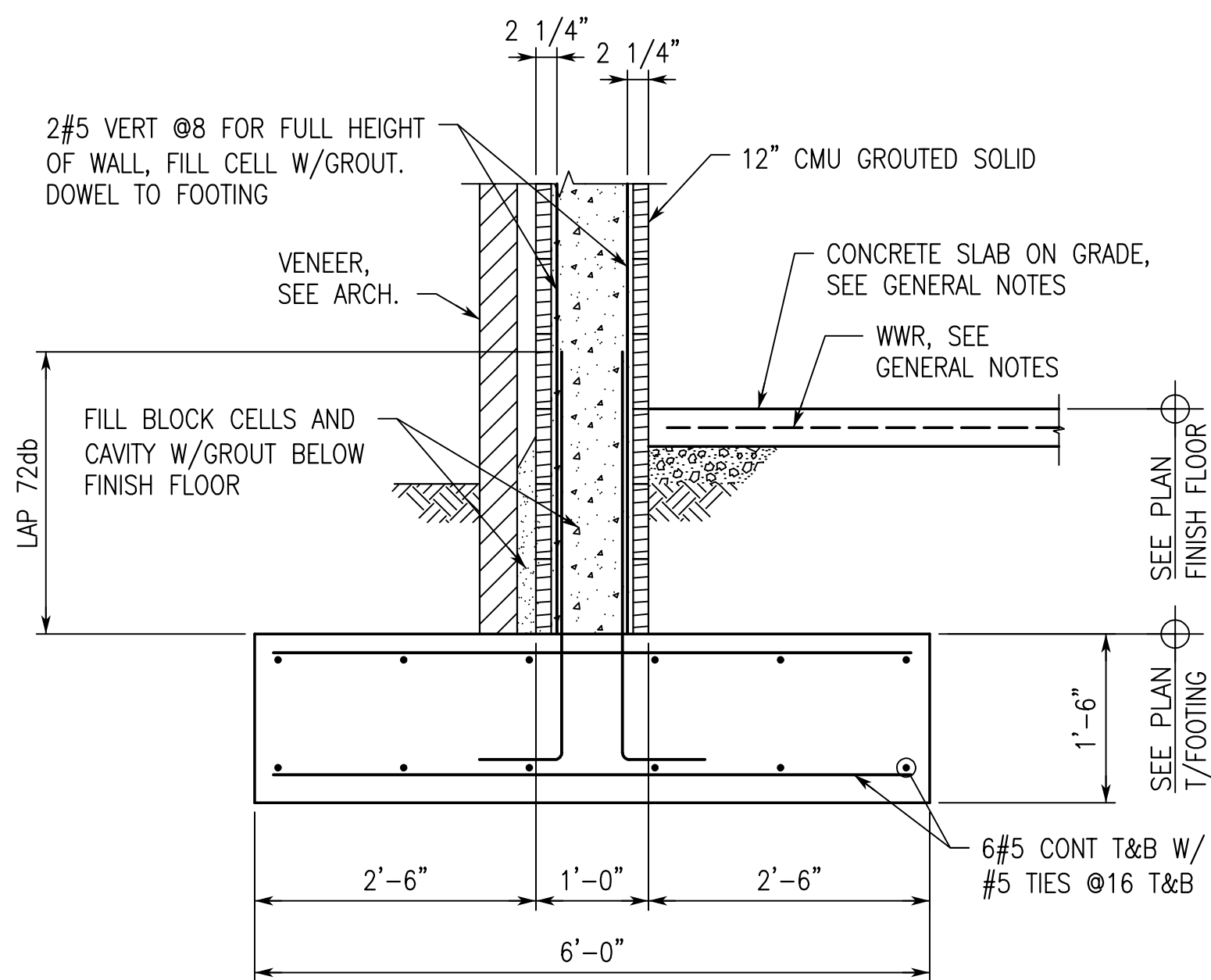
11 OF 19

0 1" 2"



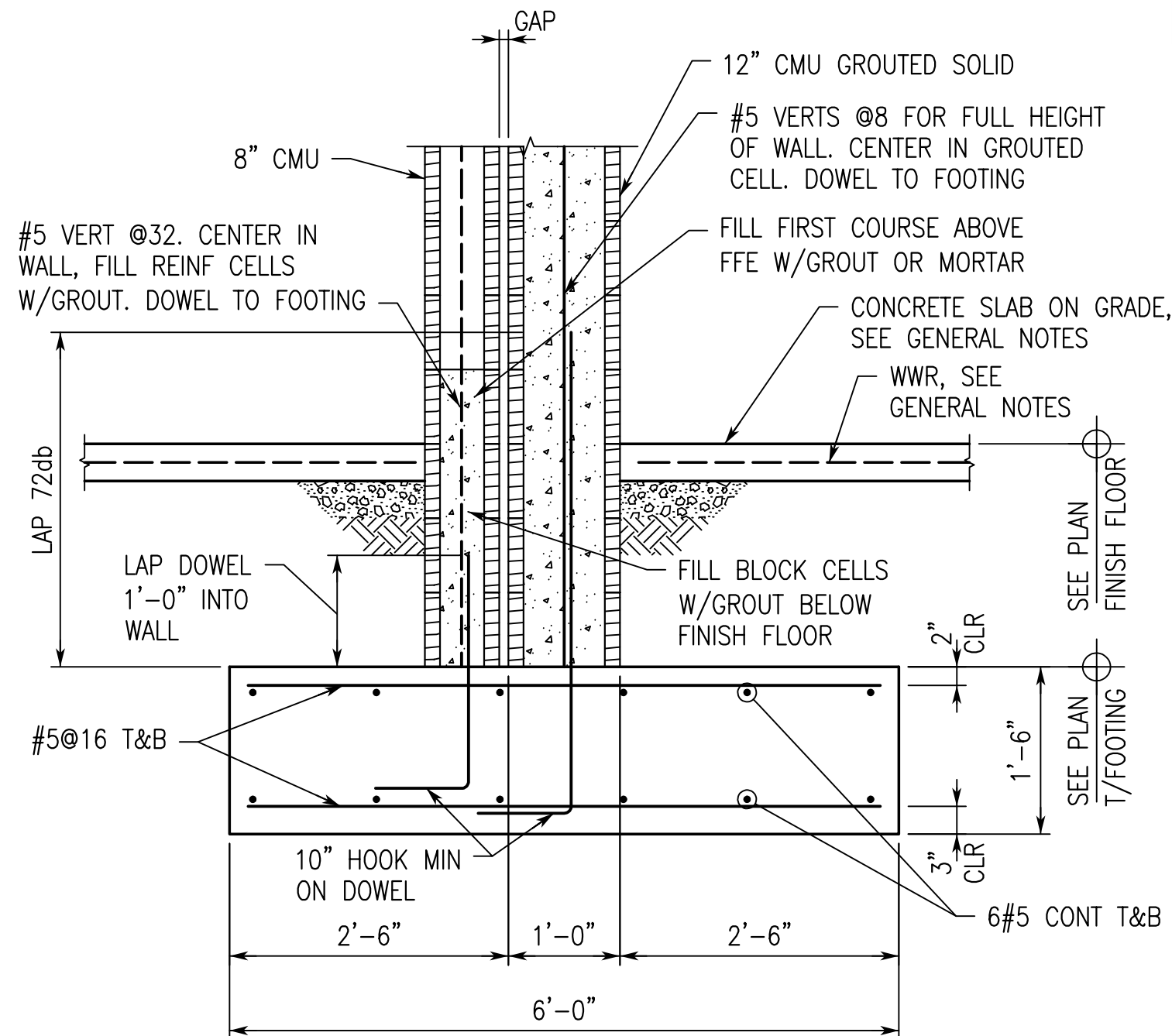
**SECTION 1**  
**3/4"=1'-0"**

NOTE:  
WHEN TOP OF FOOTING ELEVATION IS  
GREATER THAN -2'-8" BELOW FINISH  
FLOOR ELEVATION, PROVIDE DOUBLE  
REINFORCED EXTERIOR MASONRY WALLS  
AT THE STORM SHELTER AS SHOWN IN  
SECTION 2/S3.2.  
AT SIMILAR CONDITION, VENEER IS NOT  
PRESENT.



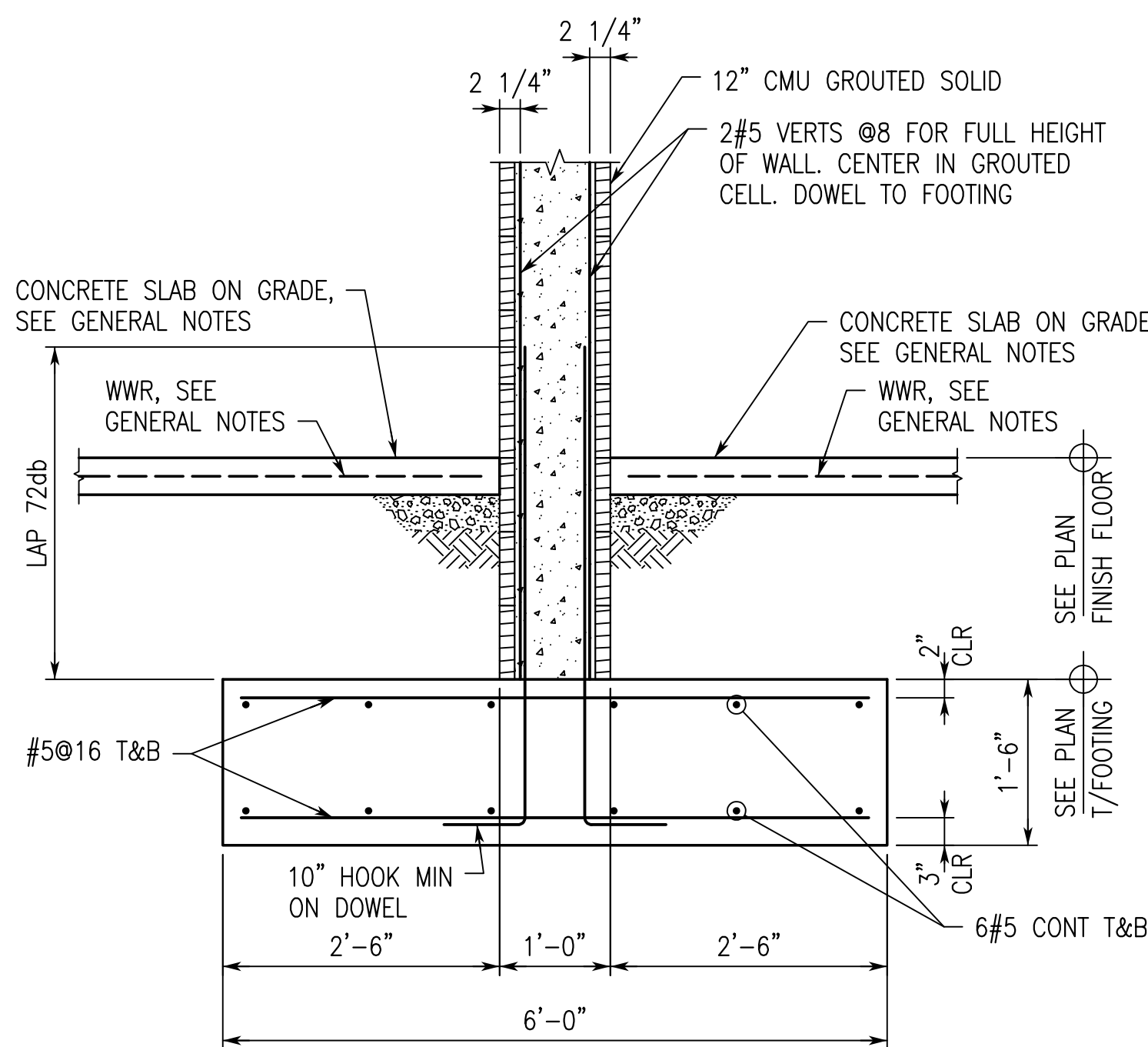
**SECTION 2**  
**3/4"=1'-0"**

NOTE:  
WHEN TOP OF FOOTING ELEVATION IS GREATER  
THAN -2'-8" BELOW FINISH FLOOR ELEVATION,  
PROVIDE DOUBLE REINFORCED EXTERIOR  
MASONRY WALLS AT THE STORM SHELTER AS  
SHOWN IN THIS SECTION.  
AT SIMILAR CONDITION, VENEER IS NOT PRESENT.



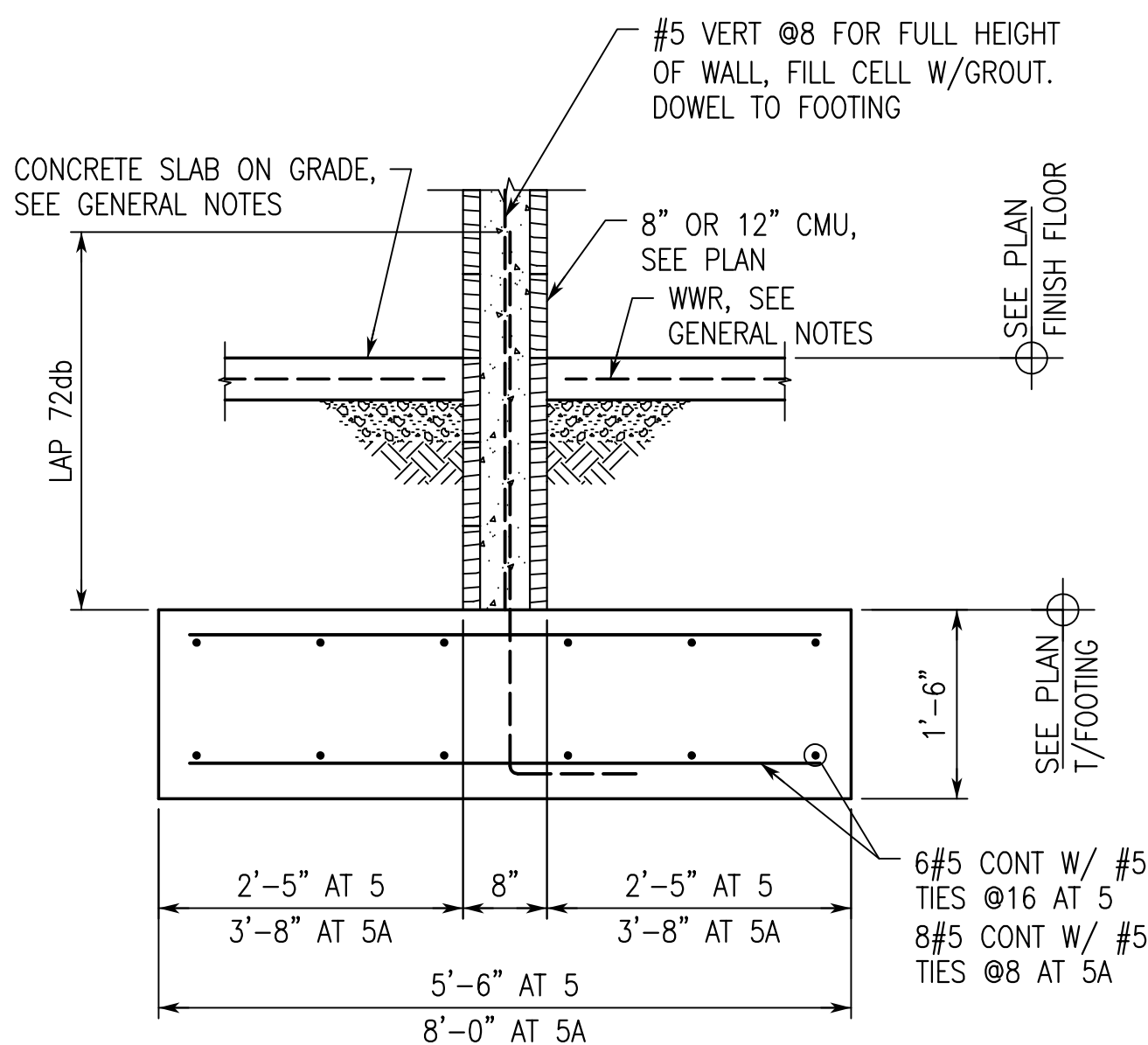
**SECTION 3**  
**3/4"=1'-0"**

NOTE:  
WALLS SHALL BE DISCONTINUOUS AT  
JOINT. NO REINFORCING SHALL  
CROSS JOINT.  
WHEN TOP OF FOOTING ELEVATION IS  
GREATER THAN -2'-8" BELOW FINISH  
FLOOR ELEVATION, PROVIDE DOUBLE  
REINFORCED EXTERIOR MASONRY  
WALLS AT THE STORM SHELTER AS  
SHOWN IN SECTION 4/S3.2.

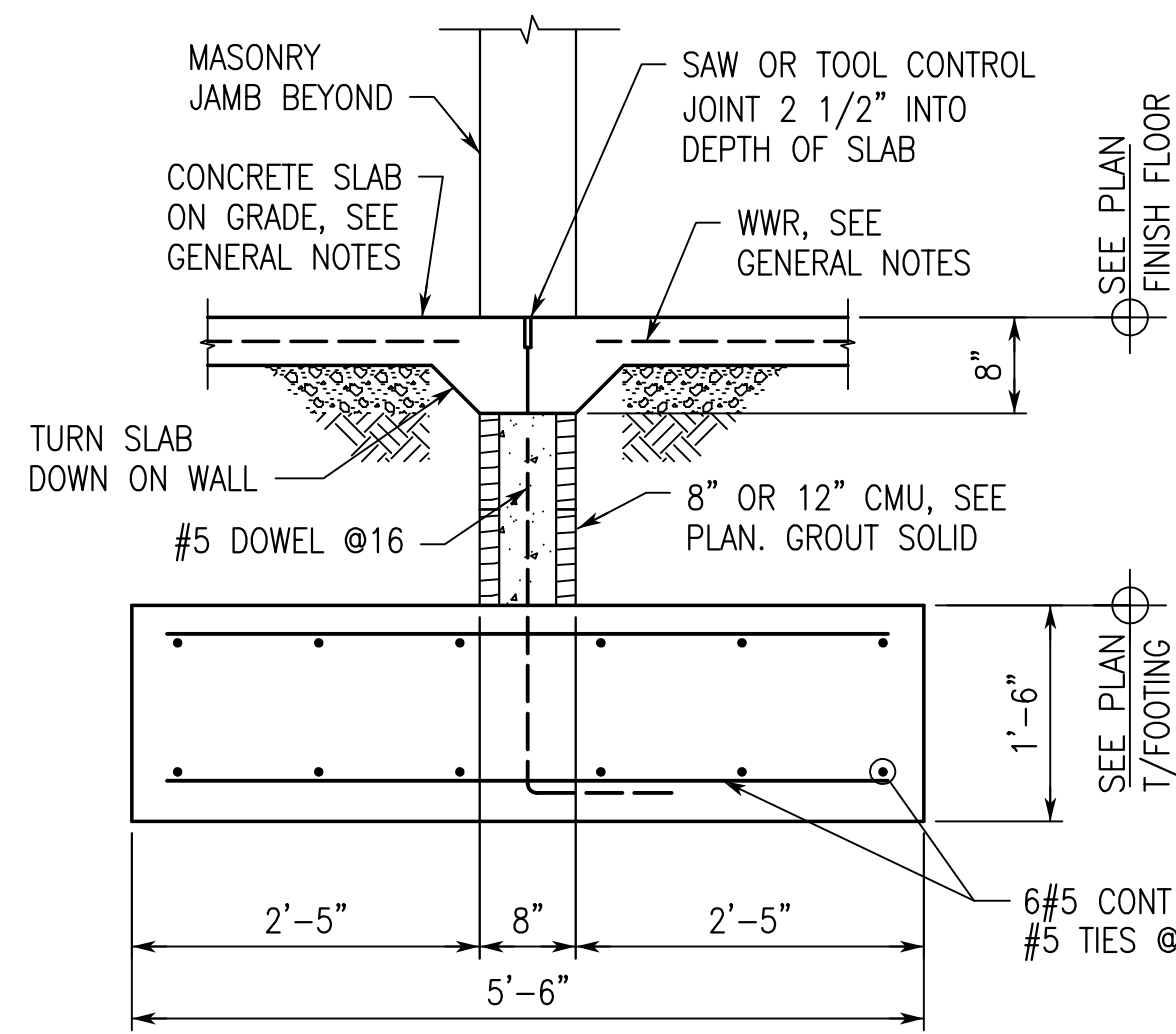


**SECTION 4**  
**3/4"=1'-0"**

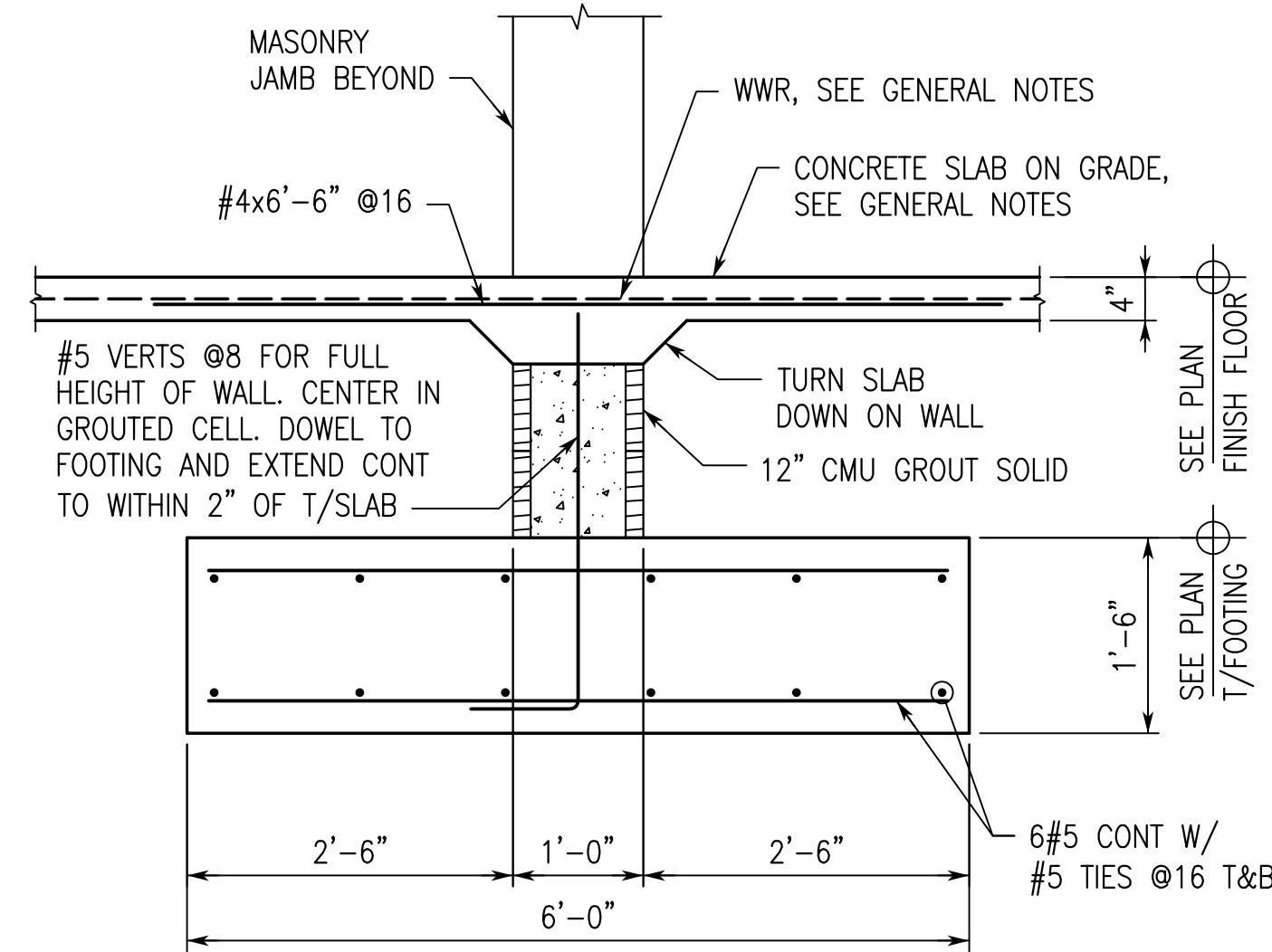
NOTE:  
WALLS SHALL BE DISCONTINUOUS AT  
JOINT. NO REINFORCING SHALL  
CROSS JOINT.  
WHEN TOP OF FOOTING ELEVATION IS  
GREATER THAN -2'-8" BELOW FINISH  
FLOOR ELEVATION, PROVIDE DOUBLE  
REINFORCED EXTERIOR MASONRY  
WALLS AT THE STORM SHELTER AS  
SHOWN IN THIS SECTION.  
AT SIMILAR CONDITION, PROVIDE  
SINGLE REINFORCED 12" CMU  
INTERIOR MASONRY WALLS AT THE  
STORM SHELTER AS SHOWN IN  
SECTION 3/S3.2.



**SECTION 5**  
**3/4"=1'-0"**

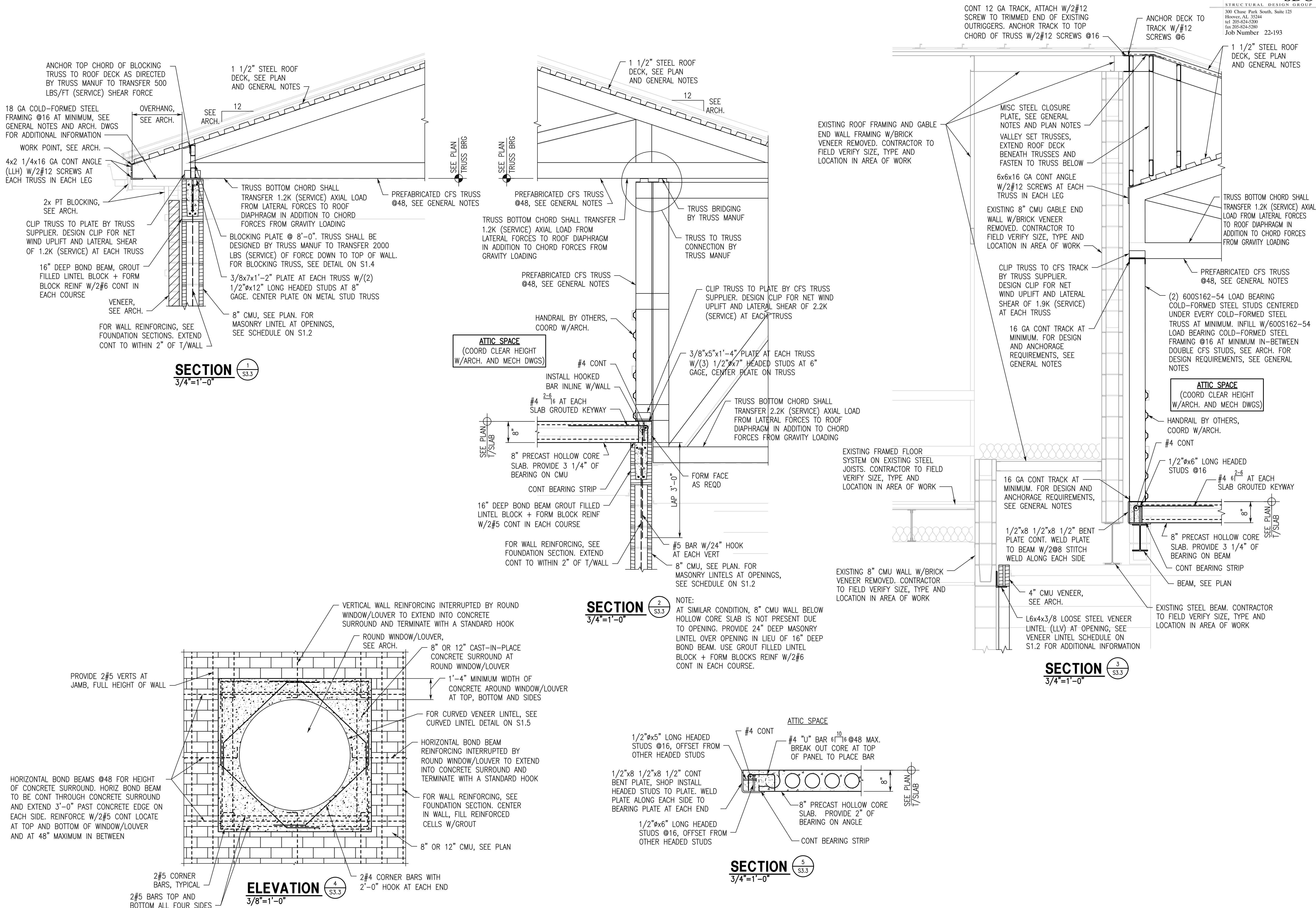


**SECTION 6**  
**3/4"=1'-0"**

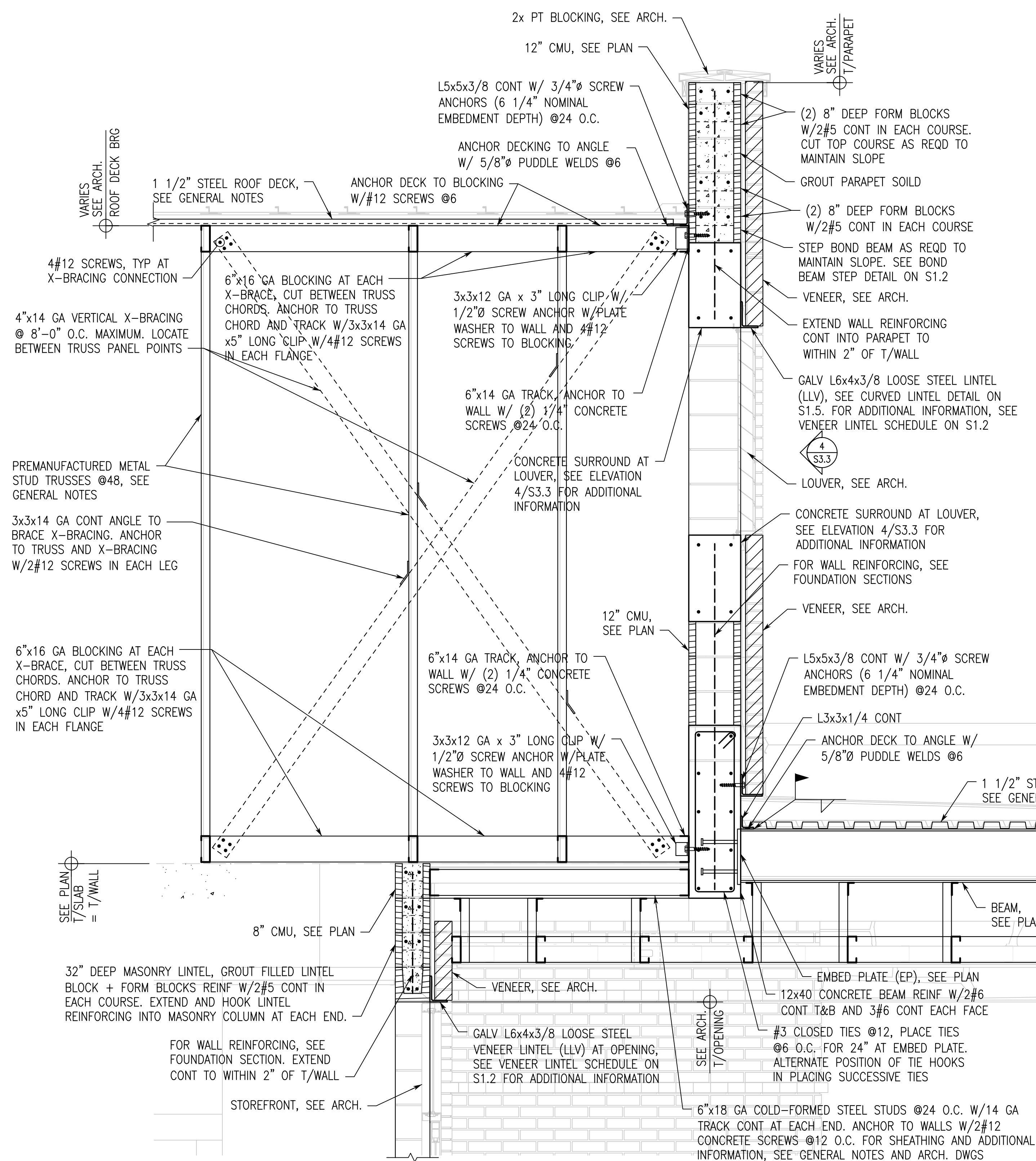
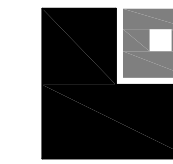


**SECTION 7**  
**3/4"=1'-0"**

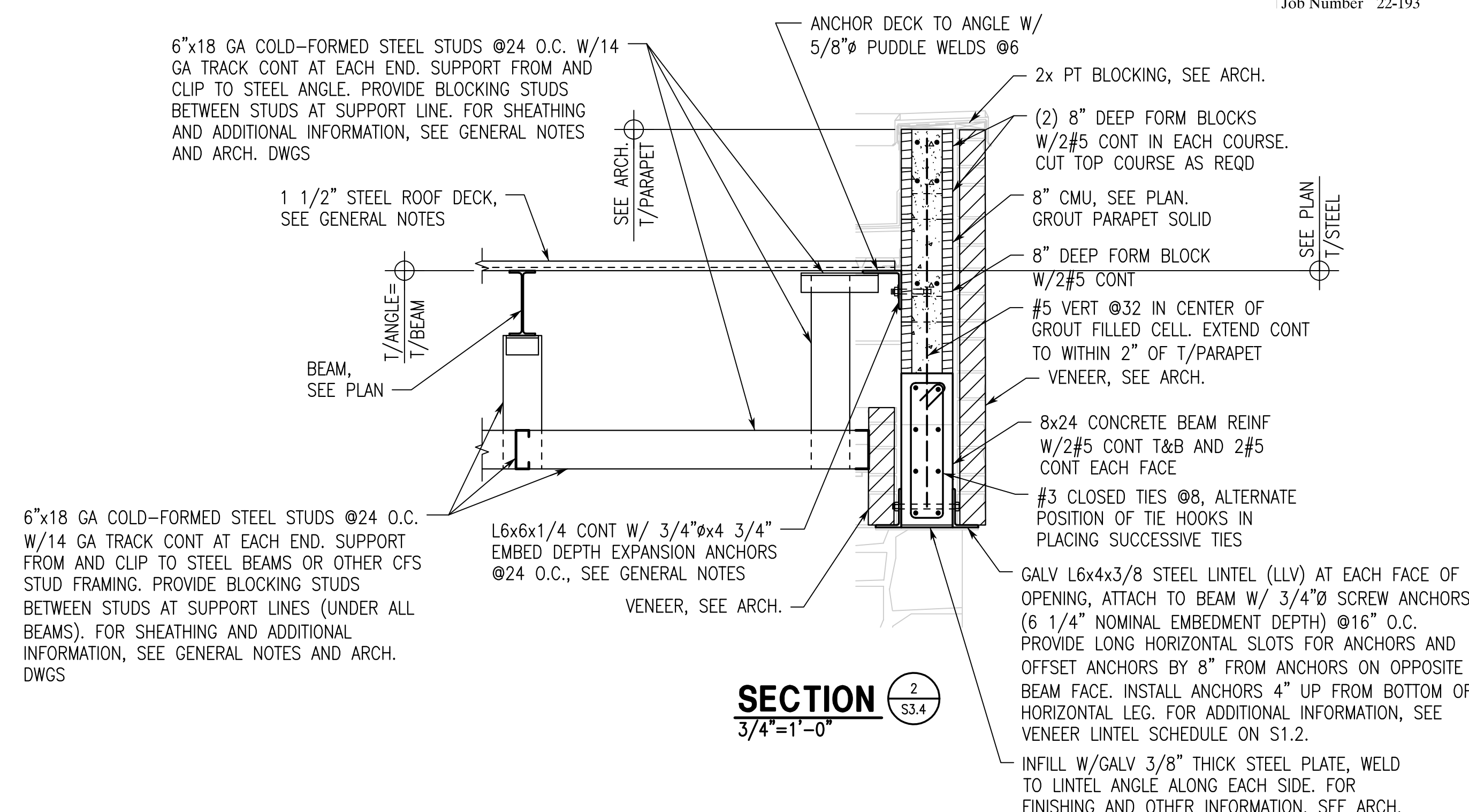






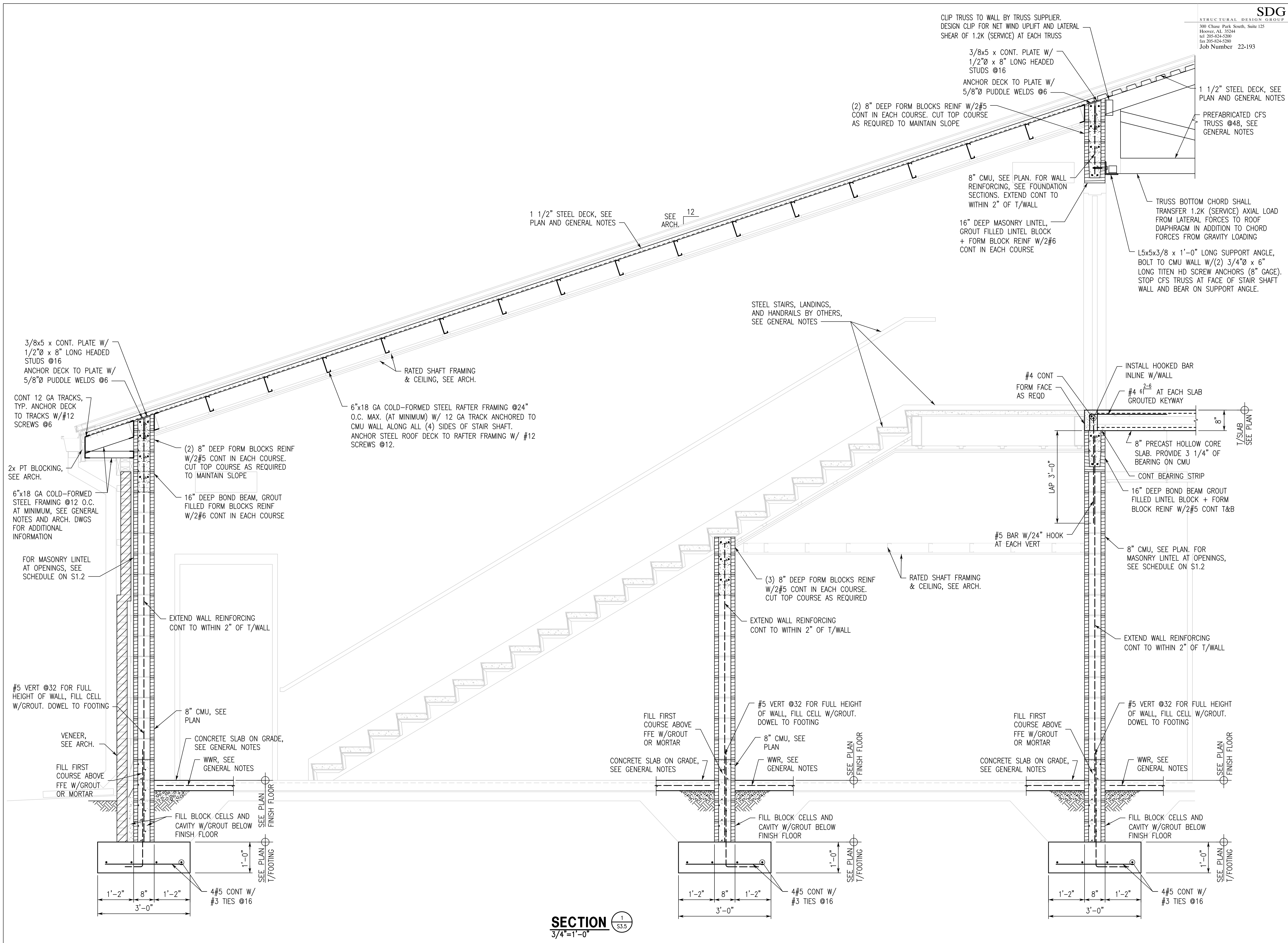


**SECTION** 1  
3/4"=1'-0"

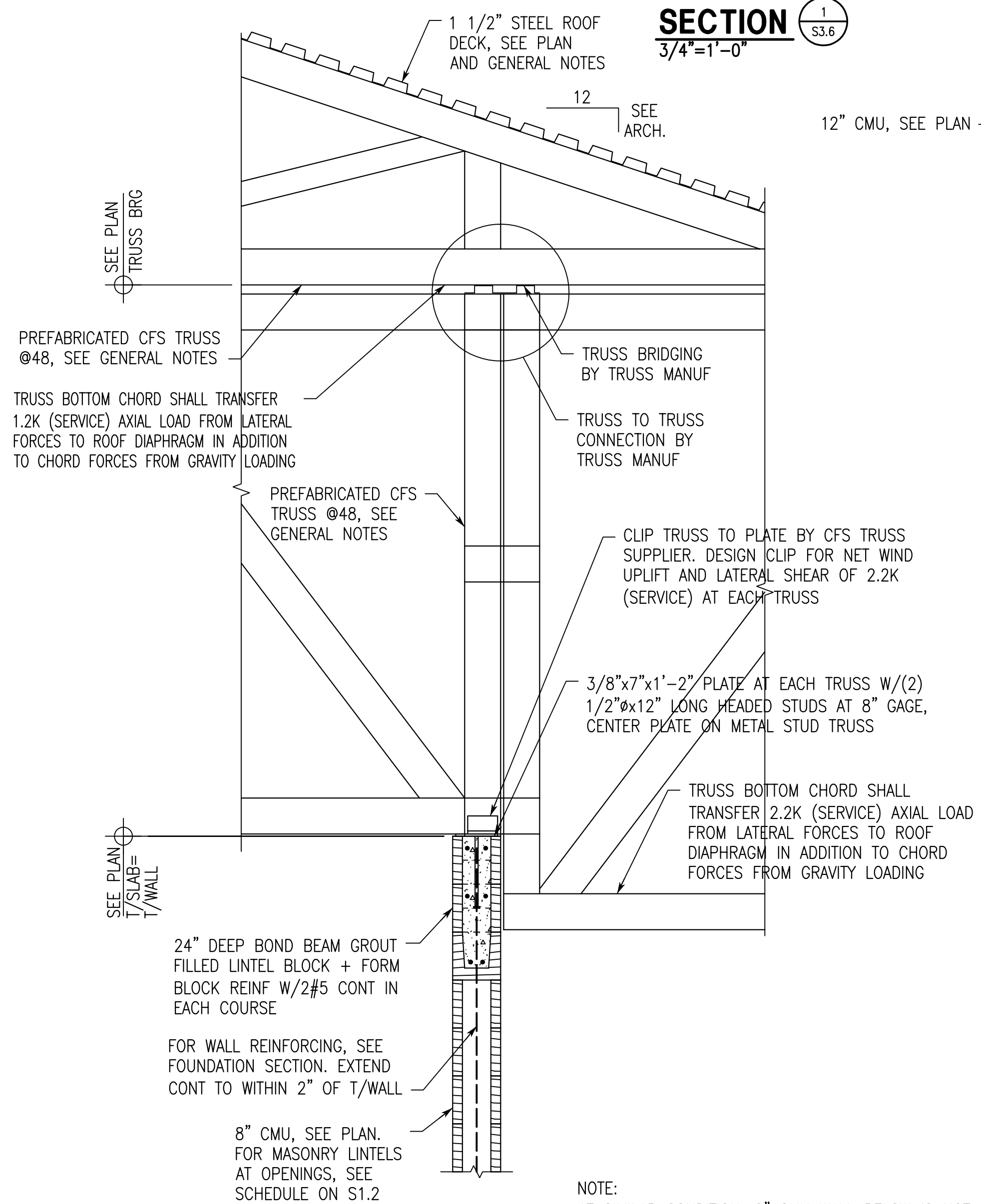
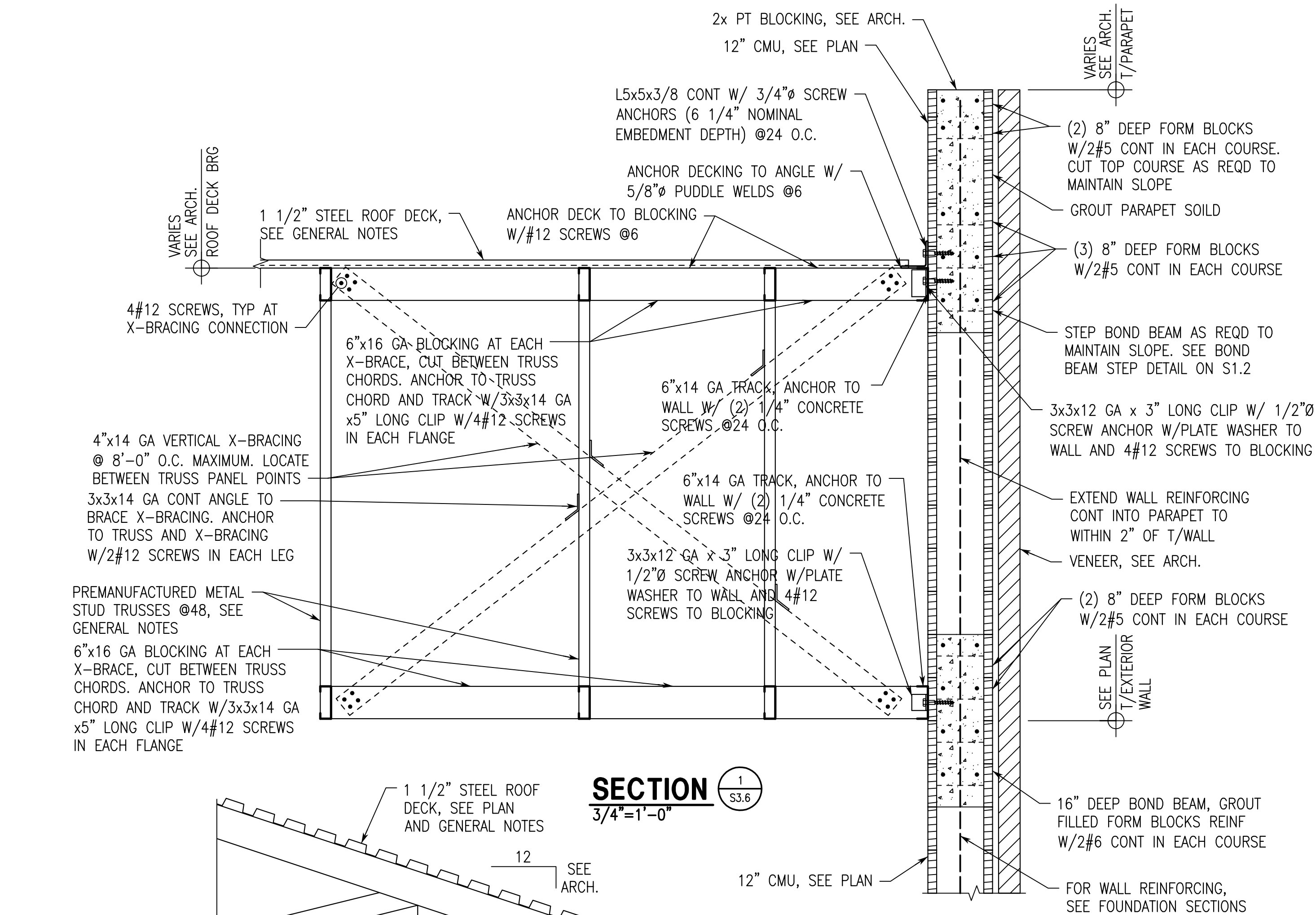


