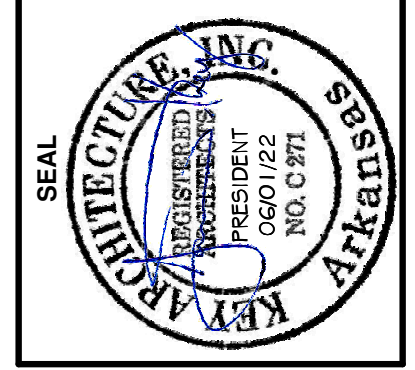


# NEW OFFICE WAREHOUSE 6-BAY BLDG.

## 2303 WORTH LANE

### SPRINGDALE, ARKANSAS

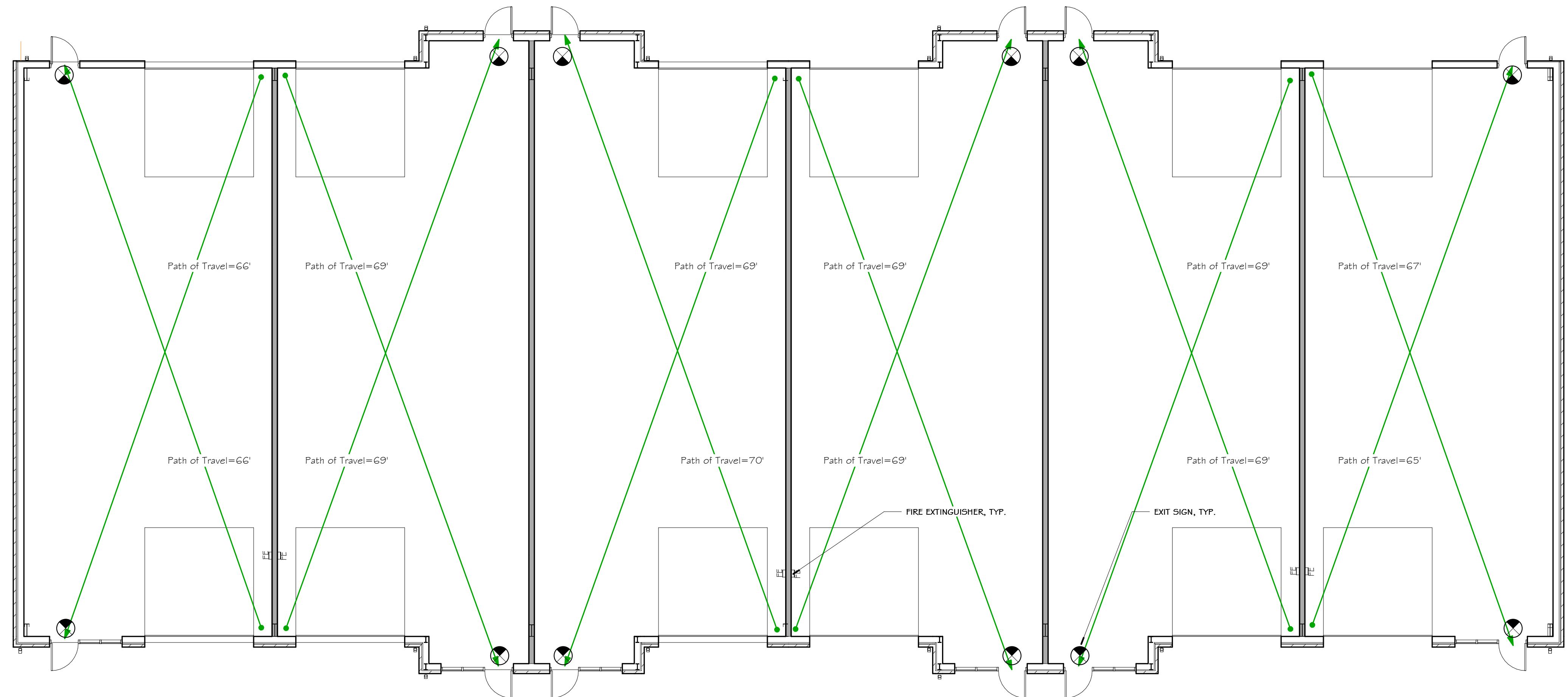
CODE AND PROJECT DEVELOPMENT DATA	
<b>BUILDING CODE:</b>	2012 ARKANSAS FIRE PREVENTION CODE, VOL. II (2012 IBC WITH AMENDMENTS) 2017 NATIONAL ELECTRICAL CODE 2006 ARKANSAS PLUMBING CODE 2006 ARKANSAS STATE FUEL & GAS CODE 2010 ARKANSAS MECHANICAL CODE 2011 ARKANSAS ENERGY CODE 2009 ANSI A-117.1
<b>OCCUPANCY</b> (Chapter 3 Use and Occupancy)	B-BUSINESS
<b>TYPE CONSTRUCTION:</b> (Table 501)	IIIB - NOT SPRINKLERED
STRUCTURAL FRAME	NON-COMBUSTIBLE- 0 HR
INTERIOR BEARING WALLS	COMBUSTIBLE- 0 HR
EXTERIOR NON-BEARING WALLS	COMBUSTIBLE- 0 HR
INTERIOR NON-BEARING WALLS	NON-COMBUSTIBLE- 0 HR
ROOF/CEILING	COMBUSTIBLE- 0 HR
<b>FIRE SEPARATION DISTANCES:</b>	
NORTH	20'
EAST	>30'
SOUTH	>30'
WEST	>30'
<b>ALLOWABLE HEIGHT &amp; BUILDING AREA:</b>	
ALLOWABLE SF PER FLOOR, (Table 503) =	19,006sf
ALLOWABLE # FLOORS (Table 503) =	3 FLOORS
AREA INCREASE DUE TO FRONTAGE (506.1)	
$I = [F/P - 0.25]W/30 =$	N/A
AREA INCREASE DUE TO SPRINKLERS (506.3) (one story), $I_s = A \times 3 =$	N/A
TOTAL ALLOWABLE AREA PER FLOOR (506.2) =	19,000 sf
<b>TOTAL ENCLOSED AREA:</b>	11,168sf
<b>TOTAL OCCUPANTS:</b> (Table 1004.1.2) B-BUSINESS, 100 GROSS = 11,168 sf / 100 sf=	112 PEOPLE
<b>MEANS OF EGRESS SIZING:</b> (1005) (1005.3.1) STAIRWAYS #PEOPLE x .3" (1005.3.2)112 PEOPLE x .2" / PERSON = 12 DOORS x 32" =	N/A 22.4" REQUIRED 38.4" PROVIDED
<b>TRAVEL DISTANCE ALLOWED:</b> (Table 1016.2) B-BUSINESS, NOT SPRINKLERED	200'



**KEY ARCHITECTURE INC.**

P.O. BOX 748 FAYETTEVILLE, ARKANSAS 72702  
PH: 479.444.6066 FAX: 479.444.1445

FOR REVIEW



**LIFE SAFETY PLAN**  
SCALE = 1/8" = 1'-0"

Sheet Index	
#	Sheet Name
A0.0	COVER SHEET
A1.1	FLOOR PLAN
A1.2	ROOF PLAN & SCHEDULES
A2.1	ELEVATIONS
A3.1	WALL SECTIONS
S0	STRUCTURAL NOTES AND DETAILS
S1	FOUNDATION PLAN
S2	FOUNDATION DETAILS
P000	PLUMBING NOTES & SYMBOLS
P100	SEWER & GAS PLAN
P500	PLUMBING DETAILS
P600	SEWER RISER
P700	PLUMBING SPECS
E000	ELECTRICAL NOTES AND LEGENDS
E100	LIGHTING PLAN
E101	POWER PLAN
E601	PANEL SCHEDULE
E700	ELECTRICAL SPECS

Revision Schedule	
Rev. #	Date

NEW OFFICE WAREHOUSE 6-BAY BLDG.  
2303 WORTH LANE  
SPRINGDALE, ARKANSAS

MTNWA INVESTMENTS, LLC  
1457 E. ROBINSON AVE.  
SPRINGDALE, AR 72764

DATE	DRAWN BY
06/01/22	ELP
PROJECT #	CHECKED BY
2169	JTK

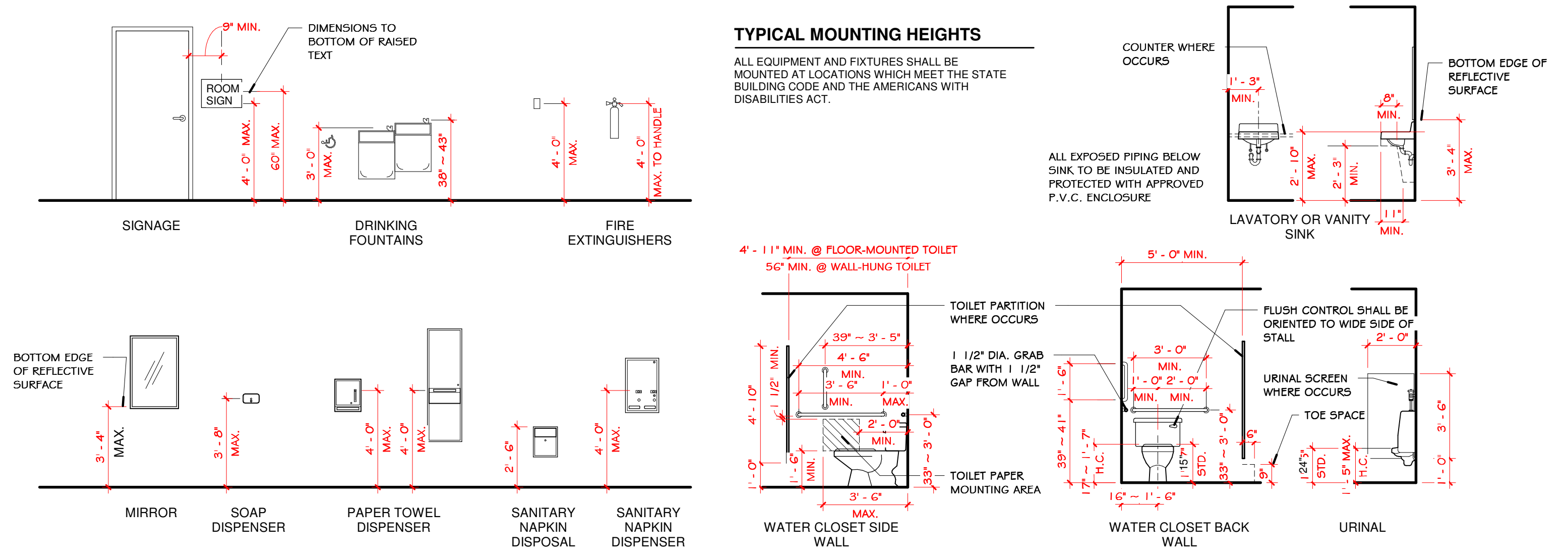
SHEET  
**A0.0**  
COVER SHEET

IT IS EXPRESSLY UNDERSTOOD THAT THE ARCHITECT SHALL NOT PERFORM CONSTRUCTION ADMINISTRATION SERVICES, UNLESS, AND ONLY TO THE EXTENT SPECIFICALLY REQUESTED BY THE CLIENT AS ADDITIONAL SERVICES. ACCORDINGLY, THE ARCHITECT SHALL NOT BE LIABLE TO THE CLIENT, TO THE OWNER OR TO ANY PARTY WORKING FOR OR THROUGH THE CLIENT OR THE OWNER, FOR ERRORS OR OMISSIONS IN THE CONSTRUCTION DOCUMENTS, WHICH ARE, OR WHICH UPON THE EXERCISE OF REASONABLE CARE SHOULD HAVE BEEN DISCOVERED DURING THE CONSTRUCTION OF WORK. LIKEWISE, THE ARCHITECT SHALL NOT BE LIABLE TO THE CLIENT, TO THE OWNER OR TO ANY PARTY WORKING FOR OR THROUGH THE CLIENT OR THE OWNER, FOR ANY CHANGES IN DESIGN OR CONSTRUCTION MADE DURING CONSTRUCTION WITHOUT THE PRIOR WRITTEN APPROVAL OF THE ARCHITECT. THE CLIENT AND/OR THE OWNER SHALL HOLD HARMLESS, INDEMNIFY AND DEFEND THE ARCHITECT FROM AND AGAINST ANY AND ALL CLAIMS OR CAUSES OF ACTION FOR COST OR DAMAGES WHICH ARE DISCOVERED OR UPON THE EXERCISE OF REASONABLE CARE SHOULD HAVE BEEN DISCOVERED BY THE OWNER OR CONTRACTOR, AND WHICH ARE NOT BROUGHT TO THE ARCHITECT'S ATTENTION FOR REVIEW AND ACTION BEFORE FURTHER WORK IS PERFORMED; b) ARISE FROM CHANGES IN CONSTRUCTION AND/OR DESIGN NOT APPROVED IN WRITING BY THE ARCHITECT; AND/OR c) FOR ERRORS OR OMISSIONS OF THE CONTRACTOR OR OF OTHER CONSULTANTS TO THE CLIENT AND/OR OWNER.

