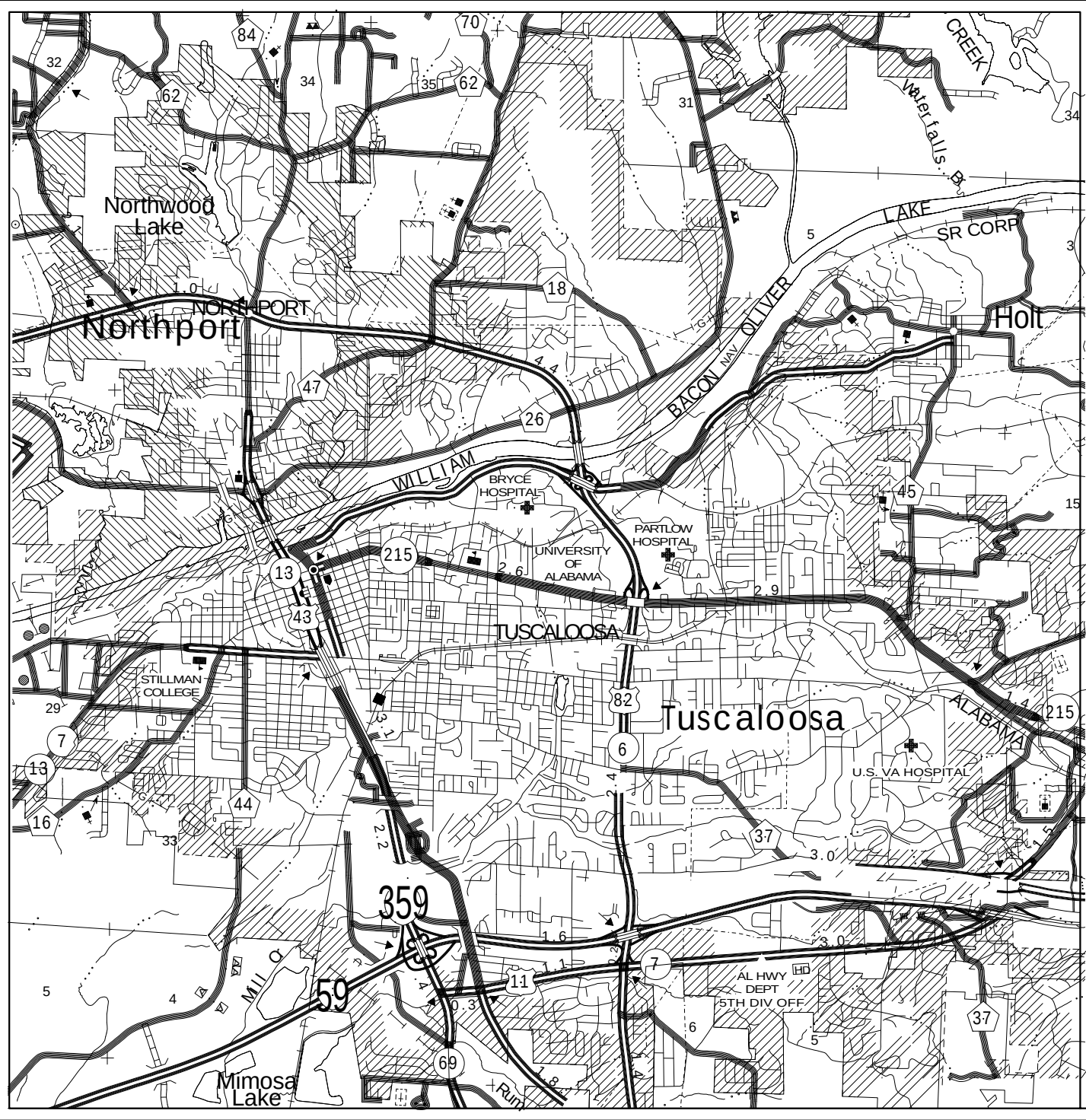


Phase 4 Storm Shelter Addition to:

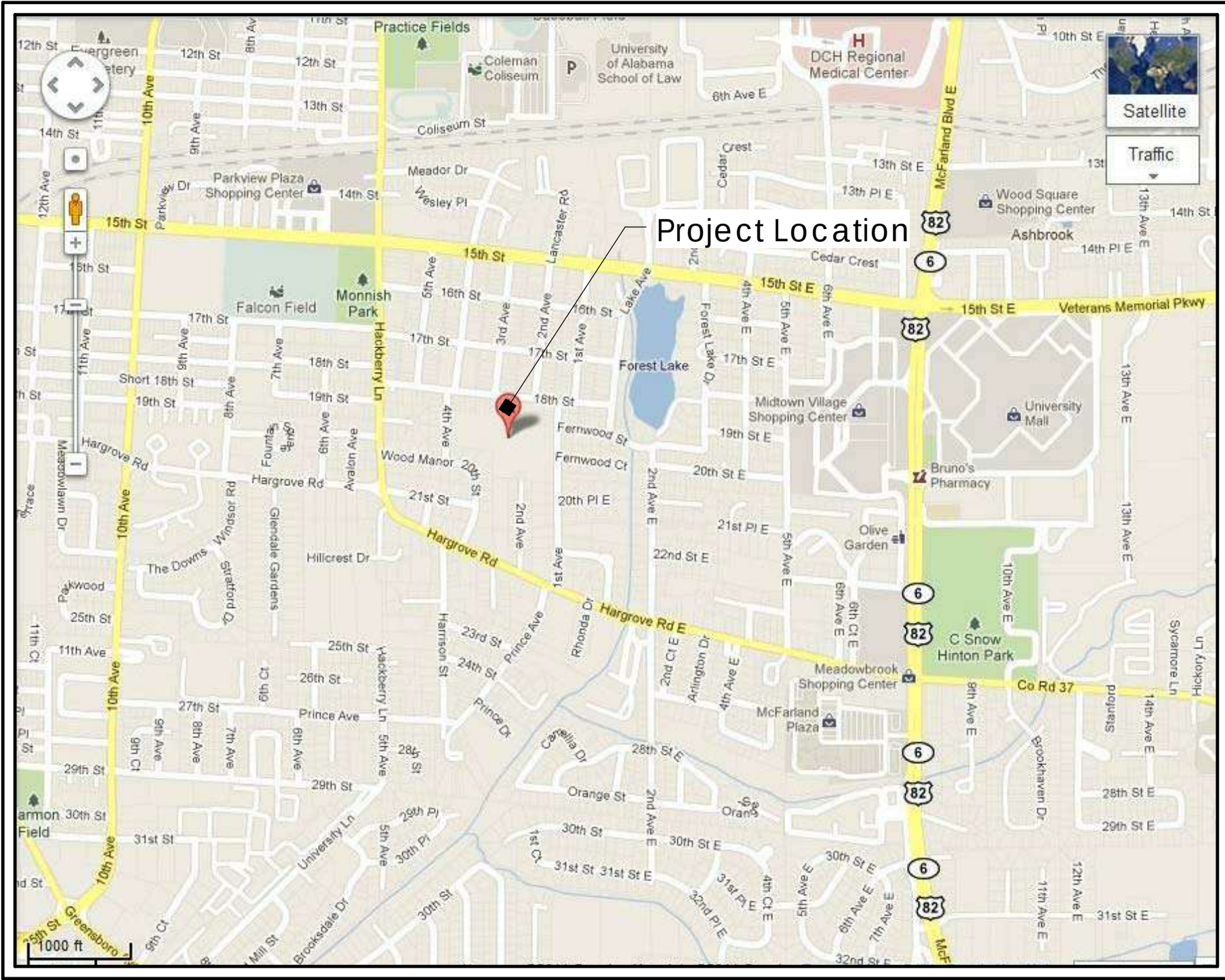
University Place Elementary School & University Place Middle School

Tuscaloosa City Board of Education
Tuscaloosa, Alabama



Vicinity Map of Tuscaloosa

Not to Scale



Vicinity Map of Area

Not to Scale

GENERAL NOTES

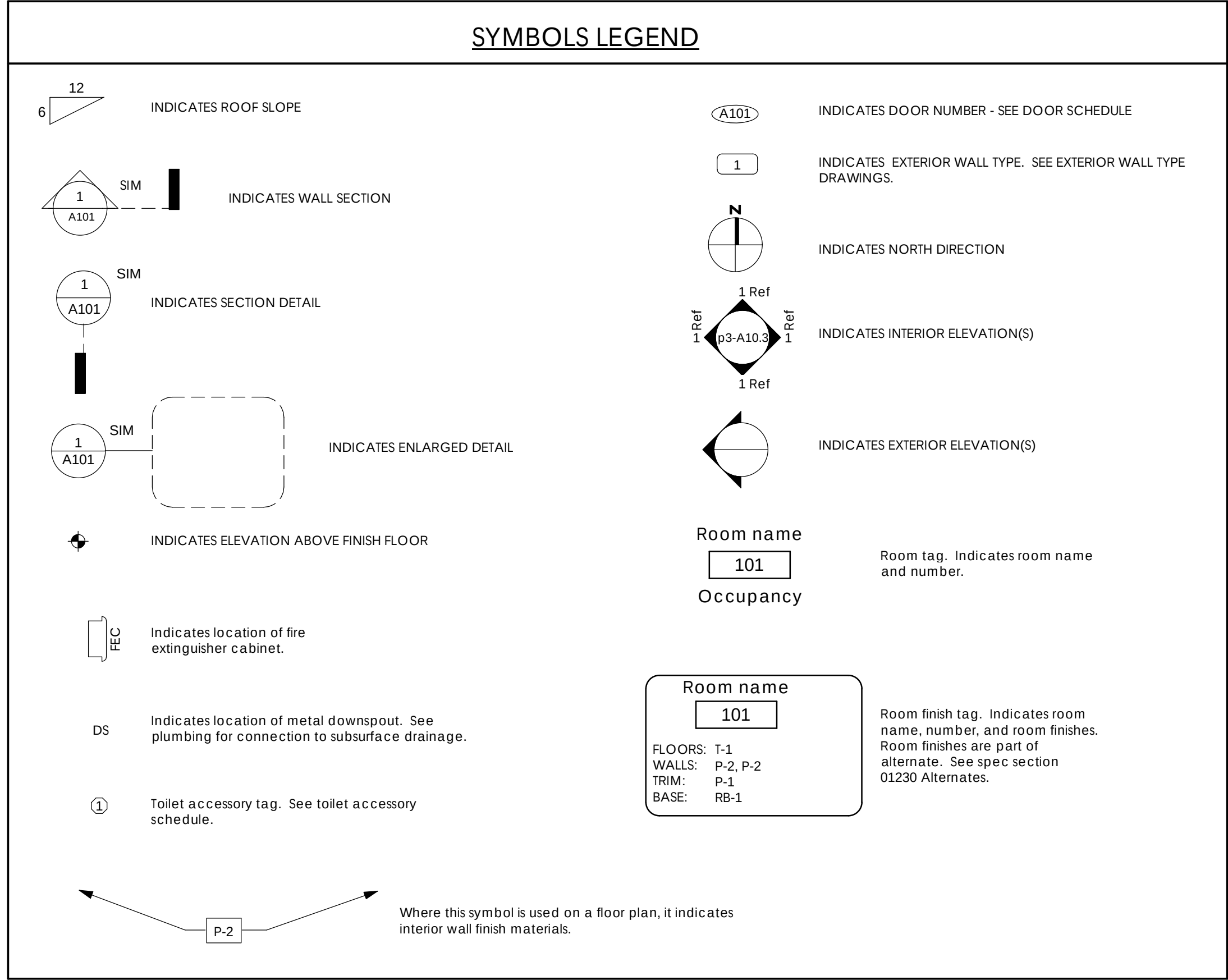
1. Completed construction shall comply with requirements of FEMA 361 and ICC 500 for Tornado Shelters as indicated in the Procurement Documents. Contractor and/or subcontractors shall visit property to verify existing conditions. Any discrepancies shall be brought to the attention of the Architect prior to submitting a bid.
2. All work shall conform to the requirements of the latest edition of the adopted International Building Code and of state and local authorities having jurisdiction.
3. All materials and equipment referred to in notes and keynote legends shall be new and furnished and installed under the work of this project unless noted otherwise to be furnished and installed by owner.
4. Contractors and/or subcontractors shall employ skilled workmen to perform all work in accordance with the best standards of work for all categories of work in the project.
5. Contractor and subcontractors shall coordinate their work with all other subcontractors to facilitate a smooth work progression.
6. Contractor and subcontractors shall secure the owner's approval of any substitutions prior to installation. Owner shall supply to Contractor any substitutions in prompt attentiveness to the progression of work.
7. Contractor shall obtain and pay for all required permits and approvals and shall notify and schedule all required inspections and approvals with the various authorities having jurisdiction.
8. Contractor shall provide and maintain suitable protection for all employees and the public and occupants during the course of the work, complying with all applicable job safety regulations.
9. Subcontractors shall remove from the site all debris, rubbish, and other materials resulting from their operations. All such material must be disposed of legally and contractor will be responsible for all fees associated with said removals and disposals. Subcontractor shall maintain the project site in a neat and safe condition at all times.
10. Contractor shall submit all samples and color selections to Architect for approval.
11. Contractor shall verify all dimensions prior to commencing any construction work and shall bring any discrepancies to the attention of the Architect.

Architect
Ellis Architects, Inc.
631 Helen Keller Blvd, Suite 300
Tuscaloosa, Alabama 35404
(205) 752-4420

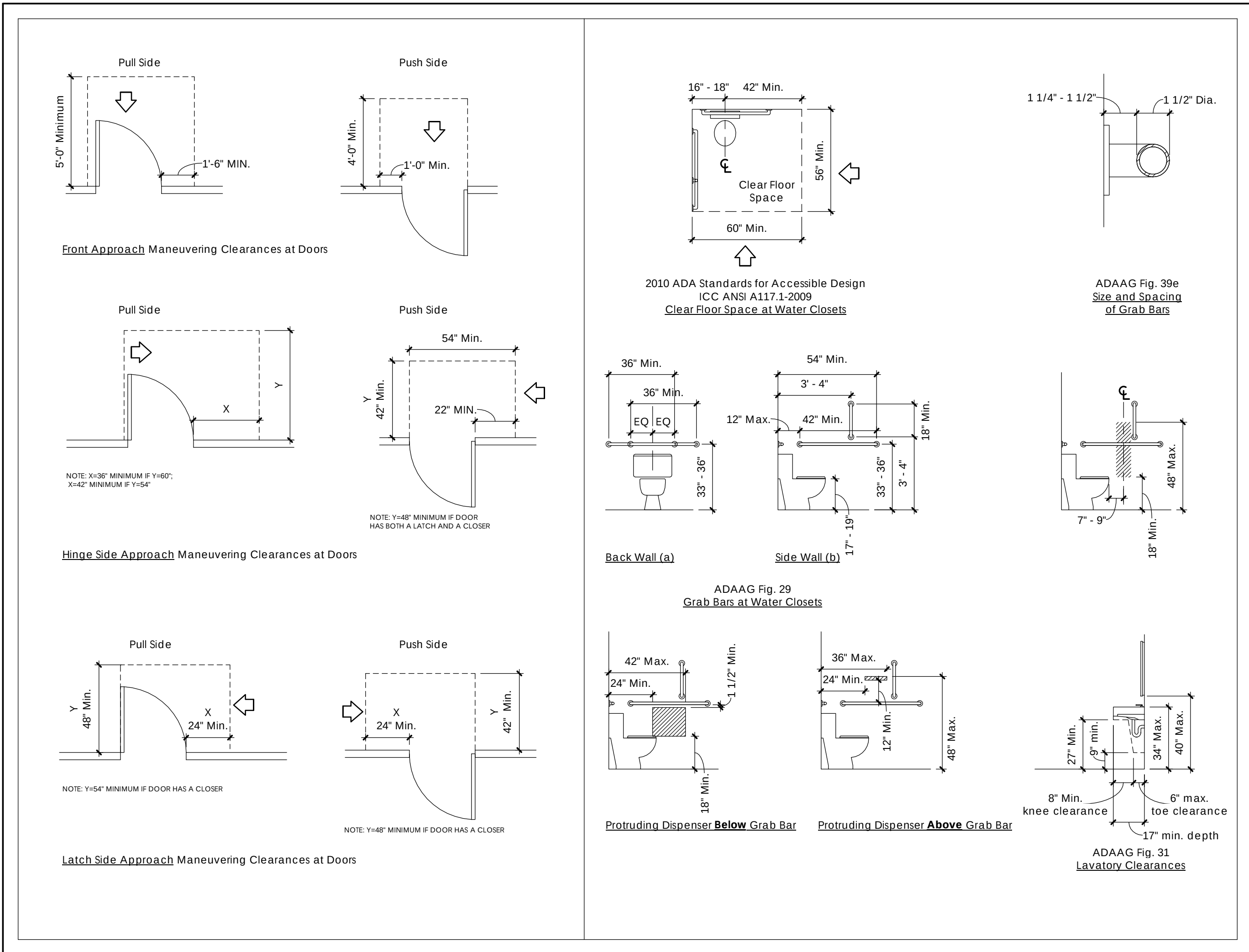
Mechanical/Plumbing/Electrical
R. H. Smith & Associates, P.C.
2110 8th Street
Tuscaloosa, AL 35401
(205) 345-4402

Structural
Barnett, Jones & Wilson Structural Engineers
125 18th Street North
Pell City, AL 351253
(205) 884-5334

Civil
Walker Associates, Inc.
917 22nd Avenue, Suite B
Tuscaloosa, Alabama 35401
(205) 561-3778



STANDARD ACCESS GUIDELINE DETAILS



ABBREVIATIONS

- **ADAAG** - AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES 2010 EDITION.
- **A.F.F.** - ABOVE FINISH FLOOR
- **ALUM** - ALUMINUM
- **BTM** - BOTTOM
- **CONFIG** - CONFIGURATION OR CONFIGURE
- **COORD** - COORDINATE
- **DS** - DOWNSPOUT
- **ECJ** - EIFS CONTROL JOINT
- **ELEV** - ELEVATION
- **EQ** - EQUAL
- **FEC** - FIRE EXTINGUISHER CABINET
- **FEMA** - FEDERAL EMERGENCY MANAGEMENT AGENCY
- **FEMA 361** - FEMA DESIGN AND CONSTRUCTION GUIDANCE FOR COMMUNITY SAFE ROOMS, SECOND EDITION/ AUGUST 2008. REFERENCES TO FEMA 361 IN THESE CONTRACT DOCUMENTS REQUIRE COMPLIANCE WITH FEMA 361'S TORNADO SHELTER REQUIREMENTS.
- **GYP** - GYPSONUM
- **HORIZ** - HORIZONTAL
- **HT** - HEIGHT
- **ICC** - INTERNATIONAL CODE COUNCIL
- **ICC 500** - ICC/ NSCA STANDARD FOR THE DESIGN AND CONSTRUCTION OF STORM SHELTERS. ICC 500 - 2008 EDITION.
- **INT** - INTERIOR
- **MEJ** - MASONRY EXPANSION JOINT
- **O.C.** - ON CENTER
- **OPP** - OPPOSITE
- **R.O.** - ROUGH OPENING
- **SCWD** - SOLID CORE WOOD
- **SMACNA** - SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
- **SQ** - SQUARE
- **TYP** - TYPICAL
- **WI** - WITH
- **WT** - WALL TILE
- **WWF** - WELDED WIRE FABRIC

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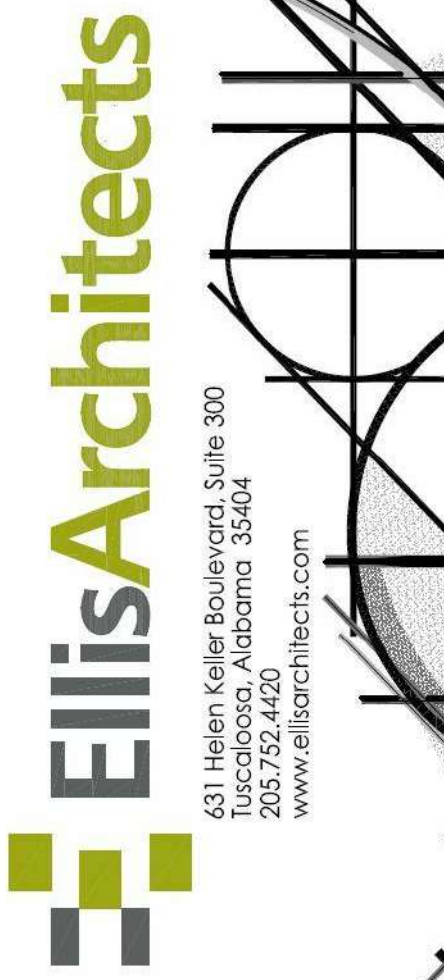
- P1.1 Plumbing Plans & Schedule

- MECHANICAL -

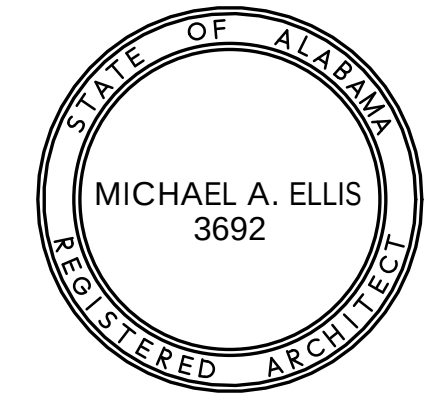
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Phase 4 Storm Shelter Addition to:
University Place Elementary School & University Place Middle School
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

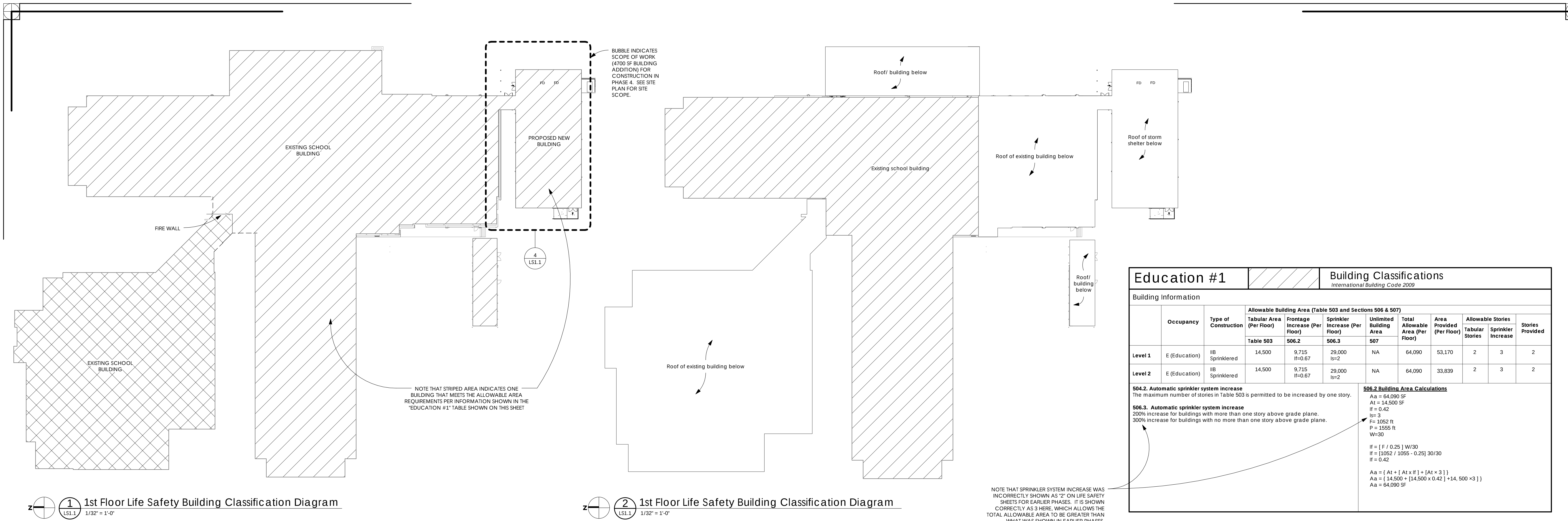


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JOB No.	11015E
DATE:	REV DATE:
05/17/2013	-
DRAWN BY:	JB
Title Sheet	
SHEET NUMBER	T1.0

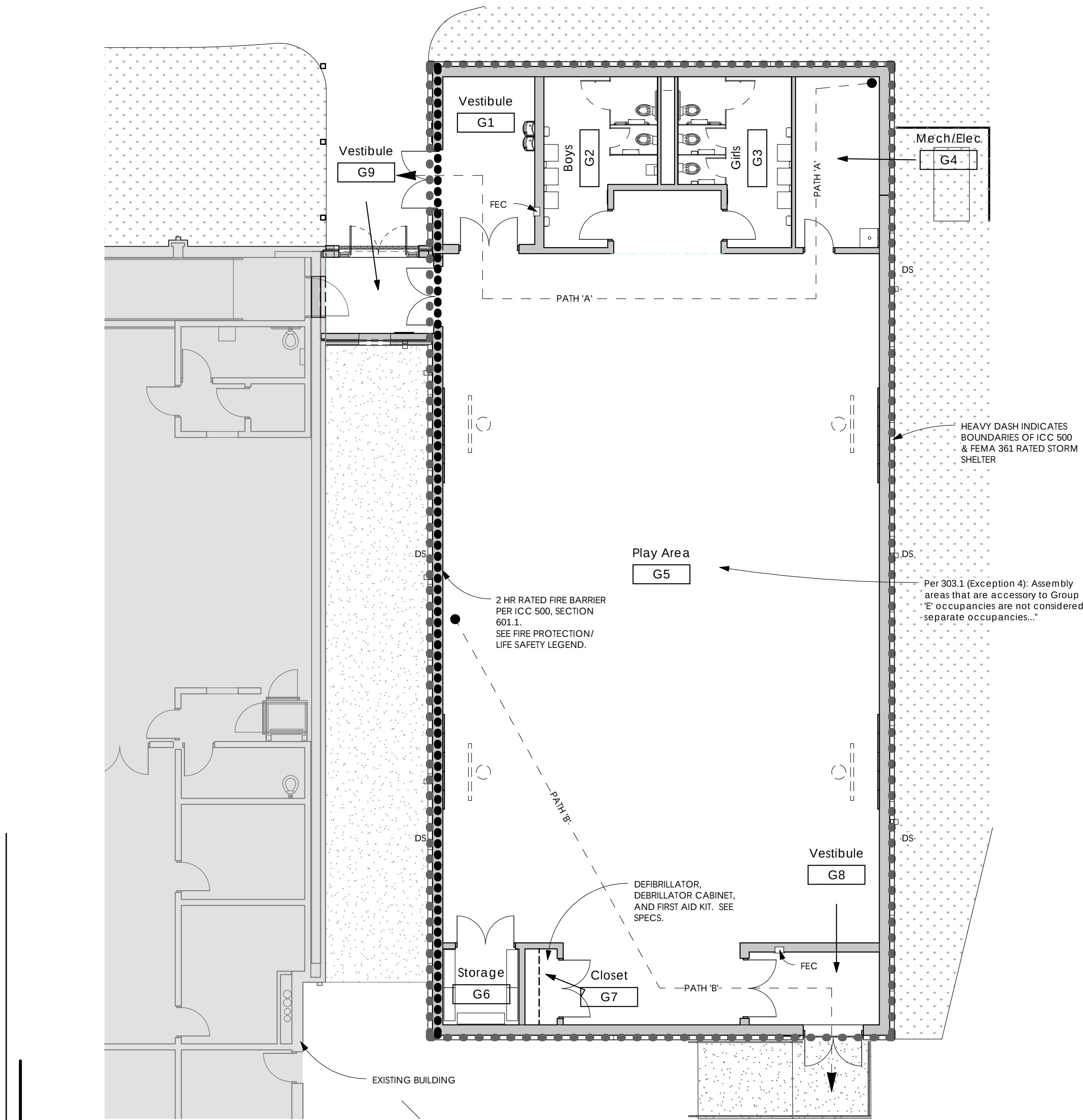
ABC Project Number: 2013091



Education #1			Building Classifications								
			International Building Code 2009								
Building Information											
	Occupancy	Type of Construction	Allowable Building Area (Table 503 and Sections 506 & 507)				Total Allowable Area (Per Floor)	Area Provided (Per Floor)	Allowable Stories		Stories Provided
			Tabular Area (Per Floor)	Frontage Increase (Per Floor)	Sprinkler Increase (Per Floor)	Unlimited Building Area			Tabular Stories	Sprinkler Increase	
			Table 503	506.2	506.3	507					
Level 1	E (Education)	IB Sprinklered	14,500	9,715 If=0.67	29,000 Is=2	NA	64,090	53,170	2	3	2
Level 2	E (Education)	IB Sprinklered	14,500	9,715 If=0.67	29,000 Is=2	NA	64,090	33,839	2	3	2
504.2. Automatic sprinkler system increase The maximum number of stories in Table 503 is permitted to be increased by one story.						506.2 Building Area Calculations Aa = 64,090 SF At = 14,500 SF If = 0.42 Is = 3 F = 1052 ft P = 1555 ft W = 30 If = [F / 0.25] W/30 If = [1052 / 1055 - 0.25] 30/30 If = 0.42 Aa = { At + [At x If] + [At x 3] } Aa = { 14,500 + [14,500 x 0.42] + 14,500 x 3 } Aa = 64,090 SF					
506.3. Automatic sprinkler system increase 200% increase for buildings with more than one story above grade plane. 300% increase for buildings with no more than one story above grade plane.											

1 1st Floor Life Safety Building Classification Diagram
1/32" = 1'-0"

2 1st Floor Life Safety Building Classification Diagram
1/32" = 1'-0"



4 Life Safety Plan
1/8" = 1'-0"

ABC Required Storm Shelter Occupant Load & Area for New Schools per Alabama Building Commission & ICC 500.

Per Alabama Building Commission Memo Dated July 29, 2010. The following is provided for informational purposes only, at the request of the Alabama Building Commission (ABC). University Place is not a new school.

ABC Required Occupant Load for New School Safe Rooms: = 1,710 (includes 1,701 standing or seated spaces and 9 wheelchair spaces per ICC 500, 501.1.1 and 501.1.3. Includes 1554 students & 156 faculty & admin.)

Proposed / FEMA Funded Occupant Load: = 610 (Per FEMA 361, table 3-1. Includes 5 wheelchair spaces at 10 SF each and 905 standing or seated occupants at 5 SF each. Elem School enrollment was 465 and Middle School enrollment was about 170 before the storm, for a total enrollment of 735).

ABC Required Usable Floor Area for New School Safe Rooms: 8,595 SF (Per ICC 500, 501.1.2.2)

Proposed / FEMA Funded Usable floor area: 4,077 SF

*Required floor area is calculated per ICC 500 table 501.1.1 and FEMA 361 table 3-1.

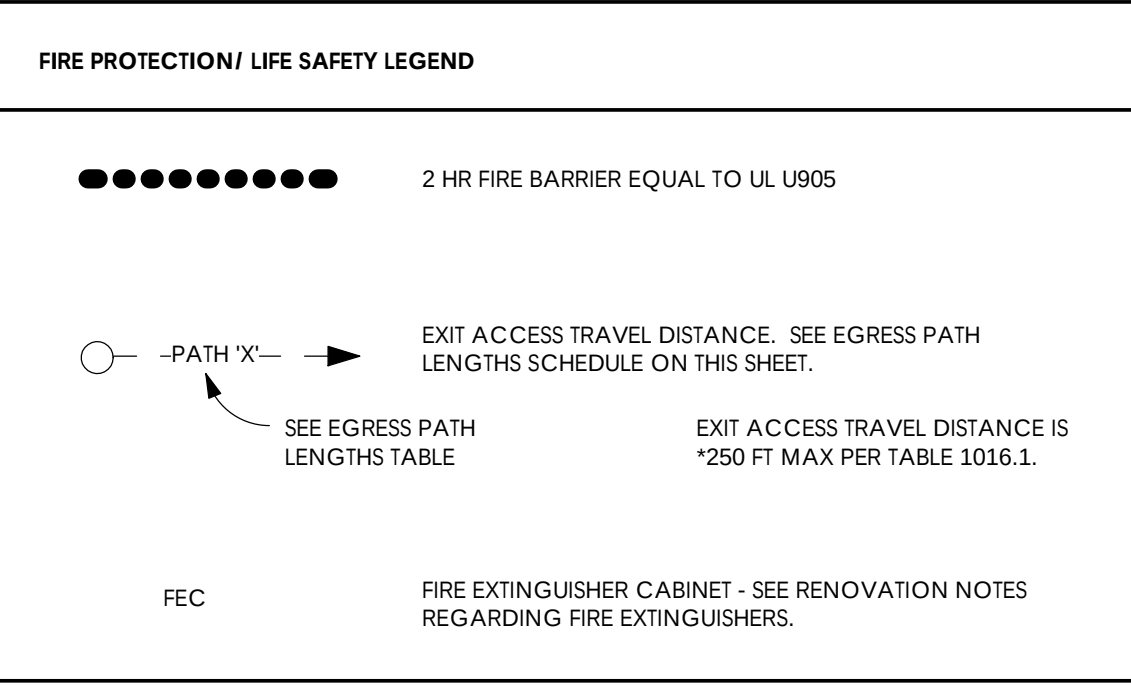
Education #2			Building Classifications								
			International Building Code 2009								
Building Information											
	Occupancy	Type of Construction	Allowable Building Area (Table 503 and Sections 506 & 507)				Total Allowable Area (Per Floor)	Area Provided (Per Floor)	Allowable Stories		Stories Provided
			Tabular Area (Per Floor)	Frontage Increase (Per Floor)	Sprinkler Increase (Per Floor)	Unlimited Building Area			Tabular Stories	Sprinkler Increase	
			Table 503	506.2	506.3	507					
Level 1	E (Education)	IIIB Sprinklered	14,500	9,715 If=0.67	43,500 Is=3	NA	67,715	20,633	2	3	1
504.2. Automatic sprinkler system increase							506.2 Frontage increase calculation				
The maximum number of stories in Table 503 is permitted to be increased by one story.							If = (F/P - 0.25) W/30 If = ((1319/1432) - 0.25) (30/30) If = 0.67				
506.3. Automatic sprinkler system increase											
200% increase for buildings with more than one story above grade plane.											
300% increase for buildings with no more than one story above grade plane.											

p4-Rooms Occupant Loads						
Room Occupant Loads						
Room #	Room Name	Function of Space	SF Per Person	Room Capacity	Req'd Exit Access Width	
G1	Vestibule	Assembly - 3	172	7	25	5.0
G4	Mech/Elec	Storage	159	300	1	0.2
G5	Play Area	Assembly - 3	3581	7	512	102.4
G6	Storage	Storage	64	300	1	0.1
G7	Closet	Storage	27	300	1	0.1
G8	Vestibule	Assembly - 3	105	7	16	3.1
G9	Vestibule	Assembly - 3	94	7	14	2.8

Means of Egress Requirements						
International Building Code 2009						
Based on Normal Use Occupancy						
Occupant Load	Minimum No. of Exits Required	Number of Exits Provided	Minimum Exit Width Required	Exit Width Provided	Minimum Stair Width Provided	Maximum Distance to Exits Allowed
570	3	-	9'-6"	18'-0"	N/A	250 feet
As per tables 1005.1, 1014.1, 1015.1, 1016.1, 1018.1						

Fire Resistance Requirements			
International Building Code 2009			
Building Type II-B Sprinklered	Code Section	Rating Required	Rating Provided
Primary Structural Frame -including columns, girders, & trusses	Table 601	0	0
Bearing Walls Exterior	Table 601	0	0
Nonbearing Walls and Partitions Exterior	Table 601	0	0
Nonbearing Walls and Partitions Interior	Table 601	0	0
Roof Construction -including supporting beams & joists	Table 601	0	0
Exterior Walls Up to 10 Ft From Fire Walls	Table 602	1	1
Corridor Walls	Table 1018.1	0	0
Vertical Exit Enclosures Interior Walls	707.3.2 & 1022.1	1	1
Exterior Walls	707.4 & 1022.6	1	1

PLUMBING FIXTURE REQUIREMENTS												
*ONLY SHOWS PLUMBING FIXTURE REQUIREMENTS FOR PHASE 4 ADDITION												
TOTAL	MALE WATER CLOSETS		FEMALE WATER CLOSETS		MALE LAVS		FEMALE LAVS		DRINKING FOUNTAINS		SERVICE SINKS	
	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
	3	3	3	3	3	3	3	3	2	2	1	1



EGRESS PATH LENGTHS	
Path	Distance
A	83'-5"
B	71'-8"

EllisArchitects

631 Helen Keller Boulevard, Suite 300
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www.ellisarchitects.com

Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

STATE OF ALABAMA
REGISTERED ARCHITECT
MICHAEL A. ELLIS
3692

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JOB No. 11015E

DATE: 05/17/2013
REV DATE: 08/09/11
DRAWN BY: JJB

Life Safety Plan

SHEET NUMBER LS1.1

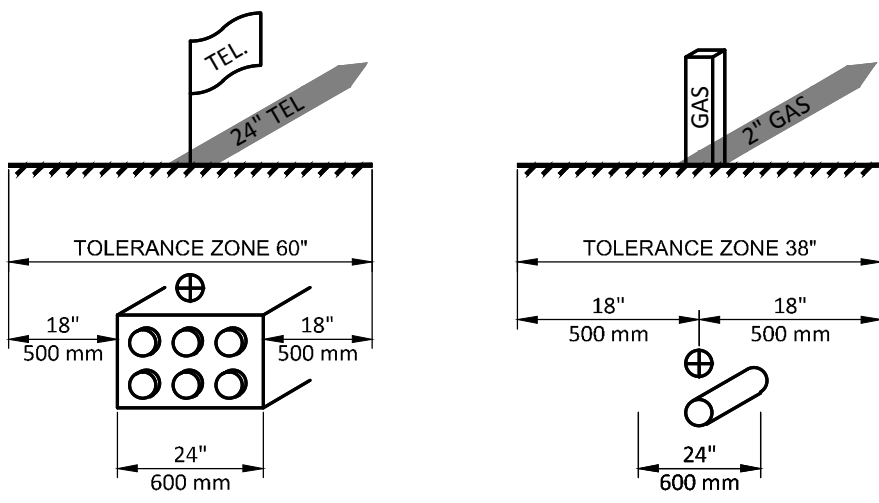
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EXISTING UTILITY NOTES

APWA UNIFORM COLOR CODE FOR MARKING UNDERGROUND UTILITY LINES

WHITE - Proposed excavation
Pink - Temporary survey markings
RED - Electric Power Lines, Cables, Conduit and Lighting Cables
YELLOW - Gas, Oil, Steam, Petroleum or Gaseous Materials
BLUE - Potable Water
PURPLE - Reclaimed Water, Irrigation and Slurry Lines
GREEN - Sewers and Drain Lines

811 "know what's below, call before you dig."



ANY EXCAVATION WITHIN THE TOLERANCE ZONE SHOULD BE PERFORMED WITH NON-POWERED HAND TOOLS OR NON-INVASIVE METHODS UNTIL THE MARKED FACILITY IS EXPOSED. THE WIDTH OF THE TOLERANCE ZONE MAY BE SPECIFIED BY LAW OR CODE. IF NOT, 500 mm (18") IS REQUIRED FROM EACH SIDE OF THE FACILITY. THE TOLERANCE ZONE INCLUDES THE WIDTH OF THE FACILITY PLUS 18" (500 mm) MEASURED HORIZONTALLY FROM EACH SIDE OF THE FACILITY.



UTILITY COMPANY CONTACTS

POWER
ALABAMA POWER COMPANY
CONTACT: MR. JAMES RAYMOND
915 QUEEN CITY AVENUE
TUSCALOOSA, AL 35401
(205) 349-6744
(800) 888-2726 (POWER OUTAGE)

POWER TRANSMISSION
ALABAMA POWER COMPANY
CONTACT: MR. JOE EDMONDSON
915 QUEEN CITY AVENUE
TUSCALOOSA, AL 35401
(205) 349-6803

CABLE
COMCAST CABLE
CONTACT: MR. DANIEL HOLT
CONSTRUCTION COORDINATOR
1131 WHIGHAM PLACE
TUSCALOOSA, AL 35405
OFFICE: (205) 391-3687
MOBILE: (205) 233-4181

PHONE
AT&T/BELLSOUTH
CONTACT: MR. REGGIE LUNCEFORD
OR: MR. PAUL JONES
1121 BUTTERMILK ROAD
COTTONDALE, AL 35453
(205) 348-1050
(800) 292-4008 (AFTER HOURS/HOLIDAYS)

GAS
ALAGASCO
CONTACT: MR. JOHN PRICE
5220 METRO PARK DRIVE
TUSCALOOSA, AL 35401
(205) 348-1050
(800) 292-4008 (AFTER HOURS/HOLIDAYS)

CITY OF TUSCALOOSA

TRANSPORTATION
OFFICE OF THE CITY ENGINEER (OCE)
CITY ENGINEER
CONTACT: MR. DAVID GRIFFIN, P.E.
1000 28TH AVENUE
TUSCALOOSA, AL 35401
(205) 248-5380

WATER DISTRIBUTION SYSTEM
OFFICE OF THE CITY ENGINEER (OCE)
WATER DISTRIBUTION ENGINEER
CONTACT: MS. KIMBERLY MICHAEL, P.E.
2021 UNIVERSITY BOULEVARD
TUSCALOOSA, AL 35401
(205) 248-5380

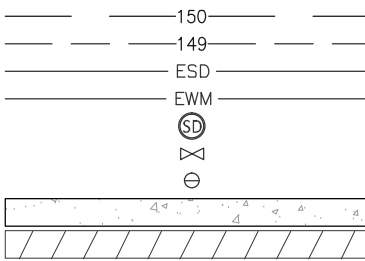
SANITARY SEWER SYSTEM
OFFICE OF THE CITY ENGINEER (OCE)
WASTEWATER ENGINEER
CONTACT: MR. DANIEL PRICE, P.E.
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OFFICE OF THE CITY ENGINEER (OCE)
STORM DRAINAGE ENGINEER
CONTACT: MR. CHAD CHRISTIAN, P.E.
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TUSCALOOSA DEPARTMENT OF TRANSPORTATION
TDOT DIRECTOR
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(205) 248-5800

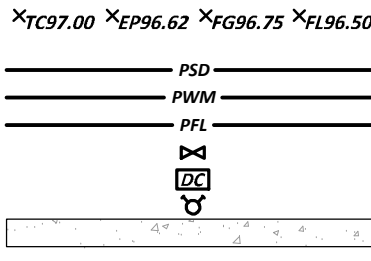
SURVEY LEGEND

(Topographic Survey Completed by Faulkner Surveying, Dated 2/22/13)



EXISTING CONTOUR 5' INTERVAL
REQUIRED CONTOUR 1' INTERVAL
EXISTING STORM DRAIN
EXISTING WATER MAIN
EXISTING STORM MANHOLE
EXISTING WATER VALVE
EXISTING FIRE HYDRANT
EXISTING CONCRETE
EXISTING BUILDING

PROJECT LEGEND



REQUIRED CONTOUR 1' INTERVAL
REQUIRED TOP OF CURB, EDGE OF PAVEMENT,
FINISHED GRADE, FLOWLINE
REQUIRED STORM DRAIN
REQUIRED WATER MAIN
REQUIRED FIRE LINE
REQUIRED WATER VALVE
REQUIRED DETECTOR OR CHECK & VAULT
REQUIRED POST MOUNTED SIAMENSE CONNECTION
REQUIRED CONCRETE

GENERAL PROJECT NOTES

1. ANY EXISTING PROPERTY CORNERS (I.E. IRON PIPES, CAPPED PIPES, CAPPED MONUMENTS, ETC.) DISPLACED OR DAMAGED DURING CONSTRUCTION SHALL BE RESET. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
2. THE CONTRACTOR MUST MAINTAIN ACCESSIBLE DRIVES AND PUBLIC ROADWAYS. ANY ADDITIONAL STONE, GRADING, INSTALLATION, ETC. TO MAKE SIDEWALKS, DRIVES, AND ROADWAYS ACCESSIBLE DURING CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN.
3. THE CONTRACTOR SHALL KEEP THE PROJECT RIGHT-OF-WAYS CLEAR FROM TRASH AND DEBRIS. PLACEMENT/DISCARDING OF TRASH AND REFUSE IN UTILITY TRENCHES AND/OR OTHER EXCAVATIONS ASSOCIATED WITH THE PROJECT SHALL BE PROHIBITED. THE CONTRACTOR SHALL PROVIDE TRASH RECEPTACLES FOR WORKER USE. THE ROADWAYS AND SIDEWALKS SHALL BE SWEEPED AND WASHED DOWN DAILY, NO EXCEPTIONS, TO LIMIT THE TRACKING OF DIRT THROUGH THE PROJECT. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN.
4. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES IN THIS SET OF PLANS ARE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE AND FOR THE VARIOUS ITEMS OF WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL INCLUDE THE COST FOR LOCATING, UNCOVERING, AND PROTECTING UNDERGROUND UTILITIES IN HIS PRICE AND FOR THE VARIOUS ITEMS OF WORK.
5. CONFLICTS MAY ARISE BETWEEN EXISTING AND PROPOSED UNDERGROUND FACILITIES. WHEN THESE CONFLICTS ARE IDENTIFIED, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE. ADJUSTMENTS AS SPECIFIED BY THE OWNER'S REPRESENTATIVE SHALL BE MADE IN THE PROPOSED AND/OR EXISTING FACILITIES.
6. AT THE END OF THE PROJECT THE CONTRACTOR SHALL POWER WASH ALL CONCRETE SURFACES (I.E. CURB AND GUTTERS, SIDEWALK, DRIVE, STORM SEWER BODIES, ETC.) WITHIN THE TEMPORARY WORK RESTRICTION ZONES TO ELIMINATE STANDING FROM EARTHEN MATERIAL, CONSTRUCTION EQUIPMENT, OILS, PAINTS, ETC. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE GIVEN.
7. EXISTING LANDSCAPED AREAS PARALLEL TO THE PROJECT IMPACTED/DAMAGED DURING CONSTRUCTION SHALL BE RETURNED TO THEIR ORIGINAL CONDITION. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE PROJECT.
8. THE CONTRACTOR SHALL PROVIDE ALL STAKING FOR THE PROJECT.
9. ALL PROPOSED ACCESSIBLE RAMPS AND SIDEWALKS SHALL BE ADA COMPLIANT.
10. ALL TEMPORARY STONES FOR ROADWAY, SIDEWALK, DRIVES, ETC. SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. NO TEMPORARY STONES SHALL BE WASTED ON THE SITE SPECIFICALLY IN THE FINAL SUBGRADE LAYER AND TOPSOIL. EXCESSIVE STONE WILL INHIBIT THE GROWTH OF THE LANDSCAPE. ALL STONE SHALL BE REMOVED FROM AREAS TO RECEIVE TOPSOIL, NO EXCEPTIONS. IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO FULLY REMOVE THESE TEMPORARY MATERIALS AS THE PROJECT IS COMPLETED. THIS APPLIES TO ALL MATERIALS, EQUIPMENT, ETC. THE CONTRACTOR TRANSPORTS TO THE PROJECT, NO EXCEPTIONS. THERE SHALL BE NO WASTING OF TEMPORARY STONE, CONCRETE, MATERIALS ON SITE, NO EXCEPTIONS.
11. THE CONTRACTOR SHALL INSTALL TEMPORARY ASPHALT PATCHING WITHIN 24 HOURS AFTER THE COMPLETED INSTALLATION OF UTILITY CROSSINGS ON ROADWAYS OPEN TO TRAFFIC. IF THE ROADWAY IS CLOSED TO TRAFFIC THEN ALL ASPHALT CUT LOCATIONS SHALL BE PATCHED BEFORE THE ROADWAY IS REOPENED. THE CONTRACTOR SHALL NOT BE ALLOWED TO INSTALL ALL UTILITIES AND THEN TEMPORARY ASPHALT PATCH ALL AT ONE TIME. TEMPORARY ASPHALT PATCHING MUST OCCUR PERIODICALLY PHASED AS REFERENCED ABOVE. IN NO CASE SHALL THE ASPHALT CUTTING AND PATCHING DISRUPT NORMAL SCHOOL PATTERNS AND TRAFFIC FLOW.
12. WHEN TEMPORARY ASPHALT PATCHING OCCURS THE MIX SHALL BE HOT MIXED AS SPECIFIED IN THE PLANS. ASPHALT COLD MIXES SHALL NOT BE ACCEPTED. POORLY PATCHED CROSSINGS DISPLAYING NONUNIFORM, UNSMOOTH FINISHES SHALL NOT BE ACCEPTED AND SHALL BE REMOVED AT ONCE. THE REPAIR OF THE AREA SHALL BE PAID FOR AT THE CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL RETAIN AS MUCH EXISTING PAVEMENTS ASSOCIATED WITH THE PROJECT AS POSSIBLE FOR ALL WEATHER WORKING SURFACE AND FOR EROSION CONTROL. DURING CONSTRUCTION, AS THE PROJECT PHASES TO FINAL COMPLETION, THE CONTRACTOR SHALL REMOVE ALL REMAINING PAVEMENTS, ETC. TO COMPLETE THE FINAL IMPROVEMENTS AS SHOWN.
14. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THE CITY OF TUSCALOOSA, PRIVATE UTILITY COMPANIES, AND ANY OTHER OWNER OR GOVERNING AGENCY WITH EXISTING INFRASTRUCTURE OR JURISDICTION IN THIS AREA.
15. THE CONTRACTOR SHALL NOTE THAT ALL UTILITIES ARE INSTALLED WITHOUT MINIMUM COVER OR NOT IN THE DESIGNATED LOCATIONS, THE CONDUITS, DUCT BANKS, PIPINGS, AND MANHOLES, ETC. SHALL BE REMOVED/REPLACED AT THE CONTRACTOR'S EXPENSE.
16. ALL UTILITY IMPROVEMENTS SHALL BE BACKFILLED PER THE TRENCH DETAILS.
17. EXISTING SANITARY SEWER, STORM DRAIN, WATER DISTRIBUTION/FIRE PROTECTION, ETC. INFRASTRUCTURE TO BE RETAINED AS PART OF THIS PROJECT SHALL BE PROTECTED AT ALL TIMES. ANY DAMAGE TO THIS INFRASTRUCTURE SHALL BE REPAIRED TO THE OWNER'S SATISFACTION AT THE CONTRACTOR'S EXPENSE. THIS APPLIES TO ALL ADJACENT PROPERTIES AS WELL.
18. REFER TO SPECS FOR ADDITIONAL WORK RESTRICTIONS NOT NOTED HERE. CONTRACTOR SHALL ALSO REFERENCE THE ARCHITECTURAL PLANS FOR ALL SITE SCORE NOT SHOWN ON THE CIVIL PLANS.
19. ALL WORK SHOWN SHALL BE INCLUDED IN THE BASE BID FOR THE PROJECT, UNLESS NOTED OTHERWISE.

WATER DISTRIBUTION NOTES:

1. THE WATER DISTRIBUTION AND FIRE PROTECTION SYSTEM IS OWNED AND OPERATED BY THE CITY OF TUSCALOOSA. THE CONTRACTOR SHALL NOT AT ANY TIME TURN ON/OFF EXISTING WATER VALVES AND FIRE HYDRANTS. THE CITY OF TUSCALOOSA OFFICE OF THE CITY ENGINEER (OCE), WATER DISTRIBUTION DIVISION PERSONNEL SHALL OPERATE ALL VALVING AT ALL TIMES. TAPS AND CONNECTIONS TO EXISTING MAINS SHALL BE APPROVED AND COORDINATED WITH OCE, WATER DISTRIBUTION DIVISION. ANY FINES AND/OR PENALTIES INCURRED BY THE CONTRACTOR FOR IMPROPER OPERATION OF THE WATER DISTRIBUTION AND FIRE PROTECTION SYSTEM SHALL BE THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR (APPLIES TO CONTRACTOR AND ALL SUBCONTRACTORS).
2. THE CITY OF TUSCALOOSA OFFICE OF THE CITY ENGINEER (OCE), WATER DISTRIBUTION DIVISION, OWNER'S REPRESENTATIVE AND LOCAL WATER CUSTOMERS SHALL BE NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE BEFORE ANY WATER DISTRIBUTION IMPROVEMENTS BEGIN.
3. ALL MAINS AND SERVICE LINES SHALL HAVE 36" MINIMUM COVER. ALL MAINS AND SERVICE LINES WITHIN ALABAMA DEPARTMENT OF TRANSPORTATION R.O.W. SHALL HAVE 48" MINIMUM COVER.
4. DOMESTIC SERVICES (METERS), BACKFLOW PREVENTERS, ETC. SHALL BE INSTALLED ACCORDING TO CITY OF TUSCALOOSA STANDARDS AND THE STANDARD DETAILS INCLUDED IN THIS PLAN SET.
5. DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE INSTALLED PER THE CITY OF TUSCALOOSA WATER MAIN INSTALLATION AGREEMENT. AS A PART OF THIS AGREEMENT, SYSTEM MATERIALS SHALL BE PROVIDED BY THE CITY OF TUSCALOOSA FROM THE EXISTING WATER MAIN UP TO AND INCLUDING DOMESTIC WATER METERS, IRRIGATION METERS, AND DETECTOR CHECKS. THE CONTRACTOR SHALL PROVIDE INSTALLATION SERVICES FOR THESE ITEMS WHICH SHALL INCLUDE ALL PAVEMENT REMOVAL/REPLACEMENT, EXCAVATION, INSTALLATION OF UTILITIES, TESTING, BACKFILL AND COMPACTION, ETC. ALL OTHER SYSTEM MATERIALS BEYOND THE METERS AND DETECTOR CHECKS, INCLUDING ANY SIAMENSE POST CONNECTIONS, SHALL BE PURCHASED AND INSTALLED BY THE CONTRACTOR.
6. ALL COPPER SERVICE LINES SHALL BE TYPE "K", PVC SERVICE LINES SHALL BE CLASS 200, AND DUCTILE IRON WATERMAIN SHALL BE CLASS 350 UNLESS NOTED OTHERWISE ON THE PLANS.
7. ANY INSTALLATION REQUIRING THE USE OF PVC PIPE SHALL INCLUDE BEDDING AND ENCAUSING THE PIPING WITH STONE GRADATION AS PER THE STANDARD DETAILS AND WATER DISTRIBUTION REQUIREMENTS.
8. NO GLEE GIRT FITTINGS SHALL BE ALLOWED ON THE WATER DISTRIBUTION SYSTEM.
9. ALL WATER DISTRIBUTION MAINS SHALL HAVE DUCTILE IRON FITTINGS ONLY.
10. ALL GATE VALVES INSTALLED ON THE WATER DISTRIBUTION SYSTEM SHALL BE RESILIENT WEDGE VALVES TO ENSURE EASE OF OPERATION AND RELIABILITY.
11. THE CONTRACTOR SHALL VERIFY THE EXISTING WATER MAIN LOCATIONS PRIOR TO INSTALLING THE REQUIRED WATER MAINS. THESE LOCATIONS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE FOR VERIFICATION.
12. THE UTILITY TRENCH DETAILS SHALL BE NOTED FOR APPROPRIATE BACKFILL AND COMPACTION REQUIREMENTS. IN LANDSCAPED AREAS, THE FINAL ONE (1) FOOT OF THE UTILITY TRENCH FROM THE STONE BACKFILL TO THE FINISHED SUBGRADE SHALL BE APPROVED TOPSOIL.

STORM DRAIN NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL ELEVATIONS OF EXISTING UTILITIES BEFORE INSTALLING REQUIRED STORM DRAIN STRUCTURES AND PIPING. THE ELEVATIONS SHALL BE PROVIDED TO THE OWNER'S REPRESENTATIVE FOR DESIGN VERIFICATION AND ADJUSTMENTS. IF THE CONTRACTOR DOES NOT PHOTO THE AND SHOOT EXISTING UTILITY ELEVATIONS FOR DESIGN VERIFICATION, ANY RECONSTRUCTION SHALL BE HIS RESPONSIBILITY.
2. ALL REQUIRED STORM STRUCTURE TOPS WITHIN A PAVED AREA SHALL MATCH TOP OF CURB ELEVATIONS AND/OR ASPHALT FINISHED GRADE, DEPENDING ON BOX LOCATION.
3. THE UTILITY TRENCH DETAILS SHALL BE NOTED FOR APPROPRIATE BACKFILL AND COMPACTION REQUIREMENTS.
4. ANY EXISTING STORM STRUCTURES RETAINED AS PART OF THIS PROJECT SHALL BE THOROUGHLY CLEANED, WALLS WIPED WITH GROUT TO MAKE WATER TIGHT, INVERTS FORMED IF NECESSARY, EXISTING PIPING/DRAINS REGROUTED, ETC.
5. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN STORM WATER FLOW IN EXISTING AND PROPOSED STORM DRAINS WITHIN THE PROJECT LIMITS AND IF AFFECTED BY CONSTRUCTION ACTIVITIES, OUTSIDE THE PROJECT LIMITS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ANY AND ALL MATERIAL AND LABOR REQUIRED FOR TEMPORARY STORM DRAINS AND/OR PUMPS THAT MAY BE REQUIRED FOR BYPASSING. THE OWNER OR THE ENGINEER SHALL NOT ACCEPT ANY RESPONSIBILITY FOR THE ADEQUACY OR ACCURACY, OR ACCEPT ANY RESPONSIBILITY FROM CLAIMS FOR DAMAGES RESULTING FROM THE FAILURE OF THE CONTRACTOR'S TEMPORARY STORM DRAIN BYPASS FACILITIES OR HIS EFFORTS TO MAINTAIN TEMPORARY PIPING UNTIL THE FINAL SYSTEM IS INSTALLED.
6. WHEN TYPING TO EXISTING UTILITY PIPING WITH STORM DRAIN, THE CONTRACTOR SHALL USE EXTREME CARE ONLY EXCAVATING AND REMOVING THE NECESSARY AMOUNT OF PIPING TO INSTALL THE REQUIRED STRUCTURE. DAMAGE TO THE EXISTING UTILITY PIPING DUE TO OVEREXCAVATION OR POOR EXCAVATION WORK SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE/REPLACE AT HIS COST.
7. CONTRACTOR SHALL MAKE SURE THAT THERE IS FLEXIBILITY IN EACH STORM STRUCTURE CONICAL SECTION AND RING AND COVER TO ENSURE FINAL RING ELEVATION MATCHES FINAL PAVEMENT ELEVATION. FAILURE TO DO SO WILL REQUIRE REMOVAL OF AS MUCH STRUCTURE AS NECESSARY TO ALLOW TOP RING AND COVER TO MATCH PAVEMENT.

TRAFFIC CONTROL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE SECTIONS OF THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, MILLENNIUM EDITION.
2. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CURRENT CITY OF TUSCALOOSA (OFFICE OF THE CITY ENGINEER) AND ALABAMA DEPARTMENT OF TRANSPORTATION STANDARDS AND POLICES.
3. ALL MATERIALS USED FOR TEMPORARY TRAFFIC STRIPPING SHALL COMPLY WITH SECTION 857 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
4. INSTALLATION OF ALL TEMPORARY TRAFFIC STRIPS SHALL COMPLY WITH SECTION 701 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
5. TEMPORARY TRAFFIC STRIPS SHALL BE RECOLORIZED PAINT.
6. TEMPORARY TRAFFIC STRIPS SHALL BE REMOVED AS REQUIRED IN SECTION 701 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
7. ALL MATERIALS USED FOR TEMPORARY TRAFFIC CONTROL MARKINGS SHALL COMPLY WITH SECTION 857 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONTROL.
8. INSTALLATION OF ALL TEMPORARY TRAFFIC CONTROL MARKINGS SHALL COMPLY WITH SECTION 703 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
9. TEMPORARY TRAFFIC CONTROL MARKINGS SHALL BE RECOLORIZED PAINT.
10. TEMPORARY TRAFFIC CONTROL MARKINGS SHALL BE REMOVED AS REQUIRED IN SECTION 703 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
11. ALL MATERIALS USED FOR ROADWAY SIGNS SHALL COMPLY WITH SECTION 880 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
12. INSTALLATION OF ALL ROADWAY SIGNS SHALL COMPLY WITH SECTION 710 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
13. UNLESS OTHERWISE NOTED IN THE PLANS, ALL ROADWAY SIGNS SHALL BE CLASS 2 (CUT OUT COPY) OR CLASS 4 (SCREEN COPY) CONSTRUCTED WITH TYPE III (OR BETTER) REFLECTIVE SHEETING AND COPY.
14. ALL ROADWAY SIGNS SHALL BE ALUMINUM FLAT PANEL EXCEPT FOR THOSE SIGNS EXCEEDING FOUR FEET IN WIDTH, WHICH MAY BE ALUMINUM MULTIPLE FLAT PANEL.
15. UNLESS OTHERWISE NOTED, ALL SIGN PANELS SHALL BE 0.080 INCHES THICK.
16. ALL COPY SHALL BE OF APPROPRIATE LETTER SERIES COMPLYING WITH THE ALDOT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE OFFICE OF THE CITY ENGINEER SPECIFICATIONS.
17. UNLESS OTHERWISE SPECIFIED IN THE PLANS, SIGN SUPPORTS SHALL BE SINGLE "U" CHANNEL STEEL OR ALUMINUM POSTS MEETING THE REQUIREMENTS OF SECTION 880.04 OF THE ALABAMA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
18. WHERE THE LOCATION OF A REQUIRED SIGN FALLS IN A DRIVEWAY, SIDEWALK, BRIDGE, ETC. OR WHERE THE VISIBILITY OF A SIGN IS LIMITED TO THE TRAVELING PUBLIC, THE LOCATION SHALL BE ADJUSTED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
19. TYPE III BARRICADES SHALL MEET ALL DESIGN REQUIREMENTS AS SHOWN IN THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIAL AND STANDARD HIGHWAY DRAWINGS (2008).
20. WARNING LIGHTS SHALL BE TYPE A LOW INTENSITY FLASHING MEETING ALL REQUIREMENTS OF THE FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, MILLENNIUM EDITION, PART 6.
21. VARIABLE MESSAGE SIGNS SHALL MEET ALL REQUIREMENTS FOR A TYPE 2 MESSAGE SIGN AS SPECIFIED IN THE ALABAMA DEPARTMENT OF TRANSPORTATION SPECIAL PROVISION NO. 10-01-045 SECTION 742, DATED DECEMBER 3, 2001.
22. ALL ADVANCE WARNING SIGNS REQUIRED AT THE BEGINNING AND END OF PROJECT SHALL BE POST MOUNTED. ALL SIGNS REQUIRED FOR THE LANE CLOSURE SHALL BE TEMPORARY MOUNTED.
23. THE W-3 SIGN SHALL SHOW THE LOWEST SPEED POSTED IN THE WORK ZONE (XX). SIGN (YY) SHALL BE USED IF SPEED REDUCTION REQUIRES TWO SIGNS. SIGN (ZZ) SHALL SHOW THE POSTED SPEED OUTSIDE THE WORK ZONE.
24. SPEED REDUCTION SIGNS TYPICALLY REFER TO HIGH SPEED HIGHWAY PROJECTS. THE MUTCD SHALL BE REFERENCED FOR THEIR USE.
25. ROAD WORK AHEAD SIGNS SHALL BE POST MOUNTED ON ALL SIDE STREETS THAT FALL WITHIN THE PROJECT LIMITS FOR THE DURATION OF THE PROJECT.
26. LENGTH BETWEEN SIGNS SHALL VARY BASED ON MUTCD AND DESIGN SPEED. THE CONTRACTOR SHALL MODIFY AS PER MUTCD WHEN NECESSARY BASED ON LOCATION OF ROAD WORK.
27. DURING TEMPORARY ROAD OR LANE CLOSURES WHICH WILL OCCUR DURING THIS PROJECT THE CONTRACTOR SHALL NOTIFY THE TUSCALOOSA DEPARTMENT OF TRANSPORTATION AND THE OWNER'S REPRESENTATIVE ONE (1) WEEK IN ADVANCE.
28. ALTHOUGH PERIODIC ROAD CLOSURES WILL BE REQUIRED DURING THIS PROJECT, THE CONTRACTOR SHALL KEEP ACCESS FOR LOCAL TRAFFIC TO PRIVATE RESIDENCES AND COMMERCIAL BUSINESSES AT ALL TIMES.