**SECTION** 2  
3/4"=1'-0"

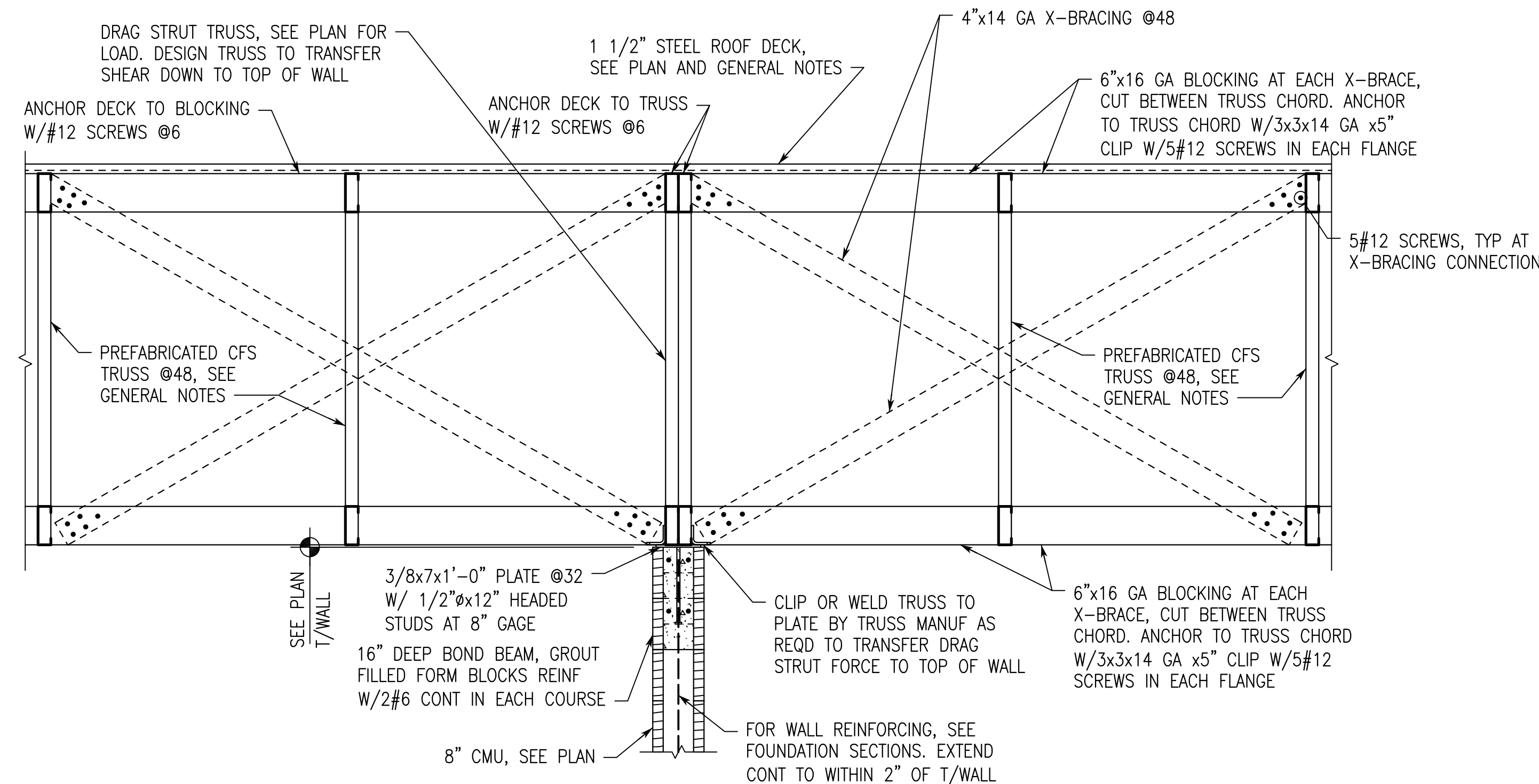






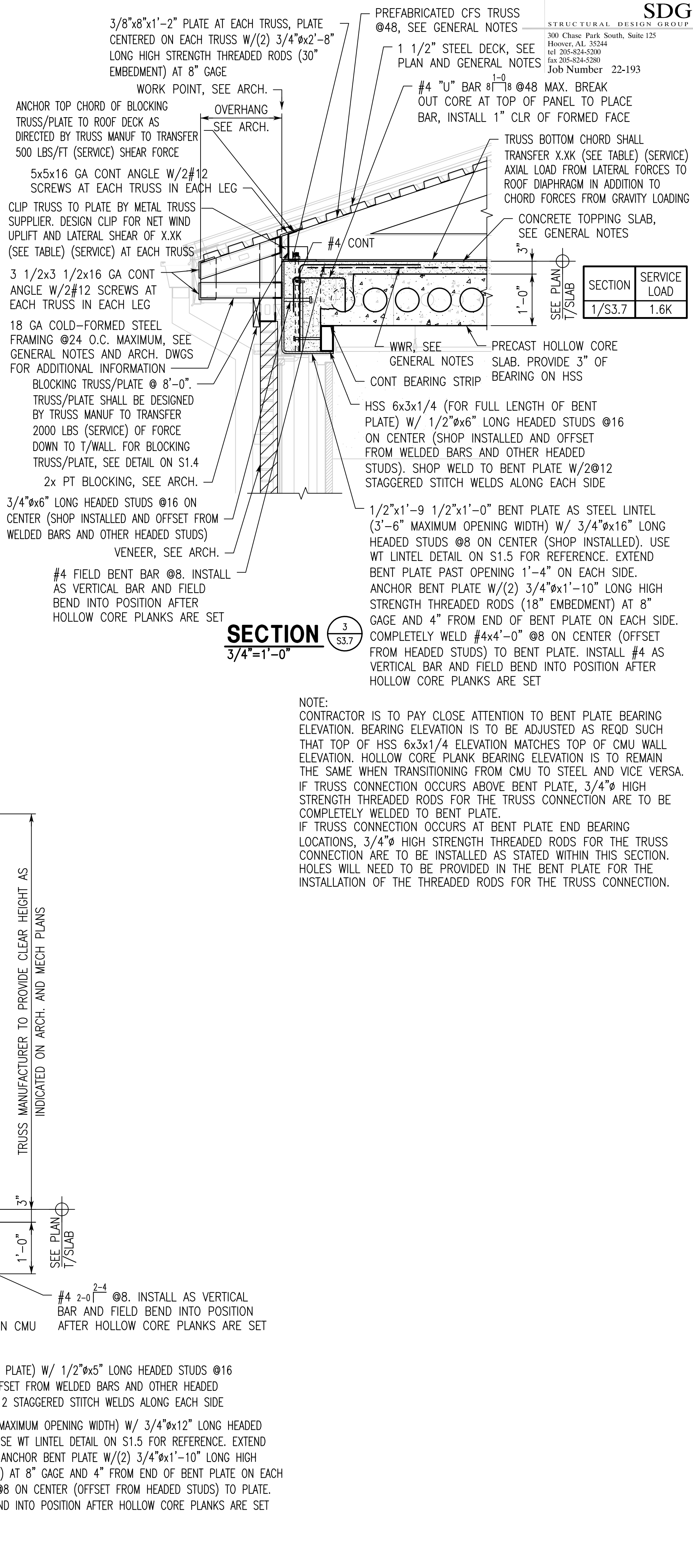
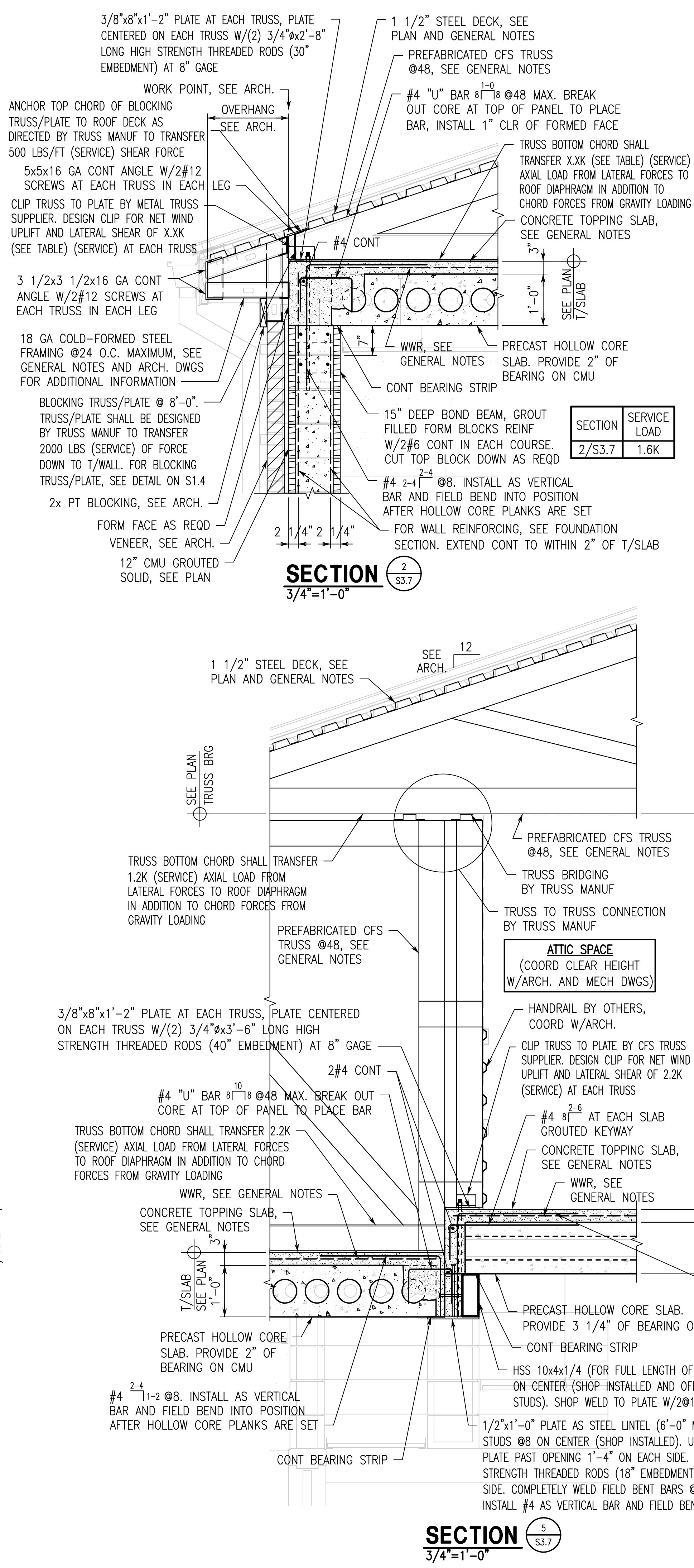
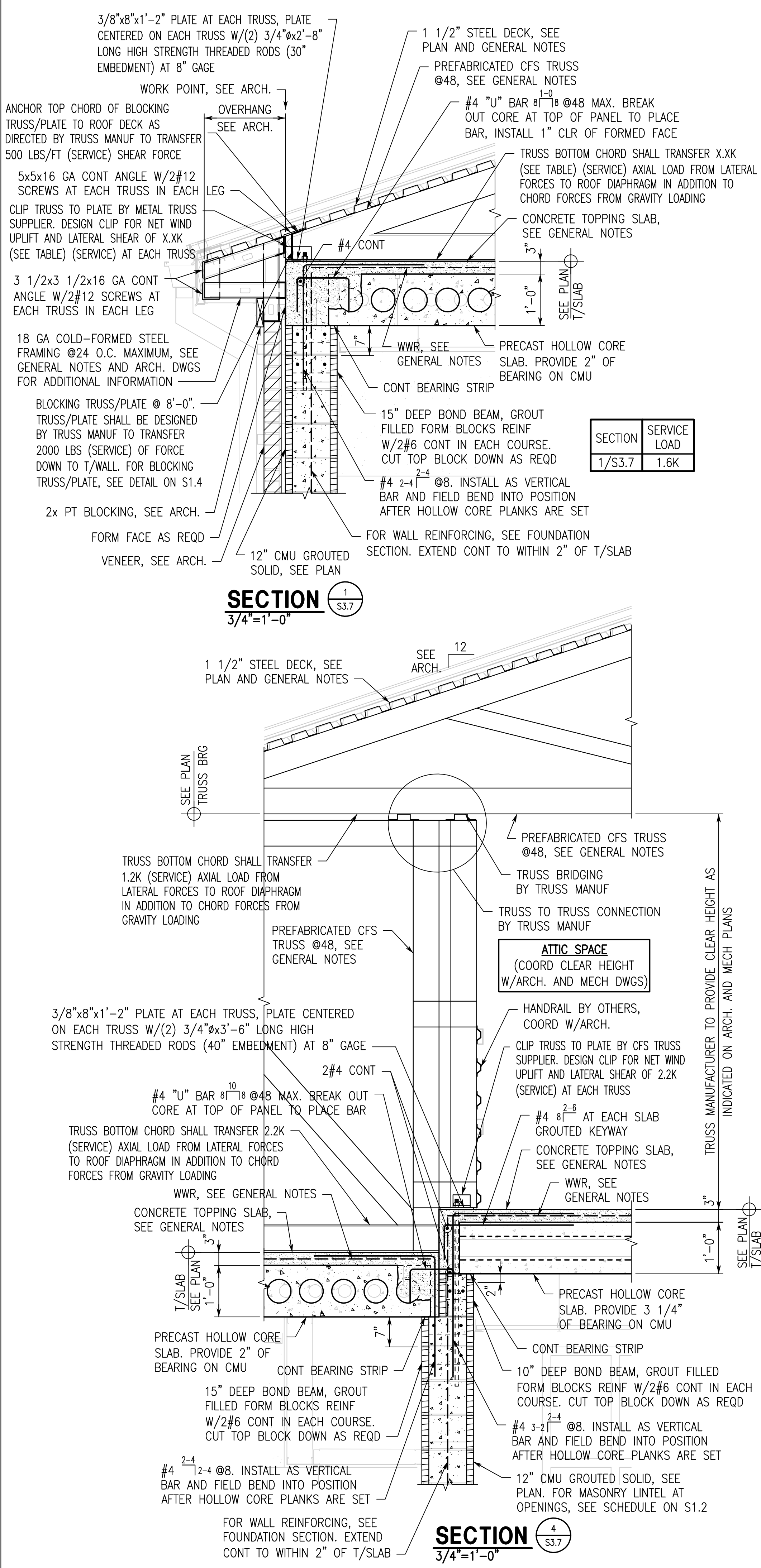


NOTE:  
AT SIMILAR CONDITION, 8" CMU WALL BELOW IS NOT PRESENT DUE TO OPENING. PROVIDE 32" DEEP MASONRY LINTEL OVER OPENING IN LIEU OF 24" DEEP BOND BEAM. USE GROUT FILLED LINTEL BLOCK + FORM BLOCKS REINF W/2#5 CONT IN EACH COURSE.



NOTE:  
AT SIMILAR CONDITION, SECTION IS CUT AT EXISTING-TO-NEW TRANSITION. PROVIDE REQUIRED X-BRACING AND BLOCKING ON NEW CONSTRUCTION SIDE. TRIM EXISTING OVERHANG AS REQUIRED FOR NEW CONSTRUCTION.





NOTE:  
CONTRACTOR IS TO PAY CLOSE ATTENTION TO BENT PLATE BEARING ELEVATION. BEARING ELEVATION IS TO BE ADJUSTED AS REQD SUCH THAT TOP OF HSS 6x3x1/4 ELEVATION MATCHES TOP OF CMU WALL ELEVATION. HOLLOW CORE PLANK BEARING ELEVATION IS TO REMAIN THE SAME WHEN TRANSITIONING FROM CMU TO STEEL AND VICE VERSA. IF TRUSS CONNECTION OCCURS ABOVE BENT PLATE, 3/4" HIGH STRENGTH THREADED RODS FOR THE TRUSS CONNECTION ARE TO BE COMPLETELY WELDED TO BENT PLATE. IF TRUSS CONNECTION OCCURS AT BENT PLATE END BEARING LOCATIONS, 3/4" HIGH STRENGTH THREADED RODS FOR THE TRUSS CONNECTION ARE TO BE INSTALLED AS STATED WITHIN THIS SECTION. HOLES WILL NEED TO BE PROVIDED IN THE BENT PLATE FOR THE INSTALLATION OF THE THREADED RODS FOR THE TRUSS CONNECTION.

**SDG**  
STRUCTURAL DESIGN GROUP  
300 Chase Park South, Suite 125  
Hoover, AL 35224  
tel 205-824-0200  
fax 205-824-0200  
Job Number 22-193

SECTION	SERVICE LOAD
1/S3.7	1.6K

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CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

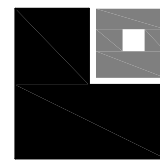
SHEET TITLE:  
**SECTIONS AND DETAILS**

PROJ. MGR.: HOW  
DRAWN: ABS  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. **22-20**  
SHEET NO. **S3.7**  
16 OF 19

0 1" 2"





SHEET TITLE:  
SECTIONS  
AND DETAILS

PROJ. MGR.: HCW  
DRAWN: ABS  
DATE: JANUARY 31, 2023  
REVISIONS

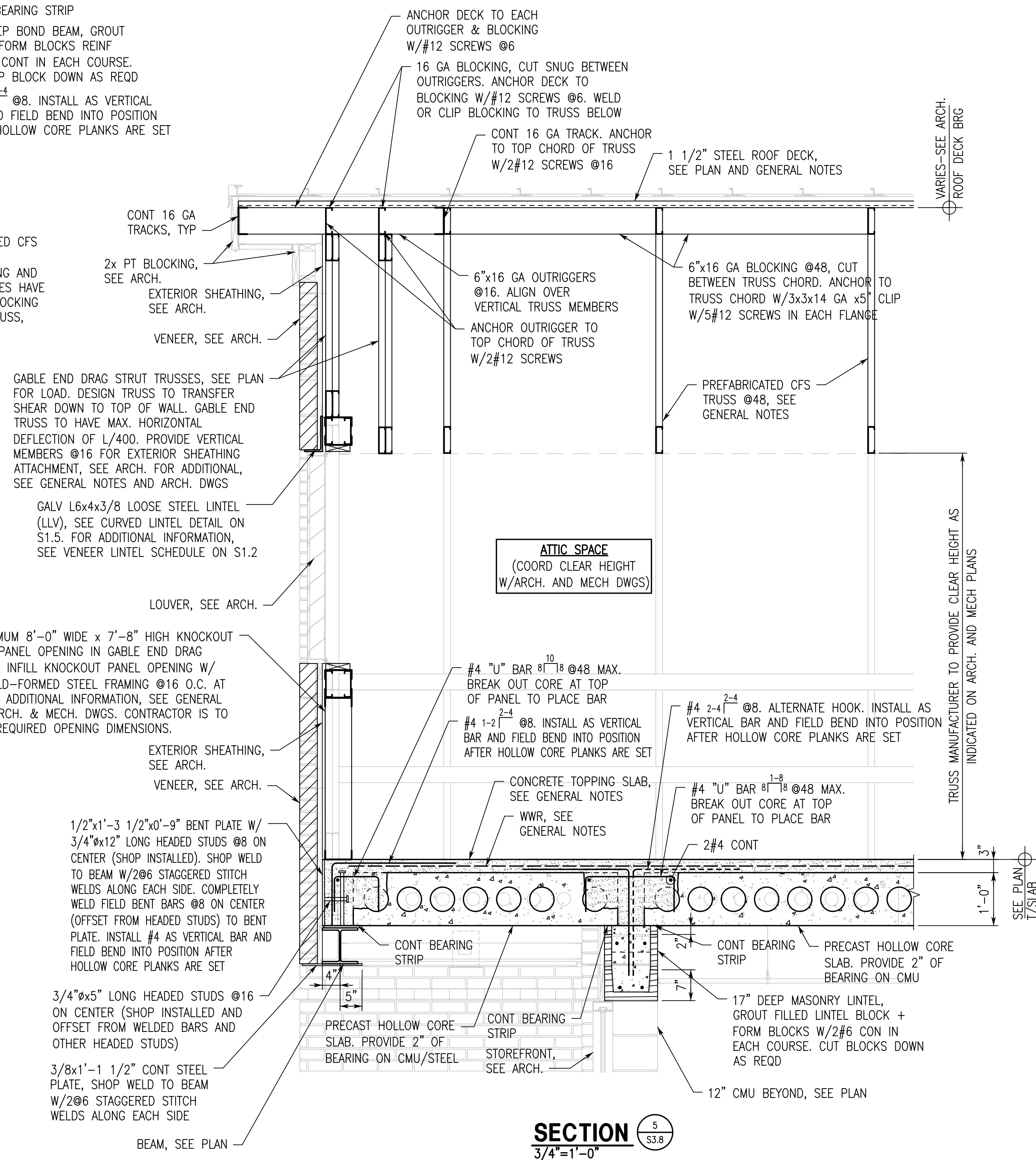
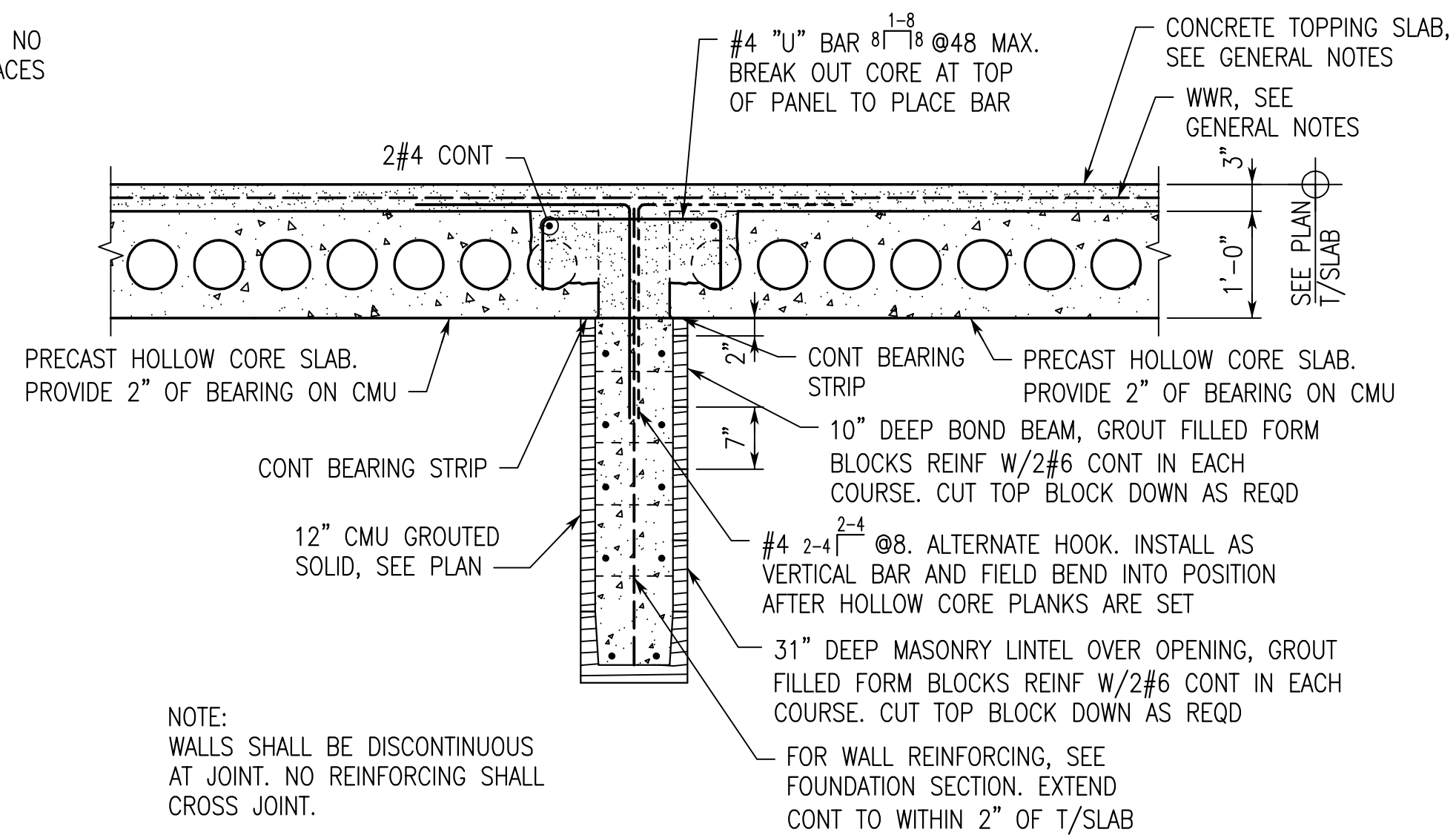
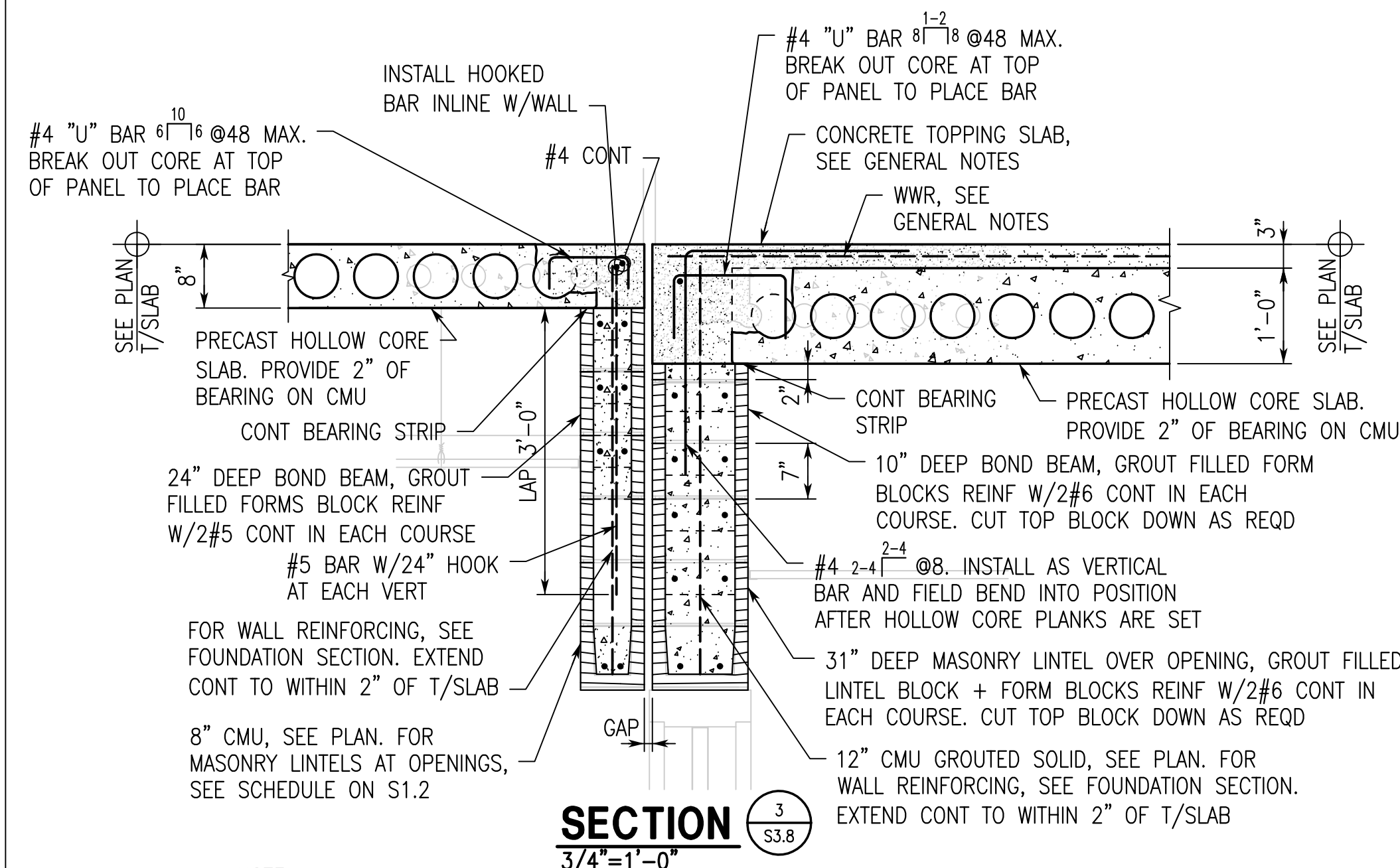
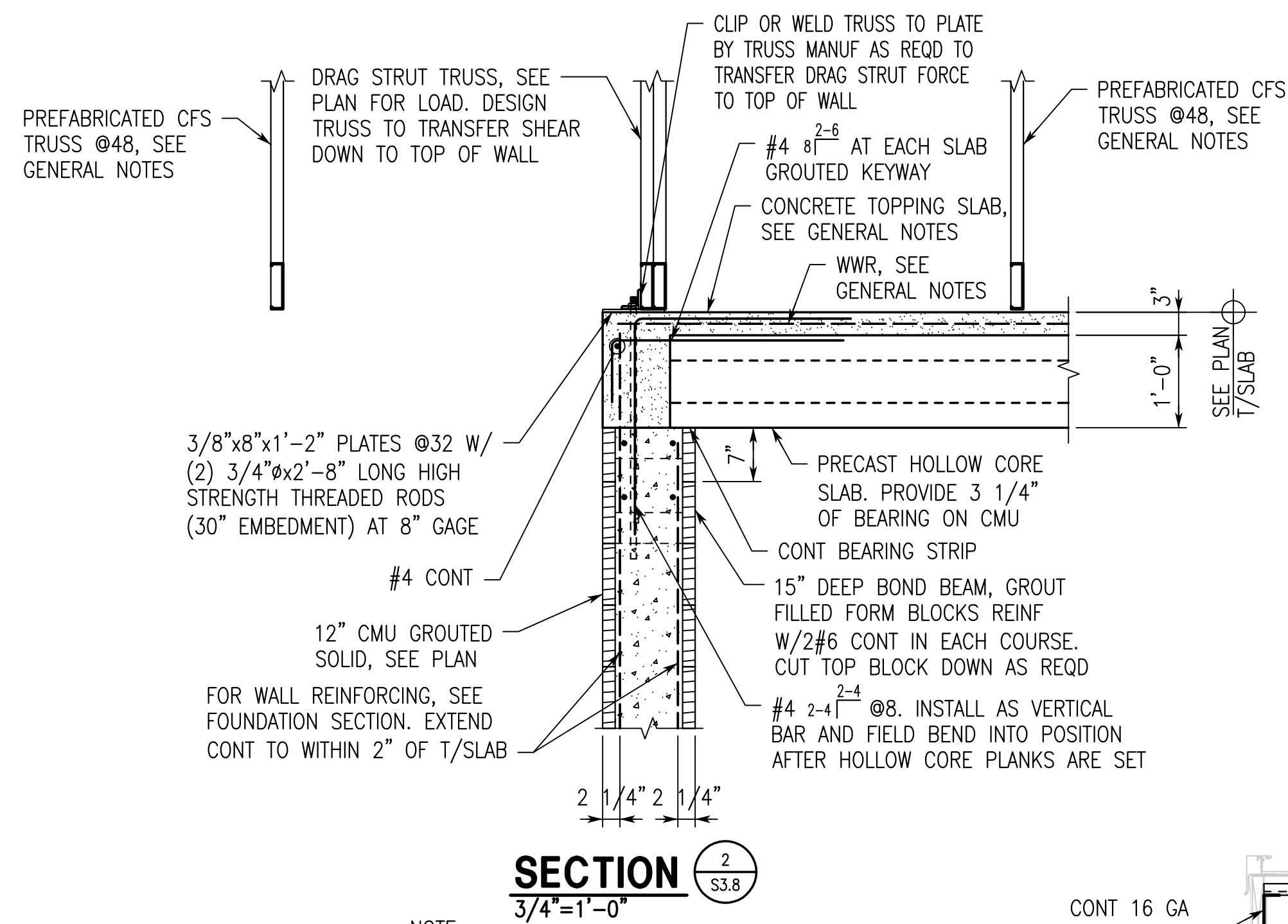
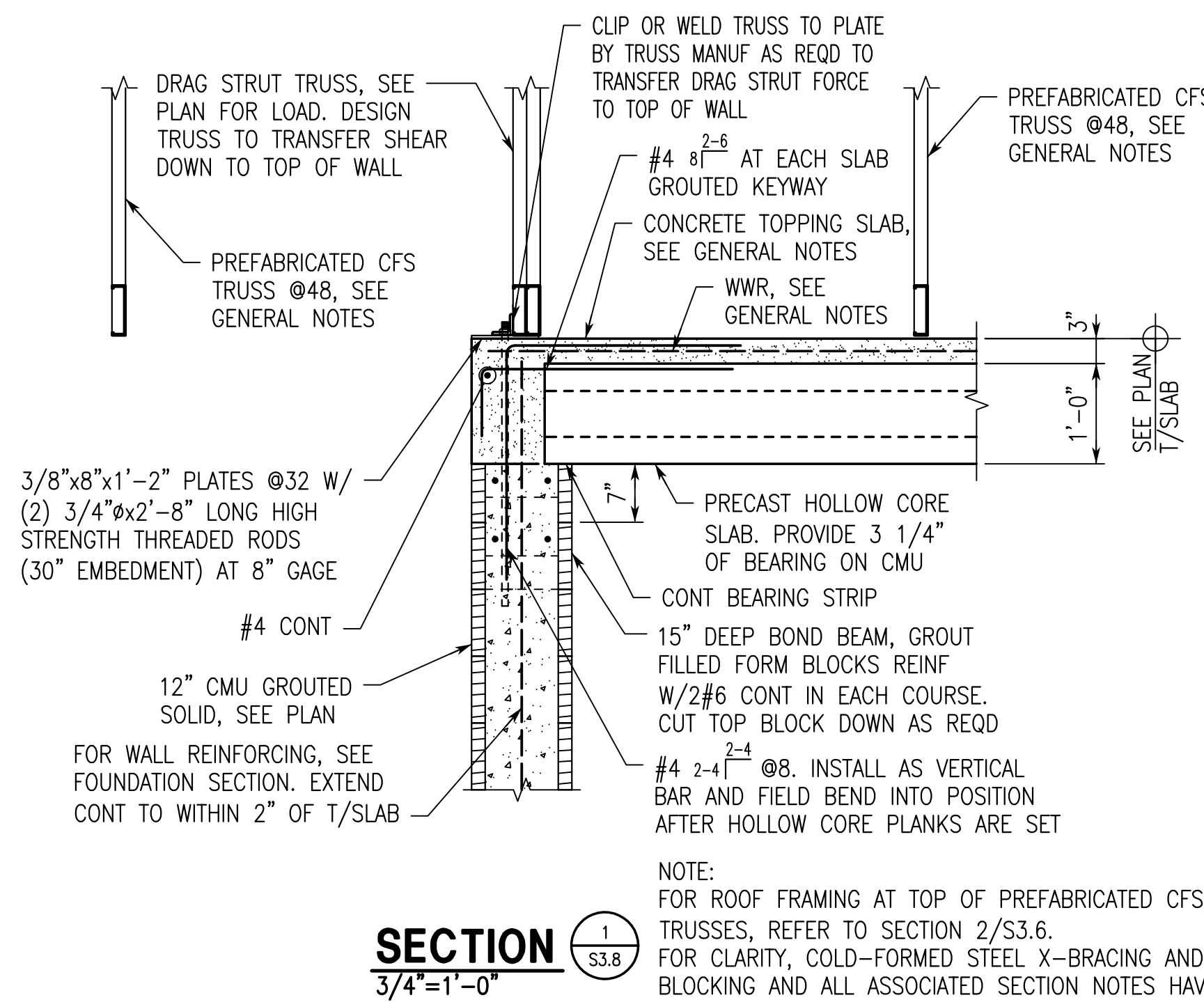
JOB NO. 22-20

SHEET NO:

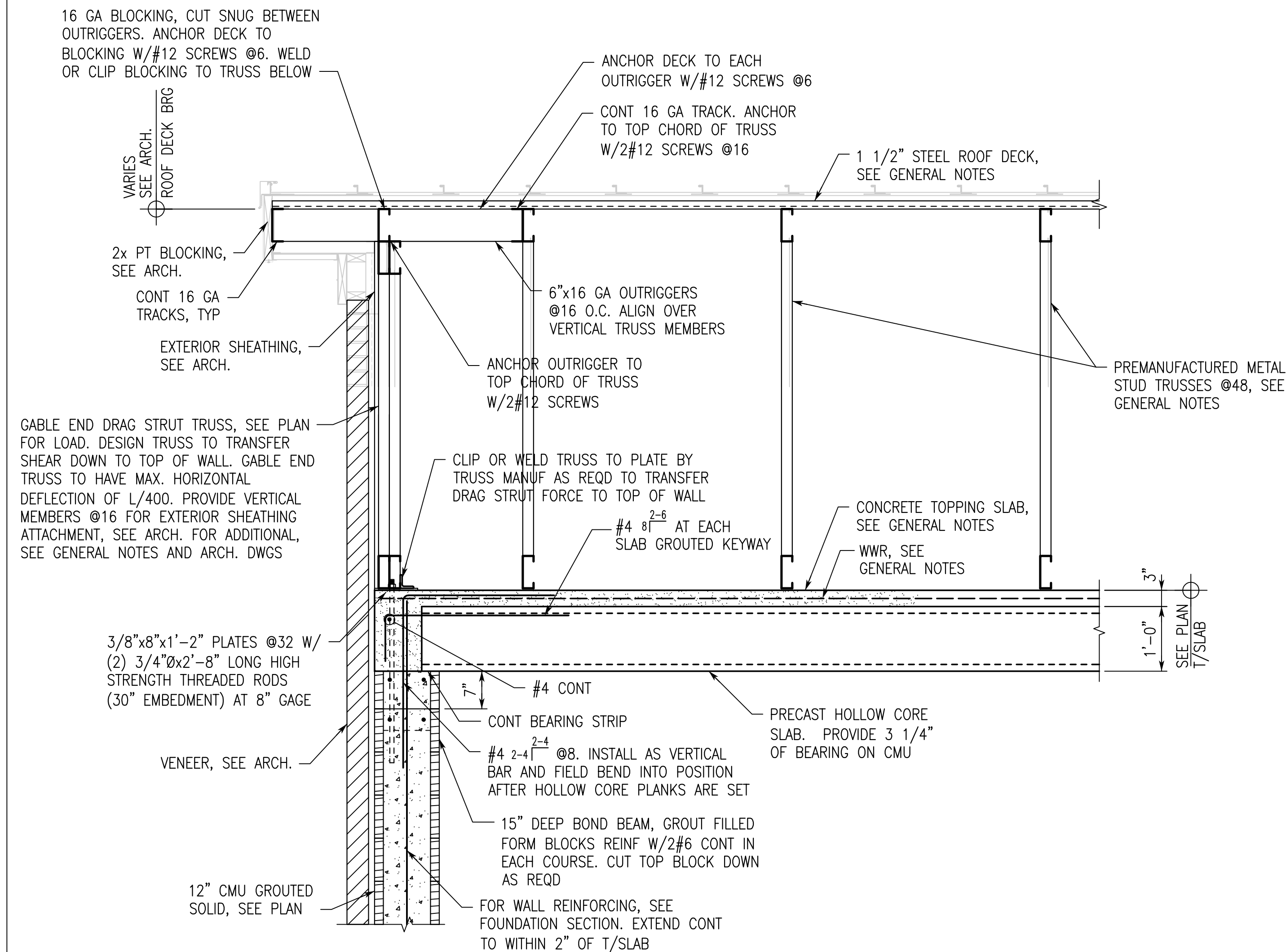
S3.8

17 OF 19

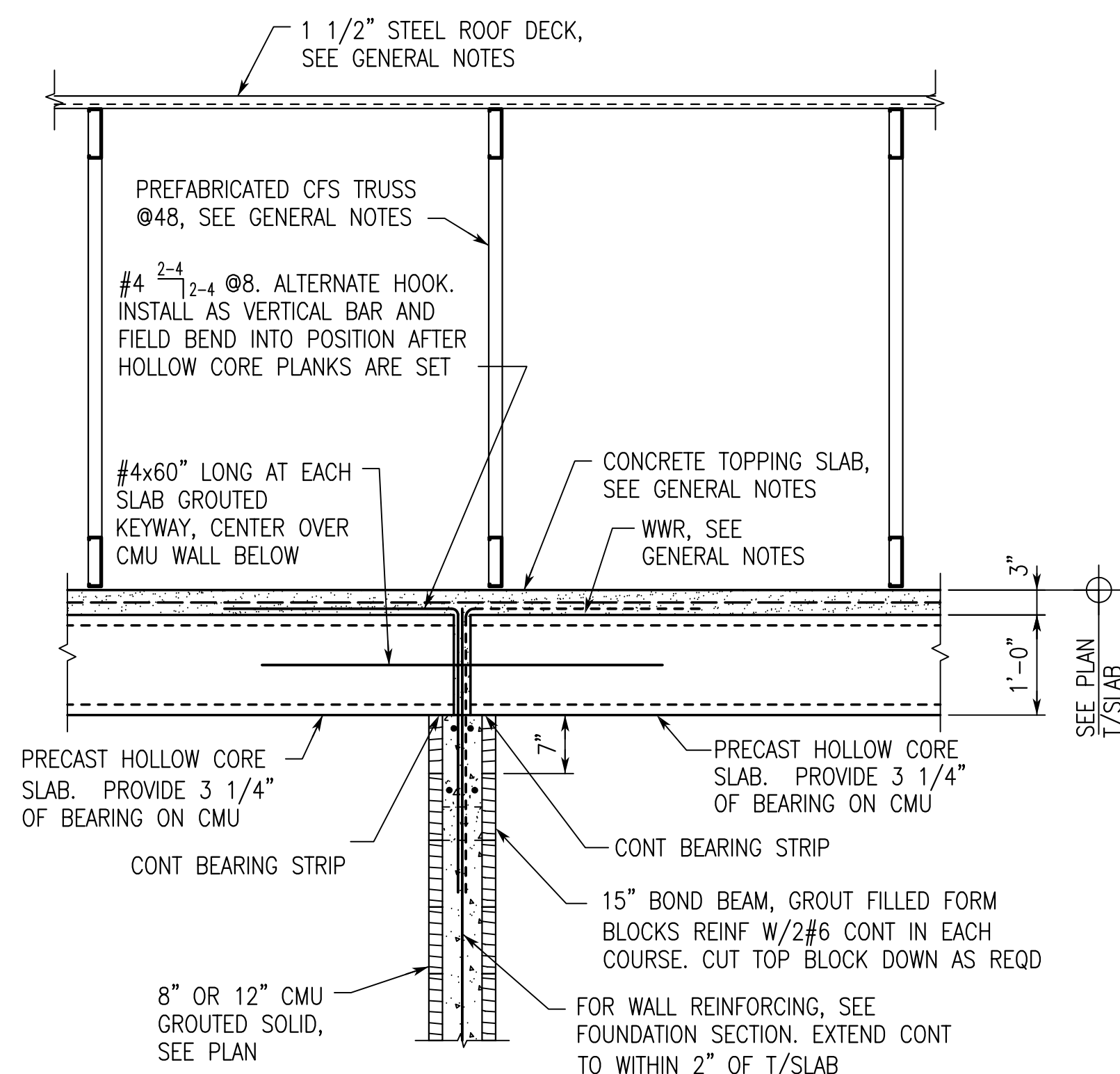
0 1" 2"





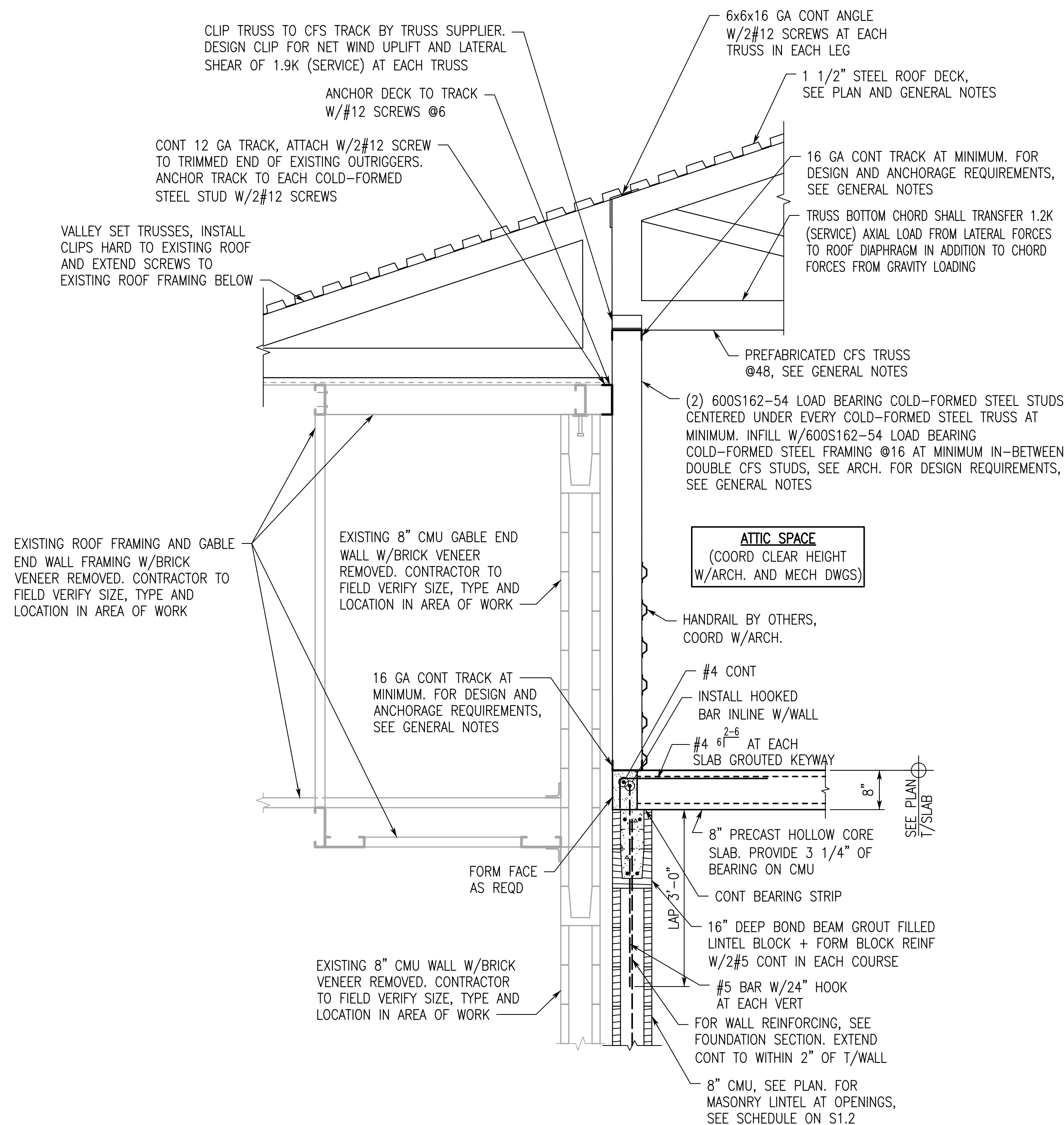


SECTION 1  
3/4"=1'-0"



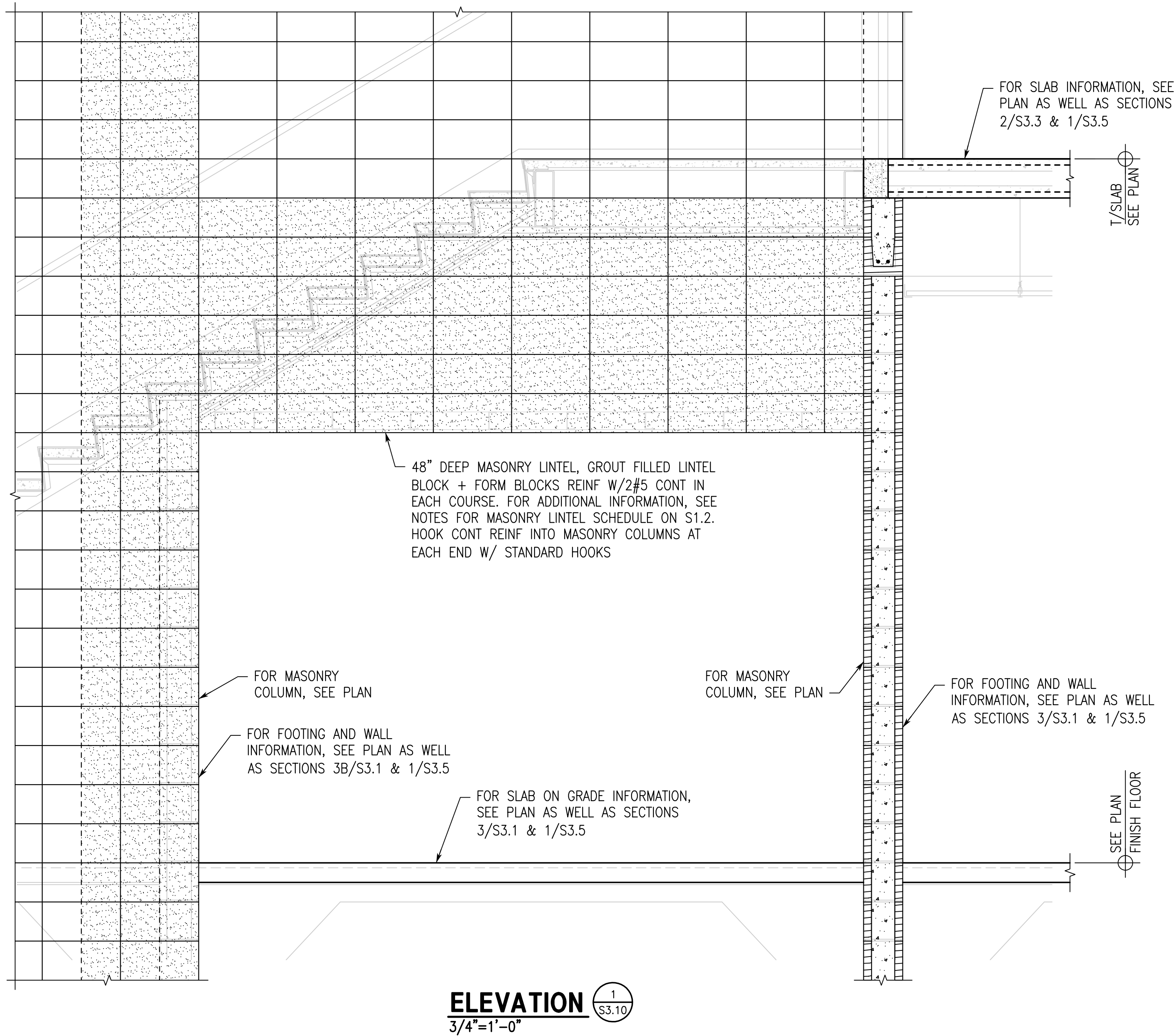
SECTION 3  
3/4"=1'-0"

NOTE: AT SECTION 3A/S3.9, DRAG STRUT TRUSS IS PRESENT OVER WALL. PROVIDE 3/8"x8"x1'-2" PLATES @32" W/ (2) 3/4"x8x2'-8" LONG HIGH STRENGTH THREADED RODS (30" EMBEDMENT) AT 8" GAGE. COLD-FORMED STEEL X-BRACING AND BLOCKING REQUIRED AS WELL, REFER TO SECTION 2/S3.6.