I HEREBY CERTIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED BY ME, OR UNDER MY SUPERVISION. I FURTHER CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THESE PLANS AND SPECIFICATIONS ARE AS REQUIRED BY LAW AND IN COMPLIANCE WITH THE ARKANSAS FIRE PREVENTION CODE FOR THE STATE OF ARKANSAS, WITH THE REQUIREMENTS OF THE MUNICIPAL AUTHORITY AND ALL FEDERAL REGULATIONS.

BY: DATE: 06/01/22

As indicated 6/1/2022 1:57:12 PM S:\2169 MTNWA - New Warehouse Office\2169 MTNWA OFFICE-WAREHOUSE 2303 - 6 bay building.rvt



**PROJECT TEAM DATA**

**ARCHITECT:** KEY ARCHITECTURE INC.  
P.O. BOX 748  
FAYETTEVILLE, ARKANSAS 72702  
315 SOUTH GREGG  
FAYETTEVILLE, ARKANSAS 72701  
PH: (479) 444-6066  
FAX: (479)444-1445

**CONSULTANTS**

**STRUCTURAL:** JLA ENGINEERING, INC.  
213 W. MONROE AVE, SUITE J  
LOWELL, ARKANSAS 72745  
PH: (479) 770-6650

**MECHANICAL:** ADVANCED CONSULTING ENGINEERS  
132 W KELLEY DR.  
ROGERS, ARKANSAS 72756  
PH: (479) 831-1712

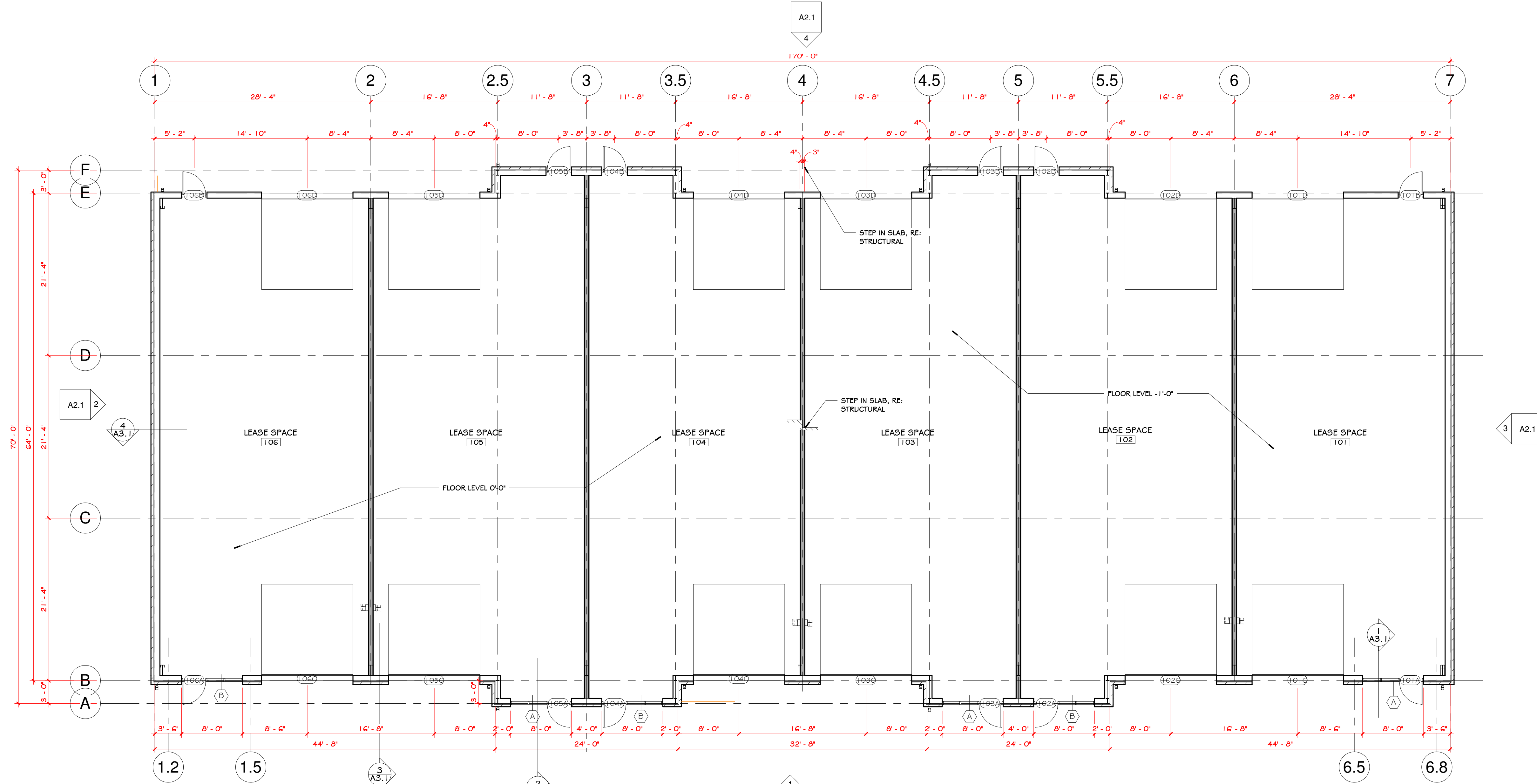
**CIVIL:** ENGINEERING SERVICES, INC.  
1207 S OLD MISSOURI RD.  
SPRINGDALE, ARKANSAS 72764  
PH: (479) 751-8733

Door Schedule										
Mark	Room Name	Width	Height	Frame		Door			Comments	
				Type	Finish	Thickness	Type	Finish		Glazing
101A	LEASE SPACE	3' - 0"	7' - 0"	ALUM	CL-ANO		ALUM	CL-ANO	TEMP	
101B	LEASE SPACE	3' - 0"	7' - 0"	HM	PT	1 3/4"	HM	PT		
101C	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1
101D	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1
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102C	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1
102D	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1
103A	LEASE SPACE	3' - 0"	7' - 0"	ALUM	CL-ANO		ALUM	CL-ANO	TEMP	
103B	LEASE SPACE	3' - 0"	7' - 0"	HM	PT	1 3/4"	HM	PT		
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103D	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1
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106C	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1
106D	LEASE SPACE	12' - 0"	12' - 0"			1 1/2"				1

- GENERAL NOTES**
1. ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE MUNICIPALITY AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
  2. ALL WORK AND ALL FINISHES, INCLUDING TYPE, COLOR AND LOCATION, SHALL BE COORDINATED WITH THE OWNER.
  3. ALL DIMENSIONS ARE TO CENTERLINE OF COLUMNS, FACE OF BUILDING LINE OR STUD, TYPICAL, UNLESS NOTED OTHERWISE (U.N.O.). WHEN NOTED AS EXISTING THE DIMENSIONS SHOWN ARE TO FACE OF EXISTING FINISH PRIOR TO START OF CONSTRUCTION.
  4. VERIFY ALL DIMENSIONS, DOOR AND WINDOW SIZES AND LOCATIONS PRIOR TO LAYOUT WITH THE OWNER. COORDINATE ALL OWNER PROVIDED EQUIP.
  5. ALL DOOR AND WINDOW DIMENSIONS ARE NOMINAL AND MUST BE COORDINATED WITH MANUFACTURER. ROUGH OPENING DIMENSIONS ARE TO BE COORDINATED WITH DOOR AND WINDOW SHOP DRAWINGS.
  6. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO START OF WORK. CONTRACTOR TO NOTIFY ARCHITECT TO ANY DISCREPANCY WITH THE PLANS AND SPECIFICATIONS PRIOR TO BEGINNING WORK.
  7. PROVIDE FIRE EXTINGUISHERS PER NFPA-10 AND COORDINATE WITH LOCAL BUILDING AND/OR FIRE OFFICIALS.
  8. PROVIDE KNOX BOX ON EXTERIOR OF BUILDING, COORDINATE EXACT LOCATION WITH LOCAL BUILDING AND/OR FIRE OFFICIALS.
  9. PROVIDE WOOD BLOCKING IN STUD WALLS FOR ANCHORAGE OF GRAB BARS, PAPER HOLDERS, VANITIES, WALL MOUNTED DOOR STOPS, SINKS, SHELVING, TELEVISIONS ETC. COORDINATE WITH OWNER PRIOR TO COVER-UP.
  10. PROVIDE BATT INSULATION AT ALL EXTERIOR WALLS AND SOUND ATTENUATION BLANKETS AT ALL NEW WALLS AT TOILET AREAS UNLESS NOTED OTHERWISE.
  11. PROVIDE 1 1/2" RIGID INSULATION FULL HEIGHT AT PERIMETER OF BUILDING STEM WALLS & BASEMENT WALLS, AND FOR 2'-0" HORIZONTAL UNDER SLABS. INSULATION SHALL MEET ALL STATE AND LOCAL ENERGY CODES.
  12. TOILET ROOM TO BE PROVIDED WITH FORCED AIR VENTILATION TO THE EXTERIOR.
  13. PROVIDE ROOM SIGNAGE AT ALL DOORS AS REQUIRED BY THE INTERNATIONAL BUILDING CODE, ANSI A117.1, AND THE AMERICANS WITH DISABILITY ACT. COORDINATE WITH OWNER FOR NAMES, NUMBERS, STYLE AND TYPE OF SIGN. ALL SIGNAGE TO HAVE RAISED BRAILLE CHARACTERS AS REQUIRED.

- GENERAL DOOR & WINDOW NOTES**
1. ALL DOORS, WINDOWS AND FRAMES TO BE FINISHED PER OWNER'S REQUIREMENTS.
  2. ALL DOOR AND WINDOW DIMENSIONS ARE TO THE FINISHED FRAME UNLESS OTHERWISE NOTED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND VERIFY ROUGH OPENINGS WITH WINDOW MANUFACTURER'S SHOP DRAWINGS.
  3. ALL DOOR AND WINDOW TYPES AND MANUFACTURER TO BE DETERMINED BY THE OWNER.
  4. ALL HARDWARE TO COMPLY WITH REQUIREMENTS FOR EGRESS AND ACCESSIBILITY.
  5. PROVIDE THRESHOLD AT ALL FLOOR FINISH TRANSITIONS, TYPICAL U.N.O. VERIFY TYPES AND LOCATIONS WITH THE OWNER. THRESHOLDS SHALL BE NO MORE THAN 1/2" IN HEIGHT AND PROVIDE FOR ACCESSIBLE PASSAGE.
  6. REFER TO PLAN AND/OR DOOR SCHEDULE FOR DOOR SIZES AND NOTES ON SPECIAL DOOR TYPES.
  7. ALL MULTI-USE TOILET ROOMS TO BE PROVIDED SELF-CLOSING.

KEYED DOOR NOTES:  
1. INSULATED OVERHEAD DOOR



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

- GENERAL FINISH NOTES**
1. WALL FINISH SHALL BE SMOOTH FINISH, NO TEXTURE, PAINTED, UNLESS NOTED OTHERWISE (U.N.O.).
  2. ALL FINISHES TO BE COORDINATED WITH THE OWNER, INCLUDING TYPE, COLOR AND LOCATION.
  3. PROVIDE FINISH TOE KICK OR BASE TRIM AT BASE CABINETS FOR CABINET BASE AND WALL BASE AS PER FINISH SCHEDULE OR NOTES. COORDINATE WITH OWNER.
  4. PROVIDE CORNER GUARDS PER SPEC AT ALL OUTSIDE SHEET ROCK CORNERS TYPICAL.
  5. PROVIDE SEMI-RECESSED FIRE EXTINGUISHER CABINETS AS PER SPECS.