GRADING AND STAKING NOTES

1. ALL DISTURBED AREAS SHALL HAVE A MINIMUM OF 6" TOPSOIL APPLIED, BE GRASSED AND MULCHED, AND/OR SODED AS SOON AS FINAL GRADING IS COMPLETE. REFER TO EROSION CONTROL NOTES FOR TEMPORARY GRASSING AND MULCHING DURING GRADING OPERATIONS [SEE LANDSCAPE PLANS FOR ADDITIONAL TOPSOIL THICKNESS INFORMATION].
2. ALL EMBANKMENT FILL AND BORROW EXCAVATION MATERIALS SHALL BE COMPACTED IN LOOSE 8" LIFTS TO 98%, ASHOTO 1-99 MINIMUM.
3. THE CONTRACTOR SHALL CLEAN AND GRILL ONLY WHERE GRADING OPERATIONS ARE TO BE PERFORMED AS SHOWN. THE MAJORITY OF THE PROJECT WILL REQUIRE CLEARING AND REMOVAL OF EXISTING SIDEWALK, DRIVES, CURB AND GUTTER, CURBING, TOPSOIL, GRADING, ETC. AS SHOWN THROUGHOUT THE PROJECT CONSTRUCTION PLANS AND CONTRACT DOCUMENTS.
4. BEFORE FINAL GRADING THE CONTRACTOR SHALL MAKE SURE HE/H/SH HAS INSTALLED ALL UTILITIES INCLUDING STORM DRAIN, ELECTRICAL, WATER, FIRE, IRRIGATION, ETC. IMPROVEMENTS.
5. THE CONTRACTOR SHALL NOTE CHANGE IN GRADES AND REQUIRED RAMPS WHEN LAYING OUT SCORING AND HANDICAP RAMPS. ALL ADA ACCESSIBLE RAMP GRADINGS AND SIDEWALK CROSS SLOPE SHALL MEET ADA REQUIREMENTS.
6. GRADING OPERATIONS SHALL INCLUDE TOPSOIL STRIPPING AND REMOVAL THROUGHOUT THE PROJECT SITE. UNCLASSIFIED EXCAVATION, AND BORROW EXCAVATION, ROCK REMOVAL (IF REQUIRED), ETC. TO BRING THE SITE TO FINISHED SUBGRADE (ONLY LEAVING PAVEMENTS AND TOPSOIL TO REACH FINAL FINISHED GRADE) AS SHOWN ON THE CONSTRUCTION PLANS. NO EXTRA PAYMENT WILL BE MADE FOR EXCESS MATERIAL BROUGHT ON SITE OR MATERIAL REQUIRED TO BE MOVED MULTIPLE TIMES BECAUSE OF CONSTRUCTION PHASING.
7. NO TOPSOIL SHALL BE PLACED ON THE PROJECT SITE UNTIL THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE APPROVES THE FINAL SUBGRADE, NO EXCEPTIONS. THE CONTRACTOR SHALL SCHEDULE THIS INTO HIS/HER TIME LINE.
8. THERE SHALL BE NO DEBRIS (ROOTS, ROCKS, ETC.) IN THE TOPSOIL LARGER THAN 1" IN DIAMETER. THERE ALSO SHALL BE NO WASTED TEMPORARY GRAVEL, CONCRETE, OR ANY OTHER BUILDING MATERIALS FOUND IN THE TOPSOIL. ANY FOUND DEBRIS SHALL BE REMOVED IMMEDIATELY.
9. THERE SHALL BE NO RASED ASPHALT "LIP" AT RAMP LOCATIONS. THE EXISTING ROADWAY BUILDUP SHALL BE PLANED/MILLED SUFFICIENTLY TO ALLOW THE FINAL ASPHALT OVERLAY OR WEARING SURFACE TO FIT FLUSH AGAINST THE EDGE OF GUTTER ALONG THE ENTIRE PROJECT.

PAVING, SIGNING AND STRIPING NOTES

1. THE CONTRACTOR SHALL SAW CUT ALL EXISTING PAVEMENTS TO BE REMOVED WITH A STRAIGHT, CLEAN REMOVAL JOINT TO ENSURE PROPOSED PAVEMENTS JOIN TO EXISTING CLEANLY.
2. ALL COMBINATION CURB AND GUTTER SHALL BE TWO (2) FEET IN WIDTH UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION PLANS. EXISTING CURB AND GUTTER VARIES IN WIDTH AND PROPOSED CURB AND GUTTER SHALL BE TAPERED TO JOIN TO IT OVER A MINIMUM DISTANCE OF FIVE (5) FEET TO ENSURE A SMOOTH TRANSITION.
3. ALL TEMPORARY AND/OR PERMANENT STRIPING, MARKINGS, ETC. SHALL BE OF COLOR AND TYPE SHOWN AND SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND ALABAMA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
4. ALL PERMANENT SIGNS AND POSTS SHALL BE OF COLOR AND TYPE SHOWN AND SHALL CONFORM TO THE CITY OF TUSCALOOSA REQUIREMENTS.
5. ALL TEMPORARY CONSTRUCTION SIGNS SHALL MEET THE REQUIREMENTS SET FORTH IN THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ALL TEMPORARY CONSTRUCTION SIGN POSTS SHALL BE 48" "CHANNEL POSTS, ALDOT TYPE.
6. THE OWNER REQUIRES A HIGH LEVEL OF FINISH TO THEIR SIDEWALK AND CURB AND GUTTER. THE CONTRACTOR SHALL MAKE SURE HIS MIX IS OPTIMUM AND NOT TOO DRY/WEET WHICH MAY LEAD TO FITTING, CRACKING, AND TEXTURE TYPE PROBLEMS WHEN FINISHING THE CONCRETE. POORLY FINISHED CONCRETE SHALL BE REMOVED/REPLACED AT THE CONTRACTOR'S EXPENSE.
7. CONCRETE CONTROL JOINTS SHALL BE MEASURED FOR DEPTH. THEY MUST BE INSTALLED PROPERLY FOR CONTROL CRACKING OF THE CONCRETE PAVEMENT. IMPROPERLY INSTALLED CONCRETE SHALL BE REMOVED/REPLACED AT THE CONTRACTOR'S EXPENSE. ALL TEMPORARY STRIPING DURING CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT. TEMPORARY STRIPING SHALL BE REQUIRED TO CLEARLY DELINEATE WHERE TRAFFIC BOTH PEDESTRIAN AND MOTOR VEHICLE KNOW HOW TO NAVIGATE THE WORK AREA. DURING PAVEMENT CURING TEMPORARY STRIPING SHALL BE APPLIED FOR TRAFFIC CONTROL.
8. THE CONTRACTOR SHALL NOTE THE SCORING PATTERNS SHOWN ON THE SITE LAYOUT FOR THE FINAL CONCRETE IMPROVEMENTS. HE SHOULD NOTE THAT THESE PATTERNS SERVE TWO PURPOSES (1) AESTHETICS (2) PROVIDE CONTROL CRACKING. IT IS VERY IMPORTANT THAT THE CONTRACTOR STAKE OUT HIS CONTROL JOINTS SPECIFICALLY RELATED TO CONCRETE PAVEMENTS IN RADII. WHEN SAW CUTTING PAVEMENTS ALONG CENTERLINE IN A RADII, THE CONTRACTOR SHALL PROVIDE THE SCORING PATTERN SHOWN AND TO THE DESIGN DEPTH REQUIRED FOR CONTROL JOINTS.
9. WHEN PROPOSED ASPHALT PAVEMENT JOINS EXISTING ASPHALT PAVEMENT, INCLUDING UTILITY TRENCHES, THE CONTRACTOR SHALL MILL A MINIMUM 12" WIDE AREA OF THE EXISTING ASPHALT. THE DEPTH OF THE MILLING SHALL BE 1 1/2". THIS WILL ALLOW THE PROPOSED WEARING SURFACE TO OVERLAP AT LEAST 12" OVER THE EXISTING PAVEMENT.

EROSION CONTROL NOTES

1. DUE TO THE SMALL SCALE SIZE OF THE PROJECT A NPDES STORMWATER PERMIT FROM ADEM MAY NOT BE REQUIRED; HOWEVER, THE CONTRACTOR SHALL VERIFY THIS AS IT IS HIS RESPONSIBILITY TO SECURE AND MAINTAIN THE REQUIREMENTS OF THE PERMIT THROUGH THE LENGTH OF THE PROJECT CONTRACT.
2. REGARDLESS IF A NPDES PERMIT IS REQUIRED OR NOT, THE CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES DURING THE PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR USING BEST MANAGEMENT PRACTICES (BMP'S) FOR EROSION AND SEDIMENT CONTROL THROUGHOUT CONSTRUCTION. AN EROSION CONTROL PLAN IS PROVIDED AS A MINIMUM GUIDE FOR PROVIDING STRUCTURAL BMP'S, PHASING, TEMPORARY GRASSING, AND OTHER METHODS AS PROVIDED IN THE ALABAMA HANDBOOK FOR EROSION CONTROL, SEDIMENT CONTROL, AND STORM WATER MANAGEMENT, SHALL BE UTILIZED TO MINIMIZE EROSION. NO EXTRA COMPENSATION SHALL BE GIVEN TO THE CONTRACTOR FOR MAINTAINING EROSION CONTROL ITEMS OR ADDITIONAL EROSION CONTROL ITEMS REQUIRED TO COMPLY WITH THE NPDES PERMIT.
4. ANY FINES INCURRED DUE TO FAILURE TO MAINTAIN EROSION CONTROL MEASURES SHALL BE PAID FOR BY THE CONTRACTOR. ANY ADDITIONAL WORK AND MATERIALS REQUIRED TO COMPLY WITH ANY VIOLATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE.
5. ALL TEMPORARY RIPRAP BERM EROSION CONTROL PURPOSES SHALL BE INCLUDED IN THE PRICE OF EROSION CONTROL. TEMPORARY RIPRAP BERMS SHALL BE SPREAD OUT IN AREAS WHERE PERMANENT RIPRAP IS REQUIRED AND SHALL BE SPREAD IN A MANNER TO NOT IMPIDE FLOW OF STORM DRAINS AFTER THE SITE IMPROVEMENTS ARE COMPLETE AND THE PROJECT IS STABILIZED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR TEMPORARY RIPRAP OR SPREADING IT UPON COMPLETION OF THE SITE IMPROVEMENTS. ALL TEMPORARY RIPRAP THAT IS SPREAD FOR USE AS PERMANENT RIPRAP SHALL BE PLACED ON THE STONE BEDDING AND FILTER FABRIC AS SHOWN IN THE DETAILS. COSTS FOR STONE AND FILTER FABRIC PLACED UNDERNEATH ALL TEMPORARY RIPRAP THAT IS SPREAD IN PERMANENT LOCATIONS SHALL BE INCLUDED IN THE LUMP SUM BID PRICE FOR EROSION CONTROL.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND KEEP CLEAN ALL EROSION CONTROL STRUCTURES UNTIL THE NPDES IS ACCEPTED AS COMPLETE BY ADEM AND IS CLOSED BY THE CONTRACTOR.
7. SILT FENCES SHALL HAVE SEDIMENT DEPOSITS REMOVED IF THEY REACH A DEPTH OF FIFTEEN INCHES (15") OR 1/2 THE HEIGHT OF THE FENCE. SEDIMENT REMOVED FROM THE SILT FENCE SHALL BE REMOVED FROM THE SITE.
8. THE PROJECT AREA SHALL REMAIN CLEAN AT ALL TIMES. THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO KEEP THE PROJECT AREA CLEAN INCLUDING MOTORIZED STREET SWEEPERS, WATER AND VACUUM TRUCKS, HAND SWEEPING AND SHOVELING, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADDRESS THIS ISSUE EACH DAY INCLUDING WEEKENDS AND SPECIFICALLY PRE AND POST RAIN EVENTS.
9. THE CONTRACTOR SHALL IDENTIFY WORK AREA ENTRANCES/EXIT LOCATIONS FOR EQUIPMENT AND INSTALL TEMPORARY GRAVEL DRIVES TO REDUCE TRACKING DIRT PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ALL STREETS CLEAN OF ANY SEDIMENT FROM THE CONSTRUCTION SITE ON A DAILY BASIS NO EXCEPTIONS.
10. ALL DISTURBED AREAS INCLUDING THE EARTHEN STOCKPILES SHALL BE SEEDED AND MULCHED UPON COMPLETION OF GRADING OPERATIONS. ADEM REGULATIONS REQUIRE ALL DISTURBED AREAS NOT UNDERGOING ACTIVE DISTURBANCE OR ACTIVE CONSTRUCTION FOR LONGER THAN THIRTEEN (13) DAYS TO BE MULCHED AND SEEDED TO ESTABLISH TEMPORARY VEGETATIVE COVER.
11. THE CONTRACTOR SHALL INSTALL SEDIMENT CONTROL LOGS, SANDBAGS, AND/OR SILT FENCE TRENCHED THROUGH PAVEMENT AFTER SAW CUTTING THE ASPHALT TO AVOID RUNOFF INTO OTHER ROADWAYS, DRIVES, AND AREAS PARALLEL AND ADJACENT TO THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADDRESS THIS ISSUE EACH DAY INCLUDING WEEKENDS AND SPECIFICALLY PRE AND POST RAIN EVENTS.
12. THERE MAY BE LOCATIONS WHERE SILT FENCE MAY BE NEEDED ACROSS EXISTING PAVEMENT THAT IS TO BE RETAINED FOR TEMPORARY ALL WEATHER WORKING SURFACE AND/OR LAYDOWN YARD. IN THESE LOCATIONS THE EXISTING PAVEMENT SHALL BE SAW-CUT ENOUGH TO TRENCH THE SILT FENCE PROPERLY IN THE GROUND. SAND BAGS AND/OR PROPERLY SECURED SEDIMENT CONTROL LOGS COULD SERVE THIS PURPOSE AS WELL.
13. SEDIMENT CONTROL LOGS SHALL HAVE A MINIMUM DIAMETER OF 20".
14. THE CONTRACTOR SHALL INSTALL STONE AND/OR STABILIZE ROADWAY, SIDEWALK, DRIVE, ETC. IN AREAS OF CONSTRUCTION AS NECESSARY. ALL STONES FOR CONSTRUCTION ARE CONSIDERED INCIDENTAL. REGARDLESS THE NUMBER OF TIMES FRESH STONE IS REQUIRED FOR SEDIMENT CONTROL MEASURES.
15. WHEN INSTALLING SILT FENCE THE CONTRACTOR SHALL PROPERLY PLAN THE LOCATION OF THE FENCING. WASTFUL AND/OR POOR PLANNED INSTALLATIONS SHALL NOT RECEIVE ADDITIONAL PAY FOR REINSTALLATION AFTER MOVING TO ANOTHER PHASE OF THE WORK.
16. THE CITY OF TUSCALOOSA CLOSELY MONITORS DEVELOPMENTS FOR EROSION CONTROL VIOLATIONS. VIOLATIONS CAN LEAD TO THE CITY ISSUING A STOP WORK ORDER. THE PROJECT SHALL FALL UNDER THE SAME GUIDELINES. ANY FINES AND LEGAL FEES ASSOCIATED WITH THE CONTRACTOR'S FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL MEASURES SHALL BE PAID FOR BY THE CONTRACTOR INCLUDING ANY ADDITIONAL REQUIREMENTS PLACED ON THE PROJECT BY THE FINING AGENCY. THERE SHALL BE NO CLAIMS CONSIDERED OF LOST CONTRACT TIME, MONEY, ETC. DURING THE STOP WORK PERIOD. THIS IS A SITUATION TOTALLY IN THE CONTROL OF THE CONTRACTOR AND HE WILL MEET HIS RESPONSIBILITIES TO MAINTAIN A STABILIZED CONSTRUCTION SITE.

Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

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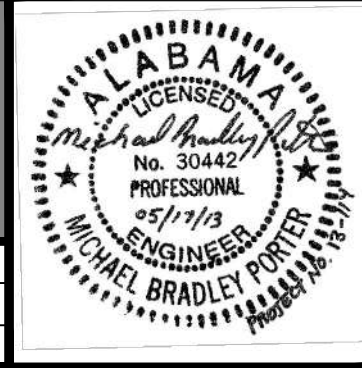
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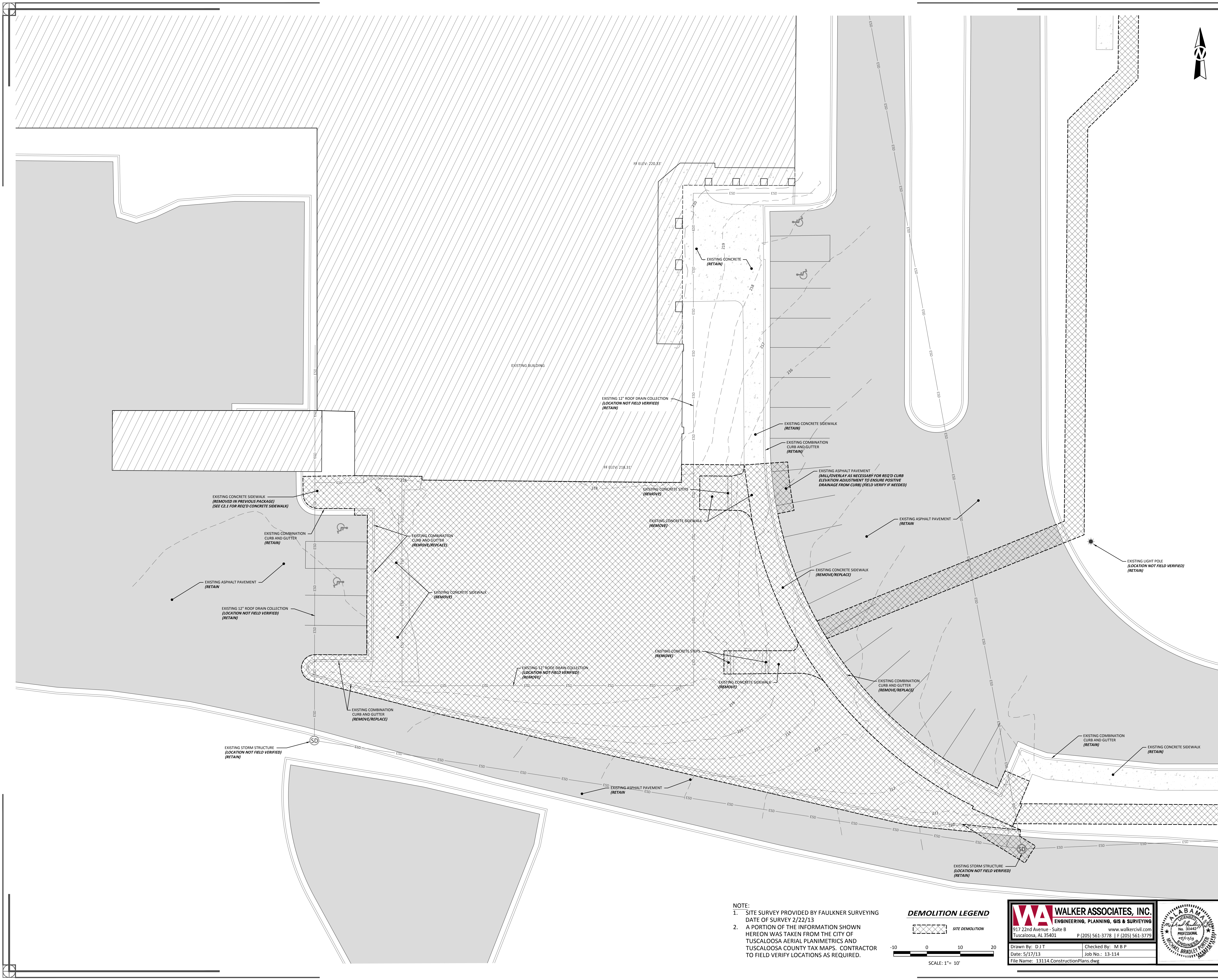
Contractor must verify all dimensions prior to construction.

JOB No.	11015E
DATE:	REV DATE:
5/17/13	
DRAWN BY:	D J T
PROJECT NOTES	
SHEET NUMBER C1.1	

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Drawn By: D J T	Checked By: M B P
Date: 5/17/13	Job No.: 13-114
File Name: 13114.ConstructionPlans.dwg	



NOTE:
1. SITE SURVEY PROVIDED BY FAULKNER SURVEYING
DATE OF SURVEY 2/22/13
2. A PORTION OF THE INFORMATION SHOWN
HEREON WAS TAKEN FROM THE CITY OF
TUSCALOOSA AERIAL PLANIMETRICS AND
TUSCALOOSA COUNTY TAX MAPS. CONTRACTOR
TO FIELD VERIFY LOCATIONS AS REQUIRED.

DEMOLITION LEGEND

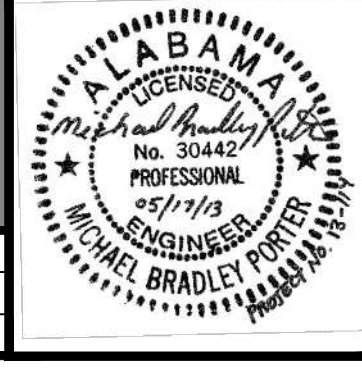
SITE DEMOLITION

SCALE: 1" = 10'

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Drawn By: D J T
Date: 5/17/13
File Name: 13114.ConstructionPlans.dwg

Checked By: M B P
Job No.: 13-114



Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama



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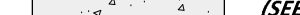
Contractor must verify all dimensions
prior to construction.

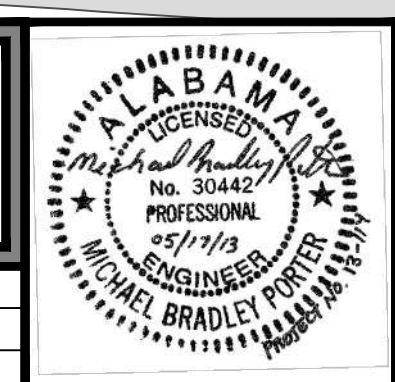
JOB No.	11015E
DATE:	5/17/13
REV DATE:	
DRAWN BY:	D J T
SITE SURVEY/ DEMOLITION PLAN	
SHEET NUMBER	C1.2

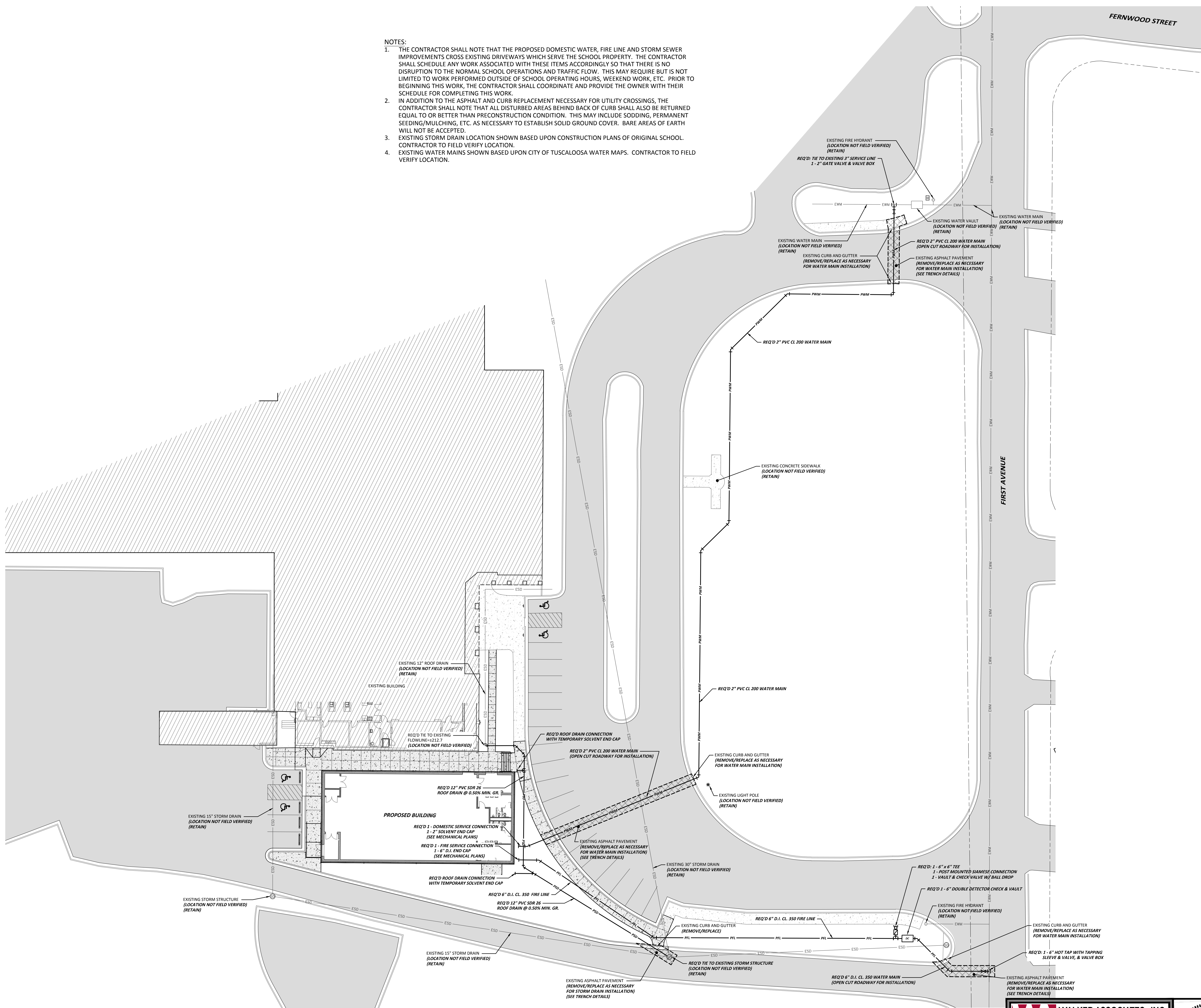
EllisArchitects
651 Helen Keller Boulevard, Suite 300
Tuscaloosa, Alabama 35404
205.732.4420
www.ellisarchitects.com




REQ'D CONCRETE SIDEWALK
 (SEE DETAILS)

-10 0 10 20

 SCALE: 1" = 10'





- NOTES:
1. THE CONTRACTOR SHALL NOTE THAT THE PROPOSED DOMESTIC WATER, FIRE LINE AND STORM SEWER IMPROVEMENTS CROSS EXISTING DRIVEWAYS WHICH SERVE THE SCHOOL PROPERTY. THE CONTRACTOR SHALL SCHEDULE ANY WORK ASSOCIATED WITH THESE ITEMS ACCORDINGLY SO THAT THERE IS NO DISRUPTION TO THE NORMAL SCHOOL OPERATIONS AND TRAFFIC FLOW. THIS MAY REQUIRE BUT IS NOT LIMITED TO WORK PERFORMED OUTSIDE OF SCHOOL OPERATING HOURS, WEEKEND WORK, ETC. PRIOR TO BEGINNING THIS WORK, THE CONTRACTOR SHALL COORDINATE AND PROVIDE THE OWNER WITH THEIR SCHEDULE FOR COMPLETING THIS WORK.
 2. IN ADDITION TO THE ASPHALT AND CURB REPLACEMENT NECESSARY FOR UTILITY CROSSINGS, THE CONTRACTOR SHALL NOTE THAT ALL DISTURBED AREAS BEHIND BACK OF CURB SHALL ALSO BE RETURNED EQUAL TO OR BETTER THAN PRECONSTRUCTION CONDITION. THIS MAY INCLUDE SODDING, PERMANENT SEEDING/MULCHING, ETC. AS NECESSARY TO ESTABLISH SOLID GROUND COVER. BARE AREAS OF EARTH WILL NOT BE ACCEPTED.
 3. EXISTING STORM DRAIN LOCATION SHOWN BASED UPON CONSTRUCTION PLANS OF ORIGINAL SCHOOL. CONTRACTOR TO FIELD VERIFY LOCATION.
 4. EXISTING WATER MAINS SHOWN BASED UPON CITY OF TUSCALOOSA WATER MAPS. CONTRACTOR TO FIELD VERIFY LOCATION.

Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama



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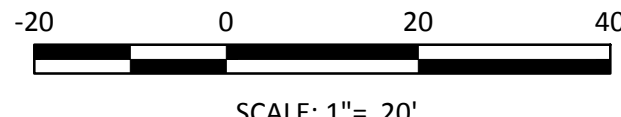
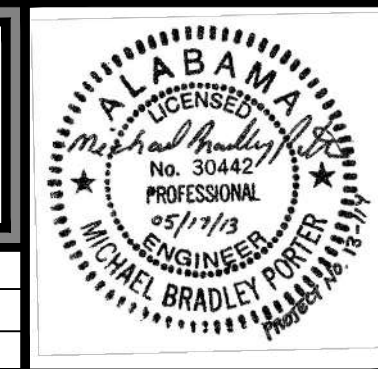
Do Not Scale From Drawings.
Contractor must verify all dimensions prior to construction.

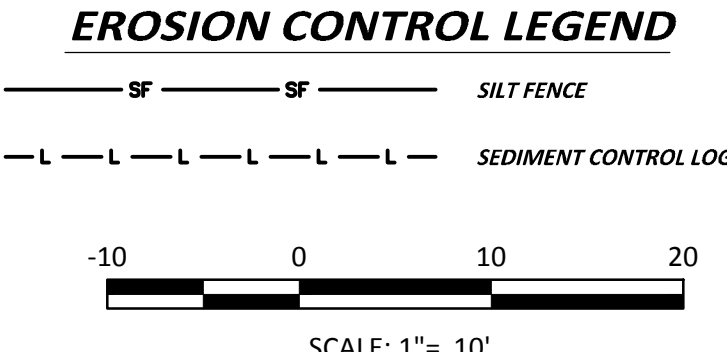
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DATE:	REV DATE:
5/17/13	
DRAWN BY:	D J T
SITE UTILITY PLAN	
SHEET NUMBER	C2.2

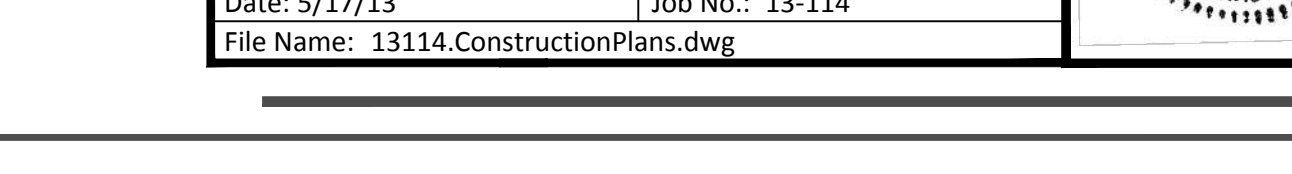
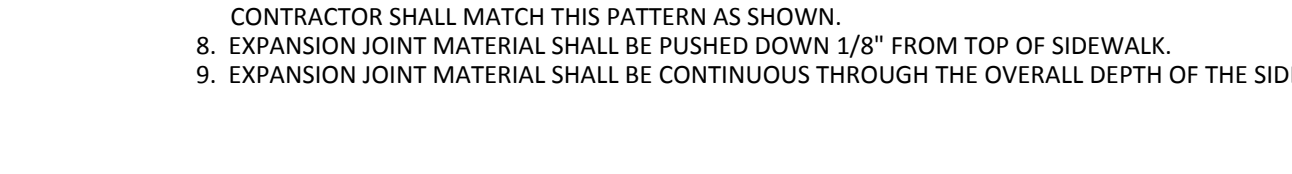
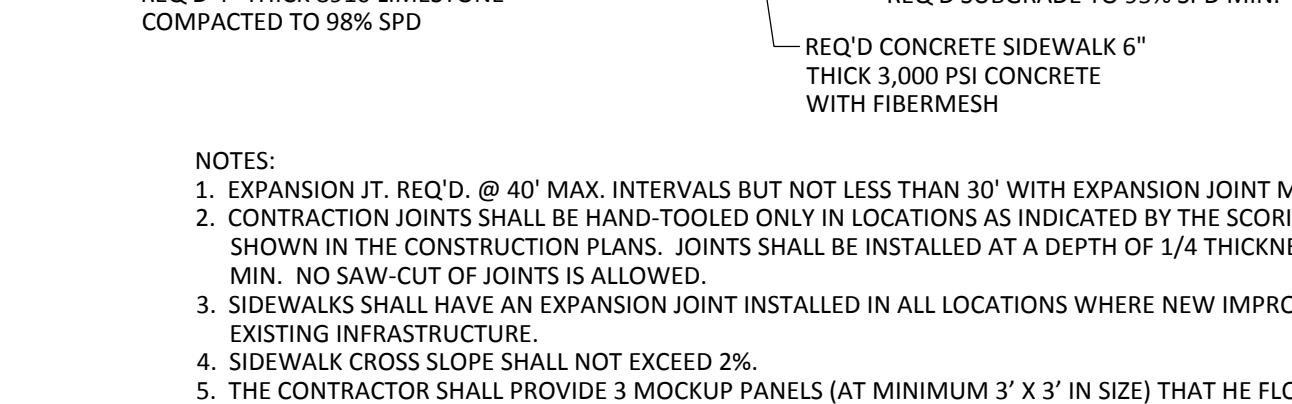
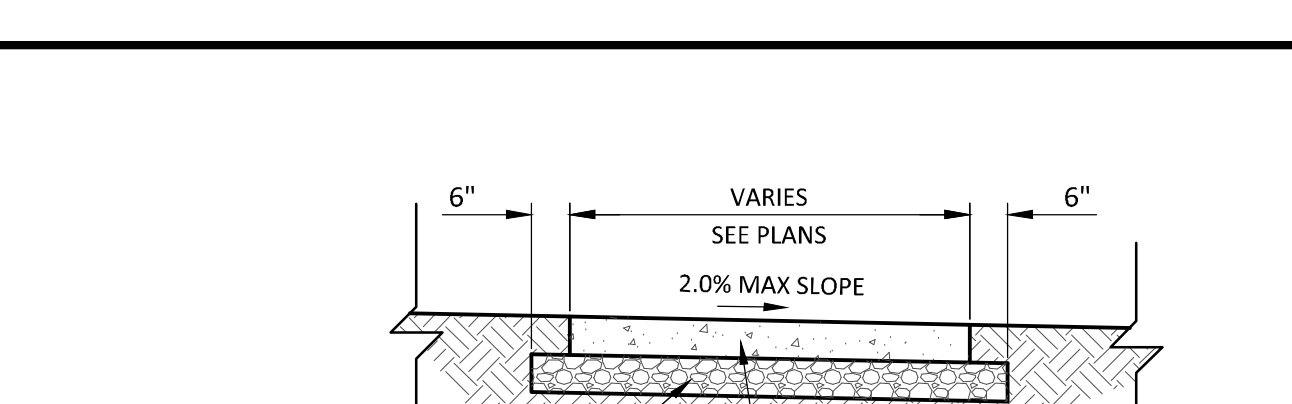
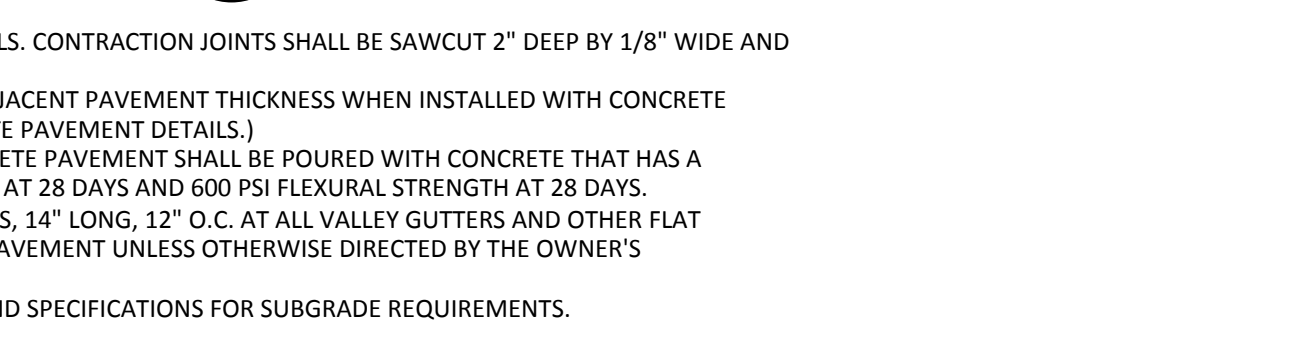
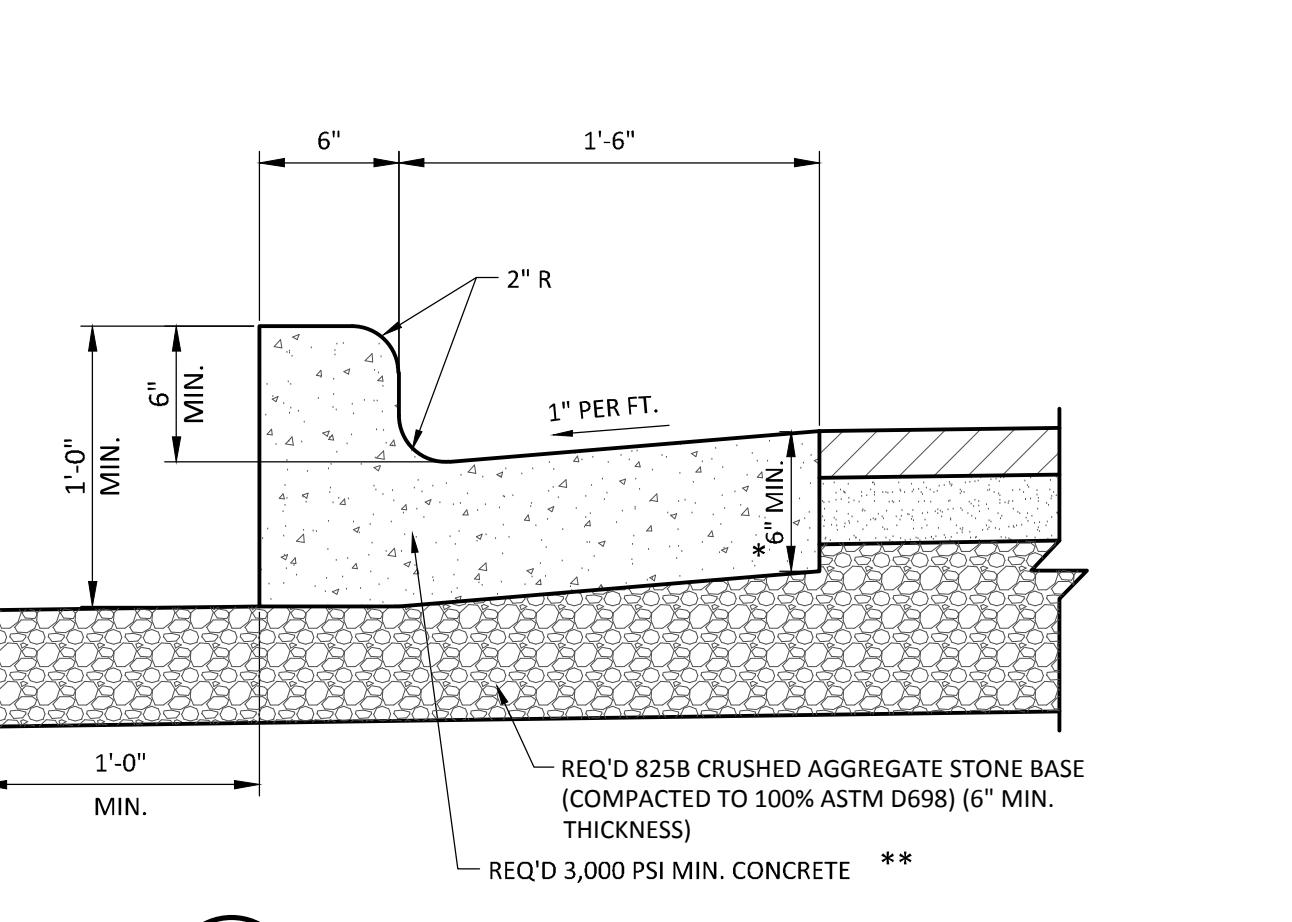
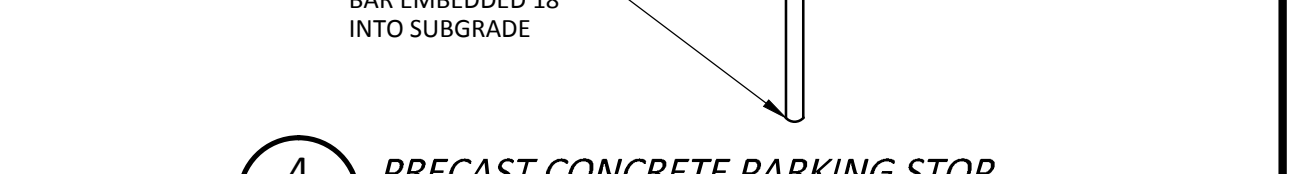
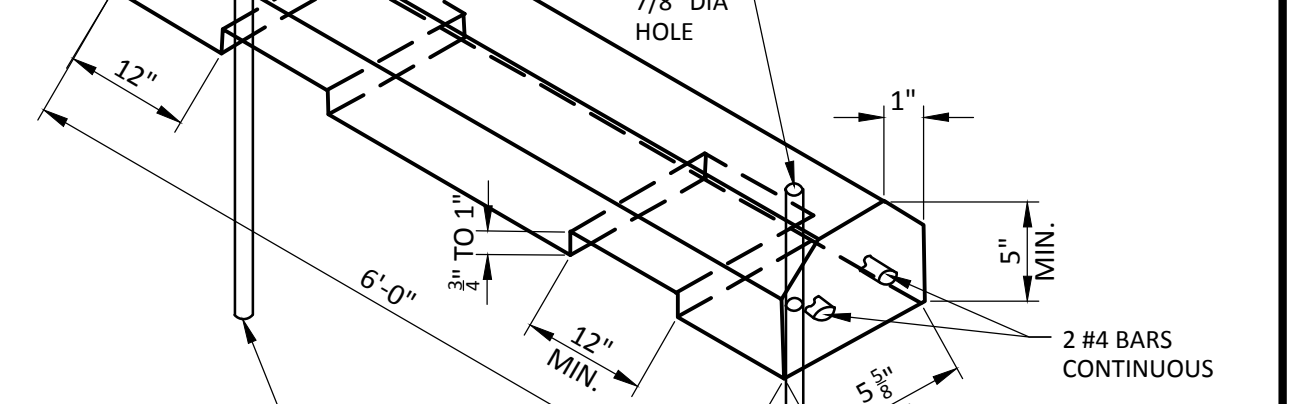
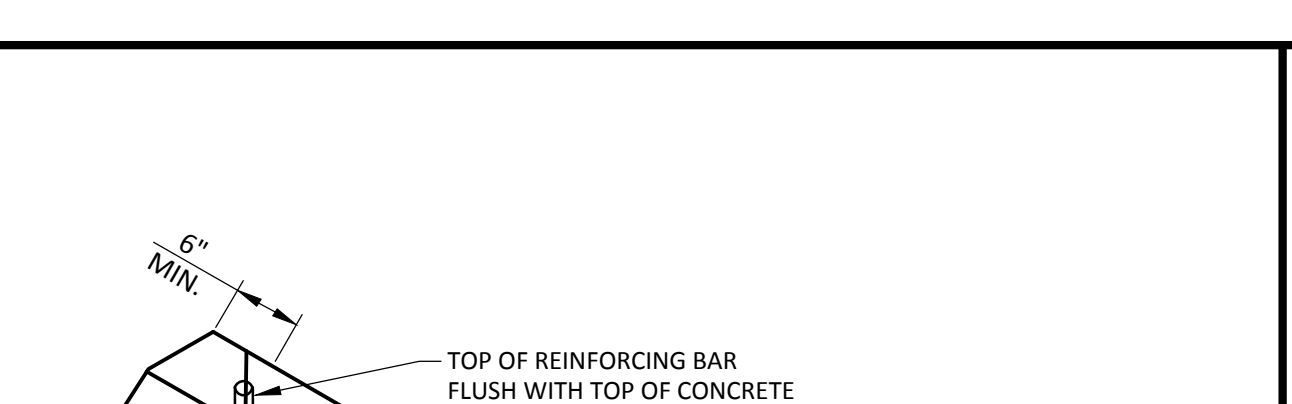
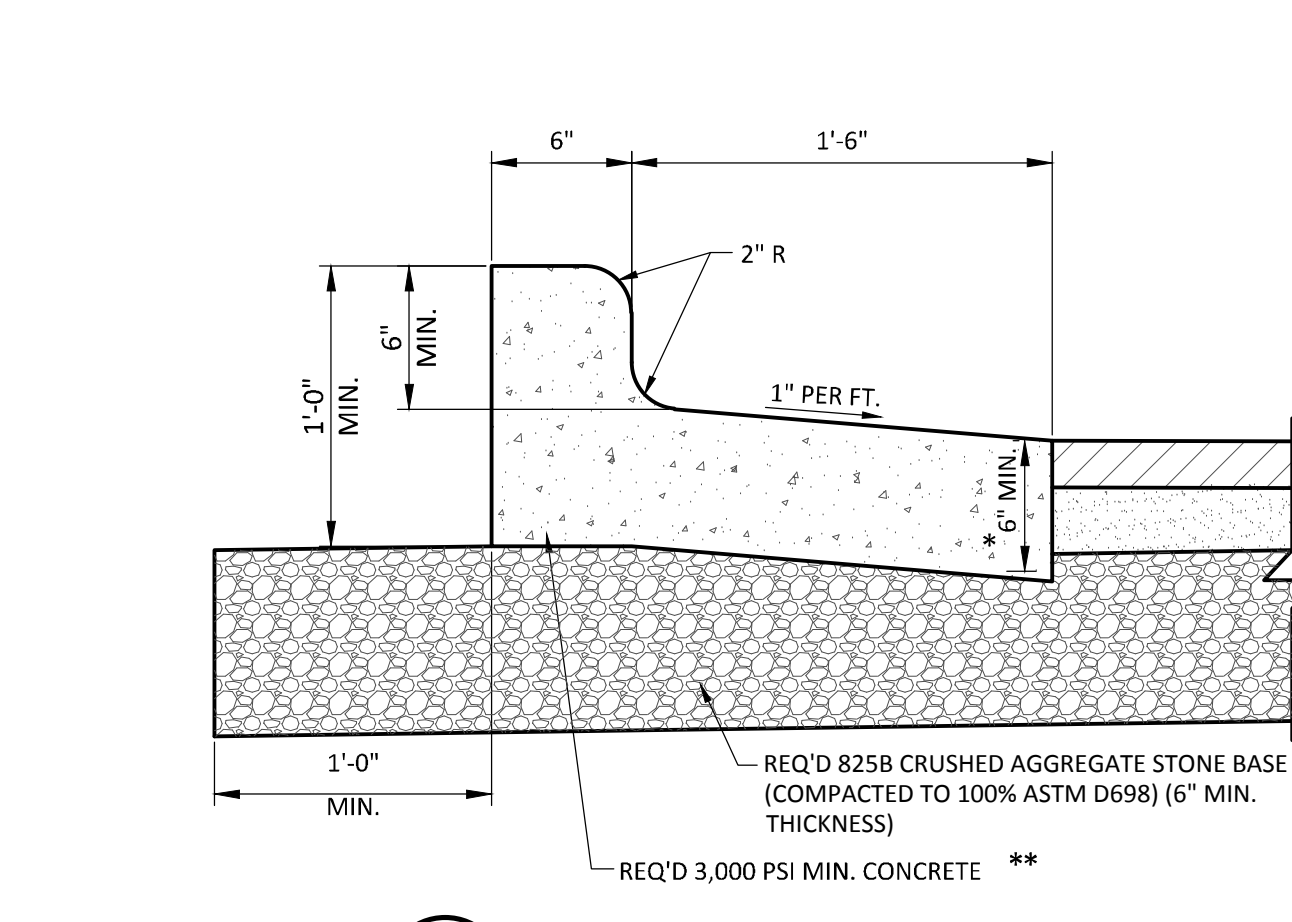
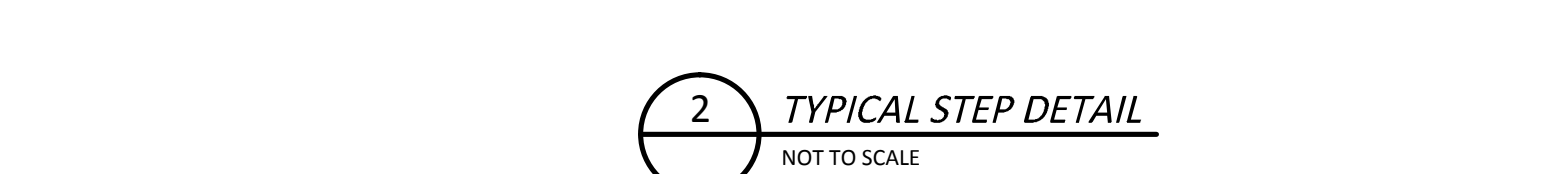
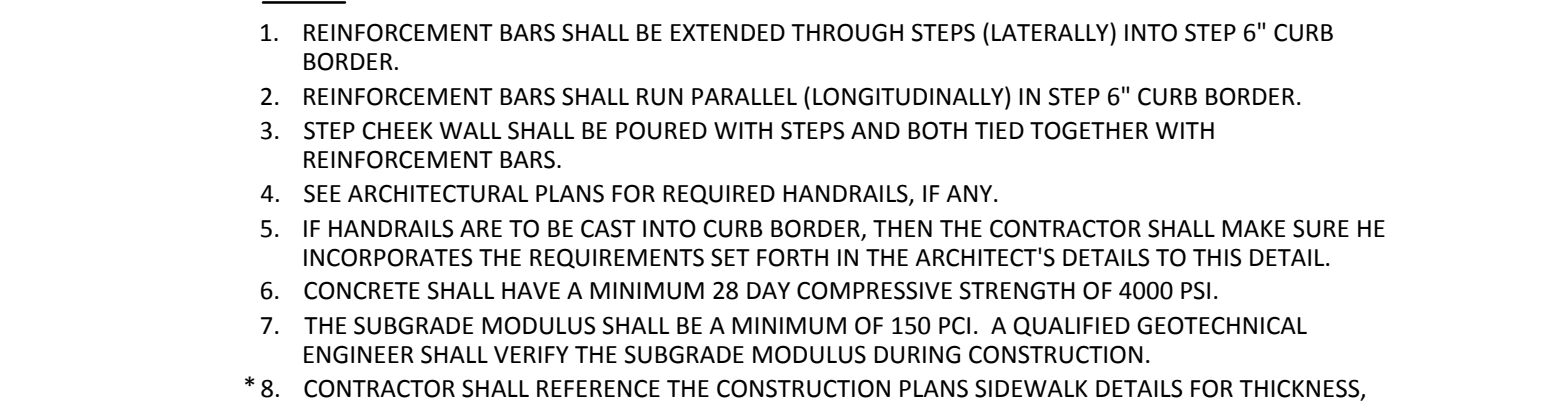
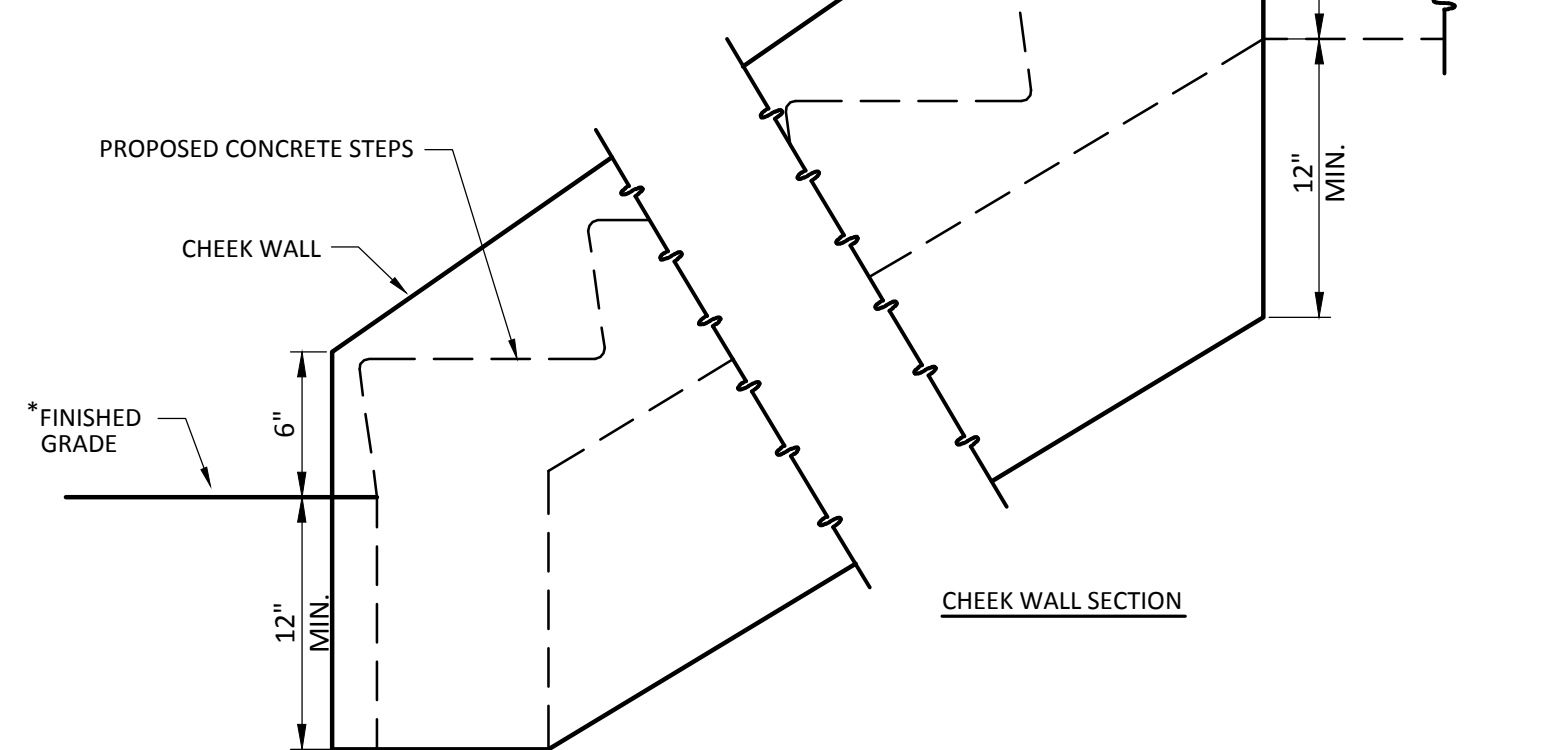
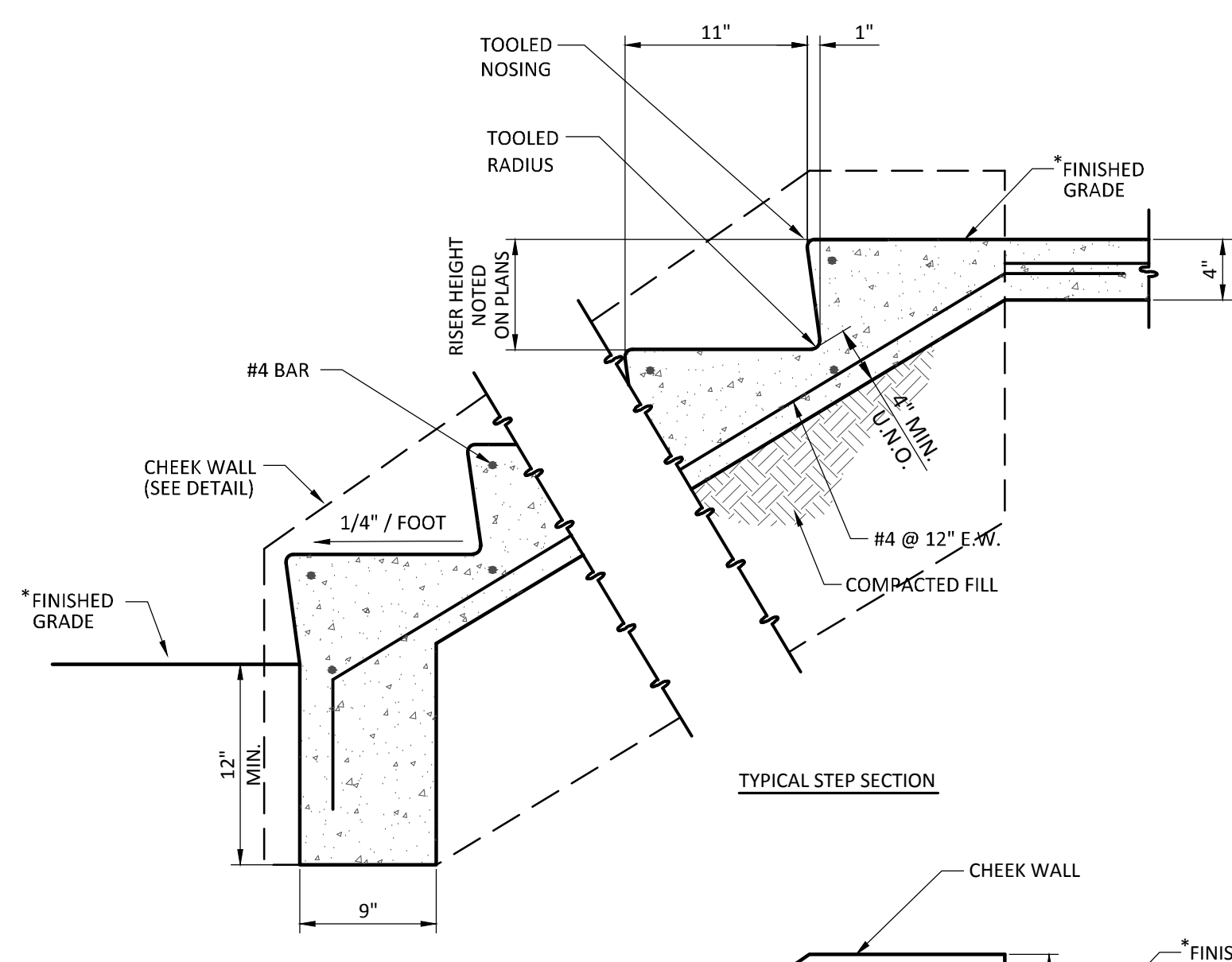
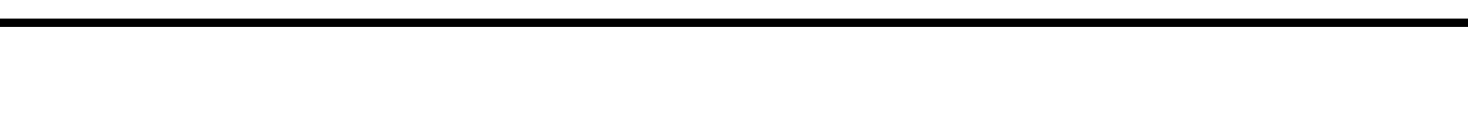
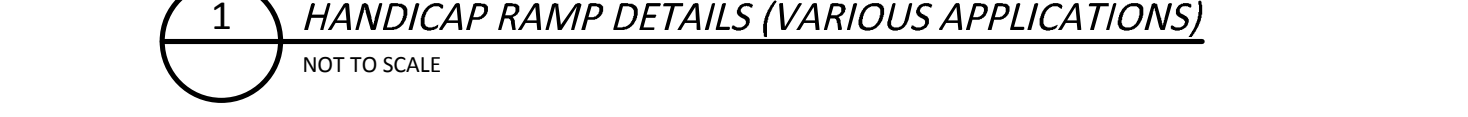
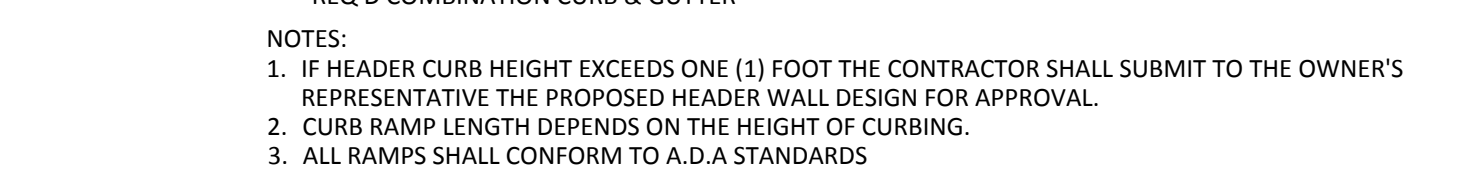
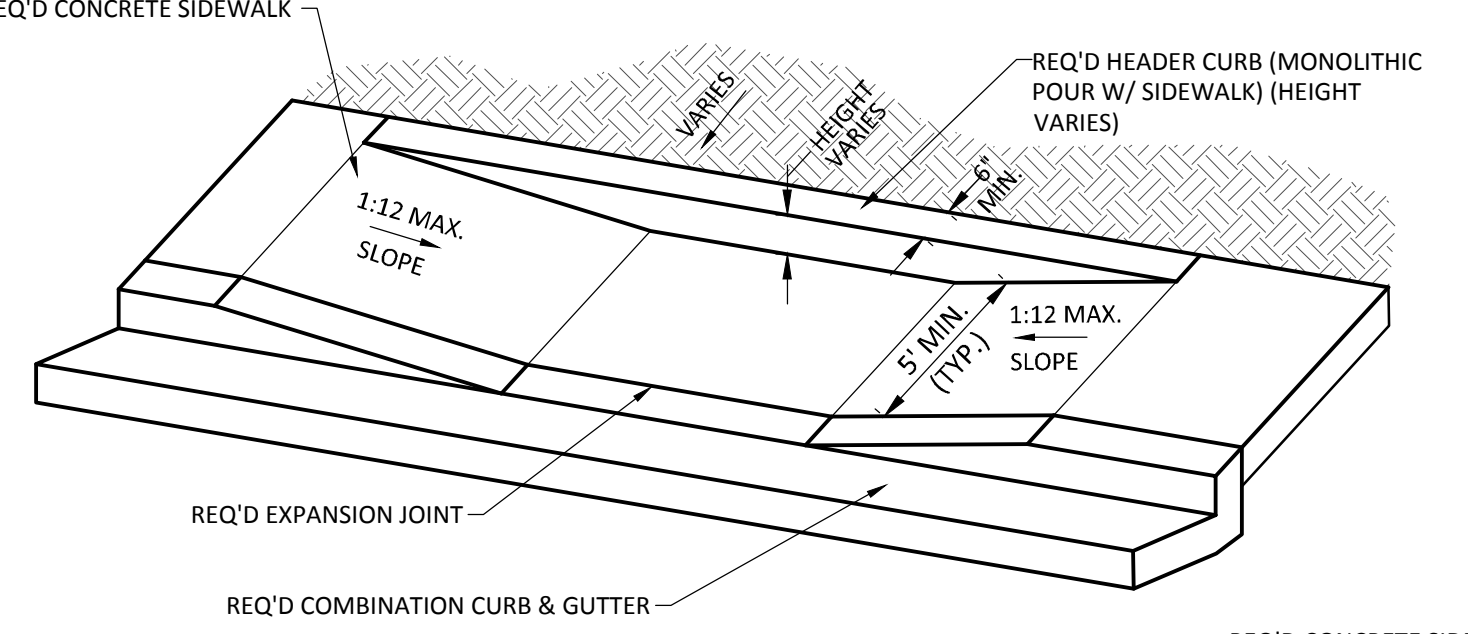
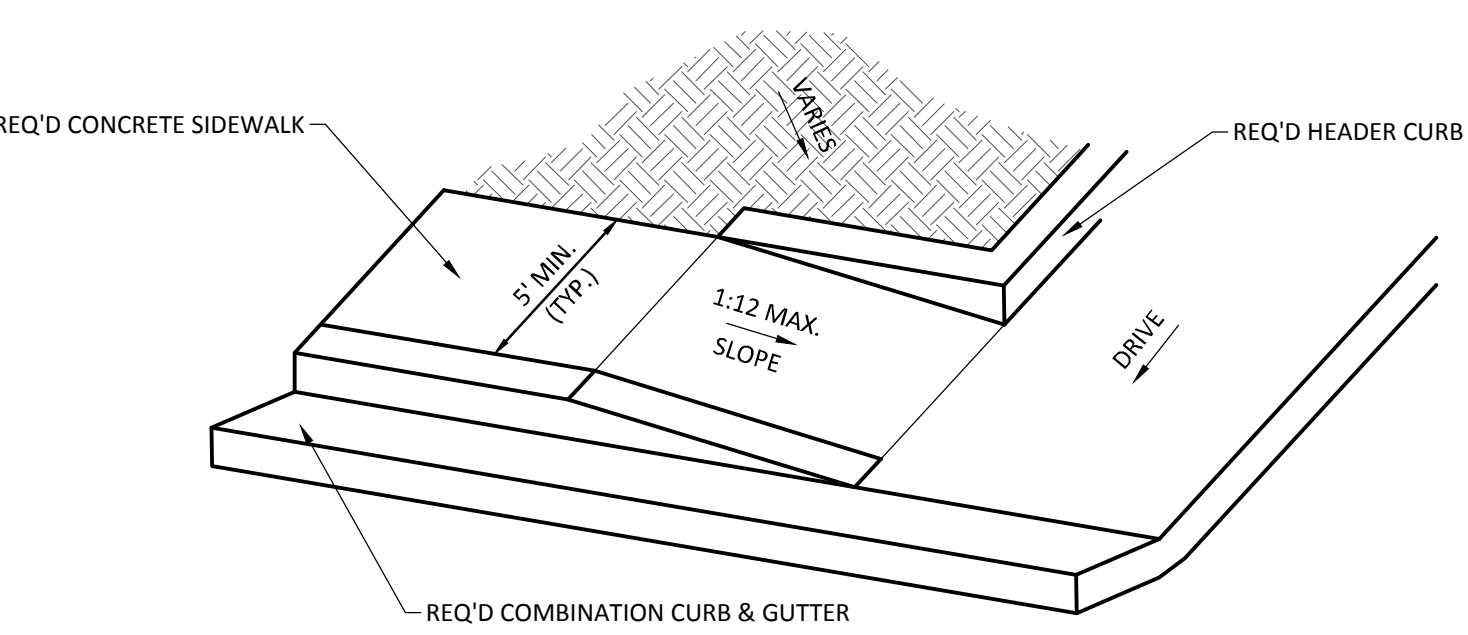
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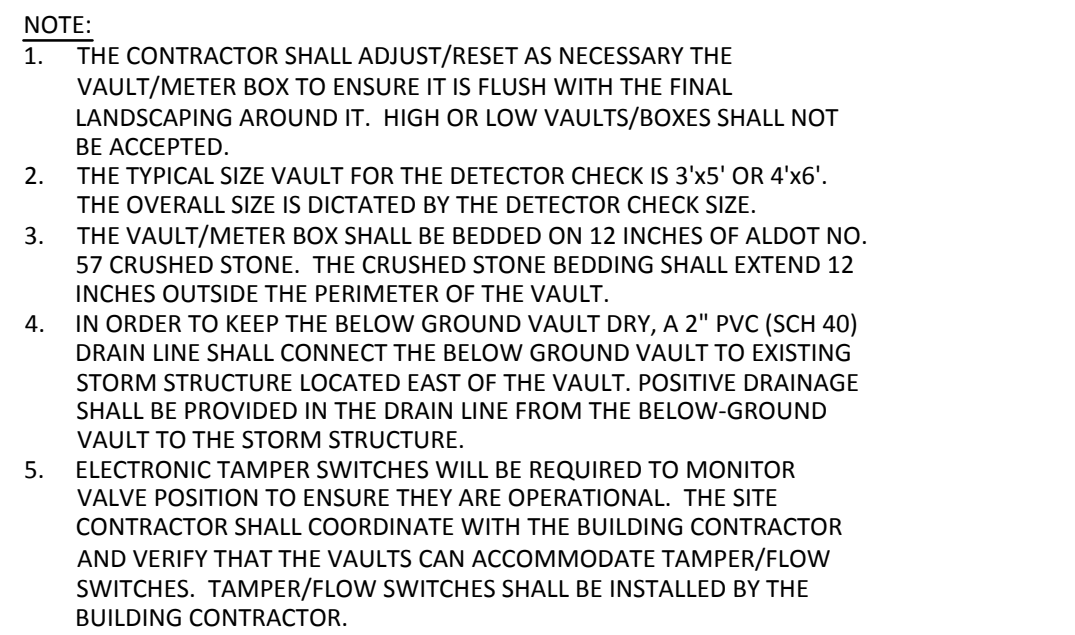
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Date: 5/17/13
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Job No.: 13-114