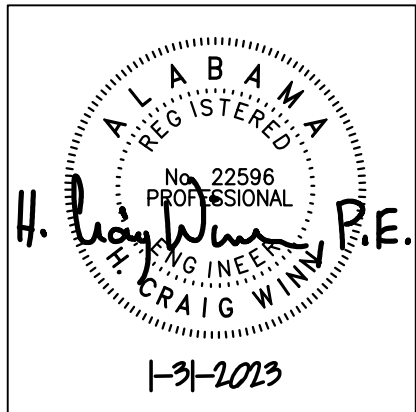


SECTION 2  
3/4"=1'-0"





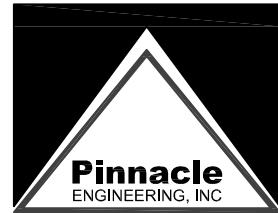
CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



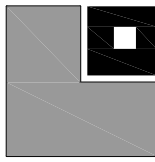
SHEET TITLE:  
**SECTIONS  
AND DETAILS**

PROJ. MGR.:	HCW
DRAWN:	ABS
DATE:	JANUARY 31, 2023
REVISIONS	





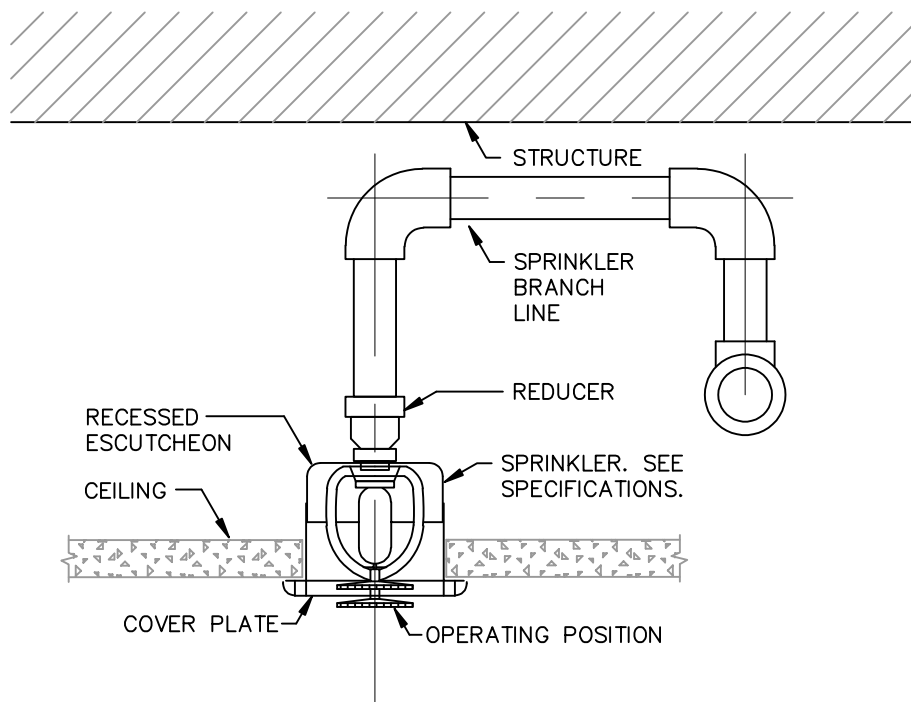
Engineering & Design Consultants  
2111 Parkway Office Circle, Suite 125  
Birmingham, AL 35244  
(205) 733-6912 FAX: (205) 733-6913  
Job No.: 22282 File: 22282FW01



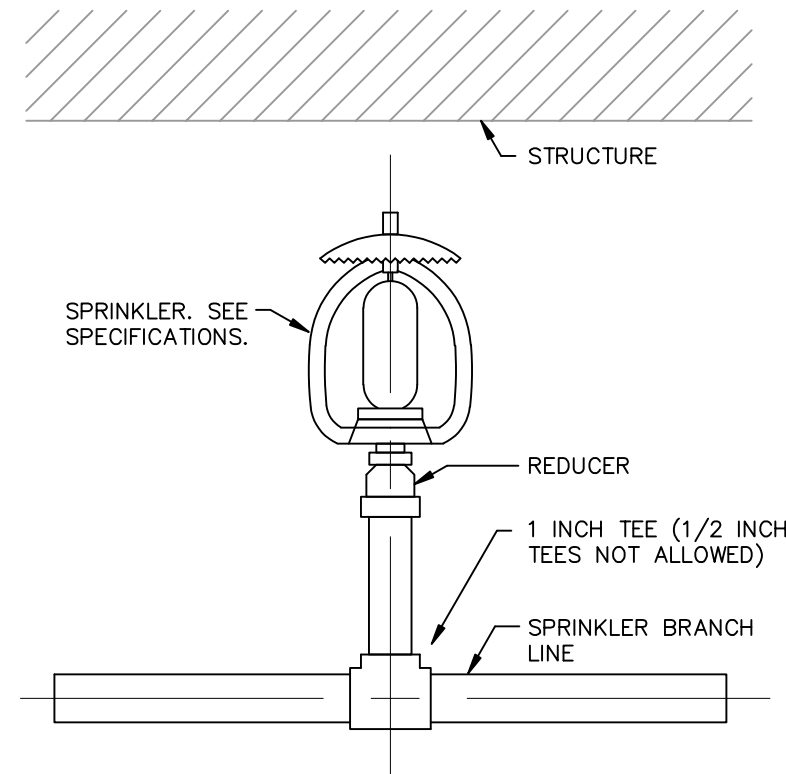
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FIRE PROTECTION ZONE SCHEDULE										
ZONE NO.	ZONE COVERAGE	SQUARE FOOTAGE	SYSTEM TYPE	SUPPLY SOURCE	NFPA CLASSIFICATIONS			SPRINKLER		REMARKS
					OCCUPANCY	GROUP	SPECIAL COMBUSTIBLE CLASSIFICATIONS (COMMODITIES)	STYLE	TEMPERATURE	
ZONE 1	WET SYSTEM	13,780	WET	EXISTING	LIGHT HAZARD	--	NONE	VARIES	ORDINARY	1), 2), 3)

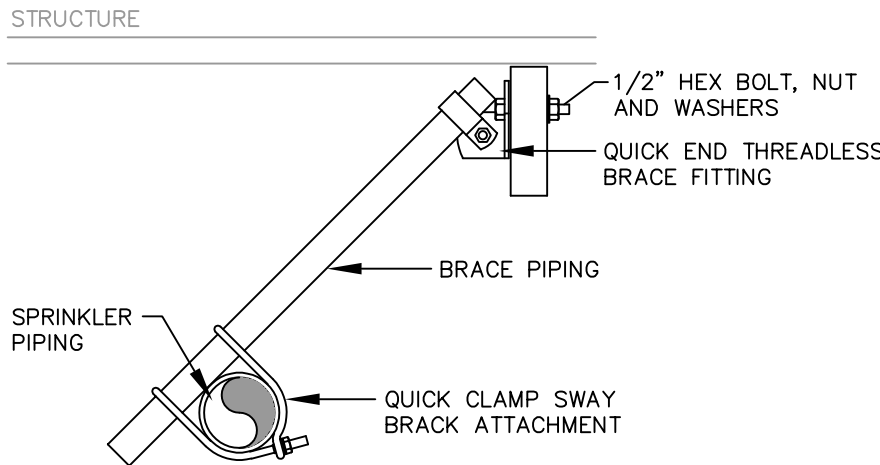
REMARKS:  
1) LIMITED AREAS MAY BE ORDINARY HAZARD. CONTRACTOR SHALL ARRANGE SPRINKLERS IN SUCH AREAS AS REQUIRED IN NFPA-13.  
2) UPRIGHT SPRINKLER HEADS SHALL BE INSTALLED IN AREAS WITHOUT DROPPED CEILINGS. PENDENT HEADS MAY BE USED IF REQUIRED.  
3) ALL SPRINKLER HEADS SHALL BE QUICK RESPONSE TYPE.



2 CONCEALED SPRINKLER HEAD  
FP0.1 NO SCALE

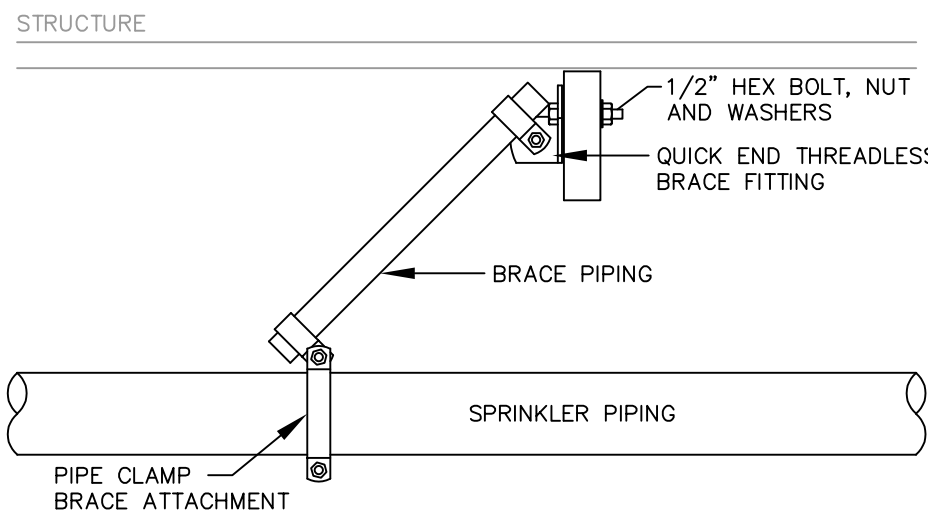


1 UPRIGHT SPRINKLER HEAD  
FP0.1 NO SCALE  
FOR USE IN SPACES WITH NO CEILING



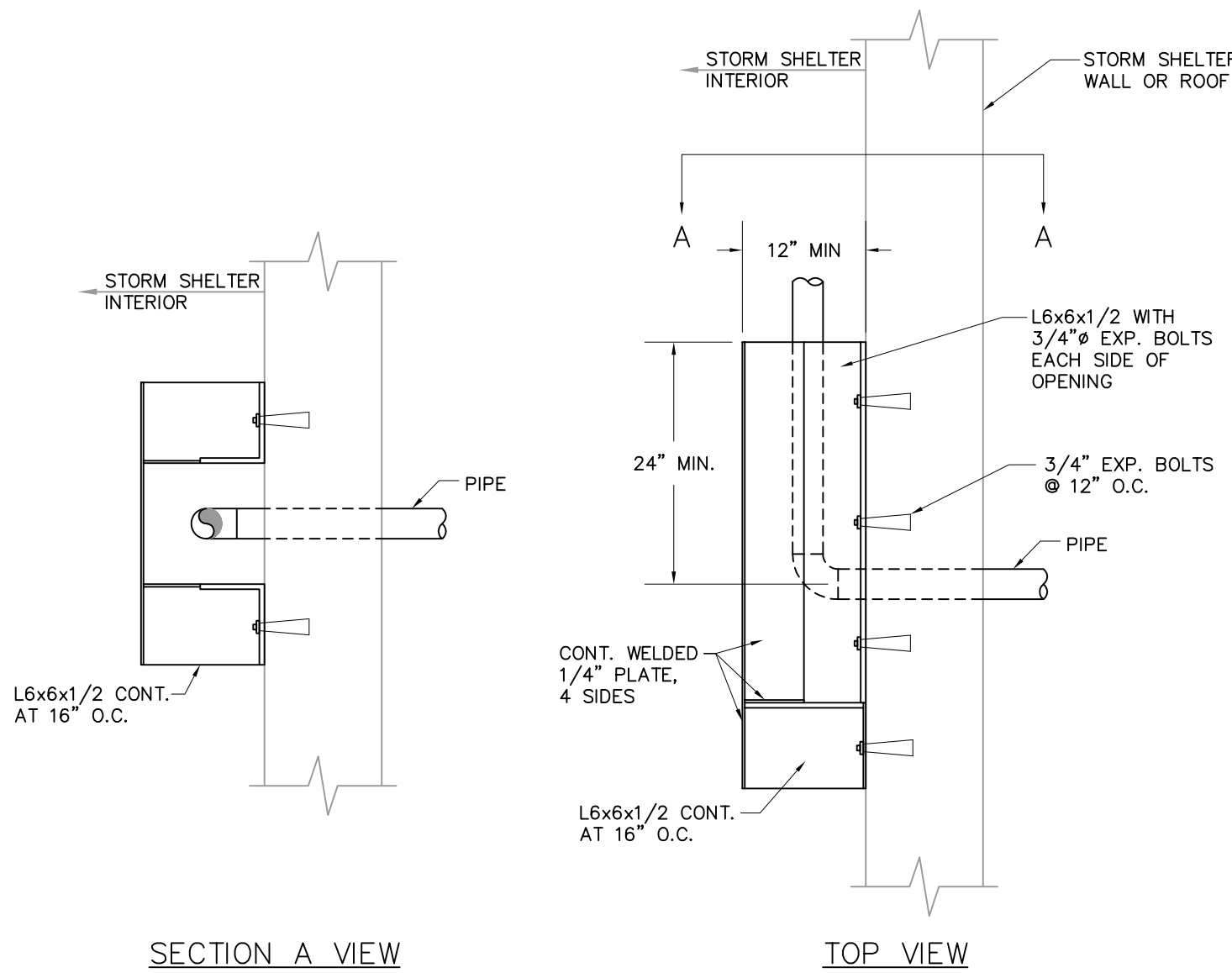
NOTE: INSTALL BRACING IN ACCORDANCE WITH NFPA 13 AND INTERNATIONAL FIRE CODE REQUIREMENTS.

4 LATERAL SEISMIC BRACE DETAIL  
FP0.1 NO SCALE



NOTE: INSTALL BRACING IN ACCORDANCE WITH NFPA 13 AND INTERNATIONAL FIRE CODE REQUIREMENTS.

5 LONGITUDINAL SEISMIC BRACE DETAIL  
FP0.1 NO SCALE



SECTION A VIEW

TOP VIEW

3 STORM SHELTER PENETRATION PROTECTION DETAIL  
FP0.1 NO SCALE

FIRE PROTECTION LEGEND

- FP— FIRE PROTECTION PIPING
- ↓ FLOW SWITCH
- ⊗ INSPECTOR'S TEST VALVE
- ⊕ VALVE WITH TAMPER SWITCH
- PENDENT SPRINKLER HEAD
- ⊙ CONCEALED SPRINKLER WITH WHITE COVER PLATE
- ⊖ SEMI-RECESSED SPRINKLER HEAD
- UPRIGHT SPRINKLER HEAD

CONTRACTOR SHALL PROVIDE FIELD CONDUCTED FLOW TEST PRIOR TO BID:  
LOCATION: \_\_\_\_\_

STATIC PRESSURE: \_\_\_\_\_

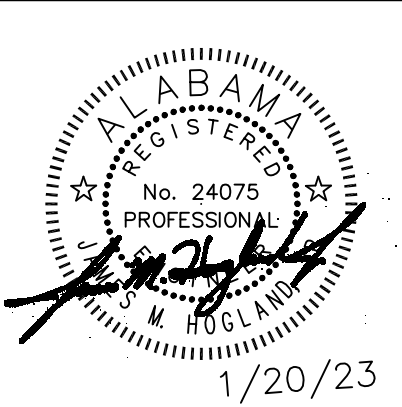
RESIDUAL PRESSURE: \_\_\_\_\_

FLOWING: \_\_\_\_\_ G.P.M.

DATE OF TEST: \_\_\_\_\_

TIME OF DAY: \_\_\_\_\_

CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78975 HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
FIRE PROTECTION LEGEND,  
ABBREVIATIONS, SCHEDULES  
AND DETAILS

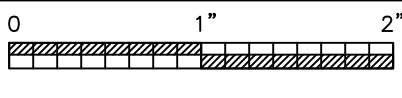
PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23

REVISIONS	

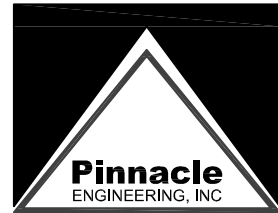
JOB NO. 22-20

SHEET NO:

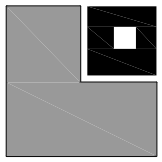
FP0.1





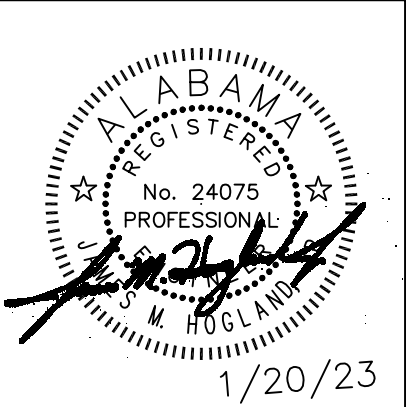


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Job No.: 22282 File: 22282FP01



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CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78975 HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
FIRE PROTECTION  
FLOOR PLAN

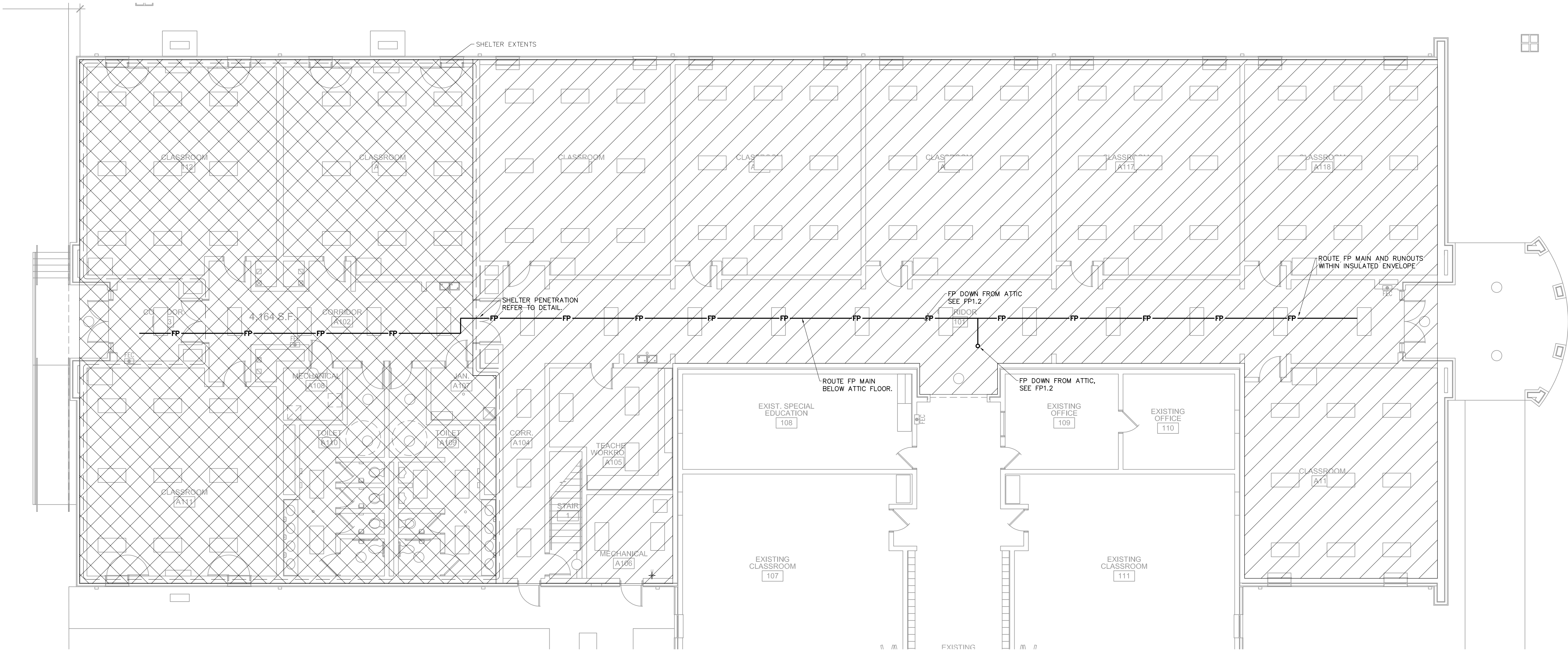
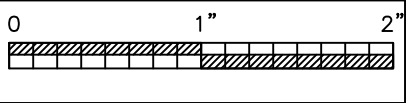
PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23

REVISIONS	

JOB NO. **22-20**

SHEET NO:

**FP1.1**



**FLOOR PLAN**  
FIRE PROTECTION — NEW WORK  
0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

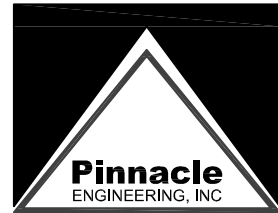
**FIRE PROTECTION LEGEND**

	PROVIDE NEW HEADS PER NFPA 13
	PROVIDE NEW HEADS PER NFPA 13 WITHIN SHELTER
	BLANK SPACE INDICATES NO FIRE PROTECTION UNDER THIS CONTRACT

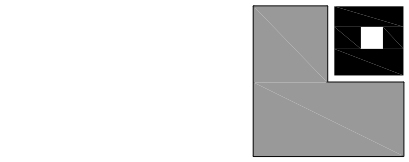
**GENERAL NOTES:**

- FIRE PROTECTION LAYOUTS SHOWN ON PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE AREAS OF COVERAGE, TYPES OF SPRINKLER HEADS AND FINISHES TO BE USED, TYPES OF FIRE PROTECTION SYSTEM TO BE INSTALLED, AND LOCATIONS OF MAJOR EQUIPMENT AND COMPONENTS. THE FIRE PROTECTION CONTRACTOR SHALL DESIGN A FULL AND COMPLETE FIRE PROTECTION SYSTEM BASED ON HYDRAULIC INFORMATION, LAYOUT OF PIPING SYSTEM AS COORDINATED WITH OTHER TRADES AND SPECIFIC COMPONENTS USED IN FIRE PROTECTION SYSTEM. ALL DESIGNS SHALL BE IN ACCORDANCE WITH NFPA 13.
- PIPING LAYOUT SHOWN IS DIAGRAMMATIC AND NOT INTENDED TO SHOW ALL OFFSETS AND CHANGES IN ELEVATION NECESSARY FOR COMPLETE INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING BID.
- CONTRACTOR SHALL PROVIDE NECESSARY OFFSETS IN NEW AND EXISTING PIPING AND ELECTRICAL CONDUIT AS REQUIRED TO ACCOMMODATE NEW WORK. CONTRACTOR SHALL ALLOW FOR ANY CONFLICTS ENCOUNTERED.
- REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR LOCATION OF LIGHTS, DIFFUSERS, GRILLES AND ALL OTHER CEILING MOUNTED DEVICES. COORDINATE WITH THE REFLECTED CEILING PLAN TO DETERMINE ACTUAL LOCATION OF SPRINKLERS.
- ALL NEW FIRE PROTECTION PIPING SHALL BE INSTALLED AS CLOSE TO STRUCTURE AS POSSIBLE.
- ALL UNUSED FIRE PROTECTION PIPING, WHETHER NEW OR EXISTING SHALL BE REMOVED. ALL SPRINKLER HEADS INSTALLED UNDER THIS CONTRACT SHALL BE NEW.
- SPACE ABOVE CEILING IS LIMITED. CAREFUL COORDINATION WITH LIGHTING, ELECTRICAL, PLUMBING, STRUCTURE, AND ARCHITECTURAL TRADES IS CRITICAL TO COMPLETE INSTALLATION.
- COORDINATION SHOP DRAWINGS SHALL BE PREPARED FOR THE ENTIRE PROJECT DRAWN TO 1/4" = 1'-0" SCALE (MINIMUM). DRAWINGS SHALL BE FULLY DIMENSIONED, INCLUDING ELEVATIONS OF DUCTWORK, PIPING, MAJOR HANGING SUPPORTS AND MAJOR ELECTRICAL CONDUIT (2" AND LARGER). CEILING COORDINATION PLANS SHALL ALSO SHOW CEILING GRID, LIGHTING LAYOUT, SPRINKLER LAYOUT, AND MECHANICAL GRILLES.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION, VERIFICATION, AND SUBMITTAL OF SHOP DRAWINGS TO OWNER, ARCHITECT, AND ENGINEER.
- ALL SPRINKLERS WITHIN THE SCOPE OF THIS PROJECT SHALL BE QUICK RESPONSE TYPE. SPRINKLER HEADS USED SHALL COMPLY WITH WITH COMPARTMENTALIZATION REQUIREMENTS OF NFPA-13.
- CONTRACTOR SHALL PROVIDE TEST AND DRAIN CONNECTION IN ACCORDANCE WITH NFPA-13. DRAIN SHALL DISCHARGE TO A LOCATION CAPABLE OF ACCEPTING FULL FLOW UNDER NORMAL SYSTEM PRESSURE WITHOUT CAUSING WATER DAMAGE.
- ALL DISRUPTIONS IN UTILITY SERVICES MUST BE CLOSELY COORDINATED WITH ENGINEERING SERVICES. NO SHUTDOWN SHALL PROCEED WITHOUT PRIOR APPROVAL FROM OWNER.
- SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA 72 AND NFPA 70.
- SEISMIC DESIGN CATEGORY IS C. PROVIDE SEISMIC BRACING FOR FP PIPING IN ACCORDANCE WITH NFPA 13 REQUIREMENTS.



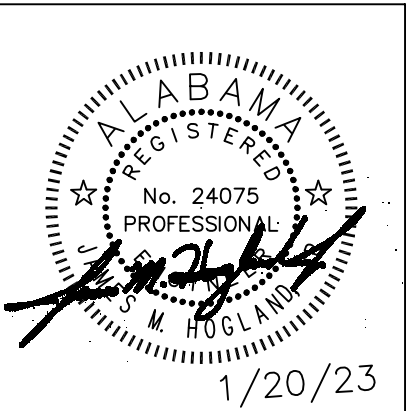


Engineering & Design Consultants  
2111 Parkway Office Circle, Suite 125  
Birmingham, AL 35244  
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Job No.: 22282 File: 22282FP01



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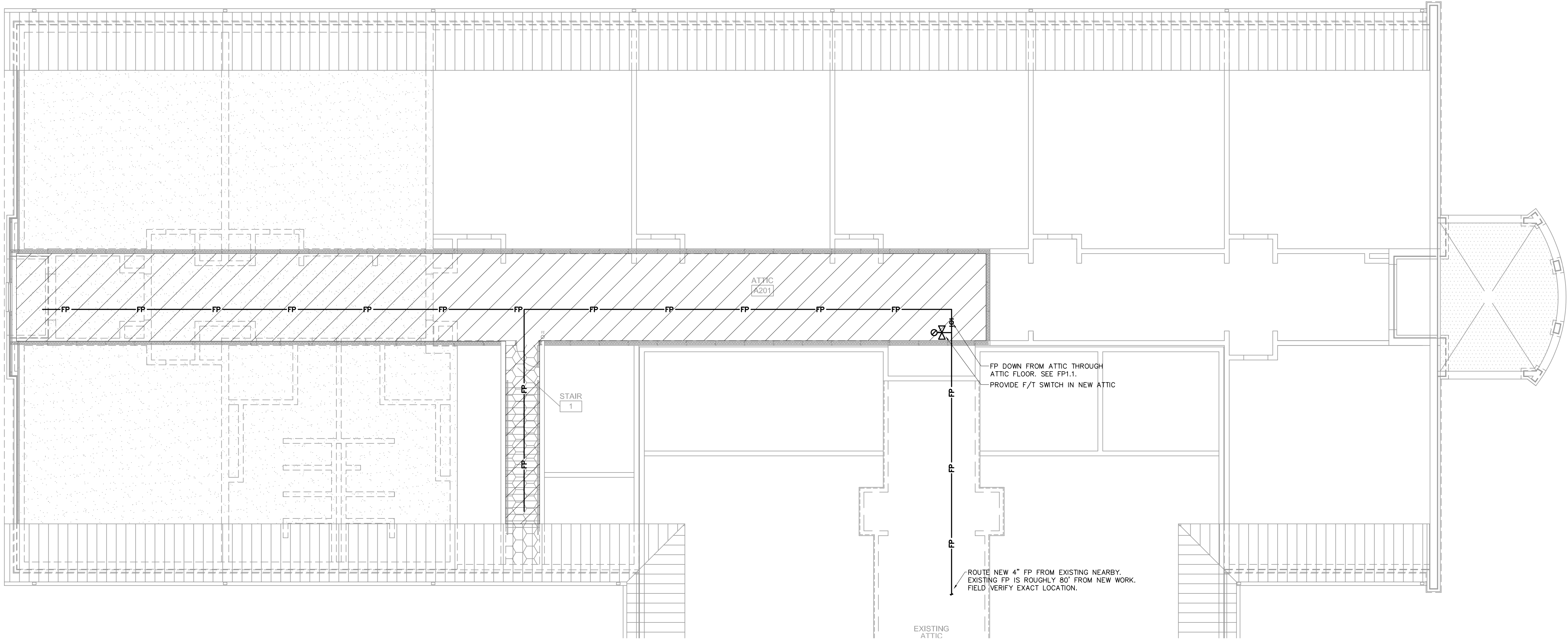


SHEET TITLE:  
FIRE PROTECTION  
ATTIC FLOOR PLAN

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23

REVISIONS	

JOB NO. 22-20  
SHEET NO:  
FP1.2  
0 1" 2"



ATTIC FLOOR PLAN  
FIRE PROTECTION - NEW WORK  
0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

FIRE PROTECTION LEGEND	
	PROVIDE NEW HEADS PER NFPA 13 IN ATTIC AND STAIR
	BLANK SPACE INDICATES NO FIRE PROTECTION UNDER THIS CONTRACT

#### GENERAL NOTES:

- FIRE PROTECTION LAYOUTS SHOWN ON PLANS ARE FOR INFORMATIONAL PURPOSES ONLY. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE AREAS OF COVERAGE, TYPES OF SPRINKLER HEADS AND FINISHES TO BE USED, TYPES OF FIRE PROTECTION SYSTEM TO BE INSTALLED, AND LOCATIONS OF MAJOR EQUIPMENT AND COMPONENTS. THE FIRE PROTECTION CONTRACTOR SHALL DESIGN A FULL AND COMPLETE FIRE PROTECTION SYSTEM BASED ON HYDRAULIC INFORMATION, LAYOUT OF PIPING SYSTEM AS COORDINATED WITH OTHER TRADES AND SPECIFIC COMPONENTS USED IN FIRE PROTECTION SYSTEM. ALL DESIGNS SHALL BE IN ACCORDANCE WITH NFPA 13.
- PIPING LAYOUT SHOWN IS DIAGRAMMATIC AND NOT INTENDED TO SHOW ALL OFFSETS AND CHANGES IN ELEVATION NECESSARY FOR COMPLETE INSTALLATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO SUBMITTING BID.
- CONTRACTOR SHALL PROVIDE NECESSARY OFFSETS IN NEW AND EXISTING PIPING AND ELECTRICAL CONDUIT AS REQUIRED TO ACCOMMODATE NEW WORK. CONTRACTOR SHALL ALLOW FOR ANY CONFLICTS ENCOUNTERED.
- REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR LOCATION OF LIGHTS, DIFFUSERS, GRILLES AND ALL OTHER CEILING MOUNTED DEVICES. COORDINATE WITH THE REFLECTED CEILING PLAN TO DETERMINE ACTUAL LOCATION OF SPRINKLERS.
- ALL NEW FIRE PROTECTION PIPING SHALL BE INSTALLED AS CLOSE TO STRUCTURE AS POSSIBLE.
- ALL UNUSED FIRE PROTECTION PIPING, WHETHER NEW OR EXISTING SHALL BE REMOVED. ALL SPRINKLER HEADS INSTALLED UNDER THIS CONTRACT SHALL BE NEW.
- SPACE ABOVE CEILING IS LIMITED. CAREFUL COORDINATION WITH LIGHTING, ELECTRICAL, PLUMBING, STRUCTURE, AND ARCHITECTURAL TRADES IS CRITICAL TO COMPLETE INSTALLATION.
- COORDINATION SHOP DRAWINGS SHALL BE PREPARED FOR THE ENTIRE PROJECT DRAWN TO 1/4" = 1'-0" SCALE (MINIMUM). DRAWINGS SHALL BE FULLY DIMENSIONED, INCLUDING ELEVATIONS OF DUCTWORK, PIPING, MAJOR HANGING SUPPORTS AND MAJOR ELECTRICAL CONDUIT (2" AND LARGER). CEILING COORDINATION PLANS SHALL ALSO SHOW CEILING GRID, LIGHTING LAYOUT, SPRINKLER LAYOUT, AND MECHANICAL GRILLES.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION, VERIFICATION, AND SUBMITTAL OF SHOP DRAWINGS TO OWNER, ARCHITECT, AND ENGINEER.
- ALL SPRINKLERS WITHIN THE SCOPE OF THIS PROJECT SHALL BE QUICK RESPONSE TYPE. SPRINKLER HEADS USED SHALL COMPLY WITH WITH COMPARTMENTALIZATION REQUIREMENTS OF NFPA-13.
- CONTRACTOR SHALL PROVIDE TEST AND DRAIN CONNECTION IN ACCORDANCE WITH NFPA-13. DRAIN SHALL DISCHARGE TO A LOCATION CAPABLE OF ACCEPTING FULL FLOW UNDER NORMAL SYSTEM PRESSURE WITHOUT CAUSING WATER DAMAGE.
- ALL DISRUPTIONS IN UTILITY SERVICES MUST BE CLOSELY COORDINATED WITH ENGINEERING SERVICES. NO SHUTDOWN SHALL PROCEED WITHOUT PRIOR APPROVAL FROM OWNER.
- SYSTEM DESIGN AND INSTALLATION SHALL COMPLY WITH NFPA 72 AND NFPA 70.
- SEISMIC DESIGN CATEGORY IS C. PROVIDE SEISMIC BRACING FOR FP PIPING IN ACCORDANCE WITH NFPA 13 REQUIREMENTS.

#### FIRE PROTECTION LEGEND

- FP- FIRE PROTECTION PIPING
- FLOW SWITCH
- INSPECTOR'S TEST VALVE
- VALVE WITH TAMPER SWITCH
- PENDENT SPRINKLER HEAD
- CONCEALED SPRINKLER WITH WHITE COVER PLATE
- SEMI-RECESSED SPRINKLER HEAD
- UPRIGHT SPRINKLER HEAD

CONTRACTOR SHALL PROVIDE FIELD CONDUCTED FLOW TEST PRIOR TO BID:

LOCATION: \_\_\_\_\_

STATIC PRESSURE: \_\_\_\_\_

RESIDUAL PRESSURE: \_\_\_\_\_

FLOWING: \_\_\_\_\_ G.P.M.

DATE OF TEST: \_\_\_\_\_

TIME OF DAY: \_\_\_\_\_



PLUMBING LEGEND SYMBOLS AND ABBREVIATIONS					
	DOMESTIC COLD WATER		BALL VALVE	ABV	ABOVE
	DOMESTIC HOT WATER		VALVE IN VERTICAL	AFF	ABOVE FINISHED FLOOR
	DOMESTIC HOT WATER RETURN		CAP ON END OF PIPE	INV	INVERT
	SANITARY VENT		CLEANOUT - FLOOR TYPE	BFF	BELOW FINISHED FLOOR
	SANITARY WASTE		CLEANOUT - WALL TYPE	CW	COLD WATER
			P-TRAP	DN	DOWN
			PIPE TURNING DOWN	EX	EXISTING
			PIPE TURNING UP	HW	HOT WATER
			TEE DOWN	WS	WASTE STACK
			TEE UP	VS	VENT STACK
			TIE NEW INTO EXISTING	AC	ABOVE CEILING
			PLUMBING FIXTURE NUMBER	WHA	WATER HAMMER ARRESTOR
			PLUG TYPE CLEANOUT	BFG	BELOW FINISHED GRADE
			BALANCING VALVE	TMV	THERMOSTATIC MIXING VALVE
			CHECK VALVE	TP	TRAP PRIMER
			REDUCED PRESSURE ZONE BFP		
			THERMOSTATIC MIXING VALVE		
			FLOOR SINK		
			FLOOR DRAIN		

PLUMBING FIXTURE CONNECTION SCHEDULE						
EQUIPMENT NO.	DESCRIPTION	HOT WATER	COLD WATER	WASTE	VENT	REMARKS
WC-1	WATER CLOSET - ADA	--	1"	4"	2"	FLOOR MOUNTED, MANUAL FLUSH VALVE
UR-1	URINAL - ADA	--	3/4"	2"	2"	WALL MOUNTED, MANUAL FLUSH VALVE
LAV-1	LAVATORY	1/2"	1/2"	2"	2"	COUNTER MOUNTED, PROVIDE MIXING VALVE
EW-1	ELECTRIC WATER COOLER	--	1/2"	2"	1-1/2"	WALL MOUNTED, BI-LEVEL
FD-1	FLOOR DRAIN	--	--	3"	2"	PROVIDE TRAP GUARD
JMB	JANITOR MOP BASIN	1/2"	1/2"	3"	2"	--
WH-1	WALL HYDRANT	--	1/2"	--	--	FREEZE PROOF