**KEY ARCHITECTURE INC.**  
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Rev. #	Date

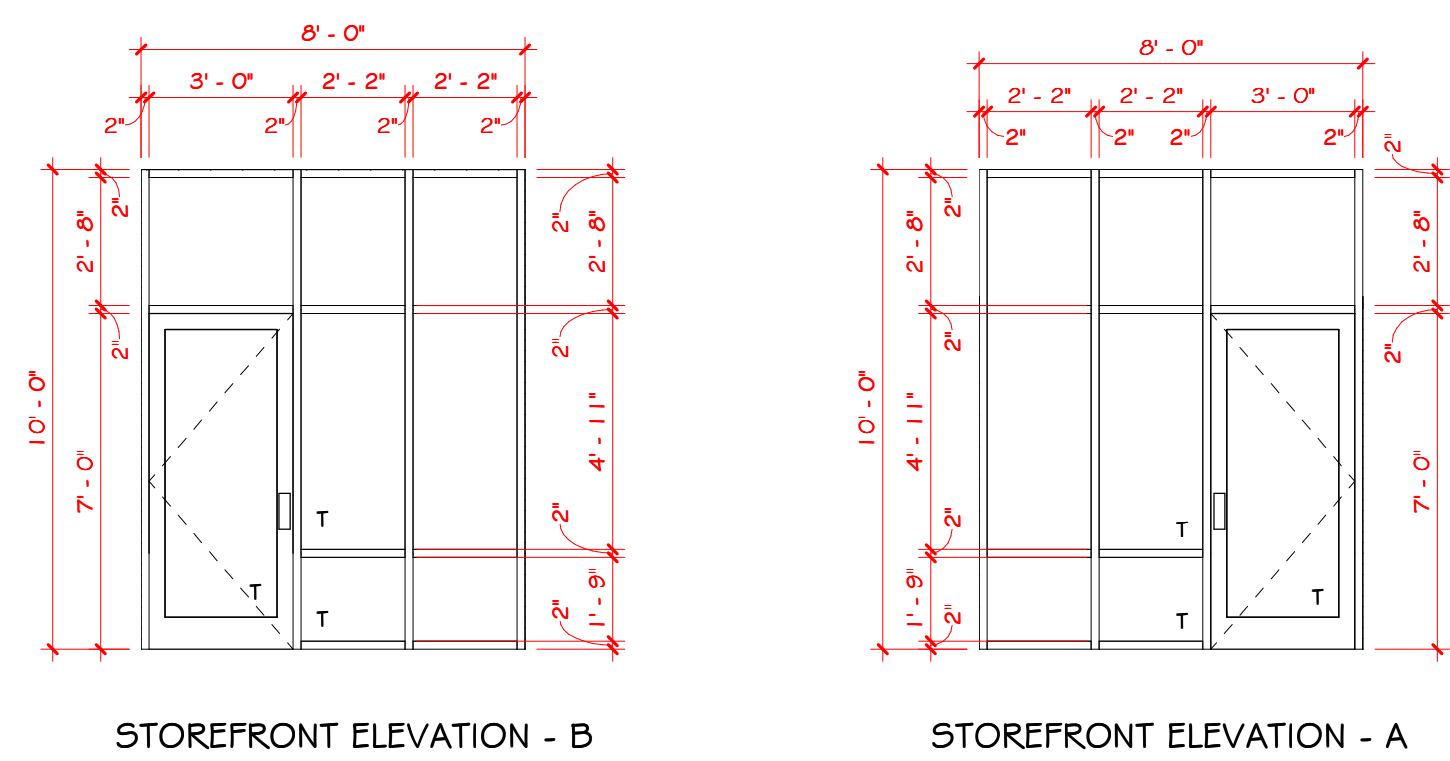
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2303 WORTH LANE  
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DATE	DRAWN BY
06/01/22	ELP
PROJECT #	CHECKED BY
2169	JTK

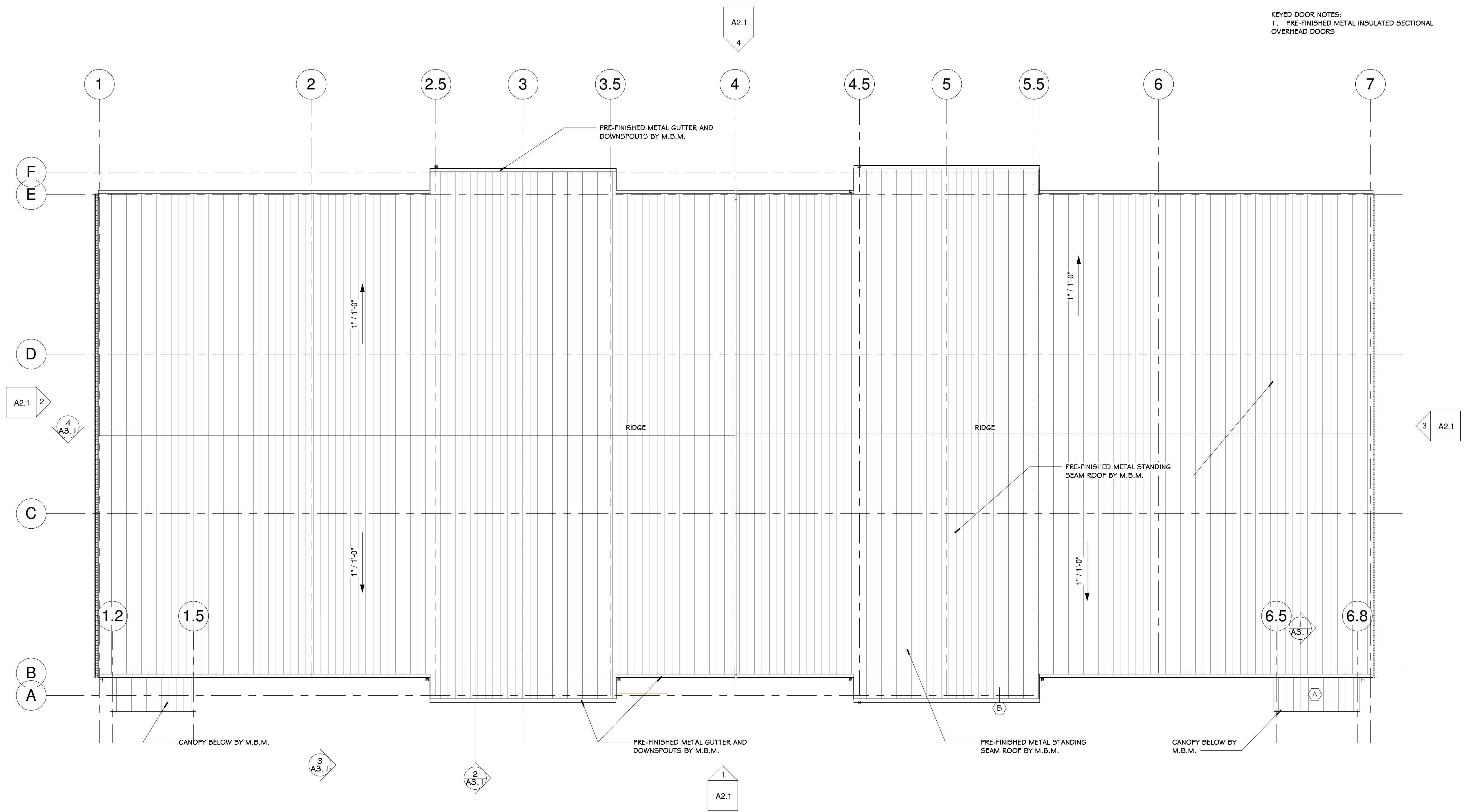
SHEET  
**A1.1**  
FLOOR PLAN

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CLEAR ANODIZED ALUMINUM FRAMES  
 1" DOUBLE PANE INSULATED GLAZING  
 T = TEMPERED PANELS

Mark	Room Name	Width	Height	Frame		Door			Comments	
				Type	Finish	Thickness	Type	Finish		Glazing
101A	LEASE SPACE	3' - 0"	7' - 0"	ALUM	CL-ANO		ALUM	CL-ANO	TEMP	
101B	LEASE SPACE	3' - 0"	7' - 0"	HM	PT	1 3/4"	HM	PT		
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- KEYED DOOR NOTES:**  
 1. PRE-FINISHED METAL INSULATED SECTIONAL OVERHEAD DOORS
- GENERAL DOOR & WINDOW NOTES**
1. ALL DOORS, WINDOWS AND FRAMES TO BE FINISHED PER OWNERS REQUIREMENTS.
  2. ALL DOOR AND WINDOW DIMENSIONS ARE TO THE FINISHED FRAME UNLESS OTHERWISE NOTED. IT IS THE CONTRACTORS RESPONSIBILITY TO COORDINATE AND VERIFY ROUGH OPENINGS WITH WINDOW MANUFACTURERS SHOP DRAWINGS.
  3. ALL DOOR AND WINDOW TYPES AND MANUFACTURER TO BE DETERMINED BY THE OWNER.
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  5. PROVIDE THRESHOLD AT ALL FLOOR FINISH TRANSITIONS, TYPICAL U.N.O. VERIFY TYPES AND LOCATIONS WITH THE OWNER. THRESHOLDS SHALL BE NO MORE THAN 1/2" IN HEIGHT AND PROVIDE FOR ACCESSIBLE PASSAGE.
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  7. ALL MULTI-USE TOILET ROOMS TO BE PROVIDED SELF-CLOSING

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



**KEY ARCHITECTURE INC.**

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 PH: 479.444.6066 FAX: 479.444.1445

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Rev. #	Date

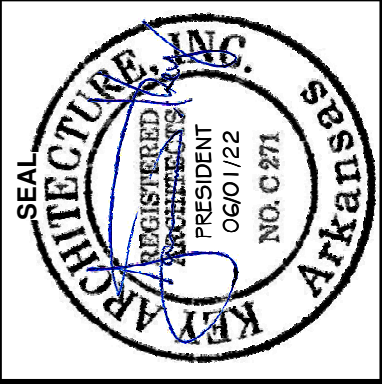
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06/01/22	ELP
PROJECT #	CHECKED BY
2169	JTK

SHEET  
**A1.2**  
 ROOF PLAN & SCHEDULES

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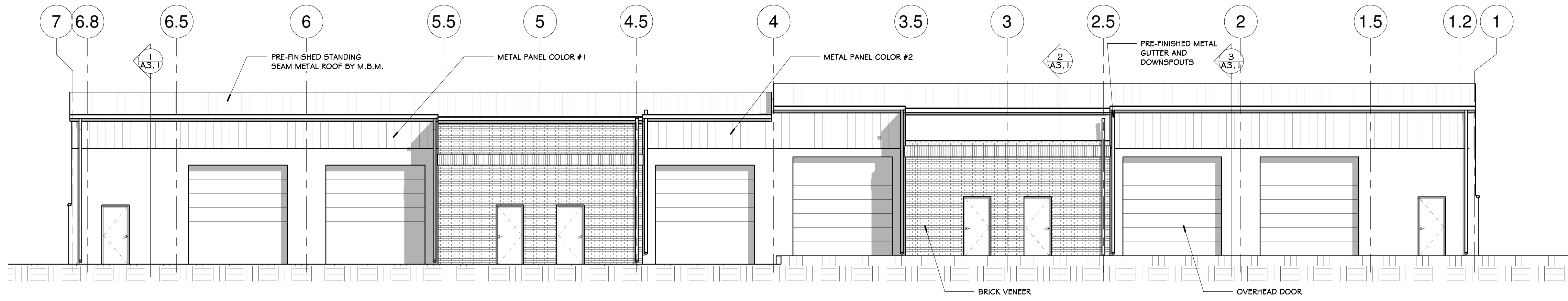
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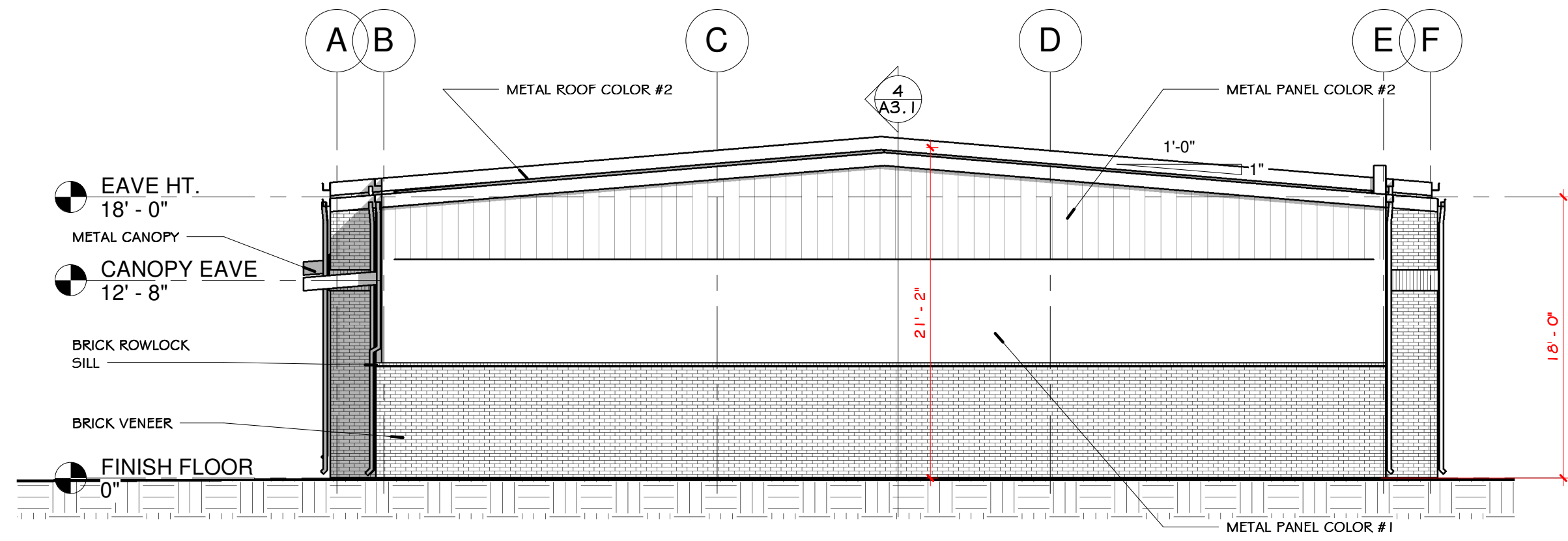
DATE 06/01/22	DRAWN BY ELP
PROJECT # 2169	CHECKED BY JTK