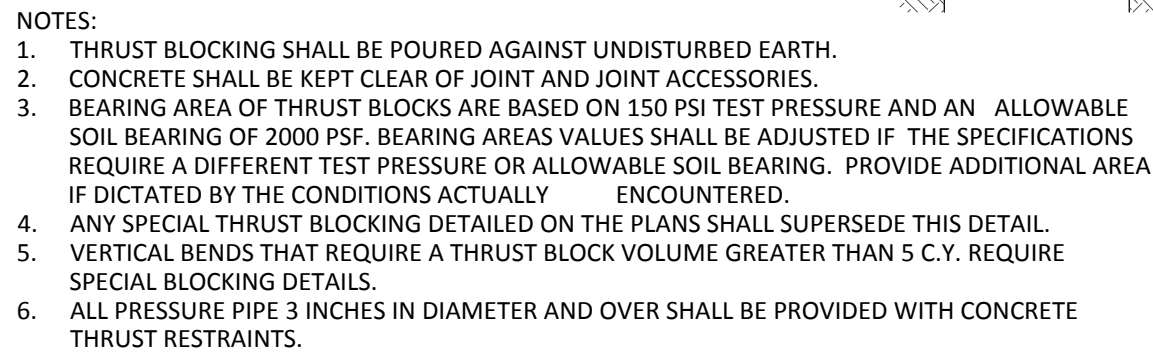








1 REQ'D DETECTOR CHECK ASSEMBLY
NOT TO SCALE



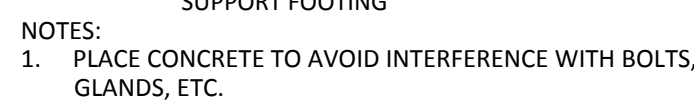
2 THRUST BLOCKING DETAILS & NOTES
NOT TO SCALE

MINIMUM REQUIRED BEARING AREA FOR CONCRETE THRUST BLOCKS

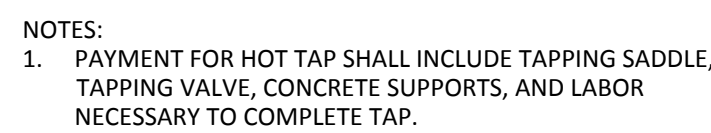
<u>HORIZONTAL</u>			
MINIMUM VOLUME OF THRUST BLOCK IN CURB YARDS (VERTICAL BENDS)			
FITTING SIZE	BEND ANGLE		
	45° BEND	22 1/2° BEND	11 1/4° BEND
4	1.1	0.4	0.2
6	2.7	1.0	0.4
8	4.0	1.5	0.7
10	6.0	2.3	0.9
12	8.5	3.2	1.3
14	11.5	4.3	1.8
16	14.8	5.6	2.3

VERTICAL
—STEEL RODS OVER FITTING AND EMBEDDED IN CONCRETE,
COAT WITH BITUMASTIC. (SEE TABLE TO THE RIGHT FOR
SIZES AND EMBEDMENT.)

FITTING SIZE	ROD SIZE	EMBEDMENT SIZE
12" and less	6	30"
14" - 16"	8	36"



3 FIRE HYDRANT ASSEMBLY DETAIL
NOT TO SCALE

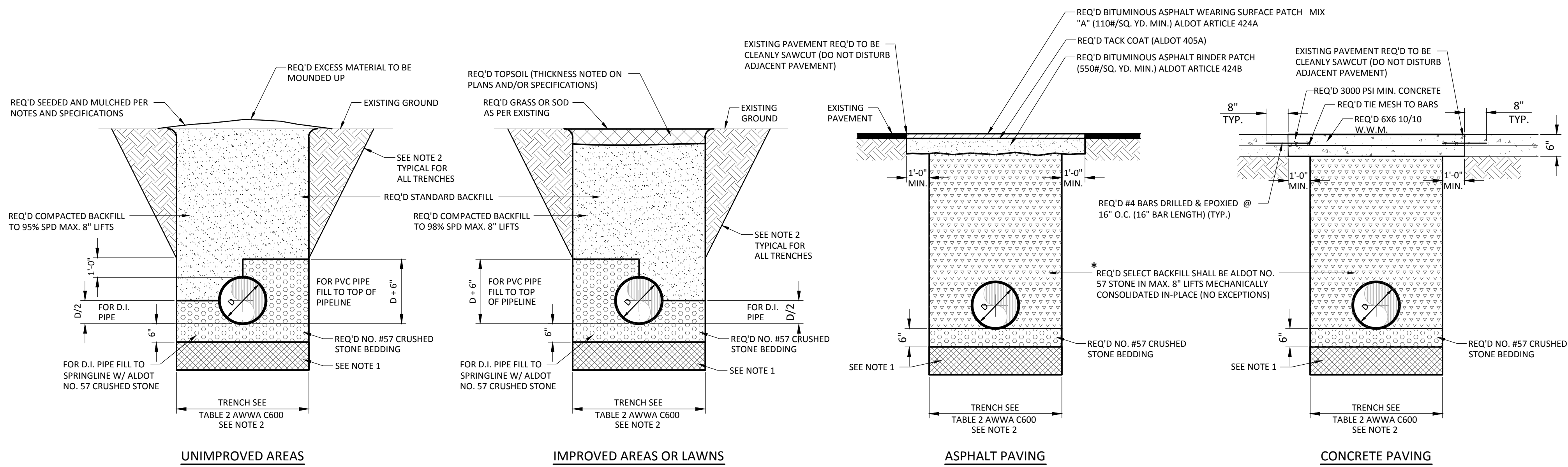


4 *HOT TAP DETAIL*
NOT TO SCALE



- NOTES:
1. FIRE DEPARTMENT CONNECTION THREADS SHALL BE TYPE NST.
 2. SEE THRUST BLOCKING DETAILS AND NOTES FOR THRUST BLOCK REQUIREMENTS.
 3. FIRE DEPARTMENT CONNECTION VAULT SHALL BE A REINFORCED CONCRETE VAULT AS MANUFACTURED BY FIBRE CON. LLC OR APPROVED EQUAL.
 4. THE FIRE DEPARTMENT CONNECTION VAULT SHALL HAVE A HINGED, ALUMINUM ACCESS DOOR. THE DOOR SHALL BE 2' X 2' WITH 300 PSF LOADING AND MANUFACTURED BY UFG FABRICATION, INC. (MODEL NO. AF3000) OR APPROVED EQUAL.
 5. THE STAMPESE POST SHALL BE INSTALLED IN THE VEGETATED AREA AND NOT OUT OF THE CONCRETE FIRE DEPARTMENT VAULT. THE VAULT SIZE SHALL BE AS SMALL AS NECESSARY TO INCREASE THE LANDSCAPED AREAS.
 6. THE CHECK VALVE WITH BALL DRIP SHALL BE LOCATED IN THE CONCRETE VAULT ONLY.



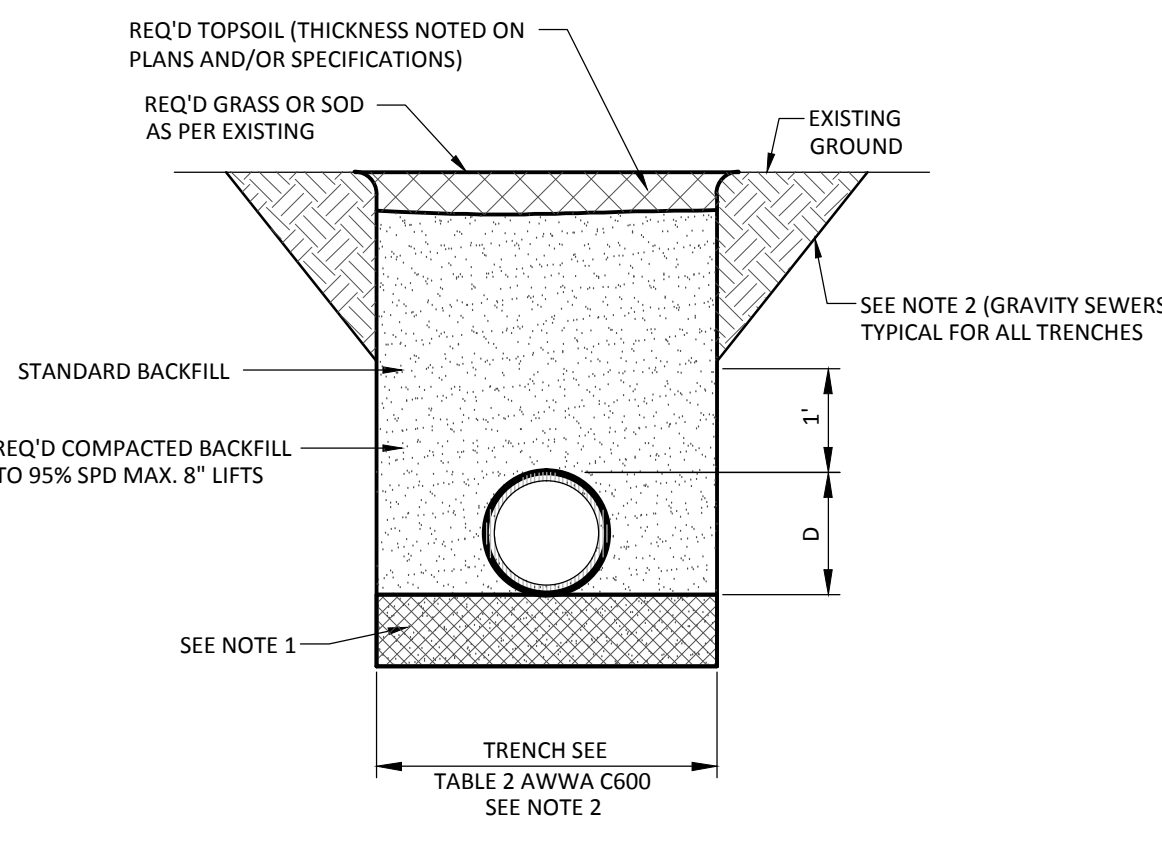
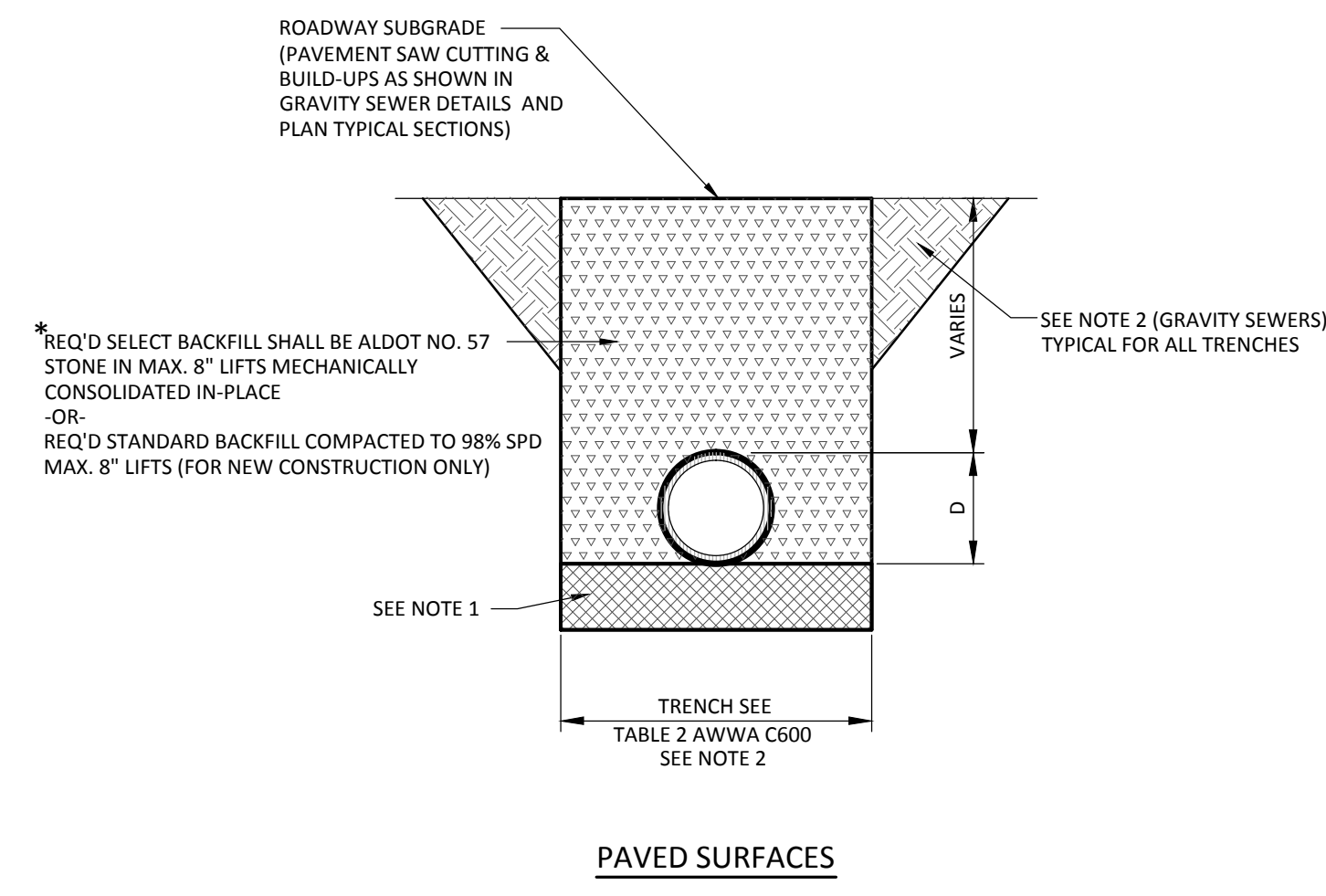


AWWA C600 TABLE 2

SUGGESTED TRENCH WIDTHS AT THE TOP OF THE PIPE	TRENCH WIDTH INCHES
NOMINAL PIPE SIZE INCHES	
6	28
8	32
10	34
12	36
15	39
24	48
30	54
36	60

TRENCHES FOR PIPES GREATER THAN 36" SHALL BE DIA. + 24"

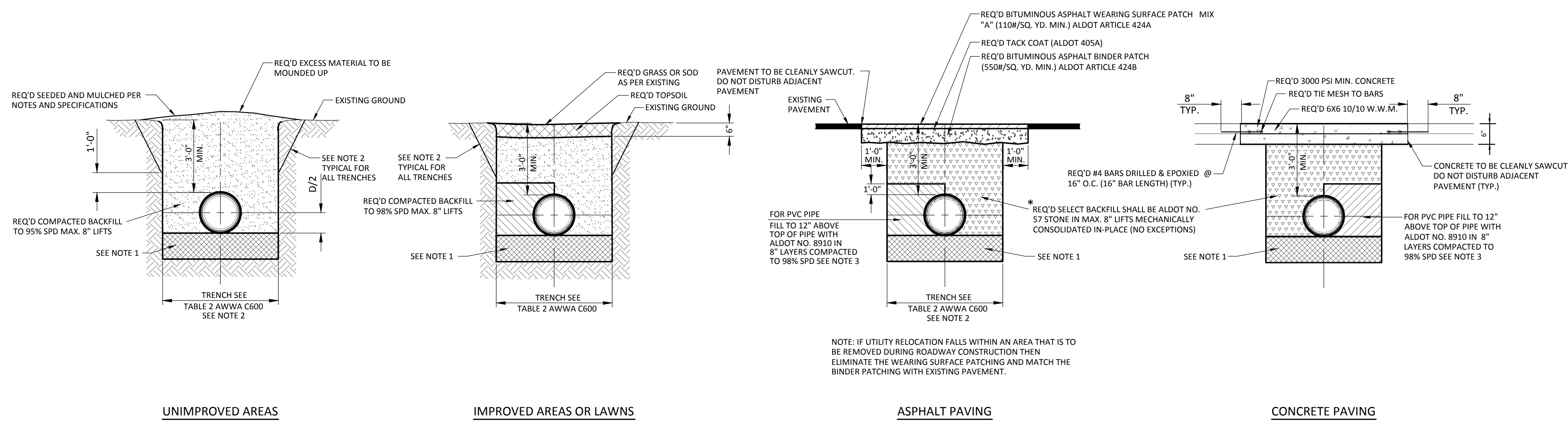
- NOTES:
- TRENCH FOUNDATION REQUIRED IF DIRECTED BY THE ENGINEER, DEPTH VARIES.
 - SEE SPECIFICATIONS FOR SIDE SLOPE CONSTRUCTION OF ALL TRENCHES. THERE IS NO ADDITIONAL PAY FOR TRENCH LAY BACK, BENCHING, SHORING, TRENCH BOXES, ETC. THIS IS CONSIDERED A SUBSIDIARY OBLIGATION TO THE UTILITY INSTALLATION.
 - IF THE ENTIRE STREET IS TO BE OVERLAYED THEN ELIMINATE THE ASPHALT WEARING SURFACE PATCH. THE ASPHALT BINDER PATCH SHALL BE FINISHED FLUSH WITH EXISTING PAVEMENT AND THEN THE ENTIRE STREET OVERLAYED.
 - UNLESS OTHERWISE NOTED ON THE PLANS, THE TRENCH DETAILS FOR GRAVITY SEWERS SHALL APPLY TO ANY UTILITY CONDUITS AND/OR SLEEVES INSTALLED AS NOTED ABOVE BASED ON THE UTILITY MATERIAL AND INSTALLATION LOCATION.
 - THE CONTRACTOR SHALL MECHANICALLY CONSOLIDATE THE STONE BACKFILL IN MAXIMUM 8" LIFTS AS NOTED. FAILURE TO DO SO SHALL RESULT IN THE STONE BEING REMOVED/REINSTALLED AT THE CONTRACTOR'S EXPENSE OR ONLY PARTIAL PAYMENT BEING MADE FOR THE BID ITEM.



- NOTES:
- THE CONTRACTOR SHALL REFERENCE ALL NOTES ASSOCIATED WITH THE GRAVITY SEWER TRENCH DETAILS.

2 TRENCH DETAILS - STORM DRAINS

NOT TO SCALE

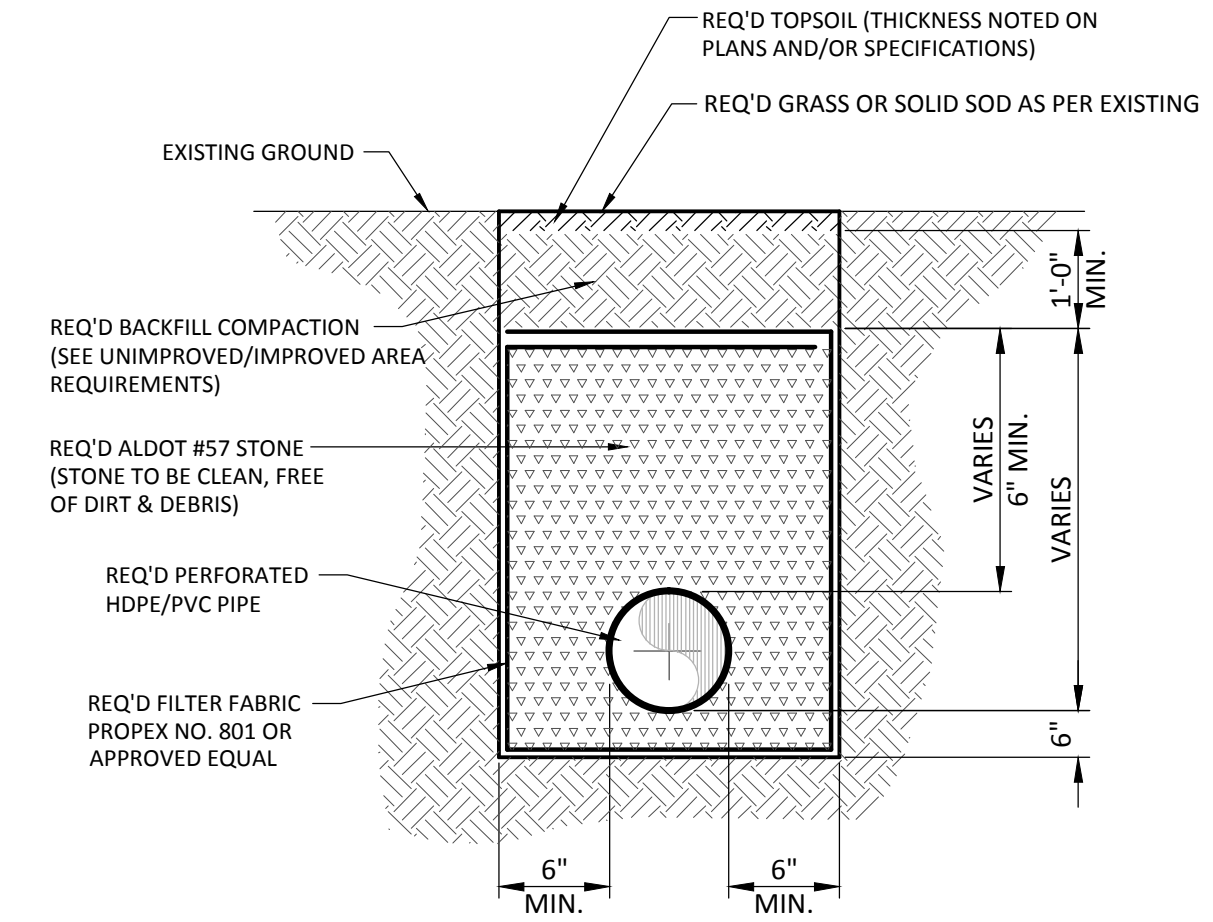


AWWA C600 TABLE 2

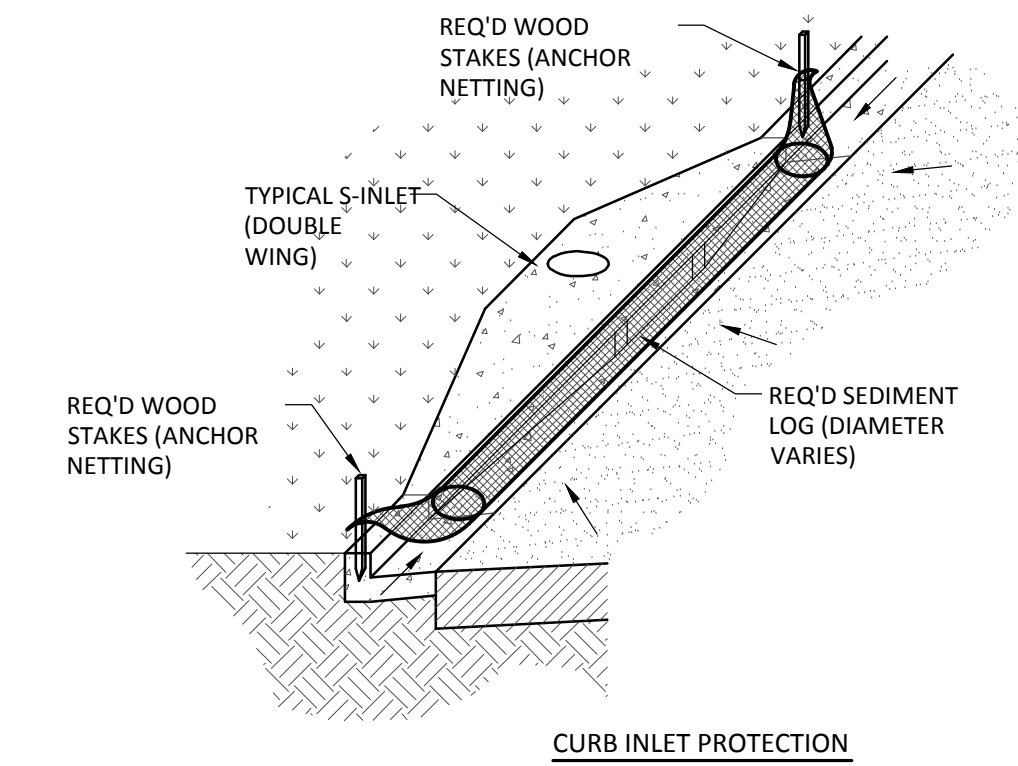
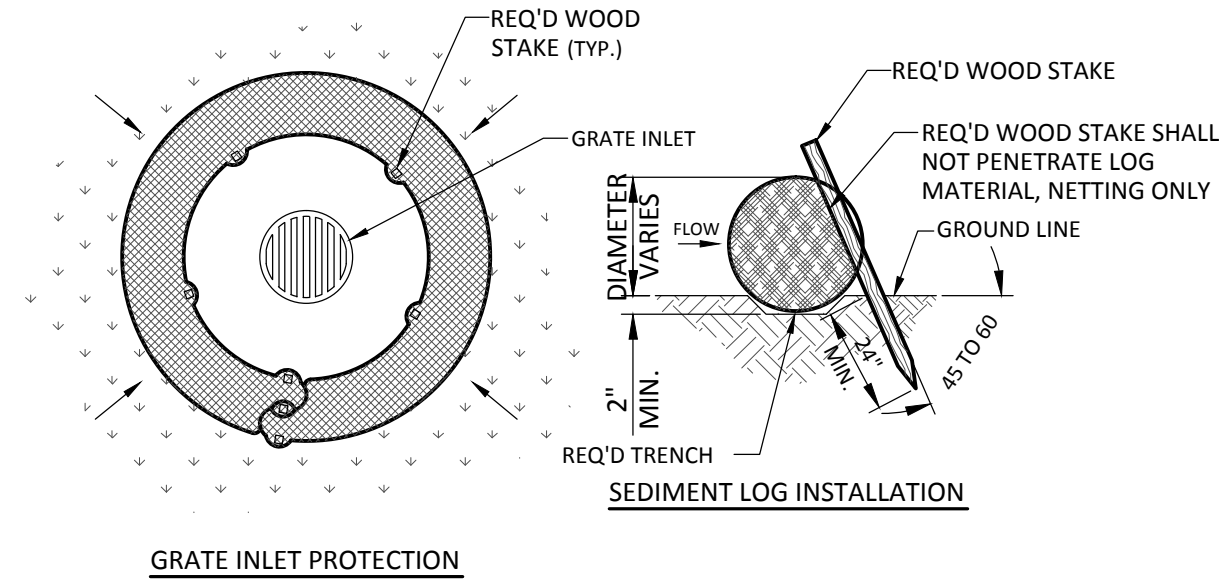
SUGGESTED TRENCH WIDTHS AT THE TOP OF THE PIPE	TRENCH WIDTH INCHES
NOMINAL PIPE SIZE INCHES	
6	28
8	32
10	34
12	36
15	39
24	48
30	54
36	60

TRENCHES FOR PIPES GREATER THAN 36" SHALL BE DIA. + 24"

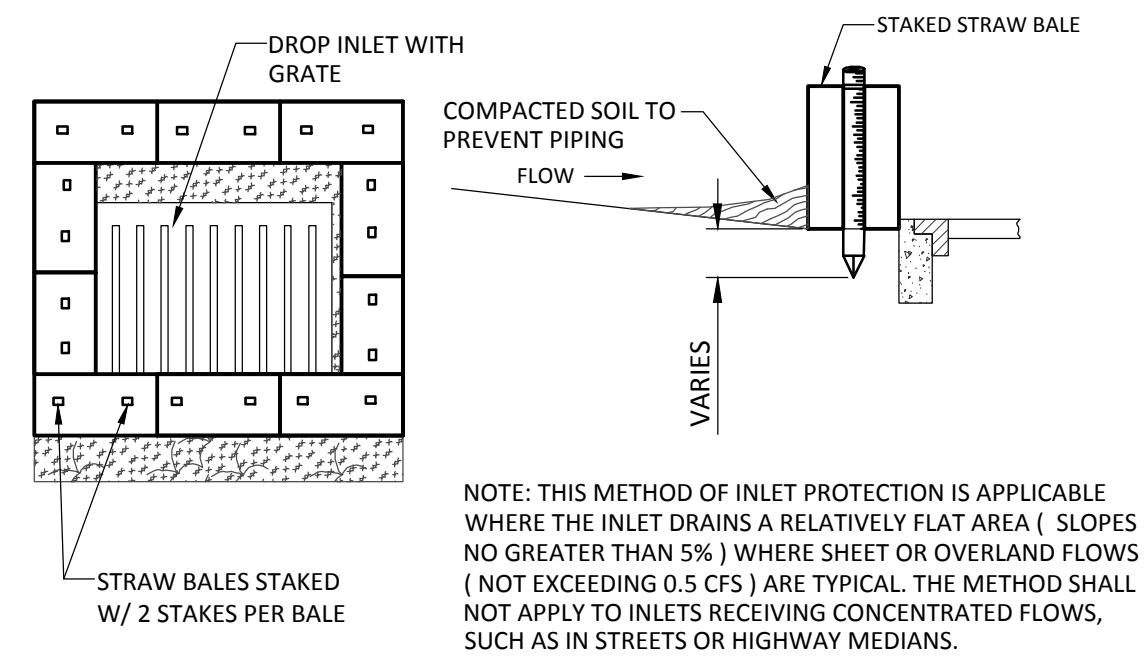
- NOTES:
- BEDDING AND TRENCH FOUNDATION REQUIRED IF DIRECTED BY THE ENGINEER, DEPTH VARIES.
 - SEE SPECIFICATIONS FOR SIDE SLOPE CONSTRUCTION OF ALL TRENCHES. THERE IS NO ADDITIONAL PAY FOR TRENCH LAY BACK, BENCHING, SHORING, TRENCH BOXES, ETC. THIS IS CONSIDERED A SUBSIDIARY OBLIGATION TO THE UTILITY INSTALLATION.
 - FOR ALL PVC PIPE ALDOTT NO. 8910 CRUSHED LIMESTONE SHALL BE PLACED IN APPROPRIATE THICKNESS AND COMPACTED IN THE FOLLOWING SEQUENCE:
 - BEDDING
 - SPRINGLINE OF PIPE
 - ONE FOOT ABOVE TOP OF PIPE
 - THE CONTRACTOR SHALL MECHANICALLY CONSOLIDATE THE STONE BACKFILL IN MAXIMUM 8" LIFTS AS NOTED. FAILURE TO DO SO SHALL RESULT IN THE STONE BEING REMOVED/REINSTALLED AT THE CONTRACTOR'S EXPENSE OR ONLY PARTIAL PAYMENT BEING MADE FOR THE BID ITEM.



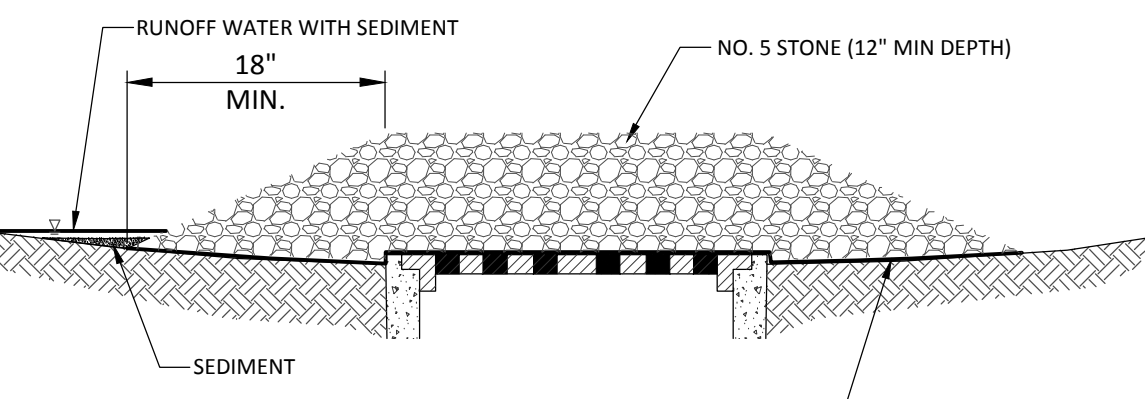
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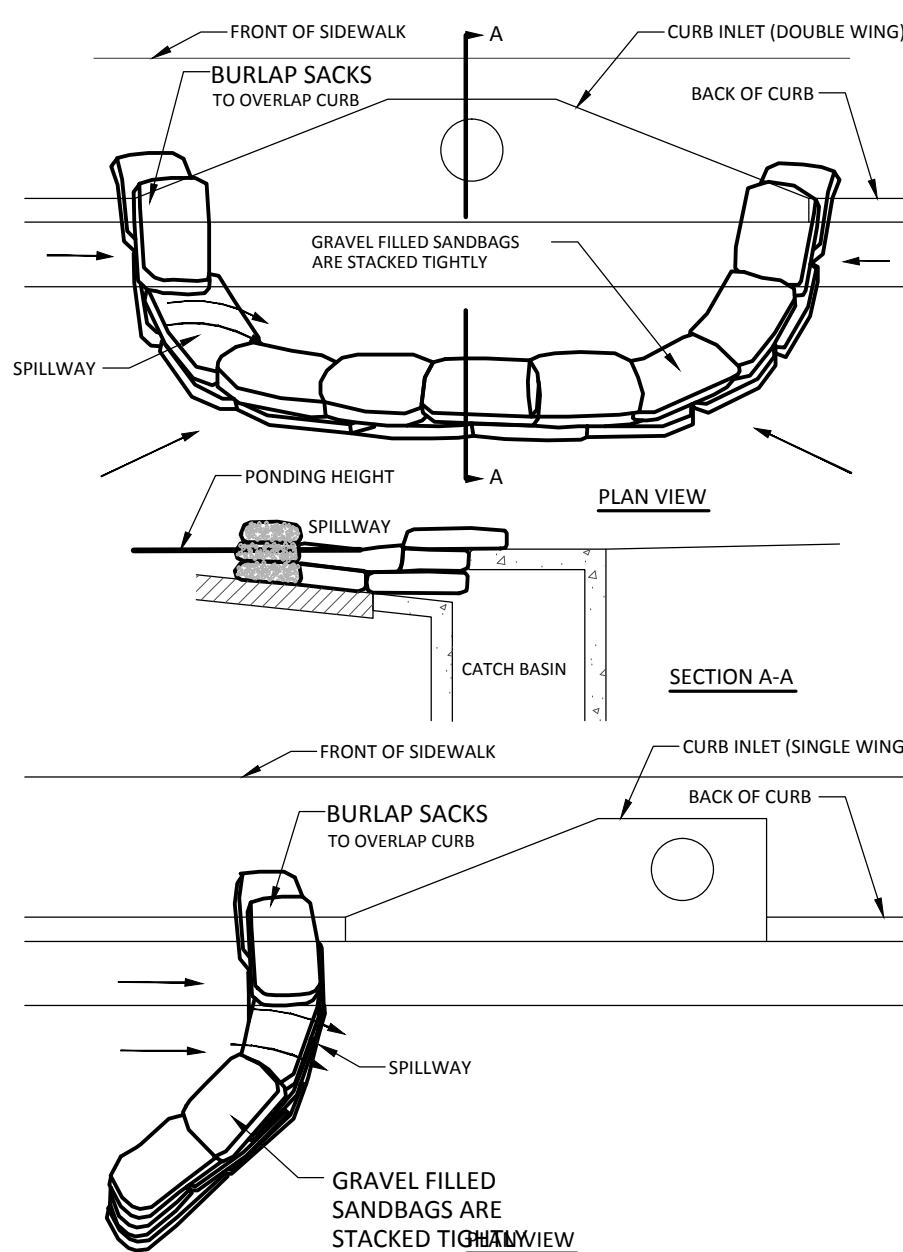
- NOTES:
1. WHEN STAKING THE SEDIMENT LOG THE WOODEN STAKES SHALL NOT PENETRATE THE SEDIMENT LOG MATERIAL. THE WOODEN STAKES SHALL ONLY EXTEND THROUGH THE SEDIMENT LOG NETTING.
 2. SEDIMENT CONTROL LOGS SHALL BE CURLEX SEDIMENT LOGS AS MANUFACTURED BY AMERICAN EXCELSIOR COMPANY (AEC) OR APPROVED EQUAL.



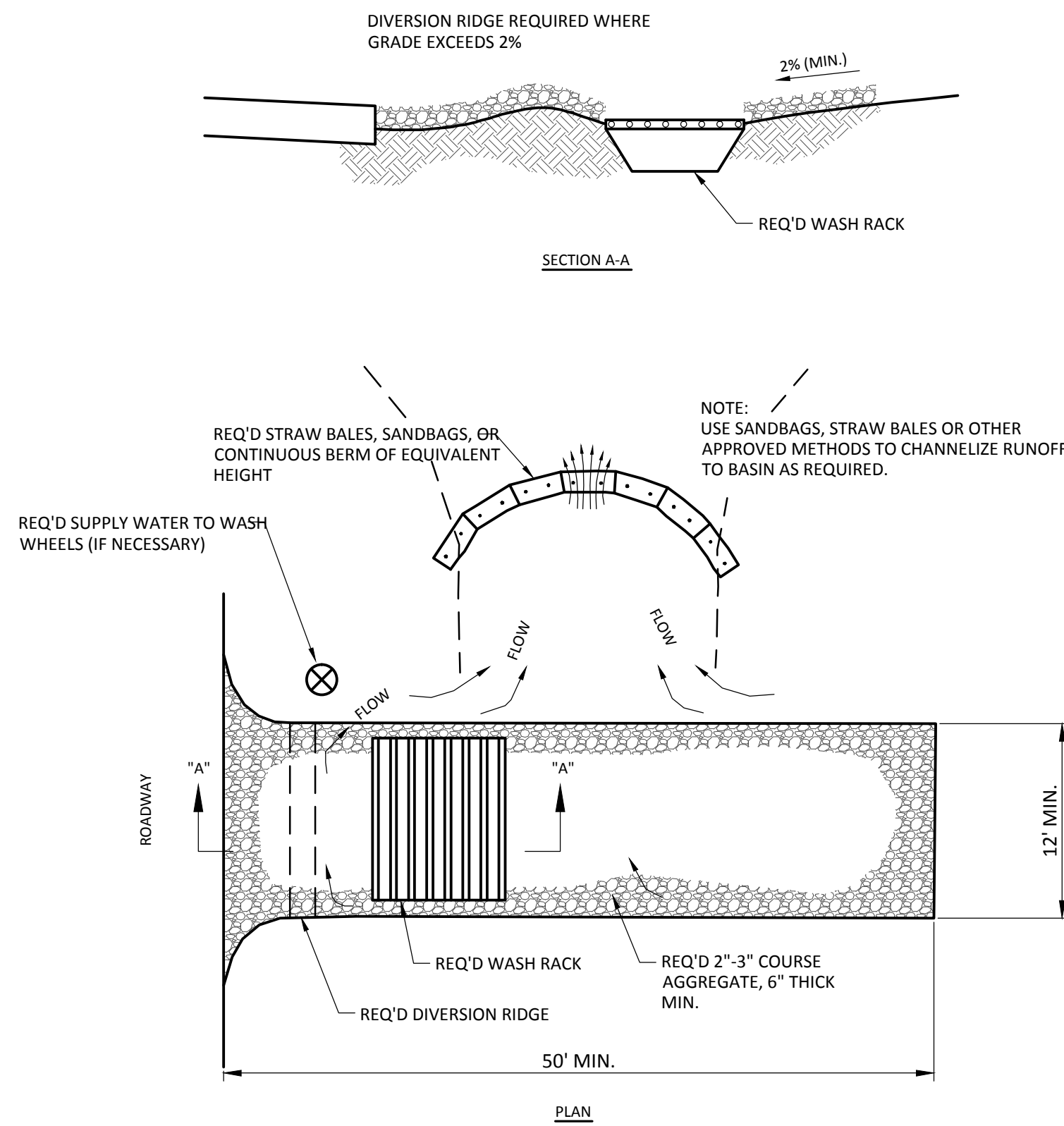
NOTE: THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE THE INLET DRAINS A RELATIVELY FLAT AREA (SLOPES NO GREATER THAN 5%) WHERE SHEET OR OVERLAND FLOWS (NOT EXCEEDING 0.5 CFS) ARE TYPICAL. THE METHOD SHALL NOT APPLY TO INLETS RECEIVING CONCENTRATED FLOWS, SUCH AS IN STREETS OR HIGHWAY MEDIANS.



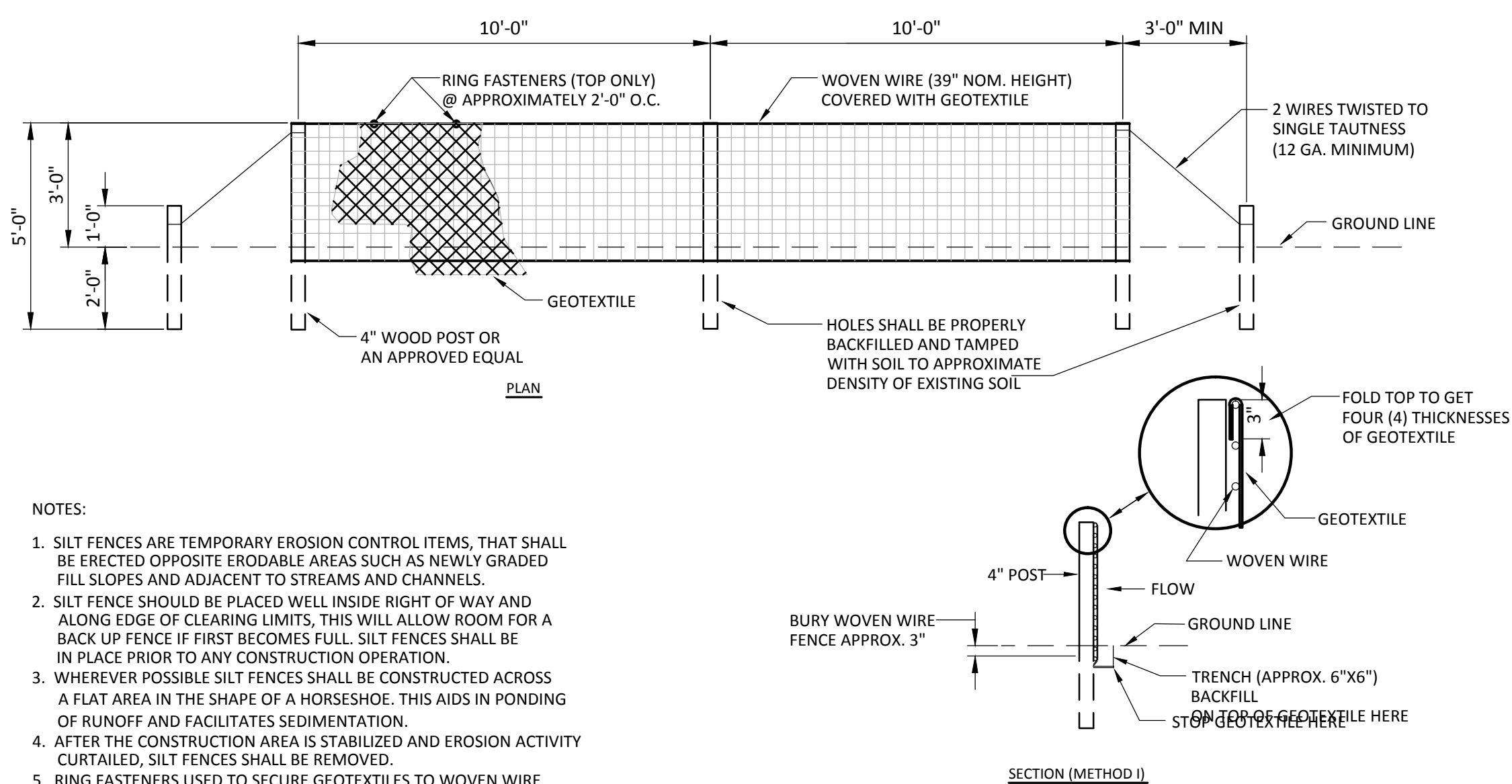
- NOTE: THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.



- NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
 2. SANDBAGS OF EITHER BURLAP OR WOVEN 'GEOTEXTILE' FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
 3. LEAVE A ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
 4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

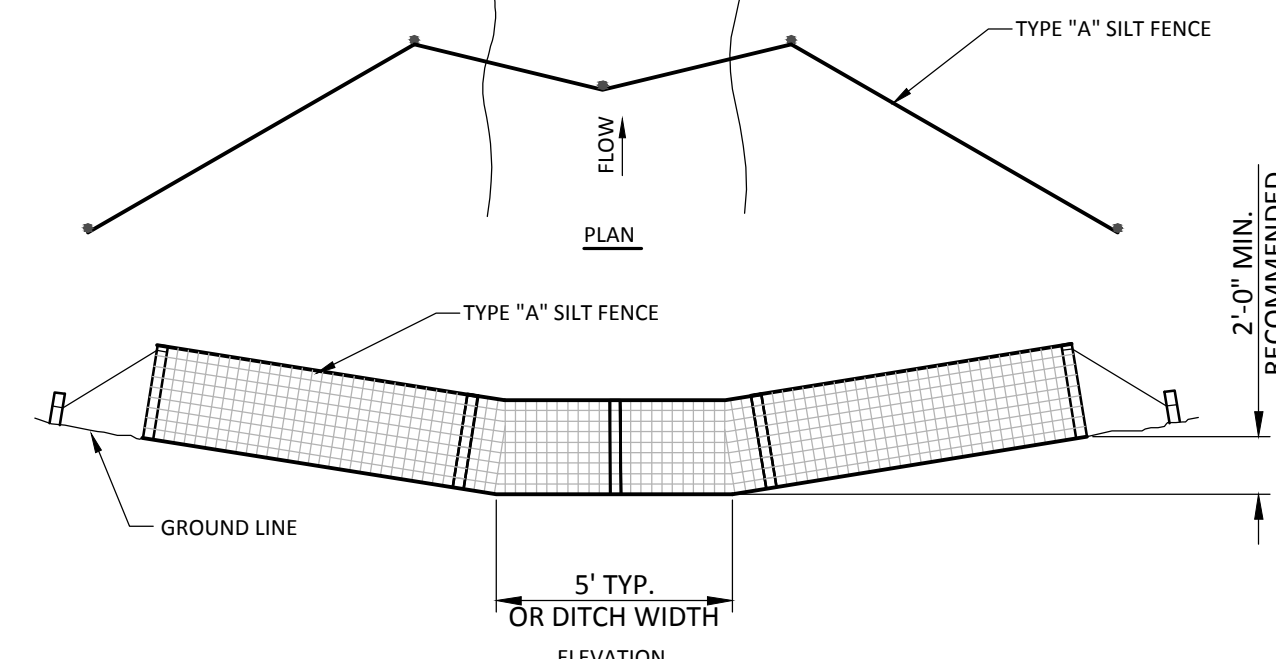


- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO TO PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



- NOTES:
1. SILT FENCES ARE TEMPORARY EROSION CONTROL ITEMS, THAT SHALL BE ERRECTED OPPOSITE ERODABLE AREAS SUCH AS NEWLY GRADED FILL SLOPES AND ADJACENT TO STREAMS AND CHANNELS.
 2. SILT FENCE SHOULD BE PLACED WELL INSIDE RIGHT OF WAY AND ALONG EDGE OF CLEARING LIMITS. THIS WILL ALLOW ROOM FOR A BACK UP FENCE IF FIRST BECOMES FULL. SILT FENCES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION OPERATION.
 3. WHEREVER POSSIBLE SILT FENCES SHALL BE CONSTRUCTED ACROSS A FLAT AREA IN THE SHAPE OF A HORSESHOE. THIS AIDS IN PONDING OF RUNOFF AND FACILITATES SEDIMENTATION.
 4. AFTER THE CONSTRUCTION AREA IS STABILIZED AND EROSION ACTIVITY CURTAILED, SILT FENCES SHALL BE REMOVED.
 5. RING FASTENERS USED TO SECURE GEOTEXTILES TO WOVEN WIRE SHALL BE 13 GA. (AMERICAN).
 6. IF WOOD POSTS ARE USED, STAPLES FOR SECURING WOVEN WIRE TO POSTS SHALL BE (9) GAUGE, GALVANIZED, 1-1/2" LONG, 5 PER POST AT APPROX. 1'-0" O.C.
 7. WOVEN WIRE TO BE 12-1/2 GAUGE (MIN.).

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS.

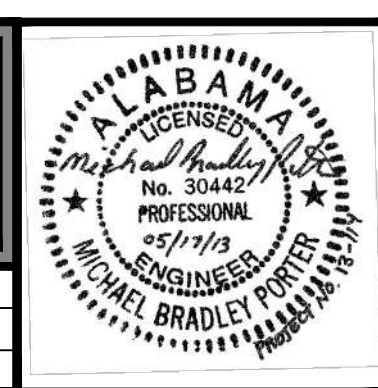


- NOTES:
1. SPACING SHALL BE AS SHOWN ON THE PLANS FOR SPECIAL AREA'S, OR AS DETERMINED BY THE ACTUAL PROJECT NEEDS TO MINIMIZE EROSION.
 2. ADDITIONAL EROSION CONTROL METHODS WILL BE REQUIRED AT THE DITCH OUTLET TO CONTAIN SEDIMENT.

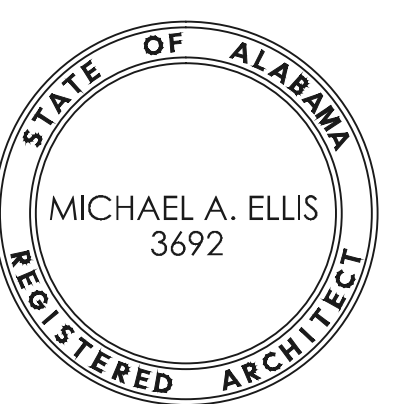
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Drawn By: D J T
Date: 5/17/13
File Name: 13114.ConstructionPlans.dwg

Checked By: M B P
Job No.: 13-114



Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama



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Do Not Scale From Drawings.
Contractor must verify all dimensions prior to construction.

JOB No.	11015E
DATE:	REV DATE:
5/17/13	
DRAWN BY:	D J T
STANDARD DETAILS	
SHEET NUMBER	C4.4

GENERAL NOTES

- Any omissions or discrepancies between plans, details, and specifications shall be brought to the attention of the Architect or Engineer before bidding.
- Structural drawings or parts of the structural drawings may not be used as shop drawings without prior written approval.
- Contractor proposed changes to details must be clearly noted on the first sheet of all shop drawings.
- Construction shown is stable after the building is complete including interior and exterior finishes. The Contractor is responsible for temporary bracing of the structure during construction.
- Intersections of new and old construction illustrate interpretations of drawings on previous projects. Before starting any construction, verify all existing conditions.
- Site visits by Engineer of Record are not considered inspections or special inspections, rather are observations for general compliance with contract documents.
- Electronic submittal of shop drawings is preferred. Refer to specifications for shop drawing submittal requirements.

DESIGN LOADS - STORM SHELTER

- 1) Reference codes for loading
- ICC 500-2008
FEMA 361
ASCE 7-05
IBC 2009
Tornado
- 2) Type of Shelter
- a. Building Classification II
- b. Wind Load
- 1) Basic Wind Speed 250 mph
- 2) Importance Factor 1.0
- 3) Wind Exposure C
- 4) Internal Pressure Coefficient +/- 0.55
- 5) Velocity Pressure (qz) 156.2 psf
- c. Roof Snow Load
- 1) Flat Roof Snow Load (Pf) 5 psf
- 2) Snow Exposure (Ce) 1.0
- 3) Importance Factor 1.0
- 4) Thermal Factor (Ct) 1.0
- d. Seismic Load
- 1) Importance Factor 1.0
- 2) Mapped Spectral Response Accelerations
- a) Ss 0.30
- b) S1 0.125
- 3) Site Class D
- 4) Spectral Response Coefficients
- a) Sds 0.30
- b) Sd1 0.125
- 5) Seismic Design Category C
- 6) Base Seismic-Force-Resisting System(s) and Response Modification Factor
- a) Ordinary Reinforced Masonry Shear Wall 2
- 7) Design Base Shear 32 kips
- 8) Seismic Response Coefficient (Cs) 0.05
- 9) Analysis Procedure = Equivalent Lateral Force
- e. Live Load
- 1) Roof Load 100 psf
- 2) Missile Impact of 15lb Sawm 2X4
- a) Vertical Surfaces 100 mph
- b) Horizontal Surfaces 67 mph

FOUNDATIONS

- Foundation design for this project was based on soils information provided by TTL, Inc. Project No. 100113014, dated March 25, 2013.
- All footings are to bear on helical anchors.
- Provide 8'-0" long top steel reinforcing, same size as bottom steel, at transitions between engineered fill and undisturbed soil locations.
- Install corner bars at all footing intersections and corners (Provide lap length e.w.)
- Step all footings where necessary to provide a minimum of 1'-0" below the finish grade or 0'-8" below finish floor.
- All footing elevations are given to the top of the footings.
- Footing steps shown on the plans provide a minimum depth for estimating quantities. Final elevations are to be set in the field. Bearing elevations must be approved by a Soils Engineer before any concrete is placed.
- Coordinate foundation elevations with plumbing requirements. Step footings as required to clear plumbing lines. See foundation plan and sections for minimum depth required for all footings.

HELICAL ANCHORS

- Piling load capacity required by design is 60 kips compression and 25 kips tension.
- Provide depth, diameter, and configuration required to achieve specified loads.
- Final elevations of all piling are to be determined in the field, by the Geotechnical Engineer.