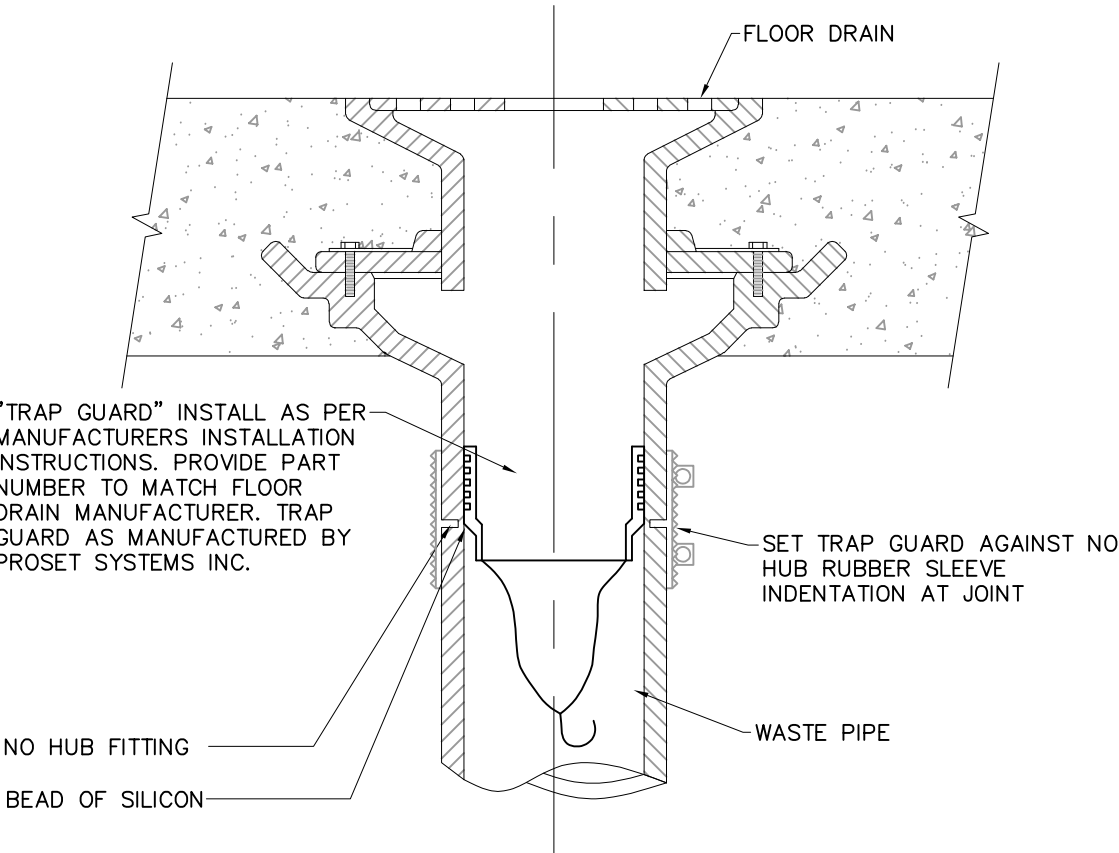
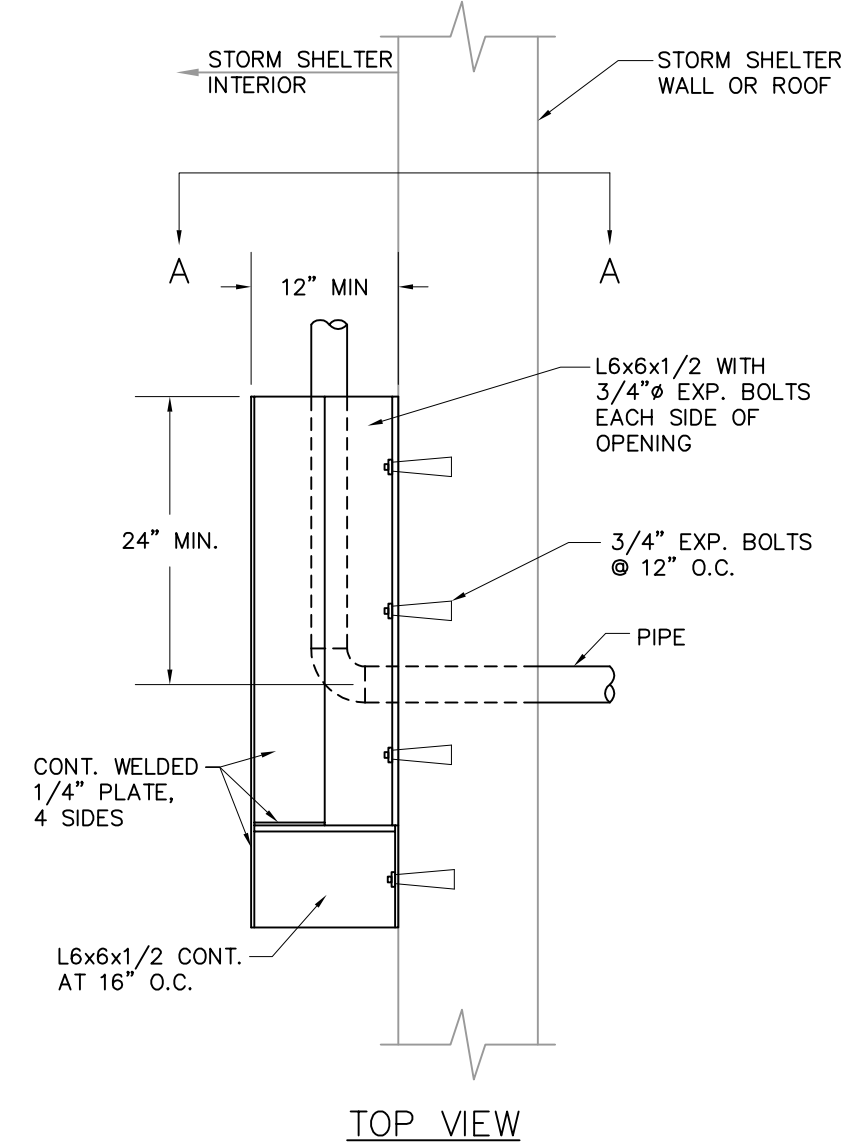
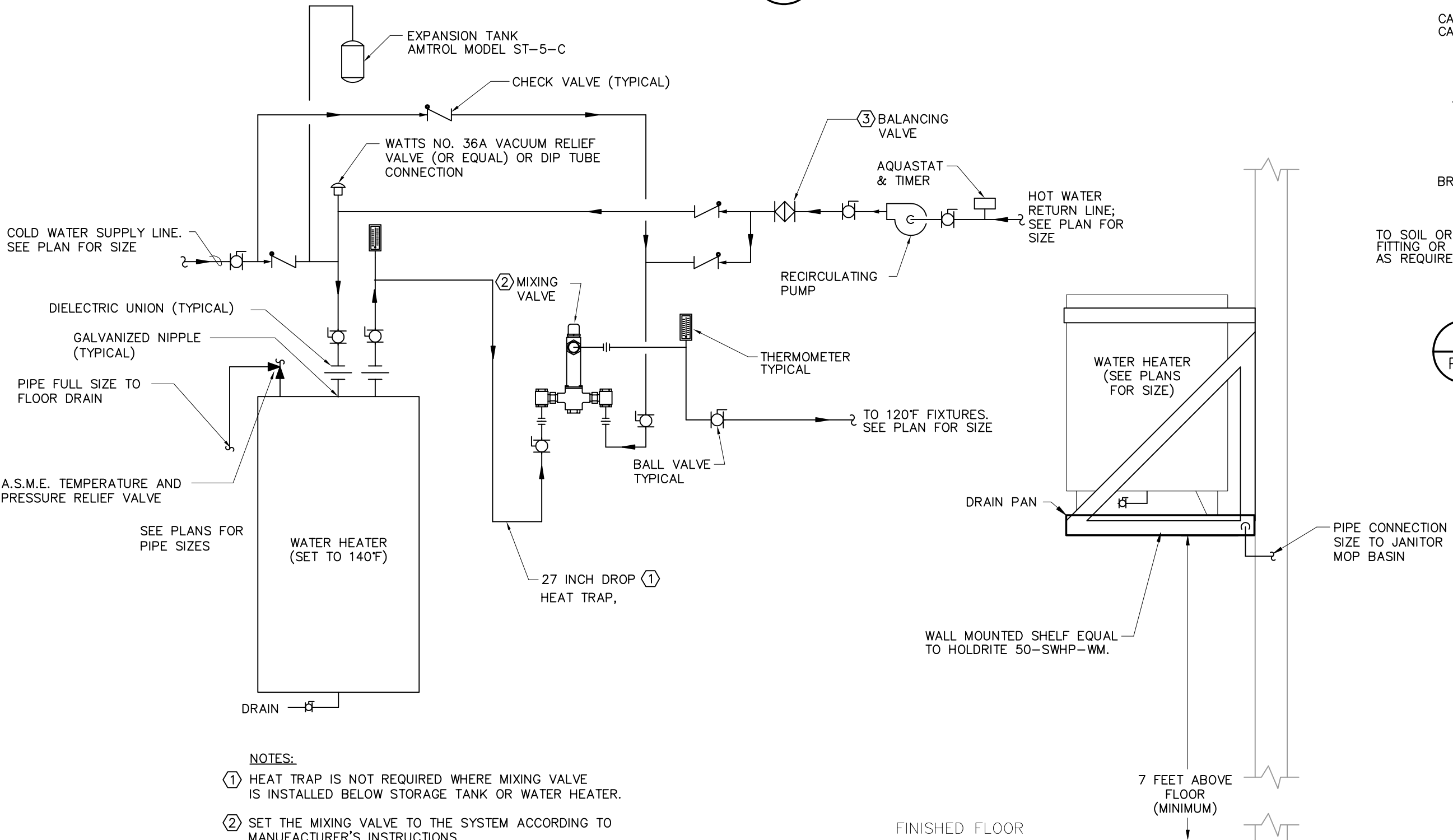
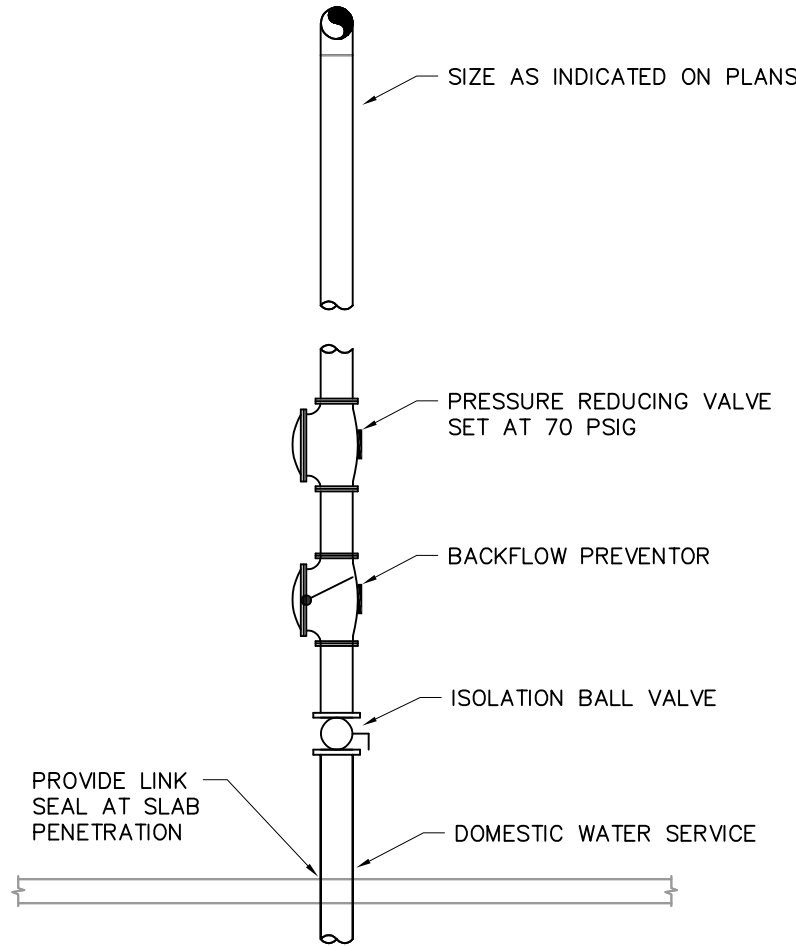
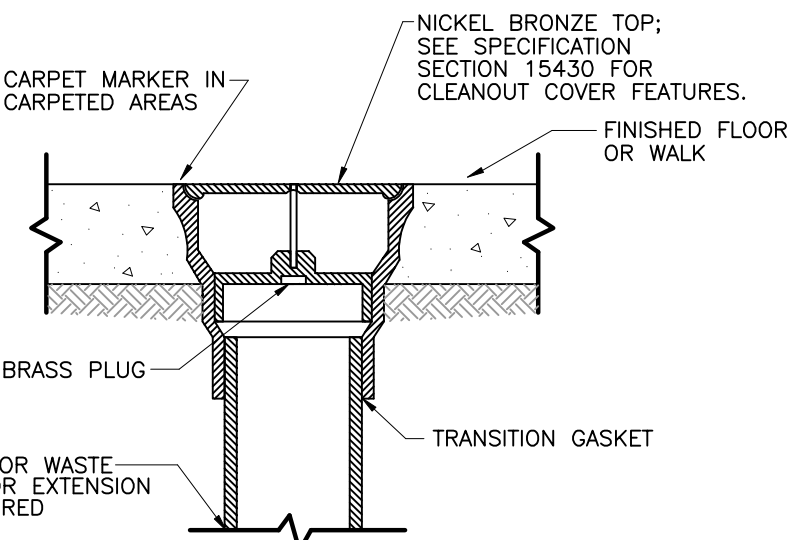
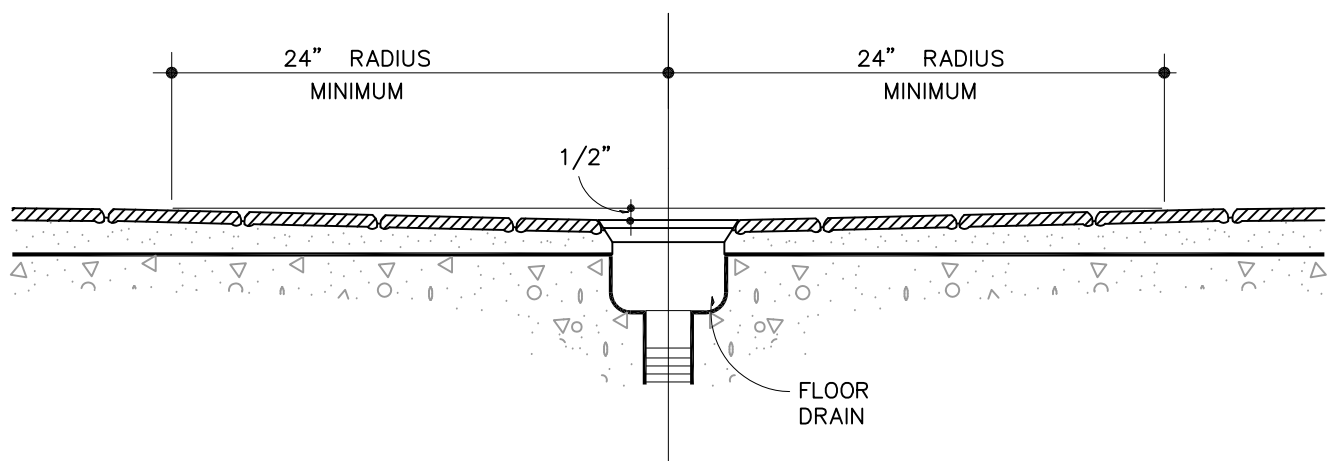
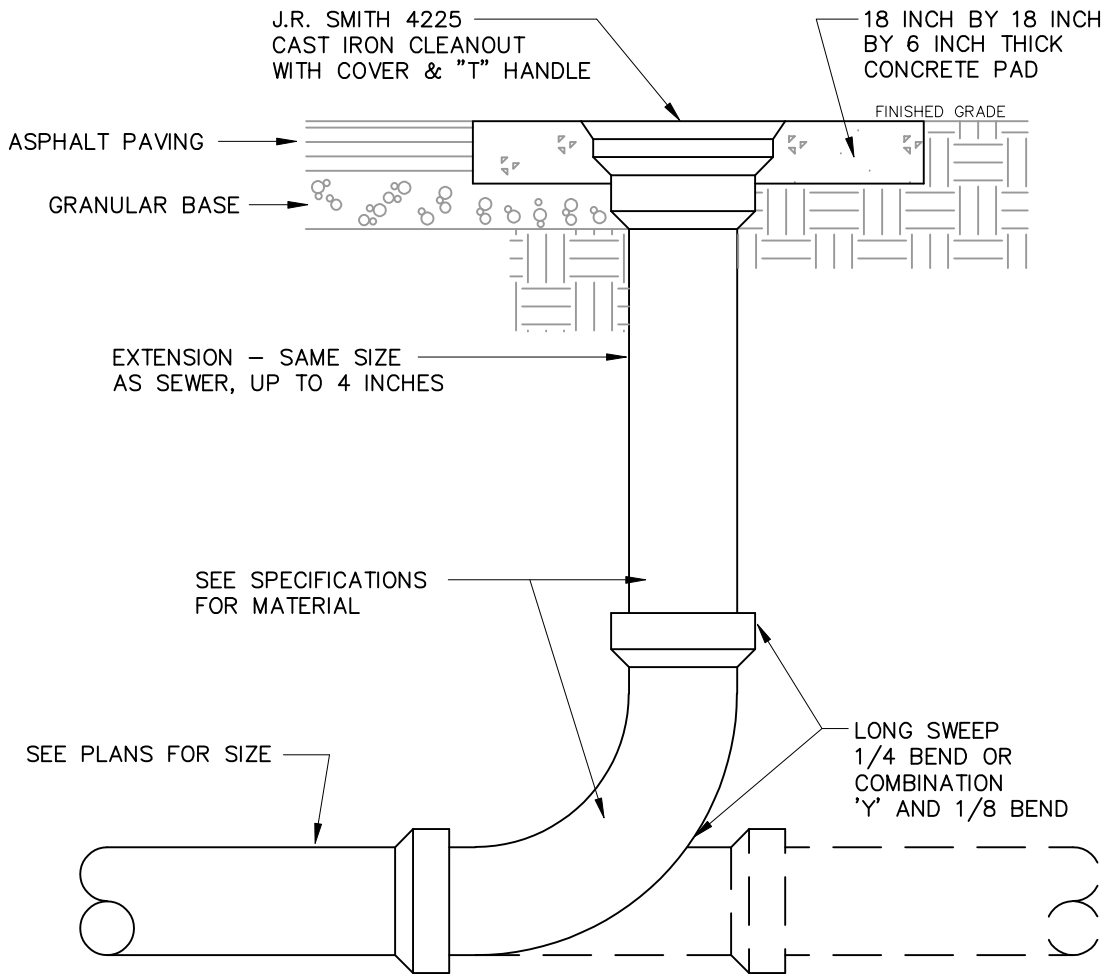
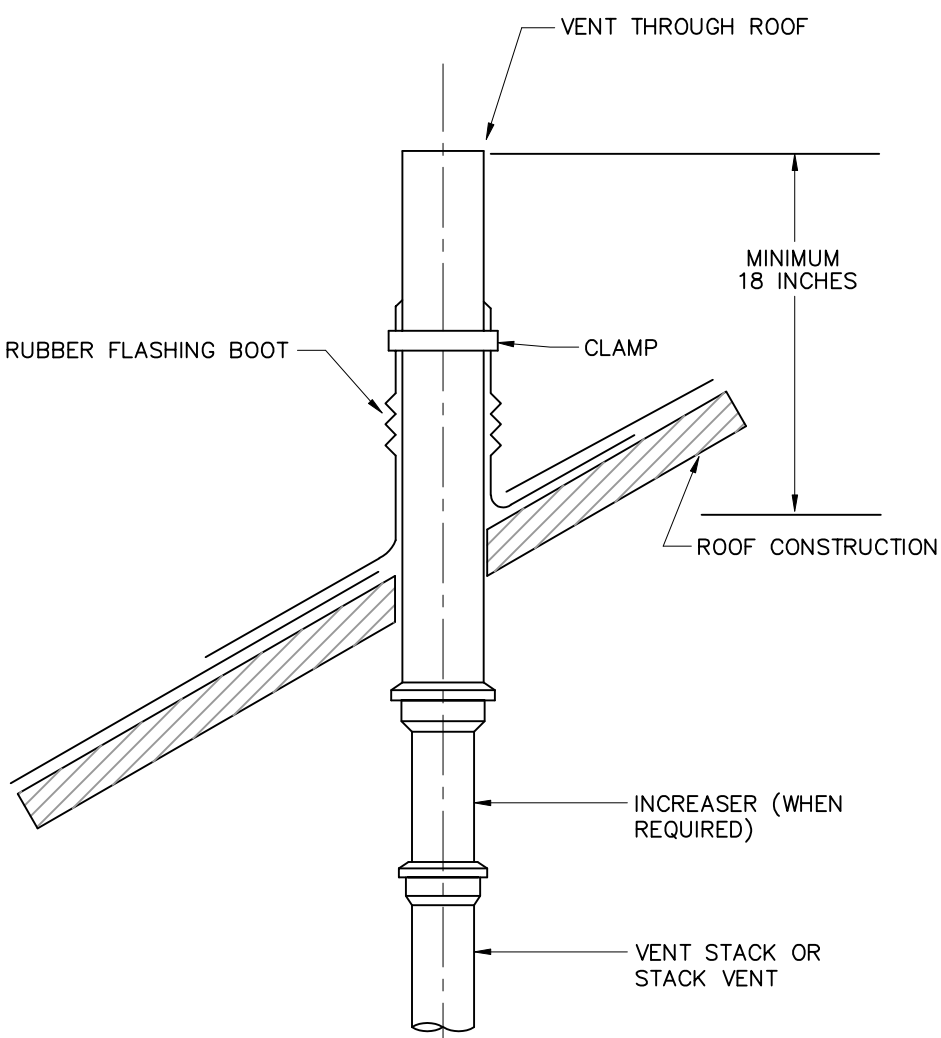
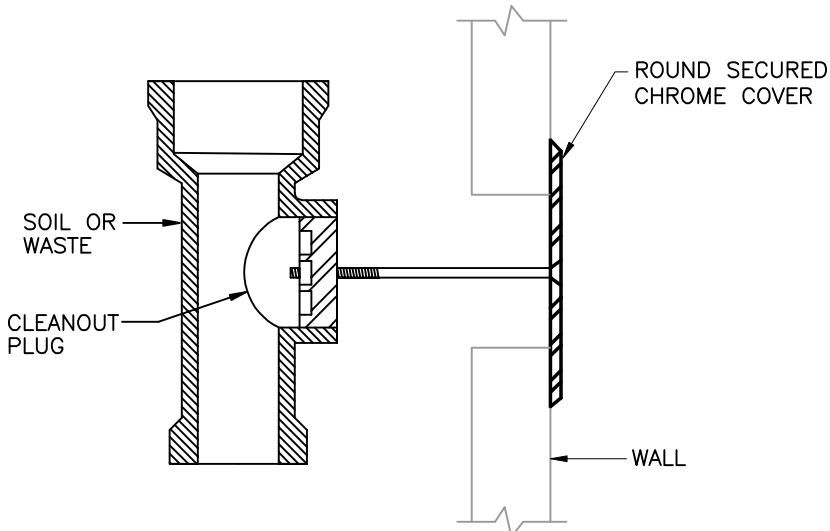
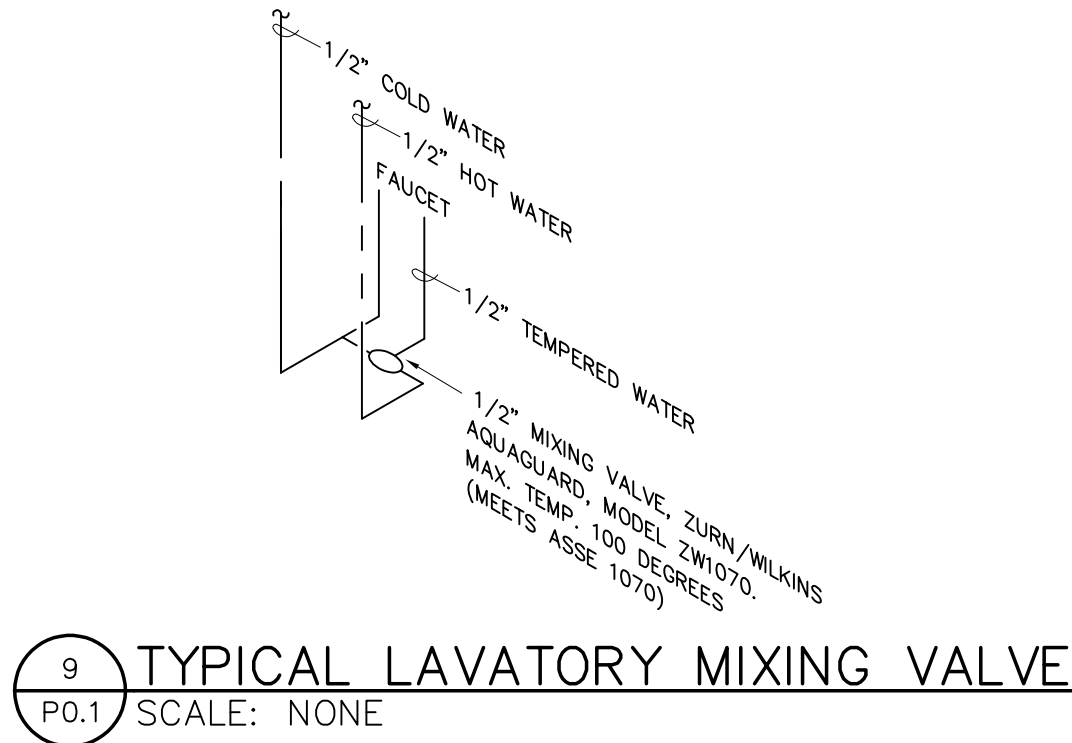
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ENGINEERING, INC.

Engineering & Design Consultants  
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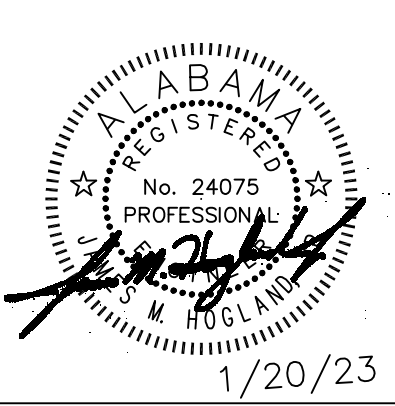
ELECTRIC WATER HEATER SCHEDULE												
EQUIPMENT NO.	MANUFACTURER AND MODEL NO.	SERVICE	EFF (%)	ENTERING WATER TEMP (°F)	LEAVING WATER TEMP (°F)	RECOVERY RATE (GPH)	STORAGE CAPACITY (GAL)	TANK DIMENSIONS		ELECTRICAL		REMARKS
								HEIGHT (INCHES)	DIAMETER (INCHES)	HEATING ELEMENTS	VOLTS/PH./HZ	
										WATTAGE	QNTY	
EW-1	A.O. SMITH DEL-50	HOT WATER	--	60	140	45	50	32.25	26.5	4.5 KW	2	480/ 3 / 60 1)

1) TOTAL SIMULTANEOUS CAPACITY IS 9 KW.

RECIRCULATION PUMP SCHEDULE										
EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	SERVICE	TYPE	FLOW (GPM)	HEAD (FT.)	RPM	ELECTRICAL			REMARKS
							HP	DISCONNECT	VOLTS/PH./HZ.	
RCP	TACO 2400-10S	HOT WATER RETURN	INLINE	2	10	3450	1/10	BY DIV. 16	120/1/60	1)
REMARKS: 1) PROVIDE AQUASTAT AND TIMER. INSTALL IN ACCORDANCE WITH IECC REQUIREMENTS.										



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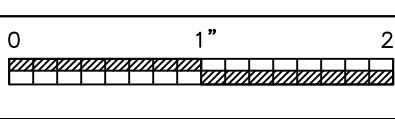


SHEET TITLE:  
PLUMBING LEGEND,  
ABBREVIATIONS, SCHEDULES  
AND DETAILS

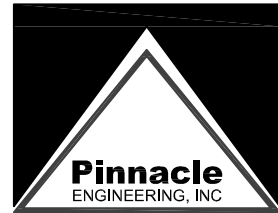
PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS

JOB NO. 22-20  
SHEET NO:

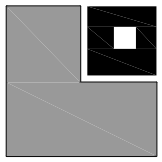
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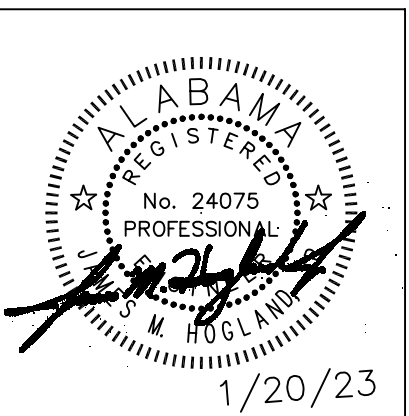


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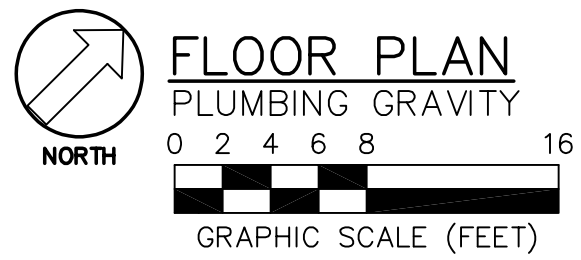
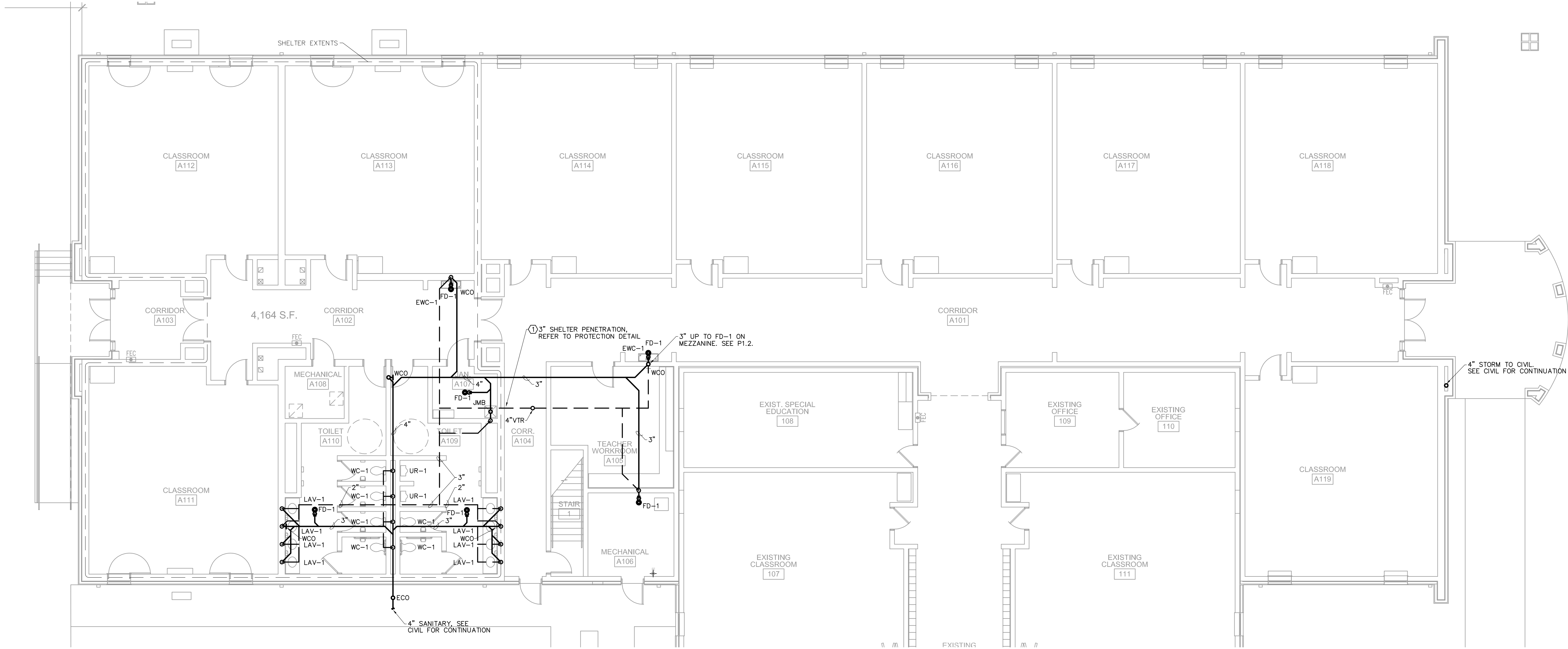
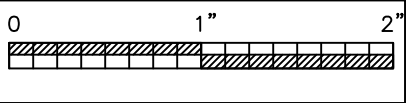


SHEET TITLE:  
PLUMBING GRAVITY  
FLOOR PLAN

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS

JOB NO. **22-20**  
SHEET NO:

**P1.1**



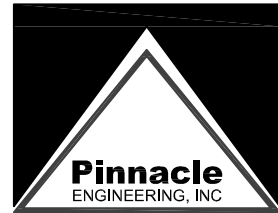
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- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF ALL CEILING MOUNTED DEVICES. REFER TO ARCHITECTURAL FLOOR PLANS FOR ALL DIMENSIONS.
- COORDINATE ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR AND ARCHITECT.
- RESTROOM FLOOR DRAINS HAVE BEEN COORDINATED WITH PARTITIONS AND FIXTURES. CONSULT ARCHITECTURAL PLANS TO ENSURE FINAL LOCATION OF PARTITIONS DOES NOT INTERFERE WITH FLOOR DRAINS.

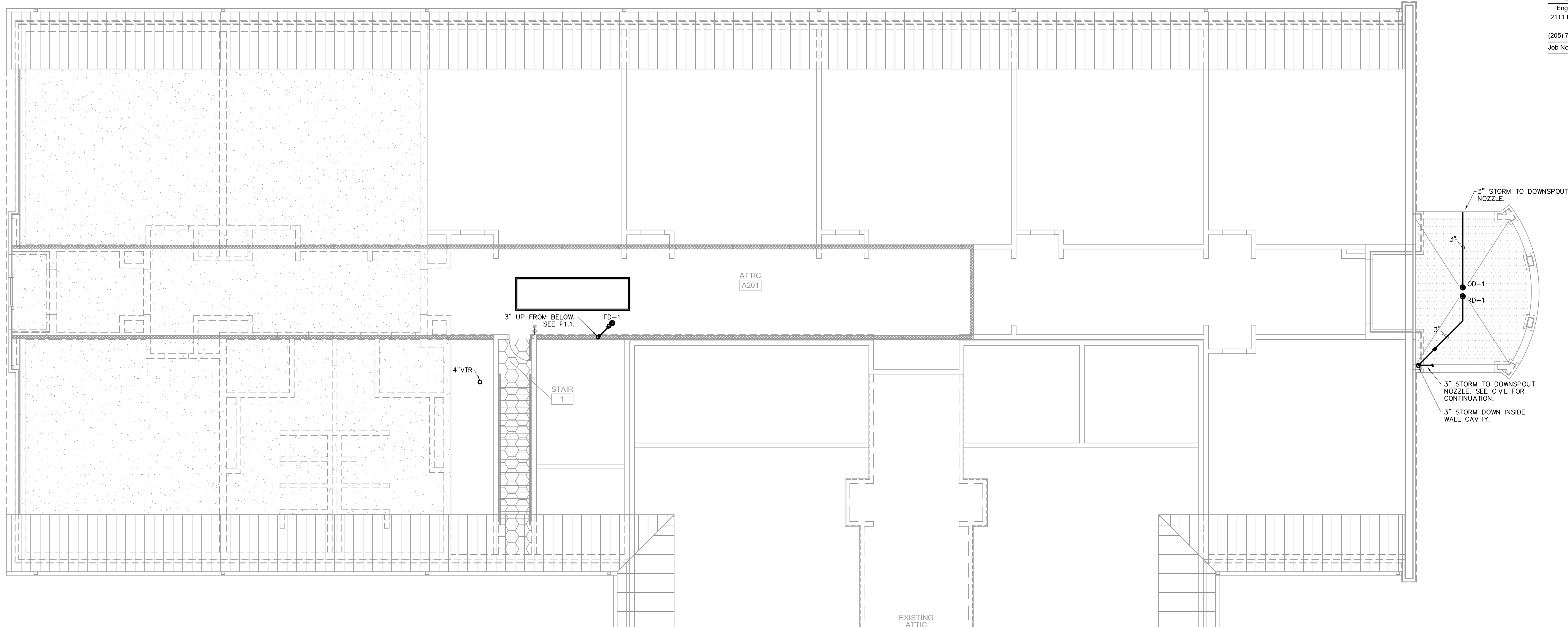
**DRAWING NOTES:**

- PROTECT PENETRATION OPENINGS THROUGH STORM SHELTER PERIMETER IN ACCORDANCE WITH ICC 500 REQUIREMENTS. COORDINATE WITH STRUCTURAL PLANS. ANCHOR PIPING TO INTERIOR OF SHELTER WALL AT PENETRATION. REFER TO DETAIL #4, SHEET P0.1.



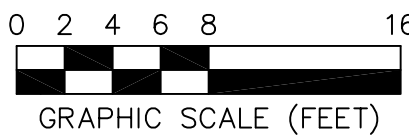


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## ATTIC FLOOR PLAN

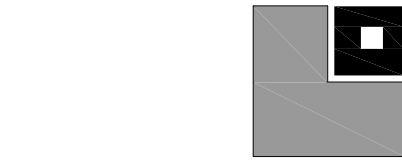
PLUMBING GRAVITY



GRAPHIC SCALE (FEET)

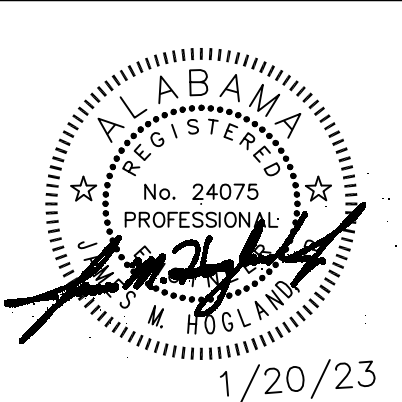
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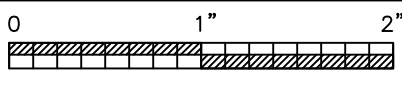
SHEET TITLE:  
PLUMBING GRAVITY  
ATTIC FLOOR PLAN

PROJ. MGR.:	JMH
DRAWN:	ZBL/CRA
DATE:	1/20/23

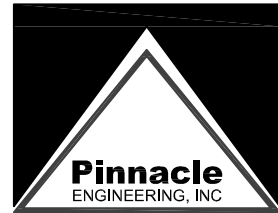
REVISIONS	

JOB NO. **22-20**  
SHEET NO:

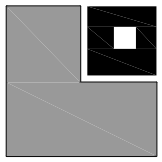
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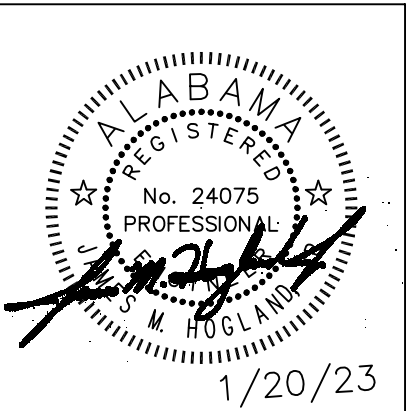


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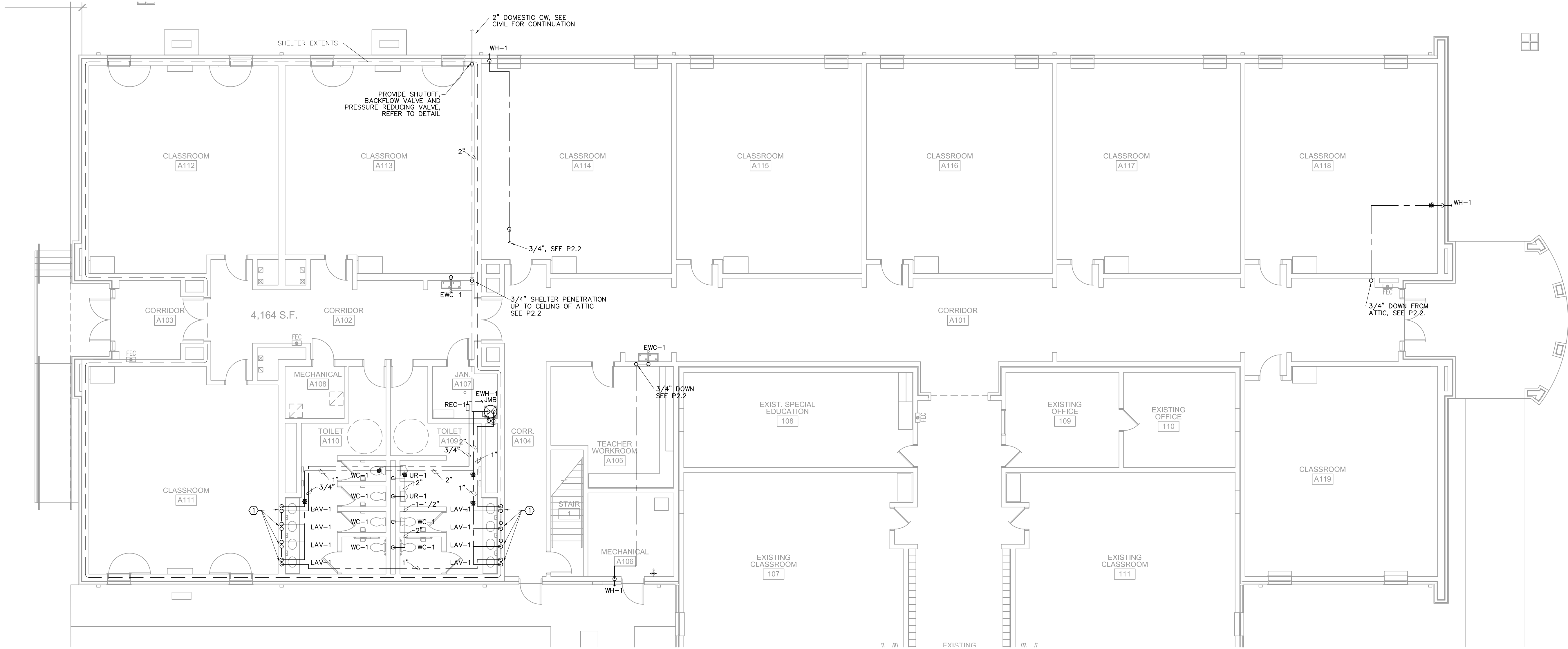
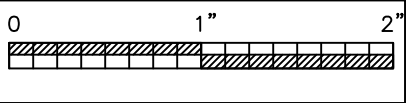


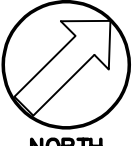
SHEET TITLE:  
PLUMBING PRESSURE  
FLOOR PLAN

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS

JOB NO. **22-20**  
SHEET NO:

**P2.1**



  
**FLOOR PLAN**  
PLUMBING PRESSURE  
0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

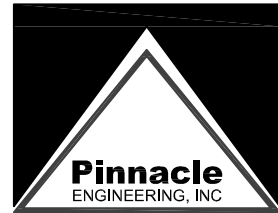
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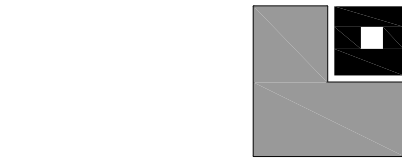
DRAWING NOTES:

- HW PIPING SHALL BE ROUTED DOWN IN WALL TO FIXTURE STOP AND LOOPED BACK UP TO NEXT FIXTURE PER IECC CODE. TYPICAL FOR HANDWASHING LAVS.

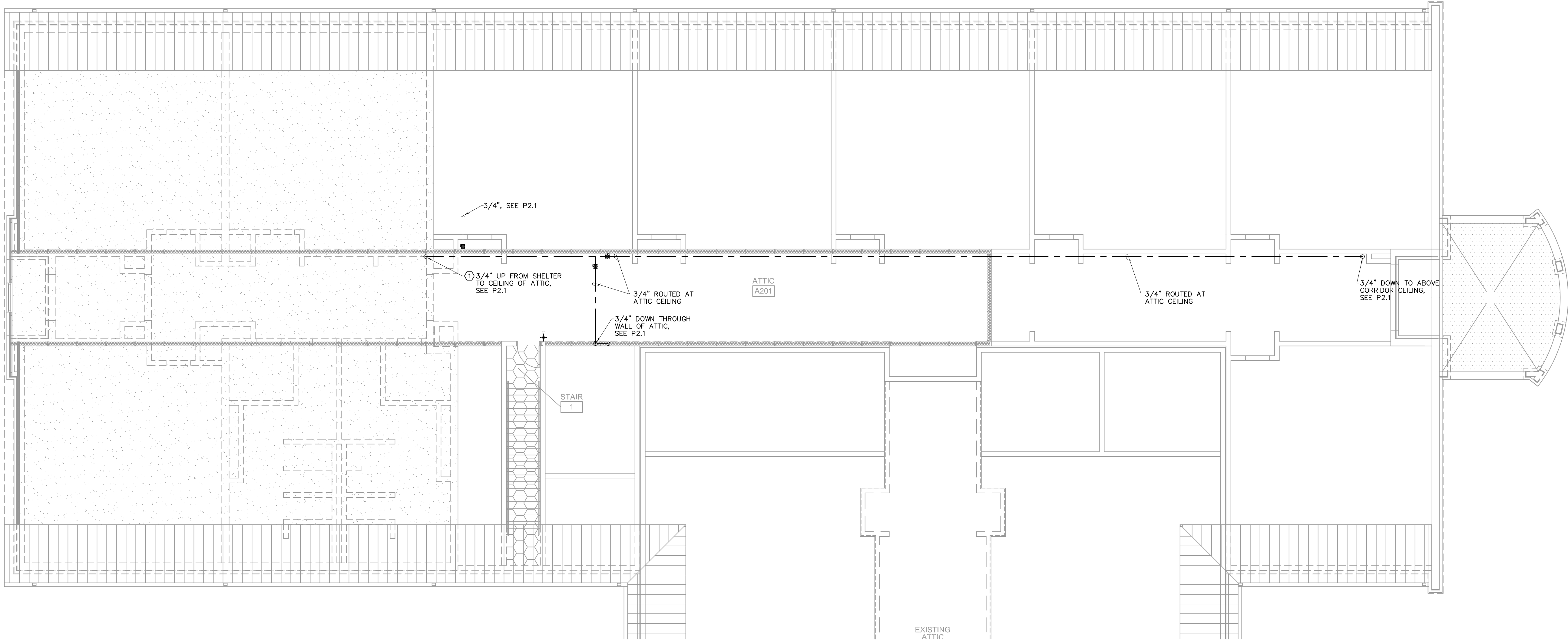




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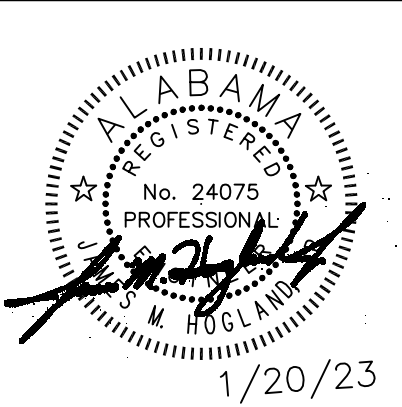
ATTIC FLOOR PLAN  
PLUMBING PRESSURE  
0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

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- SPACE ABOVE CEILING IS LIMITED. CAREFUL COORDINATION WITH LIGHTING, ELECTRICAL, MECHANICAL, FIRE PROTECTION, STRUCTURAL AND ARCHITECTURAL WORK IS CRITICAL FOR COMPLETE PIPING INSTALLATION. CONTRACTOR SHALL PROVIDE NECESSARY OFFSETS IN NEW AND EXISTING PIPING AND ELECTRICAL CONDUIT AS REQUIRED TO ACCOMMODATE NEW WORK. CONTRACTOR SHALL ALLOW FOR ANY CONFLICTS ENCOUNTERED.
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- PIPING LAYOUTS ARE DIAGRAMMATIC AND DO NOT SHOW ALL ELEMENTS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES ON DIRECTION, ELEVATION AND MINOR OFFSETS NECESSARY FOR COMPLETE INSTALLATION OF ELEMENTS SHOWN.
- ALL PRESSURE PIPING SHOWN IS ABOVE THE CEILING UNLESS OTHERWISE NOTED.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR LOCATIONS OF ALL CEILING MOUNTED DEVICES. REFER TO ARCHITECTURAL FLOOR PLANS FOR ALL DIMENSIONS.
- COORDINATE ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR AND ARCHITECT.

DRAWING NOTES:

- PROTECT PENETRATION OPENINGS THROUGH STORM SHELTER PERIMETER IN ACCORDANCE WITH ICC 500 REQUIREMENTS. COORDINATE WITH STRUCTURAL PLANS. ANCHOR PIPING TO INTERIOR OF SHELTER WALL AT PENETRATION. REFER TO DETAIL #4, SHEET P0.1.



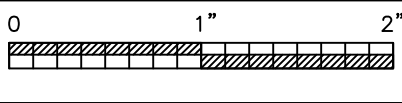
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PLUMBING PRESSURE  
ATTIC FLOOR PLAN

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23

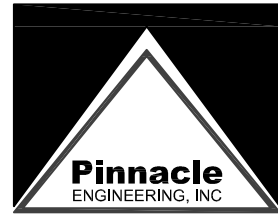
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JOB NO. 22-20  
SHEET NO:

P2.2





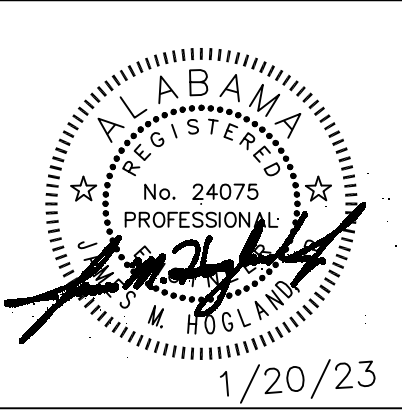


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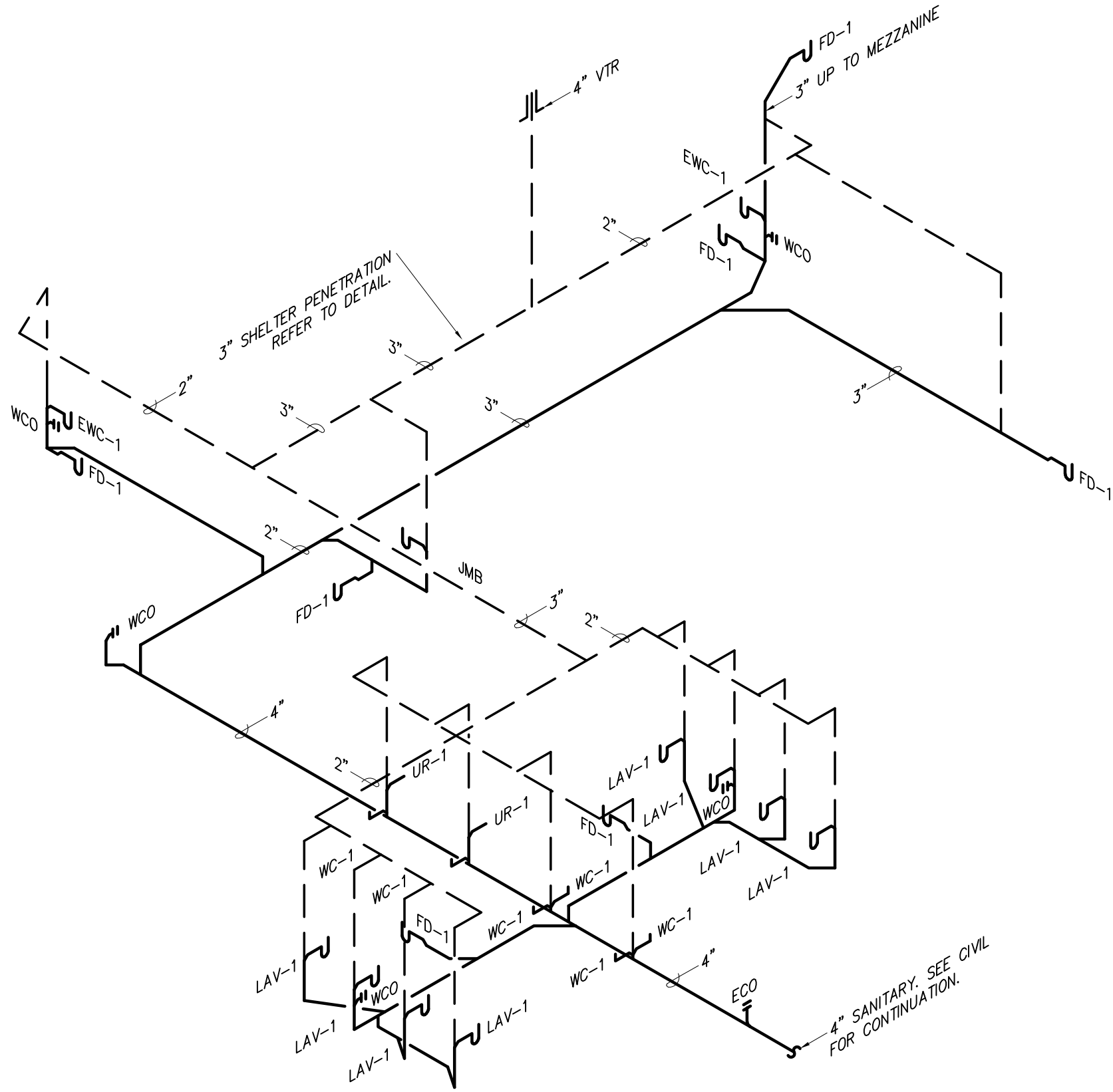
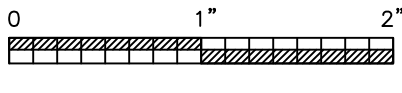
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PLUMBING RISERS

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS

JOB NO. 22-20

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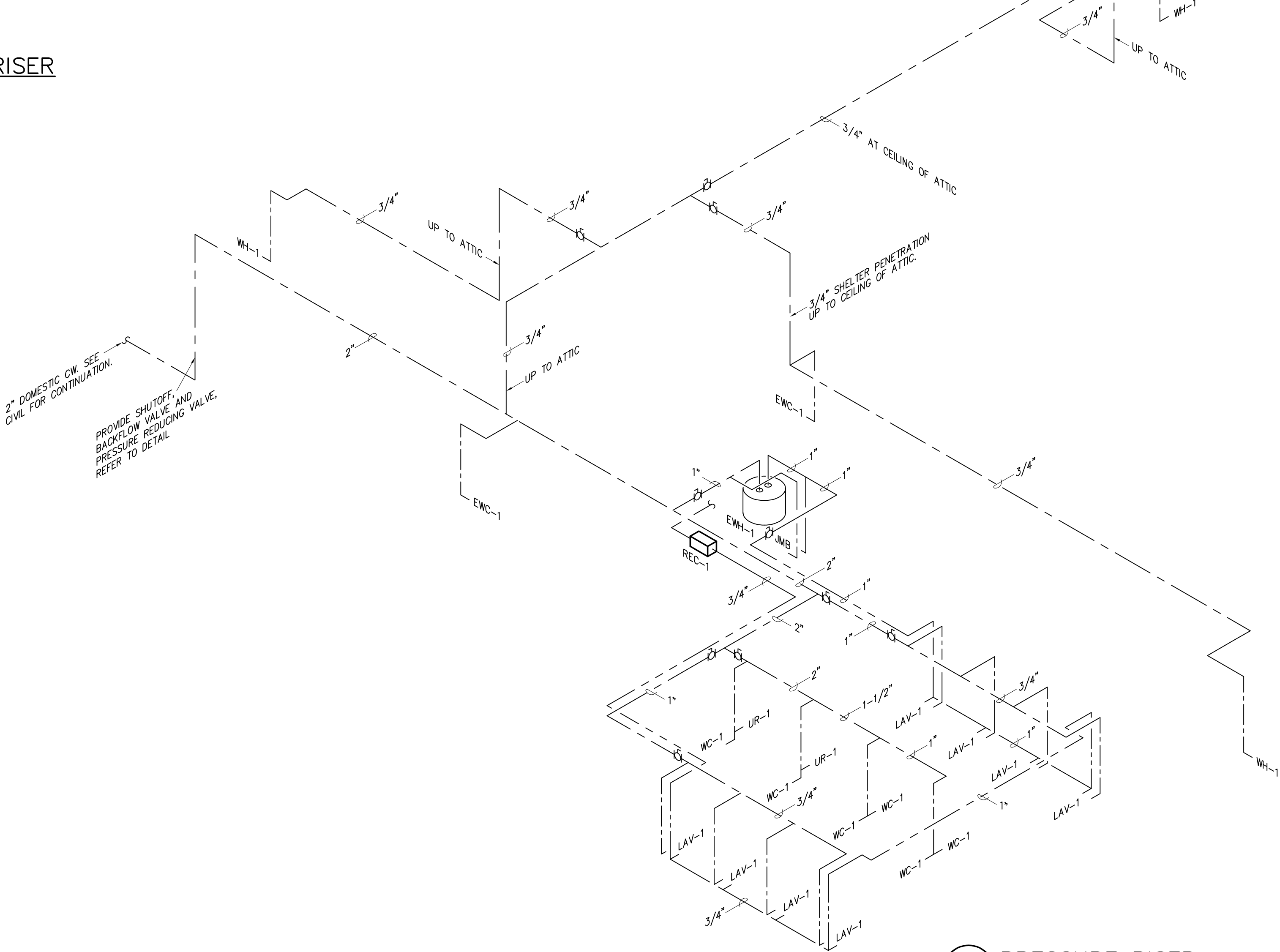
P3.1



2 GRAVITY RISER  
P3.1 NO SCALE

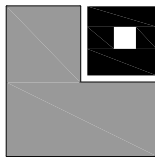
2" DOMESTIC CW. SEE CIVIL FOR CONTINUATION.