SHEET  
**A2.1**  
 ELEVATIONS

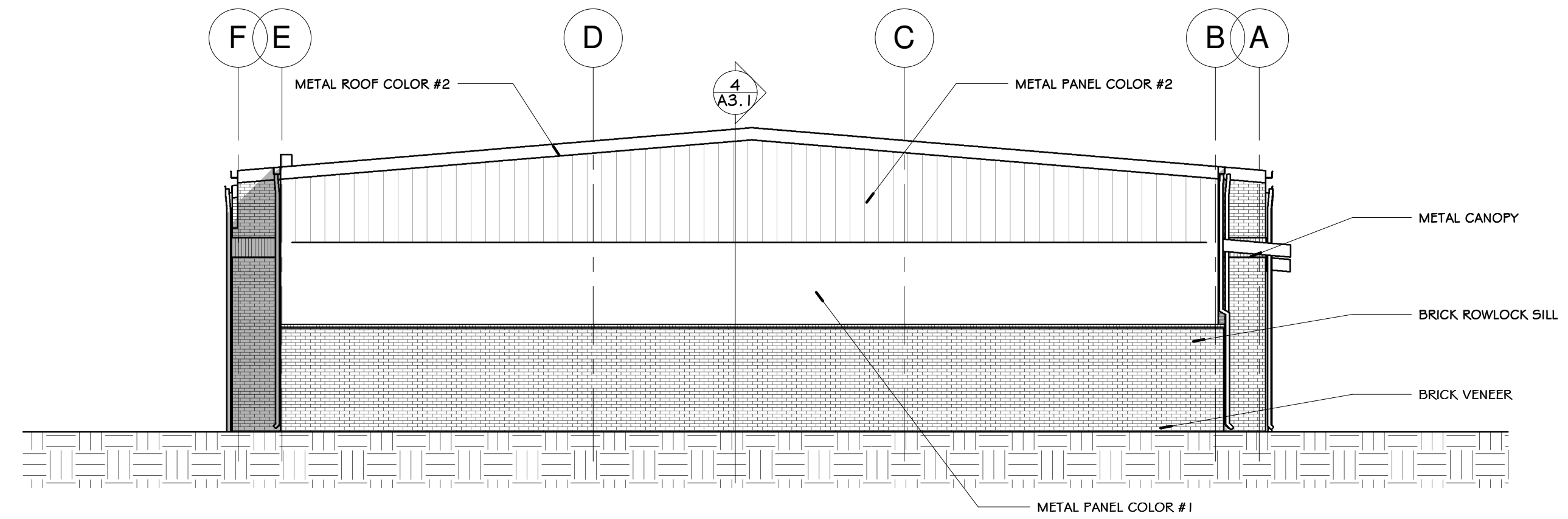
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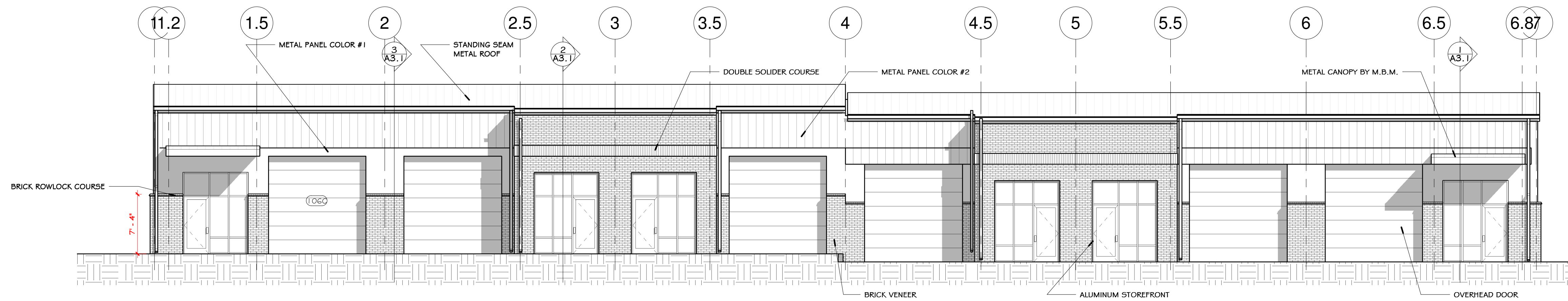
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 SCALE = 1/8" = 1'-0"



**3 SOUTH ELEVATION**  
 SCALE = 1/8" = 1'-0"



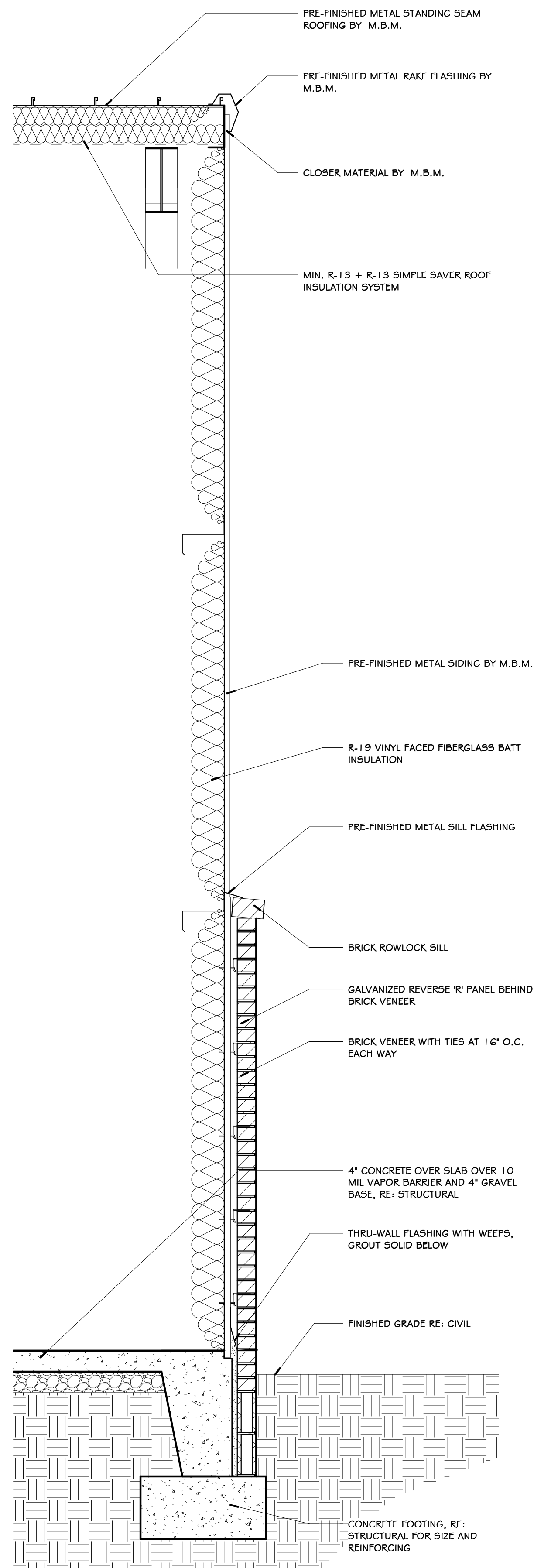
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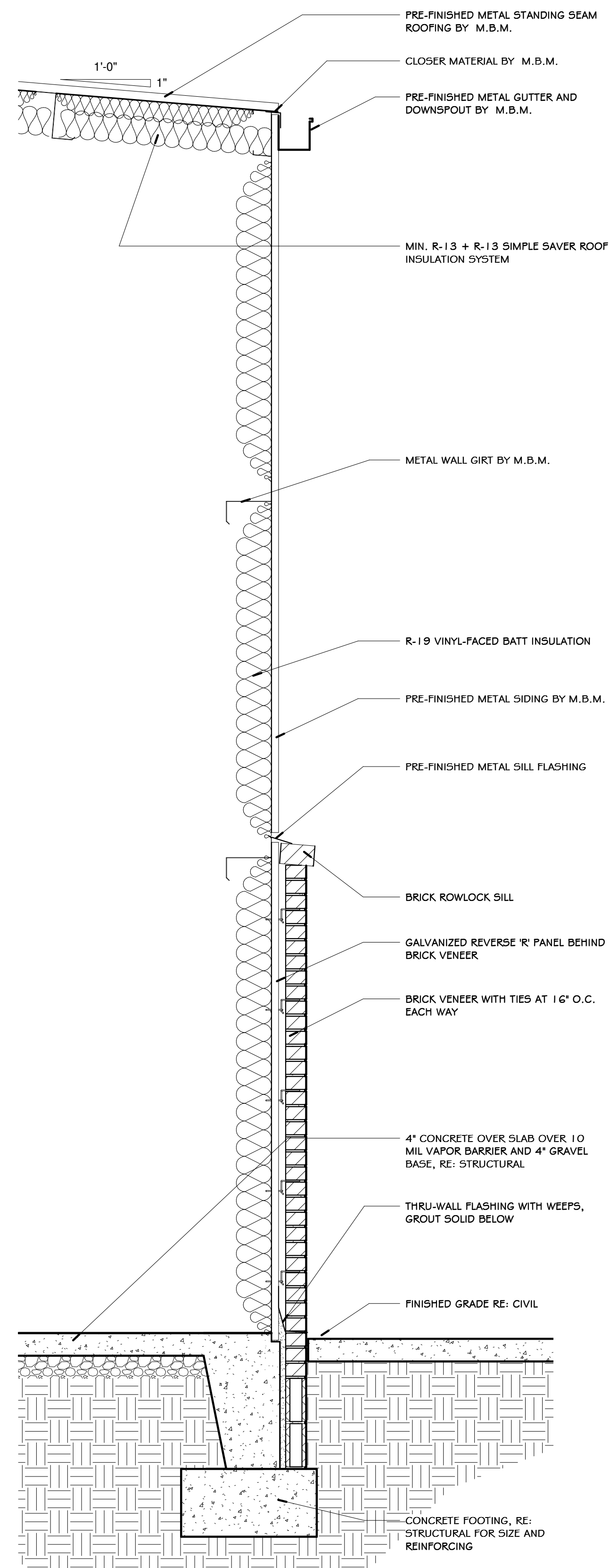
**1 WEST ELEVATION**  
 SCALE = 1/8" = 1'-0"

S:\2169 MTNWA - New Warehouse Office\2169 MTNWA OFFICE-WAREHOUSE 2303 - 6 bay building.rvt  
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 1/8" = 1'-0"