MASONRY

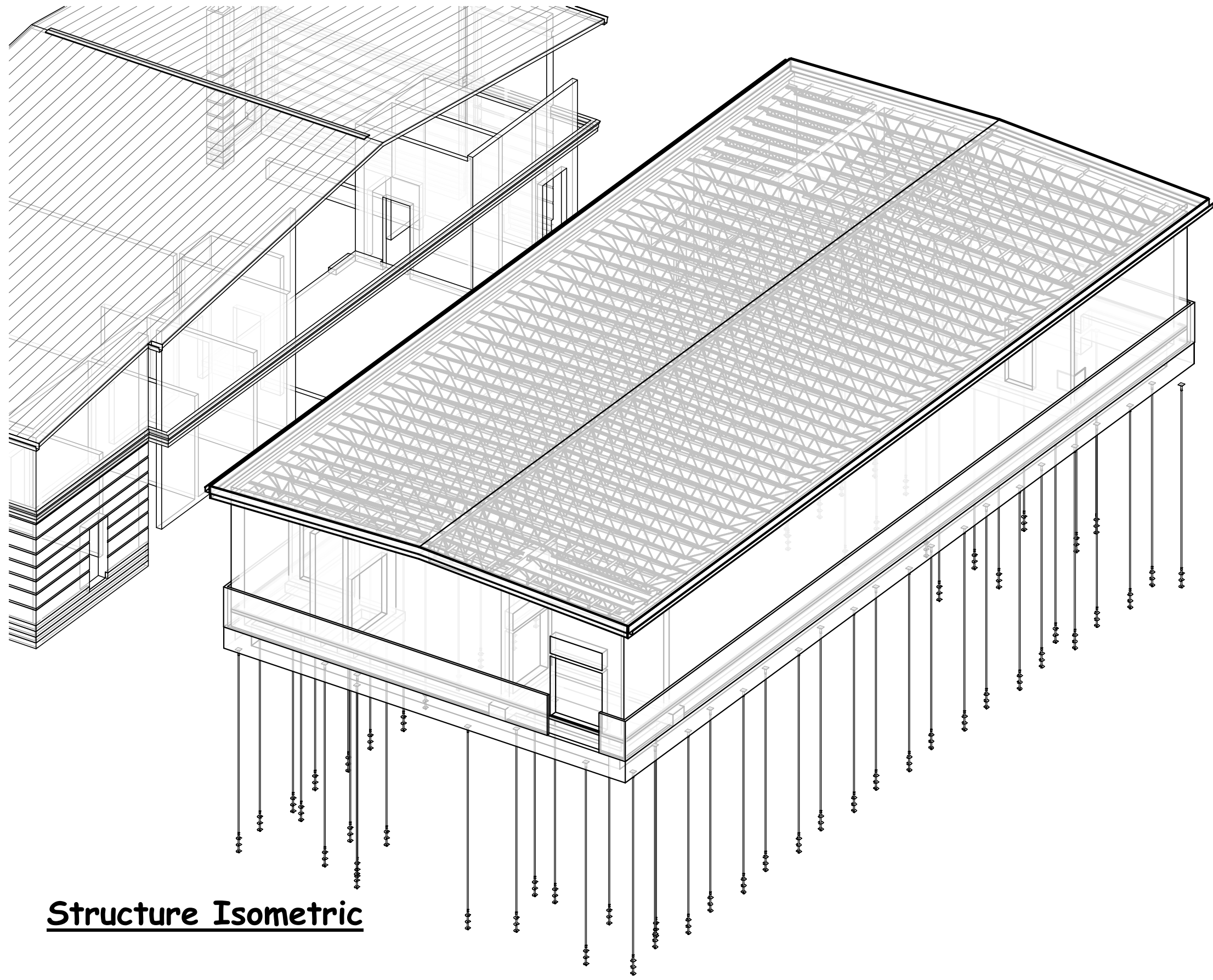
- All masonry work to be in accordance with "Building Code Requirements for Concrete Masonry Structures" ACI 530-05 and "Specifications for Masonry Structures" ACI 530.1-05
- Fill all concrete masonry units with concrete or grout from the top of the footing to the finish floor or to 8" above finish grade whichever is higher.
- Use truss type joint reinforcement (Blok-Lok BL-34 or better) at 16" on center in all cavity walls where brick is used for one or more of the wythes.
- Use truss type joint reinforcement (Dur-O-Wall SW DA3100 or better) at 16" o.c. in all other masonry walls.
- Use Type "M" or Type "S" mortar in accordance with TBC Table 2103.7(1).
- Minimum compressive strength of concrete masonry f'm = 1500 psi. Submit for review test data on strength of units before starting any masonry work.
- Minimum compressive strength of grout f'c = 2000 psi. Use 3/8" max size aggregate. See Special Inspection Schedule for any testing requirements.
- Use "Fine" grout for all reinforced piers and reinforced wall in accordance with ASTM C 476.
- Each grout lift shall not exceed 5'-0" unless cleanouts are provided in the bottom course.
- Fill cells under all lintels with grout.
- Provide lintels over all openings through walls. See lintel details for reinforcement.
- Unless otherwise noted provide control joints in all walls 4'-0" from wall intersections or corners and at 20'-0" o.c.
- Provide continuous bond beam at 8'-0" o.c. vertical spacing TYP
- Extend all horizontal steel and bond beams thru control joints.
- Vertical reinforcement shall extend into the bond beam with a ACI standard hook.
- Where bars are specified at each face, provide minimum 1/2" clear space between reinforcement and CMU face shell, this includes all storm rated walls. For all non-storm rated walls, reinforcement shall be placed at the center of the wall, unless noted otherwise.
- Anchor bolt into grouted cell locations only, unless noted otherwise.
- Non Load Bearing Interior CMU walls shall be reinforced with minimum #4 bars in fully grouted cells @ 4'-0" o.c. Provide Bond Beam at top of wall. Brace top of wall to roof structure with rigid bracing @ 8'-0" o.c.. Alternate each direction.

EPOXY AND MECHANICAL ANCHORS

- All anchors shall be installed per manufacturer's instructions.
- Contractor must get pre-approval from engineer-of-record before using post-installed epoxy or mechanical anchors not detailed in these drawings.
- All epoxy to be Red-Head EPOCON C6 Fast Curing Epoxy or approved equal
- All mechanical anchors to be Simpson TITEN HD Screw Anchors or approved equal.

REINFORCING STEEL AND CONCRETE

- All concrete work is to be in accordance with the "Building Code Requirements for Reinforced Concrete" (ACI 318-05).
- All detailing is to be in accordance with "ACI Detailing Manual" SP-66
- Concrete Properties: See Schedule
- a. All concrete must obtain 7 day strength of 70% of design strength.
- b. Concrete mixes may use up to 25% of cementitious weight as fly ash.
- c. Concrete mixes may use water reducers, accelerators or retarders with prior approval.
- All steel reinforcement shall be of deformed bars of billet steel conforming to ASTM A615, Grade 60 in all concrete.
- Welded wire fabric shall be ASTM 185 and shall lap 2 cross wires or 6" whichever is greater on all sides. All laps shall be wired together.
- Provide (2) #4 bars x 4'-0" at re-entrant corner locations Typical. Locate 3" away from corner and space 1'-0" apart.
- All slabs on grade are 4", unless noted. Slabs are to be placed on 10 Mil, PVC vapor barrier over 4" of porous fill. Reinforce slabs with 6x6 W1.4 x W1.4 WWF placed 1" from top of slab. Unless otherwise noted slabs shall have joints placed a 12'-0" on centers. Joints may be control joints or construction joints. See Architectural Plans for floor slopes and recesses for hard tile.
- Minimum concrete cover for reinforcement:
- a) Footings. 3"
- b) Slabs 3"
- Provide corner bars at all wall and footing intersections.
- Contractor shall include an allowance of 2 tons of reinforcing steel in place in addition to the steel shown on the contract documents in the base bid. This steel is to be placed at no additional cost to the Owner in sizes and at locations as directed by the Architect or Engineer. Unused steel will be credited to the Owner.
- Do not run conduit or pipe in slabs or beams unless noted on the plans or specific prior approval from the engineer.
- Use 3/4" chamfer for all exposed corners unless noted.



Structure Isometric

CONCRETE SCHEDULE						
Concrete Use	Design Strength	Max W/C Ratio	Slump Limits	Entrained Air Range	Weight	Notes
Beams	4000 psi	n/a	6" to 8"	3% to 5%	150 pcf	Use HRWR
Footings	4000 psi	n/a	6" to 8"	3% to 5%	150 pcf	Use HRWR
Slabs on Grade	4000 psi	n/a	6" to 8"	3% to 5%	150 pcf	Use HRWR
Slabs on Metal Deck	4000 psi	n/a	6" to 8"	3% to 5%	150 pcf	Use HRWR

Structural Wall Foundation Schedule					
Type	Width	Thickness	Reinforcing	Estimate of Length	
W24s	2' - 0"	2' - 6"	4 #7 con't top and bottom with #3 ties @ 6" o.c.	360'	
W24	2' - 0"	1' - 0"	4 #4 con't / #4 @ 36" transverse	88'	
W36	3' - 0"	1' - 0"	5 #4 con't / #4 @ 12" transverse	23'	

STRUCTURAL STEEL

- All detailing, fabricating, and erection of structural steel shall be in accordance with the AISC 360-05 "Specifications for Structural Steel Buildings". All reactions shown are ASD loads.
- All connections are to be detailed as Type 2 "simple frame connections".
- Headed Studs shall be Type B Shear Connectors.
- Shop and field connections shall be welded with E-70XX electrodes or bolted with 3/4" dia. A-325N or A-325X bolts, unless noted.
- Use 3/4" cap and bearing plates, unless noted.
- Use 3/4" dia x 1'-0" long ASTM 1554 Grade 36 anchor bolts, unless noted. In lieu of cast bolts, 3/4"x1'-0" long HAS rods epoxied with Hilti HVA epoxy, or equal, may be used with prior approval.
- Provide L 3"x3"x1/4" frames around all roof openings through metal decking.
- Provide design calculations for connections other than standard frame or seat connections.
- All steel exposed to weather shall be hot dipped galvanized per ASTM A123.
- Contractor shall include an allowance of 1 ton of structural steel in place in addition to the steel shown on the contract documents in the base bid. This steel is to be placed at no additional cost to the Owner in sizes and at locations as directed by the Architect or Engineer. Unused steel will be credited to the Owner.
- Contractor shall include an allowance of 300 lineal feet of L 3"x3"x1/4" angle in place in addition to the steel shown on the contract documents in the base bid.
- Stairs, handrails, guardrails and other miscellaneous steel items not specifically detailed on these drawings are the responsibility of the contractor. Contractor must furnish design calculations sealed by a Professional Engineer where required by jurisdiction.

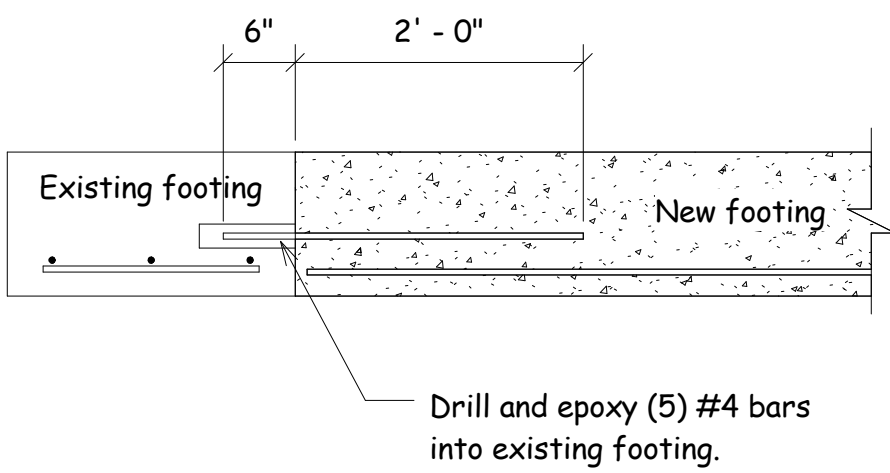
STEEL JOIST AND JOIST GIRDERS

- All steel joists shall conform to the standard specifications for the joist noted, as adopted by the Steel Joist Institute.
- Joist designation Joist depth/Series/Total Load/Live Load/Net Uplift.
- Joist supplier has the option of combining joist sizes to a larger section.
- K Series joists shall be welded to bearing plates or steel members with two 1/8" fillet welds 1" long.
- LH and DLH Series joists shall be welded to bearing plates or steel members with two 1/4" fillet welds 2" long.
- All joist bearing plates are to be set 1/4" above the top of concrete masonry units.

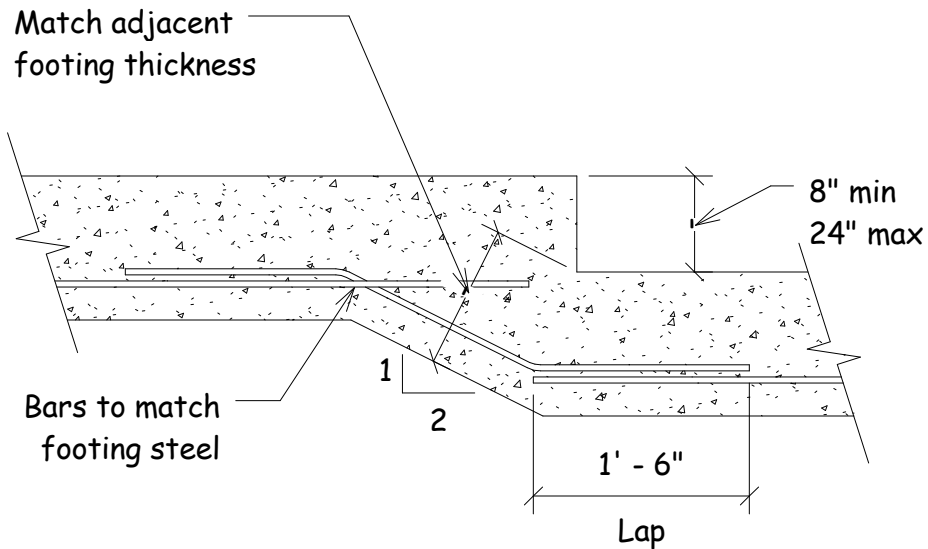
TESTING

- All testing is to be completed under the supervision of the structural engineer.
- The owner will provide testing and special inspection under a separate contract. See this sheet or project specifications for schedule of special inspections.

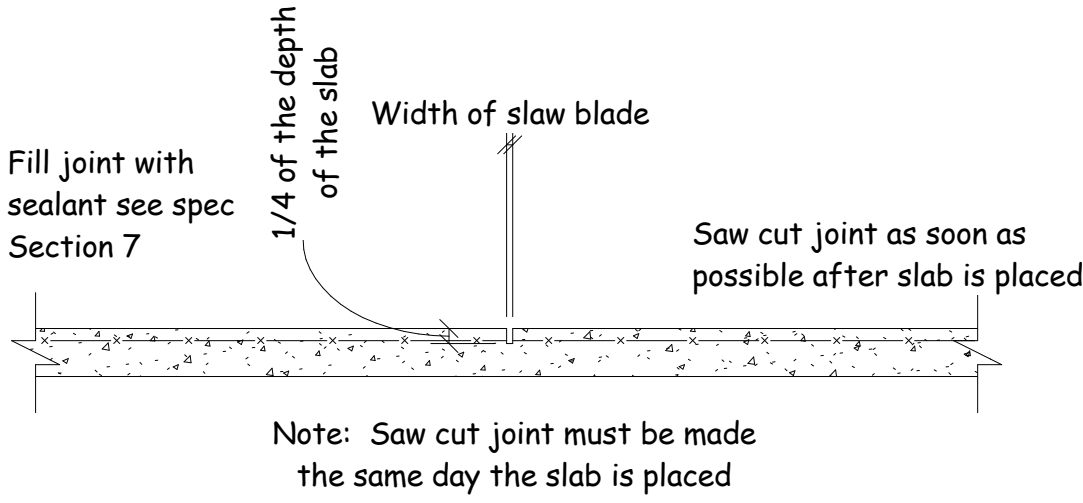
Brick Lintel Schedule		
Span	Lintel Size	Bearing Each End
<= 4'-0"	L 3 1/2"x3 1/2"x5/16"	8"
<= 6'-0"	L 4"x3 1/2"x5/16"	8"
<= 8'-0"	L 5"x3 1/2"x5/16"	8"
<= 10'-0"	L 6"x3 1/2"x5/16"	8"
<= 12'-0"	L 7"x4"x3/8"	16"
<= 14'-0"	L 8"x4"x7/16"	16"



Typical New Footing to Existing Footing Details

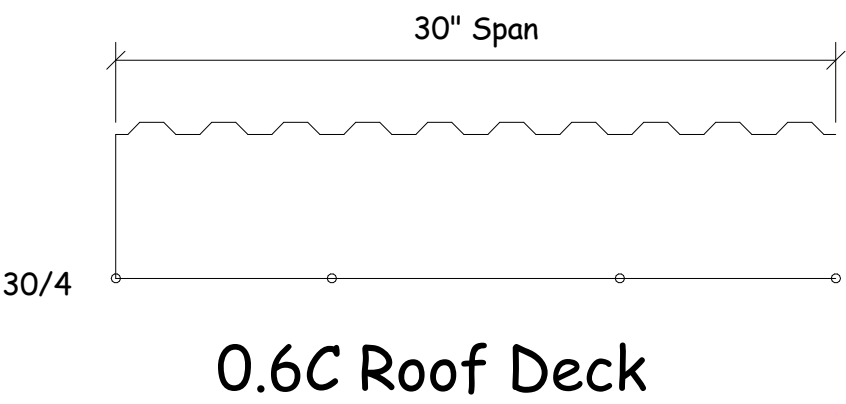


Single Footing Step

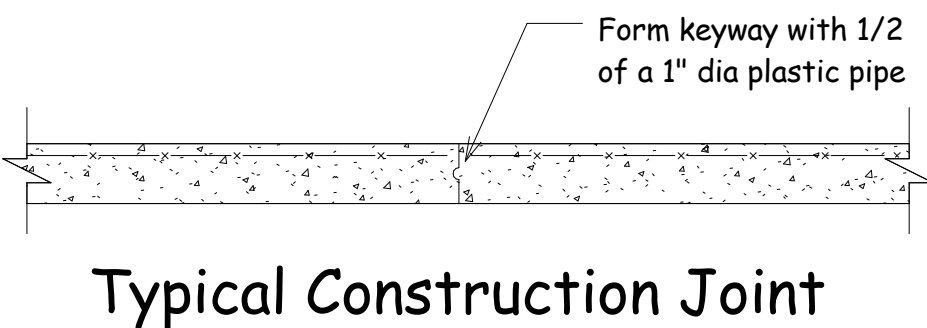


Typical Control Joint

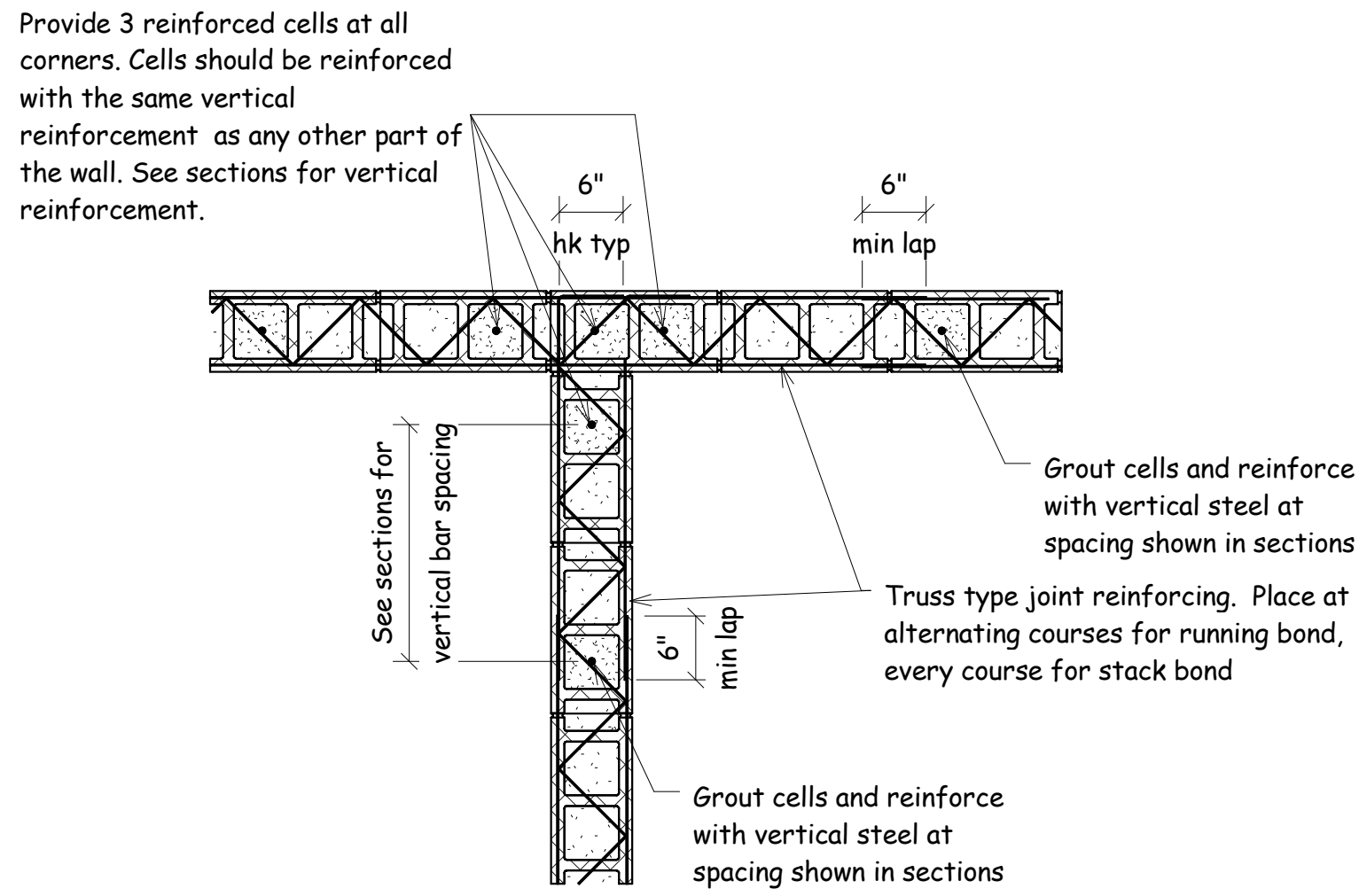
Metal Deck Attachment Schedule			
Area	Deck	Support Fastener/Pattern	Sidelap Fastener/Pattern
Shelter Roof	0.6C x 26ga	weld washer 30/4	3 - #10 TEK screws



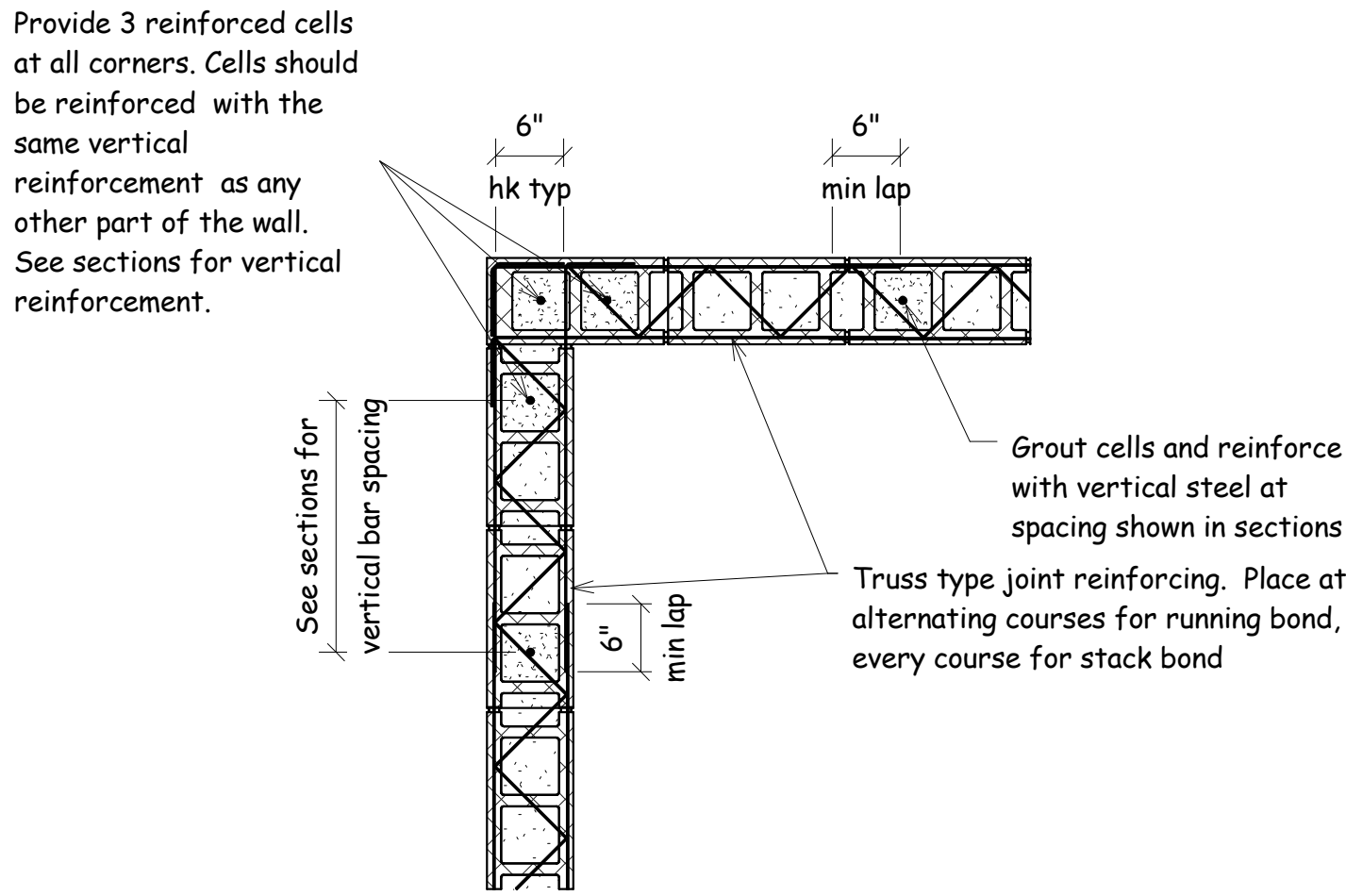
0.6C Roof Deck



Typical Construction Joint

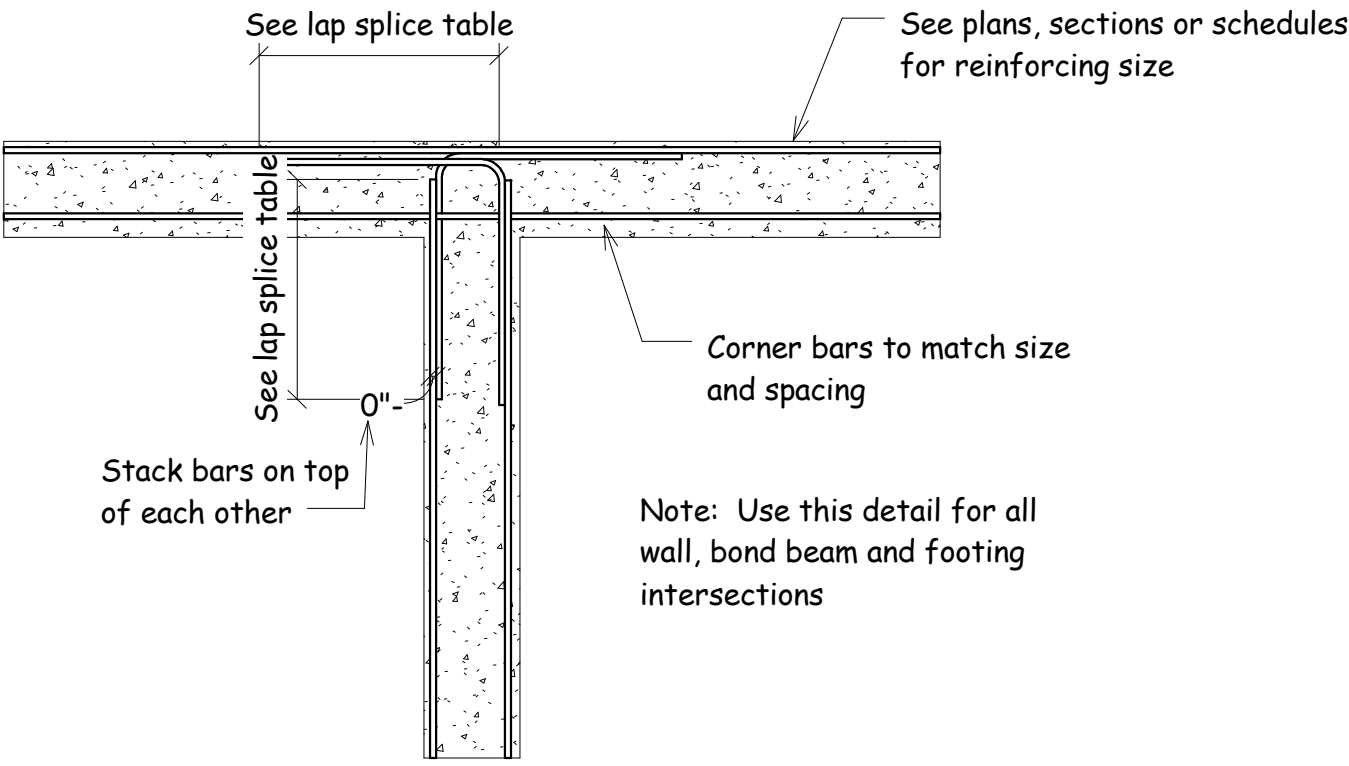


Typical Joint Reinforcing at Intersection

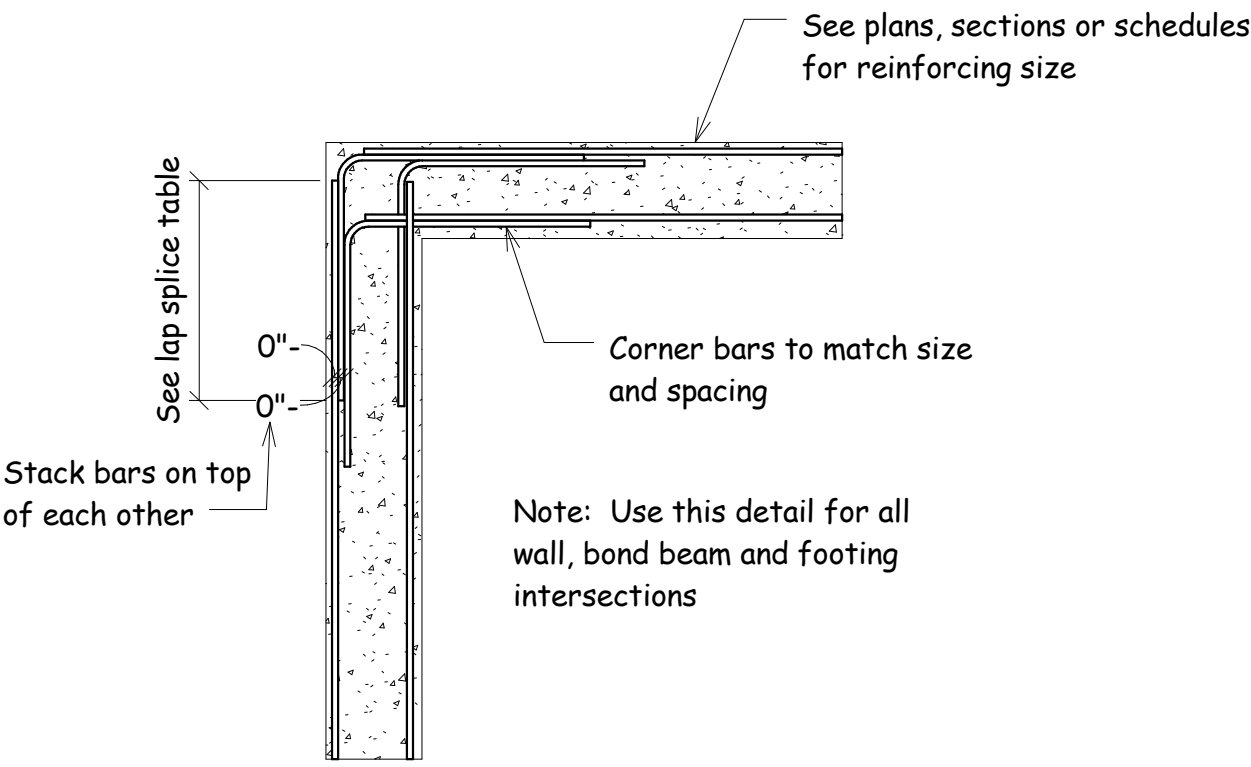


Typical Joint Reinforcing at Corner

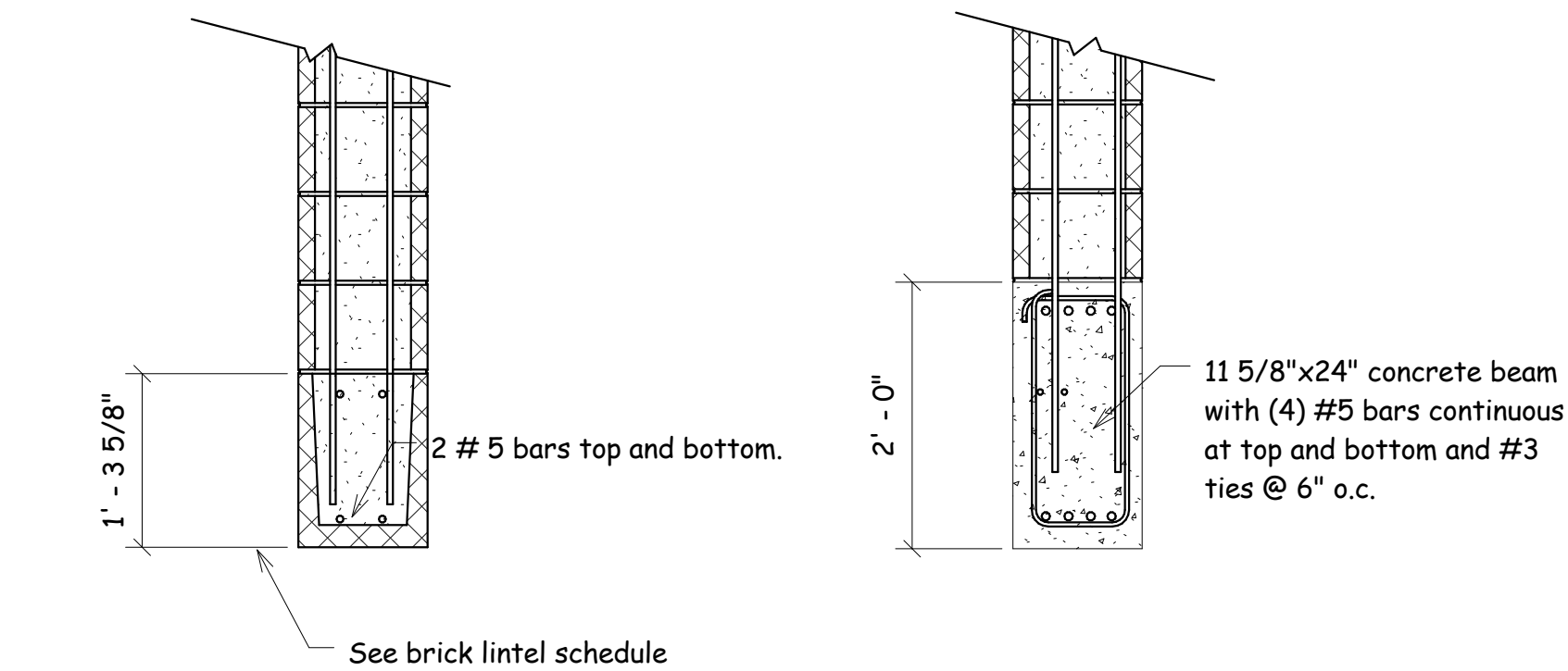
Typical at all CMU wall unless noted otherwise.
Reference architectural for intersections of
Connector walls with storm-rated walls.



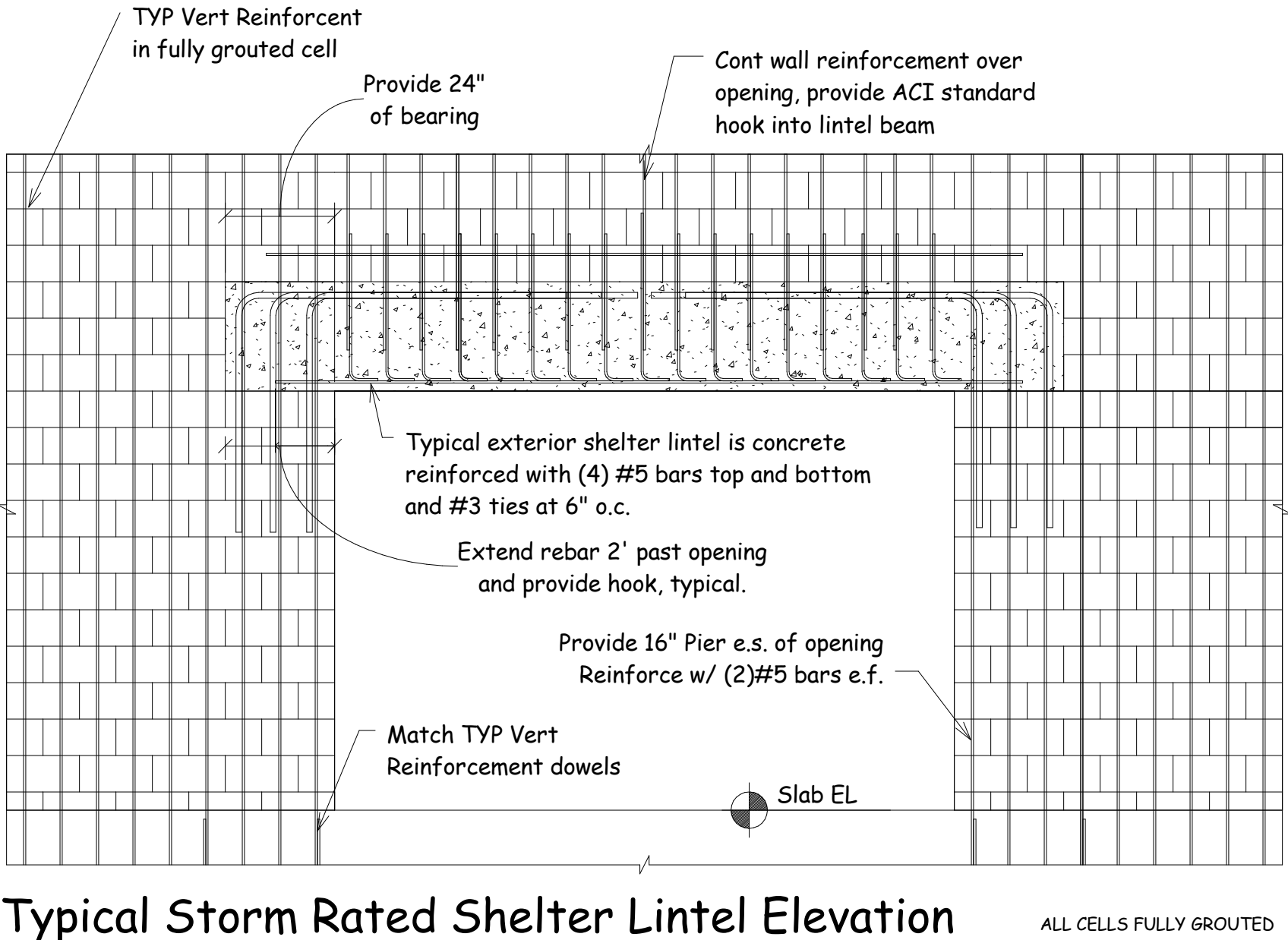
Typical Grade Beam and Footing Reinforcing at Intersections



Typical Grade Beam and Footing Reinforcing at Corners

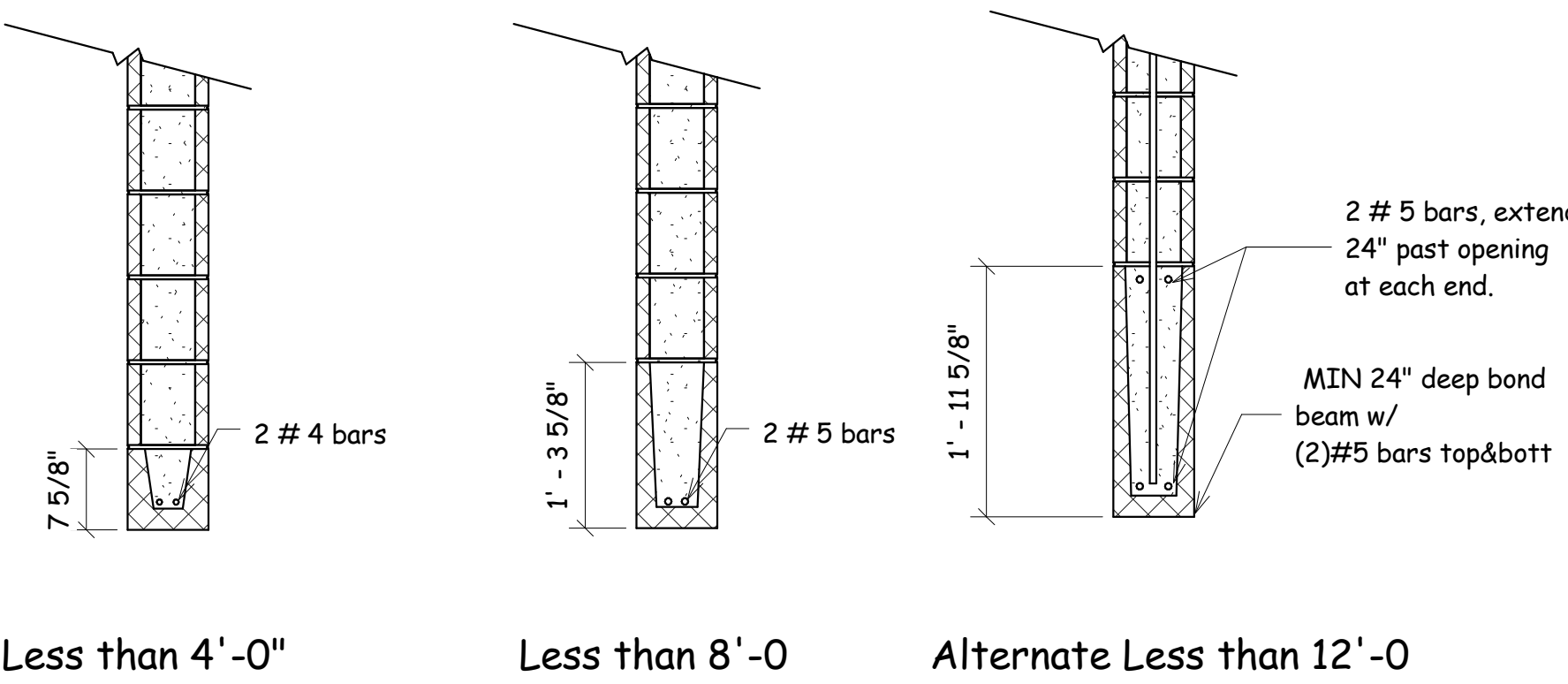


For Exterior/Storm Rated Openings
Less than 2'-4"
Storm Rated Shelter Lintel Details

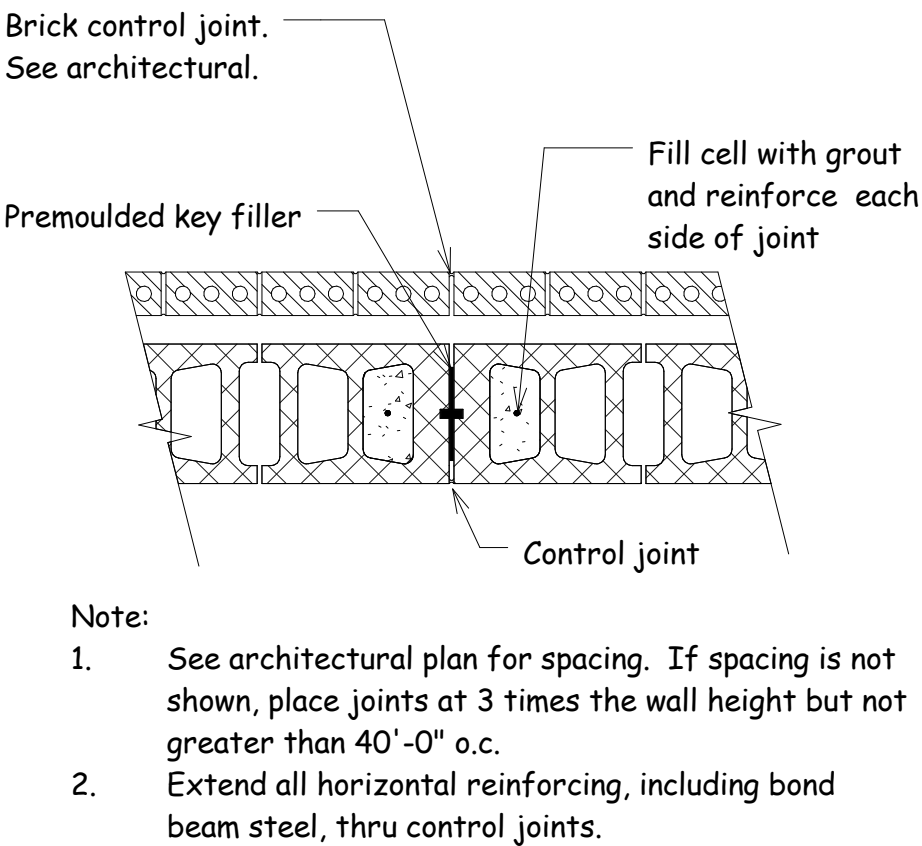


Typical Storm Rated Shelter Lintel Elevation

Note: All 12" CMU walls are storm rated and
all 8" CMU walls are non-storm rated.

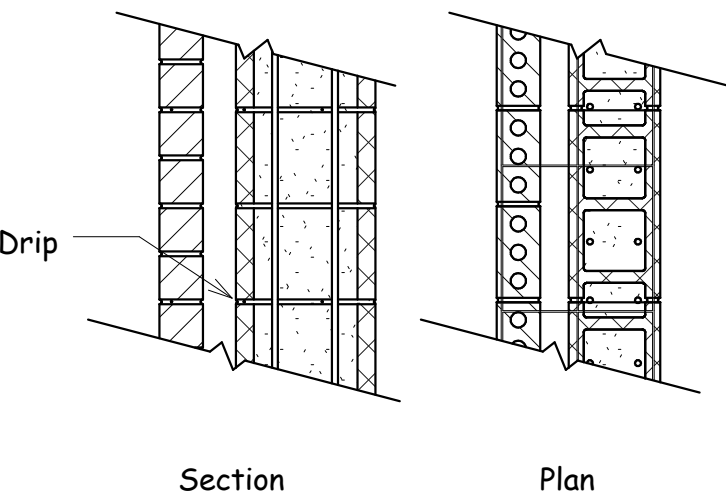


Less than 4'-0"
Less than 8'-0"
Alternate Less than 12'-0"
Non-Storm Rated Lintel Details



Typical Masonry Wall Control Joint

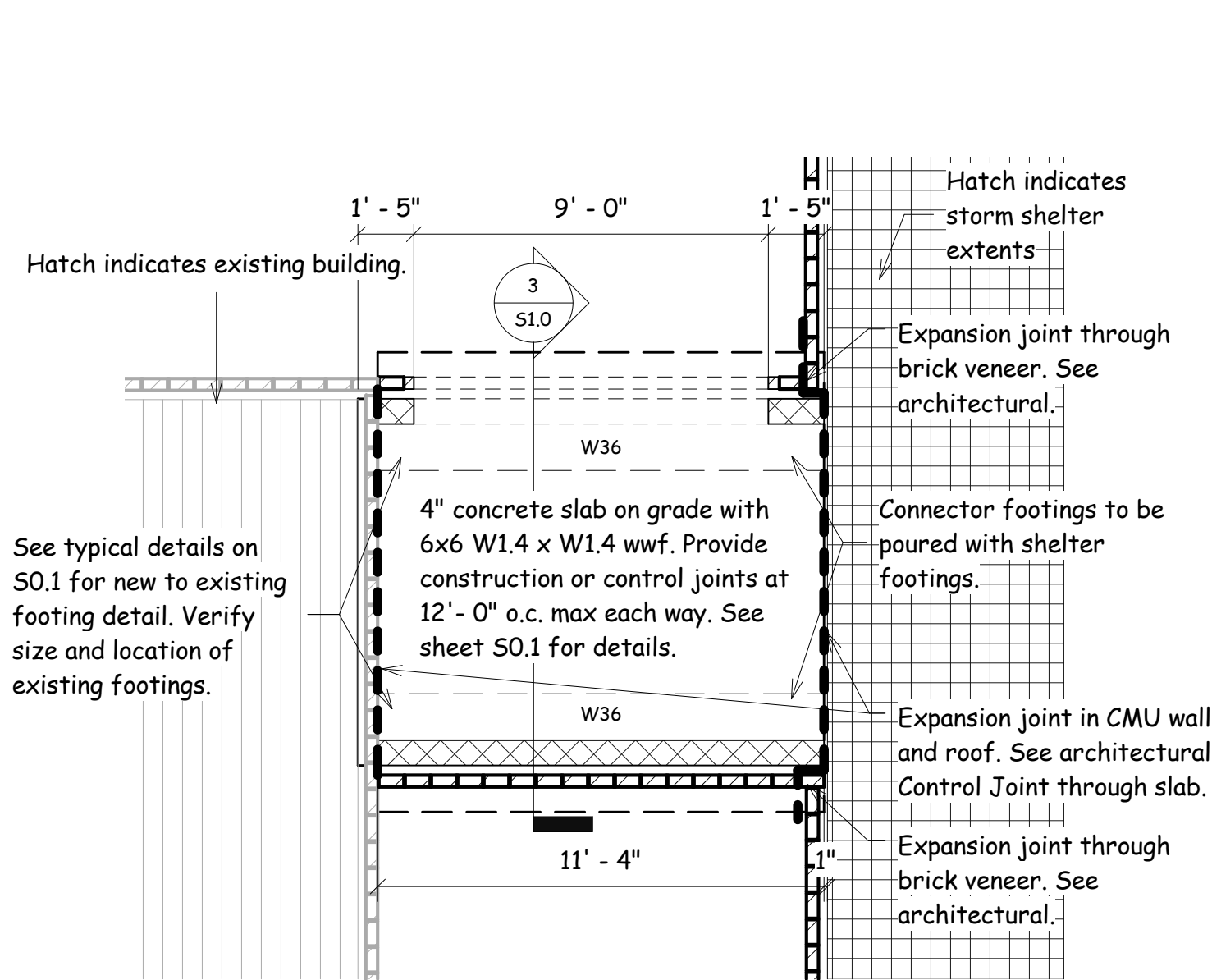
Note:
Place joint reinforcing shown @ 16" o.c.
vertical in running bond block walls.
Place joint reinforcing @ 8" o.c. in stack
bond walls



Exterior Masonry Wall Details

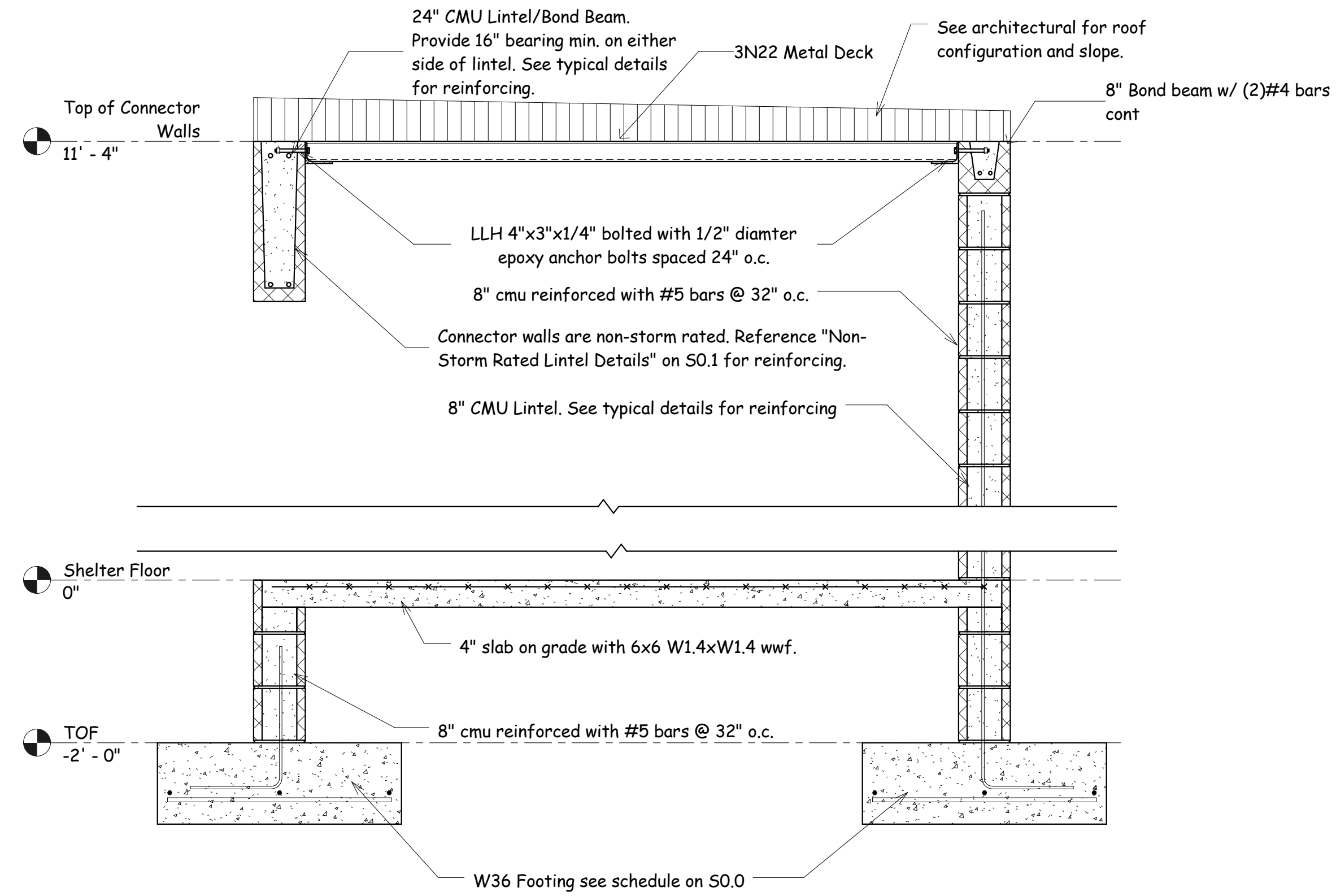
Reinforcing Steel Lap Splice Lengths				
Bar Size	Column Splices	Bm, Ftg & Wall Splices		CMU Wall Splices
		Top Bars	Other Bars	
# 3	12"	19"	15"	18"
# 4	15"	25"	19"	24"
# 5	19"	31"	24"	30"
# 6	23"	37"	29"	36"
# 7	26"	54"	42"	42"
# 8	30"	62"	48"	48"
# 9	34"	70"	54"	54"
# 10	38"	79"	61"	60"
# 11	42"	87"	67"	66"

Notes:
1. Top bars are any horizontal reinforcing steel that has another layer of steel more than 2" below the bars or reinforcing steel that has more than 12" of concrete below the bars.
2. All horizontal reinforcing bars in walls may be detailed as "Other Bars".
3. All corner bars may be detailed as "Other Bars".

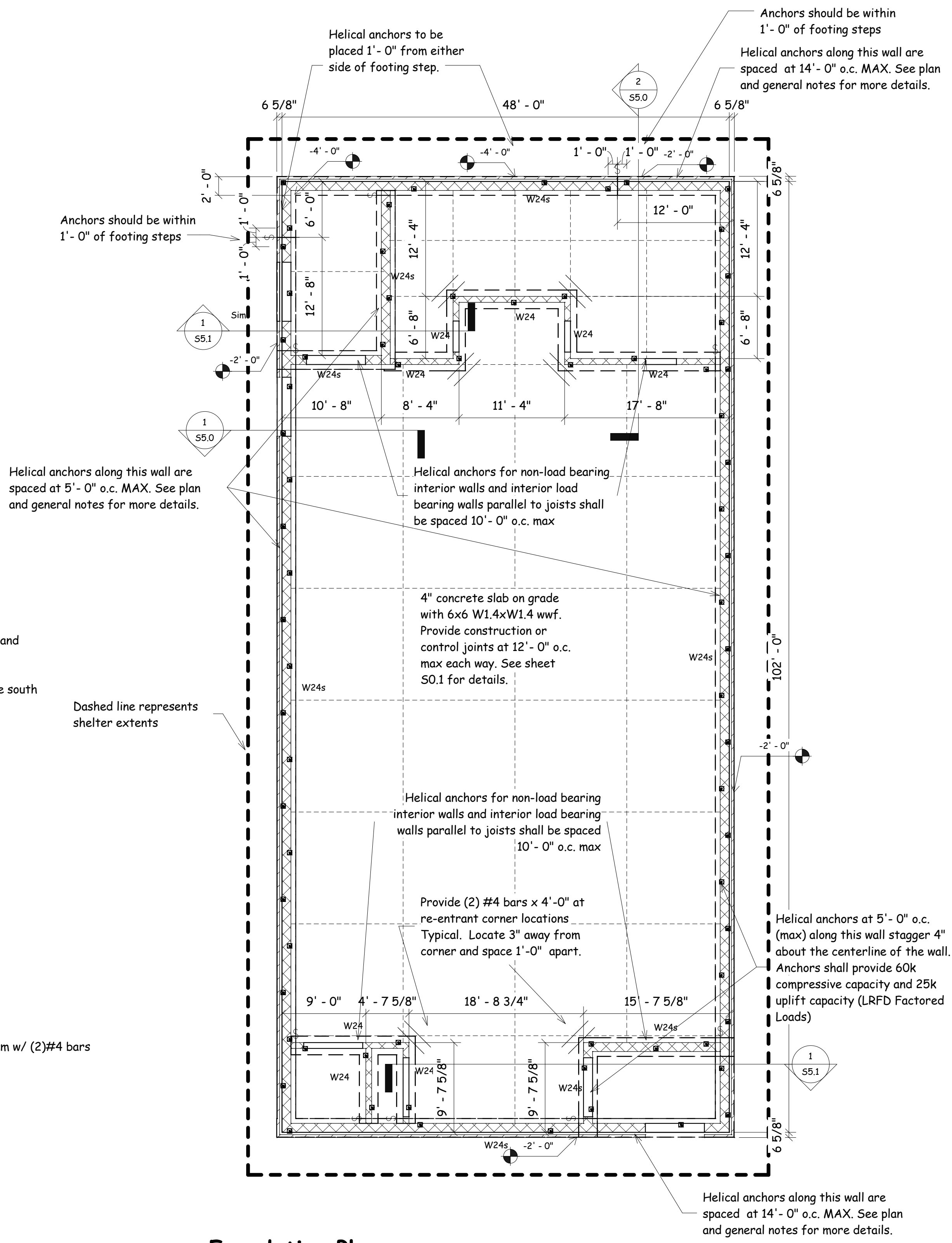


Foundation Plan - Connector for Alternate
1/4" = 1'-0"

- Sheet Notes:
- See Sheet No. S0.0 and S0.1 for typical details and general notes.
 - Reference all elevations to finish floor elevation (+) 0'-0".
 - Top of all exterior footings elevation (-) 2'-0" unless noted.
 - Coordinate location of connector, all dimensions, and elevations with architectural plans and location of existing structure.
 - Coordinate demolition of existing masonry with architect.
 - Connector walls (Vestibule G9, see architectural) are not storm rated walls except at the south wall shared with the storm shelter.