PROVIDE SHUTOFF, BACKFLOW VALVE AND PRESSURE REDUCING VALVE. REFER TO DETAIL.

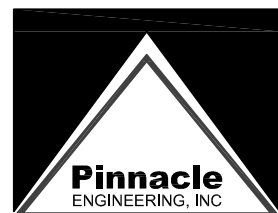


1 PRESSURE RISER  
P3.1 NO SCALE





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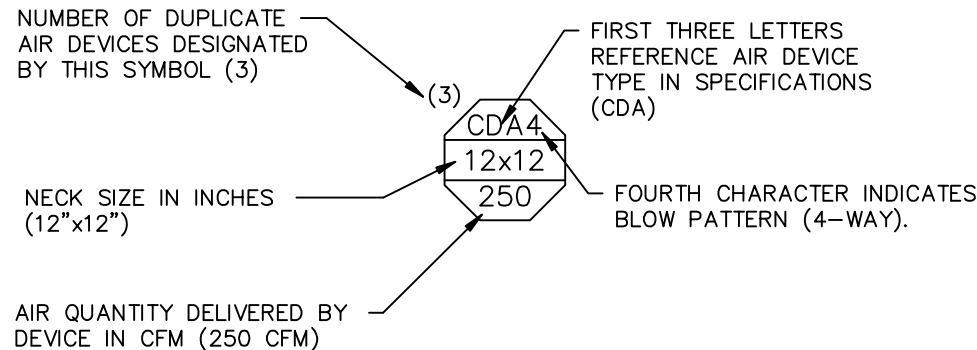
## LEGEND

	DUCT SIZE, FIRST FIGURE IS SIDE SHOWN INSIDE CLEAR DIMENSION UNLESS NOTED OTHERWISE
	LOW PRESSURE, RECTANGULAR (GALVANIZED STEEL)
	DUCT RISE
	DUCT DROP
	EXISTING DUCTWORK TO REMAIN
	DUCT TRANSITION
	RECTANGULAR TO ROUND DUCT TRANSITION
	TURNING VANES
	CHILLED WATER SUPPLY PIPING
	CHILLED WATER RETURN PIPING
	HOT WATER SUPPLY PIPING
	HOT WATER RETURN PIPING
	CONDENSATE DRAIN PIPING
	AUXILIARY CONDENSATE DRAIN PIPING
	REFRIGERANT PIPING (2 LINES TOTAL)
	LOW PRESSURE STEAM SUPPLY
	LOW PRESSURE STEAM CONDENSATE RETURN
	MEDIUM PRESSURE STEAM SUPPLY
	MEDIUM PRESSURE STEAM CONDENSATE RETURN
	EXISTING PIPING
	EXISTING PIPING TO BE DEMOLISHED
	ELBOW, 90° (LONG RADIUS)
	TEE
	TEE, TURNED UP
	TEE TURNED DOWN
	ELBOW, TURNED DOWN
	ELBOW, TURNED UP
	GATE VALVE
	GLOBE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	UNION
	WALL MOUNTED THERMOSTAT
	WALL MOUNTED HUMIDISTAT
	WALL MOUNTED TEMPERATURE SENSOR
	WALL MOUNTED CARBON DIOXIDE SENSOR
	WALL MOUNTED DEVICE W/ COVER GAURD
	SMOKE DETECTOR
	TIE NEW INTO EXISTING
	UNDERCUT DOOR 3/4 INCHES
	SUPPLY AIR FLOW
	RETURN OR EXHAUST AIR FLOW

NOTE: THIS LEGEND IS FOR REFERENCE ONLY.  
ALL SYMBOLS WHICH APPEAR WITHIN THE  
LEGEND MAY NOT APPLY TO THIS PROJECT.

## ABBREVIATIONS

AB, CL'G	ABOVE CEILING
ABV.	ABOVE
AC	ALTERNATING CURRENT
A/C	AIR COMPRESSOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
ALT.	ALTERNATE
AMP	AMPERE
AO	ANALOG OUTPUT
APPROX.	APPROXIMATELY
ARCH.	ARCHITECTURAL
AVG	AVERAGE
B	BOILER
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWP	CHILLED WATER PUMP
CLG	CEILING
CT	COOLING TOWER
CU	CONDENSING UNIT
CWP	CONDENSER WATER PUMP
DEFL	DEFLECTION
DET	DETAIL
DI	DIGITAL INPUT
DIA	DIAMETER
Ø	DIAMETER
DO	DIGITAL OUTPUT
EDB	ENTERING DRY BULB
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EWB	ENTERING WET BULB
EWI	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST.	EXISTING
F	DEGREES FAHRENHEIT
GFF	GAS FIRED FURNACE
GPM	GALLONS PER MINUTE
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FT	FOOT OR FEET
HD	HEAD
HP	HORSE POWER
HR	HOURL(S)
HT	HEIGHT
HTR	HEATER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
HWP	HOT WATER PUMP
HX	HEAT EXCHANGER
HZ	FREQUENCY (HERTZ)
ID	INSIDE DIAMETER
IN	INCHES
KW	KILOWATT
KWH	KILOWATT HOUR
MAX	MAXIMUM
MBH	1000 BTU PER HOUR
MECH.	MECHANICAL
MFR.	MANUFACTURER
MIN	MINIMUM
NO.	NUMBER
N/A	NOT APPLICABLE
NC	NOISE CRITERIA
O.D.	OUTSIDE DIAMETER
OA	OUTSIDE AIR
Ø	OVAL DUCTWORK
ORIG.	ORIGINAL
PH	PHASE
PIU	POWERED INDUCTION UNIT
PRESS	PRESSURE
RTN	RETURN AIR
RTU	ROOFTOP AIR HANDLING UNIT
SDC	STAND ALONE DIGITAL CONTROLLER
SENS.	SENSIBLE
SQ.	SQUARE
SPLY	SUPPLY
TEMP	TEMPERATURE
VAV	VARIABLE AIR VOLUME
W	WATT
W/	WITH
W.P.D.	WATER PRESSURE DROP



## 1 AIR DEVICE LEGEND M.O.1 NO SCALE

## AIR PURIFICATION UNIT SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	UNIT SERVED	SUPPLY CFM	O.A. CFM	PRESS. DROP (IN. W.C.)	MINIMUM ICN DENSITY (IONS/CC @ 1")	MOUNTING LOCATION	ELECTRICAL		REMARKS
								VOLTS	WATTS	
APU-PTHP	GPS CI-2	PTHP UNITS	390	3)	0.01	160 MILLION	INSIDE UNIT	24	12	1), 2), 3)
APU-DSS	GPS CI-2	DSS UNITS	840	3)	0.01	160 MILLION	INSIDE UNIT	24	12	1), 2), 3)

### REMARKS:

- 1) INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 2) POWER SHALL BE PROVIDED BY UNIT ON WHICH IT IS INSTALLED. PROVIDE TRANSFORMER AS NECESSARY.
- 3) OUTSIDE AIR FOR SPACE PROVIDED 100% BY ERV-1.

## ELECTRIC UNIT HEATER SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	KW	STAGES	EAT (°F)	CFM	ELECTRICAL		MOUNTING	WGT (LBS)	REMARKS
						DISCONNECT	VOLTS/PH./HZ.			
EUH-1	MARKEL P3P510SCA1N	5	1	60	400	INTEGRAL	480/3/60	SUSPENDED	30	1)
EUH-2	MARKEL P3P510SCA1N	5	1	60	400	INTEGRAL	480/3/60	SUSPENDED	30	1)

### REMARKS:

- 1) PROVIDE WITH UNIT MOUNTED THERMOSTAT, CONTROL TRANSFORMER, AND DISCONNECT SWITCH.

## PACKAGED THRU-WALL HEAT PUMP SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	CFM (HIGH SPEED)	O.A. CFM (FIXED)	FAN HP	COOLING CAP. (MBH)		HEATING			ELECTRICAL			EER	REMARKS		
					TOTAL	SENSIBLE	MBH	AMB. (°F)	AUX. KW	STAGES	DISCONNECT	MCA			MOCP	VOLTS/PH./HZ.
PTHP	AMANA PTH154G50	390	4)	--	14.6	--	14.6	47	5.0	1	2)	23.9	25	265/1/60	9.7	1), 2), 3), 4)

### REMARKS:

- 1) ROUTE CONDENSATE TO GRADE.
- 2) PROVIDE WITH MANUFACTURER'S HARD-WIRE KIT AND DISCONNECT SWITCH (PROVIDED BY DIV. 15, INSTALLED BY DIV. 16).
- 3) PROVIDE WITH BIPOLAR IONIZATION. SEE SCHEDULE, THIS SHEET.
- 4) CLOSE OFF AND SEAL WEATHERTIGHT OUTSIDE AIR. OUTSIDE AIR TO SPACE PROVIDED BY ERV-1.

## INDOOR HEAT PUMP UNIT SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	CFM	OA CFM	E.S.P. (IN. W.C.)	FAN		COOLING COIL	ELECTRIC HEAT		MCA	MOCP	ELECTRICAL		VIBRATION ISOLATION		MOUNTING	WEIGHT (LBS.)	REMARKS
					H.P.	DRIVE		TOTAL (KW)	STAGES			DISCONNECT	VOLTS/PH./HZ.	TYPE	DEFL. (IN.)	BASE		
IHP-1	CARRIER FV4CNB006L00	1,995	400	0.50	3/4	DIRECT	CC-1	20	1	34.3	35	BY DIV. 16	460/3/60	1	0.50	A	HORIZONTAL	225 1)

### REMARKS:

- 1) PROVIDE UNIT WITH APR RAWAL DEVICE FOR CAPACITY MODULATION.

## OUTDOOR HEAT PUMP SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	SERVICE	COOLING CAPACITY		HEATING CAPACITY		UNIT MCA	UNIT MOCP	ELECTRICAL		VIBRATION ISOLATION		SEER	EER	REMARKS
			NOMINAL (TONS)	AMBIENT TEMP. (°F)	MBH	AMBIENT TEMP. (°F)			DISCONNECT	VOLTS/PH./HZ.	TYPE	DEFL. (IN.)	BASE		
OHP-1	CARRIER 25HCE460AP06	IHP-1	5	95	54.6	47	10.5	15	BY DIV. 16	460/3/60	1	0.5	A	14	11.5 1)

### REMARKS:

- 1) PROVIDE WITH OUTDOOR THERMOSTAT. SET THERMOSTAT AT 35°F (ADJUSTABLE)

## COIL SCHEDULE

EQUIPMENT NO.	TYPE	ROWS (MIN.)	MAXIMUM FACE VEL. INCH	MAXIMUM FACE VEL. (FPM)	CFM	AIR				PRESSURE DROP (IN. W.C.)	DX REFRIG. TYPE	REMARKS
						EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)			
CC-1	DIRECT EXPANSION	--	--	--	1,970	80	67	59.0	58.5	--	R-410A	1)

### REMARKS:

- 1) FURNISHED WITH MECHANICAL EQUIPMENT

## DUCTLESS INDOOR UNIT SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	SERVICE	CFM	OA CFM	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	MOUNTING	ELECTRICAL				WEIGHT (LBS)	REMARKS
								DISCONNECT	MOTOR STARTER	MCA	MOCP	VOLTS/PH./HZ.	
DSS-1	CARRIER 40MAHBQ30XA3	CLASSROOM A111	840	4)	30.0	30.0	WALL	BY DIV. 16	INTEGRAL	--	--	208/1/60	50 1), 2), 3), 4)
DSS-2	CARRIER 40MAHBQ30XA3	CLASSROOM A112	840	4)	30.0	30.0	WALL	BY DIV. 16	INTEGRAL	--	--	208/1/60	50 1), 2), 3), 4)
DSS-3	CARRIER 40MAHBQ30XA3	CLASSROOM A113	840	4)	30.0	30.0	WALL	BY DIV. 16	INTEGRAL	--	--	208/1/60	50 1), 2), 3), 4)

### REMARKS:

- 1) PROVIDE WIRED THERMOSTAT.
- 2) POWER FOR THIS UNIT IS PROVIDED FROM OUTDOOR UNIT.
- 3) PROVIDE WITH BIPOLAR IONIZATION. SEE SCHEDULE, THIS SHEET.
- 4) OUTSIDE AIR TO SPACE PROVIDED BY ERV-1.

## DUCTLESS OUTDOOR UNIT SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	SERVICE	NOMINAL COOLING CAPACITY (TONS)	NOMINAL HEATING CAPACITY (MBH)	DISCONNECT	ELECTRICAL		WEIGHT (LBS)	VIBRATION ISOLATION		SEER	EER	REMARKS
						MCA	MOCP		VOLTS/PH./HZ.	TYPE	DEFL. (IN.)	BASE	
DCU-1	CARRIER 38MARBQ30AA3	DSS-1	2.5	30	BY DIV. 16	23	30	208/1/60	175	--	--	--	20 11.5 1), 2)
DCU-2	CARRIER 38MARBQ30AA3	DSS-2	2.5	30	BY DIV. 16	23	30	208/1/60	175	--	--	--	20 11.5 1), 2)
DCU-3	CARRIER 38MARBQ30AA3	DSS-3	2.5	30	BY DIV. 16	23	30	208/1/60	175	--	--	--	20 11.5 1), 2)

### REMARKS:

- 1) POWER FOR INDOOR UNIT IS PROVIDED FROM THIS UNIT.
- 2) COORDINATE EXACT LOCATION WITH ALL OTHER TRADES.

## POWER VENTILATOR SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	SERVICE	CFM	E.S.P. (IN. W.C.)	RPM	MAX. SONES	DISCONNECT	ELECTRICAL		LOCATION	TYPE	DRIVE	VIBRATION ISOLATION		WGT (LBS.)	REMARKS
								MOTOR STARTER	HP				TYPE	DEFL. (IN.)	BASE	
EF-1	COOK 120SQN17D	RESTROOM EXHAUST	470	1.0	1714	12.5	BY DIV. 16	INTEGRAL	1/20	208/1/60	INLINE	CENTRIFUGAL	DIRECT	--	--	90 1), 3), 4), 5)
VF-1	COOK 150SQN17D	SHELTER VENTILATION	2400	1.0	1612	18.2	BY DIV. 16	INTEGRAL	1	208/1/60	INLINE	CENTRIFUGAL	DIRECT	3	.75	A 135 1), 3), 4), 5)

### REMARKS:

- 1) SINGLE POINT POWER CONNECTION
- 2) PROVIDE WITH PREWIRED FAN SPEED CONTROLLERS.
- 3) BASED ON ROOM EXHAUST CONDITIONS: 72.0/60.0°F (DB/WB).
- 4) BASED ON A 5 TON DIGITAL COMPRESSOR WITH COOLING COIL LAT CONDITIONS: 51.1/51.1°F (DB/WB).
- 5) UNIT PERFORMANCE DATA: TOTAL COOLING EFFECT: 6.3 TONS, 76.1 LB/HR, 7.3 kW; FULL-LOAD MRE OF 10.4.

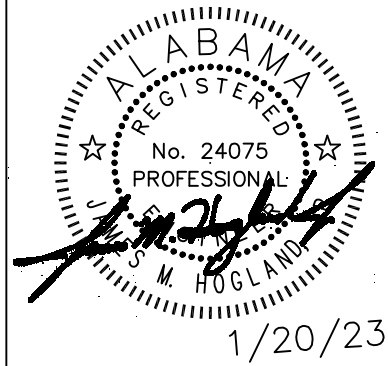
## ENERGY RECOVERY VENTILATOR SCHEDULE

EQUIPMENT NO.	MANUFACTURER/ MODEL NO.	SUPPLY FAN			EXHAUST FAN			REGEN FAN			SUMMER PERFORMANCE				ELECTRICAL						VIBRATION ISOLATION			WGT (LBS)	REMARKS			
		CFM	HP	ESP (N. W.C.)	CFM	HP	ESP (N. W.C.)	CFM	HP	ESP (N. W.C.)	O.A. EDB (°F)	ERV WHEEL SUPPLY LDB (°F)	LWB (°F)	ERV TO SPACE LDB (°F)	LWB (°F)	DISCONNECT	MOTOR STARTER	PREHEAT KW	REHEAT KW	MCA	MOPP	VOLTS/PH./HZ.	TYPE			DEFL (IN.)	BASE	
ERV-1	NOVELAIRE 4000ESDX-ERV	1710	3.0	1.5	1710	1.5	1.5	2238	1.5	0.0	83.0	79.0	74.9	57.5	70.0	54.8	BY DIV. 16	BY DIV. 15	N/A	30	73.4	80	480/3/60	1	0.50	A	3500	1), 2), 3), 4), 5)

### REMARKS:

- 1) SINGLE POINT POWER CONNECTION
- 2) PROVIDE WITH PREWIRED FAN SPEED CONTROLLERS.
- 3) BASED ON ROOM EXHAUST CONDITIONS: 72.0/60.0°F (DB/WB).
- 4) BASED ON A 5 TON DIGITAL COMPRESSOR WITH COOLING COIL LAT CONDITIONS: 51.1/51.1°F (DB/WB).
- 5) UNIT PERFORMANCE DATA: TOTAL COOLING EFFECT: 6.3 TONS, 76.1 LB/HR, 7.3 kW; FULL-LOAD MRE OF 10.4.

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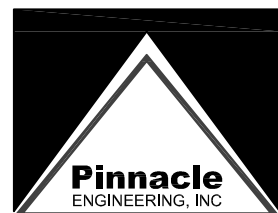
MECHANICAL LEGEND,  
ABBREVIATIONS, SCHEDULES  
AND DETAILS

PROJ. MGR.: JMH

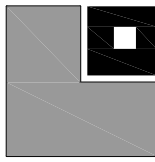
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DATE: 1/20/23



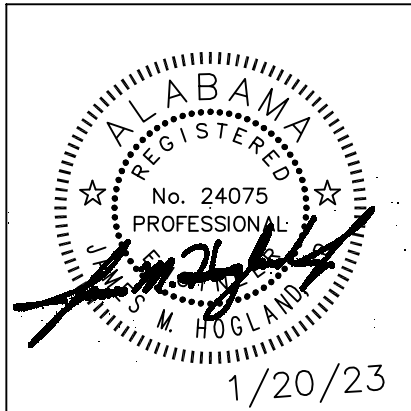


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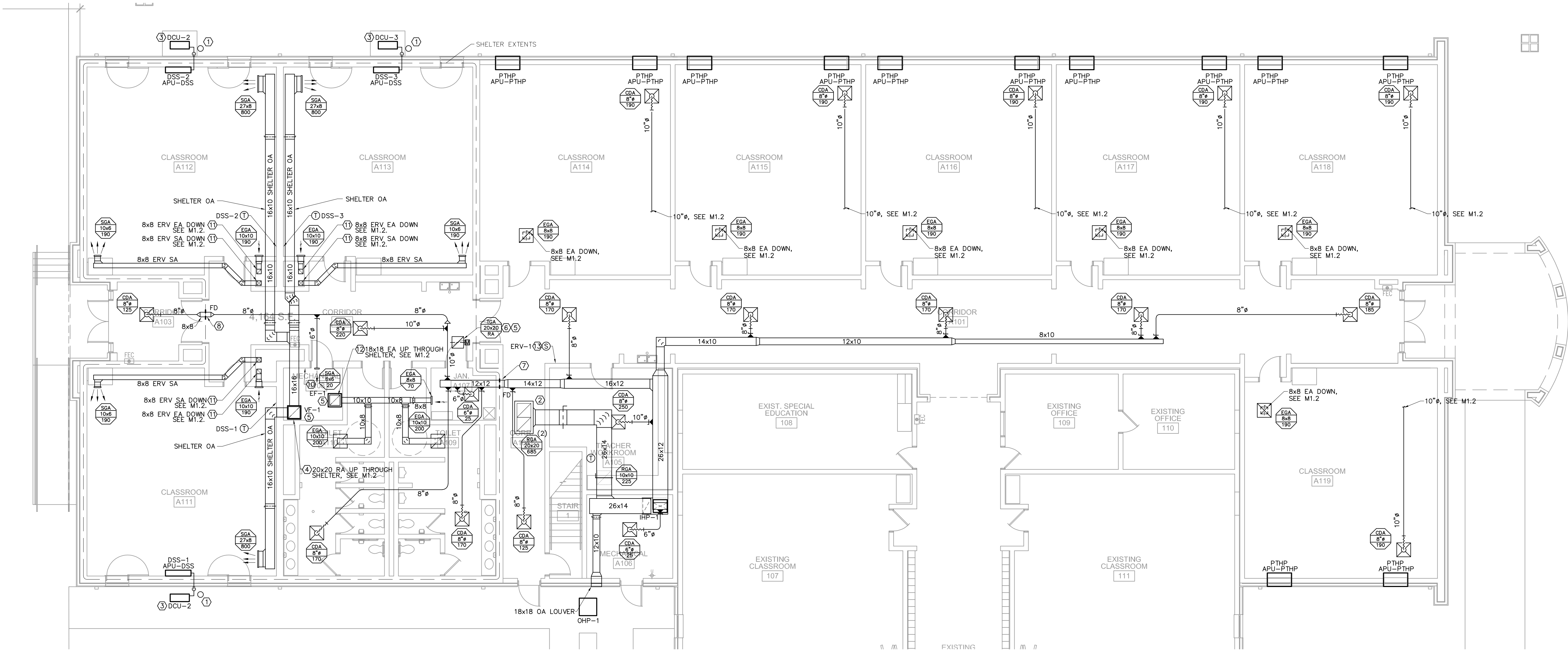
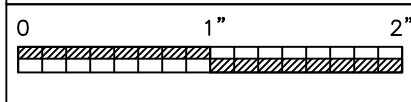
SHEET TITLE:  
MECHANICAL FLOOR PLAN

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23

REVISIONS	

JOB NO. **22-20**  
SHEET NO:

**M1.1**



**FLOOR PLAN**  
**MECHANICAL**

0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

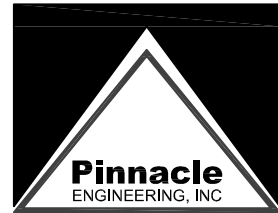
**GENERAL NOTES:**

1. VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO BEGINNING WORK.
2. SPACE ABOVE CEILING IS LIMITED. CAREFUL COORDINATION WITH LIGHTING, ELECTRICAL, PLUMBING, STRUCTURAL, AND ARCHITECTURAL WORK IS CRITICAL TO DUCTWORK INSTALLATION.
3. PROVIDE NECESSARY OFFSETS IN PIPING, ELECTRICAL CONDUIT, AND DUCTWORK AS REQUIRED TO ACCOMMODATE NEW WORK. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL DETAILS NOR CHANGES IN DUCTWORK ELEVATIONS NECESSARY FOR COMPLETE INSTALLATION.
4. COORDINATE CEILING AIR DEVICE LOCATIONS WITH LIGHTING PLAN AND ARCHITECT'S REFLECTED CEILING PLAN.
5. DUCTWORK SHALL BE RUN TIGHT TO STRUCTURE. AVOID CROSSING OVER LIGHTS AND OTHER DUCTS DUE TO TIGHT CLEARANCES.
6. COORDINATE EXACT SIZE, LOCATION, AND COLOR OF WALL MOUNTED LOUVERS WITH ARCHITECT PRIOR TO ORDERING.
7. MOUNT TEMPERATURE CONTROLS 48" ABOVE FINISHED FLOOR. COORDINATE EXACT LOCATION WITH ARCHITECT.
8. SPILL CONDENSATE FROM IHP INTO NEAREST FLOOR DRAIN.
9. SPILL CONDENSATE FROM PTHP TO GRADE.
10. BALANCE CEILING AIR DEVICES TO VALUES SHOWN ON THIS DRAWING.
11. PROVIDE ACCESS DOOR IN DUCT OR PLENUM FOR STORM LOUVER LABEL INSPECTION BY STATE INSPECTOR. INSTALL STORM LOUVER WITH LABEL VIEWABLE FROM ACCESS DOOR.

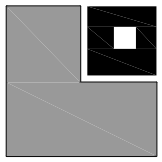
**DRAWING NOTES:**

1. PROVIDE CONDENSATE DISPOSAL WELL. TERMINATE CONDENSATE LINE TO WELL. REFER TO DETAIL.
2. PROVIDE 26" DEEP PLENUM ON BACK SIDE OF EXHAUST GRILLE AND CONNECT 18x16 DUCT TO TOP OF PLENUM WITHIN CHASE.
3. EACH REFRIGERANT LINE AND THE CONDENSATE LINE PENETRATES SHELTER WALL SEPARATELY. PENETRATIONS TO BE LESS THAN 2" IN DIAMETER. PENETRATIONS FROM A SINGLE UNIT TO BE MINIMUM 4" ON CENTER. ONLY ONE PENETRATION PER BLOCK IN SHELTER WALL.
4. PROVIDE 20x20 DUCT UP THROUGH SHELTER CAP. TERMINATE TO ROOF CAP, COOK MODEL PR20. AT SHELTER PENETRATION, PROVIDE 20x20 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL.
5. PROVIDE ACCESS DOOR IN DUCT WITHIN STORAGE-A108 FOR LOUVER LABEL INSPECTION BY STATE INSPECTOR. INSTALL LOUVER WITH LABEL VIEWABLE FROM ACCESS DOOR.
6. PROVIDE 20x20 EA DUCT UP THROUGH SHELTER CAP. TERMINATE TO ROOF CAP, COOK MODEL PR20. AT SHELTER PENETRATION, PROVIDE 20x20 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL.
7. PROVIDE 12x12 DUCT THROUGH SHELTER WALL. AT SHELTER PENETRATION, PROVIDE 12x12 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
8. TRANSITION TO 12x12 DUCT THROUGH SHELTER WALL. AT SHELTER PENETRATION, PROVIDE 12x12 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL.
9. PROVIDE 20x20 EA DUCT UP THROUGH SHELTER CAP. TERMINATE TO ROOF CAP, COOK MODEL PR20. AT SHELTER PENETRATION, PROVIDE 20x20 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL.
10. PROVIDE MUSHROOM PUSH-BUTTON SWITCH FOR VF-1 CONTROL. REFER TO CONTROL DIAGRAM, DETAIL 4 SHEET M2.2.
11. AT SHELTER PENETRATION, TRANSITION TO 12x12 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL. TRANSITION BACK TO 8x8 AFTER LOUVER/DAMPER.
12. PROVIDE 18x18 EXHAUST DUCT FROM EF-1 TO 18x18 STORM RATED LOUVER AND FIRE DAMPER AT SHELTER PENETRATION. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL. TRANSITION TO 10x10 AFTER LOUVER/DAMPER.
13. INSTALL TEMPERATURE AND HUMIDITY SENSOR SUPPLIED BY THE ERV MANUFACTURER. PROVIDE BALANCE OF CONTROL WIRING AS NECESSARY.



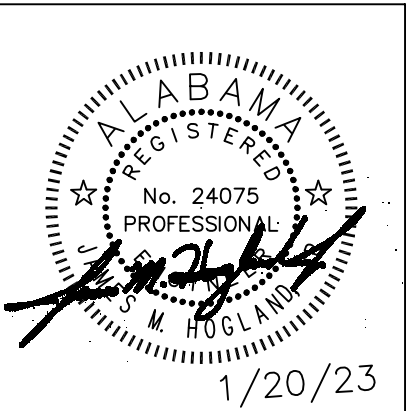


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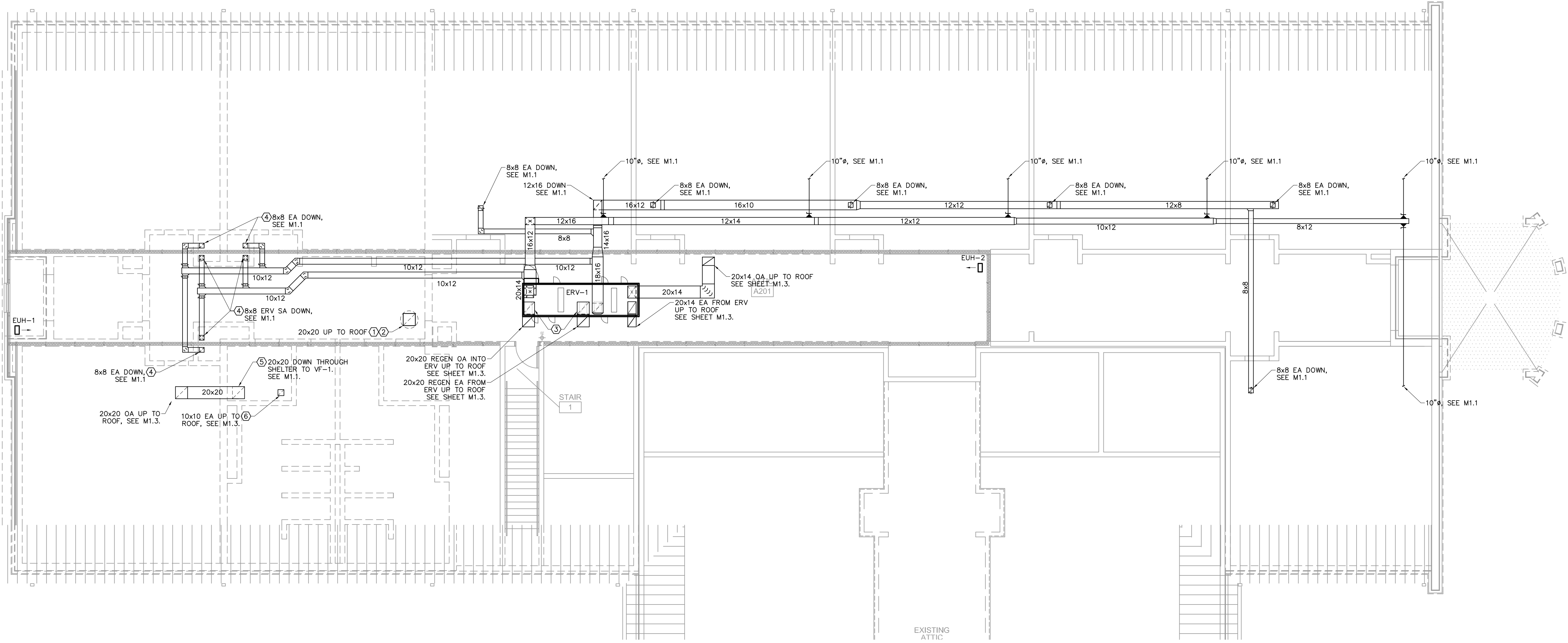
CLASSROOM ADDITION TO  
**LINCOLN HIGH SCHOOL**  
78975 HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



SHEET TITLE:  
MECHANICAL ATTIC  
FLOOR PLAN

PROJ. MGR.:	JMH
DRAWN:	ZBL/CRA
DATE:	1/20/23
REVISIONS	

JOB NO. **22-20**  
SHEET NO:  
**M1.2**  
0 1" 2'



**ATTIC FLOOR PLAN**  
MECHANICAL  
0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

NEW WORK LEGEND
----- EXISTING
----- NEW WORK

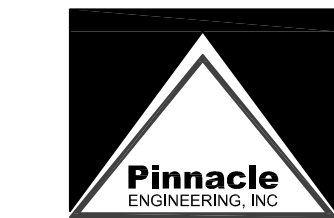
GENERAL NOTES:

- 1 VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO BEGINNING WORK.
- 2 SPACE ABOVE CEILING IS LIMITED. CAREFUL COORDINATION WITH LIGHTING, ELECTRICAL, PLUMBING, STRUCTURAL, AND ARCHITECTURAL WORK IS CRITICAL TO DUCTWORK INSTALLATION.
- 3 PROVIDE NECESSARY OFFSETS IN PIPING, ELECTRICAL CONDUIT, AND DUCTWORK AS REQUIRED TO ACCOMMODATE NEW WORK. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL DETAILS NOR CHANGES IN DUCTWORK ELEVATIONS NECESSARY FOR COMPLETE INSTALLATION.
- 4 COORDINATE CEILING AIR DEVICE LOCATIONS WITH LIGHTING PLAN AND ARCHITECT'S REFLECTED CEILING PLAN.
- 5 DUCTWORK SHALL BE RUN TIGHT TO STRUCTURE. AVOID CROSSING OVER LIGHTS AND OTHER DUCTS DUE TO TIGHT CLEARANCES.
- 6 COORDINATE EXACT SIZE, LOCATION, AND COLOR OF WALL MOUNTED LOUVERS WITH ARCHITECT PRIOR TO ORDERING.
- 8 SPILL CONDENSATE FROM ERV INTO NEAREST FLOOR DRAIN.
- 9 PROVIDE ACCESS DOOR IN DUCT OR PLENUM FOR STORM LOUVER LABEL INSPECTION BY STATE INSPECTOR. INSTALL STORM LOUVER WITH LABEL VIEWABLE FROM ACCESS DOOR.

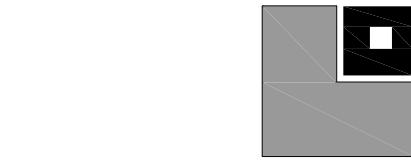
DRAWING NOTES:

- 1 PROVIDE ACCESS DOOR IN DUCT WITHIN STORAGE-A108 FOR LOUVER LABEL INSPECTION BY STATE INSPECTOR. INSTALL LOUVER WITH LABEL VIEWABLE FROM ACCESS DOOR.
- 2 PROVIDE 20x20 RELIEF DUCT UP THROUGH SHELTER CAP. TERMINATE TO ROOF CAP, COOK MODEL PR20. AT SHELTER PENETRATION, PROVIDE 20x20 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL.
- 3 PROVIDE 20x20 REGEN AIR IN/OUT DUCT UP INTO ATTIC AND OFFSET AS NECESSARY TO ROOF VENTILATOR. SEE M1.3.
- 4 AT SHELTER PENETRATION, TRANSITION TO 12x12 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL. TRANSITION BACK TO 8x8 AFTER LOUVER/DAMPER.
- 5 PROVIDE 20x20 DUCT THROUGH SHELTER CAP. AT SHELTER PENETRATION, PROVIDE 20x20 STORM RATED LOUVER AND FIRE DAMPER. ANCHOR TO SHELTER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. STORM LOUVER SHALL BE RUSKIN MODEL XP500 OR EQUAL.
- 6 TRANSITION FROM 18x18 STORM RATED LOUVER AND FIRE DAMPER AT SHELTER PENETRATION TO 10x10 EA DUCT.



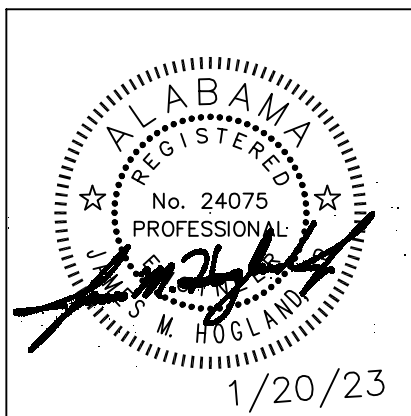


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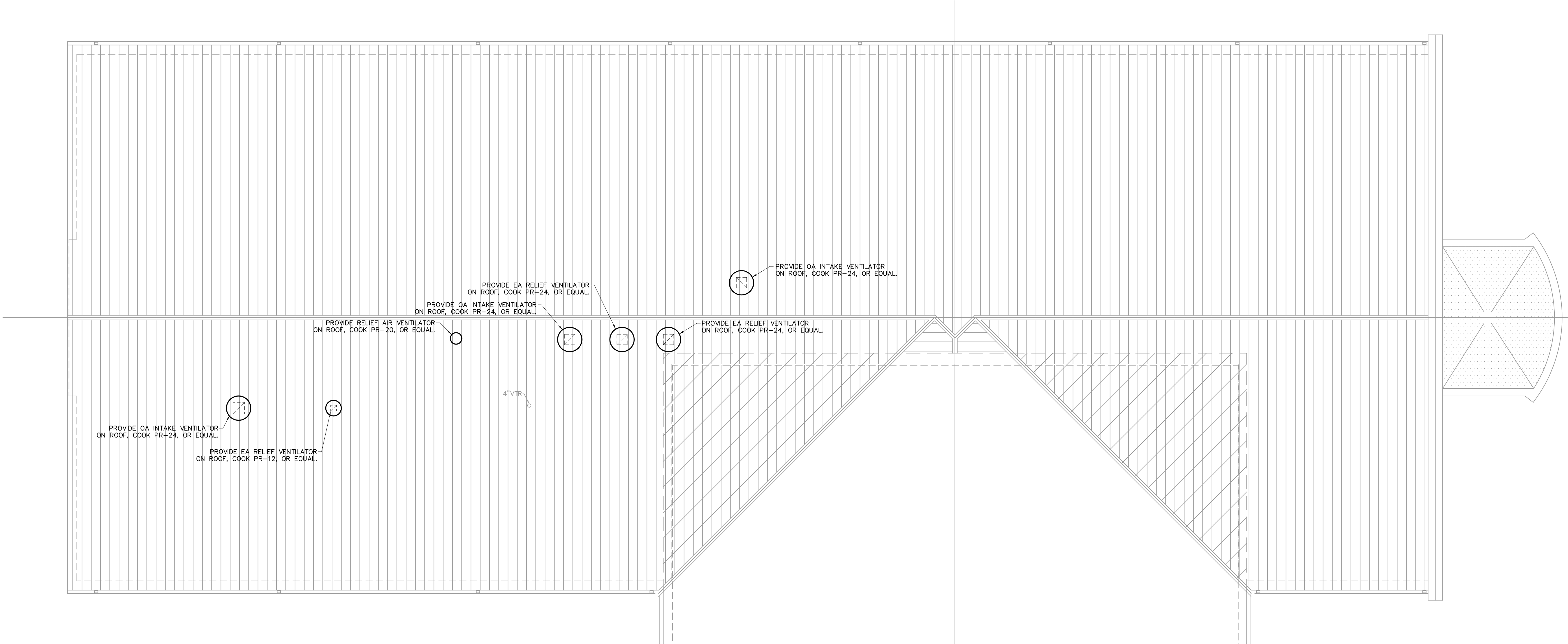


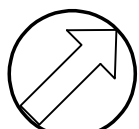
SHEET TITLE:  
MECHANICAL ROOF PLAN

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23

REVISIONS	

JOB NO. 22-20  
SHEET NO:  
M1.3  
0 1" 2"

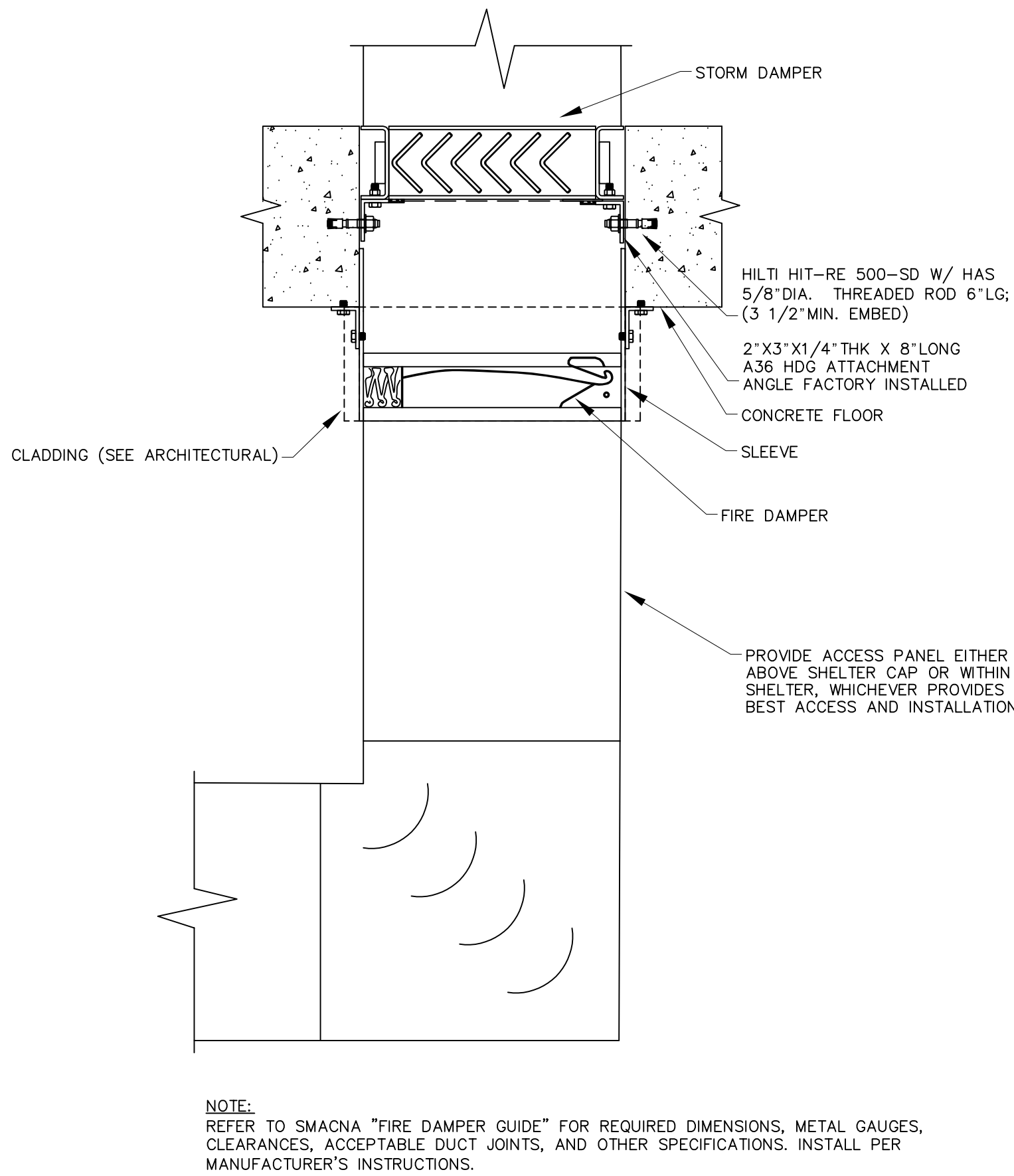


 **ROOF PLAN**  
MECHANICAL  
0 2 4 6 8 16  
GRAPHIC SCALE (FEET)

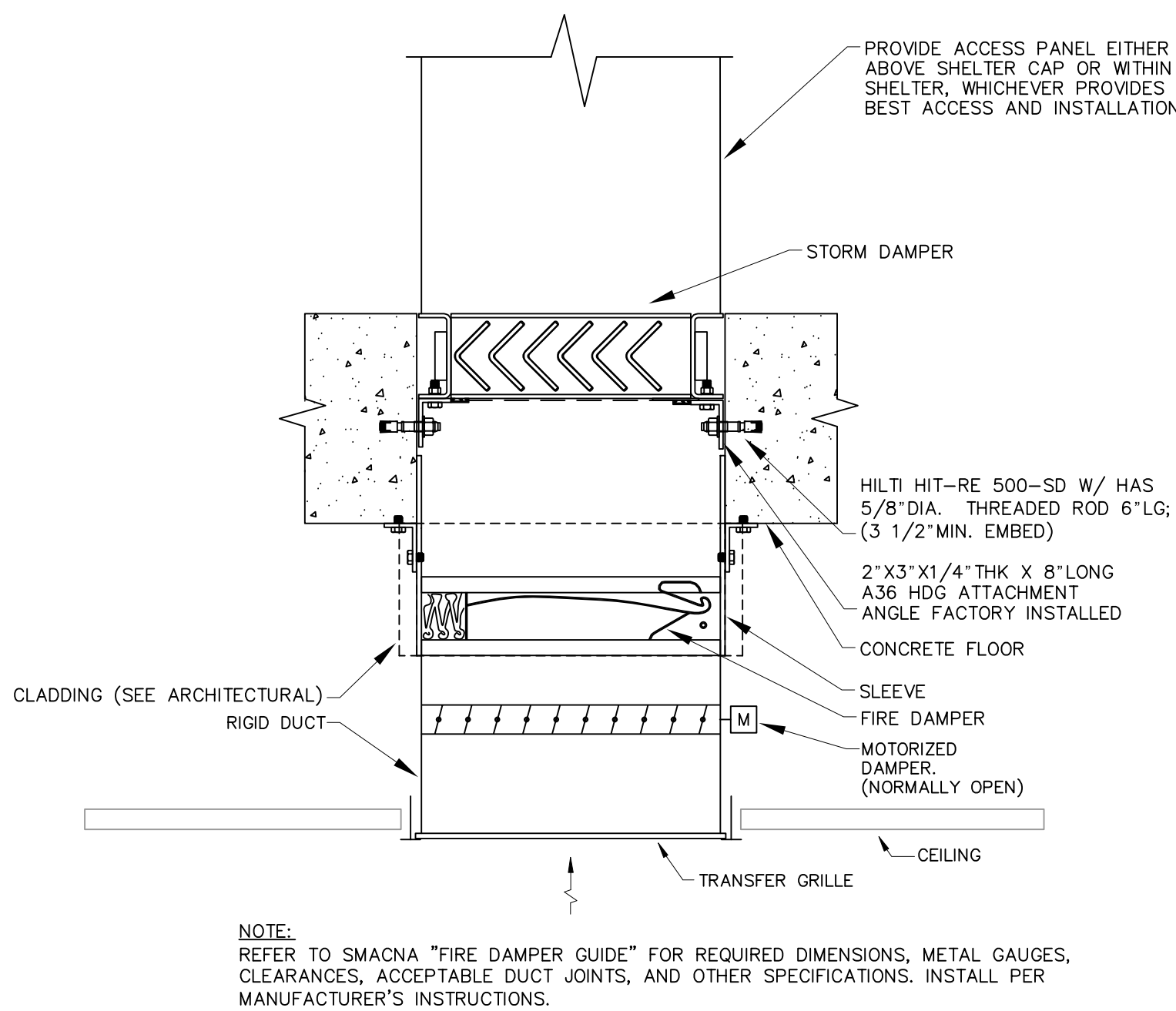
GENERAL NOTES:

- 1 VERIFY EXISTING CONDITIONS IN FIELD PRIOR TO BEGINNING WORK.