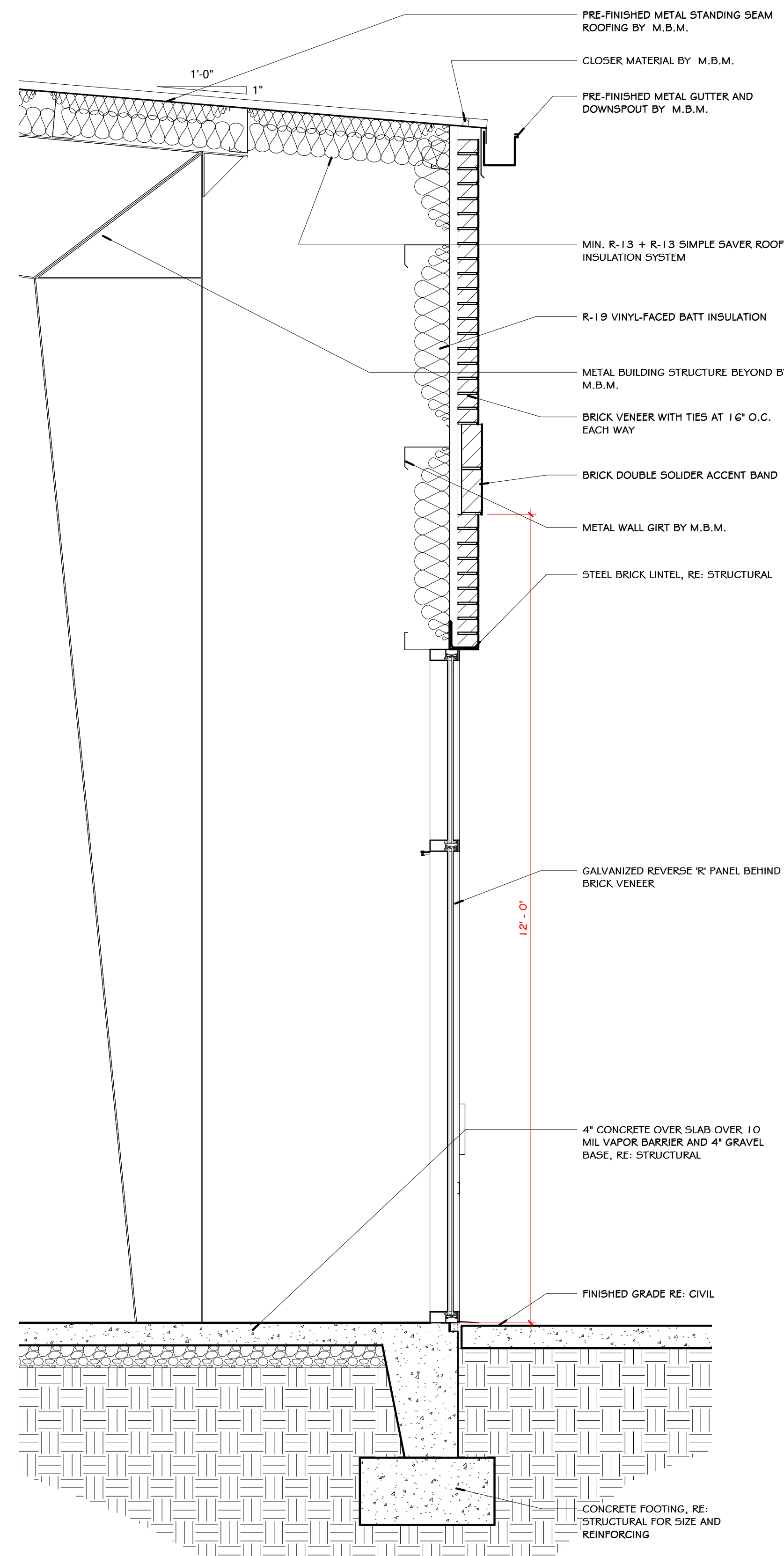
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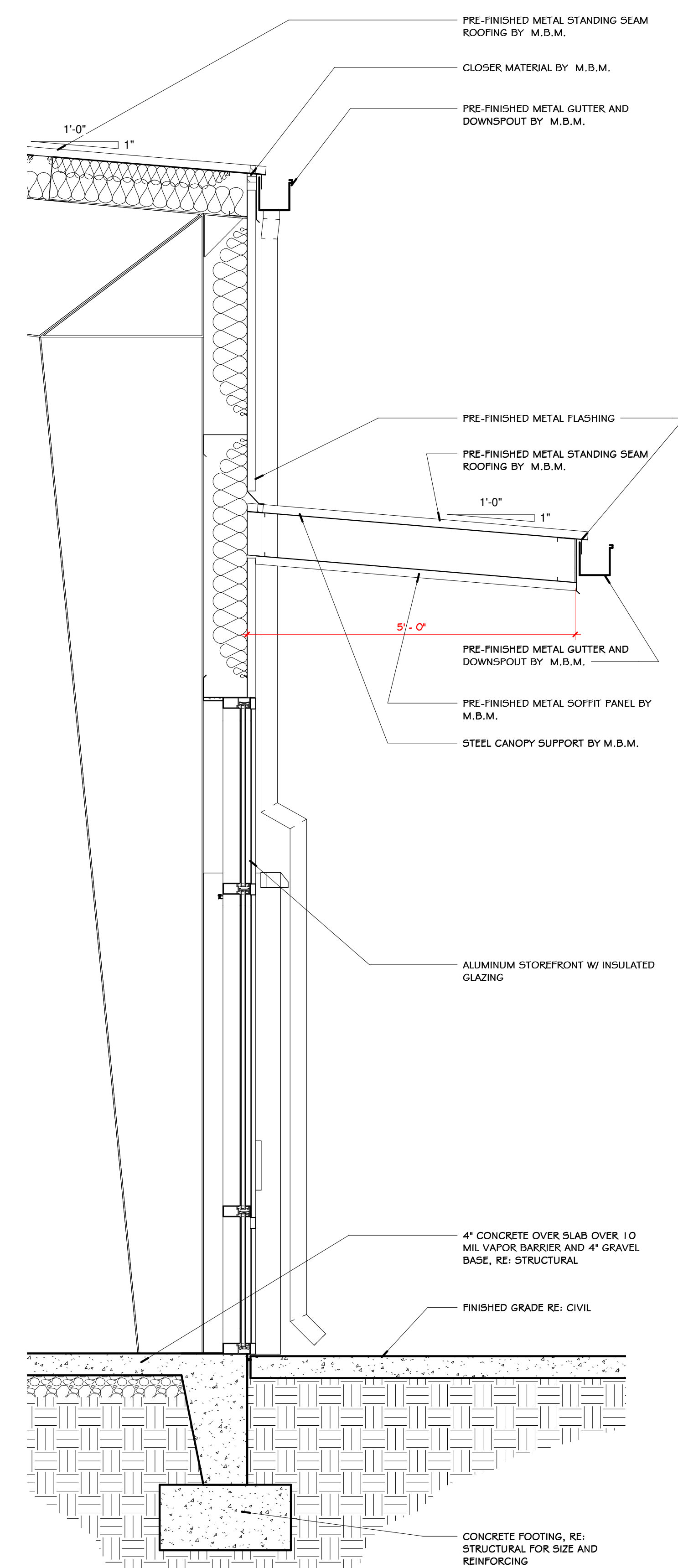
4 SECTION AT SIDE WALL  
SCALE = 3/4" = 1'-0"



3 SECTION AT WEST WALL  
SCALE = 3/4" = 1'-0"



2 SECTION AT PROTRUSION  
SCALE = 3/4" = 1'-0"



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



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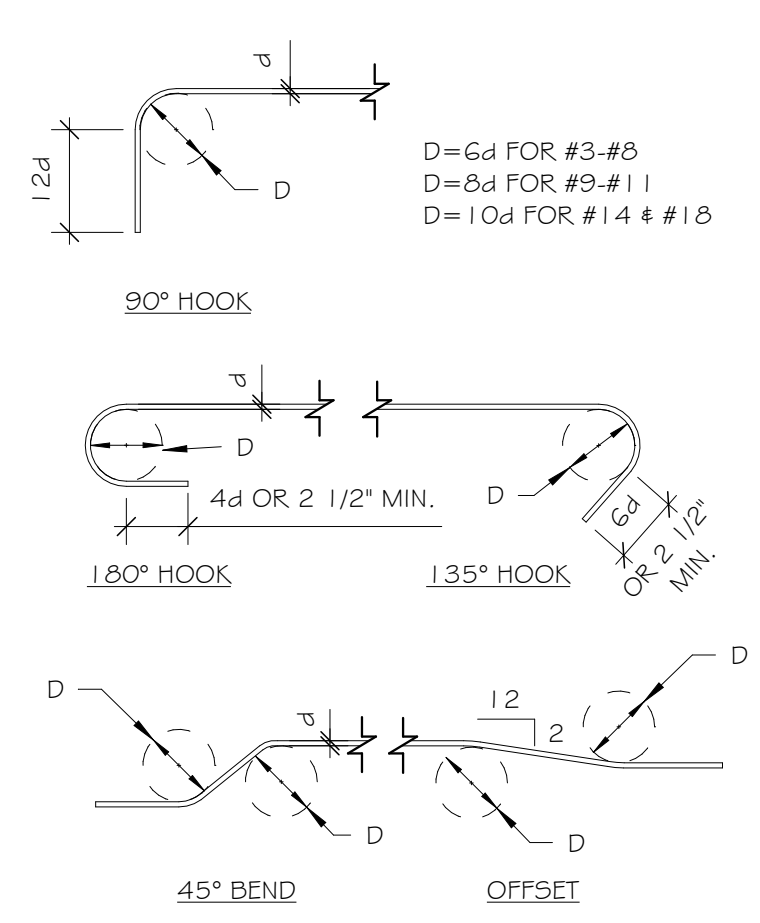
DATE	DRAWN BY
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PROJECT #	CHECKED BY
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SHEET  
**A3.1**  
WALL SECTIONS

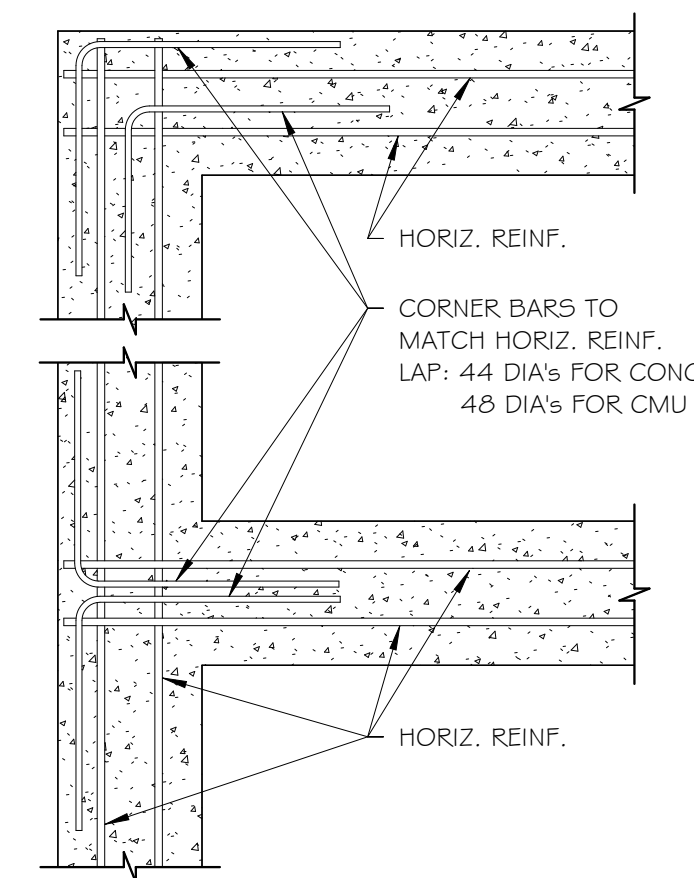
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# STRUCTURAL NOTES