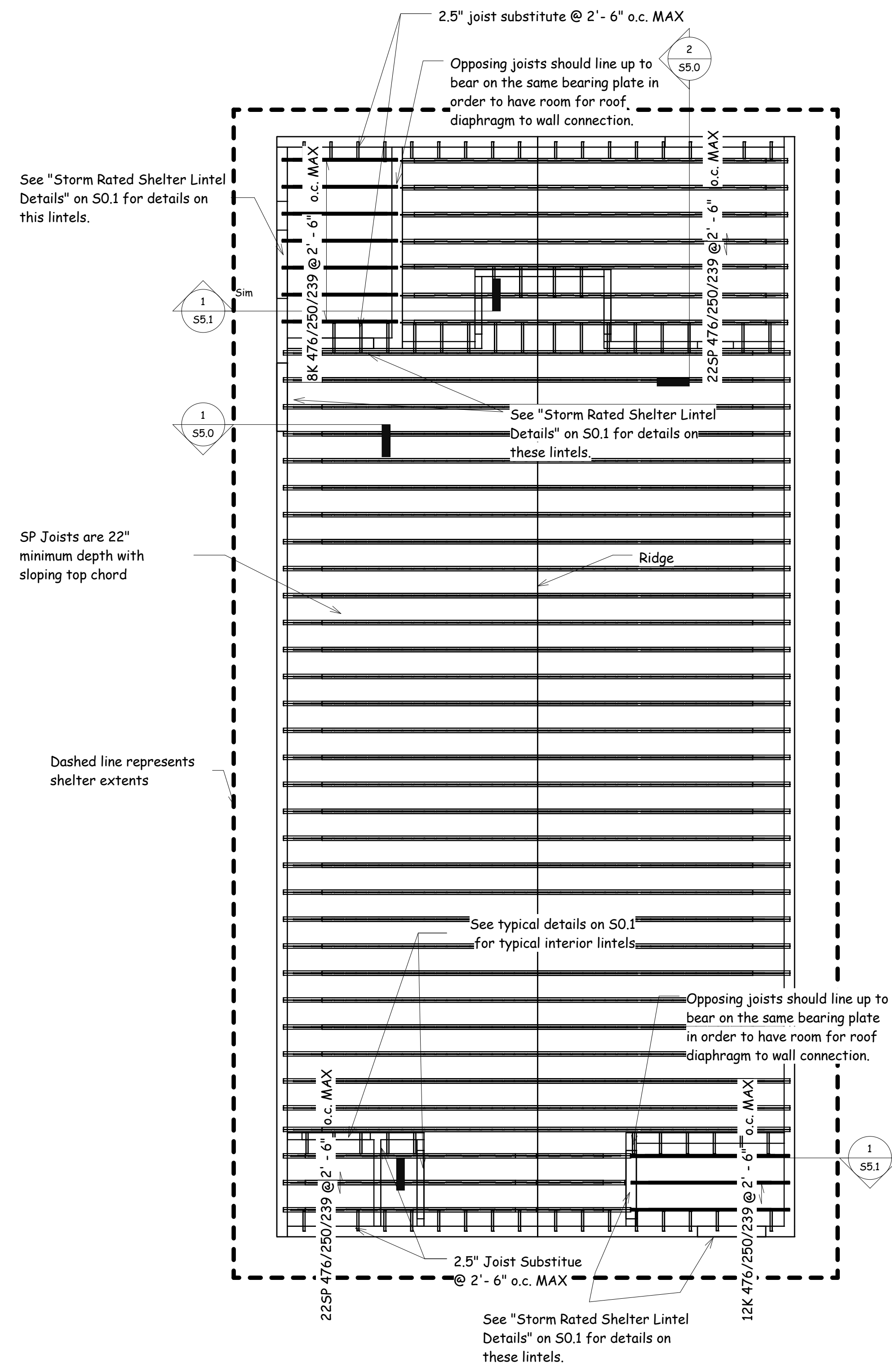


Section 3
3/4" = 1'-0"



Foundation Plan
1/8" = 1'-0"

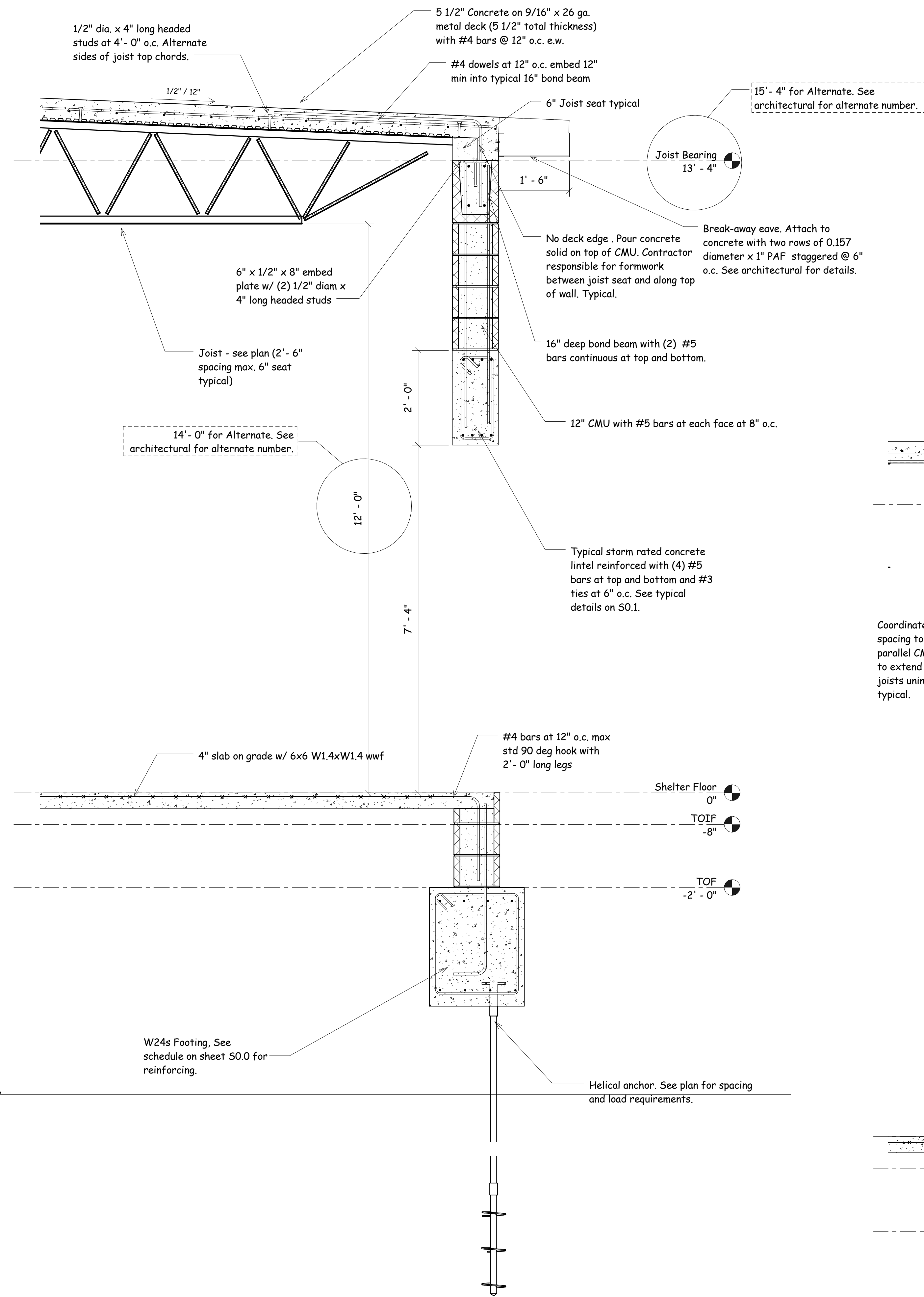
- Sheet Notes:
- See Sheet No. S0.0 & S0.1 for typical details and general notes.
 - Reference all elevations to finish floor elevation (+) 0'-0".
 - Top of all exterior footings elevation (-) 2'-0" unless noted.
 - Top of all interior footings elevation (-) 0'-8" unless noted.
 - \$ indicates footing steps.
 - Where control joints run into re-entrant corners in both directions, corner bars may be omitted.
 - See architectural drawings for any dimensions not shown and coordinate all final dimensions with architectural drawings.
 - See foundation schedule on sheet S0.0 for footing reinforcement. Typical exterior wall footings are W24s and typical interior walls are W24.
 - All helical anchors shall provide 60k compressive capacity and 25k uplift capacity (LRFD Factored Loads) and stagger 4" about the centerline of the wall being supported.
 - All 12" CMU interior and exterior walls are storm-rated and all 8" CMU walls are non-storm rated.



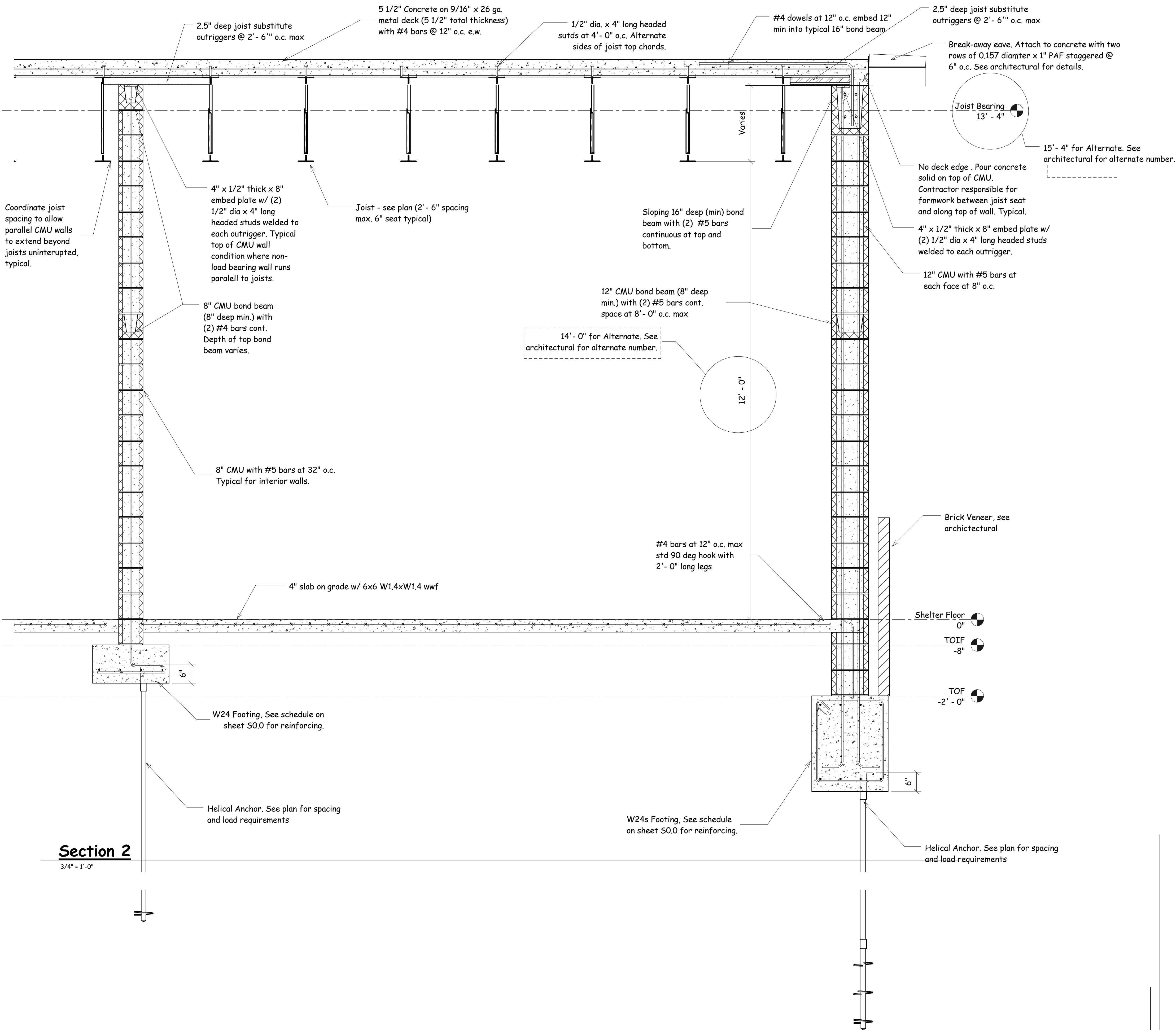
Roof Framing Plan
1/8" = 1'-0"

- Sheet Notes:
- See Sheet No. S0.0 and S0.1 for typical details and general notes.
 - Reference all elevations to finish floor elevation (+) 0'-0".
 - Base Bid: Joist bearing elevation is 13' - 4".
 - For Alternate: Joist Bearing elevation is 15' - 4", see architectural for alternate number.
 - Roof construction: 5" concrete slab reinforced with #4 bars at 12" o.c. each way on 9/16" x 26 ga. galvanized metal deck (5 1/2" total thickness). See Sheet S0.1 for attachment details.
 - See typical details on sheet S0.1 for interior and exterior lintel sizes.
 - All 12" CMU interior and exterior walls are storm-rated and all 8" CMU walls are non-storm rated. Reference storm rated and non storm rated lintel details on S0.1.

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



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



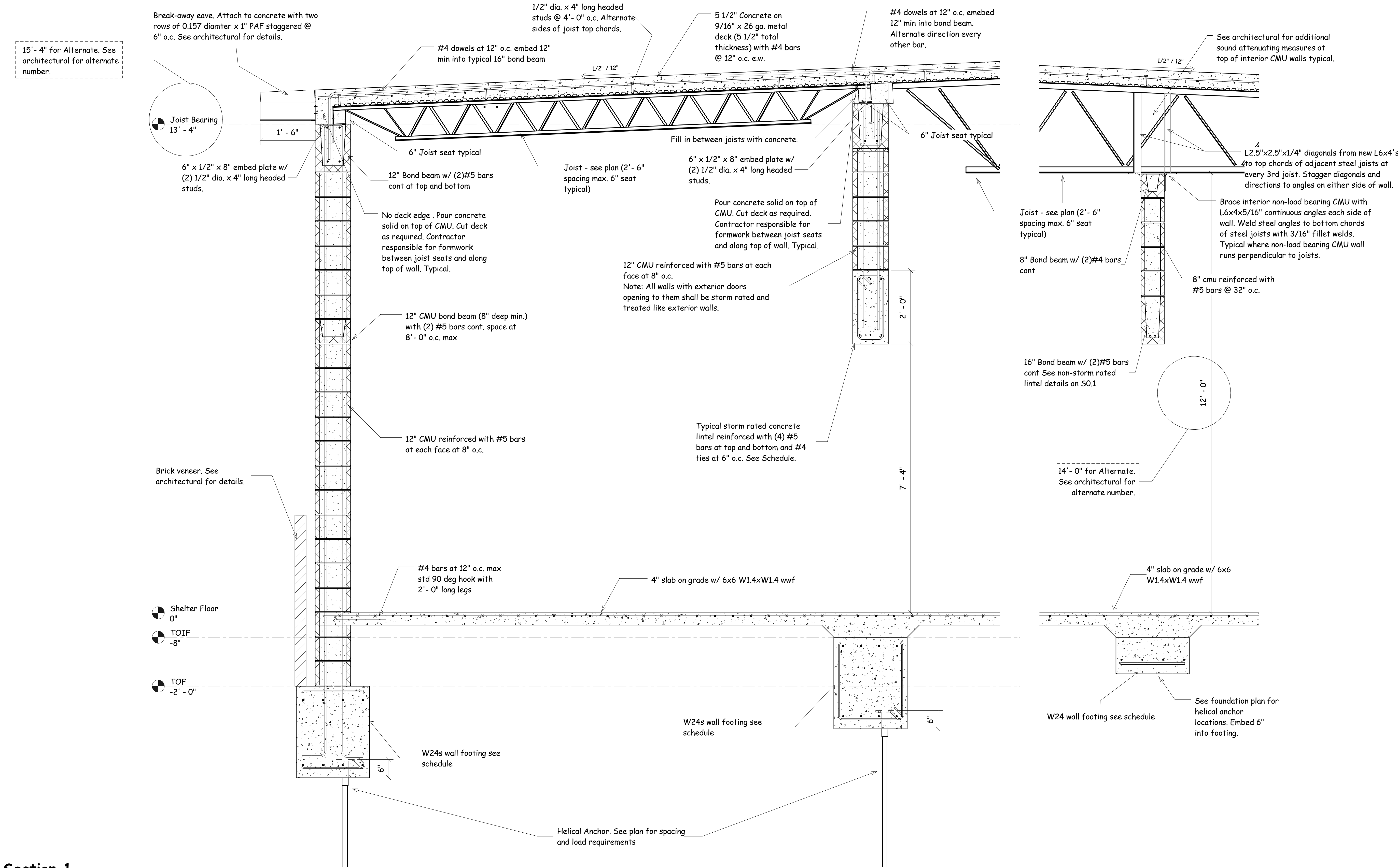
Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

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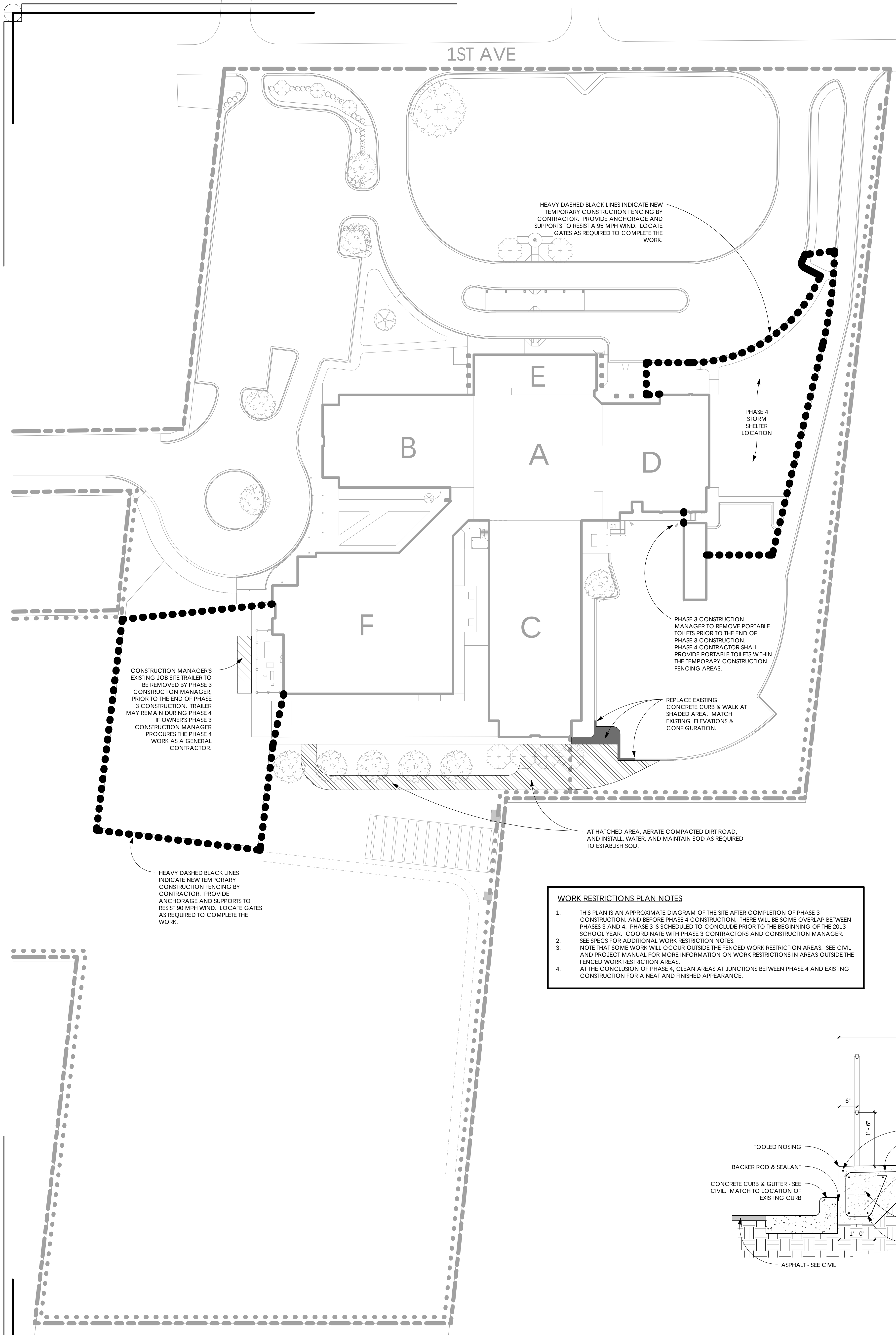
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Do Not Scale From Drawings.
Contractor must verify all dimensions prior to construction.

JOB No.	11015E
DATE:	REV DATE:
5/17/2013	-
DRAWN BY:	NCB
Section Cuts and Details	
SHEET NUMBER	S5.1

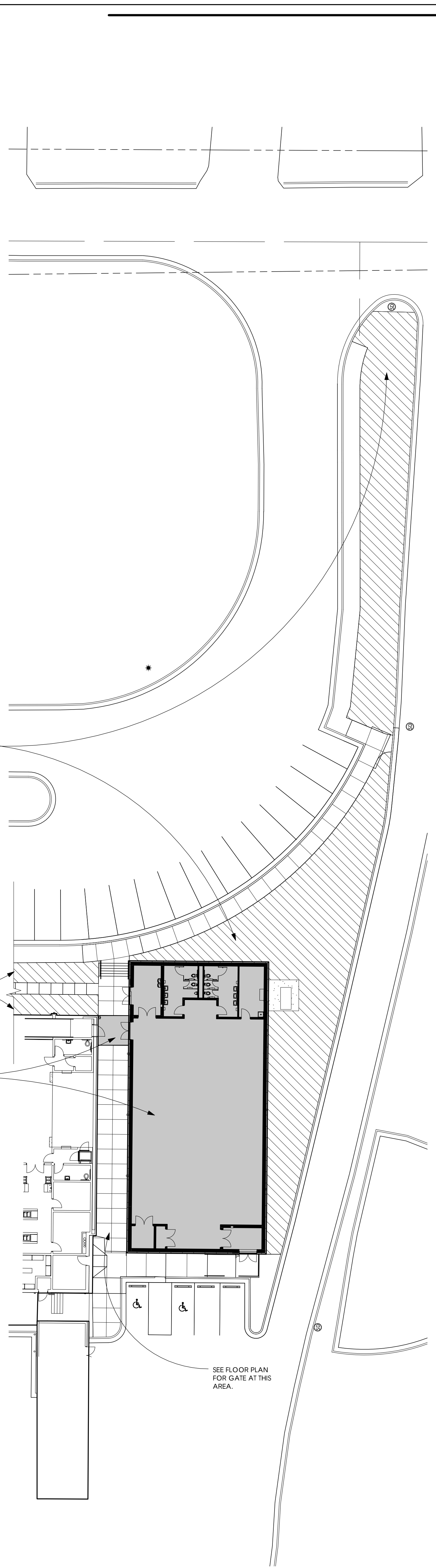


Section 1
3/4" = 1'- 0"

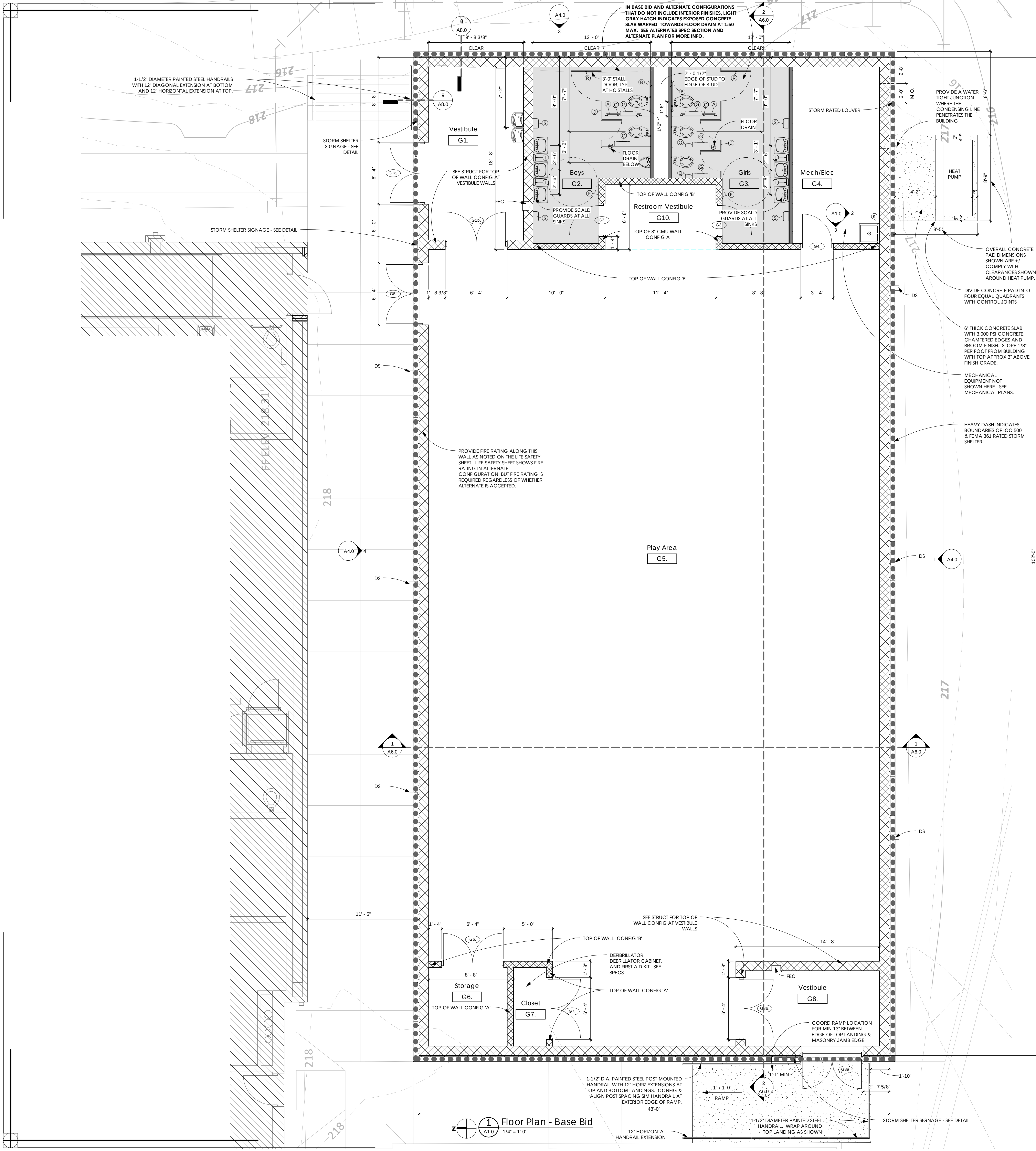


1 Work Restrictions Site Plan
A0.1 1" = 40'-0"

3 Ramp & Wall Detail
A0.1 3/4" = 1'-0"



2 Landscaping Plan
A0.1 1" = 20'-0"



WALL NOTES

- SEE LIFE SAFETY PLANS FOR FIRE RATING INFORMATION NOT SHOWN HERE. FIRE RATING INFORMATION SHALL SUPERSEDE ALL INFORMATION SHOWN HERE.
- SEE INTERIORS SHEETS FOR FINISH INFORMATION NOT SHOWN HERE.

INTERIOR WALL TYPES LEGEND - APPLIES TO 1/4" SCALE PLANS

NEW METAL STUD WALL. 3-5/8" METAL STUDS WITH 1 LAYER OF 5/8" GYPSUM WALL BOARD AT ALL NON-TILED AREAS AND 5/8" CEMENTITIOUS BACKER BOARD AT ALL TILED AREAS, EQUAL TO DUBROCK BY USG. PROVIDE & INSTALL SOUND BATS BETWEEN STUDS. EXTEND ENTIRE WALL ASSEMBLY TO ROOF DECK ABOVE. IN BASE BID (WITHOUT FINISH CEILINGS), GYPSUM ABOVE FINISH CEILING SHALL BE TAPERED, MUDDERED, AND HELD TIGHT TO INTERSECTING OPEN WEB JOIST WEBBING, BUT SHALL NOT BE PAINTED.

NEW 12" CMU WALL.

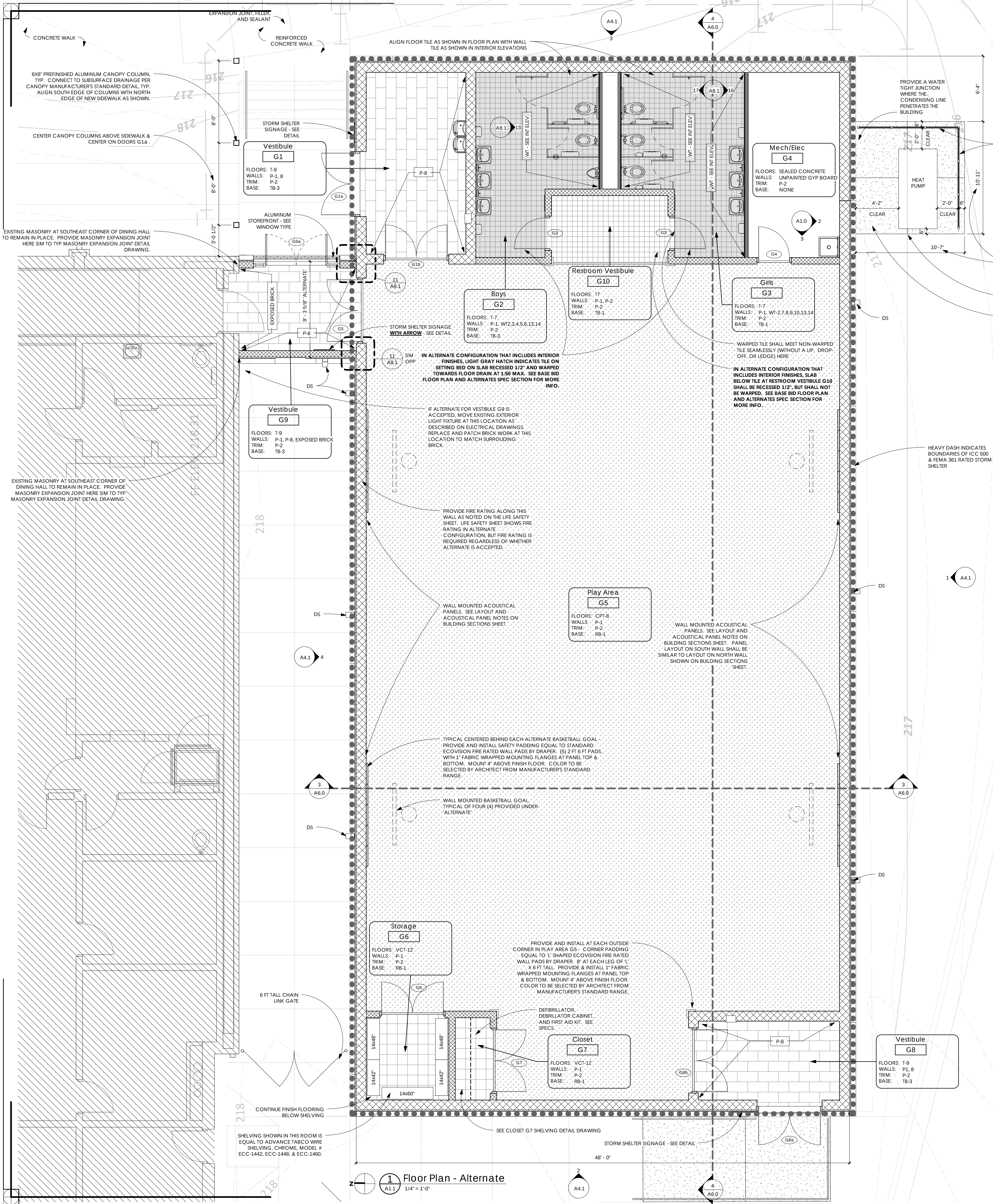
NEW 8" CMU WALL.

Type Mark	Description	Manufacturer	Model	Comments
A	Grab Bars	Bradley Corporation	8120-001420	Floor to Center of Bar: 33" AFF
B	Grab Bars	Bradley Corporation	8120-001360	Floor to Center of Bar: 33" AFF
C	Grab Bars	Bradley Corporation	8120-001180	Floor to Btm of Bar: 39"
F	Channel-Frame Mirror	Bradley Corporation	781-018482	Floor to Btm: 24"
G	Toilet Tissue Dispenser	Bradley Corporation	5425	Floor to Roll Center: 19"
J	Solid Plastic Restroom Partitions	Bradley Corporation	Bradmar - Series 400 - Sentinel™	As drawn
K	Mop-Broom Holder	Bradley Corporation	9953 BradEX	See Interior Elevation
L	Soap Dispenser	Bradley Corporation	6542	Floor to Dispensing Mechanism: 42"
M	Towel Dispenser	Bradley Corporation	250-150000	Floor to Dispensing Mechanism: 42"
Q	Napkin Disposal	Bradley Corporation	4781-150000	Floor to Top of Box: 27"
R	Robe Hook	Bradley Corporation	9114 BradEX	42" AFF
S	Automatic Sensor Hand Dryer	Excel Dryer, Inc.	Xerator XL-6W	Floor to Btm: 42"

*NOTE: WHERE MANUFACTURERS AND MODEL NUMBERS ARE SPECIFIED IN THE TABLE ABOVE, EQUAL PRODUCTS FROM OTHER MANUFACTURERS SHALL BE ACCEPTABLE.

2 Mop Sink
A1.0 3/8" = 1'-0"

3 Mop Sink
A1.0 3/8" = 1'-0"



ALTERNATE PLAN NOTES

- ITEMS NOT NOTED OR DIMENSIONED HERE ARE SIMILAR TO BASE BID PLAN.
- SEE REFLECTED CEILING PLAN FOR CEILING FINISHES NOT SHOWN HERE.

WALL NOTES

- SEE LIFE SAFETY PLANS FOR FIRE RATING INFORMATION NOT SHOWN HERE. FIRE RATING INFORMATION SHALL SUPERSEDE ALL INFORMATION SHOWN HERE.
- SEE INTERIORS SHEETS FOR FINISH INFORMATION NOT SHOWN HERE.

INTERIOR WALL TYPES LEGEND - APPLIES TO 1/4" SCALE PLANS

- NEW METAL STUD WALL. 3-5/8" METAL STUDS WITH 1 LAYER OF 5/8" GYPSUM WALL BOARD AT ALL NON-TILED AREAS AND 5/8" CEMENTITIOUS BACKER BOARD AT ALL TILED AREAS, EQUAL TO DUROCK BY US. PROVIDE & INSTALL SOUND BATS BETWEEN STUDS. EXTEND ENTIRE WALL ASSEMBLY TO ROOF DECK ABOVE. IN BASE BID (WITHOUT FINISH CEILINGS), EXTEND PAINT AND GYPSUM UP TO DECKING ABOVE. IN ALTERNATE (WITH FINISH CEILINGS), GYPSUM ABOVE FINISH CEILING SHALL BE TAPED, MUDDDED, AND HELD TIGHT TO INTERSECTING OPEN WEB JOIST WEBBING, BUT SHALL NOT BE PAINTED.
- NEW 12" CMU WALL.
- NEW 8" CMU WALL.

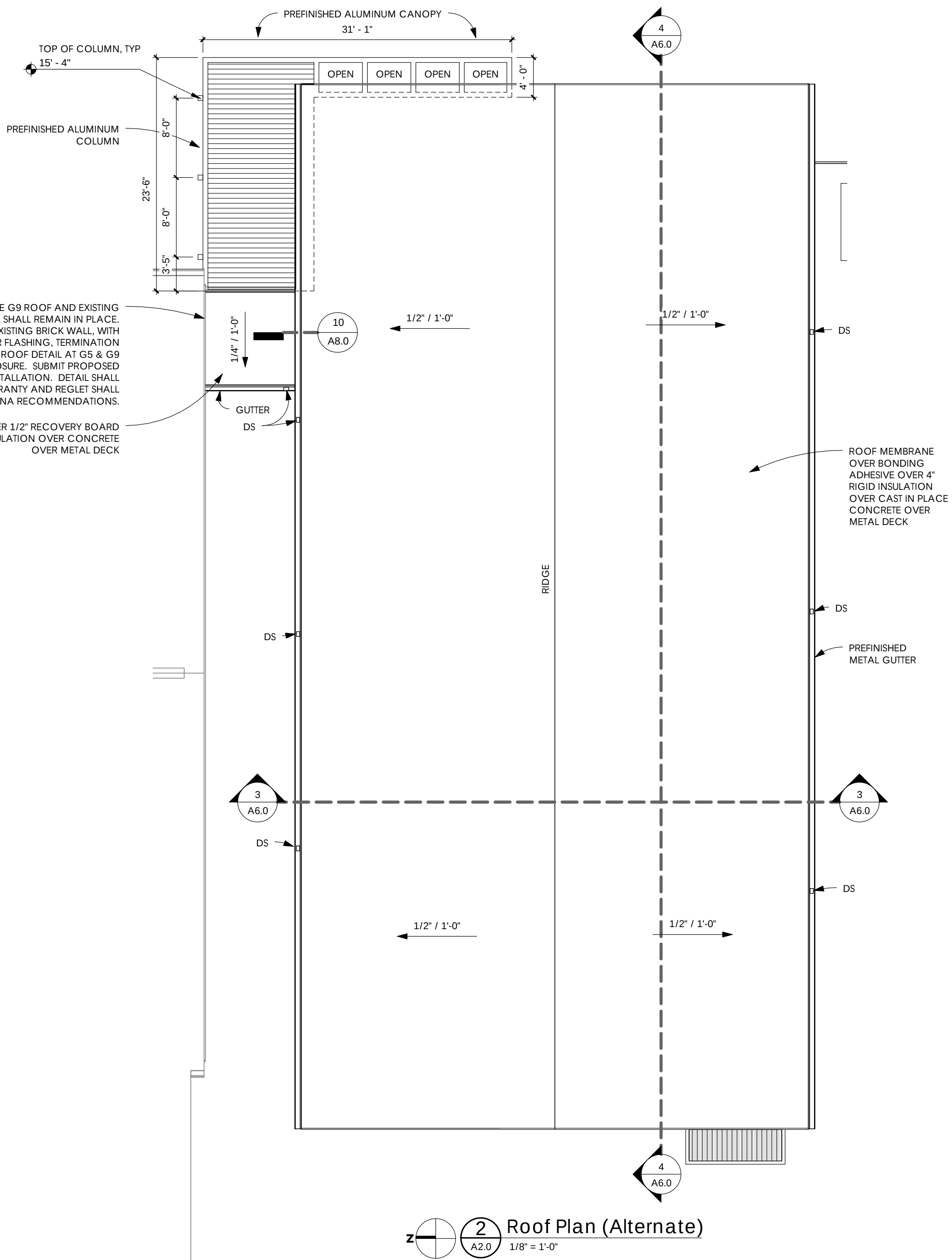
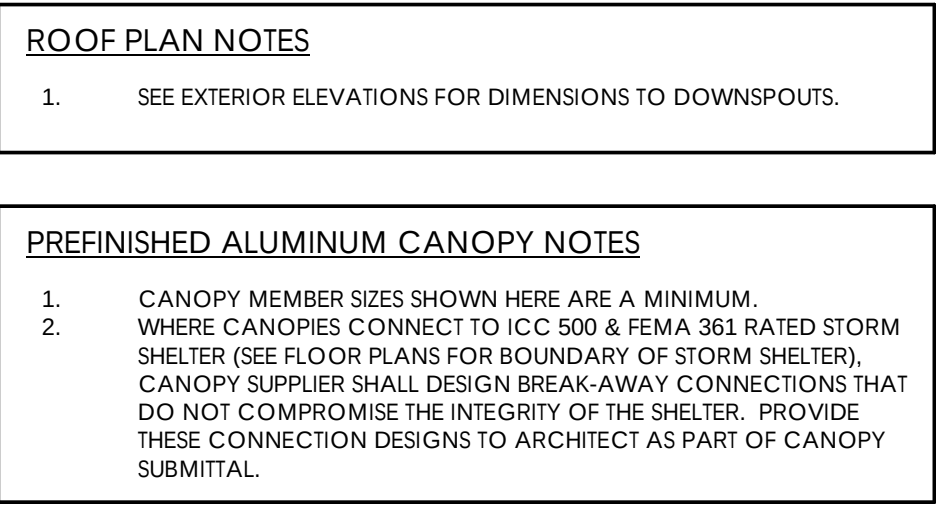
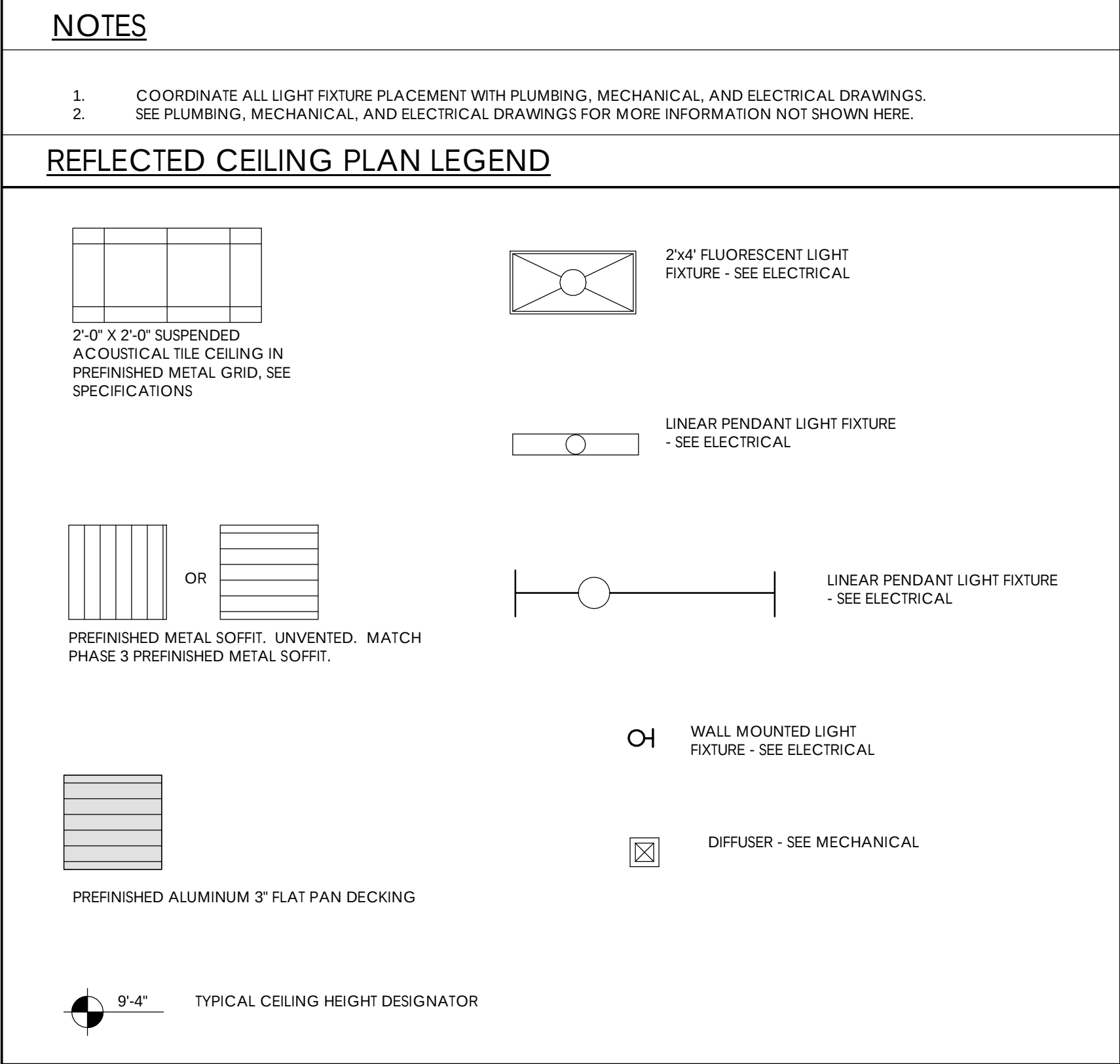
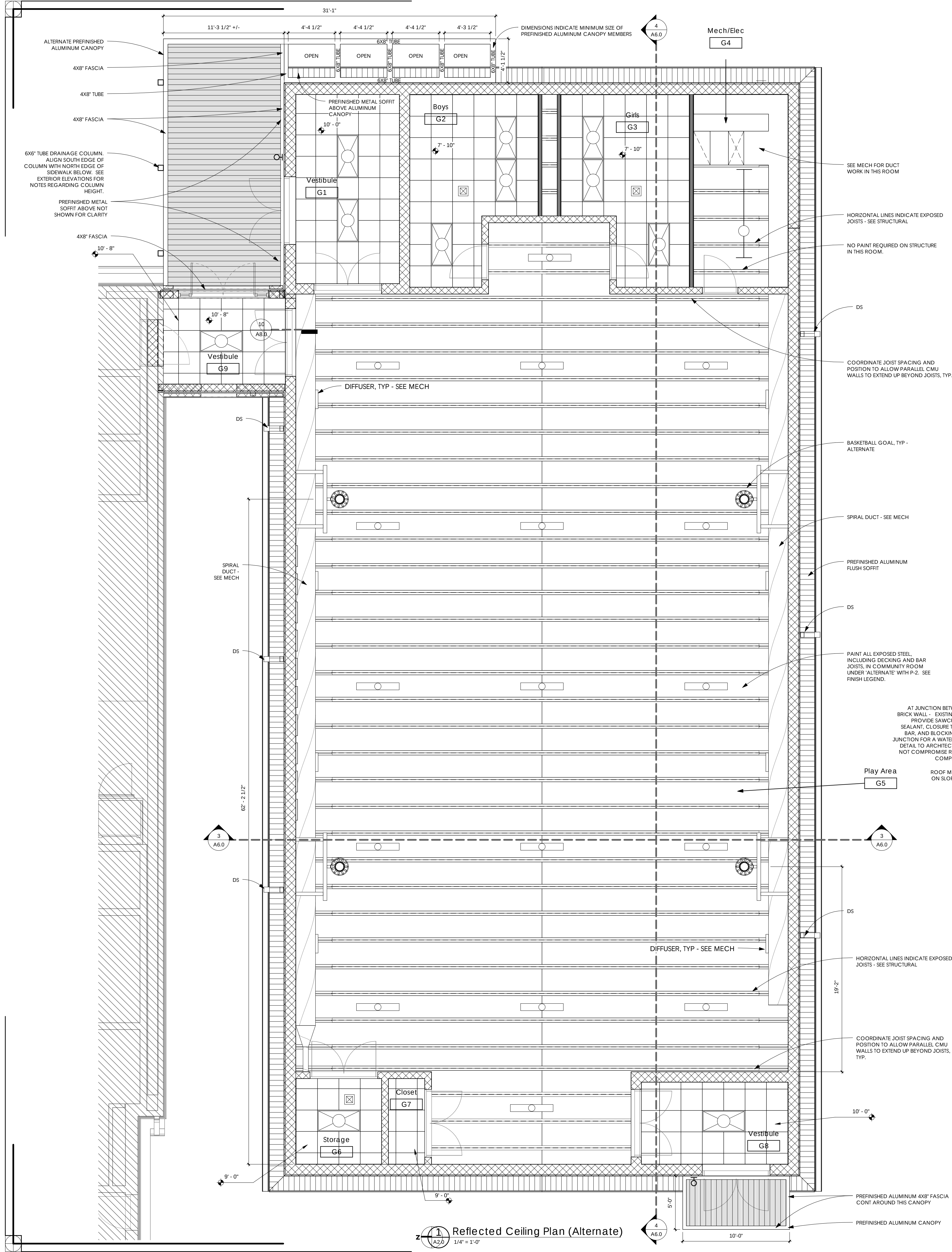
FINISH LEGEND

WALL TILE	FLOOR TILE	TRANSITION STRIP
WT-2 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 16660 GROUT: TEC 927 LIGHT PEWTER	T-7 DISTRIBUTOR: DALTILE COLLECTION: COLOUR SCHEMES SIZE: 6" x 6" COLOR: B932 SUEDE GRAY SPECKLE GROUT: TEC 929 CHARCOAL GRAY	TS-1 TILE TO CARPET TRANSITION SCHLUTER TK-AETK60 FINISH: SATIN ANODIZED ALUMINUM *VERIFY WITH TILE THICKNESS
WT-3 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 17900 GROUT: TEC 927 LIGHT PEWTER	T-9 DISTRIBUTOR: DALTILE COLLECTION: TORREON SIZE: 12" x 24" COLOR: TN 98 BRINO GROUT: TEC 929 CHARCOAL GRAY	P-1 GENERAL WALL PAINT SHERWIN WILLIAMS COLOR: SW7526 MAISON BLANCHE FINISH: EGGSHELL
WT-4 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 17990 GROUT: TEC 927 LIGHT PEWTER	TILE TRIM PIECES	P-2 TRIM PAINT BENJAMIN MOORE COLOR: BM 1469 EAGLE ROCK
WT-5 DISTRIBUTOR: GLOBAL NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 18910 GROUT: TEC 927 LIGHT PEWTER	TB-1 DISTRIBUTOR: DALTILE COLLECTION: COLOUR SCHEMES SIZE: 6" x 12" COVE BASE AND 1"x6" OUTCORNERS COLOR: 8906 SUEDE GRAY GROUT: TEC 929 CHARCOAL GRAY	P-8 SHERWIN WILLIAMS COLOR: SW 0020 PEACOCK PLUME
WT-6 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 20910 GROUT: TEC 927 LIGHT PEWTER	TB-3 DISTRIBUTOR: DALTILE COLLECTION: TORREON P-36C9T SIZE: 6" x 12" COVE BASE AND 1"x6" OUTCORNERS COLOR: T988 BRINO GROUT: TEC 929 CHARCOAL GRAY	TOILET PARTITIONS
WT-7 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 16950 GROUT: TEC 927 LIGHT PEWTER	CARPET	TP-1 DISTRIBUTOR: SCRANTON PRODUCTS COLOR: STAINLESS STEEL *MATCH PARTITIONS USED IN SCHOOL
WT-8 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 17940 GROUT: TEC 927 LIGHT PEWTER	CPT-8 DISTRIBUTOR: JJ INVISION PATTERN: ENERGY MODULAR COLOR: 1560 VARIABLE CONTACT: 3D LOTT 205.427.1868	
WT-9 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 18930 GROUT: TEC 927 LIGHT PEWTER	VCT	
WT-10 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 19930 GROUT: TEC 927 LIGHT PEWTER	VCT-12 DISTRIBUTOR: ARMSTRONG IMPERIAL COLOR: 51811 ANTIQUE WHITE SIZE: 12 x 12 CONTACT: ROBIN MURPHY 404.276.2688	
WT-13 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 16850 GROUT: TBD	RUBBER BASE	
WT-14 DISTRIBUTOR: CERAMIC TECHNICS NAME: MOSA COLORS SIZE: 6" x 6" COLOR: 16910 GROUT: TBD	RB-1 DISTRIBUTOR:ROPPE COLOR: 114 LUNAR DUST SIZE: 4" AND 6" SEE ELEVATIONS FOR LOCATIONS	

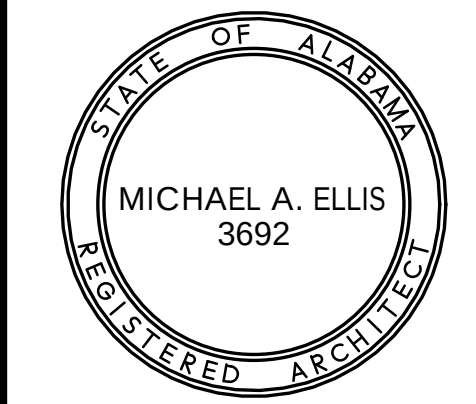
FINISH NOTES:

- PAINT P-1 SHALL BE PAINTED ON ALL WALLS UNLESS NOTED OTHERWISE.
- CENTER TILE IN ROOM/AREA AS SHOWN ON PLANS.
- TYPICAL STORAGE ROOM SHELVING SHALL BE 15" D UNLESS OTHERWISE NOTED.
- PROVIDE TRANSITION STRIP AT JUNCTIONS BETWEEN DIFFERENT FLOORING MATERIALS.
- WHERE JUNCTIONS BETWEEN DIFFERENT FLOORING MATERIALS OCCUR IN DOORWAYS, TRANSITION STRIPS SHALL OCCUR BENEATH DOORS.
- MECHANICAL ROOM GYPSUM BOARD SHALL MUDDDED AND TAPED AND REMAIN UNPAINTED. FLOORING SHALL BE SEALED CONCRETE.
- ALL EXPOSED STRUCTURE IN PLAY AREA G9 SHALL BE PAINTED AS PART OF ALTERNATE. SEE ALTERNATES SPEC SECTION FOR ALTERNATE NUMBER.
- ALL GROUT FOR WALLS SHALL BE UNSANDED. ALL FLOOR GROUT SHALL BE SANDED.
- ALL CEILING GRID IS TO BE WHITE.
- ALL WALL PAINT IS TO HAVE EGGSHELL FINISH UNLESS OTHERWISE NOTED ON PLAN
- ALL TRIM PAINT IS TO BE SEMI-GLOSS UNLESS OTHERWISE NOTED ON PLAN
- ALL CEILING PAINT IS TO FLAT UNLESS OTHERWISE NOTED ON PLAN
- CPT-8 SHALL BE INSTALLED IN QUARTER-TURNED PATTERN.
- RUBBER BASE SHALL BE INSTALLED AT ALL CARPET AND ALL VCT LOCATIONS UNLESS OTHERWISE NOTED.
- T-9 SHALL BE INSTALLED WITH STAGGERED JOINTS IN A RUNNING BOND PATTERN AS SHOWN IN PLAN.

5/15/2013 11:54:49 AM



Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

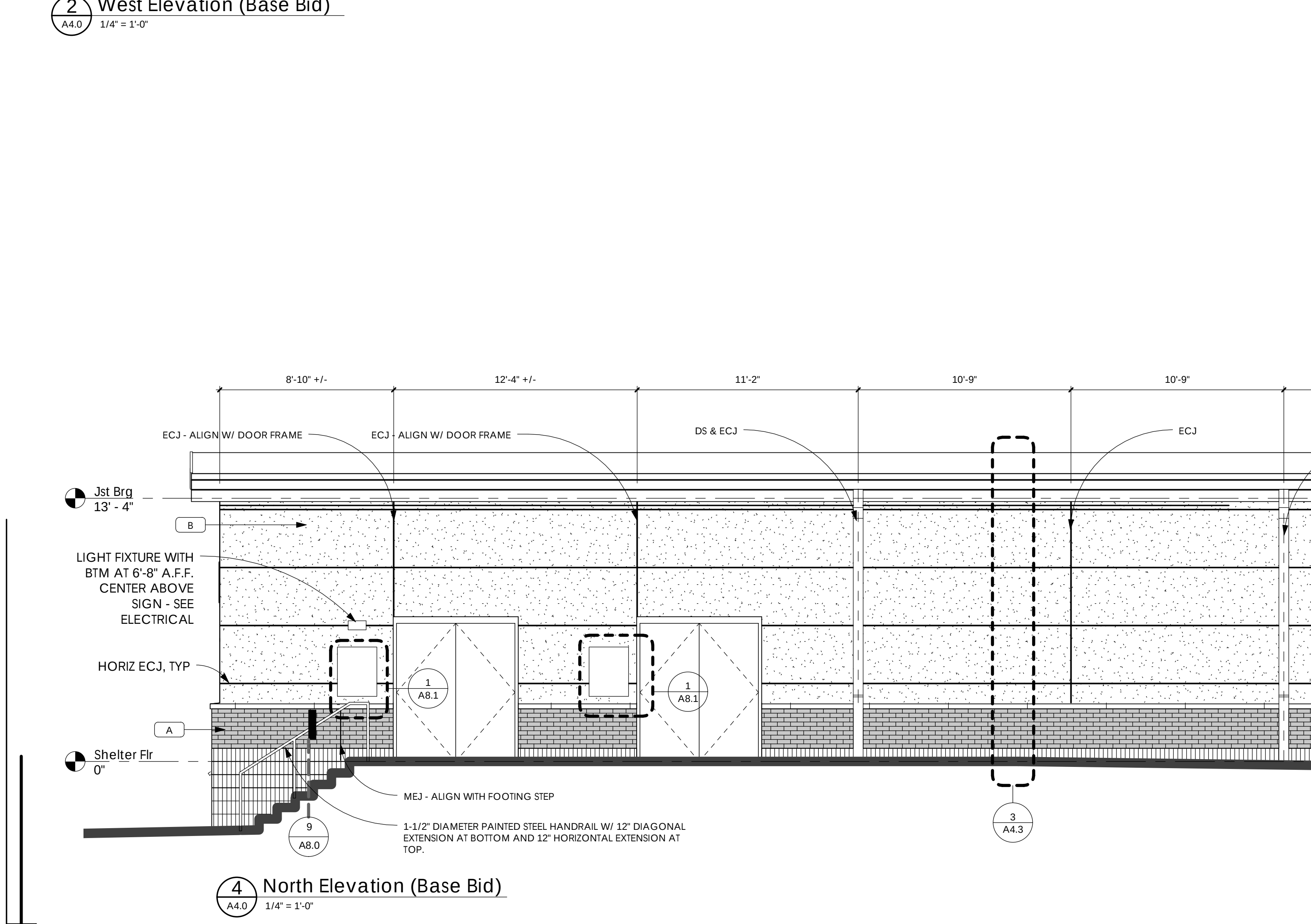
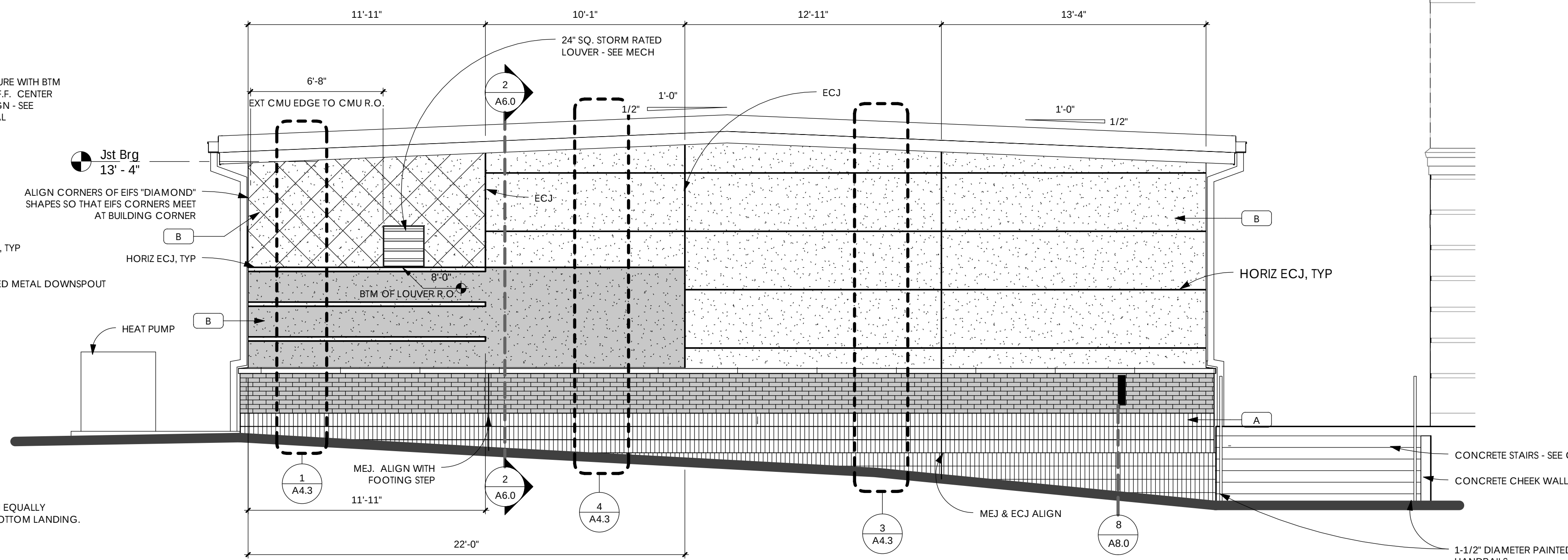
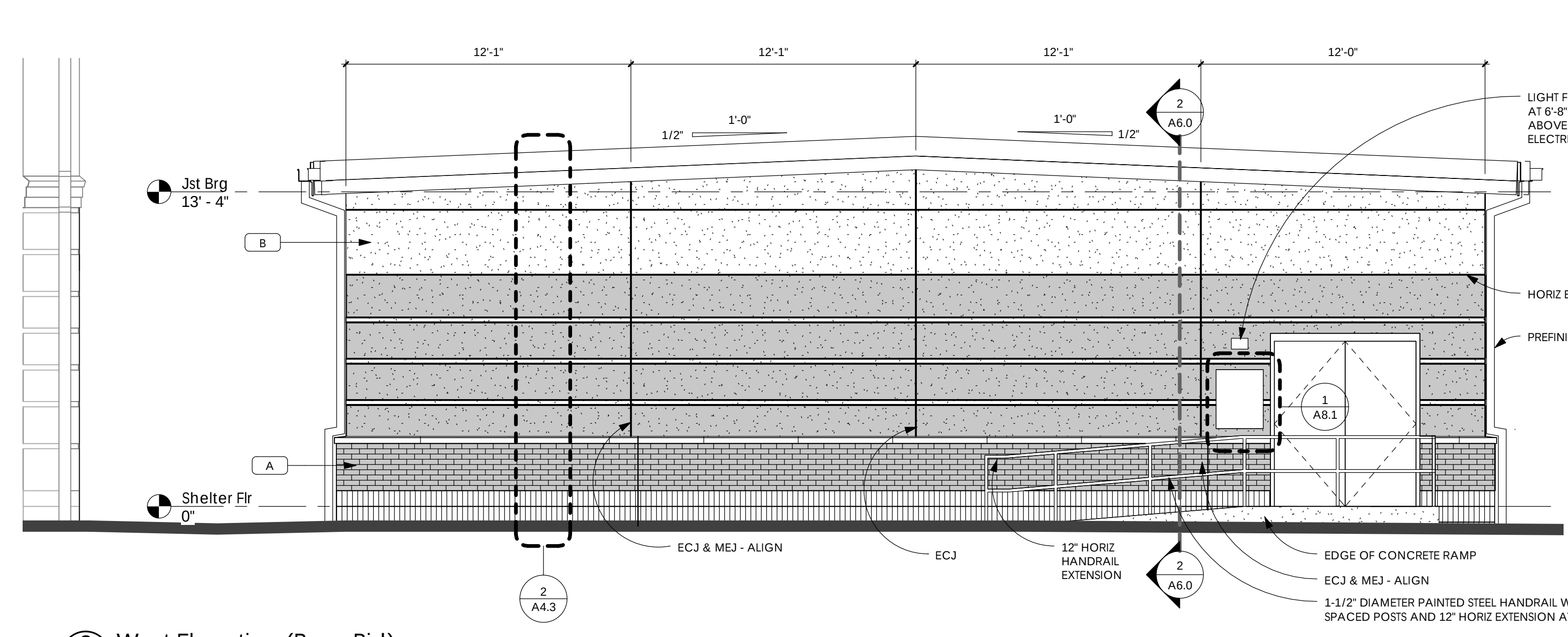
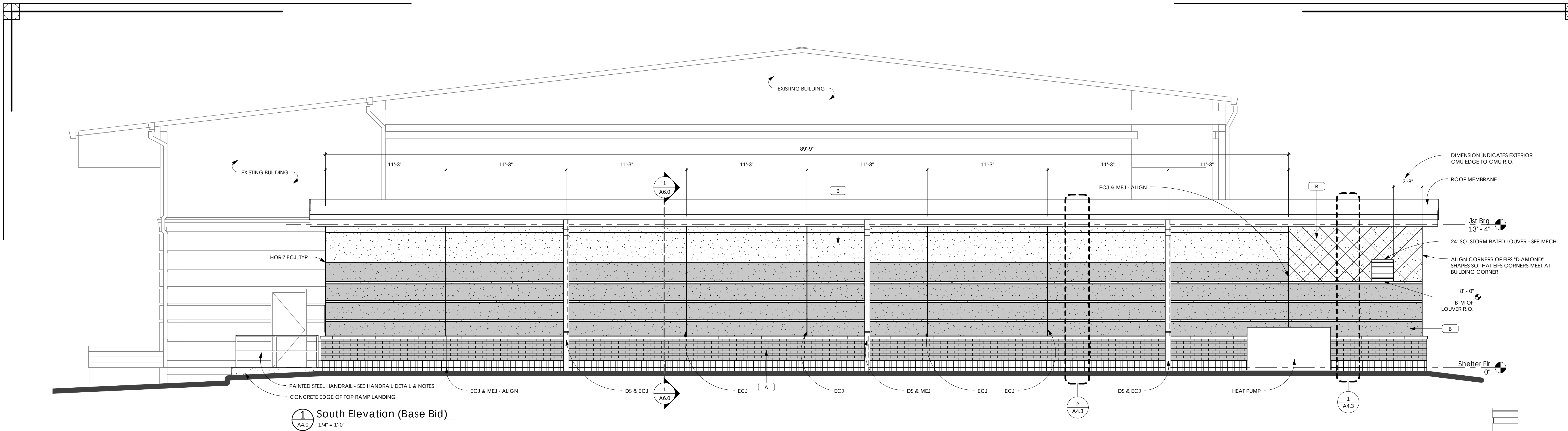


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Contractor must verify all dimensions prior to construction.