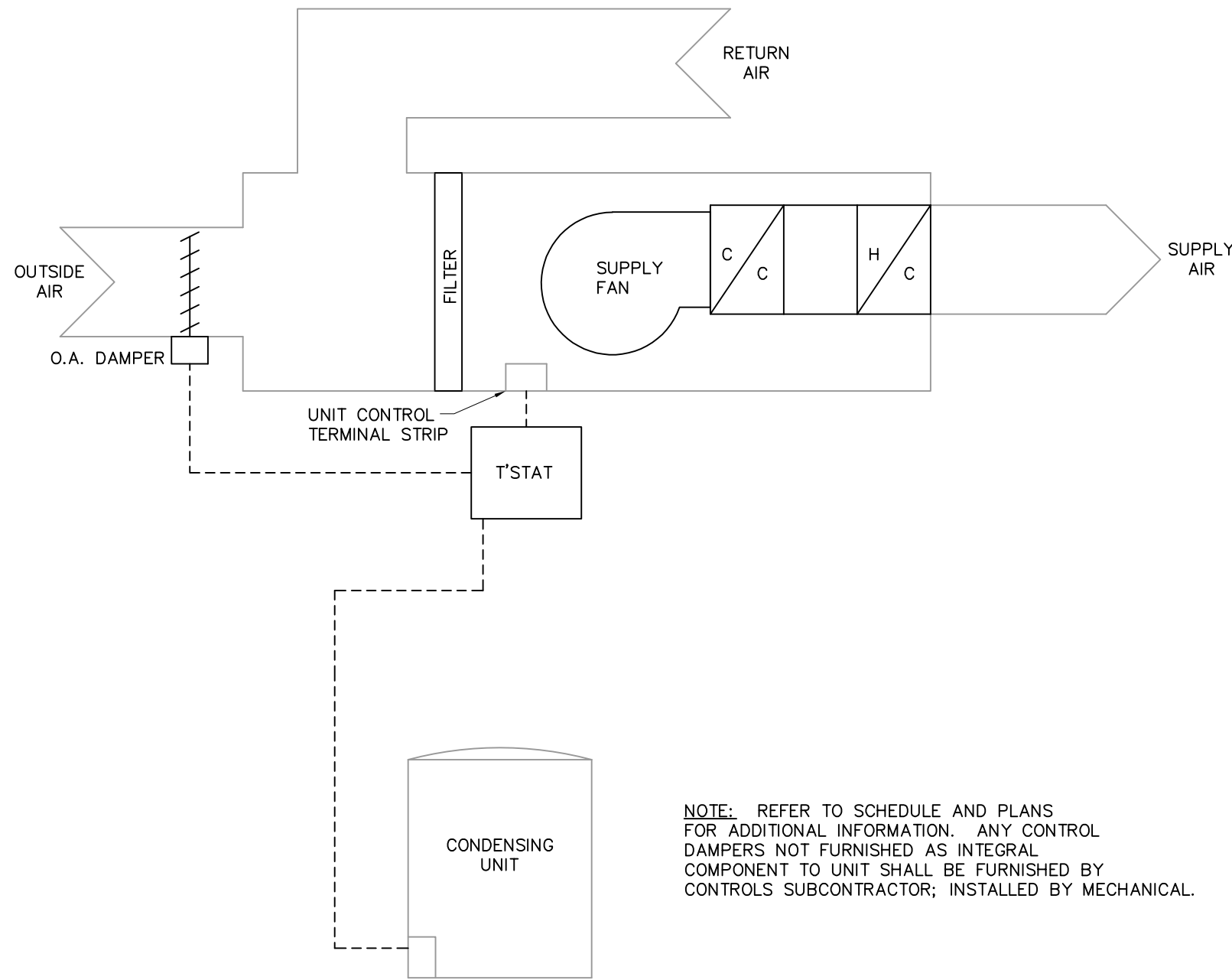




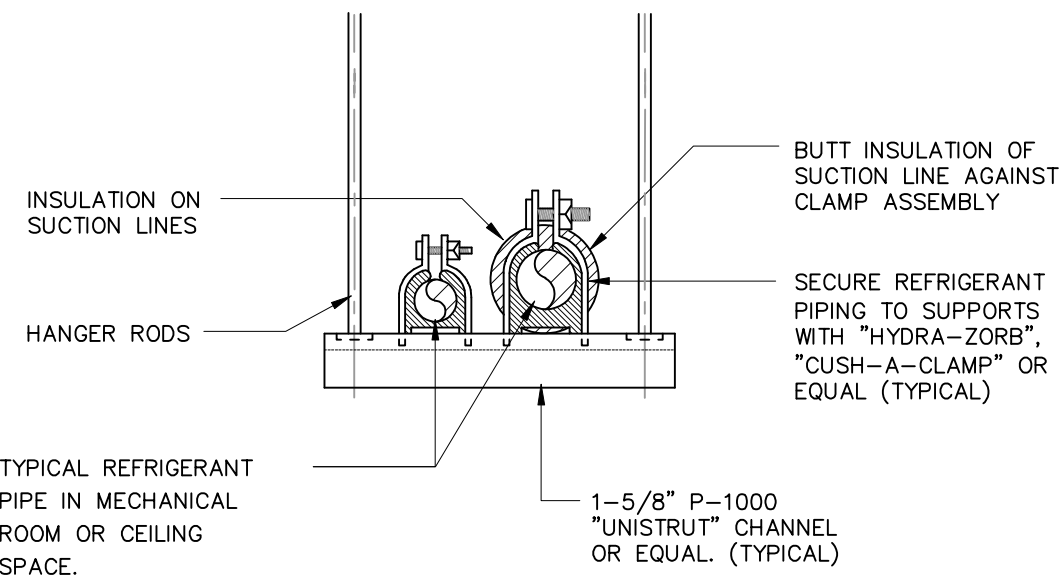
**7**  
M2.1 TYPICAL  
NO SCALE  
**FIRE DAMPER/STORM LOUVER INSTALLATION DETAIL**



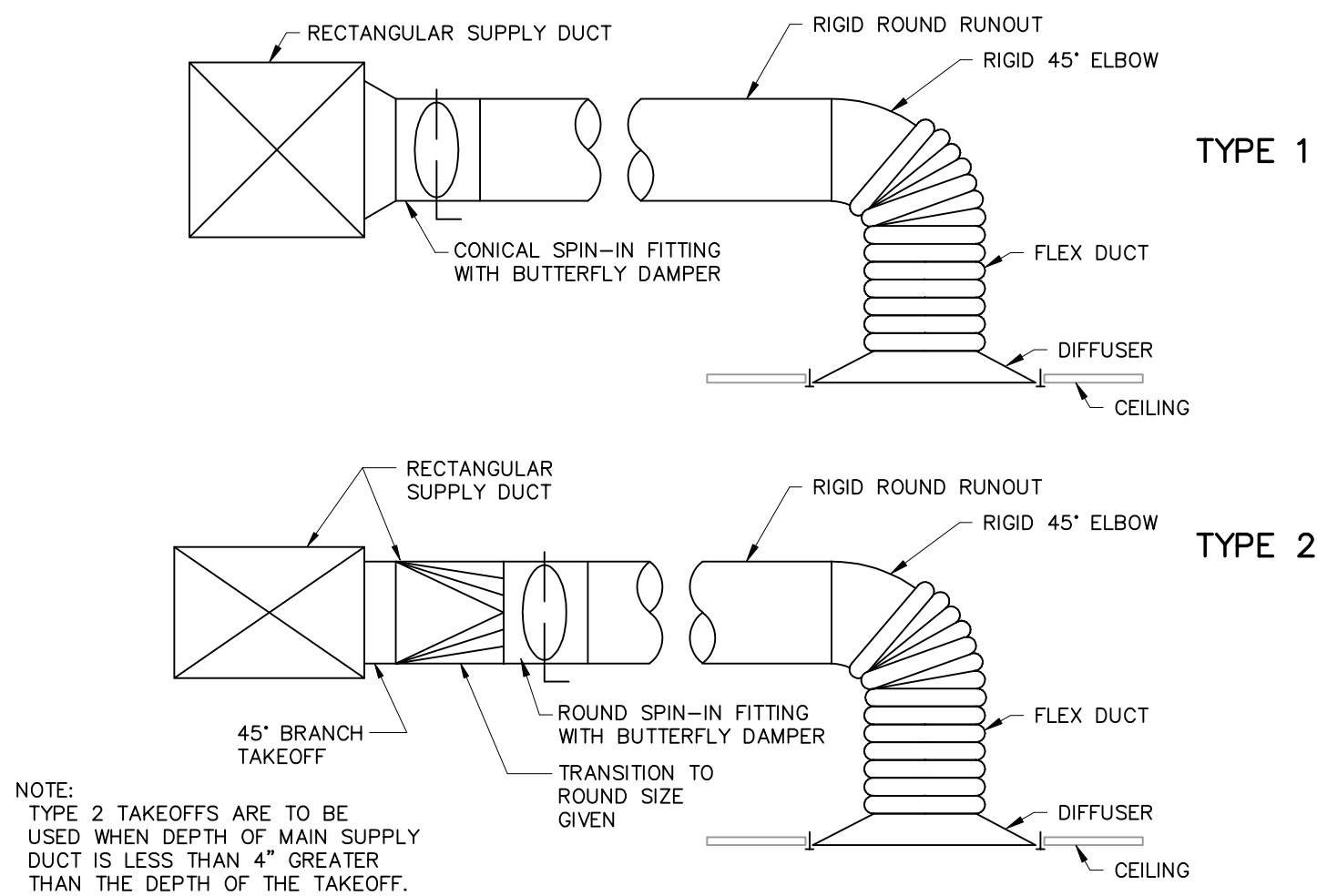
**8**  
M2.1 TYPICAL  
NO SCALE  
**FIRE DAMPER/STORM LOUVER INSTALLATION DETAIL**



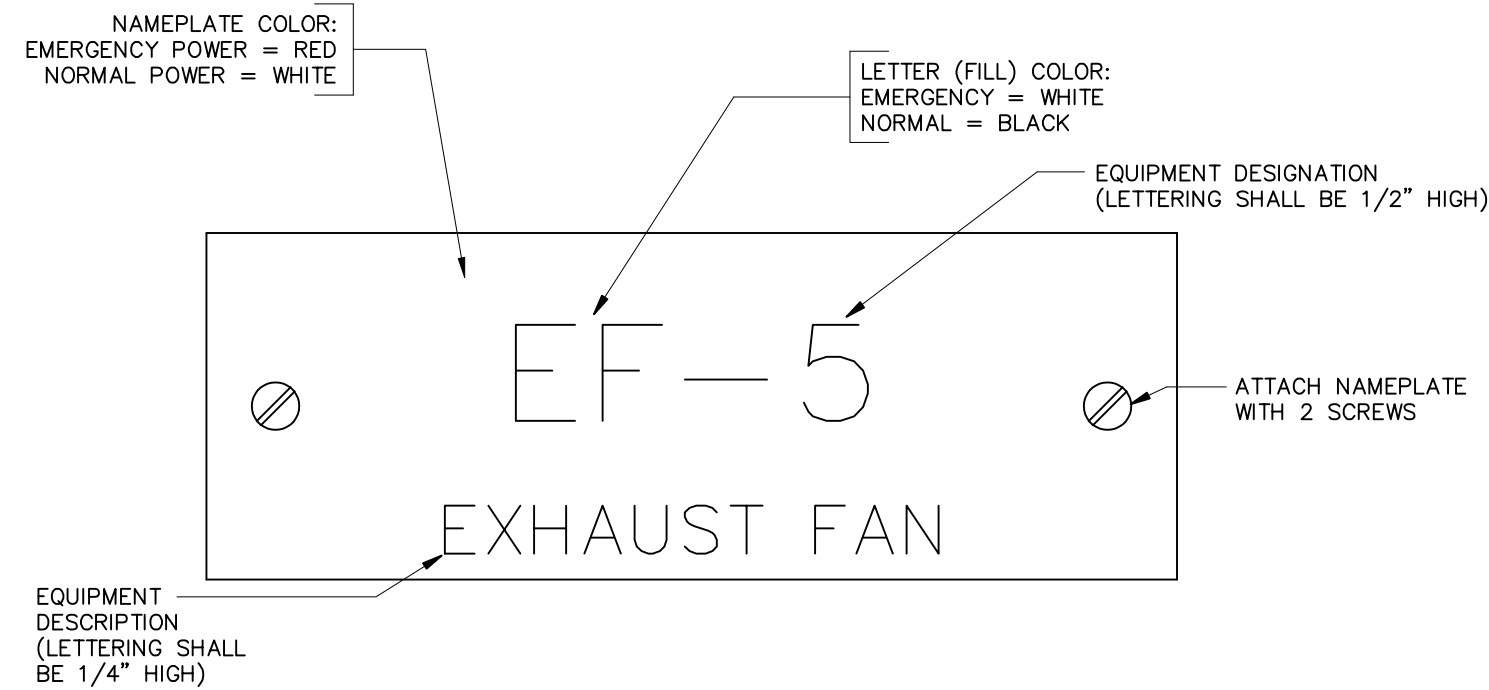
**4**  
M2.1 TYPICAL  
NO SCALE  
**HVAC CONTROL DIAGRAM**



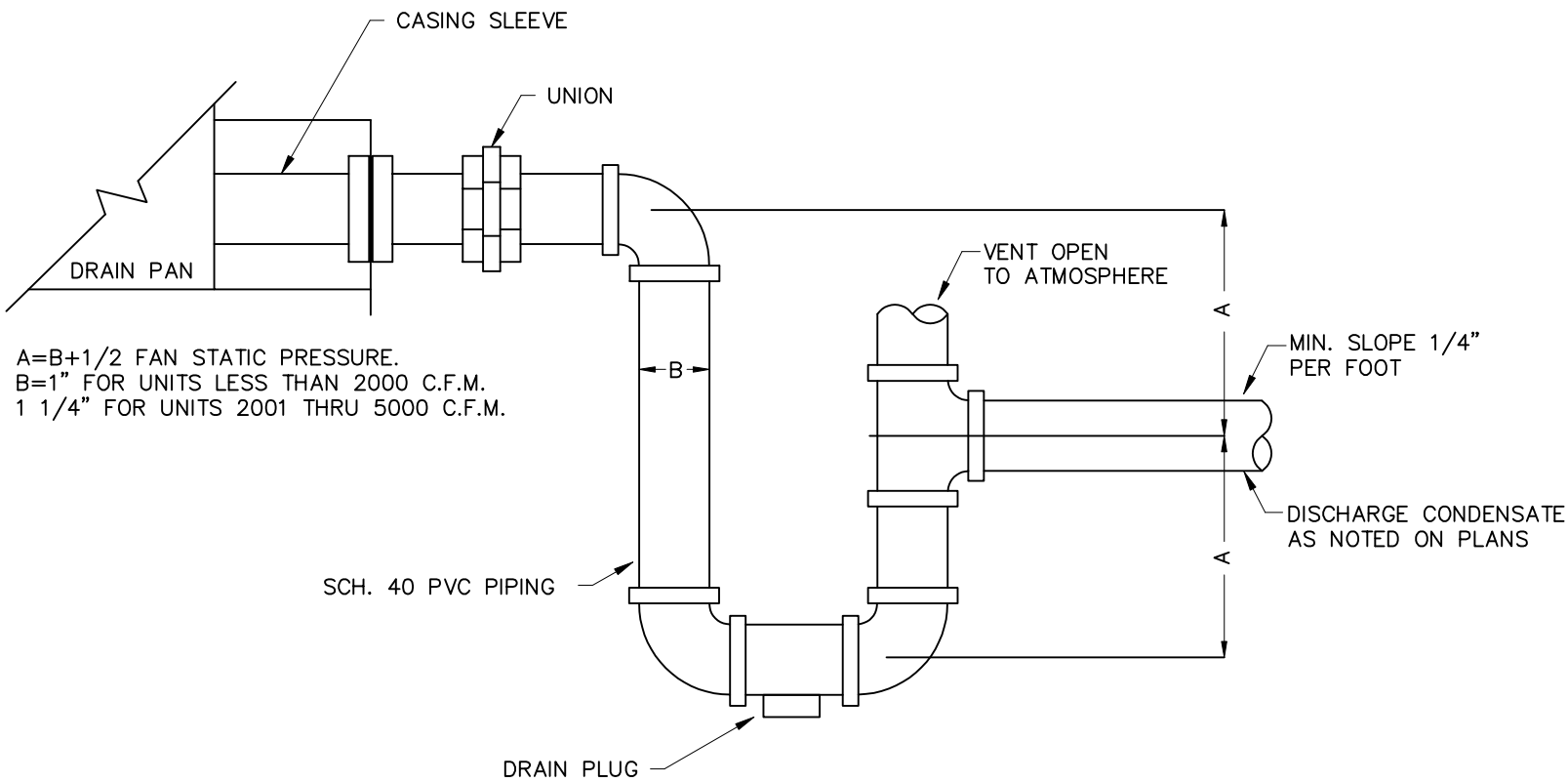
**5**  
M2.1 TYPICAL FOR PIPING SUSPENDED FROM STRUCTURE  
NO SCALE  
**REFRIGERANT PIPING SUPPORT DETAIL**



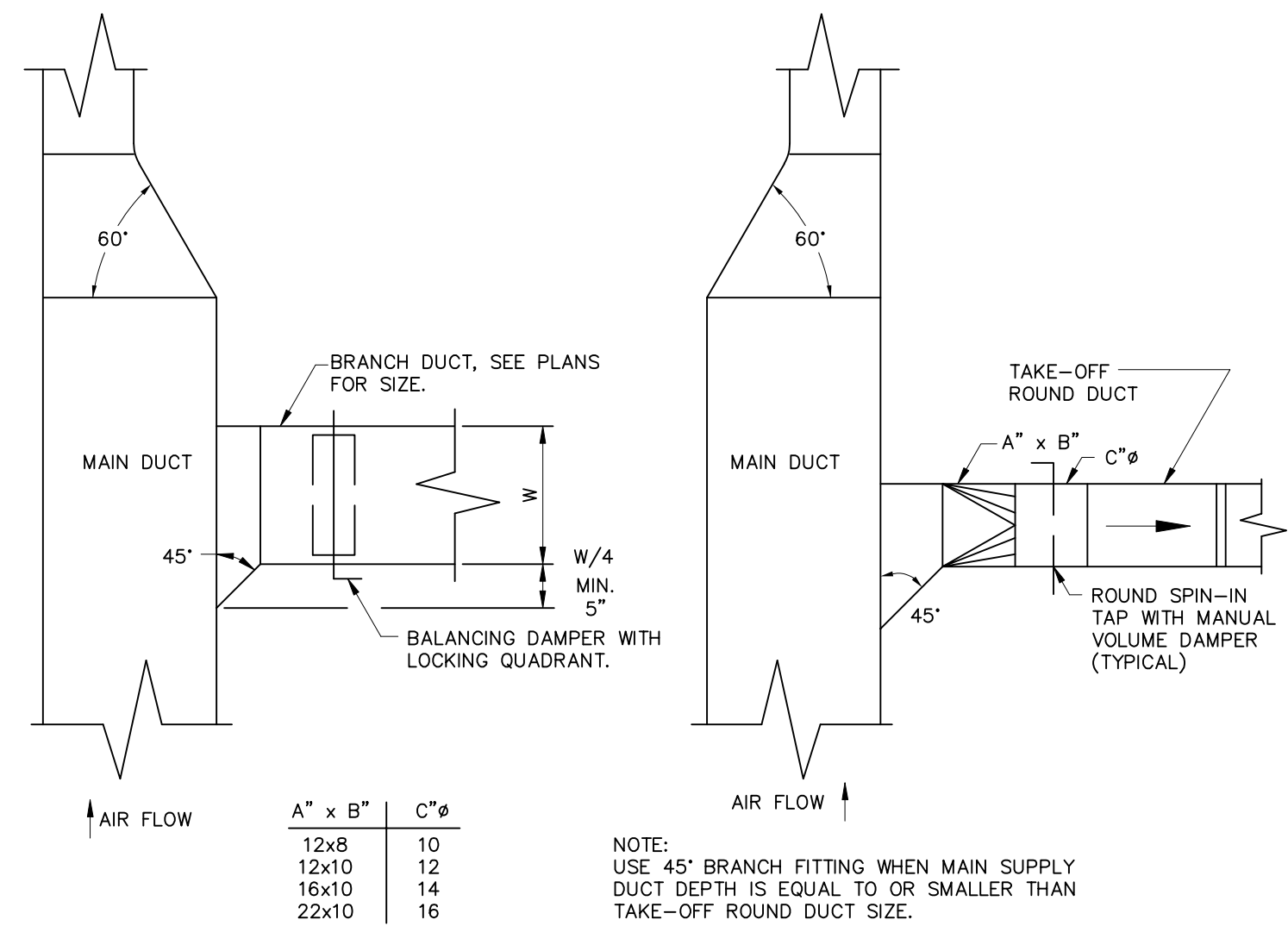
**6**  
M2.1 NO SCALE  
**TYPICAL DIFFUSER RUN-OUT DETAIL**



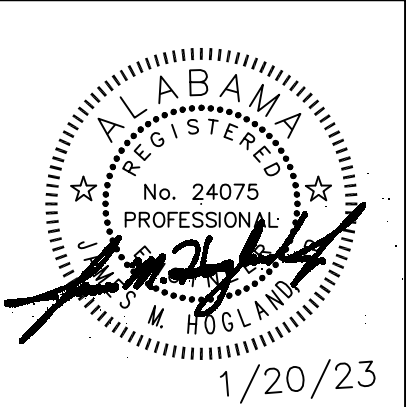
**1**  
M2.1 NO SCALE  
**MECHANICAL EQUIPMENT NAMEPLATE DETAIL**



**2**  
M2.1 NO SCALE  
**CONDENSATE DRAIN TRAP DETAIL**



**3**  
M2.1 NO SCALE  
**TYPICAL DUCT TAKEOFF DETAIL**

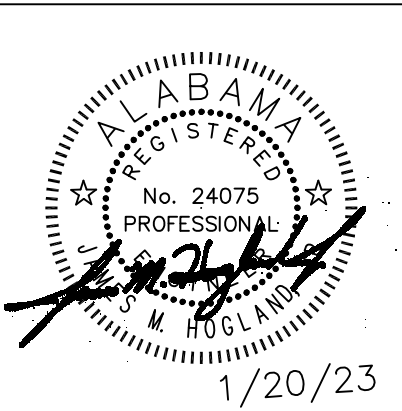
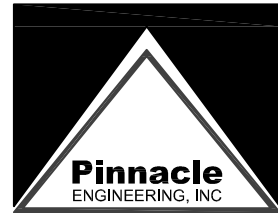
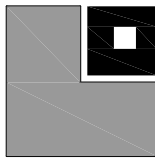


SHEET TITLE:  
MECHANICAL DETAILS

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS

JOB NO. **22-20**  
SHEET NO:  
**M2.1**  
0 1\"/>



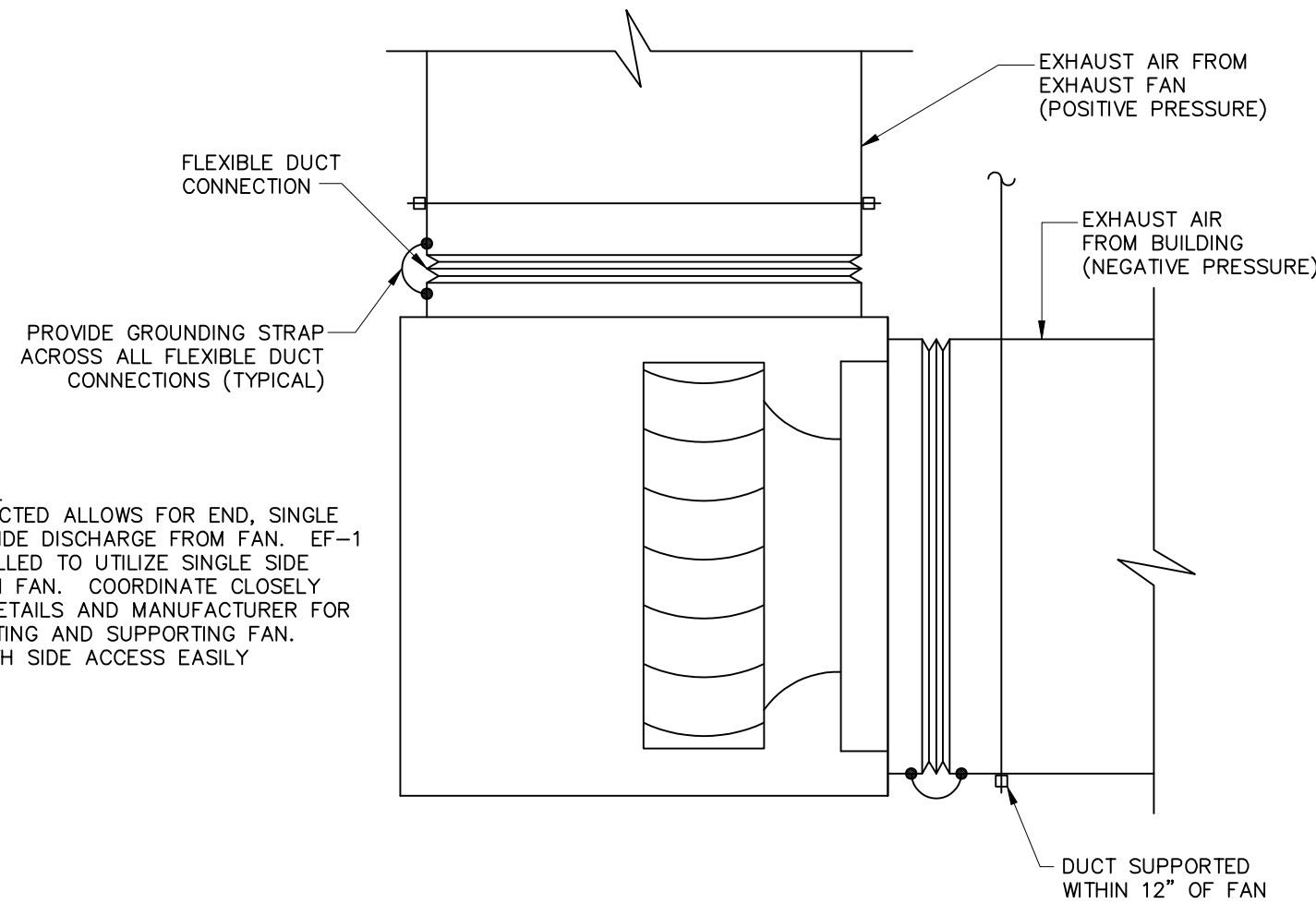
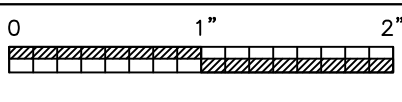


SHEET TITLE:  
MECHANICAL DETAILS AND  
CONTROL DIAGRAMS

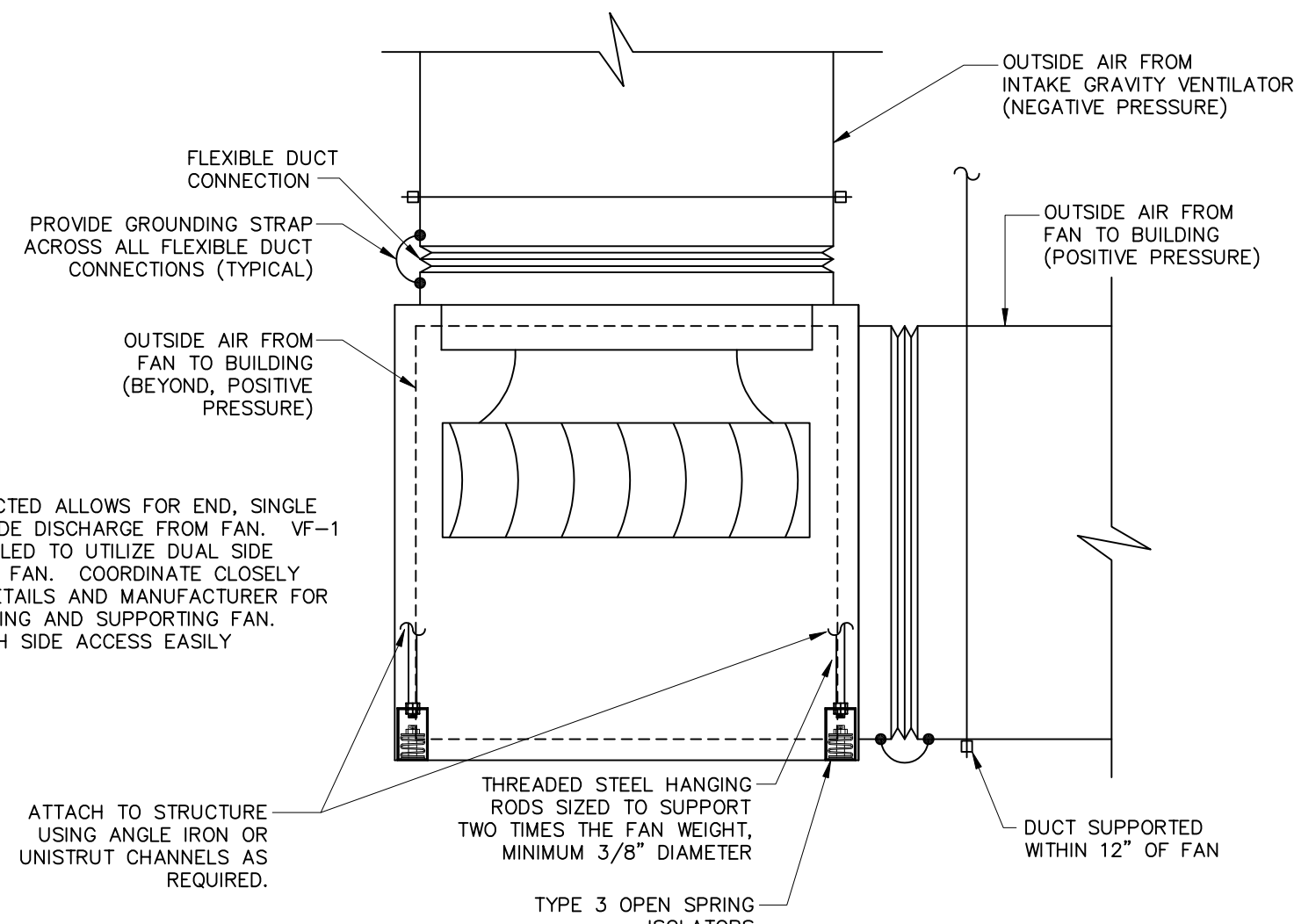
PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS

JOB NO. **22-20**  
SHEET NO:

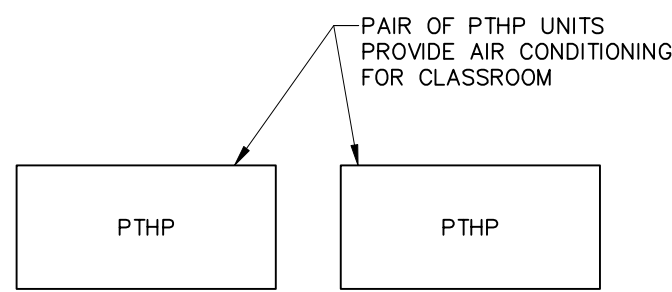
**M2.2**



7 **INLINE EXHAUST FAN INSTALLATION DETAIL**  
M2.2 NO SCALE

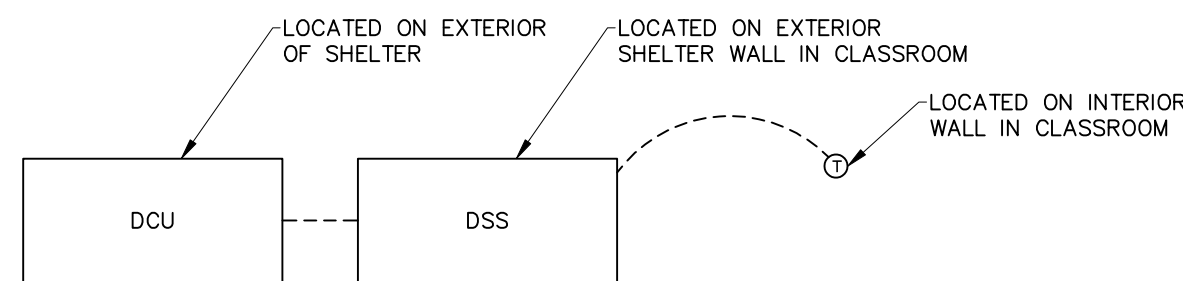


8 **INLINE VENTILATION FAN INSTALLATION DETAIL**  
M2.2 NO SCALE



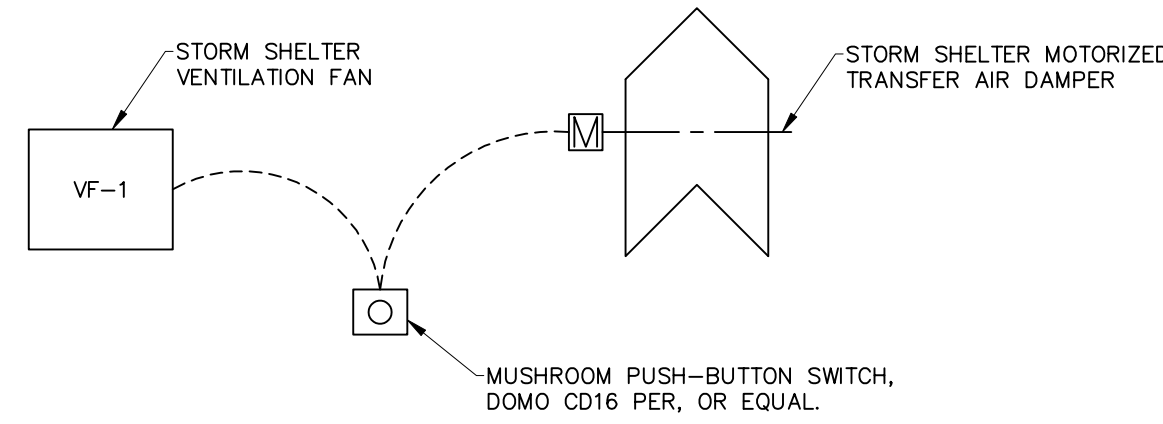
NOTES:  
1) INDIVIDUAL PTHP SHALL BE PROVIDED WITH ON-BOARD FACTORY-INSTALLED THERMOSTAT AND CONTROLLER. NO REMOTE THERMOSTATS REQUIRED.

9 **PTHP CLASSROOM CONTROL DIAGRAM**  
M2.2 NO SCALE



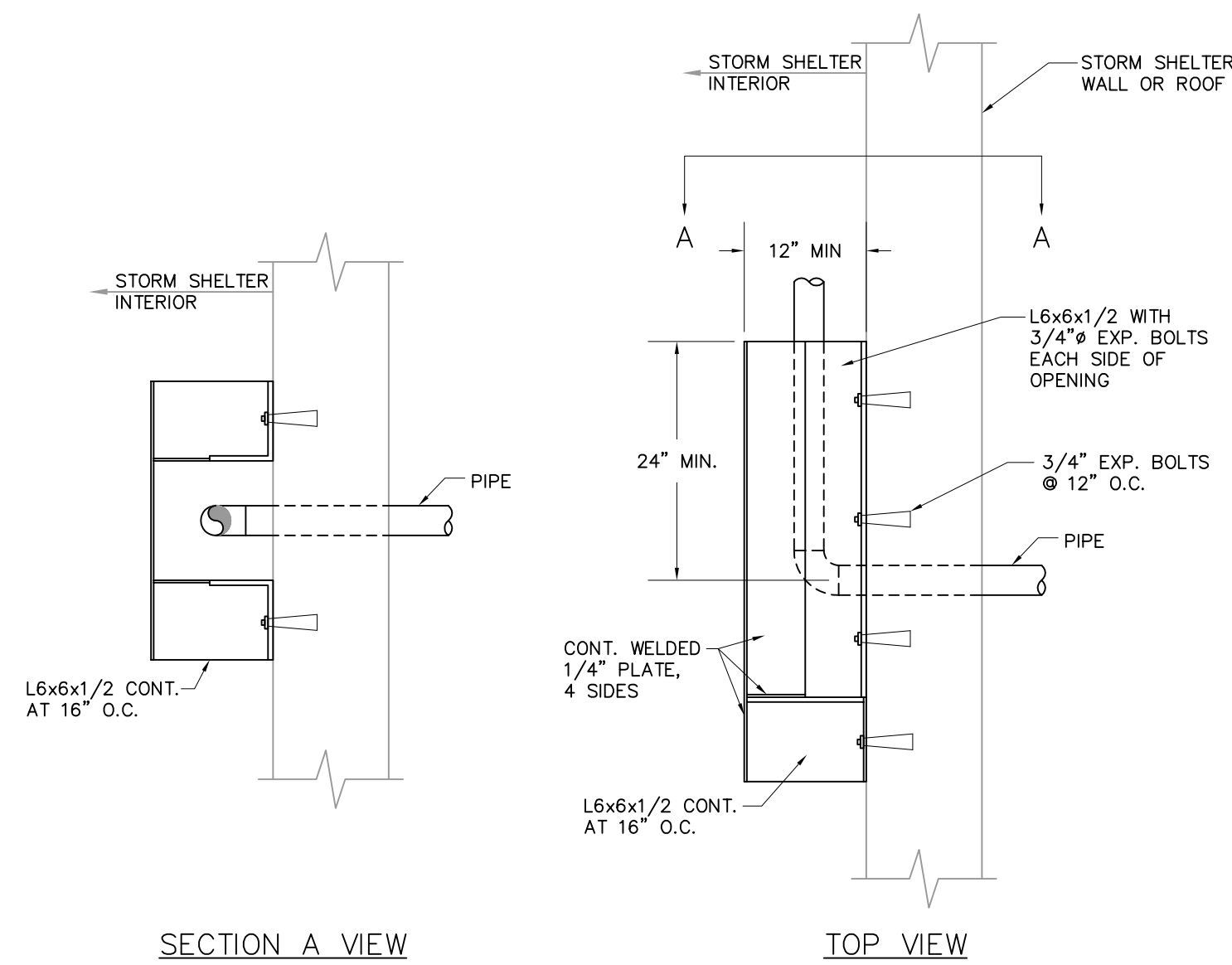
NOTES:  
1) INDIVIDUAL DSS SHALL BE PROVIDED WITH MANUFACTURER'S REMOTE CONTROLLER. REFER TO SPECIFICATIONS.

10 **DSS CLASSROOM CONTROL DIAGRAM**  
M2.2 NO SCALE

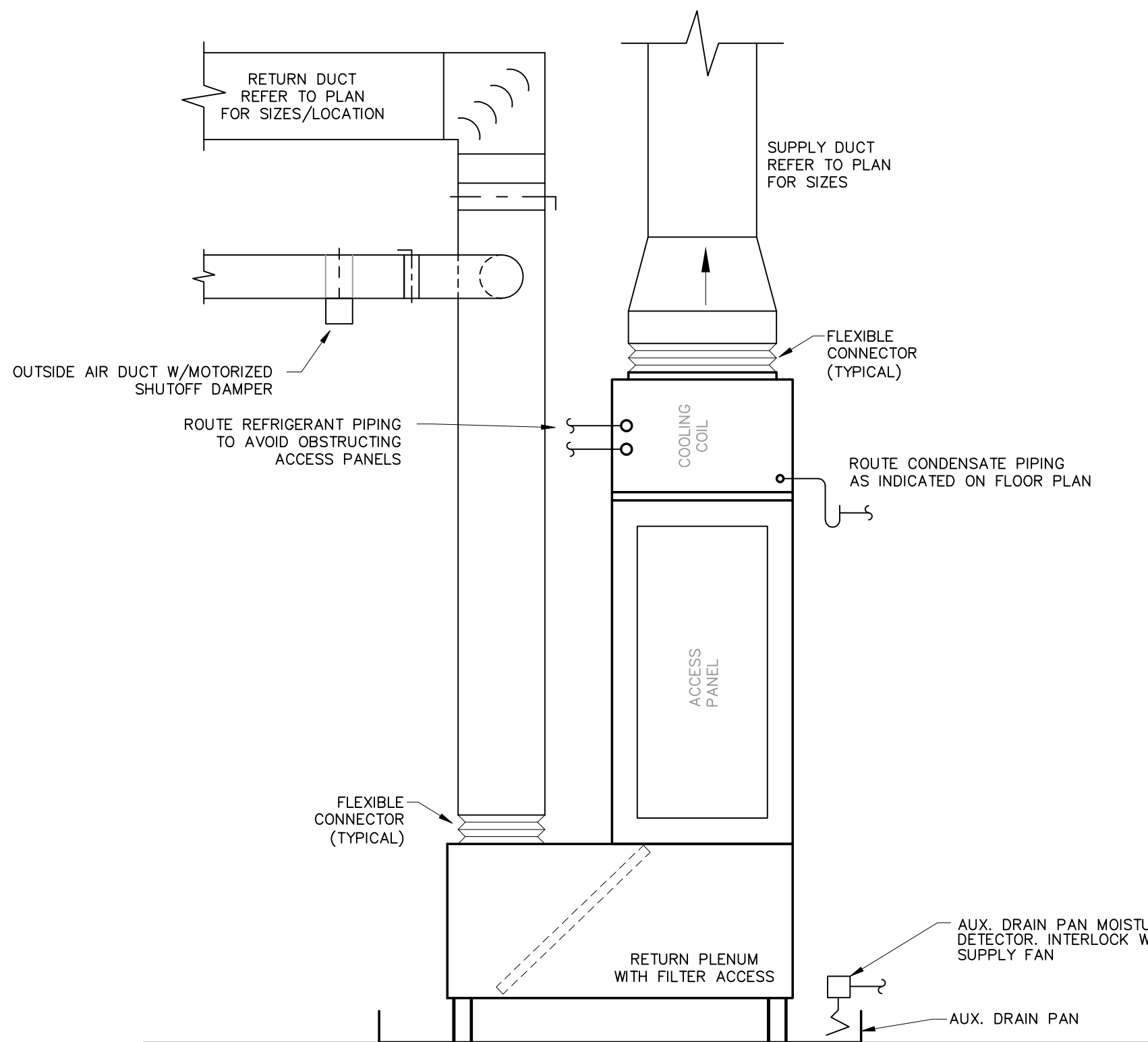


NOTES:  
1) PROVIDE PERMANENT SIGN ABOVE MUSHROOM PUSH-BUTTON SWITCH. SIGN SHALL READ AS FOLLOWS: "WHEN SHELTER IS IN USE, TWIST AND RELEASE BUTTON TO ENGAGE SHELTER VENTILATION SYSTEM. WHEN SHELTER USE HAS ENDED, PUSH BUTTON TO DIS-ENGAGE SYSTEM."  
2) PROVIDE ANY NECESSARY TRANSFORMER(S) AND/OR CONTACTOR(S) TO START VF-1 AND OPEN THE RELIEF AIR DAMPER, UPON THE TWIST AND RELEASE OF THE MUSHROOM PUSH-BUTTON SWITCH.