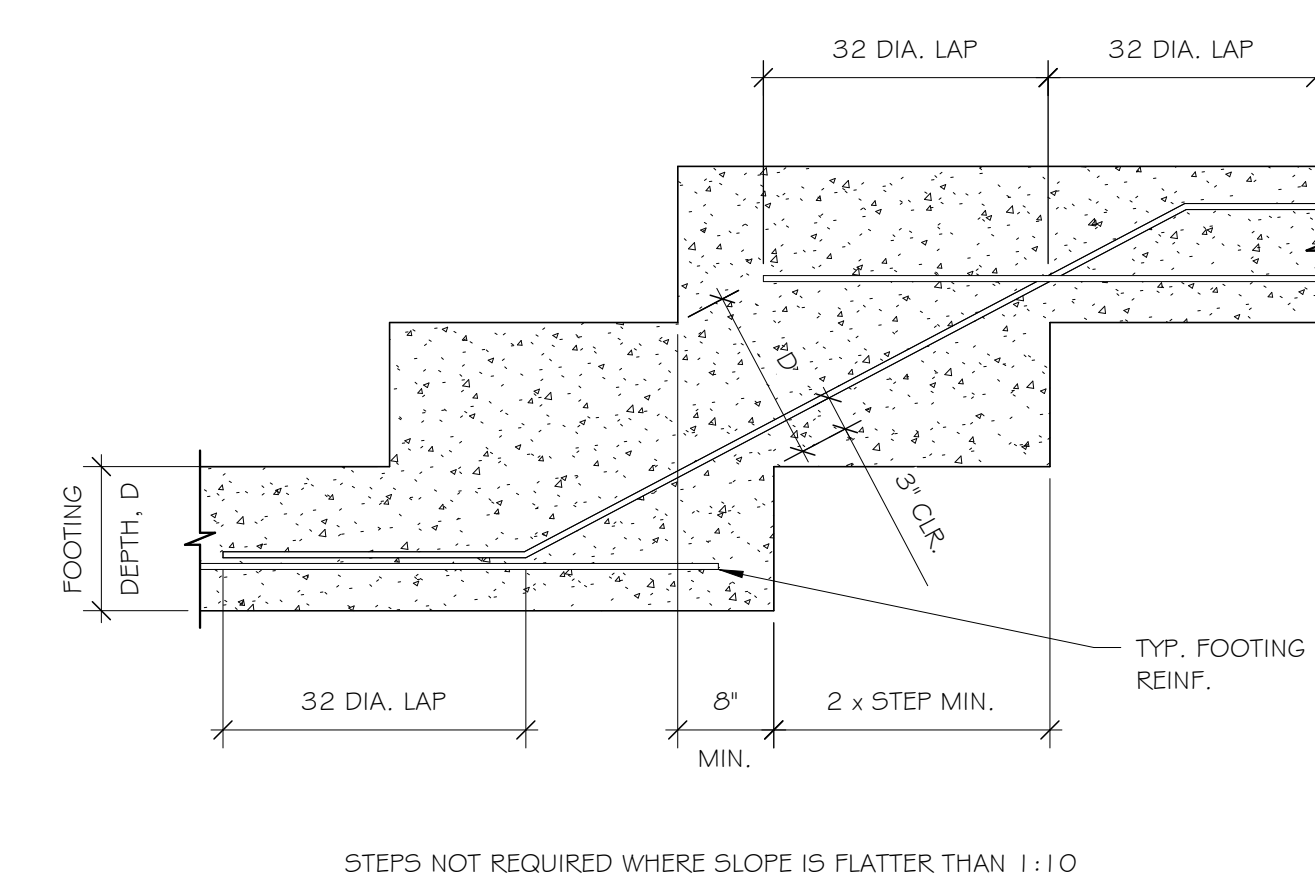
- ALL ELEVATIONS ARE GIVEN WITH REFERENCE TO FINISH FLOOR DATUM 100'-0".
- ALL STRUCTURAL SELECT FILL SHALL BE APPROVED MATERIAL PLACED IN 8" LOOSE LIFTS AND COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY PER STANDARD PROCTOR TESTS (ASTM D-698).
- FOOTINGS ARE TO BEAR ON FIRM RED, TAN AND GRAY LEAN CLAY, VERY STIFF TO HARD CHERTY CLAY WITH SAND OR STRUCTURAL SELECT FILL. ALL EXCAVATIONS SHALL BE CLEAN CUT AND SQUARE.
- FOOTING ELEVATIONS NOTED ARE FOR BIDDING PURPOSES AND SHALL BE LOWERED AS NECESSARY TO OBTAIN THE SPECIFIED BEARING CAPACITY AND COVER.
- THE FOUNDATION IS DESIGNED FOR A BEARING CAPACITY OF 2000 PSF FOR CONTINUOUS FOOTINGS AND 2000 PSF FOR ISOLATED COLUMN FOOTINGS, PROVIDE 24" MIN. FROM FINISH GRADE OR PAVING TO BOTTOM OF FOOTING AT EXTERIOR CONDITIONS. REF. GEOTECHNICAL REPORT DATED MAY 17, 2022 BY MTA ENGINEERS, INC.
- CONCRETE SHALL HAVE A 28 DAY STRENGTH. MAXIMUM SLUMP AND MAXIMUM AGGREGATE SIZE AS FOLLOWS:  
 FOOTINGS AND STEMWALLS: 3000 PSI - 3" SLUMP - 1 1/2" AGG.  
 INTERIOR SLAB: 3000 PSI - 4" SLUMP - 1" AGG.  
 EXTERIOR SLAB: 3500 PSI - 4" SLUMP - 1" AGG.
- ALL CONCRETE EXPOSED TO FREEZE/THAW SHALL HAVE APPROX. 5% AIR ENTRAINMENT. REINF. STEEL SHALL CONFORM TO GRADE 60 ASTM A-615. LAP ALL CONCRETE REINFORCING 44 BAR DIAMETERS, 12" MINIMUM, UNLESS NOTED OTHERWISE.
- VERIFY ALL DIMENSIONS, SLOPES, DEPRESSIONS, EMBEDMENTS ETC. BEFORE PLACING CONCRETE.
- LAP ALL UNDER-SLAB VAPOR BARRIER SHEETS A MINIMUM OF 6" AT ALL SPLICES.
- PROVIDE SLAB CONTROL JOINTS (CJ) WHERE INDICATED ON PLAN. C.J.'s SHALL BE APPROX. 1/4 OF THE SLAB DEPTH AND SHALL BE ONE OF THE FOLLOWING:  
 A. SAWCUT AS SOON AS POSSIBLE WITHIN 12 HOURS OF POUR.  
 B. ZIP CAP TYPE JOINT FORMER.  
 C. TOOLED JOINTS FOR EXTERIOR SLAB.
- CONST. JOINTS W/ 3/8"x4 1/2" PNA DIAMOND DOWELS AT 18" O.C. MAY BE SUBSTITUTED FOR ANY CONTROL JOINT AND SHALL BE USED WHERE INDICATED ON THE PLAN.
- P.E.M.B. MANUF. SHALL BE RESPONSIBLE FOR PROVIDING SUPPORT (LATERAL AND GRAVITY) FOR ALL VENEER.
- DESIGN CRITERIA  
 CODE: 2012 ARKANSAS FIRE PREVENTION CODE  
 ROOF LIVE LOAD: 20 PSF  
 ROOF DEAD LOAD: PER P.E.M.B.  
 ROOF COLLATERAL LOAD: PER P.E.M.B.  
 SNOW LOAD  
 GROUND SNOW LOAD, P<sub>g</sub>: 20 PSF  
 FLAT ROOF SNOW LOAD, P<sub>f</sub>: 14 PSF  
 DESIGN ROOF SNOW LOAD: PER P.E.M.B.  
 SNOW EXPOSURE FACTOR, C<sub>e</sub>: 1.0  
 SNOW LOAD IMPORTANCE FACTOR, I<sub>s</sub>: 1.0  
 THERMAL FACTOR, C<sub>t</sub>: 1.0  
 WIND LOAD  
 BASIC WIND SPEED V<sub>ult</sub>: 115 MPH  
 BASIC WIND SPEED V<sub>assd</sub>: 90 MPH  
 WIND IMPORTANCE FACTOR, I<sub>w</sub>: 1.0  
 RISK CATEGORY: II  
 WIND EXPOSURE CATEGORY: C  
 INTERNAL PRESSURE COEFF.: +0.18, -0.18  
 COMPONENTS & CLADDING (ASD): PER P.E.M.B.  
 SEISMIC LOAD  
 SEISMIC RISK CATEGORY: II  
 SEISMIC IMPORTANCE FACTOR: 1.0  
 MAPPED SPECTRAL RESPONSE COEFF.: S<sub>s</sub> = 0.170, S<sub>1</sub> = 0.094  
 SPECTRAL RESPONSE COEFF.: S<sub>0.5</sub> = 0.136, S<sub>0.1</sub> = 0.106  
 SITE CLASS: B  
 SEISMIC DESIGN CATEGORY: B  
 THIS FOUNDATION DESIGN COMPLIES WITH THE ARKANSAS SEISMIC STANDARDS.



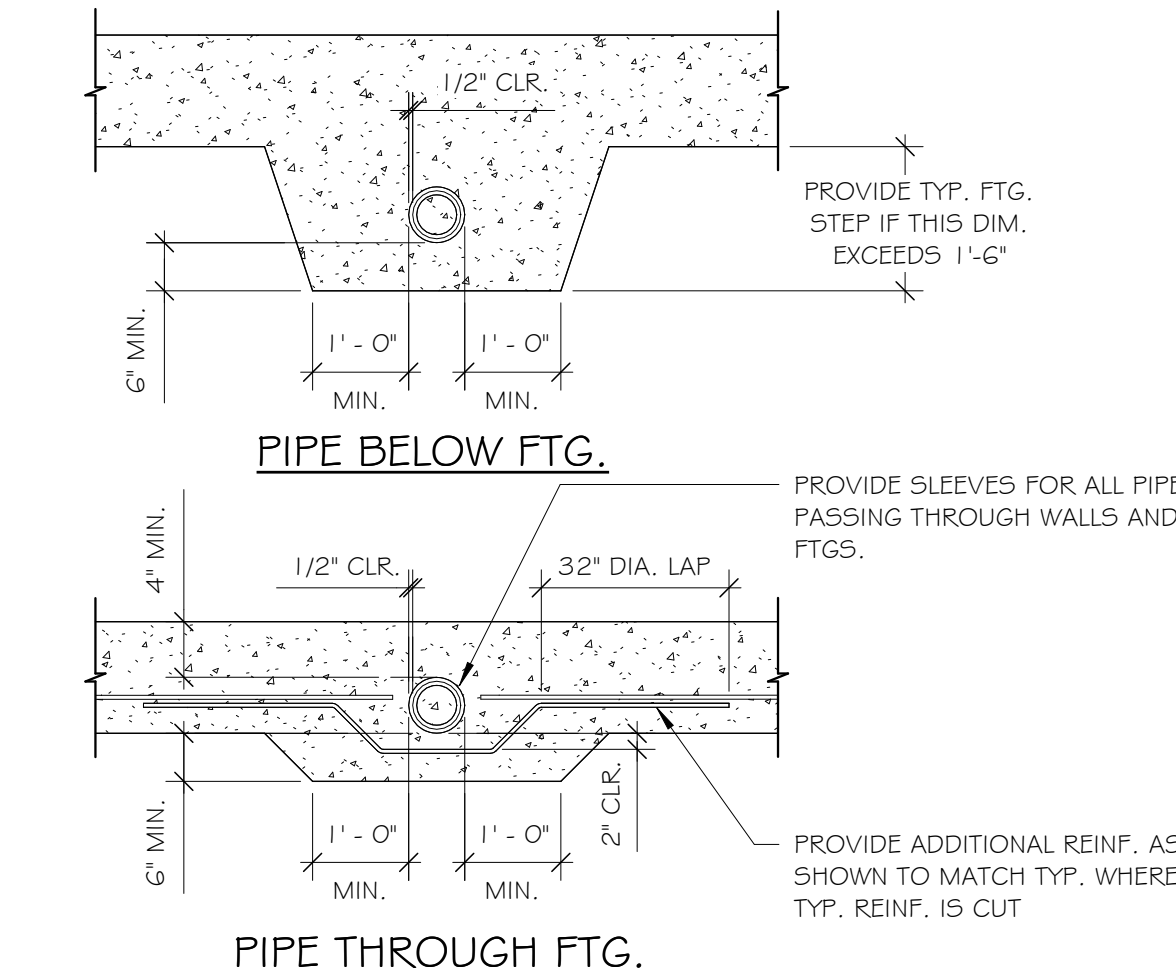
1 TYP. RE-BAR BEND DETAIL  
3/4" = 1'-0"