JOB No.	11015E
DATE:	REV DATE:
05/17/2013	-
DRAWN BY:	JB
RCP & Roof Plan - Alternate	
SHEET NUMBER	A2.0



PREFINISHED METAL COLORS		
ITEM	COLOR	NOTES
METAL SOFFIT PANELS	SILVER	MATCH PHASE 2 SOFFIT PANELS
METAL FASCIA	SILVER	MATCH PHASE 2 FASCIA
GUTTERS & DOWNSPOUTS	SILVER	MATCH PHASE 2 GUTTERS & DOWNSPOUTS
METAL PANEL 'A'	SILVER	MATCH PHASE 2 METAL PANEL 'A'
METAL PANEL 'B'	SILVER	MATCH PHASE 2 METAL PANEL 'B'
WALL LOUVERS	DARK GRAY	MATCH TO PHASE 2 METAL COLOR 2
ALUMINUM CANOPY BEAMS & FASCIA	BLUE	MATCH TO PHASE 3 BLUE USED ON ALUMINUM CANOPIES
ALUMINUM CANOPY COLUMNS	DARK GRAY	MATCH TO PHASE 3 DARK GRAY USED ON ALUMINUM CANOPIES
ALUMINUM CANOPY DECKING	SILVER	TOP COLOR: MANUFACTURER'S CHOICE. BOTTOM COLOR: MATCH SILVER AT BOTTOM OF PHASE 2 CANOPIES.
ALUMINUM STOREFRONT FRAMING	BLUE	MATCH PHASE 2 BLUE ALUMINUM STOREFRONT
ALUMINUM STOREFRONT DOORS	CLEAR ANODIZED	

MATERIALS LEGEND

- EPS - COLOR 1
- EPS - COLOR 2
- EPS - COLOR 3
- METAL PANEL 'A' (ALTERNATE). MATCH PHASE 2 COLOR, FLAT LOCK PANEL MATERIAL & SEAM CONFIGURATION.
- METAL PANEL 'B' (ALTERNATE). MATCH PHASE 2 COLOR AND CORRUGATED PANEL.
- CAST STONE. MATCH PHASE 2 COLOR & MORTAR.
- BRICK VENEER A RUNNING BOND. MATCH PHASE 2 BRICK A AND MORTAR.
- BRICK SOLDIER COURSE - COLOR B. MATCH PHASE 2 BRICK B & MORTAR. MITER AT END CONDITIONS & CORNERS SO THAT BRICK HOLES ARE NOT VISIBLE.

3/4" EPS 'V' GROOVE

1-1/2" DIAMETER PAINTED STEEL HANDRAIL AROUND TOP RAMP LANDING BEYOND

CONCRETE RAMP BEYOND

EXTERIOR MATERIALS NOTES

1. ALL EPS JOINTS (NOTE AS 'ECJ' IN DRAWINGS FOR 'EPS CONTROL JOINT') SHOWN ON EXTERIOR ELEVATIONS ARE 3/4" WIDE x 3/4" DEEP 'V' GROOVES PER SPECIFIED MANUFACTURER'S RECOMMENDATION.

EllisArchitects

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Phase 4 Storm Shelter Addition to:

**University Place Elementary School
& University Place Middle School**

Tuscaloosa City Board of Education
Tuscaloosa, Alabama

STATE OF ALABAMA
REGISTERED ARCHITECT
MICHAEL A. ELLIS
3692

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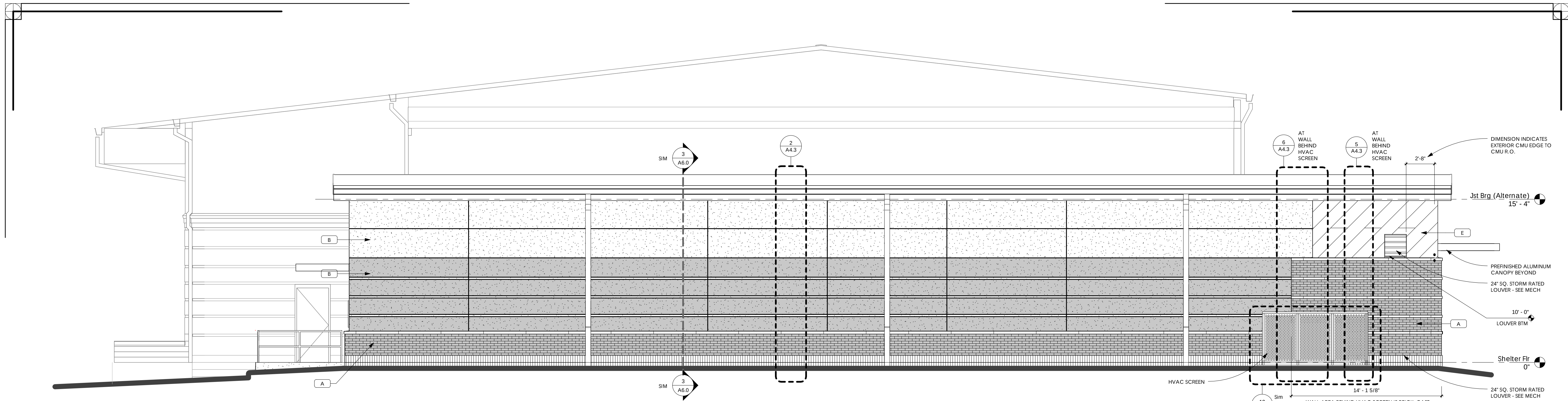
Do Not Scale From Drawings.

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JOB No.	11015E
DATE:	05/17/2013
REV DATE:	-
DRAWN BY:	JB

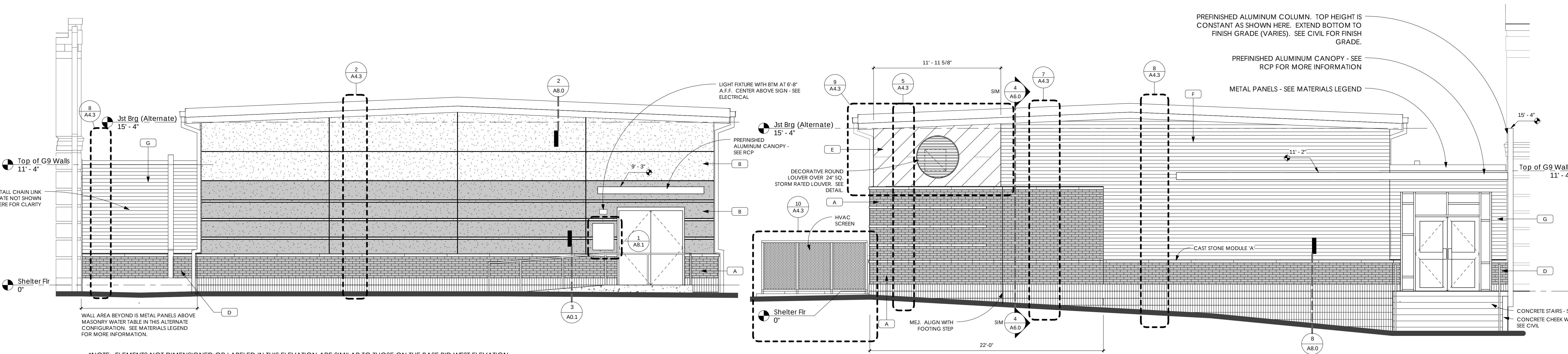
Exterior Elevations -
Base Bid

SHEET NUMBER	A4.0
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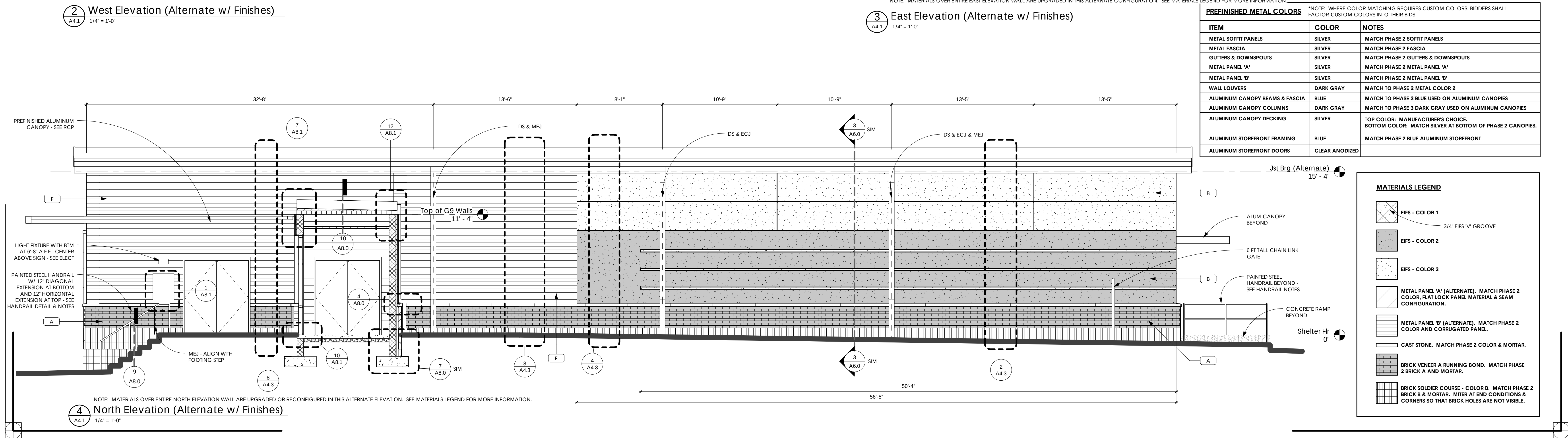
*NOTE: ELEMENTS NOT DIMENSIONED OR LABELED IN THIS ELEVATION ARE SIMILAR TO THOSE ON THE BASE BID SOUTH ELEVATION.

1 South Elevation (Alternate w/ Finishes)
1/4" = 1'-0"



*NOTE: ELEMENTS NOT DIMENSIONED OR LABELED IN THIS ELEVATION ARE SIMILAR TO THOSE ON THE BASE BID WEST ELEVATION.

2 West Elevation (Alternate w/ Finishes)
1/4" = 1'-0"



*NOTE: MATERIALS OVER ENTIRE NORTH ELEVATION WALL ARE UPGRADED OR RECONFIGURED IN THIS ALTERNATE ELEVATION. SEE MATERIALS LEGEND FOR MORE INFORMATION.

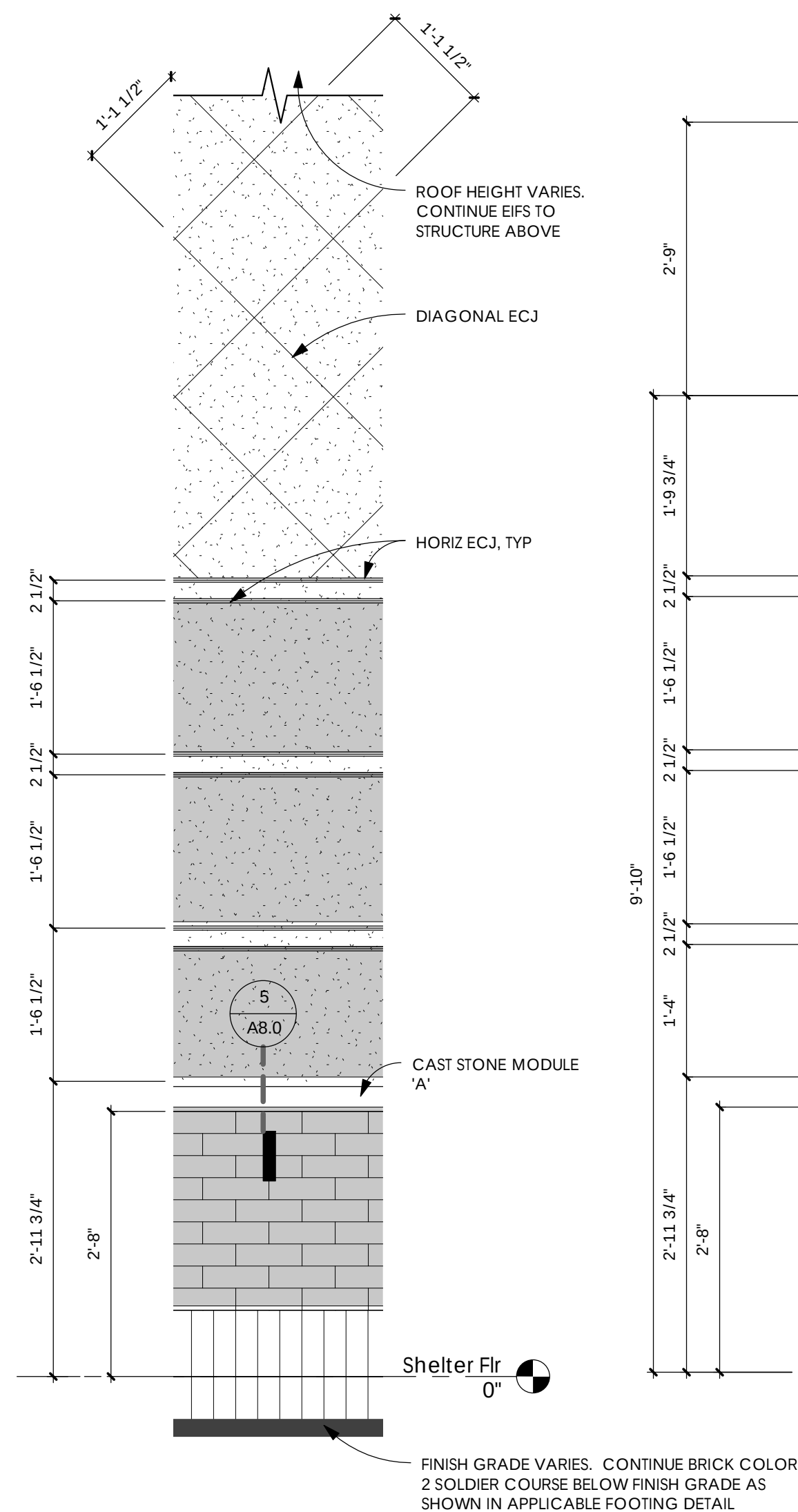
4 North Elevation (Alternate w/ Finishes)
1/4" = 1'-0"

PREFINISHED METAL COLORS		
ITEM	COLOR	NOTES
METAL SOFFIT PANELS	SILVER	MATCH PHASE 2 SOFFIT PANELS
METAL FASCIA	SILVER	MATCH PHASE 2 FASCIA
GUTTERS & DOWNSPOUTS	SILVER	MATCH PHASE 2 GUTTERS & DOWNSPOUTS
METAL PANEL 'A'	SILVER	MATCH PHASE 2 METAL PANEL 'A'
METAL PANEL 'B'	SILVER	MATCH PHASE 2 METAL PANEL 'B'
WALL LOUVERS	DARK GRAY	MATCH TO PHASE 2 METAL COLOR 2
ALUMINUM CANOPY BEAMS & FASCIA	BLUE	MATCH TO PHASE 3 BLUE USED ON ALUMINUM CANOPIES
ALUMINUM CANOPY COLUMNS	DARK GRAY	MATCH TO PHASE 3 DARK GRAY USED ON ALUMINUM CANOPIES
ALUMINUM CANOPY DECKING	SILVER	TOP COLOR: MANUFACTURER'S CHOICE. BOTTOM COLOR: MATCH SILVER AT BOTTOM OF PHASE 2 CANOPIES.
ALUMINUM STOREFRONT FRAMING	BLUE	MATCH PHASE 2 BLUE ALUMINUM STOREFRONT
ALUMINUM STOREFRONT DOORS	CLEAR ANODIZED	

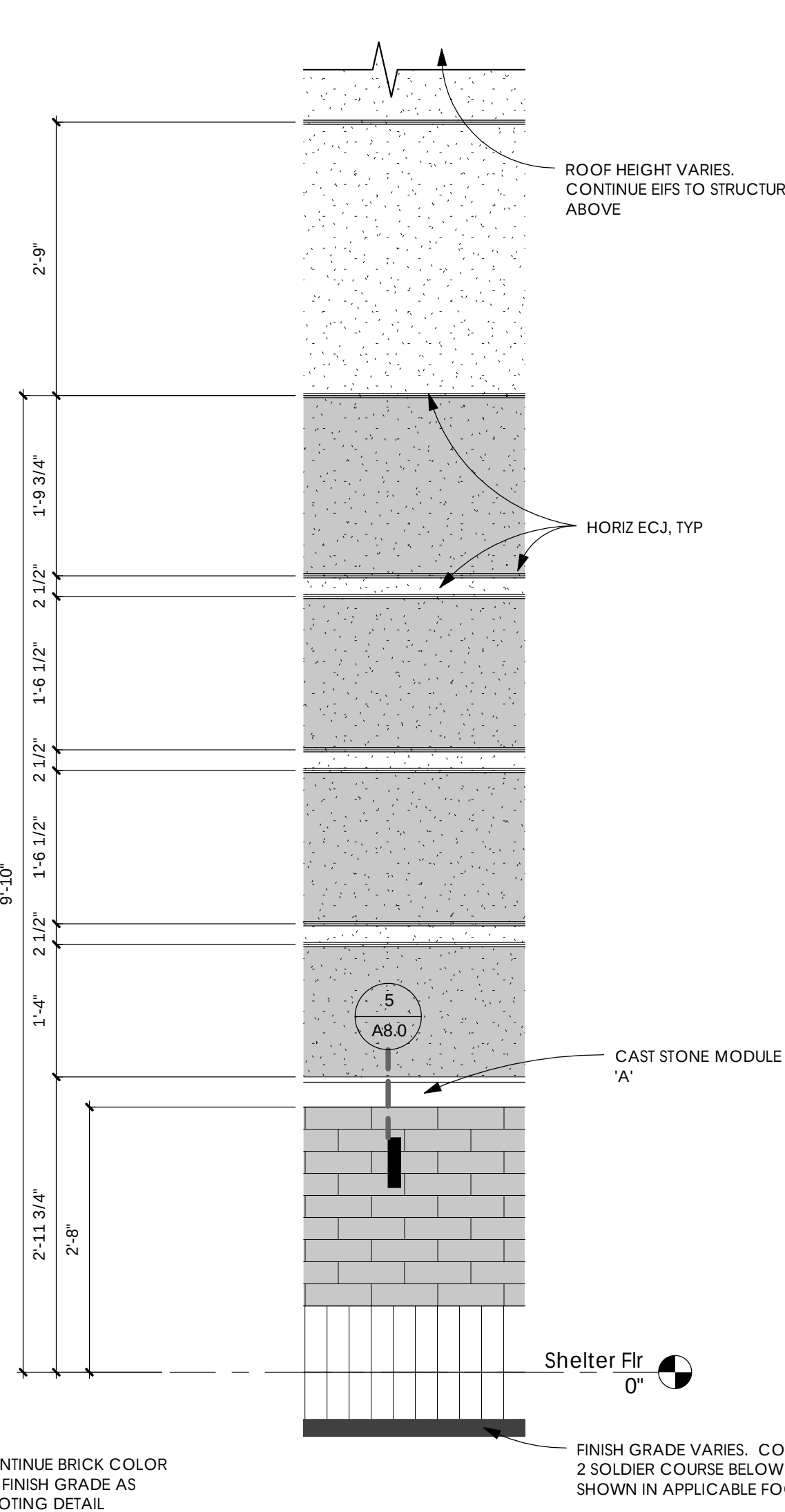
*NOTE: WHERE COLOR MATCHING REQUIRES CUSTOM COLORS, BIDDERS SHALL FACTOR CUSTOM COLORS INTO THEIR BIDS.

MATERIALS LEGEND

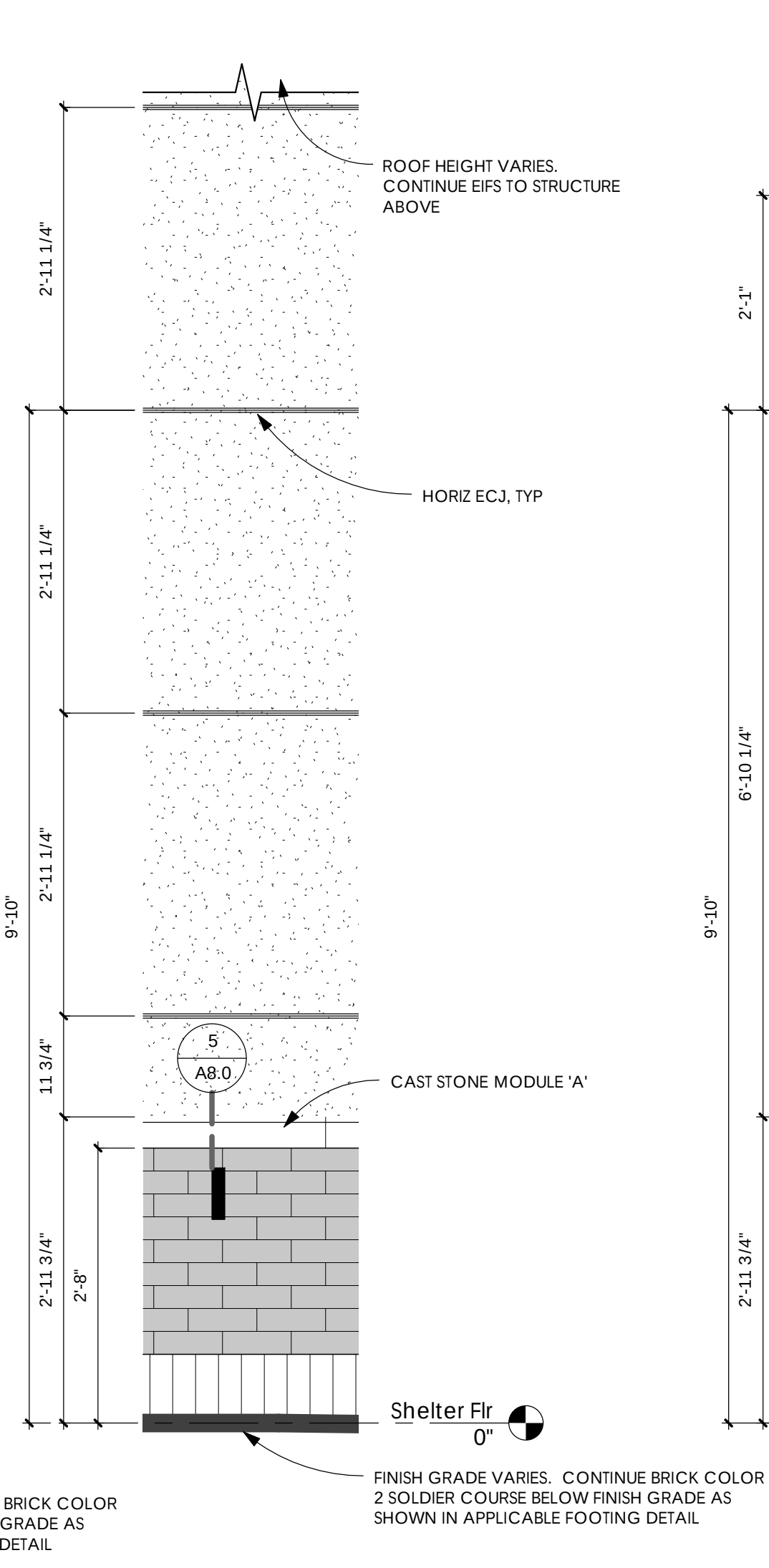
- EIFS - COLOR 1
- EIFS - COLOR 2
- EIFS - COLOR 3
- METAL PANEL 'A' (ALTERNATE). MATCH PHASE 2 COLOR, FLAT LOCK PANEL MATERIAL & SEAM CONFIGURATION.
- METAL PANEL 'B' (ALTERNATE). MATCH PHASE 2 COLOR AND CORRUGATED PANEL.
- CAST STONE. MATCH PHASE 2 COLOR & MORTAR.
- BRICK VENEER A RUNNING BOND. MATCH PHASE 2 BRICK A AND MORTAR.
- BRICK SOLDER COURSE - COLOR B. MATCH PHASE 2 BRICK B & MORTAR. MITER AT END CONDITIONS & CORNERS SO THAT BRICK HOLES ARE NOT VISIBLE.



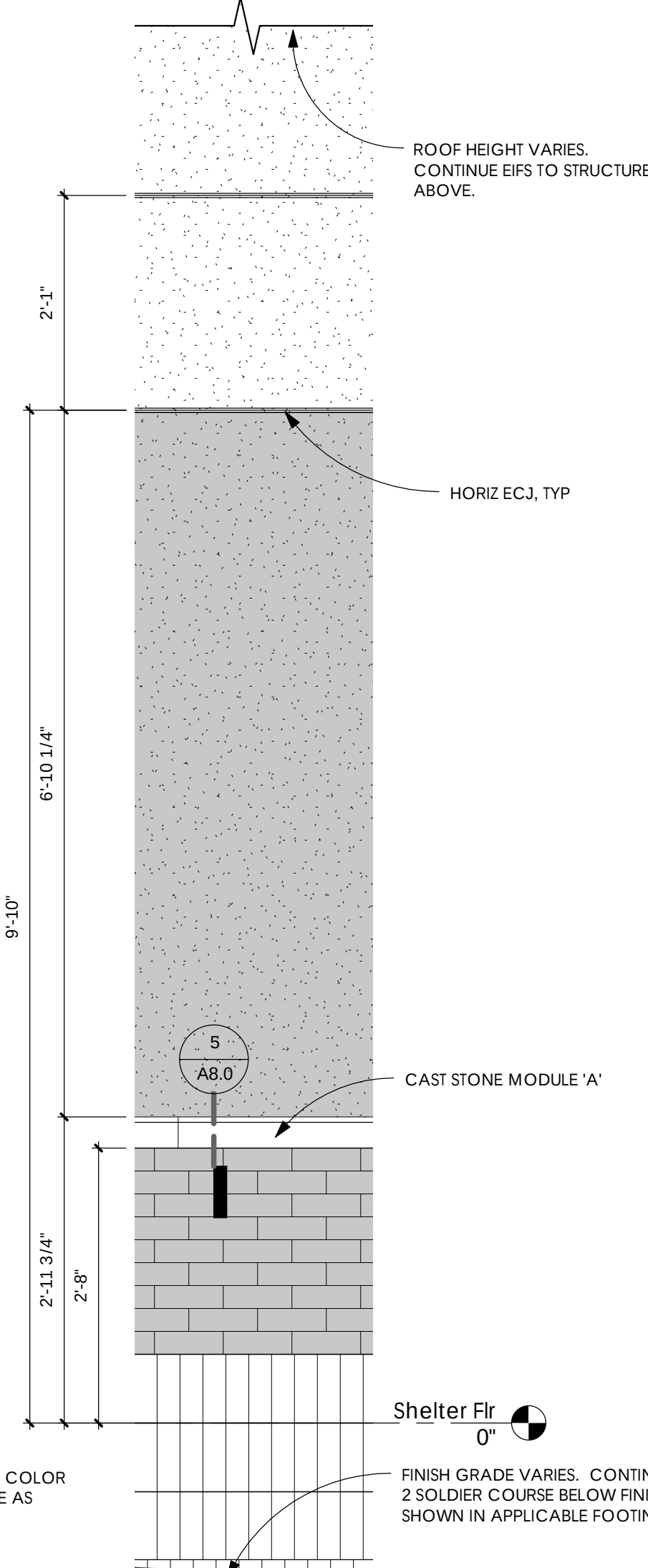
1 Elevation Detail
A4.3 3/4" = 1'-0"



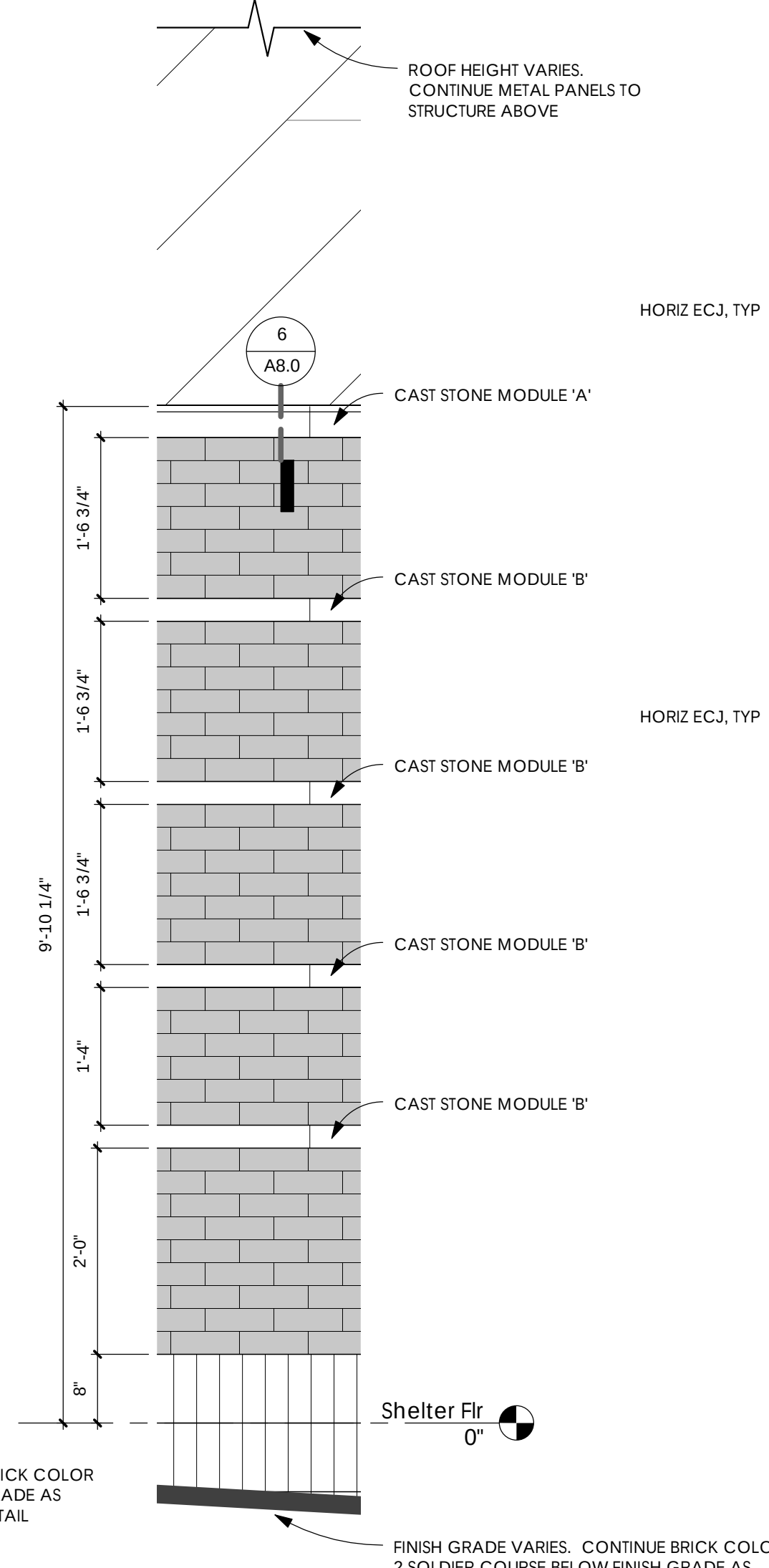
2 Elevation Detail
A4.3 3/4" = 1'-0"



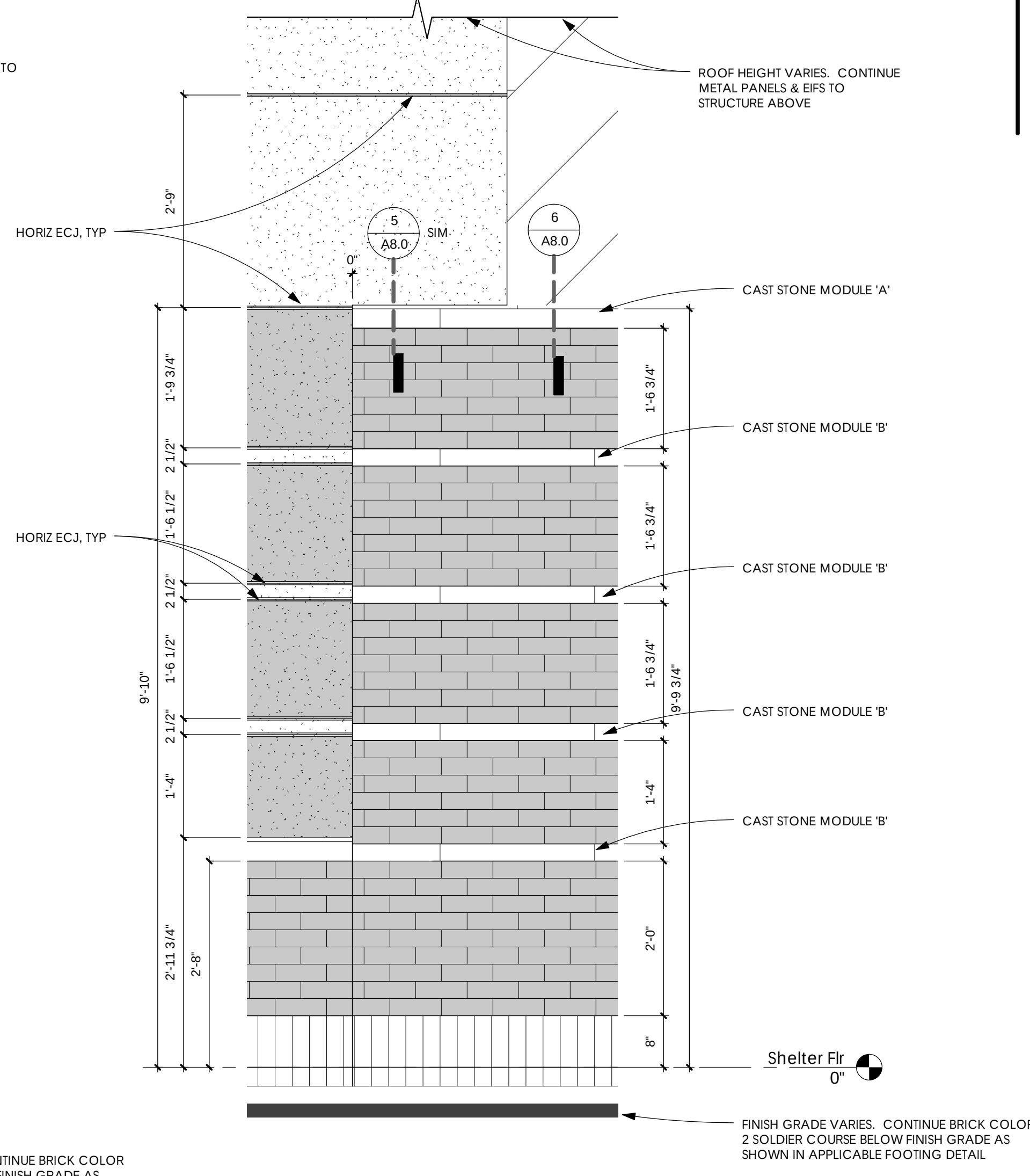
3 Elevation Detail
A4.3 3/4" = 1'-0"



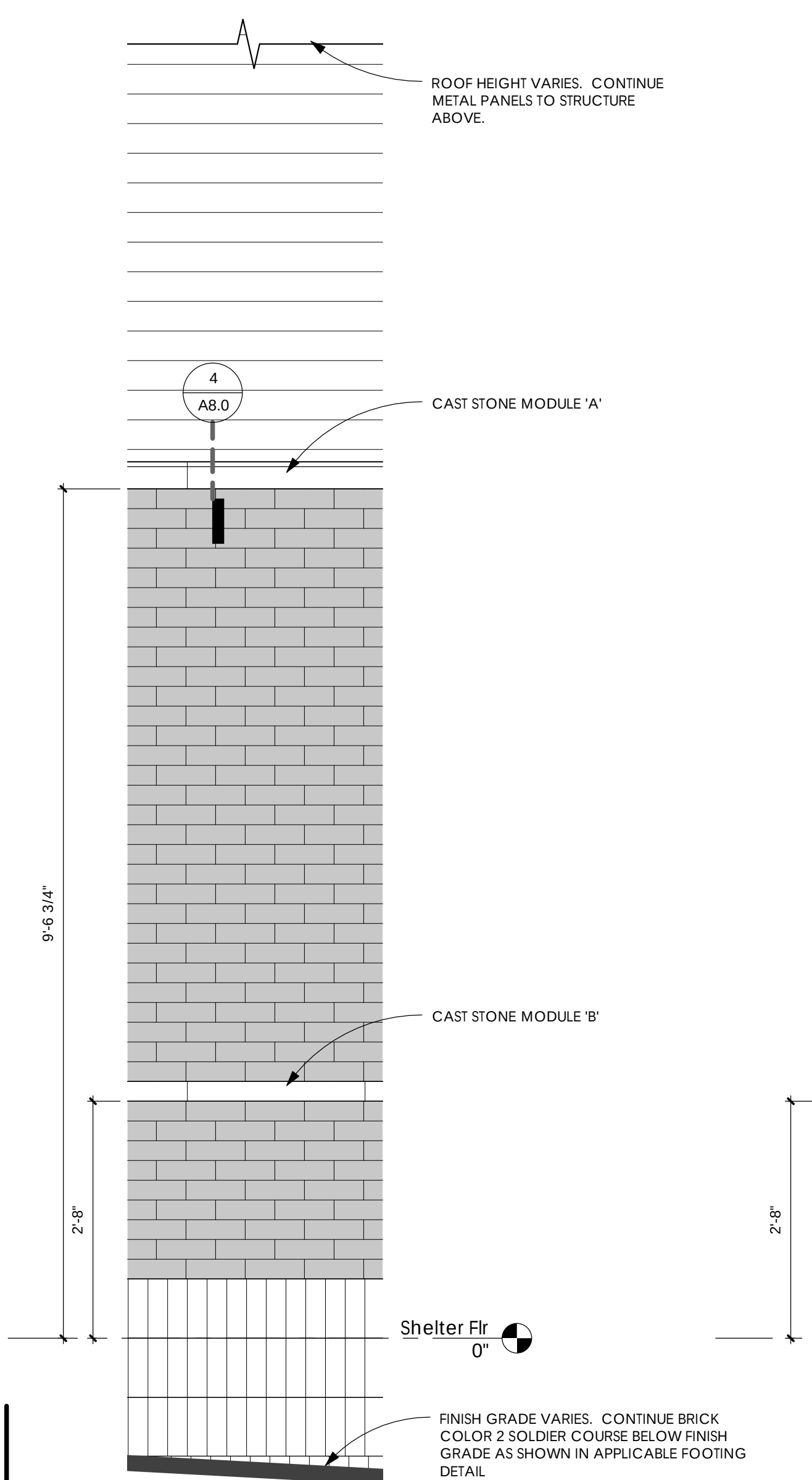
4 Elevation Detail
A4.3 3/4" = 1'-0"



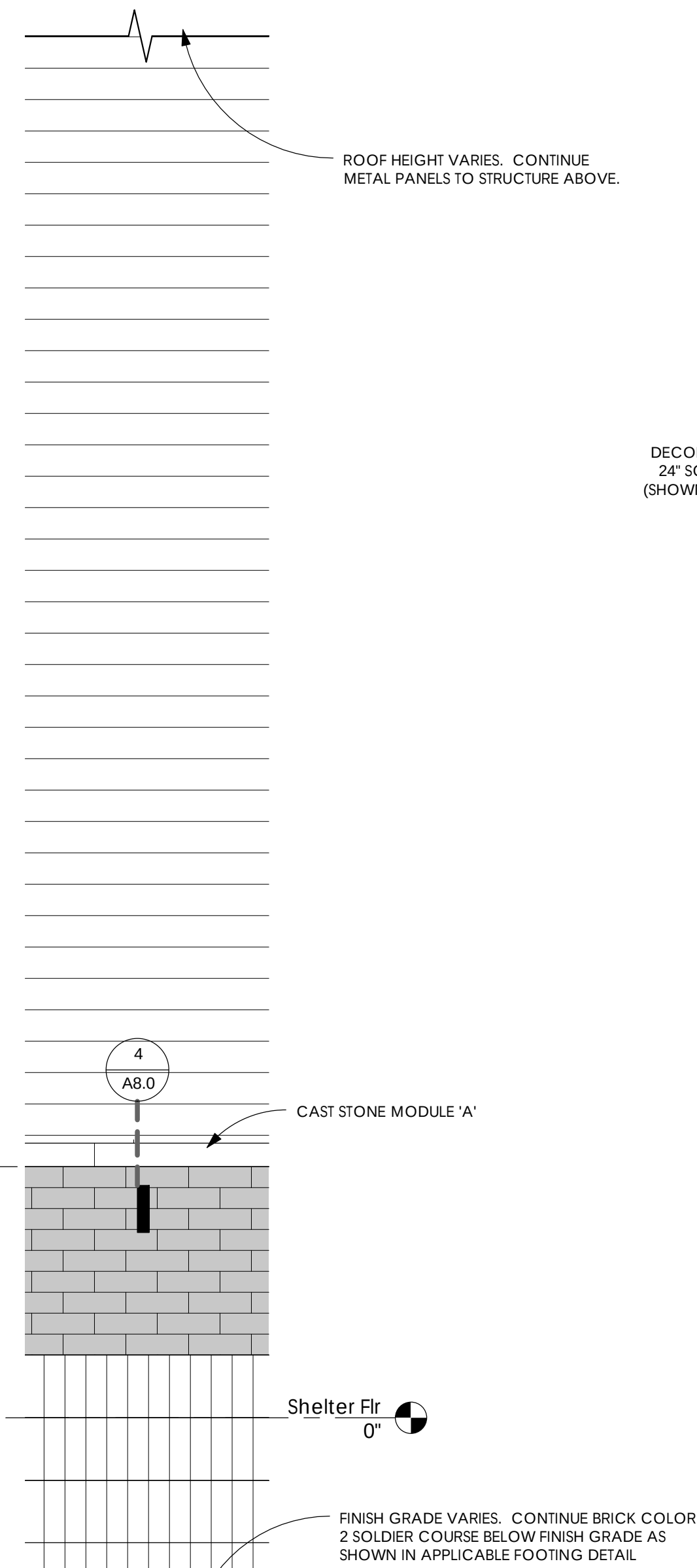
5 Elevation Detail
A4.3 3/4" = 1'-0"



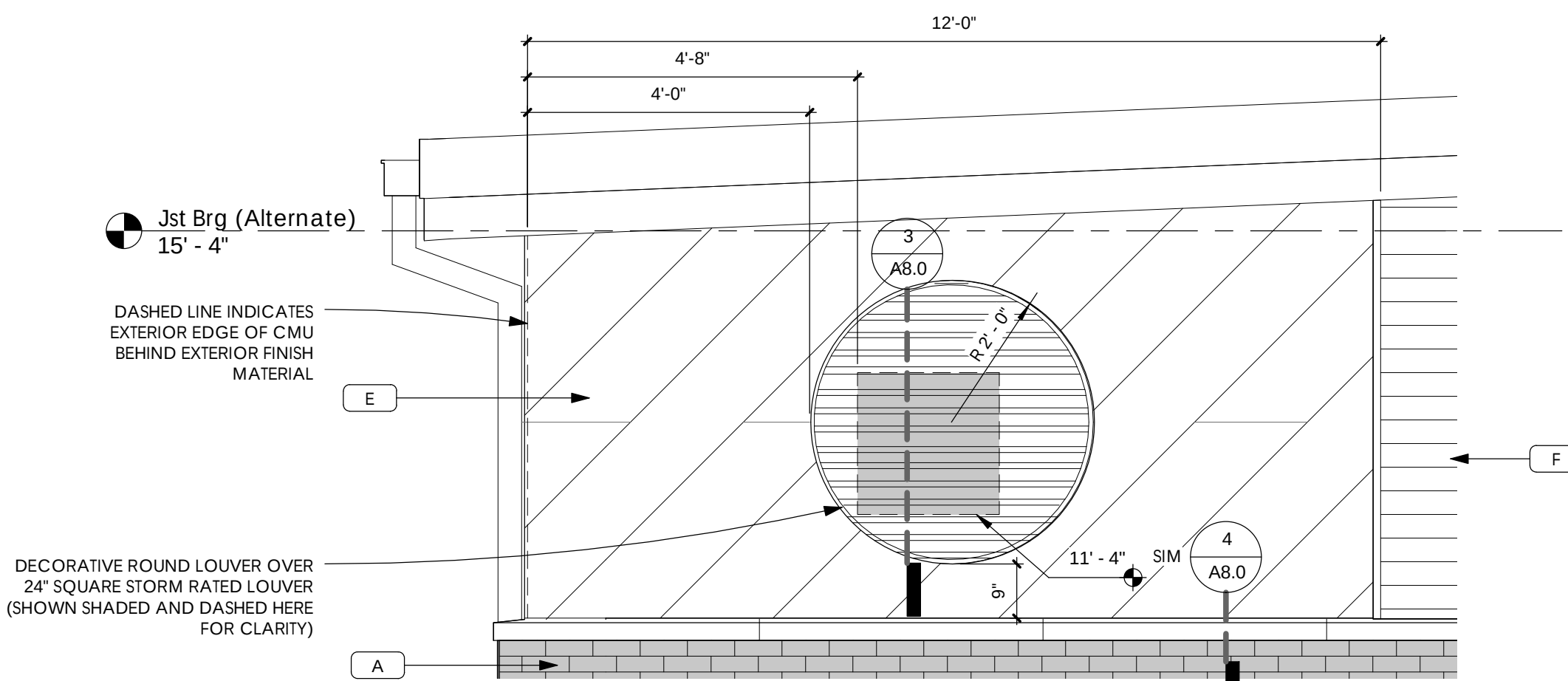
6 Elevation Detail
A4.3 3/4" = 1'-0"



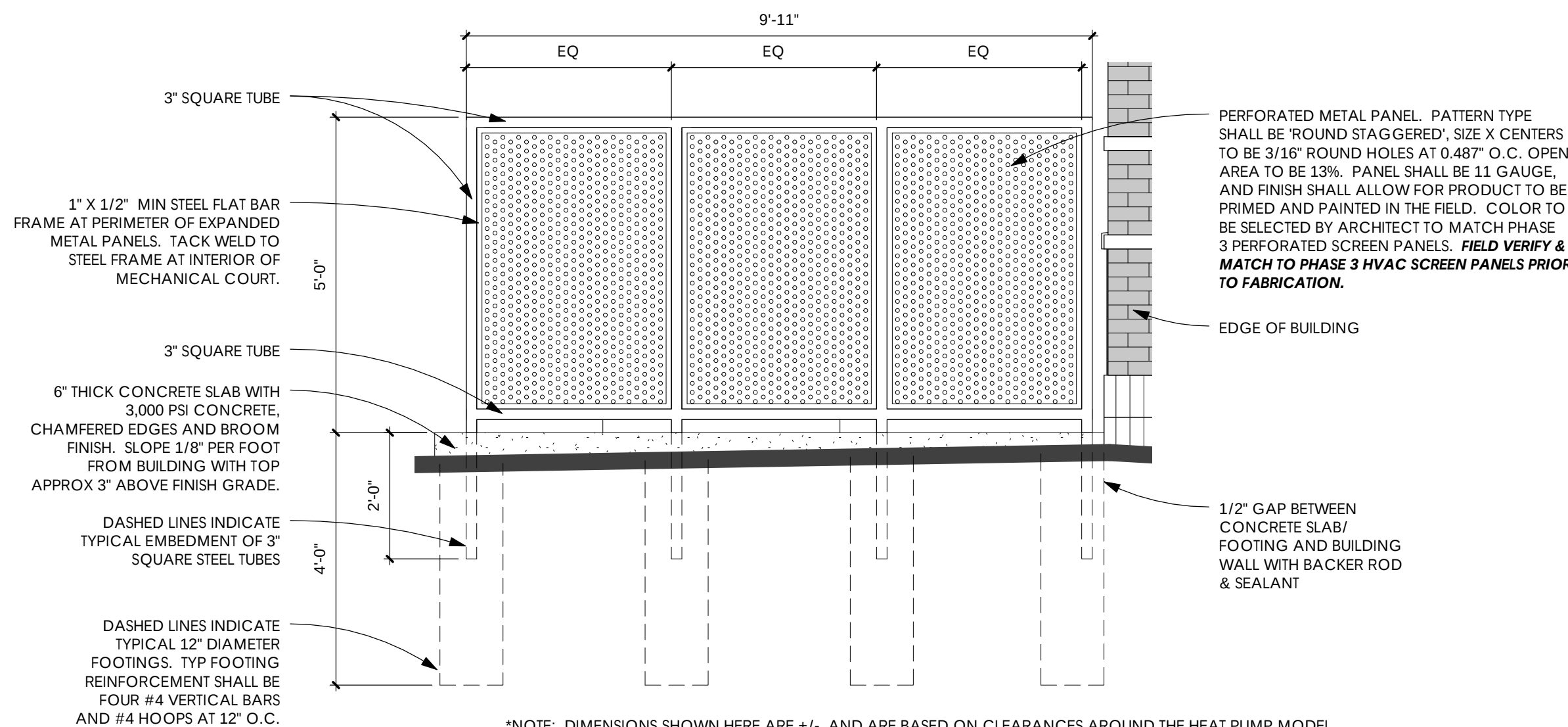
7 Elevation Detail
A4.3 3/4" = 1'-0"



8 Elevation Detail
A4.3 3/4" = 1'-0"



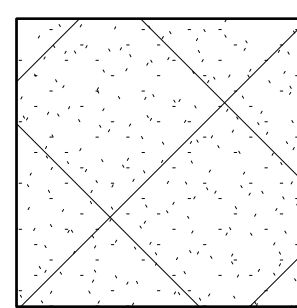
9 Round Louver Elevation Detail
A4.3 1/2" = 1'-0"



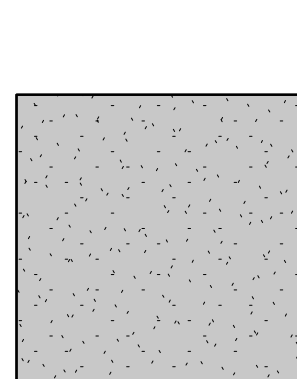
10 HVAC Screen Elevation Detail
A4.3 1/2" = 1'-0"

EXTERIOR MATERIALS NOTES
1. ALL EIFS JOINTS (NOTE AS "ECJ" IN DRAWINGS FOR "EIFS CONTROL JOINT") SHOWN ON EXTERIOR ELEVATIONS ARE 3/4" WIDE X 3/4" DEEP "V" GROOVES PER SPECIFIED MANUFACTURER'S RECOMMENDATION.

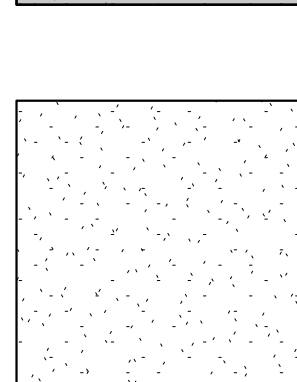
MATERIALS LEGEND



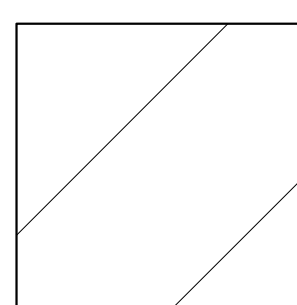
EIFS - COLOR 1



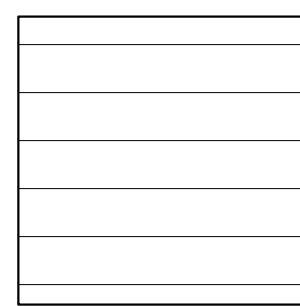
EIFS - COLOR 2



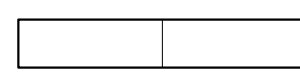
EIFS - COLOR 3



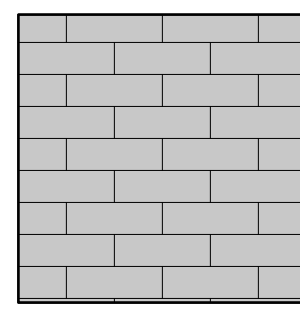
METAL PANEL 'A' (ALTERNATE), MATCH PHASE 2 FLAT LOCK PANEL MATERIAL & SEAM CONFIGURATION.



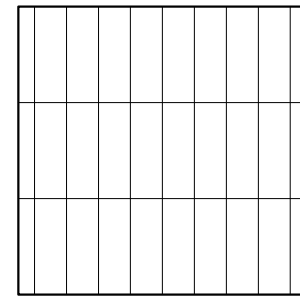
METAL PANEL 'B' (ALTERNATE), MATCH PHASE 2 CORRUGATED PANEL.



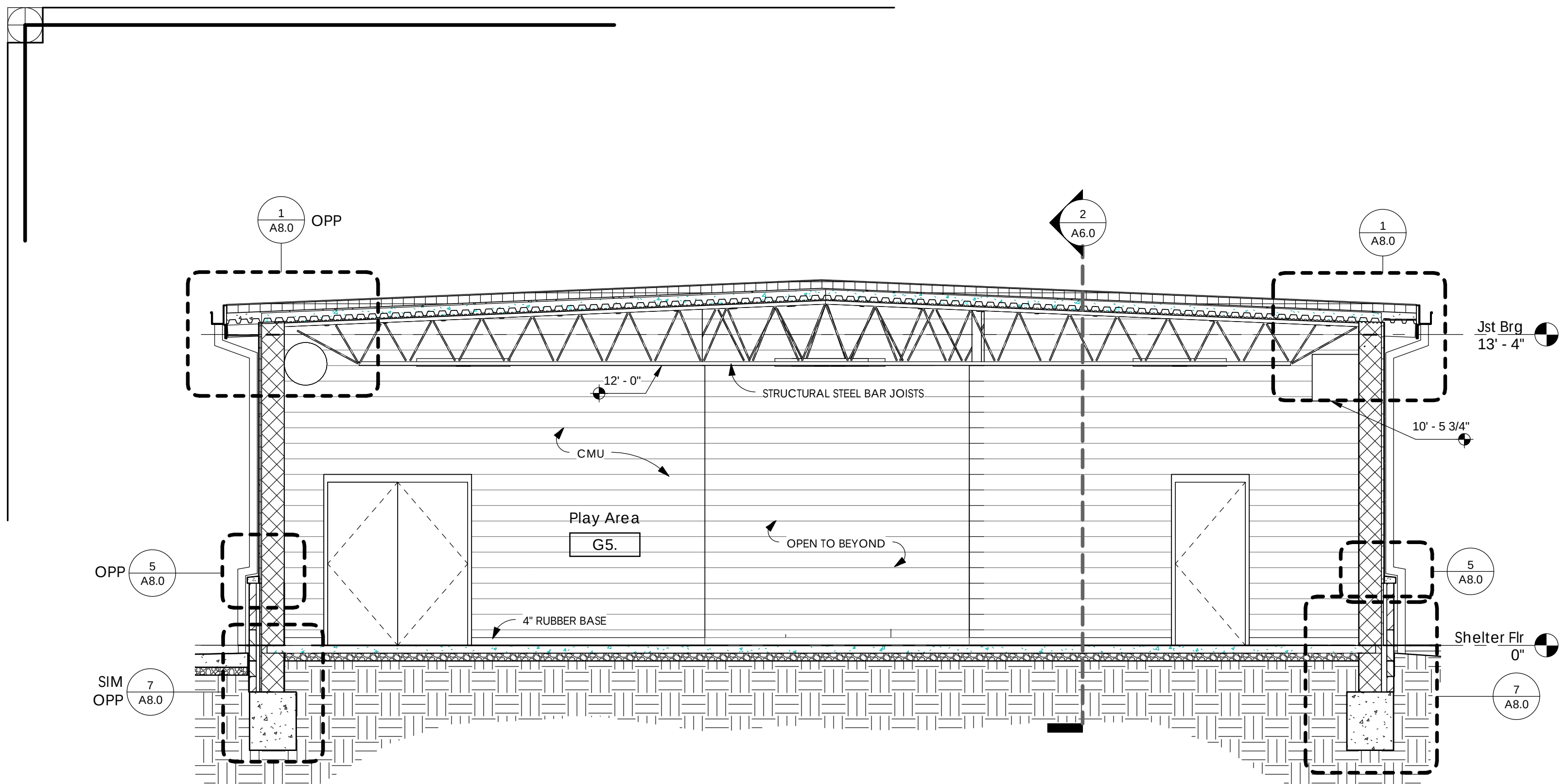
CAST STONE. MATCH PHASE 2 CAST STONE COLOR & MORTAR.



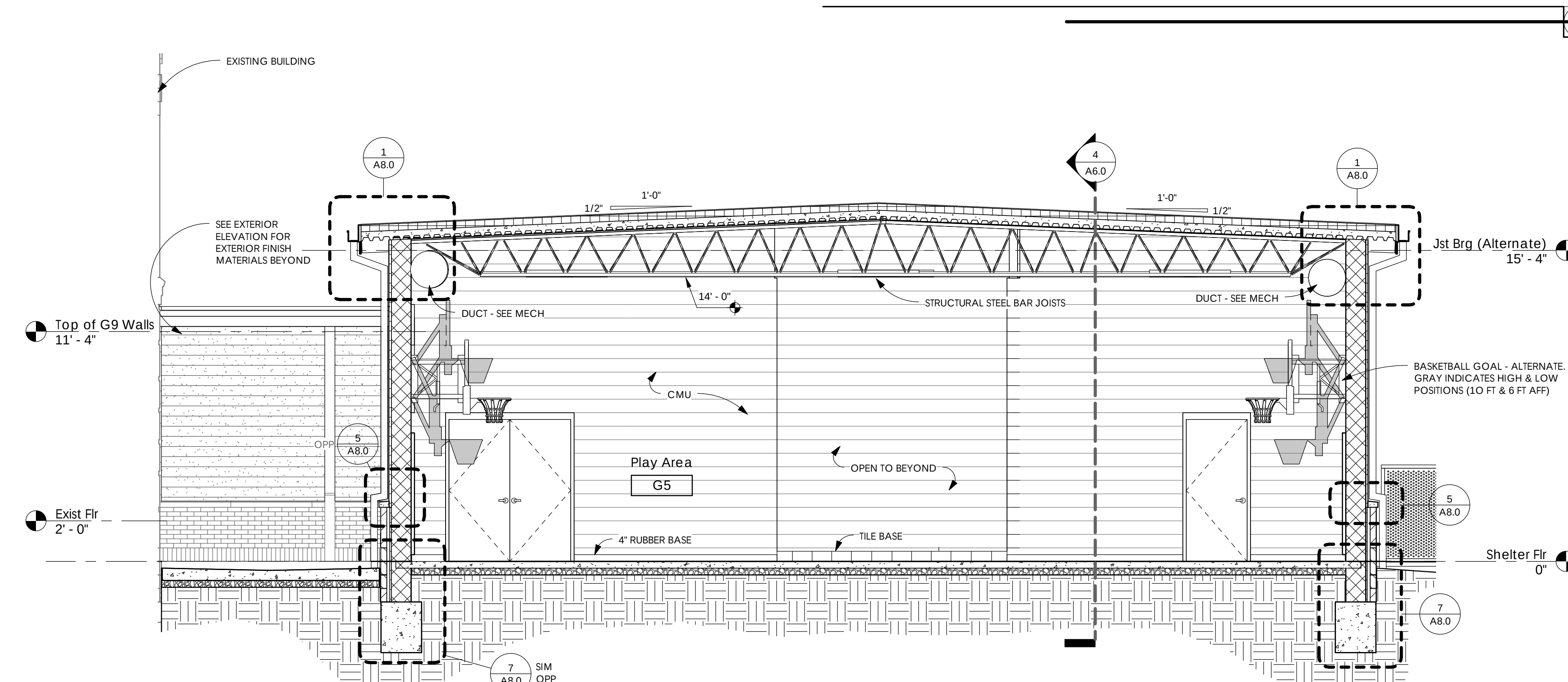
BRICK VENEER A RUNNING BOND, MATCH PHASE 2 BRICK A & MORTAR.



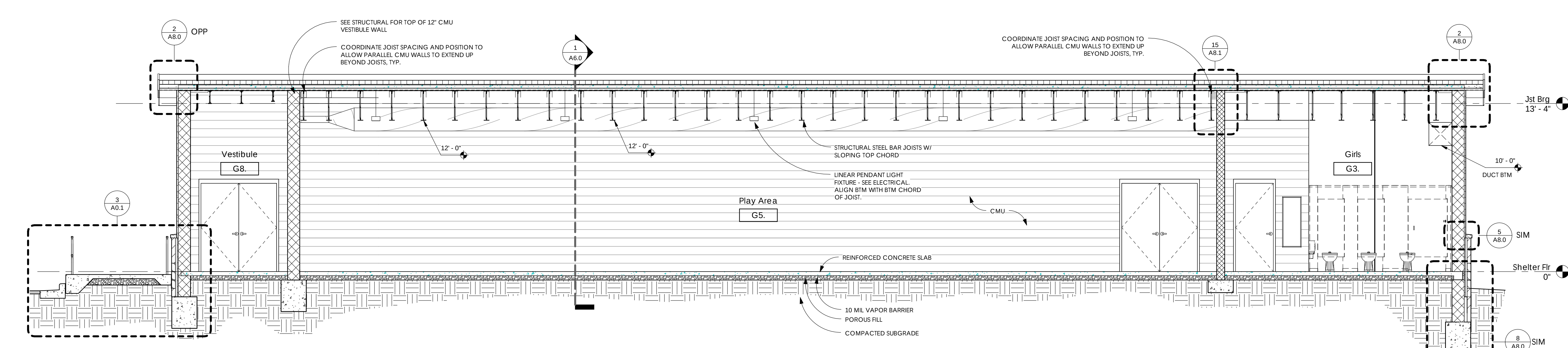
BRICK B SOLDIER COURSE. MATCH PHASE 2 BRICK B & MORTAR.