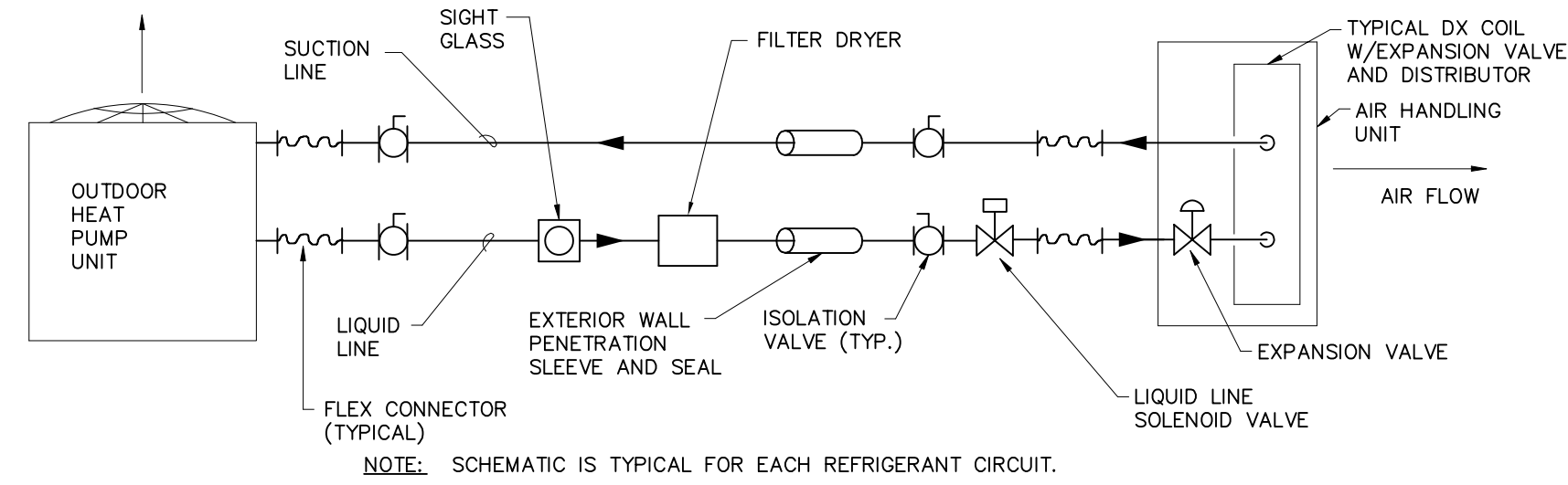
4 **SHELTER CONTROL DIAGRAM**  
M2.2 NO SCALE



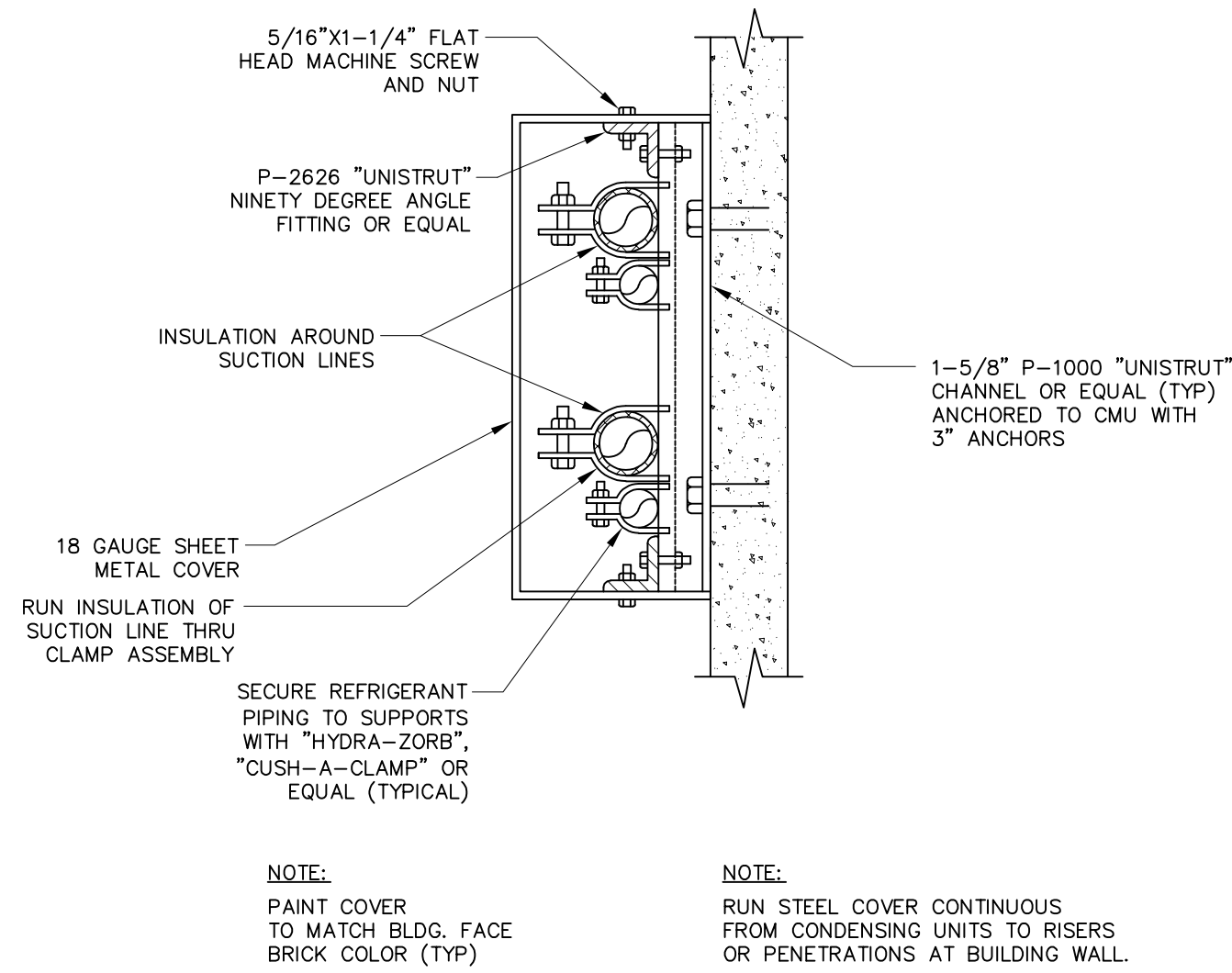
5 **STORM SHELTER PENETRATION PROTECTION DETAIL**  
M2.2 NO SCALE



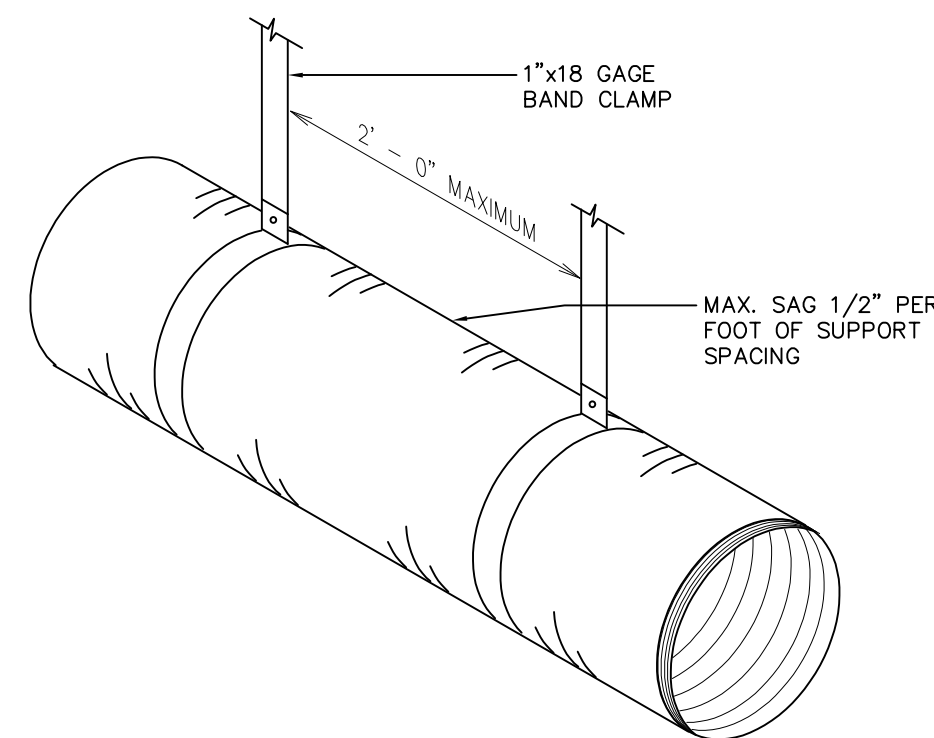
6 **INDOOR HEAT PUMP UNIT DETAIL**  
M2.2 NO SCALE



1 **REFRIGERANT PIPING DETAIL**  
M2.2 NO SCALE

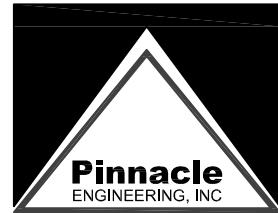


2 **EXTERIOR REFRIGERANT PIPE SUPPORT DETAIL**  
M2.2 NO SCALE  
TYPICAL FOR WALL-MOUNTED REFRIGERANT, CONCRETE PAD-MOUNTED SIMILAR

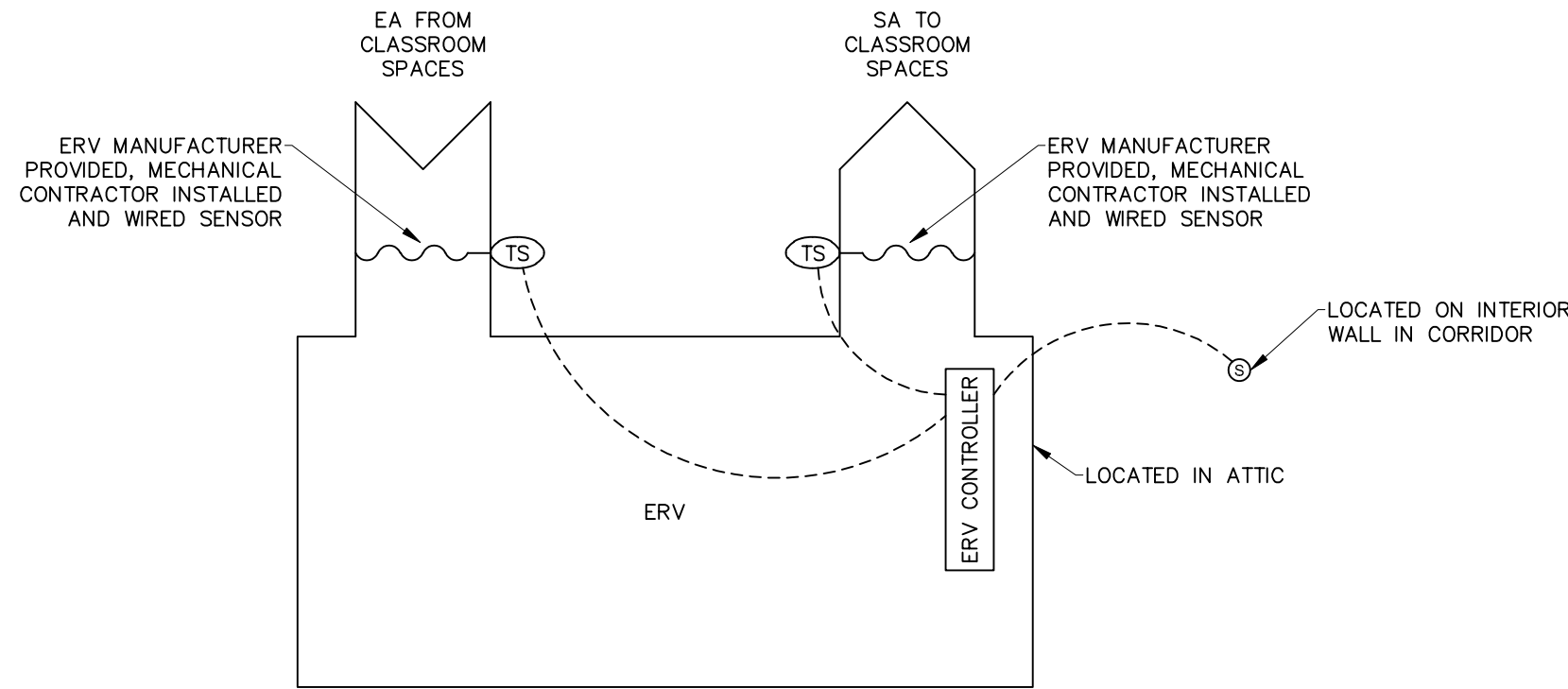


3 **FLEXIBLE DUCT SUPPORT DETAIL**  
M2.2 NO SCALE





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- NOTES:
- 1) ERV AND ITS SENSORS, ETC. ARE PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
  - 2) ERV MANUFACTURER SUPPLIES ON BOARD SENSORS TO BE UNCOILED AND FIELD INSTALLED IN OUTSIDE AIR AND SUPPLY AIR DUCTWORK. REFER TO MANUFACTURER'S RECOMMENDATIONS ON LOCATION OF SENSORS.
  - 3) ERV MANUFACTURER SUPPLIES REMOTE SPACE TEMPERATURE AND HUMIDITY SENSOR(S) TO BE WALL-MOUNTED AND WIRED BY THE MECHANICAL CONTRACTOR.

### 3 ERV CONTROL DIAGRAM

M2.3 NO SCALE

### 1 IAQ METHOD CALCULATION

M2.3 DSS (TYPICAL)

Zone Tag	Facility Type	Zone Use	Zone Floor Area (square ft) Az	Zone Max Occupancy Pz	Table 6.1 OA CFM per Occupant Rp	Table 6.1 cfm/f2 Rz	Pz * Rp Az * Ra Pz * Rp Az * Ra	Table 6.2 Ventilation Effectiveness Ez	Outdoor Air to Zone (CFM) with Ez correction (Vbz/Ez)
DSS	Educational Facilities	Classrooms (age 9 plus)	415.0	14	10.0	0.12	140	50	0.8
									237
									OA required per VRP
Zone Height (feet)	9.0								
Desired Outside Air (Vbz) (ACF) (CFM)	200								
Supply Air Full Flow (Vsz) (CFM)	840								
Supply Air Minimum Flow (Vsz) (CFM)	550								
Return Air (Vr) (CFM)	640								
Recirc. Flow Factor (R)	0.76								
Design Flow Reduction Factor (F)	0.65								
Ventilation Effectiveness (Ez)	0.8								
Level of Physical Activity	Standing (desk work)								
Filtration Location	B								
HVAC Flow Type	VAV								
Outdoor Air Flow Type	Constant								
Indoor Contaminants									
Generated By People & From Outdoors	Maximum Threshold Value (PPM)	Steady State (lb/f3) Using the VRP*	Steady State (lb/f3) Using the IAQ Method	Is Steady State Level Acceptable at Reduced OA Levels?	Contaminant Generation Rate (lb/person/min)	Filtration Effectiveness	Cognizant Authority**		
Acetaldehyde	100.0	2.69E-09	1.30E-09	Yes	1.95E-08	50%	OSHA		
Acetone	250.0	1.47E-08	6.00E-09	Yes	1.96E-07	50%	NIOSH		
Ammonia	25.00	3.40E-07	2.24E-07	Yes	4.61E-06	50%	NIOSH		
Benzene	1.00	1.68E-08	1.09E-08	Yes	2.21E-07	50%	OSHA		
D. Butanone (MEK)	200.0	8.95E-07	6.50E-07	Yes	1.33E-06	50%	NIOSH		
Carbon dioxide**	5000	4.77E-05	4.92E-05	Yes	3.73E-05	0%	NIOSH		
Chloroform	2.0	3.05E-08	2.01E-08	Yes	4.13E-07	50%	NIOSH		
Dioxane	100.0	0.00E+00	0.00E+00	Yes	0.00E+00	50%	OSHA		
Hydrogen Sulfide	10.0	0.00E+00	0.00E+00	Yes	0.00E+00	50%	NIOSH		
Methane	NA	6.87E-08	6.87E-08	Yes	0.00E+00	0%	NA		
Methanol	200.0	1.24E-08	1.48E-08	Yes	1.69E-07	0%	NIOSH		
Methylene Chloride	25.0	5.94E-07	5.90E-07	Yes	1.21E-05	50%	OSHA		
Propane	1000.0	1.12E-09	1.12E-09	Yes	0.00E+00	0%	NIOSH		
Tetrachloroethane	5.0	0.00E+00	0.00E+00	Yes	0.00E+00	50%	OSHA		
Tetrachloroethylene	100.0	1.02E-06	6.70E-07	Yes	1.38E-05	50%	OSHA		
Toluene	100.0	3.79E-09	2.02E-09	Yes	3.44E-08	50%	NIOSH		
1,1,1-Trichloroethane	350.0	4.27E-05	2.82E-05	Yes	5.79E-04	50%	NIOSH		
Xylene	100.0	6.25E-10	1.74E-10	Yes	0.00E+00	50%	OSHA		

Building materials and furnishings assumed to have no VOCs and off-gassing is complete  
All yellow shaded boxes require user input or review.

Is IAQ acceptable at induced outside air levels? Yes

Air Changes Per Hour: 13.9  
Outside Air Per VRP: 237 CFM  
Outside Air Per IAQ: 200 CFM  
Outside Air Savings: 37 CFM  
OA Summer Drybulb: 85.0  
OA Summer Wetbulb: 78.0  
Cool Leaving Air Drybulb (F): 55.0  
Cool Leaving Air Wetbulb (F): 54.4  
OA MBH Saved Summer: #NAME?  
OA Tons Saved Summer: #NAME?

VRP OA CFM per person: 16.9  
IAQ OA CFM per person: 14.3  
Winter Heating Savings: 37 CFM  
OA Winter Design DB (F): 40  
Supply Air DB Setpoint (F): 85  
MBH Saved Winter: 2.2  
KW Saved Winter: 0.7

OA = Outside Air  
\*\*OSHA, NIOSH & WHO most conservative values at <http://www.cdc.gov/niosh/hqonioshna.htm>

C02 Steady State (PPM)

1 = NIOSH C02 Limit  
2 = C02 Level at Ventilation Rate OA Flow Rate  
3 = C02 Level at IAQ Procedure OA Flow Rate

\*\*Carbon dioxide has been provided for reference only for gathering demand control ventilation (DCV) setpoints. The National Research Council was commissioned by the US Navy to prove C02 is not a contaminant of concern when using air purification to control the other contaminants of concern, as found on submarines.

### 2 IAQ METHOD CALCULATION

M2.3 PTHP (TYPICAL)

Zone Tag	Facility Type	Zone Use	Zone Floor Area (square ft) Az	Zone Max Occupancy Pz	Table 6.1 OA CFM per Occupant Rp	Table 6.1 cfm/f2 Rz	Pz * Rp Az * Ra Pz * Rp Az * Ra	Table 6.2 Ventilation Effectiveness Ez	Outdoor Air to Zone (CFM) with Ez correction (Vbz/Ez)
PTHP	Educational Facilities	Classrooms (age 9 plus)	415.0	14	10.0	0.12	140	50	0.8
									237
									OA required per VRP
Zone Height (feet)	9.0								
Desired Outside Air (Vbz) (ACF) (CFM)	100								
Supply Air Full Flow (Vsz) (CFM)	390								
Supply Air Minimum Flow (Vsz) (CFM)	250								
Return Air (Vr) (CFM)	290								
Recirc. Flow Factor (R)	0.74								
Design Flow Reduction Factor (F)	0.64								
Ventilation Effectiveness (Ez)	0.8								
Level of Physical Activity	Standing (desk work)								
Filtration Location	B								
HVAC Flow Type	VAV								
Outdoor Air Flow Type	Constant								
Indoor Contaminants									
Generated By People & From Outdoors	Maximum Threshold Value (PPM)	Steady State (lb/f3) Using the VRP*	Steady State (lb/f3) Using the IAQ Method	Is Steady State Level Acceptable at Reduced OA Levels?	Contaminant Generation Rate (lb/person/min)	Filtration Effectiveness	Cognizant Authority**		
Acetaldehyde	100.0	2.69E-09	2.39E-09	Yes	1.95E-08	50%	OSHA		
Acetone	250.0	1.47E-08	2.04E-08	Yes	1.96E-07	50%	NIOSH		
Ammonia	25.00	3.40E-07	4.77E-07	Yes	4.61E-06	50%	NIOSH		
Benzene	1.00	1.68E-08	2.30E-08	Yes	2.21E-07	50%	OSHA		
D. Butanone (MEK)	200.0	8.95E-07	1.38E-06	Yes	1.33E-06	50%	NIOSH		
Carbon dioxide**	5000	4.77E-05	5.16E-05	Yes	3.73E-05	0%	NIOSH		
Chloroform	2.0	3.05E-08	4.27E-08	Yes	4.13E-07	50%	NIOSH		
Dioxane	100.0	0.00E+00	0.00E+00	Yes	0.00E+00	50%	OSHA		
Hydrogen Sulfide	10.0	0.00E+00	0.00E+00	Yes	0.00E+00	50%	NIOSH		
Methane	NA	6.87E-08	6.87E-08	Yes	0.00E+00	0%	NA		
Methanol	200.0	1.24E-08	2.95E-08	Yes	1.69E-07	0%	NIOSH		
Methylene Chloride	25.0	5.94E-07	1.25E-06	Yes	1.21E-05	50%	OSHA		
Propane	1000.0	1.12E-09	1.12E-09	Yes	0.00E+00	0%	NIOSH		
Tetrachloroethane	5.0	0.00E+00	0.00E+00	Yes	0.00E+00	50%	OSHA		
Tetrachloroethylene	100.0	1.02E-06	1.42E-06	Yes	1.38E-05	50%	OSHA		
Toluene	100.0	3.79E-09	3.83E-09	Yes	3.44E-08	50%	NIOSH		
1,1,1-Trichloroethane	350.0	4.27E-05	5.99E-05	Yes	5.79E-04	50%	NIOSH		
Xylene	100.0	6.25E-10	1.85E-10	Yes	0.00E+00	50%	OSHA		

Building materials and furnishings assumed to have no VOCs and off-gassing is complete  
All yellow shaded boxes require user input or review.

Is IAQ acceptable at induced outside air levels? Yes

Air Changes Per Hour: 6.3  
Outside Air Per VRP: 237 CFM  
Outside Air Per IAQ: 100 CFM  
Outside Air Savings: 137 CFM  
OA Summer Drybulb: 85.0  
OA Summer Wetbulb: 78.0  
Cool Leaving Air Drybulb (F): 55.0  
Cool Leaving Air Wetbulb (F): 54.4  
OA MBH Saved Summer: #NAME?  
OA Tons Saved Summer: #NAME?

VRP OA CFM per person: 16.9  
IAQ OA CFM per person: 7.1  
Winter Heating Savings: 137 CFM  
OA Winter Design DB (F): 40  
Supply Air DB Setpoint (F): 85  
MBH Saved Winter: 8.2  
KW Saved Winter: 2.4

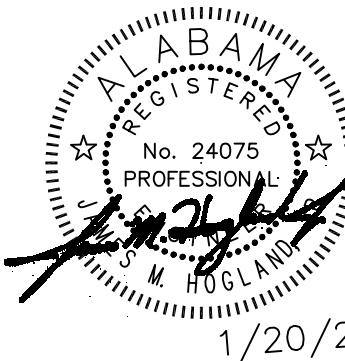
OA = Outside Air  
\*\*OSHA, NIOSH & WHO most conservative values at <http://www.cdc.gov/niosh/hqonioshna.htm>

C02 Steady State (PPM)

1 = NIOSH C02 Limit  
2 = C02 Level at Ventilation Rate OA Flow Rate  
3 = C02 Level at IAQ Procedure OA Flow Rate

\*\*Carbon dioxide has been provided for reference only for gathering demand control ventilation (DCV) setpoints. The National Research Council was commissioned by the US Navy to prove C02 is not a contaminant of concern when using air purification to control the other contaminants of concern, as found on submarines.

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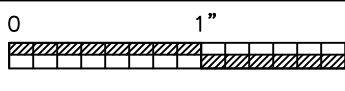


SHEET TITLE:  
MECHANICAL OUTSIDE AIR  
CALCULATIONS AND  
CONTROL DIAGRAMS

PROJ. MGR.: JMH  
DRAWN: ZBL/CRA  
DATE: 1/20/23  
REVISIONS:

JOB NO. 22-20  
SHEET NO:

M2.3





LIGHTING FIXTURE SCHEDULE

MARK	MANUFACTURER	CATALOG NO.	LAMPS			MOUNTING HEIGHT	TYPE MOUNTING	RECESS DEPTH	REMARKS
			NO.	WATTS	TYPE				
A	METALUX	24CGT5535C	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	
A (EM)	METALUX	24CGT5535C-EL14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	SEE NOTE 1
A1 (EM)	METALUX	24CGT5535C EBPLED7W3H	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	SEE NOTES 1 & 4
B	METALUX	24CGT4535C	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	
B (EM)	METALUX	24CGT4535C-EL14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	SEE NOTE 1
B1 (EM)	METALUX	24CGT4535C EBPLED7W3H	FURNISHED WITH FIXTURE			CEILING	RECESSED	2-1/8"	SEE NOTES 1 & 4
C	PATHWAY LIGHTING	6VFL2X-3000-35K-DA- 6VLEDMD-SCLPF	FURNISHED WITH FIXTURE			CEILING	RECESSED	6"	
C (EM)	PATHWAY LIGHTING	6VFL2X-3000-35K-DA- 6VLEDMD-SCLPF-EL14W	FURNISHED WITH FIXTURE			CEILING	RECESSED	6"	SEE NOTE 1
C1 (EM)	PATHWAY LIGHTING	6VFL2X-3000-35K-DA- 6VLEDMD-SCLPF EBPLED7W3H	FURNISHED WITH FIXTURE			CEILING	RECESSED	6"	SEE NOTES 1 & 4
D	METALUX	45NLED-LD4-4600SL- LW-UNV-L840-CD1	FURNISHED WITH FIXTURE			CEILING	SURFACE		
D (EM)	METALUX	45NLED-LD4-4600SL- LW-UNV-L840-CD1-EL14W	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTE 1
D1 (EM)	METALUX	45NLED-LD4-4600SL- LW-UNV-L840-CD1 EBPLED7W3H	FURNISHED WITH FIXTURE			CEILING	SURFACE		SEE NOTES 1 & 4
F	MCGRAW-EDISON	ISW-E02-LED-E1- BL4-BZ-TR	FURNISHED WITH FIXTURE			+9'	BRACKET		
F (EM)	MCGRAW-EDISON	ISW-E02-LED-E1- BL4-BZ-TR-BBB	FURNISHED WITH FIXTURE			+9'	BRACKET		SEE NOTE 1
G	PATHWAY LIGHTING	6VFL2X-3000-35K-DA- 6VLEDFOL-SCLPF	FURNISHED WITH FIXTURE			CEILING	RECESSED	6"	
G (EM)	PATHWAY LIGHTING	6VFL2X-3000-35K-DA- 6VLEDFOL-SCLPF-EM	FURNISHED WITH FIXTURE			CEILING	RECESSED	6"	SEE NOTE 1
X	SURE-LITES	EUX7-R-UNV	FURNISHED WITH FIXTURE			CEILING ABOVE DOOR	BRACKET		

NOTES:

- FEED ALL "EM" FIXTURES WITH SWITCHED AND UNSWITCHED HOT LEGS. UNSWITCHED HOT LEG IS USED FOR VOLTAGE SENSING.
- VERIFY ALL FIXTURE COLORS WITH ARCHITECT PRIOR TO SUBMITTALS.
- EQUAL FIXTURES BY LITHONIA, LUMAX, DAYBRITE, AND COLUMBIA WILL BE CONSIDERED APPROVED EQUALS.
- FIXTURE TYPES A1(EM), B1(EM), C1(EM), AND D1(EM) ARE EMERGENCY LIGHTS WITH LONG RUN BATTERY PACKS. THESE LIGHTS ARE SPECIFIED WITH SURE-LITES LED BATTERY PACKS THAT ARE 7 WATTS AND RATED TO RUN FOR 3 HOURS. THERE ARE NO EXCEPTIONS TO THE BATTERY RUN TIMES.

GENERAL NOTES

- SERVICE TO BUILDING IS 277/480 VOLTS, 3 PHASE, 4 WIRE.
- VERIFY ALL DOOR SWINGS WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING IN SWITCHES.
- VERIFY EXACT LOCATION OF ALL MOTORS AND EQUIPMENT BEFORE ROUGHING IN.
- CONTRACTOR TO VERIFY LOCATION OF ALL OUTLETS PRIOR TO INSTALLATION.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF COUNTERTOPS AND BACKSPLASHES ON ARCHITECTURAL DETAILS AND/OR CASEWORK SHOP DRAWINGS AND ADJUST SPECIFIED MOUNTING HEIGHT OF WALL OUTLETS AS REQUIRED TO AVOID CONFLICTS.
- CONTRACTOR WILL CHECK ALL LIGHTING FIXTURES FOR EXACT TYPE MOUNTING AND SPACE REQUIRED BEFORE ROUGHING IN.
- FURNISH AND INSTALL PLASTER FRAMES FOR ALL RECESSED FIXTURES AS REQUIRED.
- SUPPORT OF ALL LIGHTING FIXTURES TO BE THE RESPONSIBILITY OF THIS CONTRACTOR. FIXTURES TO BE SUPPORTED INDEPENDENT OF CEILING FROM STRUCTURAL MEMBERS OF THE BUILDING.
- ELECTRICAL CONTRACTOR MUST CHECK THE CORRESPONDING MECHANICAL SHEETS AND BE RESPONSIBLE FOR INCLUDING PROPER SERVICE AND CONNECTIONS TO ALL MECHANICAL ITEMS SHOWN THEREON REGARDLESS OF ITS BEING OR NOT BEING SHOWN ON ELECTRICAL SHEETS.
- ALL CONDUIT CONCEALED UNLESS SPECIFICALLY SHOWN EXPOSED. METAL WIRE MOLD IS PERMITTED WHERE SURFACE MOUNT CONDUIT IS REQUIRED. NO EXPOSED EMT CONDUIT IN OPEN WORK AREA ROOM 101.
- COORDINATE SERVICES WITH POWER AND COMMUNICATIONS COMPANIES. REMOVE OR RELOCATE ALL POWER AND COMMUNICATIONS CIRCUITS ABOVE OR BELOW GRADE THAT WOULD OBSTRUCT THE CONSTRUCTION OF THE PROJECT OR CONFLICT IN ANY MANNER WITH COMPLETION OF THE PROJECT OR ANY CODE PERTAINING THERETO. IF UTILITY COMPANY REQUIREMENTS ARE AT VARIANCE WITH THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACT PRICE SHALL INCLUDE THE ADDITIONAL COST.
- IT IS INTENDED THAT SPECIFICATIONS AND PLANS SHALL INCLUDE EVERYTHING REQUIRED AND NECESSARY FOR PROPER AND COMPLETE INSTALLATION OF THE COMPLETE SYSTEMS SHOWN EVEN THOUGH EVERY ITEM MAY NOT BE PARTICULARLY MENTIONED IN DETAIL. THE CONTRACTOR SHALL DELIVER TO OTHER TRADES ANY EQUIPMENT THAT MUST BE INSTALLED DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS AND COORDINATION OF THE PHYSICAL SIZE OF ALL EQUIPMENT WITH THE ARCHITECTURAL REQUIREMENTS OF THE SPACES INTO WHICH THE EQUIPMENT WILL BE INSTALLED.
- THIS CONTRACTOR SHALL INSTALL EQUIPMENT GROUNDS THROUGHOUT THIS PROJECT, USING GREEN INSULATED GROUND WIRE. USE OF CONDUIT AS THE ONLY GROUND CONDUCTOR WILL NOT BE ALLOWED. (SIZE GROUND WIRES PER N.E.C.)
- REMOVE ALL EXISTING PANELBOARDS, DISCONNECTS, FIXTURES, RECEPTACLES, AUXILIARY SYSTEM DEVICES, CONDUIT, CONDUCTORS, ETC. BEING RENDERED OBSOLETE BY THIS PROJECT.
- WHERE EXISTING REMAINING CIRCUITS ARE BEING INTERRUPTED DUE TO STRUCTURAL AND/OR DESIGN CHANGES, THIS CONTRACTOR WILL EXTEND EXISTING CIRCUITS AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY TO REMAINING ACTIVE DEVICES.

FIRE ALARM SYSTEM NOTES

- PROVIDE FIRE ALARM COMPLETION DOCUMENTS AT THE STATE FINAL INSPECTION. THIS ITEM WILL BE REQUIRED BY STATE BUILDING INSPECTOR AT THE TIME OF FINAL INSPECTION (OLD CERTIFICATION FORM).
- ADDITIONS AND ALTERATIONS TO THE FIRE ALARM SYSTEM REQUIRE TESTING, A RECORD OF COMPLETION, AND RECERTIFICATION. ALL FIRE ALARM WORK SHALL BE PERFORMED BY QUALIFIED PERSONNEL AS DEFINED IN NFPA-72 (2013) 10.4.2, 10.5.2, AND 10.18.1.
- ALL WORK SHALL BE PERFORMED BY A CERTIFIED FIRE ALARM CONTRACTOR – SEE SPECS.

COLOR CODE FOR JUNCTION BOXES

NOTE:  
PAINT ALL JUNCTION BOXES AND COVERS WITH COLORS AS SHOWN BELOW. PAINTING COVERS ONLY IS NOT ACCEPTABLE.

FUNCTION:

LIGHTING

POWER

FIRE ALARM

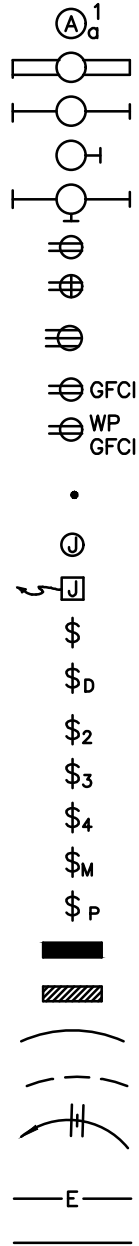
COLOR:

BLUE

GREEN

RED

ELECTRICAL SYMBOLS



CEILING OUTLET – FIXTURE "A", CIRCUIT 1, SWITCH α.  
CEILING OUTLET – FLUORESCENT FIXTURE.  
CEILING OUTLET – FLUORESCENT INDUSTRIAL OR STRIP TYPE.  
WALL OUTLET – INCANDESCENT BRACKET TYPE.  
WALL OUTLET – FLUORESCENT BRACKET TYPE.  
WALL OUTLET – DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR.  
WALL OUTLET – DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT5362A-GRY WITH PT6STR PLUG TAIL CONNECTOR – MOUNT AT 6" ABOVE COUNTER.  
WALL OUTLET – SINGLE OUTLET, 30A, 125/250V, 4W, HUBBELL #HBL9430A RECEPTACLE.  
WALL OUTLET – DUPLEX OUTLET, 20A, 125V, GROUNDED, PASS & SEYMOUR PT2095-GRY WITH PT6STR PLUG TAIL CONNECTOR.  
WALL OUTLET – DUPLEX OUTLET, 20A, 125V, GROUNDED, WEATHERPROOF, PASS & SEYMOUR PT2095-GRY WITH PT6STR PLUG TAIL CONNECTOR. INSTALL #WUIC10-CAGV WEATHERPROOF COVER. DEVICE SHALL BE LABELED AS "EXTRA DUTY".  
FLOOR OUTLET – CONDUIT STUB UP.  
CEILING OUTLET – JUNCTION BOX.  
WALL OUTLET – JUNCTION BOX WITH FLEXIBLE CONNECTION TO EQUIPMENT.  
SWITCH OUTLET – AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221 – GREY. ("N" DENOTES NARROW)  
SWITCH OUTLET – FLUORESCENT DIMMER – LUTRON NOVA-T SERIES #NTF-103P.  
SWITCH OUTLET – AC TYPE, TWO POLE, 20A, 120/277V, HUBBELL #1222 – GREY.  
SWITCH OUTLET – AC TYPE, THREE WAY, 20A, 120/277V, HUBBELL #1223 – GREY.  
SWITCH OUTLET – AC TYPE, FOUR WAY, 20A, 120/277V, HUBBELL #1224 – GREY.  
SWITCH MANUAL MOTOR STARTER, SINGLE POLE WITH OVERLOAD PROTECTION.  
SWITCH OUTLET – AC TYPE, SINGLE POLE, 20A, 120/277V, HUBBELL #1221LC.  
LIGHTING PANEL – SEE SPECIFICATIONS AND SCHEDULE.  
POWER PANELS – SEE SPECIFICATIONS AND SCHEDULE.  
BRANCH CIRCUIT CONCEALED IN WALL OR CEILING.  
BRANCH CIRCUIT CONCEALED IN FLOOR OR GROUND.  
HOMERUN TO PANELBOARD – ANY CIRCUIT WITHOUT FURTHER DESIGNATION 2 # 12 & 1 # 12(G) – 1/2" CONDUIT.  
3 # 12 & 1 # 12(G) – 3/4" CONDUIT.  
4 # 12 & 1 # 12(G) – 3/4" CONDUIT.  
EMPTY CONDUIT – 3/4".  
BRANCH CIRCUIT EXPOSED.  
CONDUIT RUN DOWN WALLS, CONCEALED  
CONDUIT RUN UP WALLS, CONCEALED  
MOTOR SHOWN 5hp (TYPICAL) OR 40 AMPS (TYPICAL).  
EXHAUST FAN MOTOR – FRACTIONAL HORSEPOWER.  
MAGNETIC MOTOR STARTER.  
NON-FUSED DISCONNECT SWITCH. (RT – RAINIGHT).  
FUSED DISCONNECT SWITCH.  
ABOVE FINISHED FLOOR.  
VERIFY LOCATION.  
NATIONAL ELECTRICAL CODE.  
GROUND FAULT CIRCUIT INTERRUPTER  
WEATHER PROOF  
ISOLATED GROUND  
FIRE ALARM – SMOKE DETECTOR – SEE SPEC.  
FIRE ALARM – HEAT DETECTOR – SEE SPEC.  
FIRE ALARM – DUCT DETECTOR – SEE SPEC.  
FIRE ALARM – MANUAL PULL STATION – SEE SPEC.  
FIRE ALARM – STROBE LIGHT – SEE SPEC.  
FIRE ALARM – SPEAKER STROBE – SEE SPEC.  
FIRE ALARM CONTROL PANEL – EXISTING – SEE SPEC.  
SOUND SYSTEM – CEILING MOUNTED SPEAKER – SEE SPEC.  
SOUND SYSTEM – CALL-IN SWITCH – SEE SPEC.  
SOUND SYSTEM CONSOLE – EXISTING – SEE SPEC.  
SOUND SYSTEM – CLOCK – SEE SPEC.  
SOUND SYSTEM – DOUBLE FACE HALL CLOCK – SEE SPEC.  
FUTURE TV OUTLET – EMPTY 2 GANG BOX WITH EMPTY 1-1/2" CONDUIT TO ABOVE LAY-IN CEILING (BLANK FACEPLATE)  
COMPUTER OUTLET – 3/4" CONDUIT WITH CABLING-SEE SPEC.  
COMPUTER OUTLET – 3/4" CONDUIT WITH CABLING-MOUNT 6" ABOVE COUNTER-SEE SPEC.  
CEILING MOUNTED MOTION DETECTOR – COOPER #OMC-P-1200-R  
MOTION SENSOR SWITCHPACK – COOPER #SP20-MV (INSTALLED ABOVE LAY-IN CEILING)  
WALL SWITCH WITH BUILT IN MOTION SENSOR – COOPER #OSW-P-0451-W WITH WALL PLATE  
LIGHTING CONTROL PANEL OVERRIDE SWITCH – DIGITA 5-1B  
MOTION SENSOR WIRING – LOW VOLTAGE WIRING (#14 THHN AS REQUIRED)

CODE EXCEPTION NOTE

THIS PROJECT HAS BEEN DESIGNED UNDER ASHRAE 90.1 2013, EXCEPT AS FOLLOWS: WE TAKE EXCEPTION TO SECTION 8.4.2 FOR REQUIRING CONTROLLED RECEPTACLES, AND SECTION 8.4.3 FOR REQUIRING ENERGY MONITORING. WE OFFICIALLY REQUEST THAT THIS PROJECT BE APPROVED WITHOUT THOSE ITEMS.

COLOR CODE FOR ELECTRICAL WIRING

- 120/208 V, 60Hz, 3 PHASE, 4 WIRE SYSTEM  
PHASE A-BLACK  
B-RED  
C-BLUE  
N-WHITE
- 277/480 V, 60Hz, 3 PHASE, 4 WIRE SYSTEM  
PHASE A-BROWN  
B-ORANGE  
C-YELLOW  
N-GRAY
- GROUND-GREEN

STEWART ENGINEERING ELECTRICAL CONSULTANTS	
P.O. Box 2233 (36202) 300 East 7th Street (36207) Anniston, Alabama Phone: 256/237-0891 Fax No.: 256/237-1077 Email: services@stewartengineering.org	
Engineer: J. Lance Junkin, P.E. Alabama Reg. 14817	Project Number: 22124

LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION

SHEET TITLE:

SCHEDULES, SYMBOLS,  
AND NOTES

PROJ. MGR.: LANCE JUNKIN  
DRAWN: SEC  
DATE: JANUARY 31, 2023

REVISIONS

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JOB NO. 22-20

SHEET NO:  
**E1.1**

1 OF 8



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ARCHITECTS

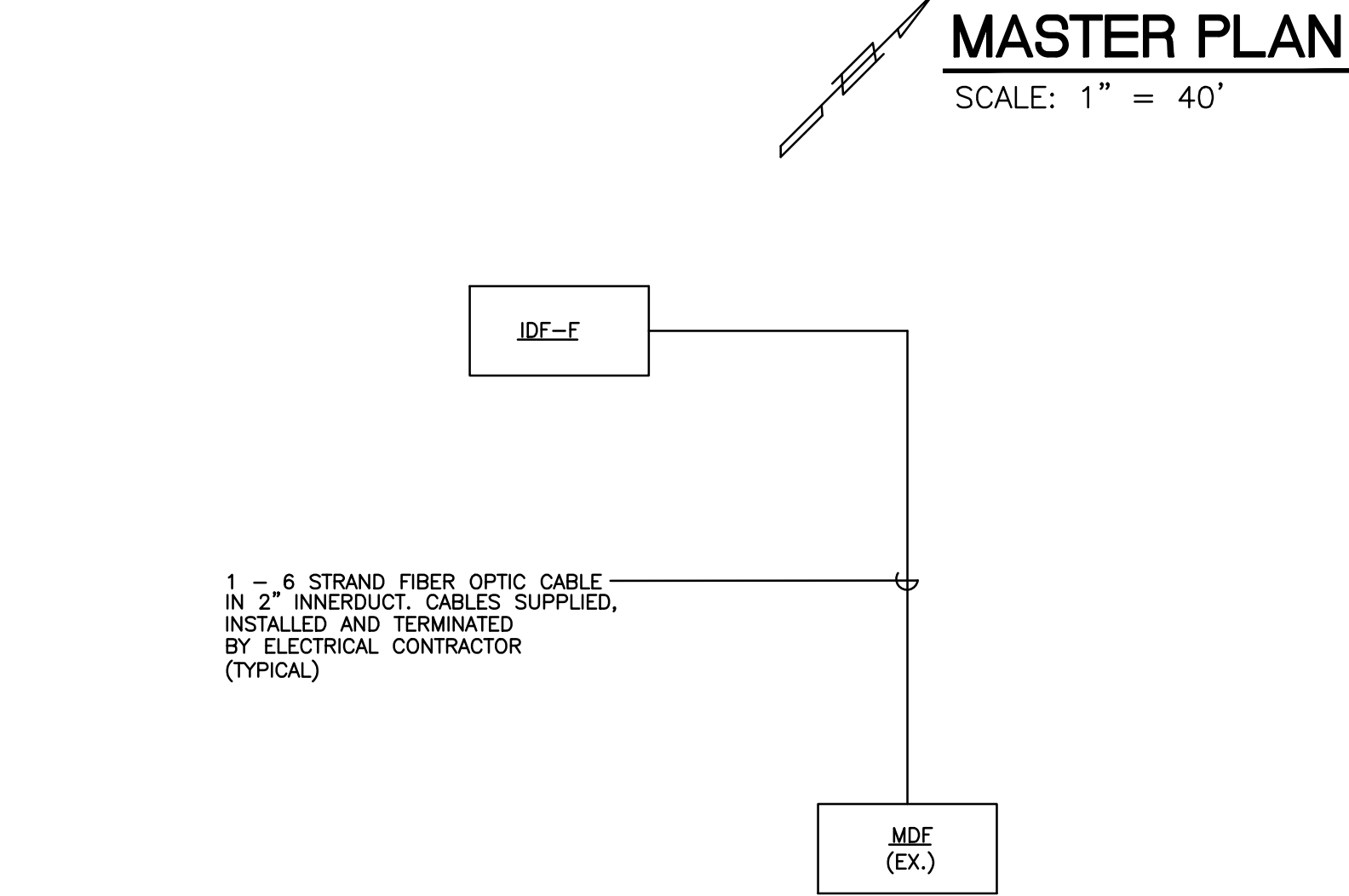
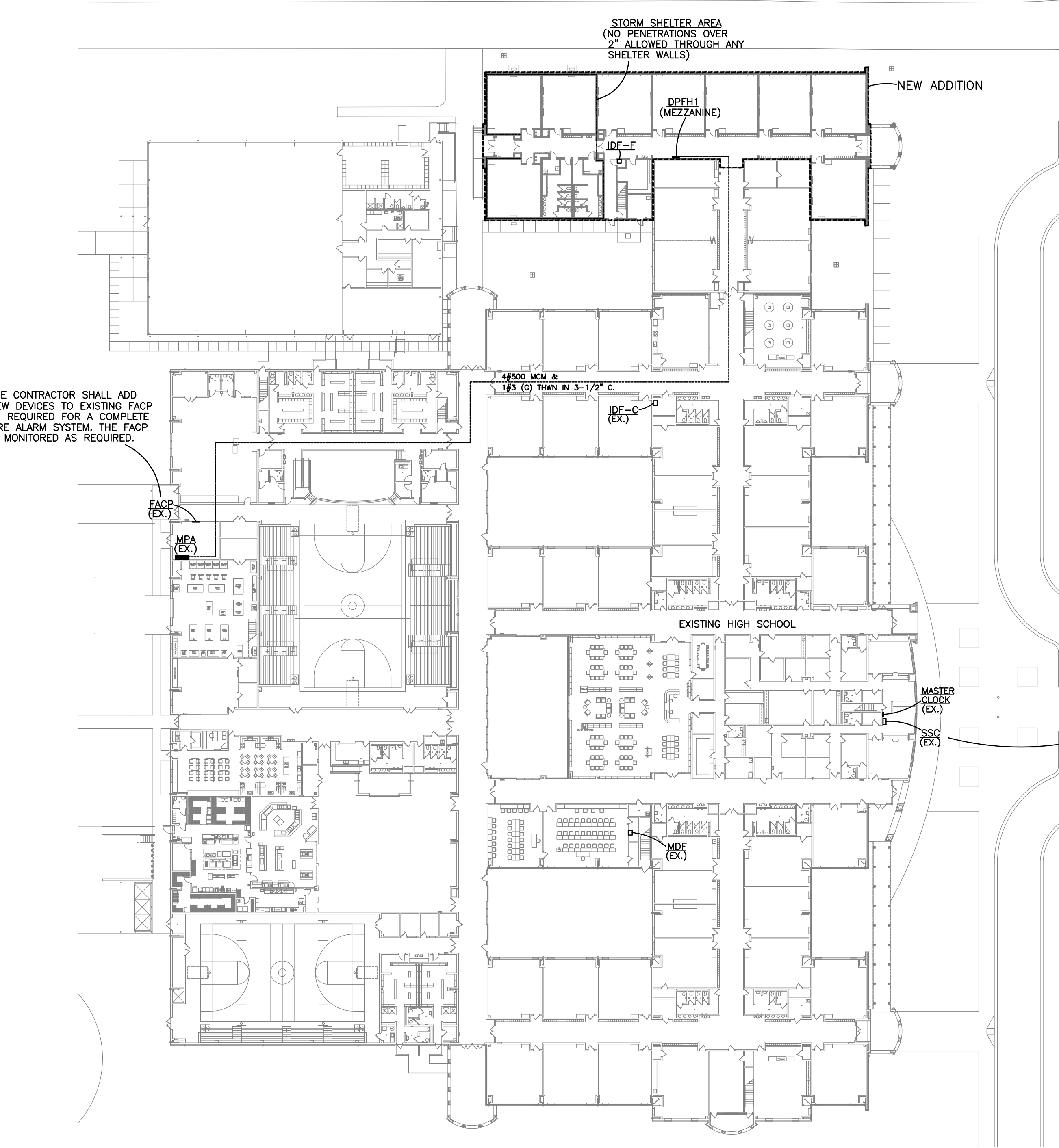
CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
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TALLADEGA COUNTY BOARD OF EDUCATION

ALABAMA  
J. LANCE JUNKIN  
REGISTERED PROFESSIONAL ENGINEER  
JULY 1987  
127123

SHEET TITLE:  
MASTER PLAN AND  
SINGLE LINE DIAGRAM

PROJ. MGR.: LANCE JUNKIN  
DRAWN: SEC  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:  
E2.1  
2 OF 8



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

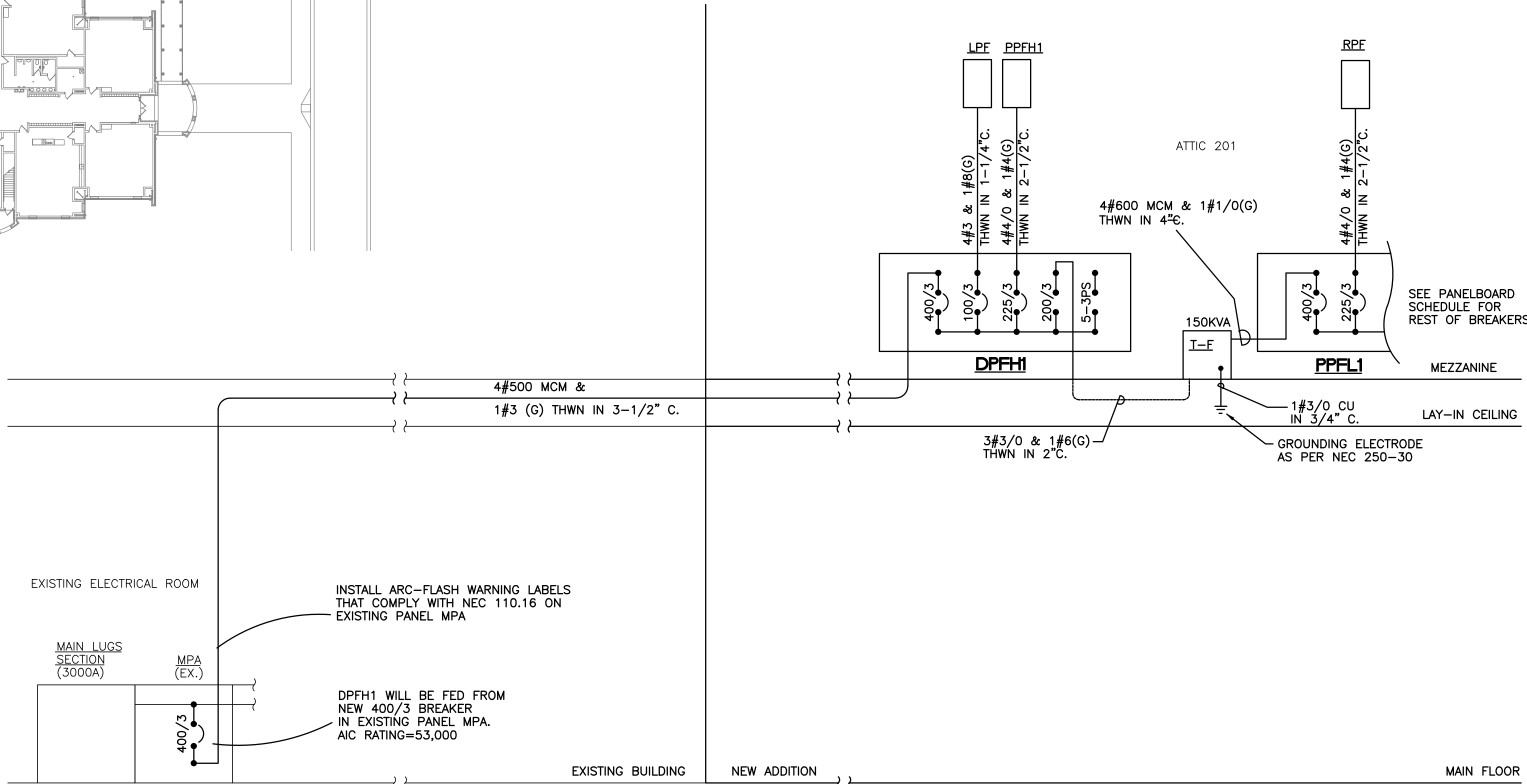
MARK	TYPE	MAINS			BRANCHES					LUG LOCATION	TYPE MOUNTING	AREA PANEL LOCATED	AVAILABLE FAULT CURRENT	REMARKS
		TYPE	AMPS	SERVICE	1 POLE	2 POLE	3 POLE	SPARES	SPACES					
DPFH1	I-LINE	M/B	400	277/480V 3Ø, 4W			1-100 1-200 1-225		5-3PS	BOTTOM	SURFACE	ATTIC A201	10,000	SEE NOTES 1, 2, & 3
LPF	NF	LUGS	100	277/480V 3Ø, 4W	11-20			6-20/1	13-1PS	BOTTOM	SURFACE	ATTIC A201	10,000	SEE NOTES 1, 2, & 3
PPFH1	NF	LUGS	225	277/480V 3Ø, 4W	12-25		4-20 1-35 1-80	2-20/3	6-1PS	BOTTOM	SURFACE	ATTIC A201	10,000	SEE NOTES 1, 2, & 3
PPFL1	I-LINE	M/B	400	120/208V 3Ø, 4W	1-20	4-30	1-225	6-20/1	5-3PS	BOTTOM	SURFACE	ATTIC A201	10,000	SEE NOTES 1, 2, & 3
RPF	NQOD	LUGS	225	120/208V 3Ø, 4W	32-20			6-20/1	16-1PS	BOTTOM	SURFACE	ATTIC A201	10,000	SEE NOTES 1, 2, & 3 54 SPACE PANEL

- NOTES:
- ALL PANELBOARDS SHALL BE CAPABLE OF WITHSTANDING AND INTERRUPTING THE AVAILABLE FAULT CURRENTS AS LISTED ABOVE.
  - ALL PANELBOARDS SHALL HAVE MICARTA LABELS SHOWING SWITCHBOARD/PANELBOARD DESIGNATION, AND OPERATING VOLTAGE. I-LINE PANELBOARDS SHALL ALSO HAVE MICARTA LABELS AT EACH BREAKER.
  - NO SERIES RATING WILL BE ALLOWED ON ANY PANELBOARDS.
- 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-2009 (ARTICLE 130) AND NFPA 70-2008 (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).