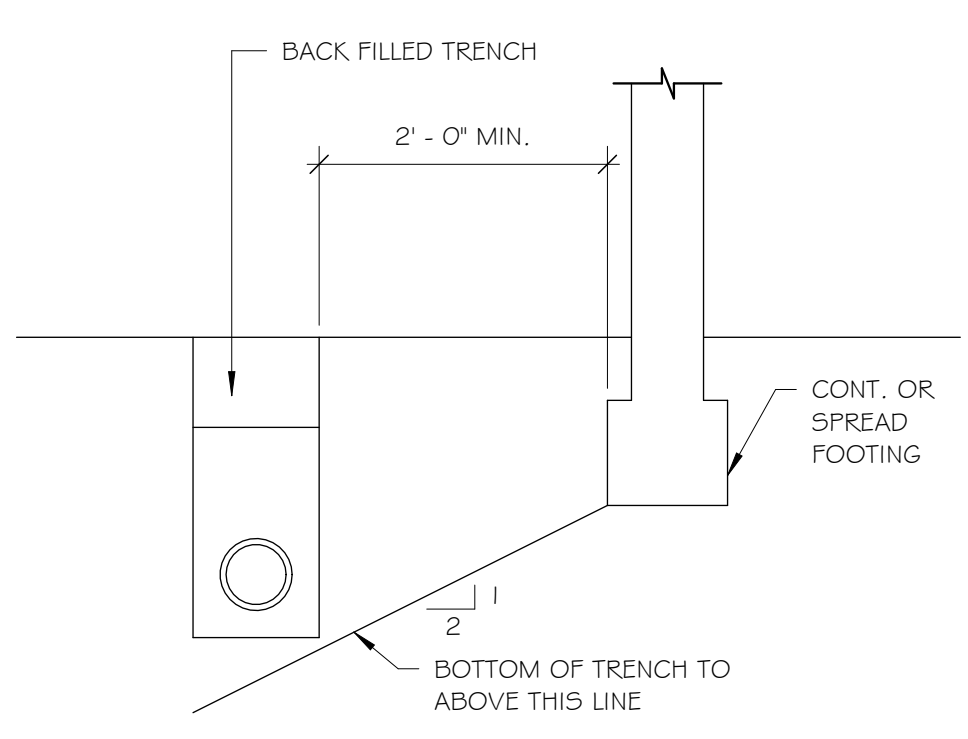
2 TYP. CORNER BARS FOR WALLS AND FTGS.  
3/4" = 1'-0"



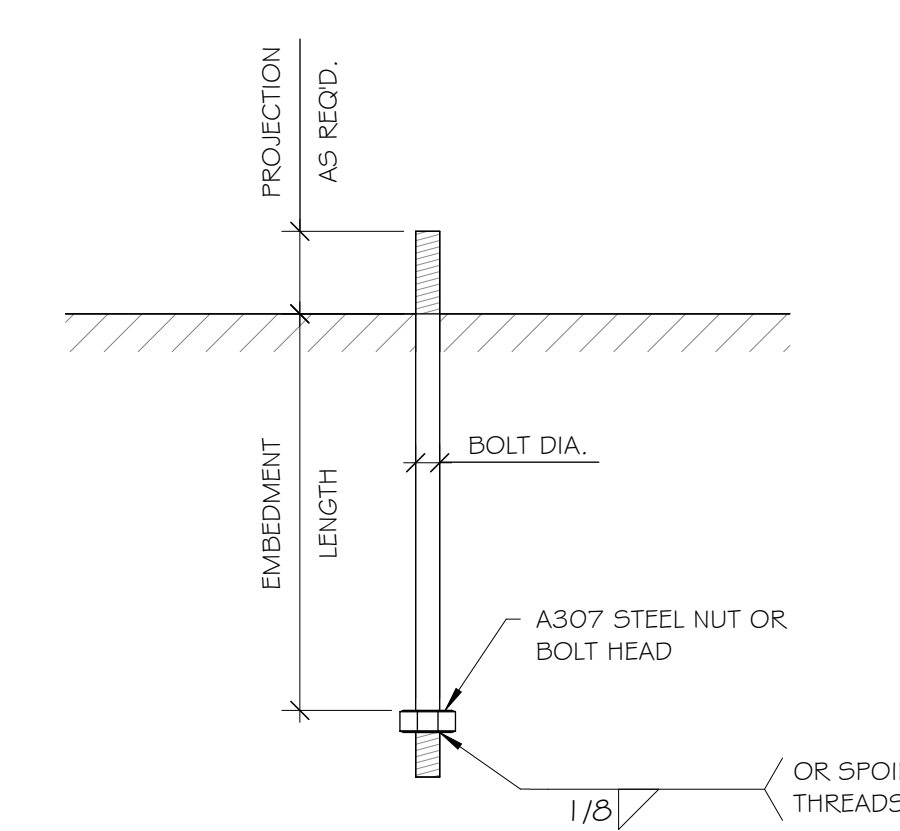
3 TYPICAL STEPPED FOOTING  
3/4" = 1'-0"



4 PIPE PERPENDICULAR TO FTG.  
1/2" = 1'-0"



5 TRENCHES PARALLEL TO FTG.  
3/4" = 1'-0"



6 TYPICAL ANCHOR BOLT  
3/4" = 1'-0"

SPECIAL INSPECTIONS	
STRUCTURAL SPECIAL INSPECTIONS ARE REQUIRED PER SECTION 1705 OF THE 2012 ARKANSAS FIRE PREVENTION CODE. REFER TO SHEET S2 FOR THE FOLLOWING INFORMATION REGARDING THE REQUIREMENTS OF SPECIAL INSPECTIONS:	
1. THE MATERIALS, SYSTEMS, COMPONENTS AND WORK REQUIRED TO HAVE SPECIAL INSPECTION OR TESTING BY THE BUILDING OFFICIAL OR BY THE REGISTERED DESIGN PROFESSIONAL RESPONSIBLE FOR EACH PORTION OF THE WORK.	
2. THE TYPE AND EXTENT OF EACH SPECIAL INSPECTION.	
3. THE TYPE AND EXTENT OF EACH TEST.	
4. ADDITIONAL REQUIREMENTS FOR SPECIAL INSPECTION OR TESTING FOR WIND OR SEISMIC RESISTANCE AS SPECIFIED IN SECTIONS 1705.10, 1705.11 AND 1705.12. (WHEN APPLICABLE)	
5. FOR EACH TYPE OF SPECIAL INSPECTION, IDENTIFICATION AS TO WHETHER IS WILL BE CONTINUOUS SPECIAL INSPECTION OR PERIODIC SPECIAL INSPECTION.	
JLA ENGINEERS INC. DOES NOT PERFORM SPECIAL INSPECTIONS.	

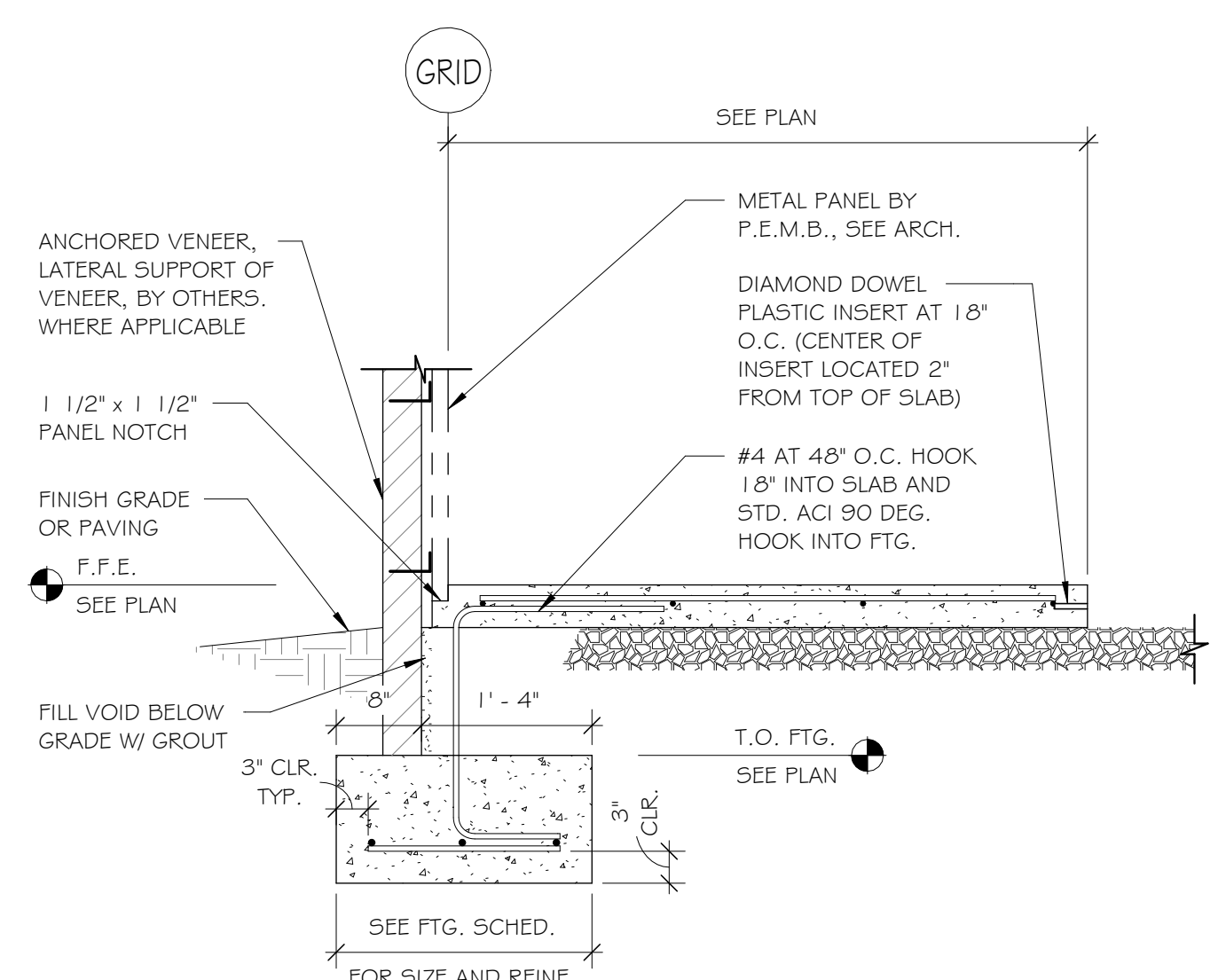
7 SPECIAL INSPECTIONS  
1/8" = 1'-0"

PRE-ENGINEERING METAL BUILDING MANUFACTURER NOTE: THE FOLLOWING DEFLECTION AND DRIFT LIMITS SHALL BE APPLICABLE:

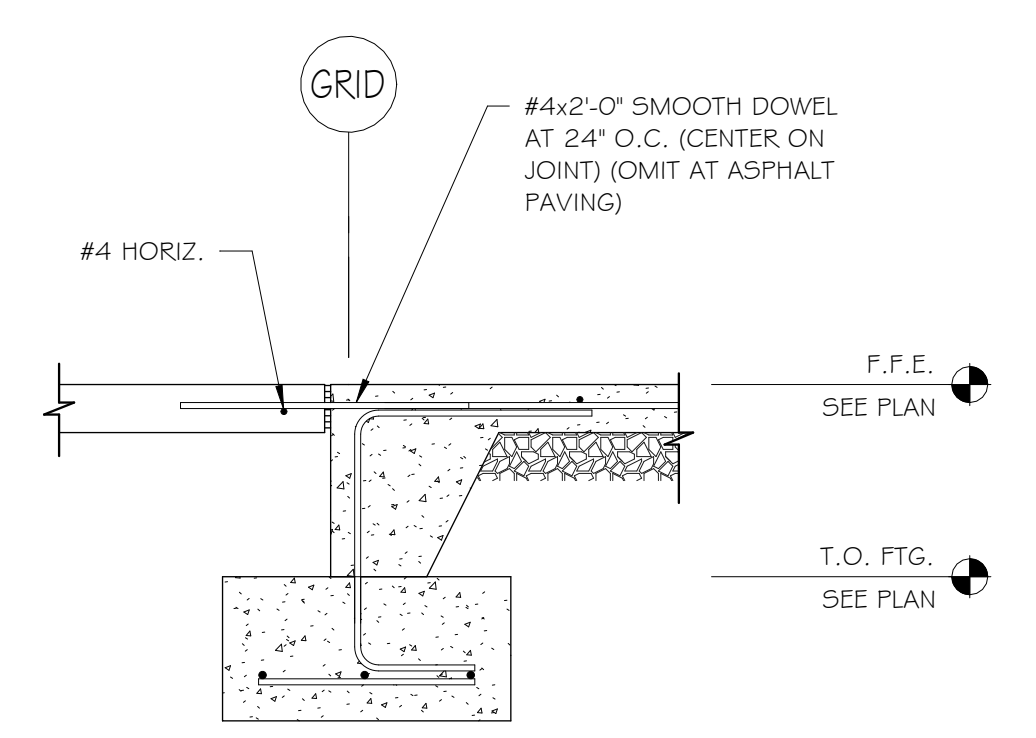
ROOF SUPPORTED CEILING (PLASTER OR STUCCO):	
1. LIVE LOAD	U/360
2. SEISMIC OR WIND LOAD	U/360
3. DEAD LOAD + LIVE LOAD	U/240
ROOF SUPPORTED CEILING (NON-PLASTER):	
1. LIVE LOAD	U/240
2. SEISMIC OR WIND LOAD	U/180
3. DEAD LOAD + LIVE LOAD	U/120
ROOF NOT SUPPORTING CEILING:	
1. LIVE LOAD	U/180
2. SEISMIC OR WIND LOAD	U/180
3. DEAD LOAD + LIVE LOAD	U/120
GIRTS:	
1. SEISMIC OR WIND LOAD	PER P.E.M.B.
FLEXIBLE FINISH	PER P.E.M.B.
PLASTER/STUCCO FINISH	PER P.E.M.B.
BRICK OR CMU VENEER	PER P.E.M.B.
HORIZONTAL DRIFT:	
1. SEISMIC OR WIND LOAD	H/180

REFER TO 2012 ARKANSAS FIRE PREVENTION CODE.