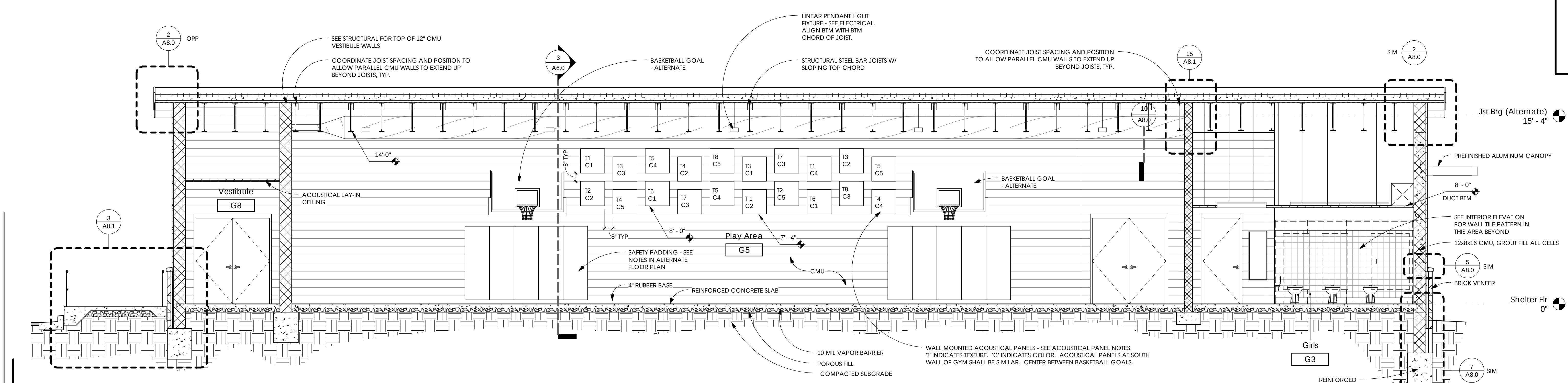
1 Building Section 1 (Base Bid)
1/4" = 1'-0"



3 Building Section - Alternate
1/4" = 1'-0"



2 Building Section 2 (Base Bid)
1/4" = 1'-0"



4 Building Section - Alternate
1/4" = 1'-0"

BASKETBALL GOAL NOTES

- BASKETBALL GOALS ARE PART OF ALTERNATE. BASKETBALL GOALS SHALL BE EQUAL TO GOALSETTER SYSTEMS GS54 WALL MOUNT ADJUSTABLE GOAL WITH ACRYLIC BACKBOARD & COLLEGIATE BREAKAWAY RIM & 54" BLUE PADDING & OPTIONAL PADLOCK TO ALLOW GOAL TO BE LOCKED AT ANY HEIGHT.
- SEE MANUFACTURER'S INSTALLATION & OWNER'S INSTRUCTIONS AT http://www.goalsetter.com/UserDocs/WM-GS72-GS60-GS54_12_31_2012.pdf. ON PAGE 3, NOTE THAT DIMENSION 'B' WILL BE REQUIRED TO BE 10" LESS THAN THE STANDARD DIMENSIONS SHOWN ON THIS SHEET. BIDDERS SHALL FACTOR THIS CUSTOM DIMENSION INTO THEIR BIDS.
- MOUNT GOALS TO CMU WALL PER MANUFACTURER'S RECOMMENDATIONS.

ACOUSTICAL PANEL NOTES & LEGEND

ACOUSTICAL PANELS SHALL BE EQUAL TO BUZZISKIN TILE 3D-L. DIMENSIONS: 23-5/8" X 23-5/8"

TILE BACK: FELT

FABRIC: BUZZIFABRIC

CONTACT: JOY STEPHENSON AT 205-345-5573.

TEXTURES

- T1: SQUARE
- T2: DUNE
- T3: ARROW
- T4: 4 SQUARES
- T5: LIPS
- T6: 25 SQUARES
- T7: SPIKES
- T8: RIB

COLORS

- C1: PISTACHE 52
- C2: INDIGO 90
- C3: PETROL 56
- C4: RED 2011
- C5: MIDGRAY 1001

EllisArchitects

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Phase 4 Storm Shelter Addition to:

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Tuscaloosa City Board of Education
Tuscaloosa, Alabama

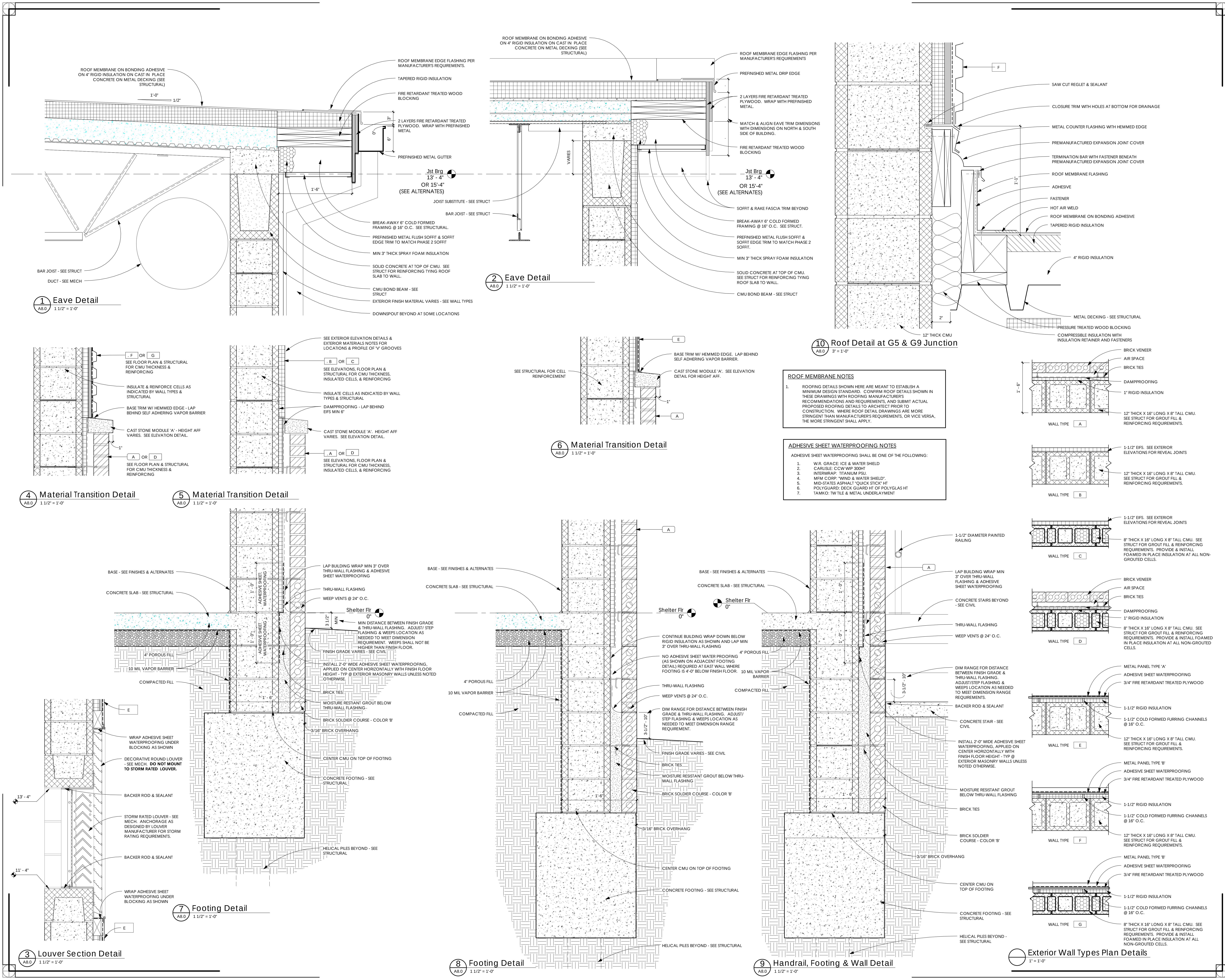
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JOB No.	11015E
DATE:	REV DATE:
05/17/2013	-
DRAWN BY:	JB
Building Sections	
SHEET NUMBER	A6.0



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Phase 4 Storm Shelter Addition to:

University Place Elementary School
& University Place Middle School

Tuscaloosa City Board of Education
Tuscaloosa, Alabama

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JOB No. 11015E

DATE: 05/17/2013
REV DATE: 04/02/13

DRAWN BY: Author

Details

SHEET NUMBER A8.0

5/15/2013 12:36:26 PM

2' - 0"

2' - 6"

TORNADO STORM SHELTER

250 MPH STORM SHELTER DESIGN WIND SPEED (3-SECOND GUST)

MISSILE IMPACT RESISTANCE:

15 LBS 2X4 @ 67 MPH (HORIZONTAL)

15 LBS 2X4 @ 100 MPH (VERTICAL)

STORM SHELTER MANUFACTURER/ BUILDER

NORMAL USE MAXIMUM OCCUPANT LOAD: 570

SAFE ROOM USE MAXIMUM OCCUPANT LOAD: 815

- STORM SHELTER SIGNAGE NOTES**
1. INSTALL AT AREAS AS INDICATED ON FLOOR PLANS OR ELEVATIONS
 2. BACKGROUND SHALL BE NON-REFLECTIVE ALUMINUM.
 3. "STORM SHELTER" AND LOGO SHALL BE REFLECTIVE USING YELLOW REFLECTIVE SHEETING.
 4. SIGN SHALL GLOW FOR A MINIMUM OF 6 HOURS IN THE EVENT OF A POWER LOSS.
 5. FOR ITEMS LEFT BLANK, VERIFY VALUES WITH ARCHITECT PRIOR TO PRODUCING SIGN.

1 Shelter Signage Detail

A8.1 3' = 1'-0"

2' - 0"

2' - 6"

TORNADO STORM SHELTER

250 MPH STORM SHELTER DESIGN WIND SPEED (3-SECOND GUST)

MISSILE IMPACT RESISTANCE:

15 LBS 2X4 @ 67 MPH (HORIZONTAL)

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STORM SHELTER MANUFACTURER/ BUILDER

NORMAL USE MAXIMUM OCCUPANT LOAD: 570

SAFE ROOM USE MAXIMUM OCCUPANT LOAD: 815

- STORM SHELTER SIGNAGE NOTES**
1. INSTALL AT AREAS AS INDICATED ON FLOOR PLANS OR ELEVATIONS
 2. BACKGROUND SHALL BE NON-REFLECTIVE ALUMINUM.
 3. "STORM SHELTER" AND LOGO SHALL BE REFLECTIVE USING YELLOW REFLECTIVE SHEETING.
 4. SIGN SHALL GLOW FOR A MINIMUM OF 6 HOURS IN THE EVENT OF A POWER LOSS.
 5. FOR ITEMS LEFT BLANK, VERIFY VALUES WITH ARCHITECT PRIOR TO PRODUCING SIGN.

2 Shelter Signage With Arrow Detail

A8.1 3' = 1'-0"

ALIGN WALL TILE AS SHOWN ON INTERIOR ELEVATIONS WITH FLOOR TILE AS SHOWN IN ALTERNATE FLOOR PLAN

PAINTED GYPSUM BOARD

TOILET PARTITION

WT-14

WT-13

WT-5

SOME TOILET ACCESSORIES NOT SHOWN HERE FOR CLARITY. SEE BASE BID FLOOR PLAN AND TOILET ACCESSORY SCHEDULE FOR TOILET ACCESSORIES.

WT-4

WT-2

TILE BASE PER FINISH PLAN

WT-6

WT-3

1' - 4"

SEE PLUMBING FOR PLUMBING FIXTURES, TYP

NOTE: "FRONT" OF TOILET PARTITIONS NOT SHOWN FOR CLARITY

13 Interior Elevation

A8.1 3/8" = 1'-0"

ROOF MEMBRANE EDGE FLASHING PER MANUFACTURER'S REQUIREMENTS

TREATED WOOD BLOCKING, TYP

PREFINISHED METAL DRIP EDGE

CANOPY ANCHORAGE AS DESIGNED BY CANOPY MANUFACTURER

ROOF MEMBRANE

1/4" / 1'-0"

TAPERED INSULA

4" RIGID TAPERED RIGID INSULATION - MIN 1/2" AT END

METAL DECKING

4" RIGID INSULATION

STEEL ANGLE - SEE STRUCTURAL

CMU BOND BEAM - SEE STRUCTURAL

8" FASCIA/ GUTTER

EDGE TRIM

BACKER ROD & SEALANT

BACKER ROD & SEALANT

7 Roof Edge Detail w/ Canopy

A8.1 1 1/2" = 1'-0"

ALUMINUM STOREFRONT

BRICK VENEER SOLDIERS BEYOND - MITER @ EDGES SO BRICK HOLES ARE NOT VISIBLE AT JAMBS, TYP

CMU BEYOND

BASE BEYOND - SEE FINISH PLAN

ALUMINUM SUBSILL

CONCRETE WALK - SEE CIVIL. SLOPE AWAY FROM DOOR @ 1:50 MAX

SEALANT BELOW SUBSILL

1/2" EXPANSION JOINT, BACKER ROD & SEALANT

BACKER ROD & SEALANT BELOW SUBSILL

CONCRETE FOOTING - SEE STRUCTURAL

9 Alum Storefront Sill

A8.1 1 1/2" = 1'-0"

INSERT CONTRACTOR'S NAME HERE.

DOOR - SEE DOOR TYPES

BRICK VENEER SOLDIERS BEYOND - MITER @ EDGES SO BRICK HOLES ARE NOT VISIBLE AT JAMBS, TYP

ADAAG COMPLIANT THRESHOLD COVERING 1/4" VERTICAL DROP BETWEEN SLAB & SIDEWALK

CONCRETE WALK - SEE CIVIL. SLOPE AWAY FROM DOOR @ 1:50 MAX

CMU BEYOND

DOOR SWEEP

BASE BEYOND - SEE FINISH PLAN

ALUMINUM THRESHOLD ON FULL SEALANT BED

CONCRETE FOOTING VARIES - SEE STRUCTURAL

4" POROUS FILL

10 MIL VAPOR BARRIER

10 Alum Storefront Door Threshold

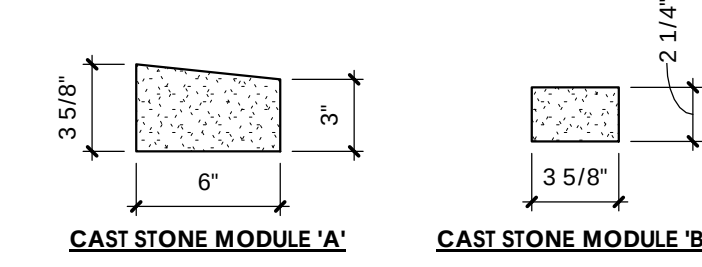
A8.1 1 1/2" = 1'-0"

10 Alum Storefront Door Threshold

A8.1 1 1/2" = 1'-0"

17 Interior Elevation

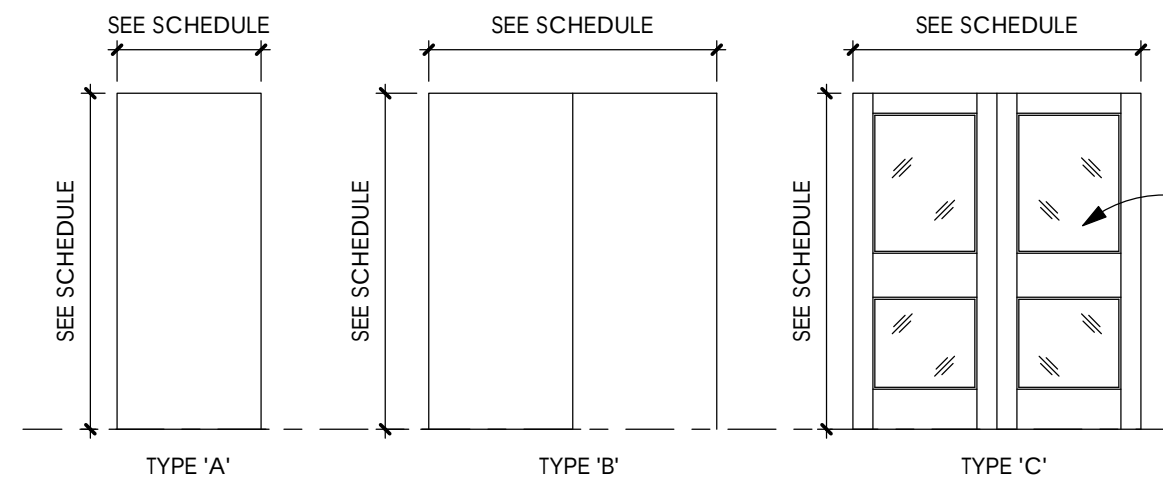
A8.1 3/8" = 1'-0"



*NOTE: MATCH CAST STONE COLOR AND TEXTURE TO PHASE 2 CAST STONE.

3 Cast Stone Types

A8.1 1 1/2" = 1'-0"



4 Door Types

A8.1 1/4" = 1'-0"

5 Frame Types

A8.1 1/4" = 1'-0"

8 Window Type

A8.1 1/4" = 1'-0"

DOOR AND FRAME SCHEDULE									
DOOR NUMBER	DOOR			FRAME			FIRE RATING (DOOR & FRAME)	KEY NOTES	
	WIDTH	HEIGHT	TYPE	MATERIAL	FINISH	MATERIAL	TYPE		
G1a	6'-0"	7'-0"	B	HM	PAINT	HM	1	NONE	2,3
G1b	6'-0"	7'-0"	B	HM	PAINT	HM	1	NONE	2
G2	3'-0"	7'-0"	A	SCWD	PAINT	HM	1	NONE	
G3	3'-0"	7'-0"	A	SCWD	PAINT	HM	1	NONE	
G4	3'-0"	7'-0"	A	SCWD	PAINT	HM	1	NONE	
G5	6'-0"	7'-0"	B	HM	PAINT	HM	1	90 MIN	2,3
G6	6'-0"	7'-0"	B	SCWD	PAINT	HM	1	NONE	
G7	6'-0"	7'-0"	B	SCWD	PAINT	HM	1	NONE	
G8a	6'-0"	7'-0"	B	HM	PAINT	HM	1	NONE	2,3
G8b	6'-0"	7'-0"	B	HM	PAINT	HM	1	NONE	2
G9a	6'-0"	7'-0"	C	ALUM	CLEAR ANODIZED	ALUM	SEE WINDOW TYPE	NONE	1

- DOOR SCHEDULE KEY NOTES**
1. OPENING, DOOR, FRAME, AND HARDWARE ARE PART OF THE ALTERNATE THAT INCLUDES VESTIBULE G9.
 2. FEMA 361 & ICC 500 TORNADO RATED DOOR, FRAME, AND ANCHORAGE.
 3. CONFIGURE JUNCTION BETWEEN SLAB, FOOTING, AND THRESHOLD IN AN ADAAG COMPLIANT MANNER SIMILAR TO "ALUMINUM STOREFRONT DOOR THRESHOLD" DETAIL ON THIS SHEET. POSITION FRAME AND ANCHORAGE IN CMU WALL PER MANUFACTURER'S REQUIREMENTS FOR STORM RATED ANCHORAGE. PROVIDE & INSTALL METAL TRIM SO THAT JUNCTION AT JAMB BETWEEN CMU AND EXTERIOR FINISH MATERIAL APPEARS FINISHED.
 4. SEE ALUMINUM STOREFRONT DOOR THRESHOLD DETAIL.

- DOOR SCHEDULE GENERAL NOTES & ABBREVIATIONS**
1. HM - HOLLOW METAL.
 2. SCWD - SOLID CORE WOOD.
 3. ALUM - ALUMINUM STOREFRONT.
 4. SOME OF THE DOORS SHOWN HERE ARE PART OF AN ALTERNATE. SEE 01230 ALTERNATES FOR MORE INFORMATION.
 5. SEE PREFINISHED METAL COLORS ON A4.1 FOR CUSTOM COLOR REQUIREMENTS.

ROOF MEMBRANE EDGE FLASHING PER MANUFACTURER'S REQUIREMENTS

TREATED WOOD BLOCKING

CONTINUOUS CLEAT

PREFINISHED METAL FLASHING

PREFINISHED METAL GUTTER

BOND BEAM - SEE STRUCTURAL

STRUCTURAL STEEL ANGLE

METAL DECKING - SEE STRUCTURAL

STEEL BAR JOIST BEYOND - SEE STRUCTURAL

HT OF BTM CHORD VARIES DEPENDING ON ACCEPTED ALTERNATES. SEE ALTERNATE BUILDING SECTIONS.

PREFINISHED METAL DOWNSPOUT BEYOND

STEEL ANGLE BRACING - SEE STRUCTURAL

ACoustical LAY-IN CEILING

12 Roof Edge Detail

A8.1 1 1/2" = 1'-0"

WALL TYPE 'A'

ROOF MEMBRANE

RIGID INSULATION

SEE STRUCTURAL TYP MASONRY WALL CONTROL JOINT DETAIL FOR HORIZONTAL JOINT REINFORCING REQUIREMENTS AT MASONRY EXPANSION JOINTS.

CAST IN PLACE CONCRETE - SEE STRUCTURAL

METAL ROOF DECK - SEE STRUCTURAL

5/8" MOISTURE & IMPACT RESISTANT GYPSUM WALL BOARD ON EACH SIDE OF 3/8" METAL STUD FRAMING WITH ACoustical BATT INSULATION BETWEEN STUDS. TAPE, FLOAT, AND PAINT IF FINISH CEILING ALTERNATE IS NOT ACCEPTED. TAPE AND FLOAT IF FINISH CEILING ALTERNATE IS ACCEPTED.

6 Typ Masonry Expansion Joint

A8.1 3' = 1'-0"

14 Top of 8" CMU Wall Config A

A8.1 3/4" = 1'-0"

CAST STONE MODULE 'A' BELOW

METAL CORNER TRIM

CAST STONE MODULE 'A' BELOW

METAL CORNER TRIM

1-1/2" COLD FORMED FURRING CHANNEL AT JAMB

WRAP ADHESIVE SHEET WATERPROOFING AROUND OUTSIDE CORNER AT JAMB

BACKER ROD & SEALANT

ROOF MEMBRANE

RIGID INSULATION

ALUMINUM STOREFRONT JAMB

HEAVY DASHED LINES INDICATE HORIZONTAL CMU REINFORCING. SEE STRUCTURAL & SPECS FOR HORIZ REINFORCING REQUIREMENTS. DO NOT EXTEND 8" HORIZONTAL REINFORCING INTO 12" STORM SHELTER WALL AT THE LOCATION.

CAST IN PLACE CONCRETE - SEE STRUCTURAL

METAL ROOF DECK - SEE STRUCTURAL

JOIST SUBSTITUTES & BRACINGS AT TOP OF CMU WALL - SEE STRUCTURAL

STEEL BAR JOIST - SEE STRUCTURAL. HEIGHT OF BTM CHORD VARIES DEPENDING ON ACCEPTED ALTERNATES. SEE ALTERNATE BUILDING SECTIONS.

COORDINATE JOIST SPACING AND POSITION TO ALLOW PARALLEL CMU WALLS TO EXTEND UP BEYOND JOISTS, TYP.

8" CMU BOND BEAM - SEE STRUCTURAL

15 Top of 8" CMU Wall Config B

A8.1 3/4" = 1'-0"

11 Plan Detail

A8.1 1 1/2" = 1'-0"

SEALANT

BACKER ROD

SEALANT

BACKER ROD

SEALANT

PREMOLDED KEY FILLER

3/8"

3/8"

*NOTE: THIS EXPANSION JOINT IS TYPICAL AT BRICK AND CMU WALLS. WHERE EXTERIOR FINISH MATERIALS ARE NOT BRICK, CMU EXPANSION JOINT SHALL STILL MEET THE REQUIREMENTS SHOWN FOR THE CMU PORTION OF THE EXPANSION JOINT SHOWN ON THE STRUCTURAL TYPICAL MASONRY WALL CONTROL JOINT DETAIL AND THE DOUBLE BACKER ROD AND SEALANT AT THE INTERIOR SIDE OF WALL SHALL BE AS SHOWN HERE.

CAST STONE MODULE 'A' BELOW

METAL CORNER TRIM

CAST STONE MODULE 'A' BELOW

METAL CORNER TRIM

1-1/2" COLD FORMED FURRING CHANNEL AT JAMB

WRAP ADHESIVE SHEET WATERPROOFING AROUND OUTSIDE CORNER AT JAMB

BACKER ROD & SEALANT

ROOF MEMBRANE

RIGID INSULATION

ALUMINUM STOREFRONT JAMB

HEAVY DASHED LINES INDICATE HORIZONTAL CMU REINFORCING. SEE STRUCTURAL & SPECS FOR HORIZ REINFORCING REQUIREMENTS. DO NOT EXTEND 8" HORIZONTAL REINFORCING INTO 12" STORM SHELTER WALL AT THE LOCATION.

CAST IN PLACE CONCRETE - SEE STRUCTURAL

METAL ROOF DECK - SEE STRUCTURAL

JOIST SUBSTITUTES & BRACINGS AT TOP OF CMU WALL - SEE STRUCTURAL

STEEL BAR JOIST - SEE STRUCTURAL. HEIGHT OF BTM CHORD VARIES DEPENDING ON ACCEPTED ALTERNATES. SEE ALTERNATE BUILDING SECTIONS.

COORDINATE JOIST SPACING AND POSITION TO ALLOW PARALLEL CMU WALLS TO EXTEND UP BEYOND JOISTS, TYP.

8" CMU BOND BEAM - SEE STRUCTURAL

15 Top of 8" CMU Wall Config B

A8.1 3/4" = 1'-0"

11 Plan Detail

A8.1 1 1/2" = 1'-0"

ALIGN WALL TILE AS SHOWN ON INTERIOR ELEVATIONS WITH FLOOR TILE AS SHOWN IN ALTERNATE FLOOR PLAN.

PAINTED GYPSUM BOARD

TOILET PARTITION

WT-10

WT-14

WT-13

WT-9

WT-7

WT-6

WT-5

WT-14

WT-13

WT-8

WT-7

WT-2

TILE BASE PER FINISH PLAN

3' - 2"

3' - 2"

SEE PLUMBING FOR PLUMBING FIXTURES, TYP

PROVIDE SCALD GUARDS AT ALL SINKS

16 Interior Elevation

A8.1 3/8" = 1'-0"

18 Closet G7 Shelving Detail

A8.1 3/4" = 1'-0"

FINISH CEILING - SEE RCP

PAINTED WOOD SHELF

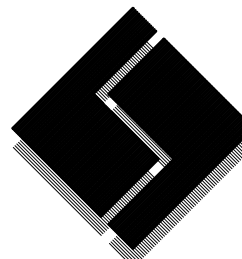
SUPPORT BRACKET EQUAL TO HANDLE MODEL # 298.74.304 PAINTED TO MATCH WALL, TYP

PAINTED WALL SURFACE

DEFIBRILLATOR CABINET AS SPECIFIED

SEE FINISH PLAN FOR BASE

FIRST AID KIT AS SPECIFIED.



R H Smith
& associates p.c.

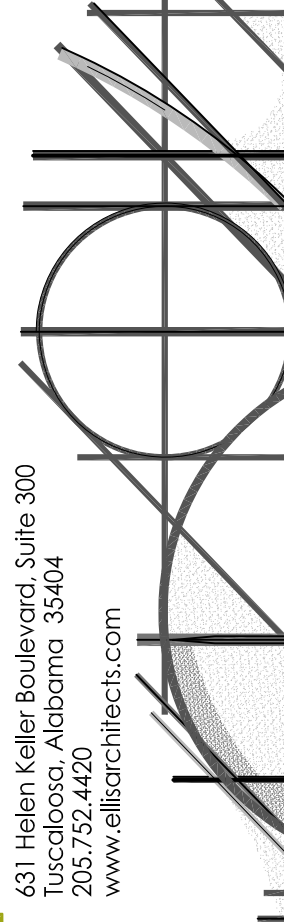
Consulting Engineers

2108 Eighth Street

Tuscaloosa, Alabama 35601

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Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

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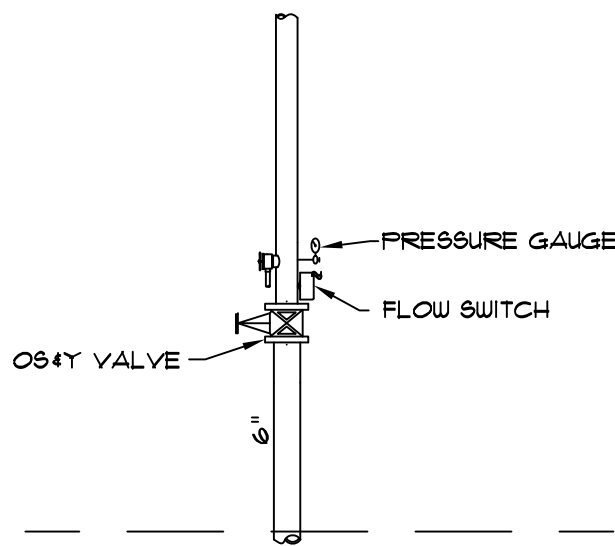
JOB No. 11015E

DATE: 5/17/2013 REV DATE:

DRAWN BY: LFS

Fire Sprinkler
Plan

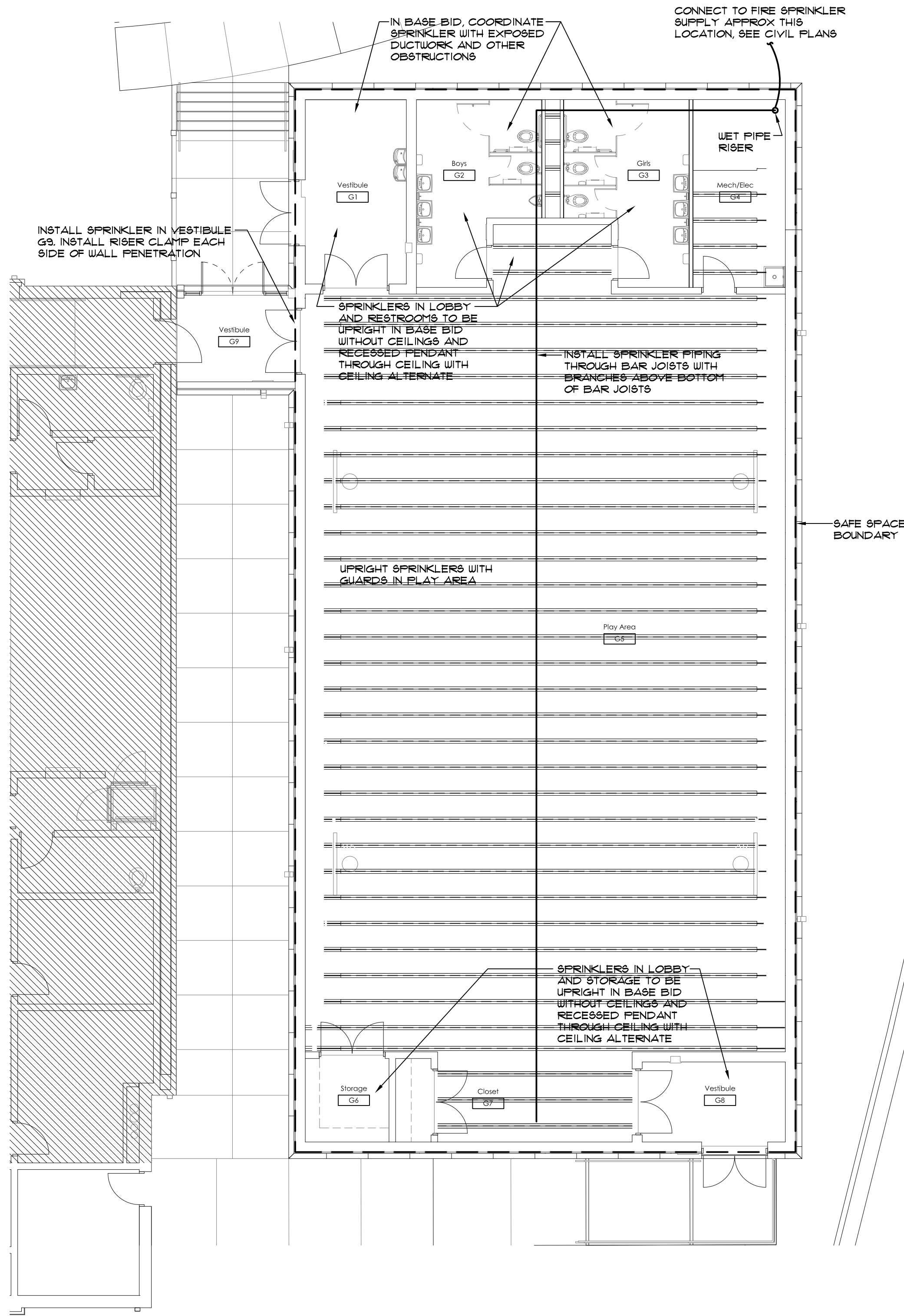
SHEET
NUMBER FP1.1



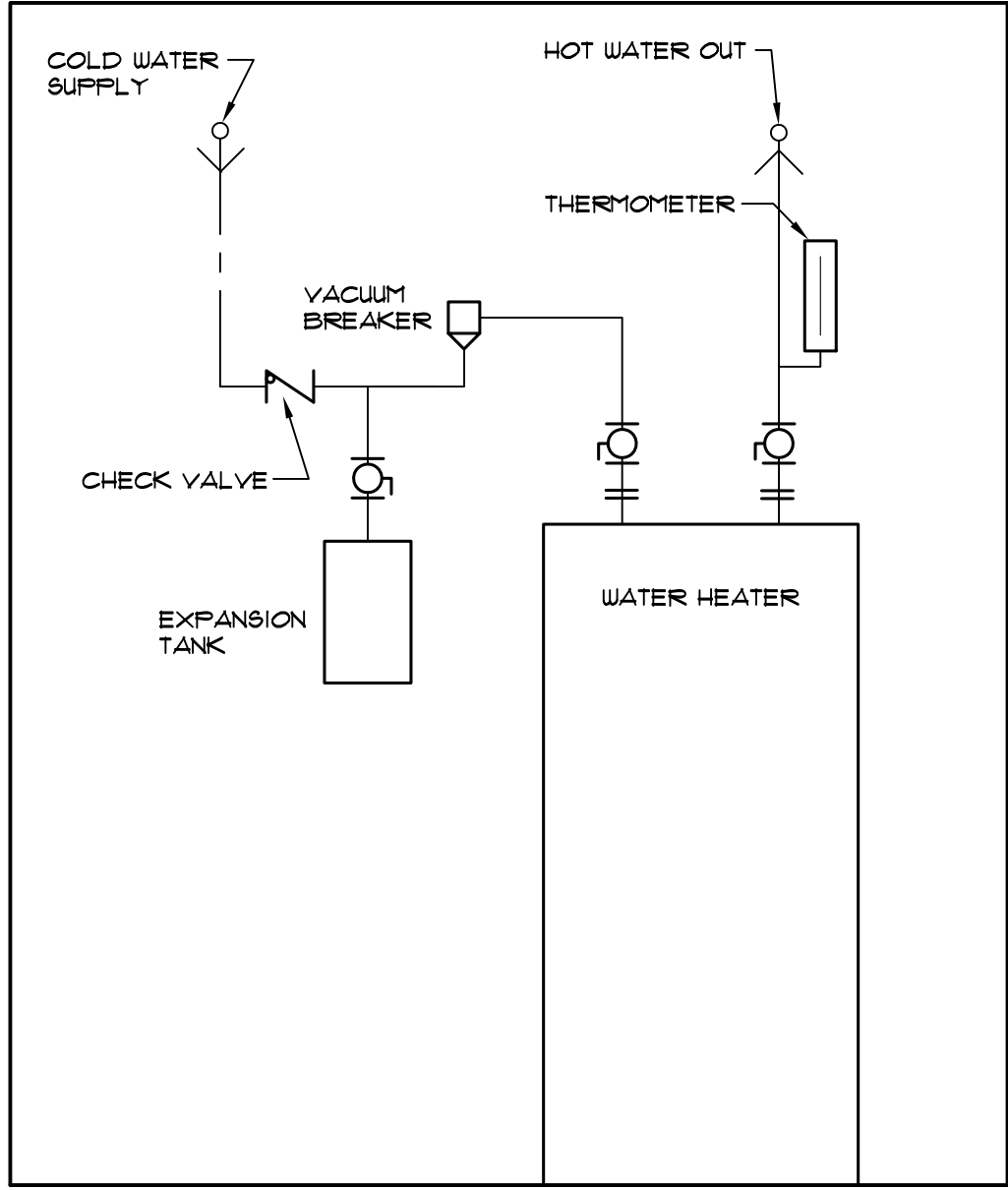
3 Riser Detail
FP1.1 NOT TO SCALE

- CONTRACTOR TO DESIGN AND INSTALL NFPA 13 COMPLIANT FIRE SPRINKLER SYSTEM THROUGHOUT BUILDING.
- SYSTEM SHALL BE HYDROSTATICALLY TESTED AS REQUIRED BY NFPA.
- SYSTEM PIPE SIZES ARE TO BE SELECTED TO PREVENT WATER VELOCITY IN ANY PIPE SECTION FROM EXCEEDING 10 FPS.
- FIRE SPRINKLER SHOP DRAWINGS TO BE COORDINATED WITH ALL OTHER TRADES. PRIORITY SHALL BE GIVEN AT ALL TIMES TO SYSTEMS REQUIRING SLOPE FOR DRAINAGE AND DUCTWORK TOO LARGE TO FIT ABOVE OR BELOW SPRINKLER PIPING WITHIN CEILING CAVITY.

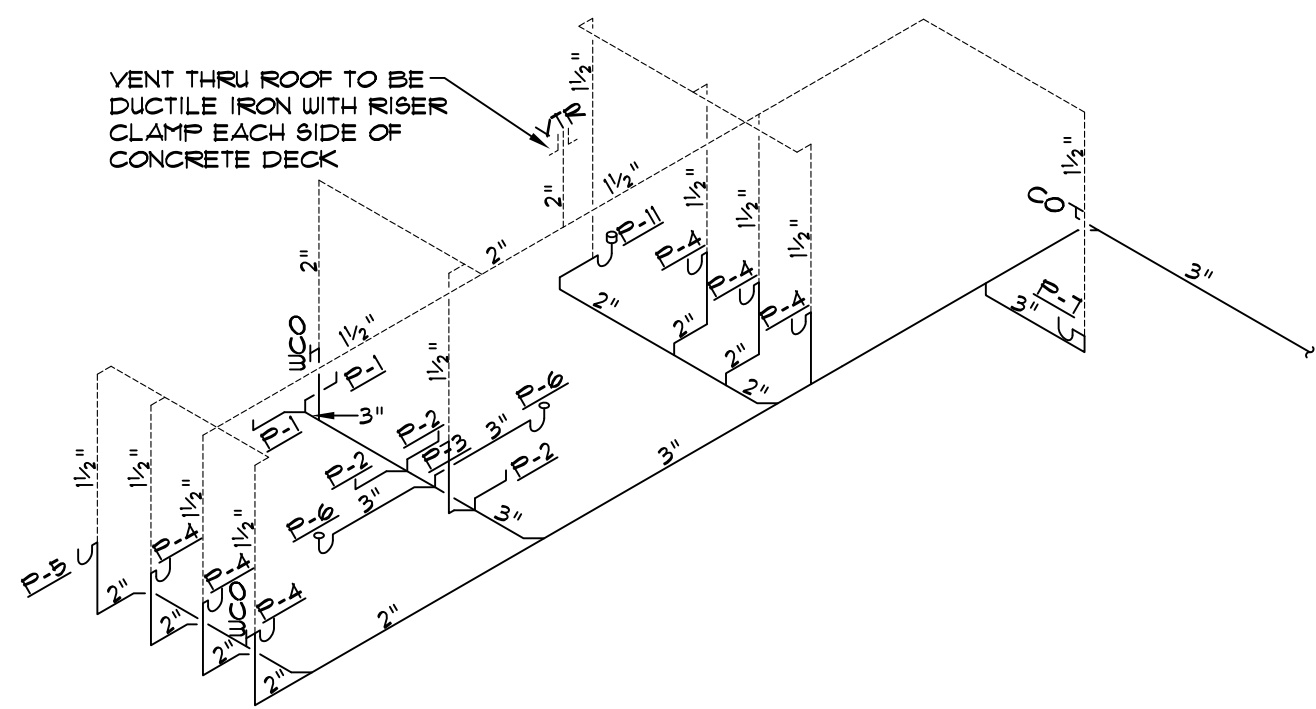
2 General Notes
FP1.1 NO SCALE



1 Fire Sprinkler Plan
FP1.1 1/8" = 1'-0"



6 Water Heater Detail
P1.1 NOT TO SCALE



7 Sanitary Riser
P1.1 NOT TO SCALE

Fixture type	Approved Fixture Models
ADA Flush Valve Water Closet	AS #3043, I 02; Kohler #K-436B; Toto #CT705ELN; Zurn Z5665-BWL; Gerber #25-730
Flush Valve Water Closet	AS #2234-015; Kohler #K-4350; Toto #CT705E; Zurn Z5655-BWL; Gerber #25-630
Water Closet Flush Valve	Sloan Crown #1111-G; Toto #TMT1NG-32-1-G; Zurn #Z6200-WS1-YG-YK
Open Front Closet Seat	Bemis #1655CT; Church #9500CT; Pro-Pla #PFFSCOP1200WH; Centco #1500STSC55; Comfort Seats #C110C
ADA Urinal	AS #6501-001; Kohler #K-4904-ET; Toto #UT447E; Zurn #Z5750; Gerber #HE-27-730
Urinal Flush Valve	Sloan Crown #166-0-5; Toto #TMU1UN-1-2; Zurn Z6203-EWS
ADA Wall Hung Lavatory 8"	Toto #LT307-B; AS #0356-015; Kohler #K-2030; Zurn #Z5360; Gerber #12-65B
Supply (lav, sink, cooler)	McGuire #BV2165; Brass Craft #KTR17-G1; Zurn #Z80020-PC; EBC #LAH12
Lavatory Trap	McGuire #8572G; Zurn #Z8700-5-PC-B; Prolo #PFFTB400; EBC #TA125
Grid Strainer (lavatory)	McGuire #135A; Zurn #Z8743-PC; T&B #B-0899; Prolo #PFG100; EBC #SG7
Lavatory Faucet	Kohler #K-7443-5A; T&B #B-2990-WH4; Symmons #S-244-LWG; Chicago #404-317ADCP; Delta #23C354
Mop Sink	Fut #MSB-2424; Swanstone #WS-2424; Zurn #Z-1996-24; Florestone #MSR-2424; Prolo #PFFMD2424S
Mop/Utility Sink Faucet	Kohler #K-8907; T&B #B-0665; AS #0344-012; Chicago #857; Delta #2819
ADA Bi-Level Water Cooler	Oasis #PBACSL; Ekay #EZSTLB-C; Suncoo #ADABACB; HT #HTVBL-Q; AA #A112108B-LBL-VRB
Wall Hydrant	JRS #J509GT; Woodford #B67; Josam #7100G; Zurn #Z-1322-EZ;
Expansion Tank	*Amrol #ST; Prolo #PPT; Rheem #RR
Mixing Valve*	Symmons; Lawler; Watts; Leonard
Water "heater"	Rheem; A O Smith; Lochmar; Raypak; RDI

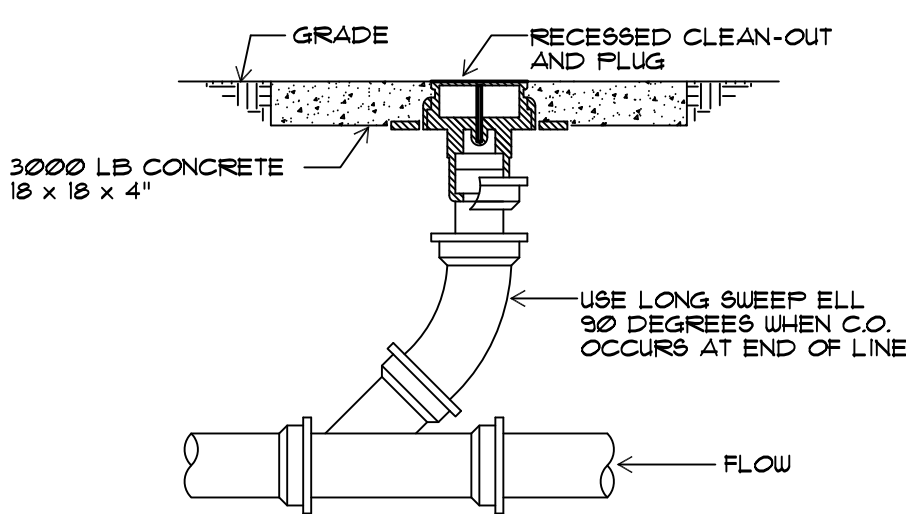
8 Approved Equals
P1.1 NO SCHEDULE

- P-1, ADULT ADA WATER CLOSET, 16-18" BOUL HEIGHT, 16 GPF FLUSH VALVE, SOLID RING PIPE SUPPORT, OPEN FRONT CLOSET SEAT
- P-2, CHILD ADA WATER CLOSET AND STANDARD HEIGHT WATER CLOSET, 14-15" BOUL HEIGHT, 16 GPF FLUSH VALVE, SOLID RING PIPE SUPPORT, OPEN FRONT CLOSET SEAT
- P-3, ADA URINAL, RIM HEIGHT AS PER PLAN, URINAL FLUSH VALVE, 65 GPF, SOLID RING PIPE SUPPORT
- P-4, ADA LAVATORY, WALL HUNG, FAUCET, GRID STRAINER, P-TRAP, SUPPLIES, TRAP AND SUPPLY WRAP
- P-5, ADA WATER COOLER, BI-LEVEL, CANE APRON, SUPPLY, P-TRAP
- P-6, FLOOR DRAIN, JAY R SMITH #2025, 6" TOP, 3" OUTLET, #692 INSERT
- P-7, MOP SINK, FAUCET, WALL GUARDS, 3" DRAIN, HOSE WITH HOSE CLIP
- P-8, MIXING VALVE, SYMMONS #5-230-CK-M, 1 GPM AT 10 PSI PRESSURE DROP, ASSE 1070 LISTED
- P-9, WALL HYDRANT, 12" WALL DEPTH
- P-10, WATER HEATER, RHEEM #RHS PRO40-2, 40 GALLON CAPACITY, SHORT HEIGHT, 2-3380 WATT NON-SIMULTANEOUS ELEMENTS, 208V/1/60, AMTROL #ST-5 EXPANSION TANK
- P-11, FLOOR SINK, JAY R SMITH #9100, 2" OUTLET, 3/4 RIM AND GRATE
- P-12, DOWNSPOUT BOOT, NEENAH #R-4919-AITC, 4x6 INLET, CLEANOUT

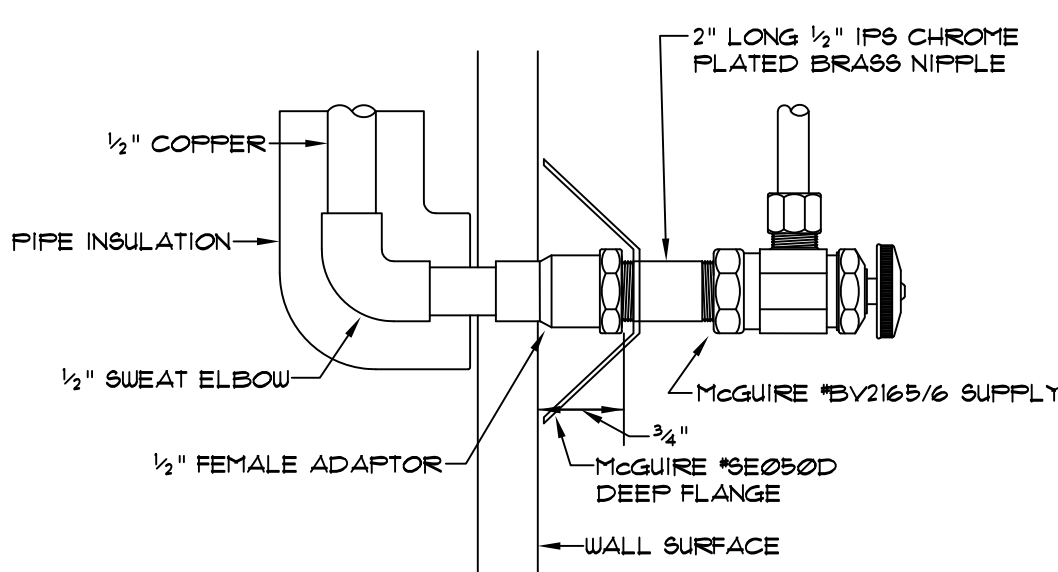
9 Plumbing Schedule
P1.1 NO SCALE

- PRIOR TO SITE WORK, CONTRACTOR TO LOCATE EXISTING 6" SANITARY WASTE PIPING 2 FEET FROM EXTERIOR WALL OF NEW STORM SHELTER ON EACH SIDE, MARK PIPING LOCATION FOR AVOIDANCE BY HELICAL BORES AND FOOTINGS.
- LOCATE ROOF PENETRATIONS ON SLOPES OF ROOF AS DIRECTED BY ARCHITECT. IF NO ARCHITECT IS INVOLVED, LOCATE PENETRATIONS AS TO NOT BE VISIBLE FROM PRIMARY ROAD FRONTAGE AND PRIMARY BUILDING ENTRANCE.
- ALL CONNECTIONS TO OWNER SUPPLIED FIXTURES SUCH AS REFRIGERATORS, ICE MACHINES, ETC. TO BE MADE WITH SOFT COPPER.
- WATER HEATER OUTLET TEMPERATURE TO BE 140°F, ASSE 1070 MIXING VALVE OUTLET TEMPERATURE TO BE 110°F
- BELOW SLAB WASTE PIPING TO BE CONTINUOUSLY SUPPORTED ON UNDISTURBED OR MECHANICALLY COMPACTED SOIL

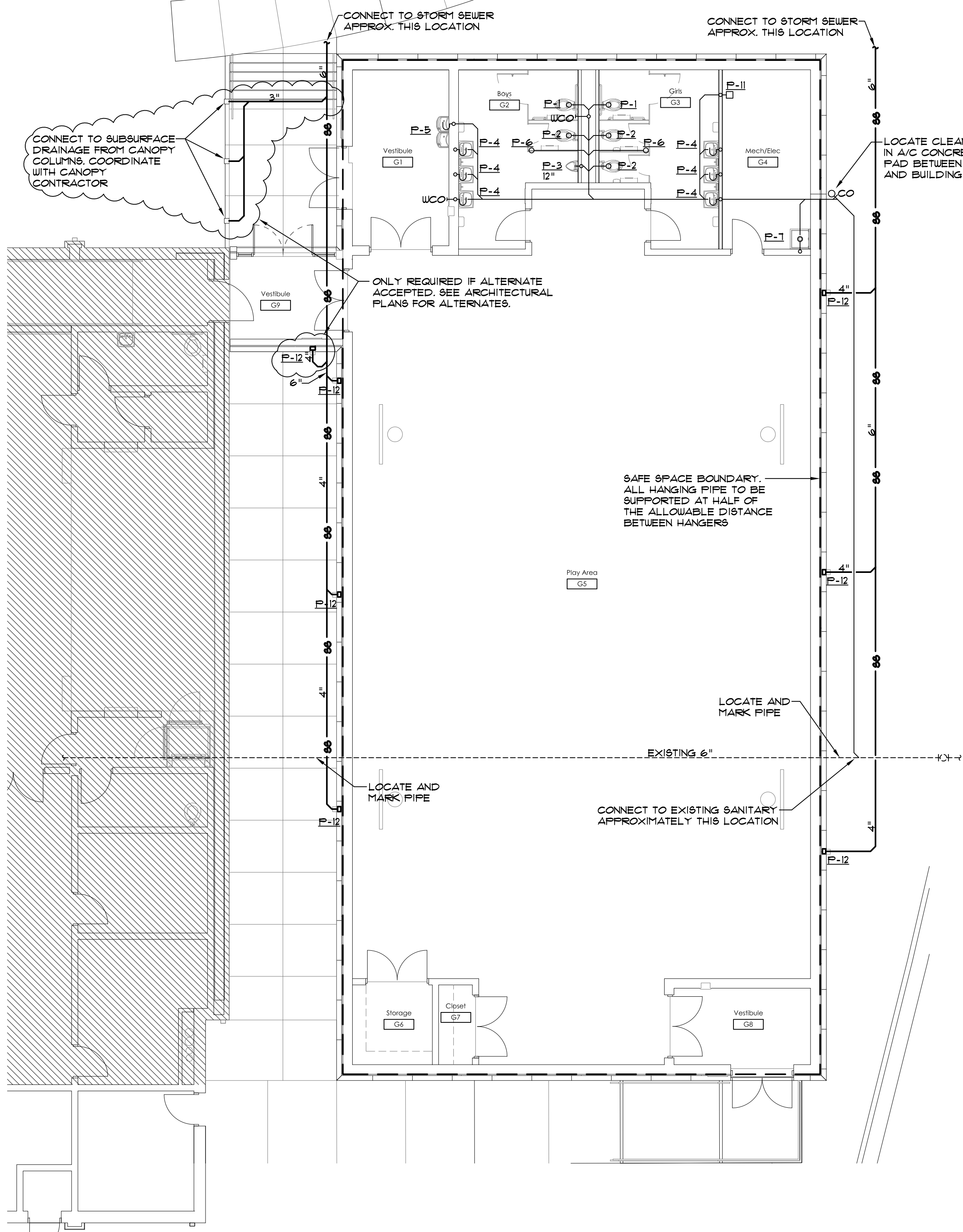
5 General Notes
P1.1 NO SCALE



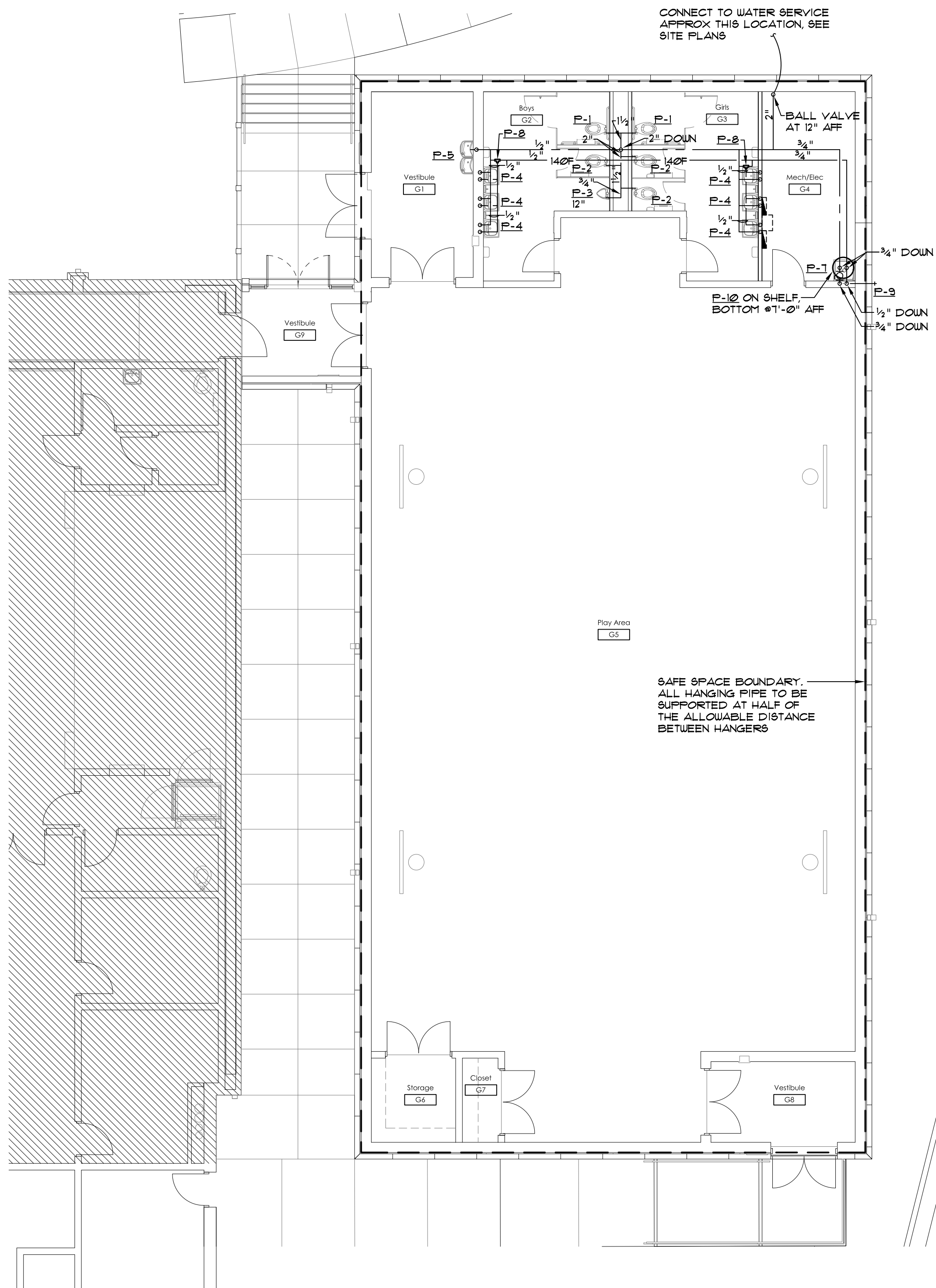
4 Cleanout Detail
P1.1 NOT TO SCALE



1 Supply Detail
P1.1 NOT TO SCALE



2 Sanitary Plan
P1.1 1/8" = 1'-0"



3 Potable Water Plan
P1.1 1/8" = 1'-0"

Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

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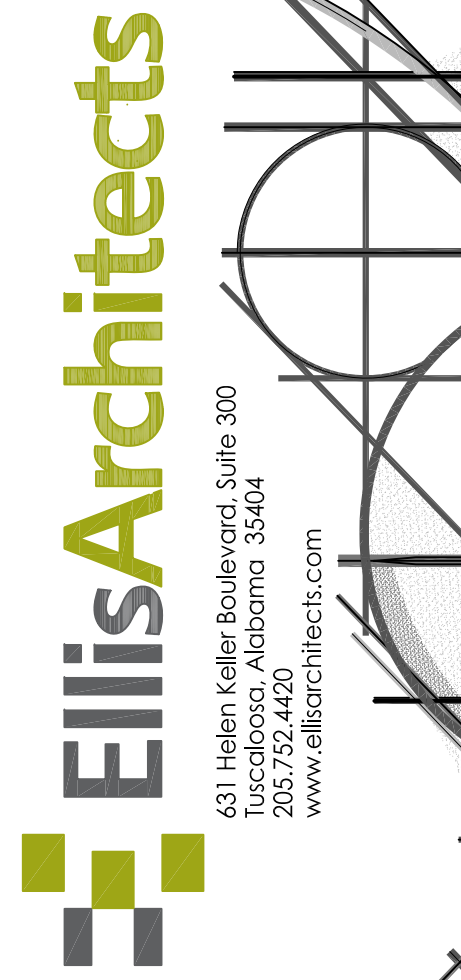
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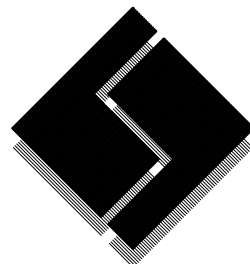
JOB No.	11015E
DATE:	5/17/2013
REV DATE:	
DRAWN BY:	KSC
Plumbing Plans & Schedule	
SHEET NUMBER	P1.1

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ENGINEER
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05/15/2013 1361

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Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

MODIFY AND EXPAND EXISTING TRANE CONTROL SYSTEM TO INTEGRATE WITH OWNERS CENTRAL TRANE SYSTEM TO ALLOW REMOTE MONITORING AND CONTROL OVER SYSTEM TO PROVIDE SETPOINT CONTROL, SCHEDULING, CURRENT SENSOR ON CONDENSING UNIT, DISCHARGE AIR TEMPERATURE SENSOR, ENTERING AIR TEMPERATURE SENSOR, AND OUTDOOR AIR DAMPER CONTROL SYSTEM TO PROVIDE EQUIPMENT, WIRING, INTERFACES, AND SOFTWARE AS REQUIRED TO PROVIDE ALL TYPICAL BUILDING HVAC CONTROL CAPABILITIES AND THE FOLLOWING SEQUENCES OF OPERATION.

SPLIT SYSTEM HEAT PUMP TO BE ENERGIZED WHEN BUILDING IS SCHEDULED OCCUPIED. SYSTEMS TO BE PROVIDED WITH SETPOINT CONTROL, SETPOINT LIMITS, SPACE TEMPERATURE MONITORING, OCCUPIED/UNOCCUPIED SCHEDULING AND OPERATIONAL STATUS. OVERRIDE TIMER FUNCTION TO BE PROVIDED AT EACH THERMOSTAT LOCATION VIA THERMOSTAT OR SEPARATE SWITCH. ACTIVATION OF TIMER TO OVERRIDE BUILDING SCHEDULING AND PLACE UNIT AND RESPECTIVE VENTILATION DAMPER IN OCCUPIED MODE FOR A PERIOD OF TWO HOURS.

CARBON DIOXIDE SENSOR TO OPEN OUTDOOR AIR DAMPER IF CARBON DIOXIDE LEVELS EXCEED 300 PPM.