**TRANSFORMER SCHEDULE**

MARK	SIZE	PRIMARY	SECONDARY	MANUFACTURER	CATALOG NUMBER	REMARKS
T-F	150 KVA	480V 3Ø DELTA	120/208V 3Ø, 4W, WYE	SQUARE D	150T3H	SEE NOTE 1

- NOTES:
- BOND TRANSFORMER LOWSIDE NEUTRAL TO THE TRANSFORMER CASE, TO THE "INCOMING" AND "OUTGOING" GROUND WIRES, AND TO GROUNDING ELECTRODE (AS PER NEC 250-30) AT EACH TRANSFORMER, USING #3/0 CU.



**ELECTRICAL SINGLE LINE DIAGRAM**  
N.T.S.

STEWART ENGINEERING  
ELECTRICAL CONSULTANTS

P.O. Box 2233 (36202)  
300 East 7th Street (36207)  
Anniston, Alabama  
Phone: 256/237-0891  
Fax No.: 256/237-1077  
Email: services@stewartengineering.org

Engineer:  
J. Lance Junkin, P.E.  
Alabama Reg. 14817

Project Number:  
22124





LATHAN  
ARCHITECTS

CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



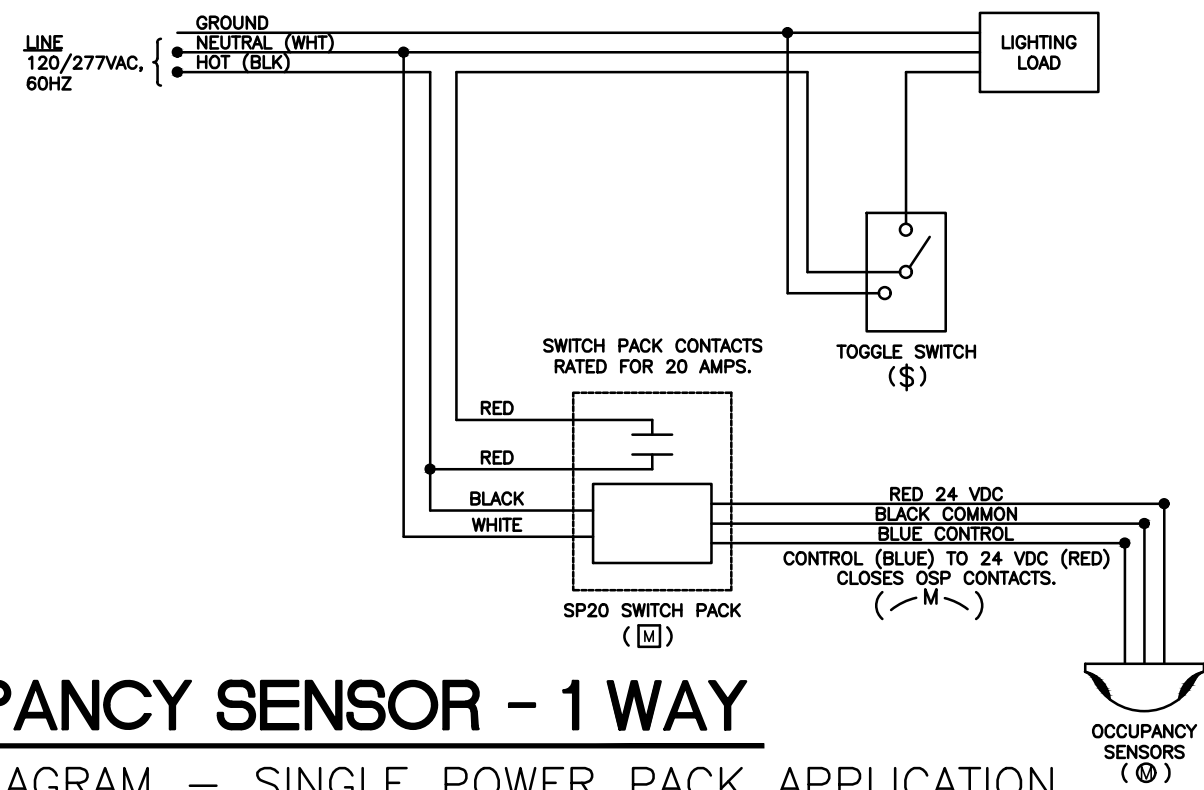
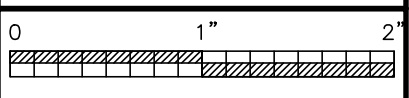
SHEET TITLE:  
MAIN FLOOR PLAN -  
LIGHTING

PROJ. MGR.: LANCE JUNKIN  
DRAWN: SEC  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:

E3.1

3 OF 8



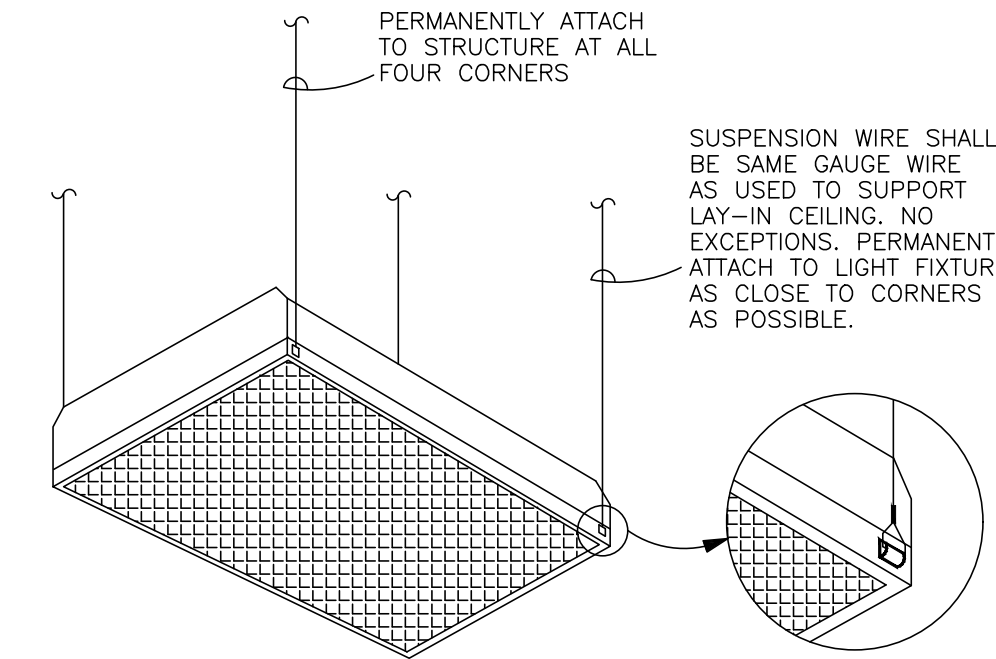
### OCCUPANCY SENSOR - 1 WAY

WIRING DIAGRAM - SINGLE POWER PACK APPLICATION

NOT TO SCALE

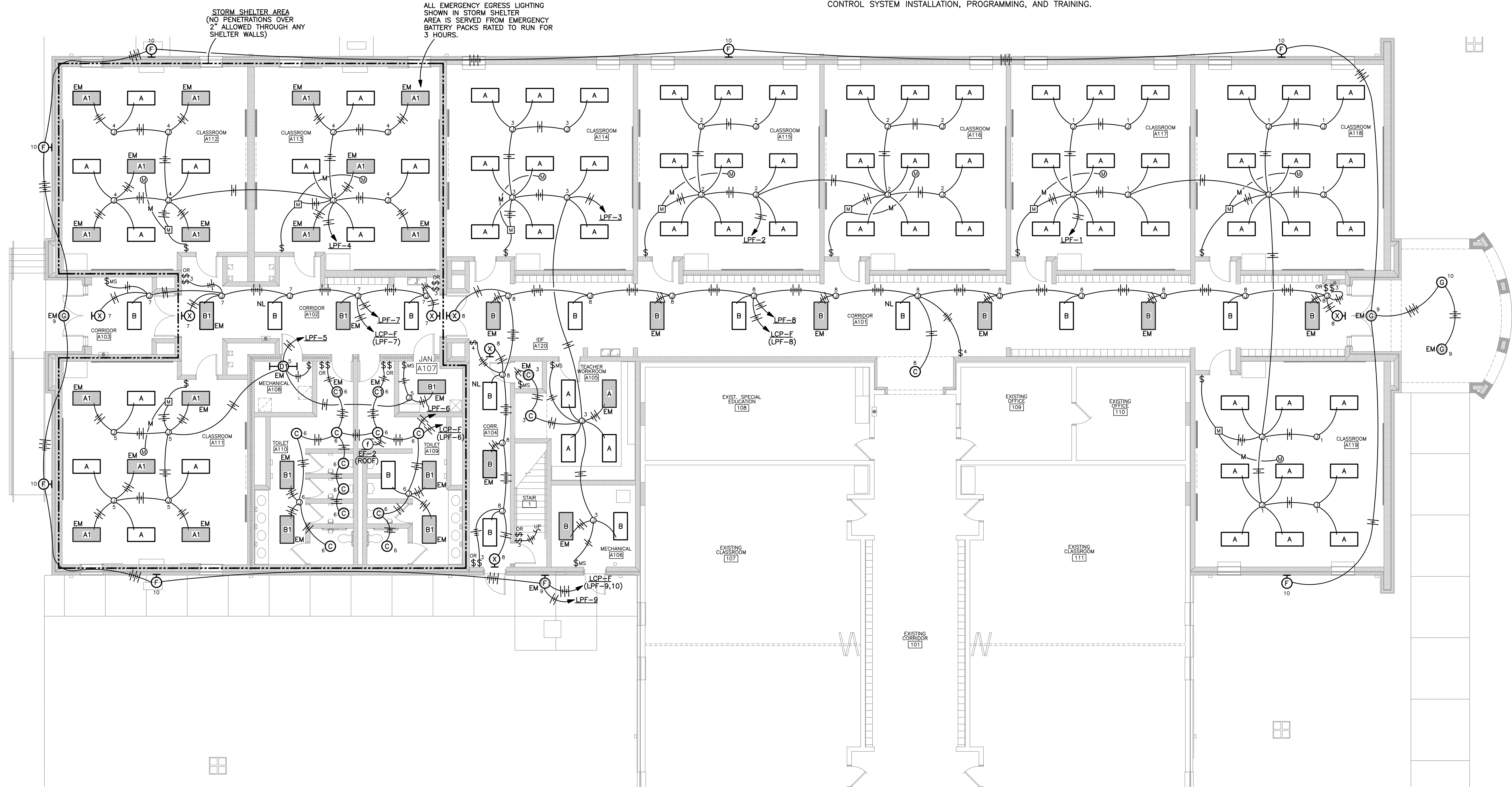
RELAY PANEL LCP-F		
R	PANEL	CIRCUIT
1	LPF	6
2	LPF	7
3	LPF	8
4	LPF	9
5	LPF	10
6	LPF	11
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
COOPER GREENGATE RELAY CABINET (NETWORKABLE) CONTROLKEEPER 16 (CKT16) WITH 16 RELAYS		

SITE VISIT NOTE:  
CONTRACTOR SHALL INCLUDE IN BID PRICE A TOTAL OF (3) SITE  
VISITS FROM FACTORY TRAINED REPRESENTATIVE FOR LIGHTING  
CONTROL SYSTEM INSTALLATION, PROGRAMMING, AND TRAINING.



### DETAIL - LIGHT FIXTURE SUPPORT

N.T.S.



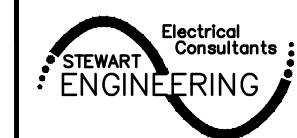
### MAIN FLOOR PLAN - LIGHTING

SCALE: 1/8" = 1'-0"

NOTES:  
1. ALL WIRING SHOWN FEEDING EXTERIOR FIXTURES SHALL BE #10 THHN.

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Phone: 256/237-0891  
Fax No.: 256/237-1077  
Email: services@stewartengineering.org



Engineer:  
J. Lance Junkin, P.E.  
Alabama Reg. 14817

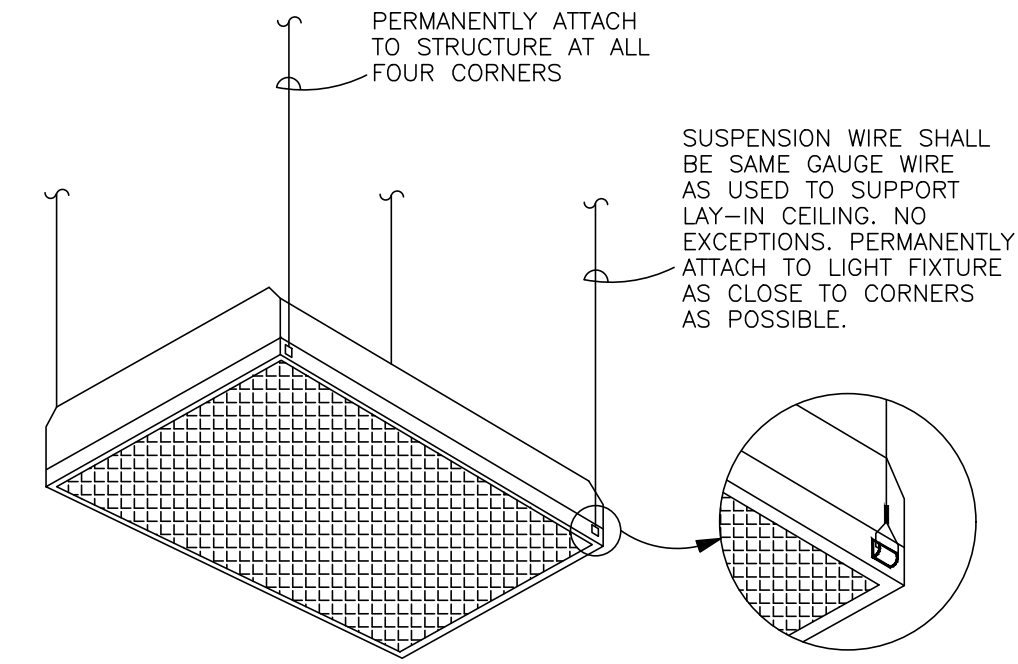
Project Number:  
22124



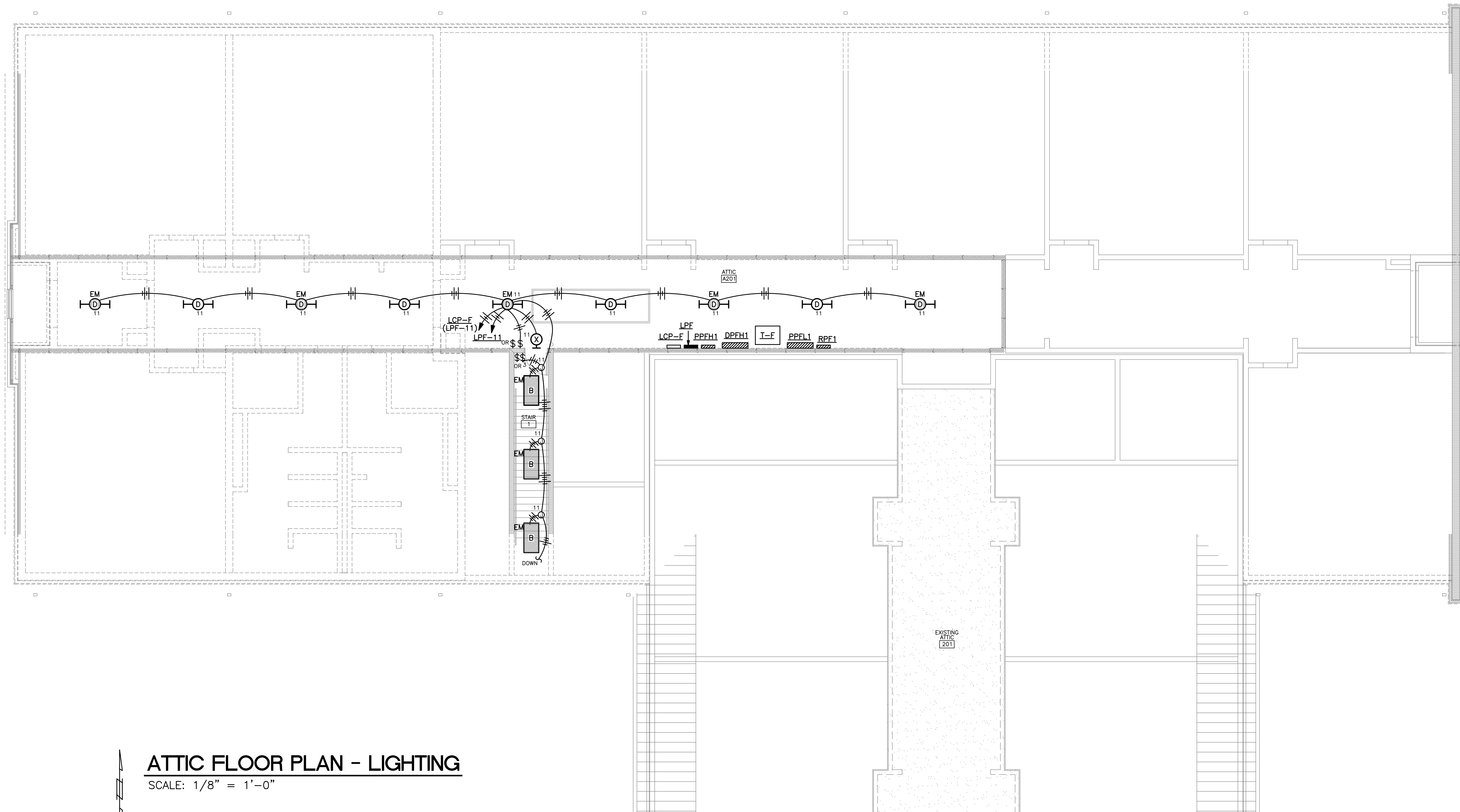


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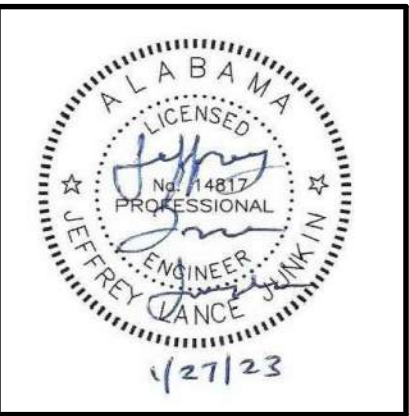
CLASSROOM ADDITION TO  
LINCOLN HIGH SCHOOL  
78989 AL HIGHWAY 77, LINCOLN, ALABAMA 35096  
TALLADEGA COUNTY BOARD OF EDUCATION



DETAIL - LIGHT FIXTURE SUPPORT  
N.T.S.



ATTIC FLOOR PLAN - LIGHTING  
SCALE: 1/8" = 1'-0"



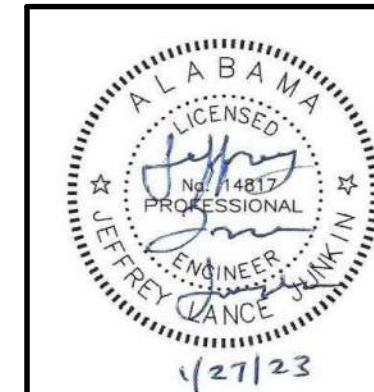
SHEET TITLE:  
ATTIC FLOOR PLAN -  
LIGHTING

PROJ. MGR.: LANCE JUNKIN  
DRAWN: SEC  
DATE: JANUARY 31, 2023  
REVISIONS

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Engineer: J. Lance Junkin, P.E. Alabama Reg. 14817	Project Number: 22124

JOB NO. 22-20  
SHEET NO:  
**E3.2**  
4 OF 8  
0 1" 2"





SHEET TITLE:

MAIN FLOOR PLAN -  
POWER

PROJ. MGR.: LANCE JUNKIN

DRAWN: SEC

DATE: JANUARY 31, 2023

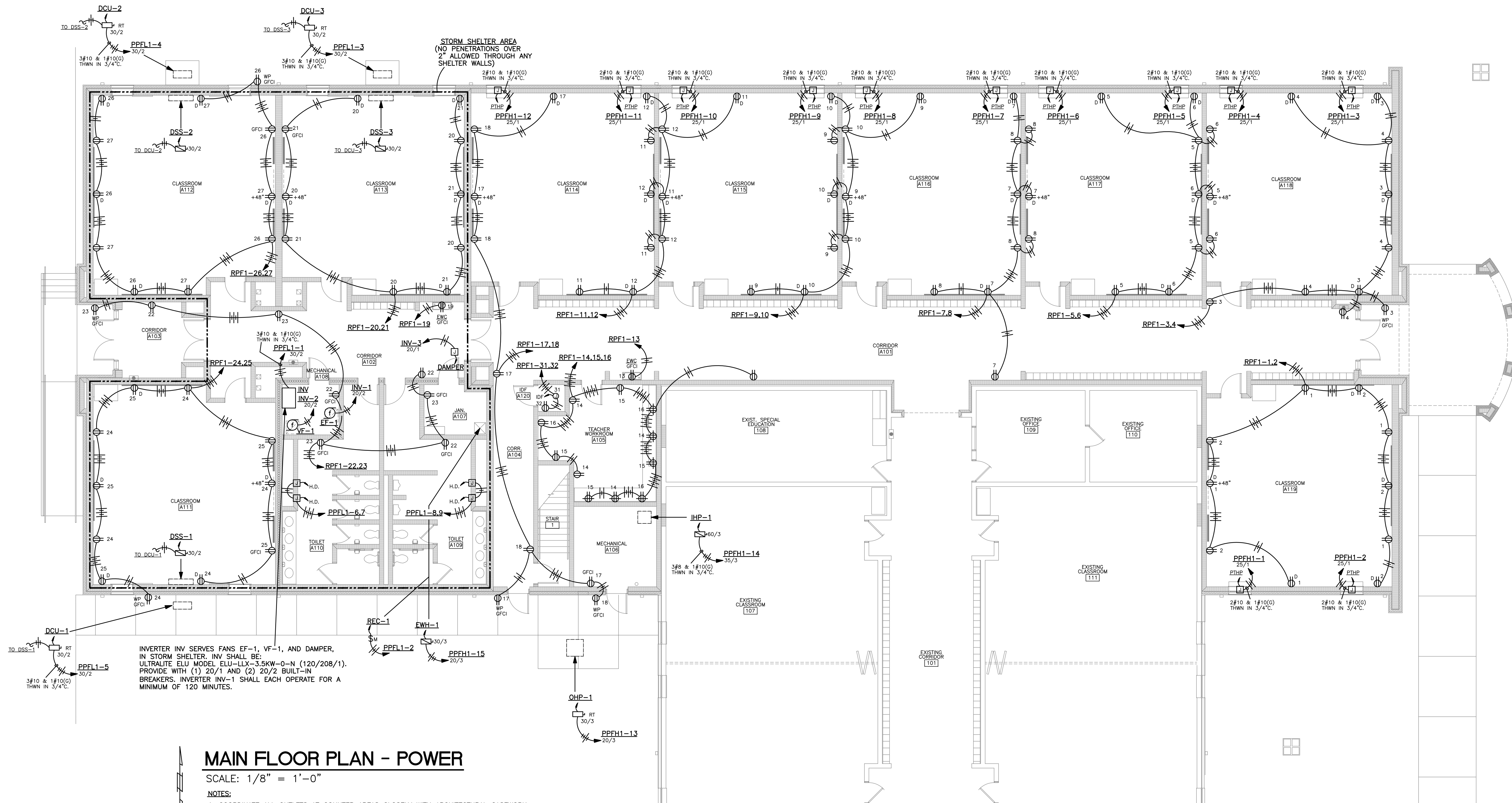
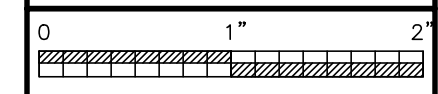
REVISIONS

JOB NO. 22-20

SHEET NO:

E4.1

5 OF 8



## MAIN FLOOR PLAN - POWER

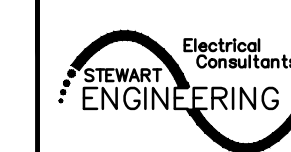
SCALE: 1/8" = 1'-0"

### NOTES:

- COORDINATE ALL OUTLETS AT COUNTER AREAS CLOSELY WITH ARCHITECTURAL CASEWORK DRAWINGS. PLACE OUTLETS BELOW COUNTERS, AT STANDARD MOUNTING HEIGHT, WHEN KNEE SPACE PERMITS ACCESS (COORDINATE INSTALLATION OF HOLES WITH RUBBER GROMMETS IN THOSE CASES).
- COORDINATE INSTALLATION OF OUTLETS CLOSELY WITH FURNITURE SUPPLIER.
- ALL BRANCH CIRCUIT HOME RUNS THAT EXCEED 100' IN LENGTH SHALL BE #10 THHN.

### STEWART ENGINEERING ELECTRICAL CONSULTANTS

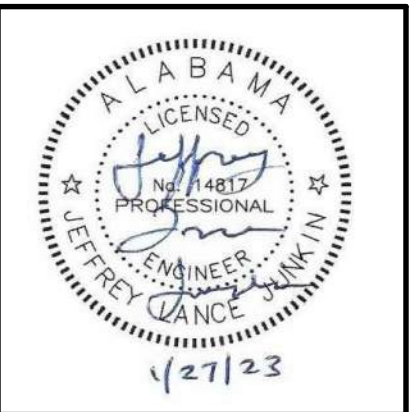
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Alabama Reg. 14817

Project Number:  
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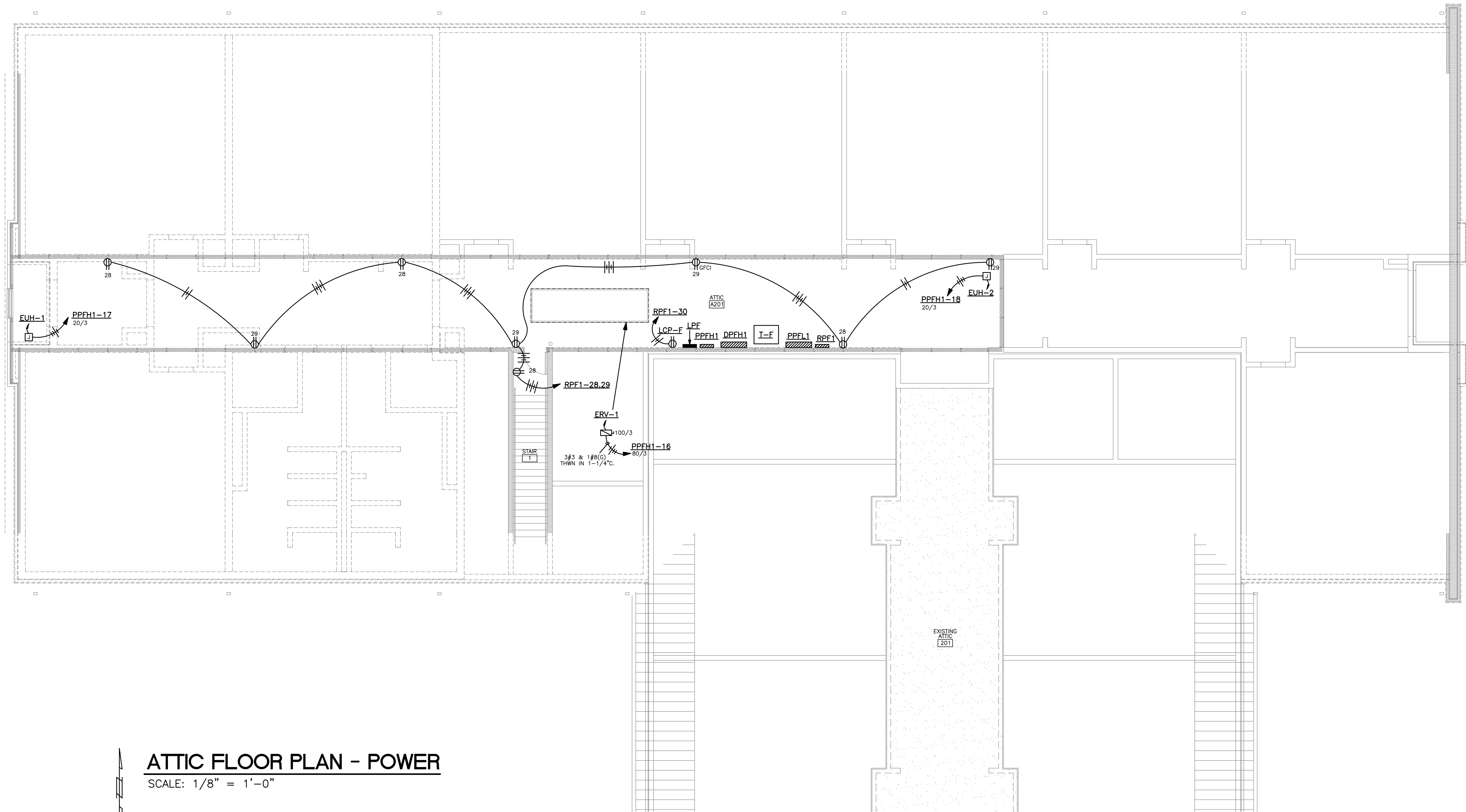


SHEET TITLE:  
ATTIC FLOOR PLAN -  
POWER

PROJ. MGR.: LANCE JUNKIN  
DRAWN: SEC  
DATE: JANUARY 31, 2023  
REVISIONS

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JOB NO. 22-20  
SHEET NO:  
**E4.2**  
6 OF 8  
0 1" 2"



**ATTIC FLOOR PLAN - POWER**  
SCALE: 1/8" = 1'-0"

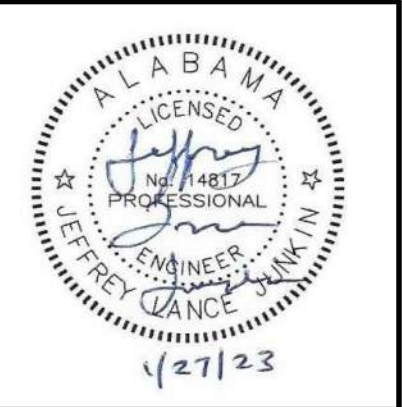
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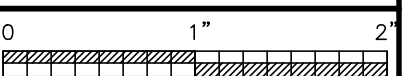
SHEET TITLE:  
MAIN FLOOR PLAN -  
AUXILIARIES

PROJ. MGR.: LANCE JUNKIN  
DRAWN: SEC  
DATE: JANUARY 31, 2023  
REVISIONS

JOB NO. 22-20  
SHEET NO:

E5.1

7 OF 8



OUTLET NUMBER:	ROOM NUMBER:
2A	113
IDF NUMBER:	PATCH PANEL/PORT #:
IDF-F	1/1

## DETAIL - DATA CABLE LABEL

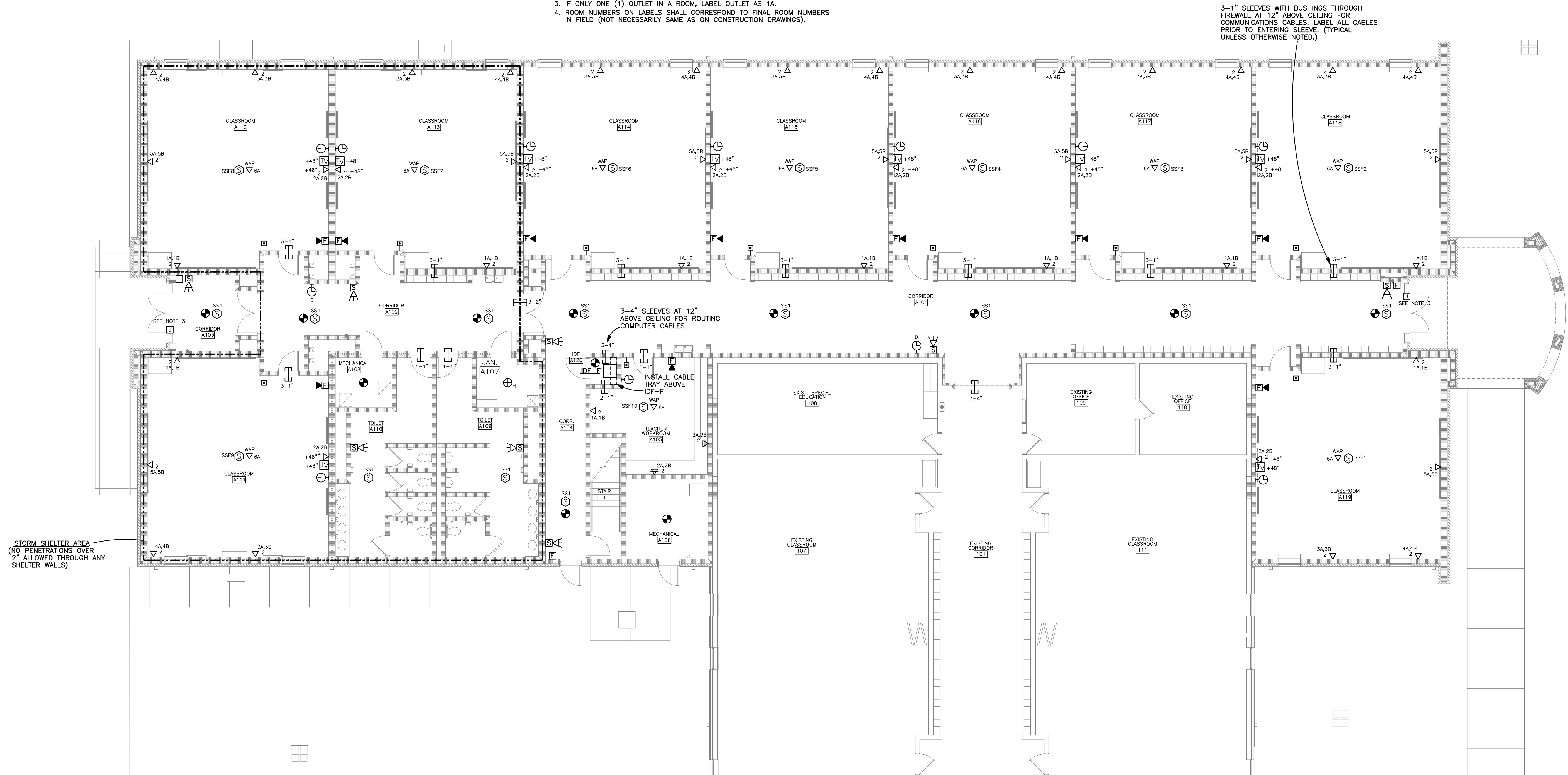
N.T.S.

### NOTES:

1. LABEL ALL CABLES EVERY 50' AND AT EACH END.
2. EXACT LABEL METHOD SHALL BE COORDINATED WITH, AND APPROVED BY, ENGINEER PRIOR TO PURCHASE AND INSTALLATION.
3. IF ONLY ONE (1) OUTLET IN A ROOM, LABEL OUTLET AS 1A.
4. ROOM NUMBERS ON LABELS SHALL CORRESPOND TO FINAL ROOM NUMBERS IN FIELD (NOT NECESSARILY SAME AS ON CONSTRUCTION DRAWINGS).

## AUXILIARY CIRCUIT LEGEND

- SS1  
SPEAKER - FED FROM COMMON ZONE SS1
- 2A  
DATA OUTLET 2A  
(1 CAT. 6 CABLE PULLED TO JUNCTION BOX  
AND TERMINATED, LEAVE 12" SLACK ON  
EACH CABLE)
- SSF10  
SPEAKER - FED FROM INDIVIDUAL ZONE SSF10



## MAIN FLOOR PLAN - AUXILIARIES

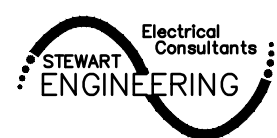
SCALE: 1/8" = 1'-0"

### NOTES:

1. ALL COMPUTER OUTLETS SHOWN ARE SERVED FROM NEW IDF-F.
2. COORDINATE FINAL LOCATIONS OF ALL CEILING SPEAKERS, SMOKE DETECTORS, ETC. TO AVOID CONFLICT WITH LIGHT FIXTURES AND MECHANICAL DIFFUSERS. PLACE THESE DEVICES AS CLOSE AS POSSIBLE TO LOCATION SHOWN ON THESE DRAWINGS. COORDINATE WITH FIRE ALARM SYSTEM MANUFACTURER WITH REGARD TO APPROPRIATE "MINIMUM" DISTANCE FROM DIFFUSERS.
3. AT THESE DOOR LOCATIONS, CONTRACTOR SHALL INSTALL EMPTY JUNCTION BOX WITH 3/4" EMPTY CONDUIT WITH PULL STRING TO ABOVE LAY-IN CEILING FOR FUTURE CARD ACCESS SYSTEM. COORDINATE CLOSELY WITH ARCHITECT FOR DOOR HARDWARE CONFIGURATION.

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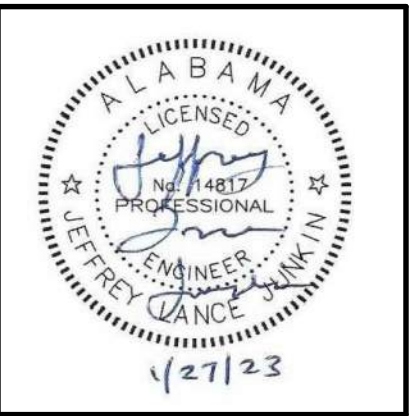
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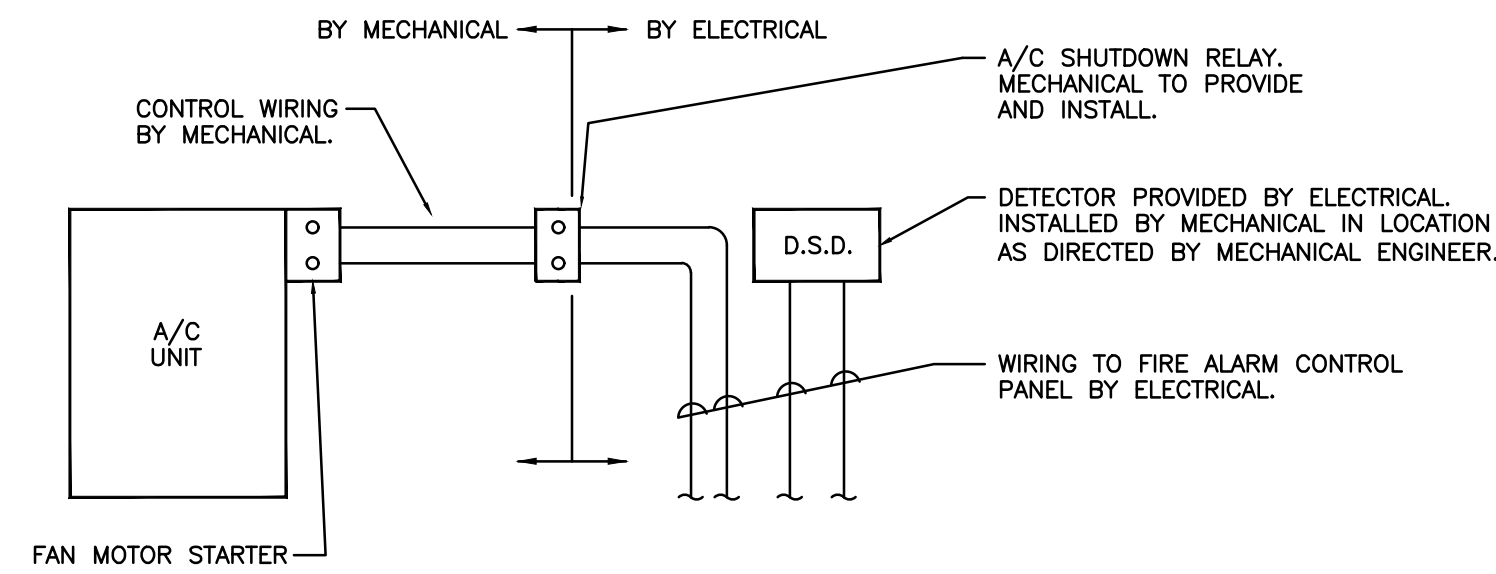
SHEET TITLE:  
  
ATTIC FLOOR PLAN -  
AUXILIARIES

PROJ. MGR.: LANCE JUNKIN
DRAWN: SEC
DATE: JANUARY 31, 2023
REVISIONS

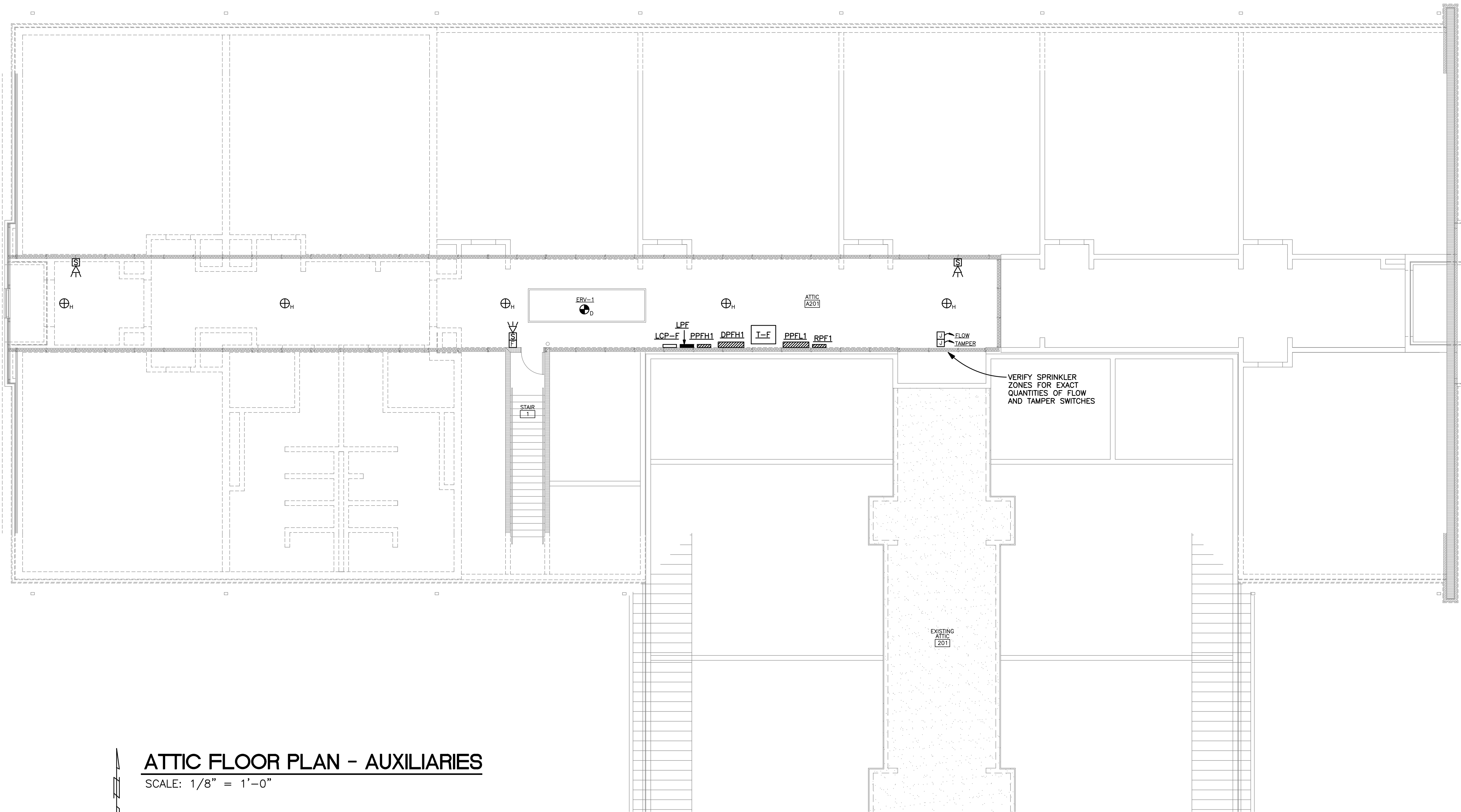
JOB NO. 22-20

SHEET NO:  
**E5.2**  
8 OF 8

01"2"



**DETAIL - DUCT SMOKE  
DETECTOR CONNECTION**  
N.T.S.



**ATTIC FLOOR PLAN - AUXILIARIES**  
SCALE: 1/8" = 1'-0"

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Electrical  
Consultants

STEWART  
ENGINEERING

Engineer:  
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