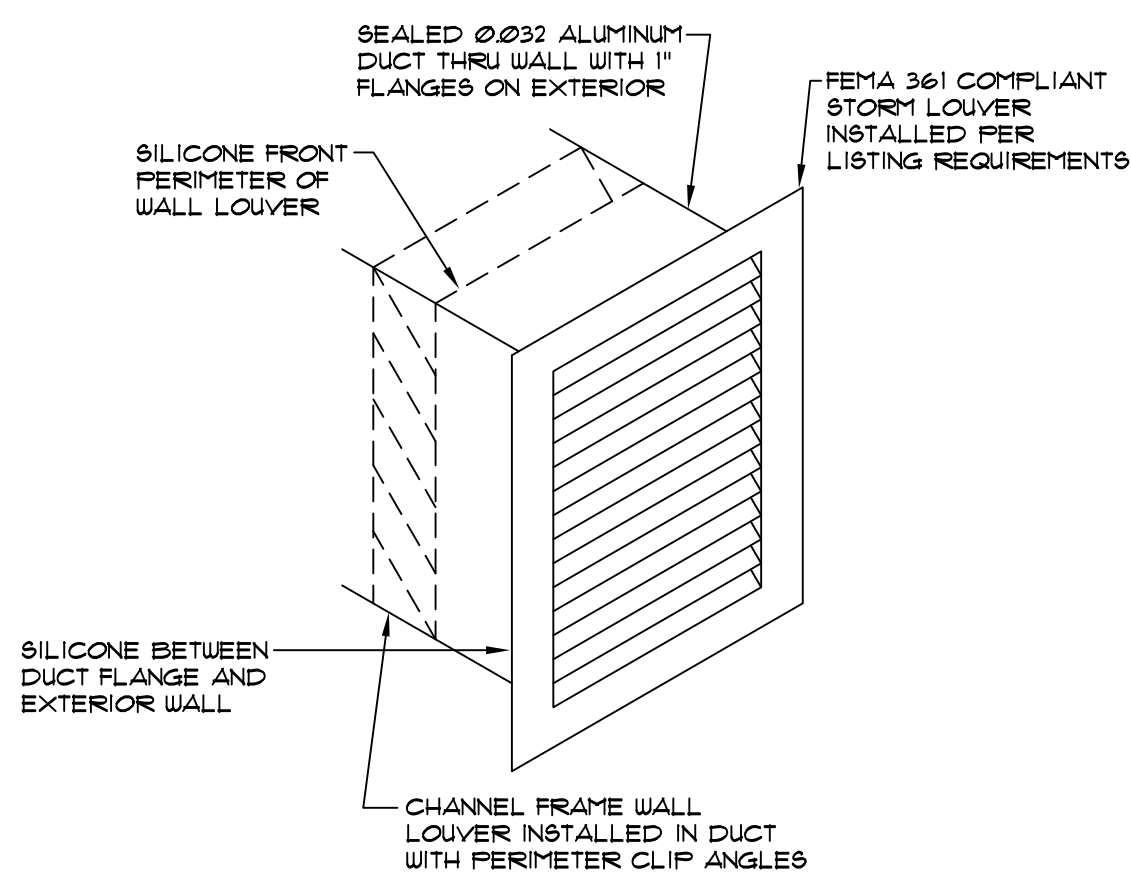
OUTDOOR AIR TO BE BALANCED FOR 113 CFM OUTDOOR AIR WITH TAKEOFF BALANCING DAMPER CONTROL. DAMPER OPEN SET CONTROL DAMPER FOR 420 CFM AS MINIMUM POSITION. SUBJECT TO CARBON DIOXIDE SENSOR. DAMPER TO COMPLETELY CLOSE WHEN BUILDING IS UNOCCUPIED. NOTE: IF TWO SET POINTS ARE NOT OBTAINABLE FROM ONE CONTROL DAMPER AND ACTUATOR A 10" - 420 CFM AND 14" - 193 CFM MAY BE INSTALLED IN PARALLEL.

7 Controls Sequence
M1.1 NO SCALE

Space	Class	A _s	Density	P _s	R _p	R _A	Ex. Rate	Exhaust	V ₀₂	V ₀₂	V ₀₂	Z _p	SYSTEM
G5 Play Area	Gym, Stadium, Arena (play area)	3795	-	-	0.3	-	-	-	1139	1139	5600	0.20	AHU
G6 Storage	Storage Rooms	83	-	-	0.12	-	-	-	10	10	50	0.20	AHU

System	E _x	V ₀₂	MAX Z _p	E _v	V ₀₂	Type
AHU	1	1148	0.20	0.95	1213	Multiple Zone

6 Outdoor Air Schedule
M1.1 NO SCALE



4 Exterior Storm Louver Detail
M1.1 NOT TO SCALE

AHU: AIR HANDLING UNIT, TRANE #TUE180E4, 6000 CFM AT 0.5" ESP, UPFLOW, SEPARATE BLOWER AND ELECTRIC HEAT FEEDS, 10 KW ELECTRIC HEAT, 480V/3/60, 3 HP BLOWER MOTOR, 480V/3/60, 5.8 MCA, 15 TON

HP: HEAT PUMP, TRANE #TUA180E4, 15 TON NOMINAL CAPACITY, 10.6 EER, 480V/3/60, 3.4 MCA, 40 TON

EF # 2 EXHAUST FAN, LOREN COOK #LC-340, 210 CFM AT 0.25" SP, 4.3 SONES, 120V

WL: WALL LOUVER, GREENHECK #EDD-60, SIZE AS PER PLAN, KYNAR FINISH, COLOR AS PER ARCHITECT, CHANNEL FRAME CONSTRUCTION, BRID SCREEN, CLIP ANGLES

SL: STORM LOUVER, GREENHECK #SG-200, SIZE AS PER PLAN, RECESSED MOUNTING, EXTENDED SLEEVES, FEMA 361 AND ICC 500 COMPLIANT, COLOR AS PER ARCHITECT

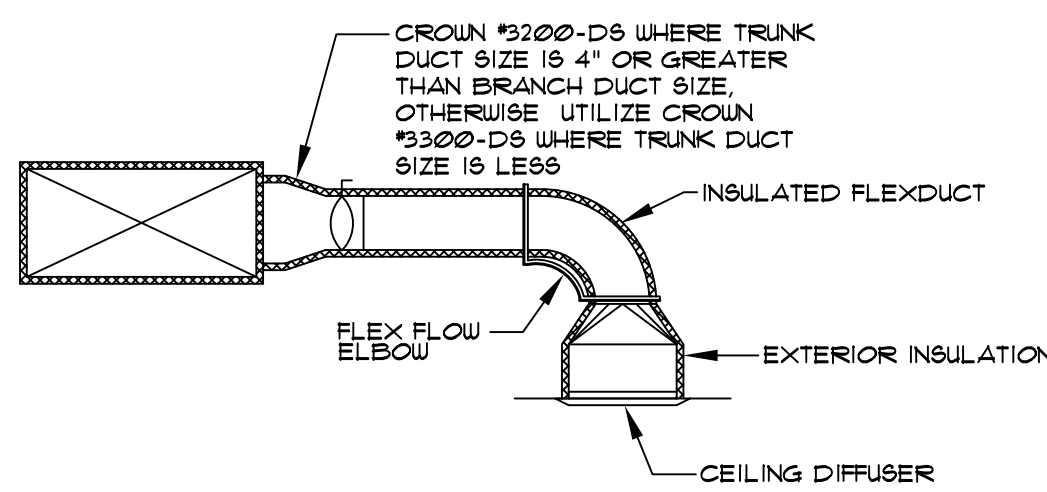
CDL: CEILING DIFFUSER, TITUS #TDC, SIZE AS PER PLAN, WHITE FINISH, LAY-IN BORDER, ROUND NECK

SWR: SIDE WALL REGISTER, TITUS #S20R3, SIZE AS PER PLAN, WHITE FINISH, SURFACE MOUNT, OFFSET BLADE DAMPER, SG-LFO SECURITY GRILLE

WRG: WALL RETURN GRILLE, TITUS #33R, SIZE AS PER PLAN, WHITE FINISH, SURFACE MOUNT, BLADES PARALLEL TO FLOOR

SPIRAL DUCT, DOUBLE WALL, PAINT GRIP EXTERIOR, PERFORATED INTERIOR, 1" INSULATION

1 Equipment Schedule
M1.1 NO SCALE

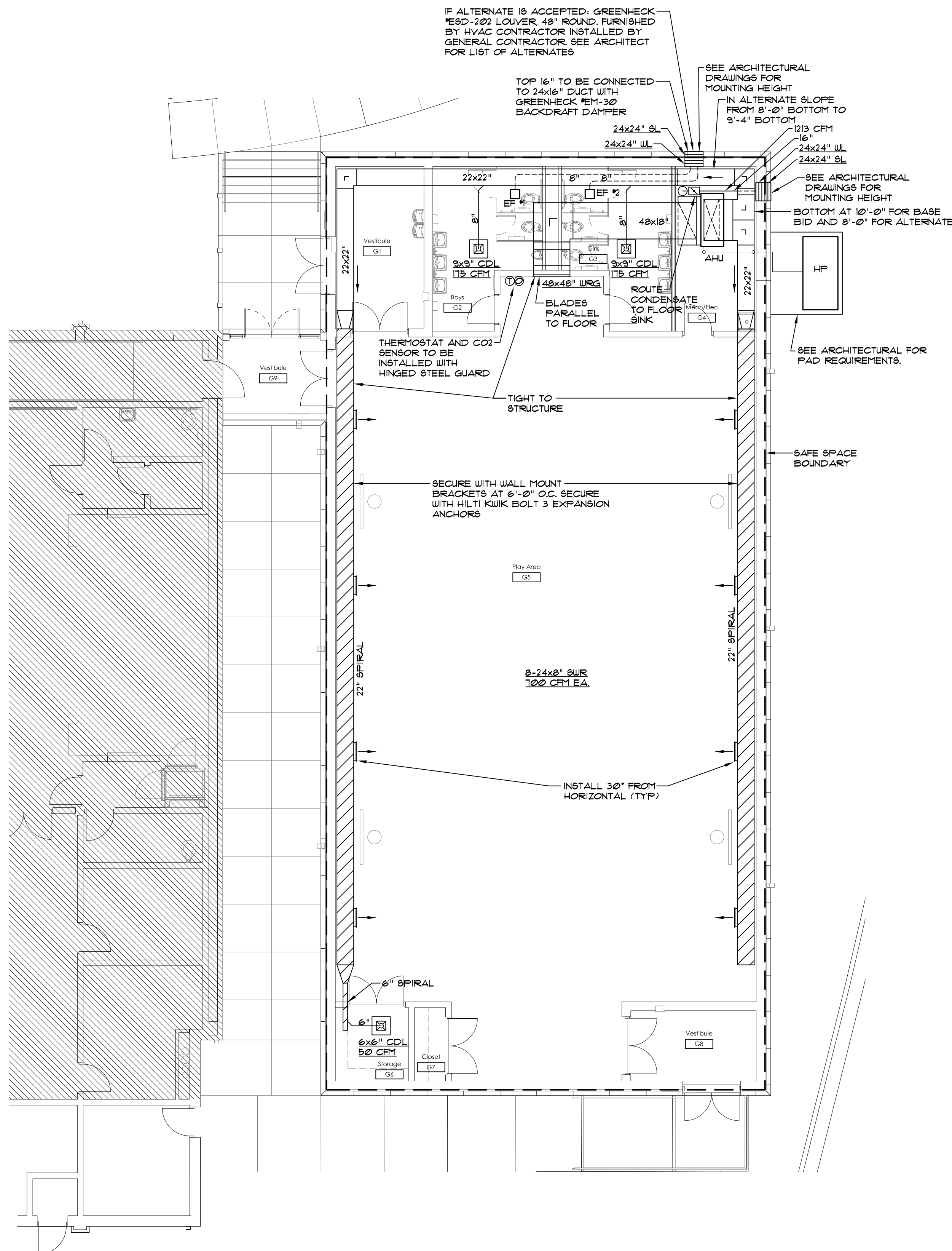


5 Branch Duct Detail
M1.1 NOT TO SCALE

- BASE BID: ROUND BRANCH DUCTS TO BE INSTALLED WITH RIGID DUCT, DIFFUSER TO BE SUPPORTED BY DUCT
- LAY-IN CEILING ALTERNATE: ROUND BRANCH DUCTS 6'-0" AND LESS IN LENGTH TO BE INSTALLED WITH FLEXIBLE ROUND DUCT AS PER SPECIFICATIONS. BRANCH DUCTS GREATER THAN 6'-0" IN LENGTH ARE TO BE INSTALLED WITH RIGID DUCT TO WITHIN 5'-0" OF TERMINATION WITH FLEXIBLE DUCT CONNECTION NOT EXCEEDING 5'-0" IN LENGTH.
- VERIFY CEILING CONSTRUCTION PRIOR TO ORDERING DIFFUSERS.
- EQUIPMENT AS MANUFACTURED BY TRANE, CARRIER, LENOX, OR YORK, ACCEPTABLE SUBJECT TO PLANS AND SPECIFICATIONS.
- REFRIGERANT PIPE SIZES TO BE AS RECOMMENDED BY MANUFACTURER.
- AIR HANDLING UNITS AND PACKAGE EQUIPMENT WITH AIRFLOWS GREATER THAN 2000 CFM TO BE INSTALLED WITH DUCT TYPE SMOKE DETECTORS WITH FAN SHUTDOWN RELAYS IN RETURN AIR DUCT PRIOR TO MIXING WITH OUTSIDE AIR. DETECTORS FURNISHED BY FIRE ALARM CONTRACTOR
- ALL CONTROL CABLING ON EXTERIOR OF BUILDING TO BE INSTALLED IN CONDUIT.

2 General Notes
M1.1 NO SCALE

3 HVAC Plan
M1.1 1/8" = 1'-0"



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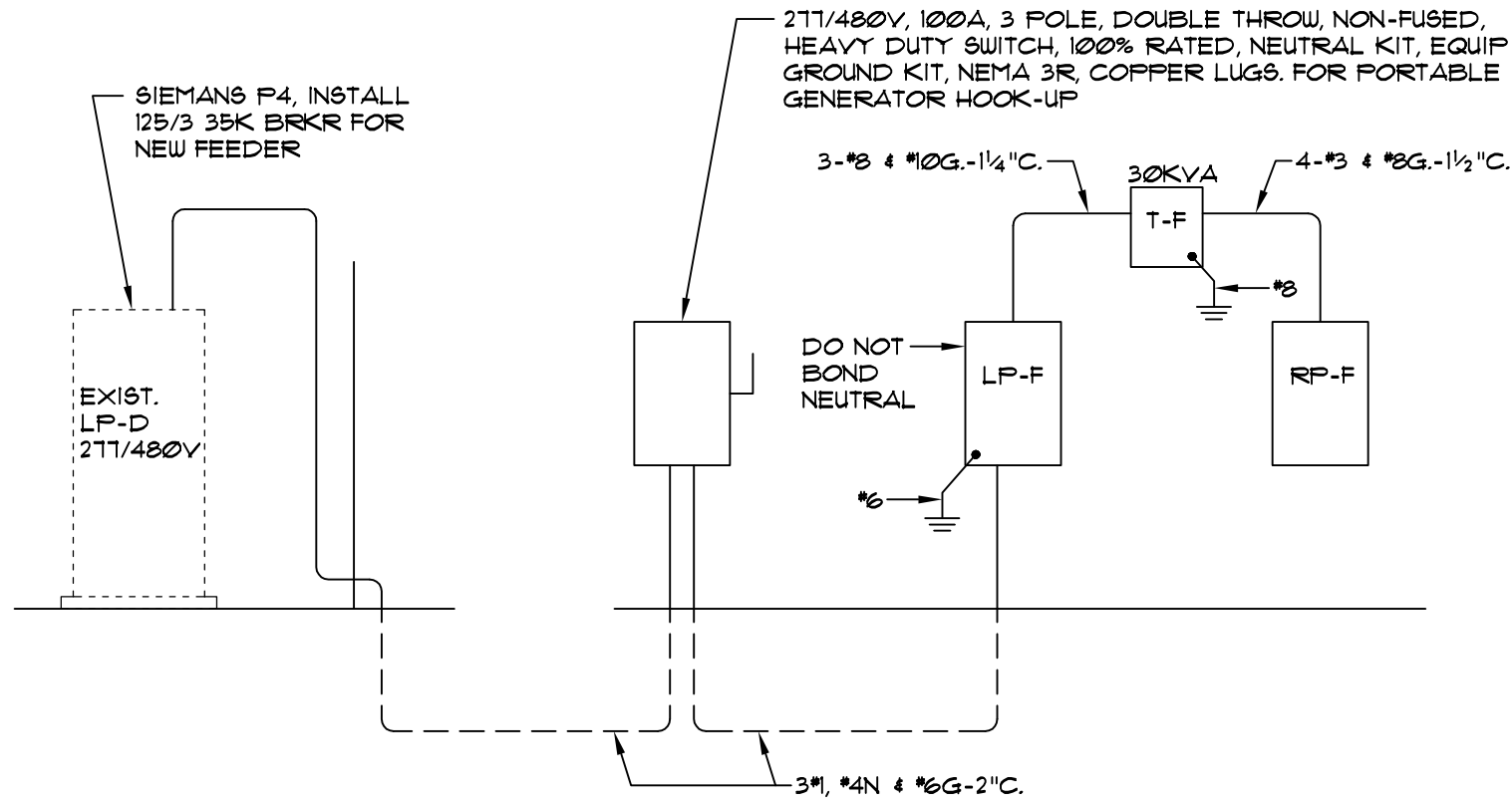
JOB No.	11015E
DATE:	5/17/2013
REV DATE:	
DRAWN BY:	KSC
HVAC Plan & Schedule	
SHEET NUMBER	M1.1

PANEL 'RP-F'					
DESCRIPTION: 120/208V, 3Ø, 4W, 100A MAIN BRKR, TOP, SURFACE, 10K, AIC, 120 KA INTEGRAL SPD					
CIRCUIT DESCRIPTION	NO.	BRKR	BRKR	NO.	CIRCUIT DESCRIPTION
RECEPTABLES	1	20/1	20/1	2	
RECEPTABLES	3	20/1	20/1	4	RECEPTABLES - WTR CLR
RECEPTABLES - CBB	5	20/1	20/1	6	RECEPTABLES
FIRE ALARM NAC PANEL	7	20/1	20/1	8	HAND DRYER
SPARE	9	20/1	20/1	10	HAND DRYER
SPARE	11	20/1	20/1	12	HAND DRYER
3Ø/1 PROVISION	13	20/1		14	HAND DRYER
3Ø/1 PROVISION	15			16	
3Ø/1 PROVISION	17		3Ø/2	18	WATER HEATER

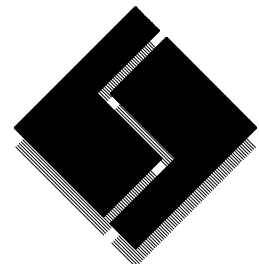
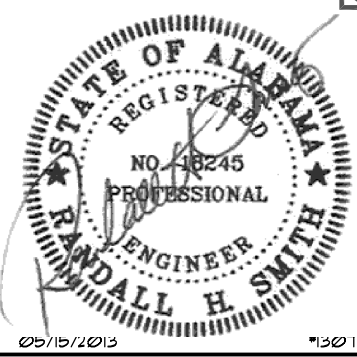
9 Panel 'RP-F' Schedule
E1.0 No Scale

PANEL 'LP-F'					
DESCRIPTION: 277/480V, 3Ø, 4W, 125A MAIN BRKR, BOTTOM, SURFACE, 14K AIC, 6E LABEL, 120 KA INTEGRAL SPD					
CIRCUIT DESCRIPTION	NO.	BRKR	BRKR	NO.	CIRCUIT DESCRIPTION
LIGHTING	1	20/1		2	3Ø/1 PROVISION
LIGHTING	3	20/1		4	3Ø/1 PROVISION
SPARE	5	20/1		6	3Ø/1 PROVISION
	7			8	
AHU ELECT. HEAT	9	20/3	45/3	10	XFRMR P/NL RP-F
	11			12	
	13			14	
INVERTER	15	20/3	40/3	16	
	17			18	HP

10 Panel 'LP-F' Schedule
E1.0 No Scale



11 Riser Diagram
E1.0 Not to Scale



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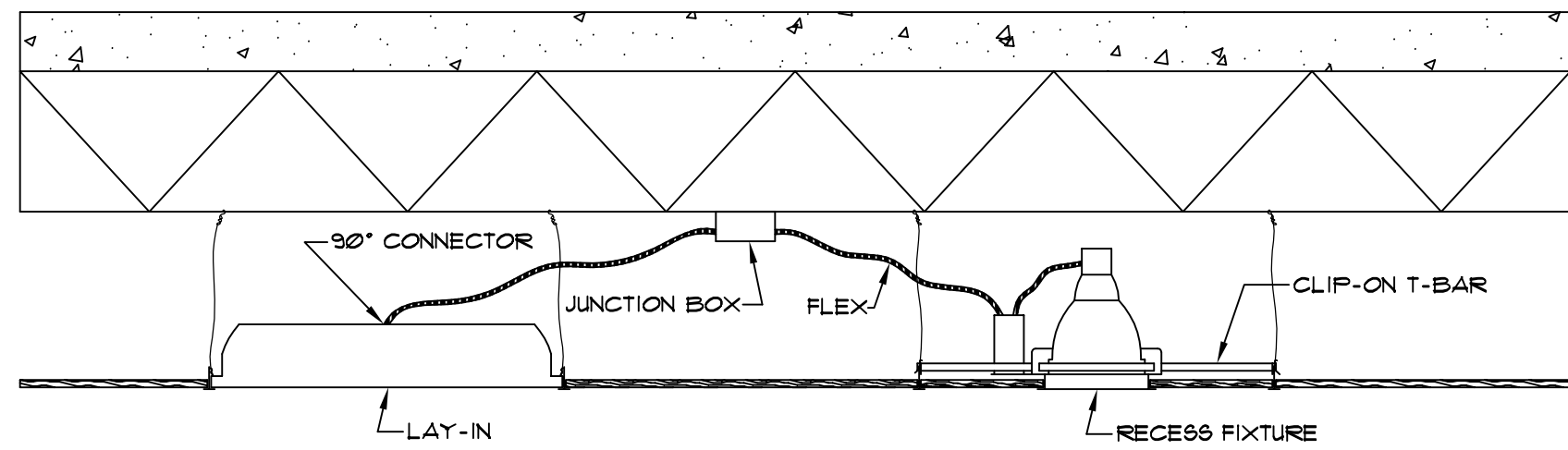
E-mail: info@rhmppc.com

SYMBOL	MANUFACTURER	CATALOG NUMBER	QTY.	LAMP	WATTS	MOUNTING	REMARKS
A	LIGHT EDGE	RAP2-4-54-35-PMV-UGK-HD-08	2	T8HO	54	SURFACE CEILING	1, 3
AE	LIGHT EDGE	RAP2-4-54-35-PMV-UGK-HD-08-GTD	2	T8HO	54	SURFACE CEILING	1, 3, 3
E	MULE	ECOE-AC-1BL3-111-PMH	3	LED	15	SURFACE WALL, 6'-8" AFF	4, 5
F	TEXAS FLUORESCENT	201-A-232-PMV	2	T8	32	RECESS CEILING	
G	TEXAS FLUORESCENT	201-A-232-8-PMV(TANDEM)	4	T8	32	SURFACE CEILING	
LE	TEXAS FLUORESCENT	131-A125-232-PMV-EM	2	T8	32	RECESS CEILING	6
L2	TEXAS FLUORESCENT	131-A125-232-PMV	2	T8	32	RECESS CEILING	
L2E	TEXAS FLUORESCENT	131-A125-232-PMV-GTD	2	T8	32	RECESS CEILING	2
X	MULE	WLCK-1-G-W-U	---	LED	---	SURFACE WALL	
XE	MULE	WLCKX-1-G-W-U-SD	---	LED	---	SURFACE WALL	

REMARKS:

- LAMP(S) FURNISHED WITH FIXTURE.
- BODINE GTD GENERATOR TRANSFER DEVICE.
- FIXTURE EQUIPPED WITH INTEGRAL OCCUPANCY SENSOR.
- FINISH AS SELECTED BY ARCHITECT.
- INTEGRAL PHOTOSENSOR.
- INTEGRAL EMERGENCY BATTERY PACK, 600 LUMEN.

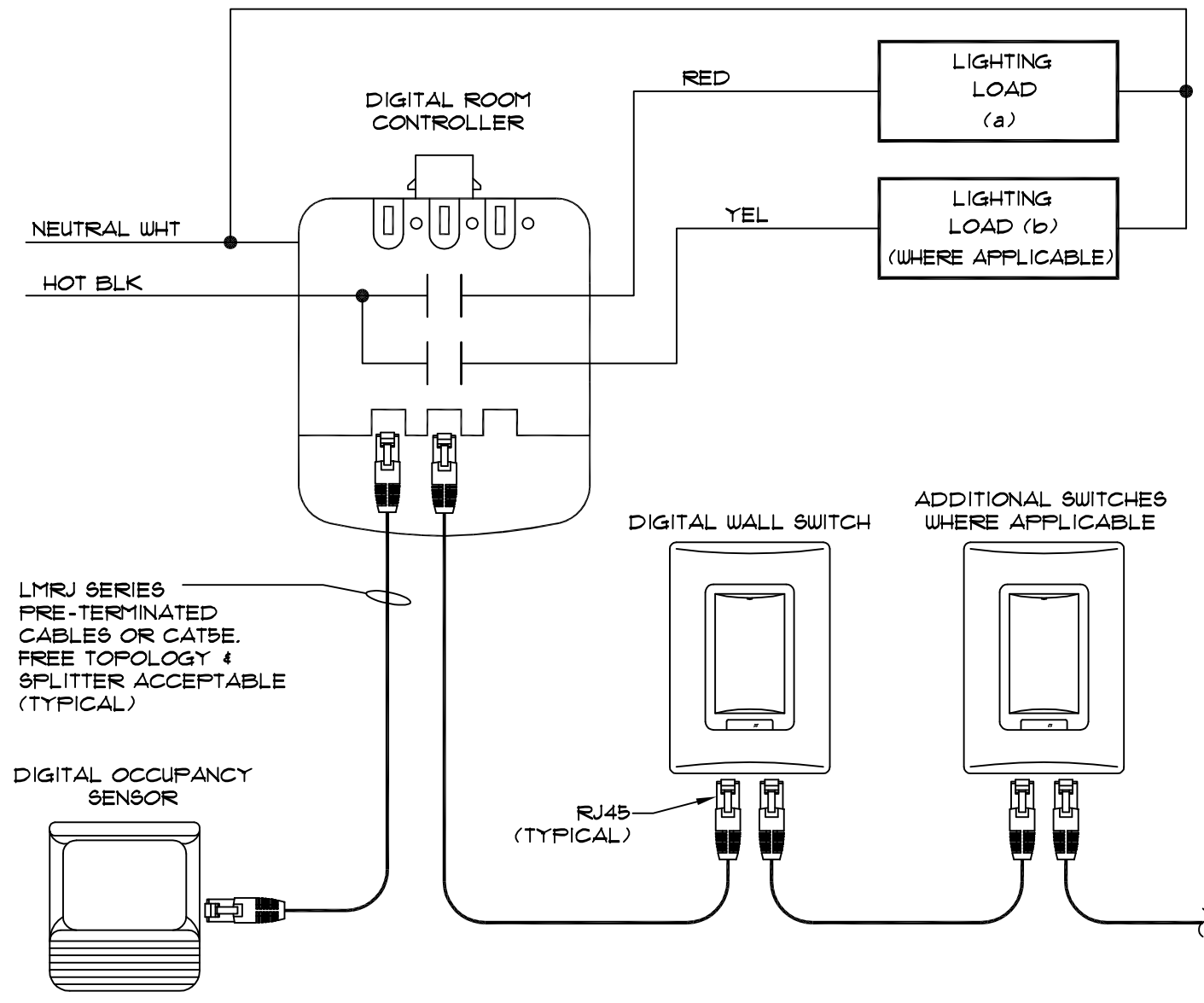
6 Fixture Schedule
E1.0 No Scale



NOTES:

- EACH INDIVIDUAL FIXTURE IN AN ACCESSIBLE CEILING SHALL BE WIRED FROM A JUNCTION BOX SECURED TO STRUCTURE ABOVE CEILING AS SHOWN.
- RECESSED FIXTURES IN CONTINUOUS ROUS SHALL NOT BE THROUGH WIRED.
- NO MORE THAN TWO FIXTURES MAY BE WIRED TO A COMMON JUNCTION BOX.
- FIXTURE "WHIPS" SHALL BE 3/4" MINIMUM TRADE SIZE, FLEXIBLE METALLIC CONDUIT NOT GREATER THAN 6'-0" IN LENGTH. WHIP CONDUCTORS SHALL BE #12 AWG MINIMUM WITH EQUIPMENT GROUNDING CONDUCTOR BONDED TO JUNCTION BOX AND FIXTURE BODY WITH BONDING SCREWS.
- LAY-IN LIGHT FIXTURE SHALL BE SUPPORTED AT ALL FOUR CORNERS OF CEILING GRID.
- RECESS FIXTURES SHALL BE SUPPORTED BY CLIP-ON T-BAR SUPPORTS. CEILING GRID TO BE SUPPORTED AT ALL FOUR CORNERS WHERE FIXTURE IS INSTALLED.
- LIGHT FIXTURES IN RATED CEILING SHALL BE PROTECTED AS REQUIRED TO MAINTAIN UL RATING.

7 Recess Fixture In Accessible Ceiling Detail
E1.0 Not to Scale



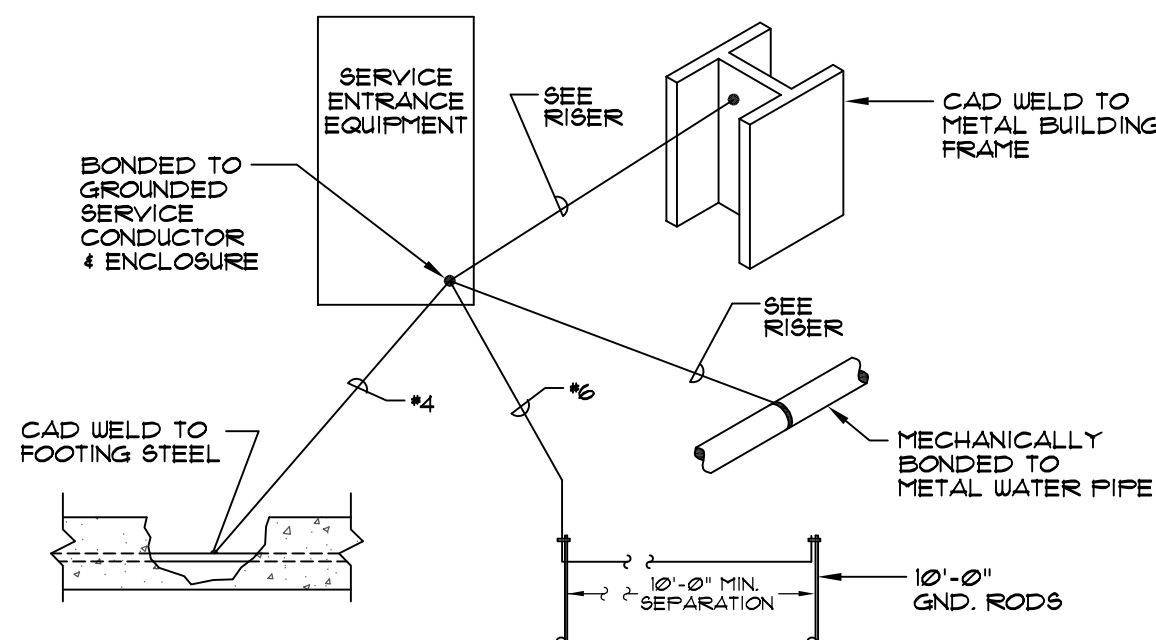
8 Low Voltage Digital Lighting Control Diagram
E1.0 Not to Scale

- ABBREVIATIONS: WP-WEATHERPROOF, CBB-COMMUNICATIONS BACK BOARD, AFF-ABOVE FINISHED FLOOR, N.E.C.-NATIONAL ELECTRICAL CODE
- Ⓢ - CEILING OUTLET, FIXTURE TYPE "A", CIRCUIT # (TYPICAL)
 - - CEILING OUTLET, RECESSED IN CEILING
 - - WALL OUTLET, BRACKET FIXTURE
 - - MODULAR FLUORESCENT FIXTURE, RECESS MOUNTED IN CEILING
 - - CEILING OUTLET, FLUORESCENT FIXTURE, SURFACE OR STEM MOUNTED
 - - WALL OUTLET, 20A DUPLEX RECEPTACLE, CENTERLINE 18" AFF
 - - WALL OUTLET, 20A GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE, CENTERLINE 18" AFF
 - ⊕ - SPECIAL HEIGHT WALL OUTLET, SEE SPECIFICATIONS AND ARCHITECTURAL DETAILS OR AS NOTED ON PLAN
 - ⊕ - WALL OUTLET, SWITCH, SINGLE POLE, 46" AFF OR SPECIAL HEIGHT AS NOTED
 - ⊕ - WALL OUTLET, VACANCY SENSOR, WATSTOPPER #W-100, 46" AFF, PROGRAM FOR MANUAL ON
 - ⊕ - WALL OUTLET, DIGITAL WALL SWITCH, 46" AFF, 3/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING, WATSTOPPER #LMBW-101
 - Ⓢ - CEILING OUTLET, FLUSH MOUNT DIGITAL OCCUPANCY SENSOR, SUBSCRIPT INDICATES WATSTOPPER NO. AS FOLLOWS: NO SUBSCRIPT-LMRC-100-1 HIGH DENSITY, L-LMRC-100 LONG RANGE, S-LMRC-100-2 ULTRA SENS, 2-LMRC-100 DUAL TECHNOLOGY
 - Ⓢ - CEILING J-BOX
 - Ⓢ - DIGITAL ROOM CONTROLLER MOUNTED TO J-BOX, SUBSCRIPT INDICATES WATSTOPPER NO. AS FOLLOWS: NO SUBSCRIPT-LMRC-101 SINGLE RELAY, 2-LMRC-102 DUAL RELAY, D-LMRC-211 SINGLE RELAY DIMMING, D2-LMRC-212 DUAL RELAY DIMMING, D3-LMRC-213 TRIPPLE RELAY DIMMING, P-LMRC-101 PLUG LOAD, INSTALL CEILING MARKER WHEN LOCATED ABOVE LAY-IN CEILING
 - Ⓢ - WALL J-BOX
 - Ⓢ - HOME RUN 212-1/2" C, 3/4" 312-1/2" C, ETC. AS PER N.E.C. EQUIPMENT GROUNDING CONDUCTOR TO BE PULLED IN ALL RACEWAYS IS NOT INDICATED BY A SLASH MARK
 - Ⓢ - BRANCH CIRCUIT CONCEALED IN WALL OR CEILING
 - Ⓢ - BRANCH CIRCUIT EXPOSED ON WALL OR CEILING
 - Ⓢ - BRANCH CIRCUIT CONCEALED IN OR UNDER FLOOR, SEE SPECIFICATIONS FOR CIRCUIT TYPE
 - Ⓢ - FLEXIBLE CONDUIT CONNECTION, SEAL-TITE ON EXTERIOR
 - Ⓢ - LOW VOLTAGE CABLE, OCCUPANCY SYSTEM LIGHTING CONTROL, SEE WIRING DIAGRAM
 - Ⓢ - EMERGENCY BRANCH CIRCUIT
 - Ⓢ - NON-FUSED DISCONNECT SWITCH, TYPE HD
 - Ⓢ - CONNECTION TO FRACTIONAL HP, MOTOR
 - Ⓢ - PANELBOARD
 - Ⓢ - WALL OUTLET FOR CONTROL, 48" AFF, VERIFY EXACT LOCATION AND SIZE W/ALVAC. CONTRACTOR, STUB 3/4" CONDUIT ABV. CEILING

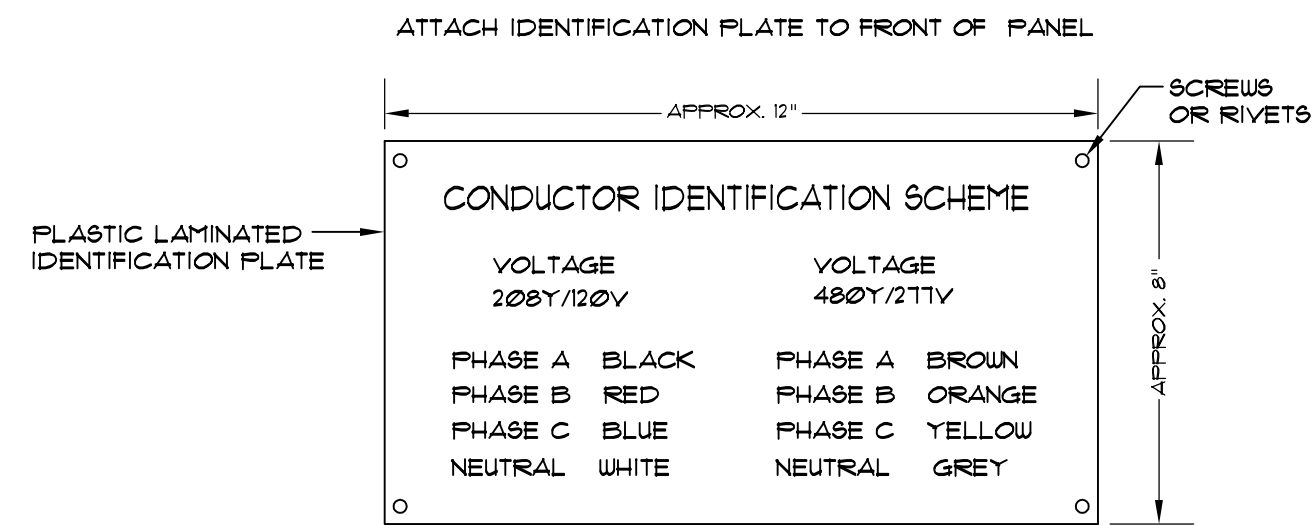
1 Electrical Symbols
E1.0 No Scale

INVERTER: 277/480V, 3Ø, 4W, 5000VA, 120 MIN RUN TIME, 1-20/1 & 1-15/3 OUTPUT BREAKERS, MULE #PFT-8000-277/480-OCB120/1-OCB15/3

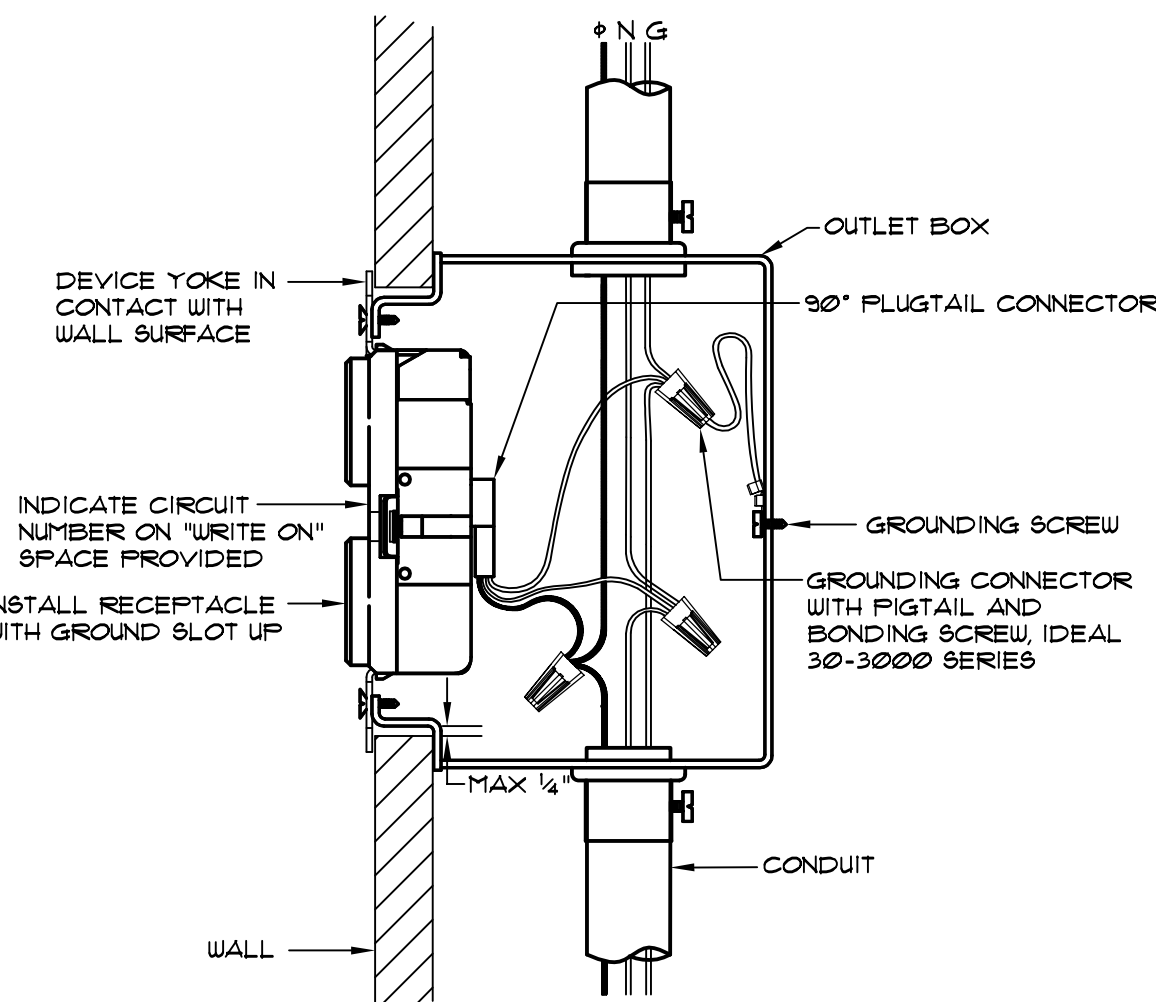
4 Equipment Schedule
E1.0 Not to Scale



2 Grounding Detail
E1.0 Not to Scale



5 Conductor Identification Nameplate
E1.0 Not to Scale



3 Receptacle Installation Detail
E1.0 Not to Scale

Phase 4 Storm Shelter Addition to:
**University Place Elementary School
& University Place Middle School**
Tuscaloosa City Board of Education
Tuscaloosa, Alabama

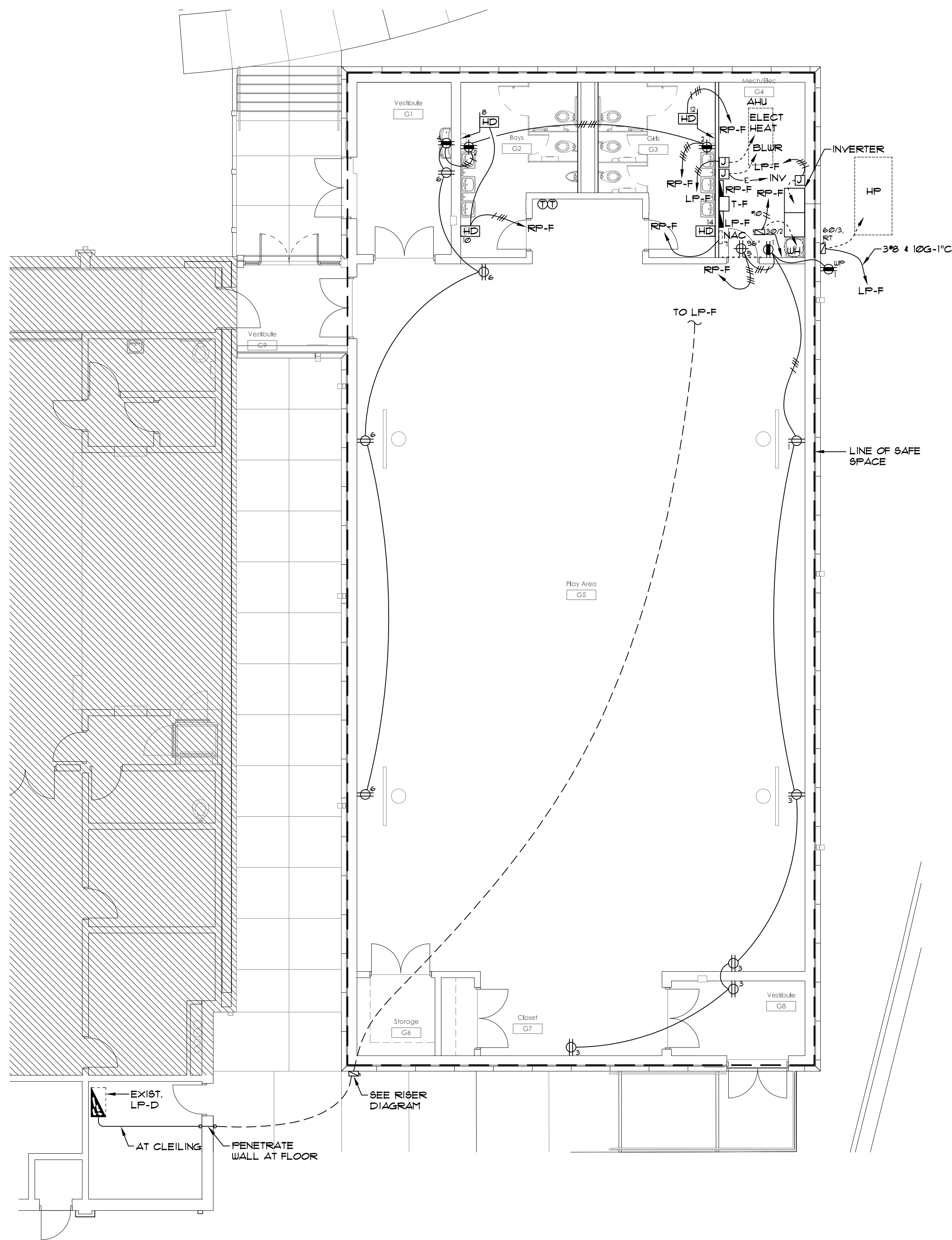
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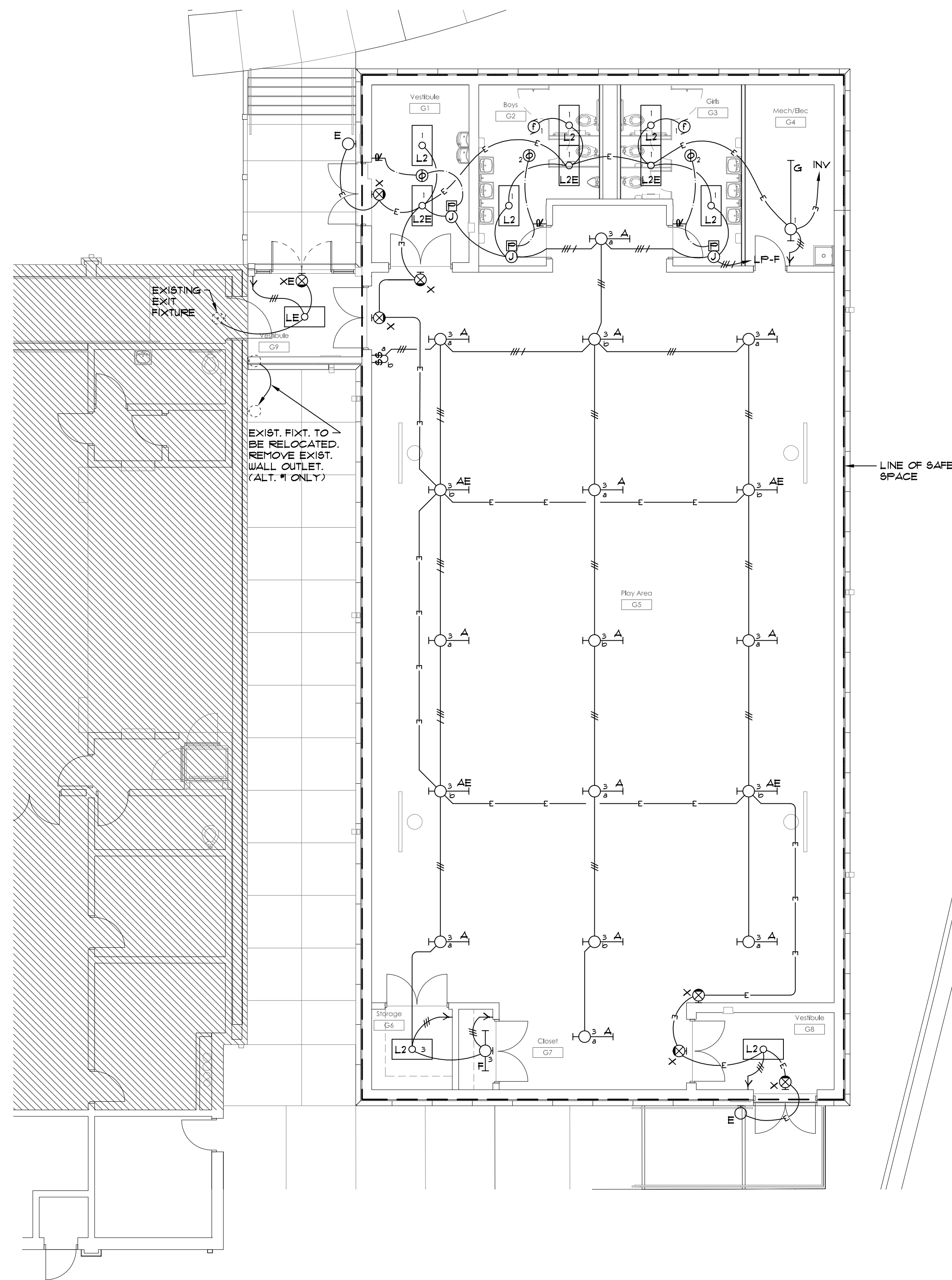
JOB No.	11015E
DATE:	5/17/2013
REV DATE:	
DRAWN BY:	
SYMBOLS, SCHEDULES, AND DETAILS	
SHEET NUMBER	E1.0



1 Power Wiring Plan
E1.1 1/8" = 1'-0"

- PANEL "RP-F" RECEPTACLE BRANCH CIRCUITS 1, 2, 3, 4, 5 & 6 AND ASSOCIATED RECEPTACLES ARE ALTERNATE 1.

3 Power Wiring General Note
E1.1 No Scale



2 Lighting Plan
E1.1 1/8" = 1'-0"

- FIXTURES A & AE HAVE INTEGRAL OCCUPANCY SENSORS.
- BOTTOM OF FIXTURES A & AE TO BE FLUSH WITH BOTTOM CHORD OF BEAM JOIST.
- WORK ASSOCIATED WITH LIGHTING IN VESTIBULE G9 IS ALTERNATE 1.
- FIXTURES H & E HAVE INTEGRAL PHOTOCELL.

4 Lighting General Notes
E1.1 No Scale



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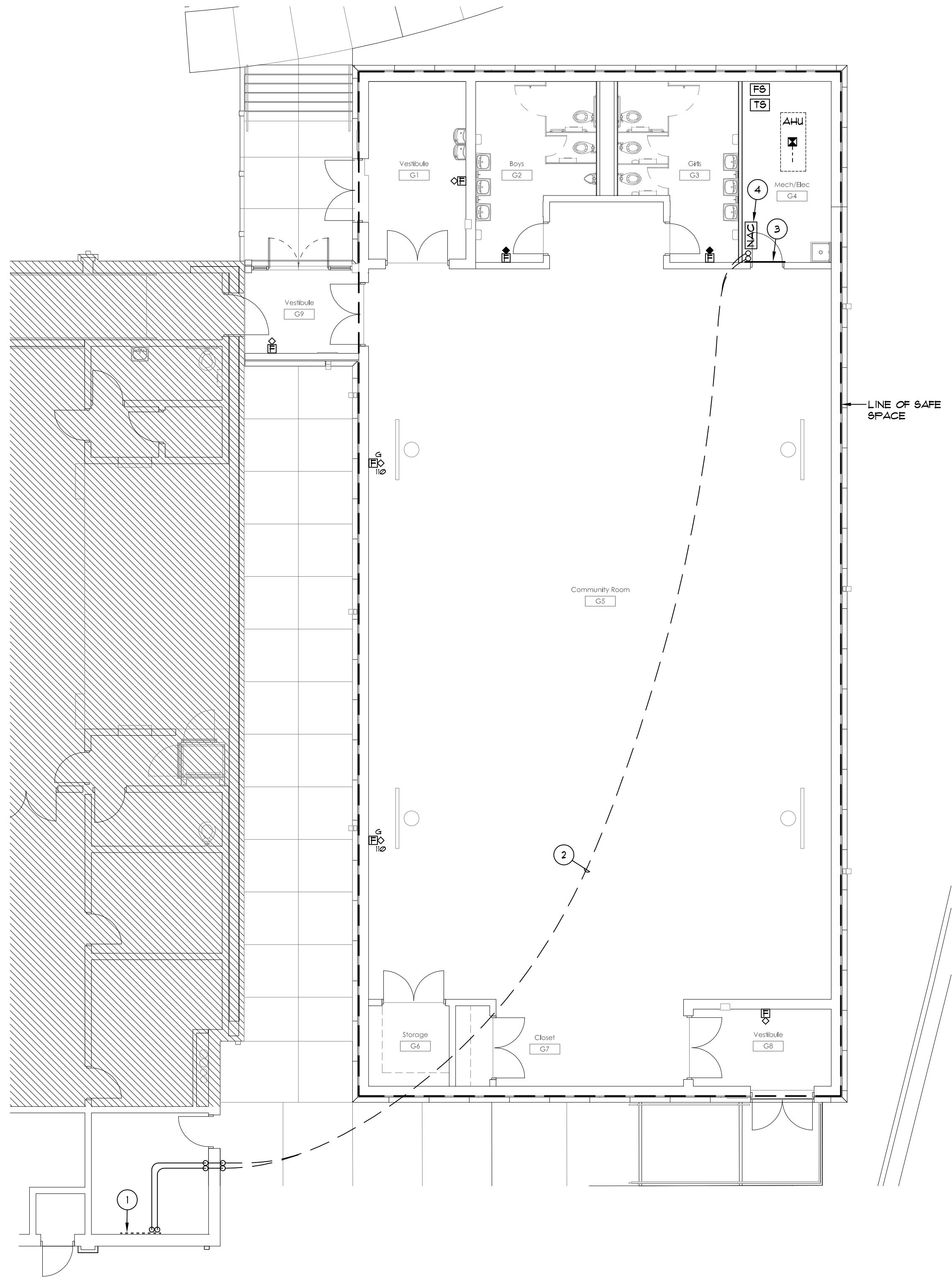
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Tuscaloosa City Board of Education
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DRAWN BY:	
POWER WIRING, LIGHTING PLAN	
SHEET NUMBER	E1.1



1 Power Wiring Plan
E2.1 1/8" = 1'-0"

• WORK ASSOCIATED WITH FIRE ALARM DEVICE IN VESTIBULE G8 IS ALTERNATE #

4 Auxiliary General Note
E2.1 No Scale

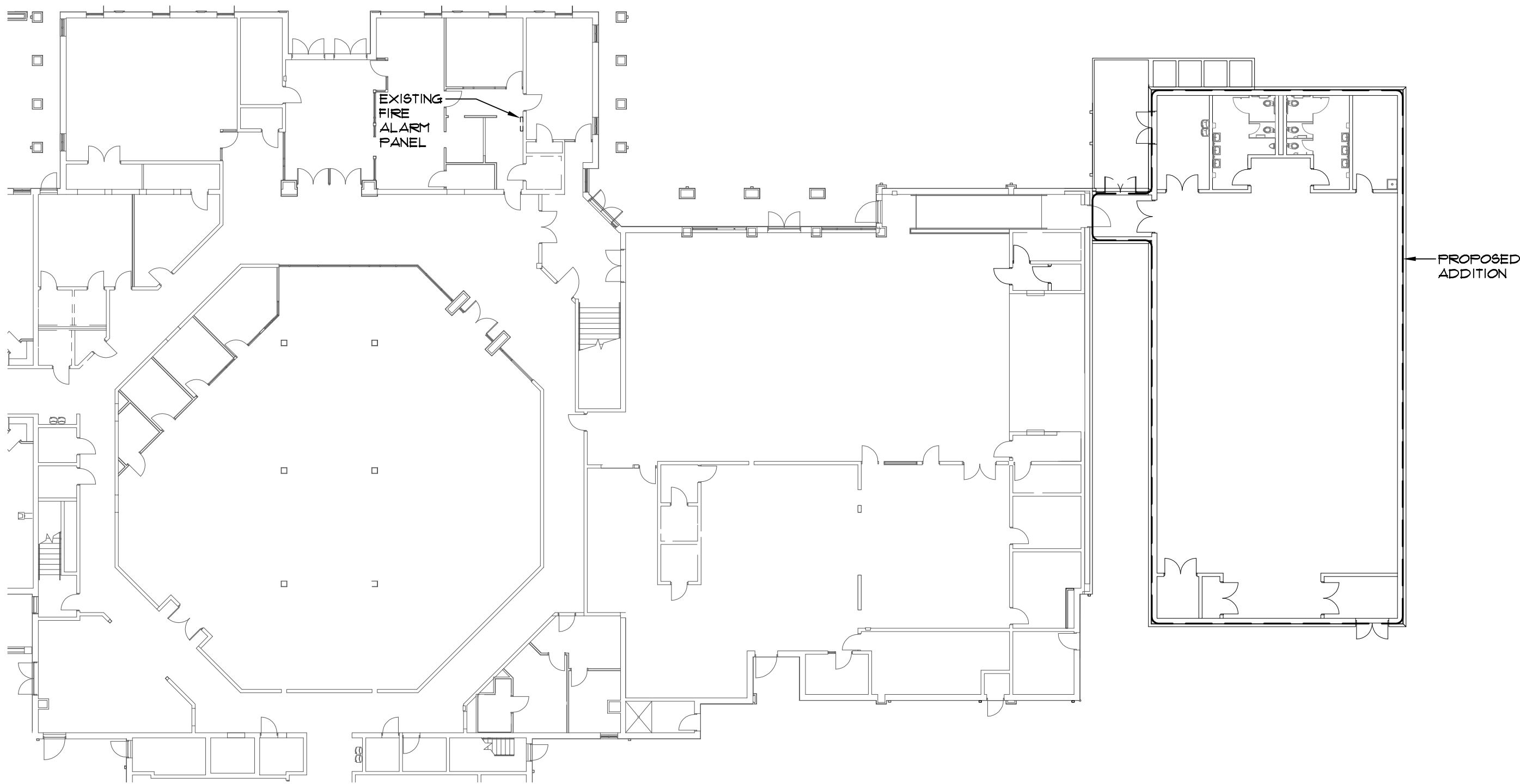
- EXISTING DATACOM BACKBOARD.
- 2-4" C. STUBBED FROM TOP OF EXISTING DATACOM BACKBOARD TO BOTTOM OF NEW DATACOM BACKBOARD IN MECH/ELEC G4.
- NEW DATACOM BACKBOARD: 48"X48"X3/4" FLYWOOD, MOUNT ABOVE DOOR.
- FURNISH AND INSTALL CABLING AND EQUIPMENT AS REQUIRED TO CONNECT FIRE ALARM EQUIPMENT IN THIS BUILDING TO THE EXISTING SCHOOL FIRE ALARM SYSTEM. SEE OVERALL ELECTRICAL PLAN FOR EXISTING FIRE ALARM PANEL LOCATION.

5 Specific Notes
E2.1 No Scale

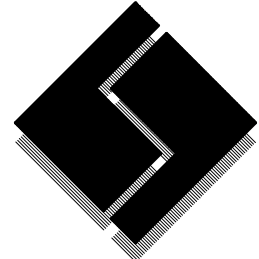
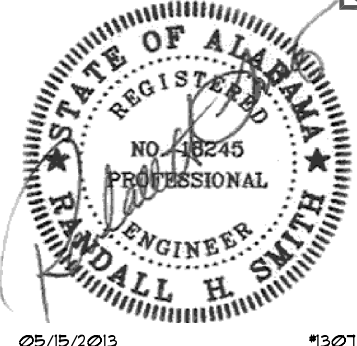
- FIRE ALARM DEVICES:**
- NAC** NAC CABINET, COMPATIBLE WITH EXISTING SYSTEM
 - FS** CONNECTION TO FLOW SWITCH.
 - TS** CONNECTION TO TAMPER SWITCH.
 - H** DUCT DETECTOR, COMPATIBLE WITH EXISTING SYSTEM W/ DUCT HOUSING, AUXILIARY SHUTDOWN RELAY
 - ☉** CEILING MOUNTED SMOKE DETECTOR, COMPATIBLE WITH EXISTING SYSTEM W/ BASE
 - ☼** CEILING MOUNTED HEAT DETECTOR, COMPATIBLE WITH EXISTING SYSTEM W/ BASE
 - 🔊** AUDIBLE VISUAL INDICATING DEVICE, HORN, SYNCHRONIZED FLASH, COMPATIBLE WITH EXISTING SYSTEM, WALL MOUNT 1'-4" AFF, SUFFIX INDICATES CANDELA SETTING
 - 🔦** VISUAL INDICATING DEVICE, SYNCHRONIZED FLASH, COMPATIBLE WITH EXISTING SYSTEM, WALL MOUNT 1'-4" AFF, SUFFIX INDICATES CANDELA SETTING
 - 🔌** CONNECTION TO ELECTROMAGNETIC HOLD OPEN, FURNISHED BY DOOR HARDWARE SUPPLIER, INSTALLED BY ELECTRICAL CONTRACTOR, WALL OUTLET, 1/2" C. STUBBED ABOVE ACCESSIBLE CEILING.

- NOTES:**
- THE CERTIFIED FIRE ALARM ACT REQUIRES:
 - 1. EVERY BUSINESS WHO INSTALLS FIRE ALARM SYSTEMS IN COMMERCIAL OCCUPANCIES MUST BE LICENSED AS A CERTIFIED FIRE ALARM CONTRACTOR. THE CONTRACTOR MUST HAVE A NICET LEVEL III TECHNICIAN IN A POSITION OF RESPONSIBILITY, AND THE LICENSE WILL BE ISSUED IN THE NAME OF THE CERTIFICATE HOLDER AND THE CONTRACTOR.
 - 2. TECHNICIANS WORKING FOR THE CERTIFIED CONTRACTOR MUST HOLD A CURRENT NICET LEVEL II, OR EQUIVALENT, CERTIFICATION. THE FIRE ALARM SPECIFICATIONS SHALL REQUIRE CONTRACTORS WISHING TO BID ON FIRE ALARM WORK TO SHOW EVIDENCE AT THE FIRE-BID CONFERENCE THAT HE/ SHE MEETS THE CERTIFICATION REQUIREMENTS OF THE ACT AND HOLDS A PERMIT ISSUED BY THE STATE FIRE MARSHALL.
 - THE FIRE ALARM SYSTEM WORK TO BE PERFORMED AS PER NFPA 72 (2007), 4.3.3 AND 4.4.4.2. SYSTEM TO BE CERTIFIED UPON COMPLETION OF WORK.
 - ALL PRODUCTS INSTALLED ON PROJECT MUST BE MANUFACTURED IN THE USA OR MEET THE REQUIREMENTS OF THE AMERICAN RECOVERY AND REINVESTMENT ACT.
 - 'G' SUBSCRIPT DENOTES WIREGUARD COMPATIBLE WITH DEVICE.

3 Fire Alarm Symbols
E2.1 No Scale



2 Overall Electrical Plan
E2.1 1" = 20'-0"



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AUXILIARY PLAN

SHEET NUMBER E2.1