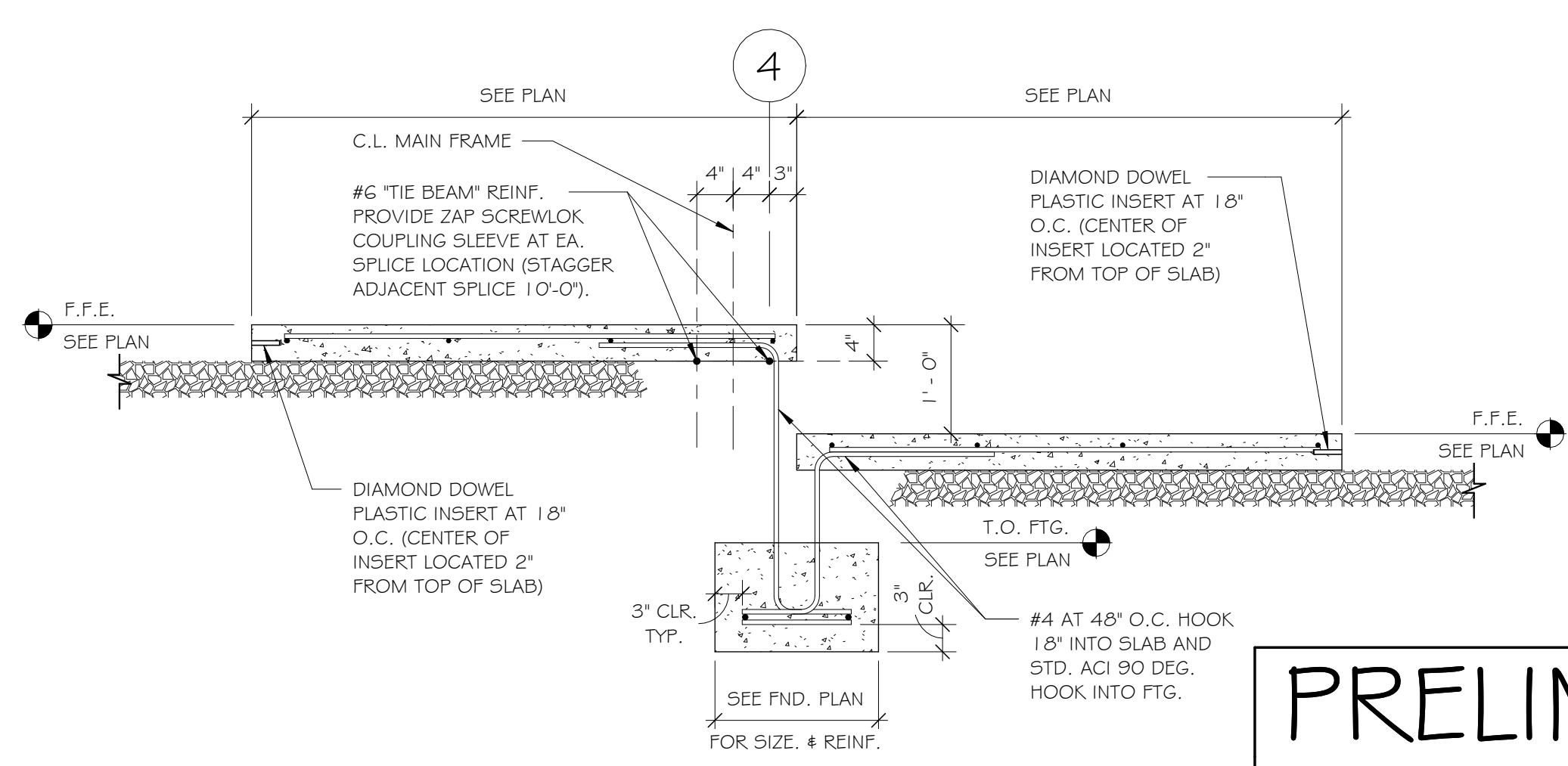
8 PEMB DEFLECTION & DRIFT LIMITS  
3/4" = 1'-0"



9 TYP. SLAB AT LEAVE-OUT  
3/4" = 1'-0"

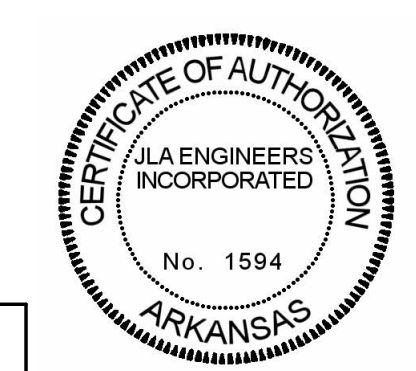


10 TYP. AT EXT. OPNG.  
3/4" = 1'-0"



11 TYPICAL SLAB STEP  
3/4" = 1'-0"

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JLA JOB #3143

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P.O. BOX 748 FAYETTEVILLE, ARKANSAS 72702  
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Revision Schedule	Description
Rev. #	Date

NEW OFFICE WAREHOUSE 6-BAY BLDG.  
2303 WORTH LANE  
SPRINGDALE, ARKANSAS  
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1457 E. ROBINSON AVE.  
SPRINGDALE, AR 72764

DATE	DRAWN BY
06/01/22	LCG
PROJECT #	CHECKED BY
2169	LCG

SHEET  
**S0**  
STRUCT. NOTES AND DTLS.

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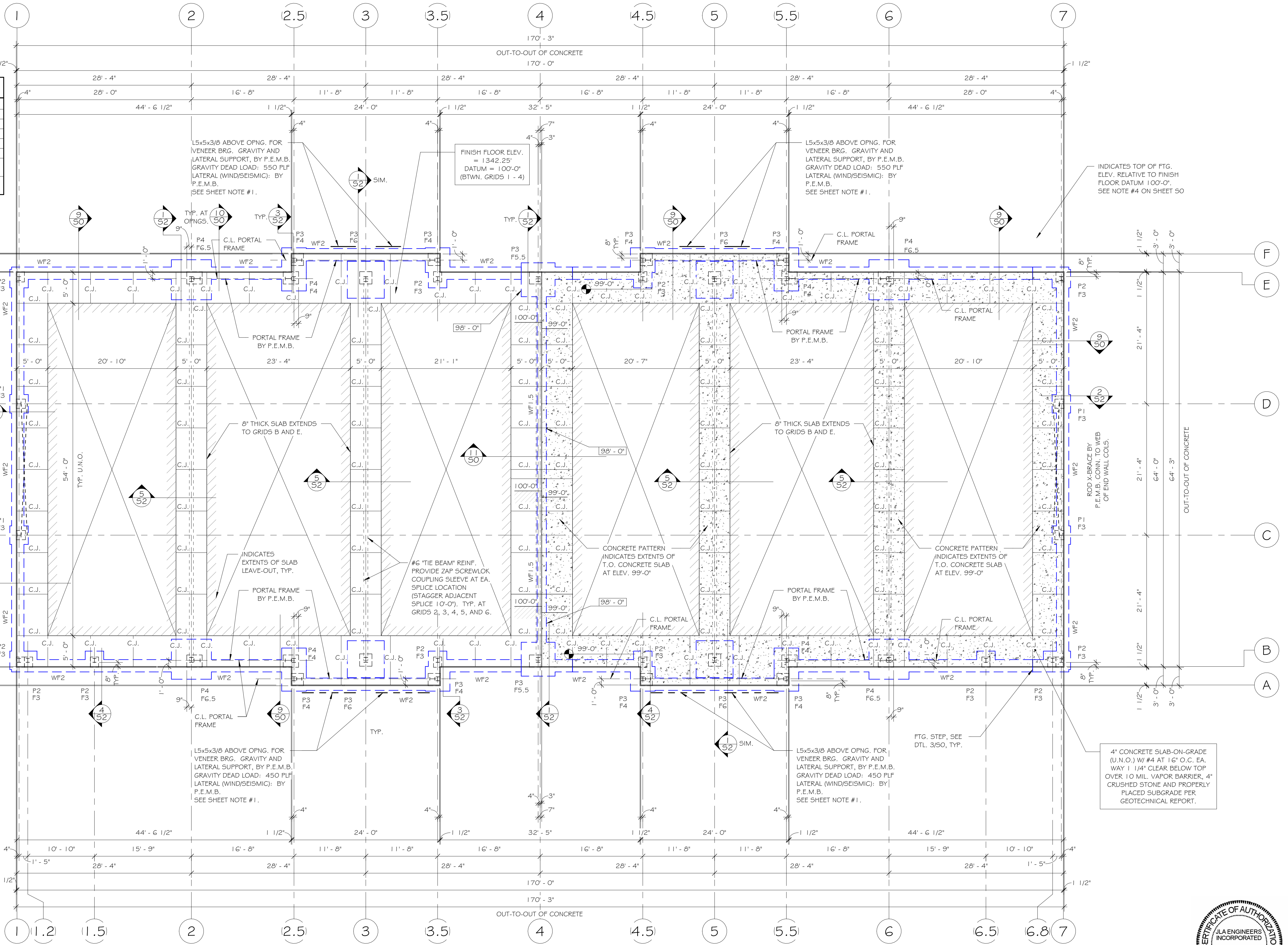
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FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F3	3'-0" SQ. x 12" T.	(3)-#5 EA. WAY T. # B.
F4	4'-0" SQ. x 12" T.	(5)-#5 EA. WAY T. # B.
F5.5	5'-6" SQ. x 12" T.	(7)-#5 EA. WAY T. # B.
F6	6'-0" SQ. x 20" T.	(6)-#6 EA. WAY T. # B.
F6.5	6'-6" SQ. x 20" T.	(6)-#6 EA. WAY T. # B.
WF1.5	1'-6" x CONT. x 12" T.	(2)-#5 CONT. BOTT. #4 AT 48" O.C. TRANS. BOTT.
WF2	2'-0" x CONT. x 12" T.	(3)-#5 CONT. BOTT. #4 AT 48" O.C. TRANS. BOTT.

PEDESTAL SCHEDULE				
MARK	SIZE (WIDTH x LENGTH)	VERT. REINF.	TIES	BAR PLACEMENT
P1	18" x 18"	(4)-#5	#3 AT 10" O.C.	
P2	16" x 20"	(4)-#5	#3 AT 10" O.C.	
P3	24" x 24"	(8)-#5	#3 AT 10" O.C. (TWO SETS)	
P4	30" x 24"	(10)-#5	#3 AT 10" O.C. (THREE SETS)	

P.E.M.B. COLUMN ORIENTATION (NOT PORTAL FRAME)



**SHEET NOTES:**

- SUPPORT MEMBER OVER OPENINGS WITH VENEER SHALL BE BY P.E.M.B. THE L5 BEARING MEMBER NOTED IS NOT DESIGNED FOR GRAVITY/LATERAL SUPPORT AND MUST BE CONNECTED TO THE MAIN SUPPORT MEMBER AT A MIN. OF 12" O.C. (CONNECTION AND FASTENER DESIGN BY P.E.M.B.). GRAVITY LOAD NOTED IS FOR DEAD LOAD OF THE VENEER ONLY. LATERAL LOADS SHALL BE DETERMINED BY P.E.M.B. TYPICAL FOUR LOCATIONS NOTED.
- FOOTINGS ARE TO BE CENTERED ON MAIN FRAME COLUMN ANCHOR BOLT LAYOUT, U.N.O.
- NO PANEL NOTCH AT OPENINGS, TYPICAL.
- ALL ANCHOR BOLTS SHALL BE EMBEDDED INTO THE FOOTING PER LENGTHS NOTED IN DETAILS AND AS FOLLOWS: MAIN FRAME COLUMN ANCHOR BOLTS = 12"; END WALL AND SOLDIER COLUMN ANCHOR BOLTS = 9"; PORTAL FRAME ANCHOR BOLTS = 12".

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

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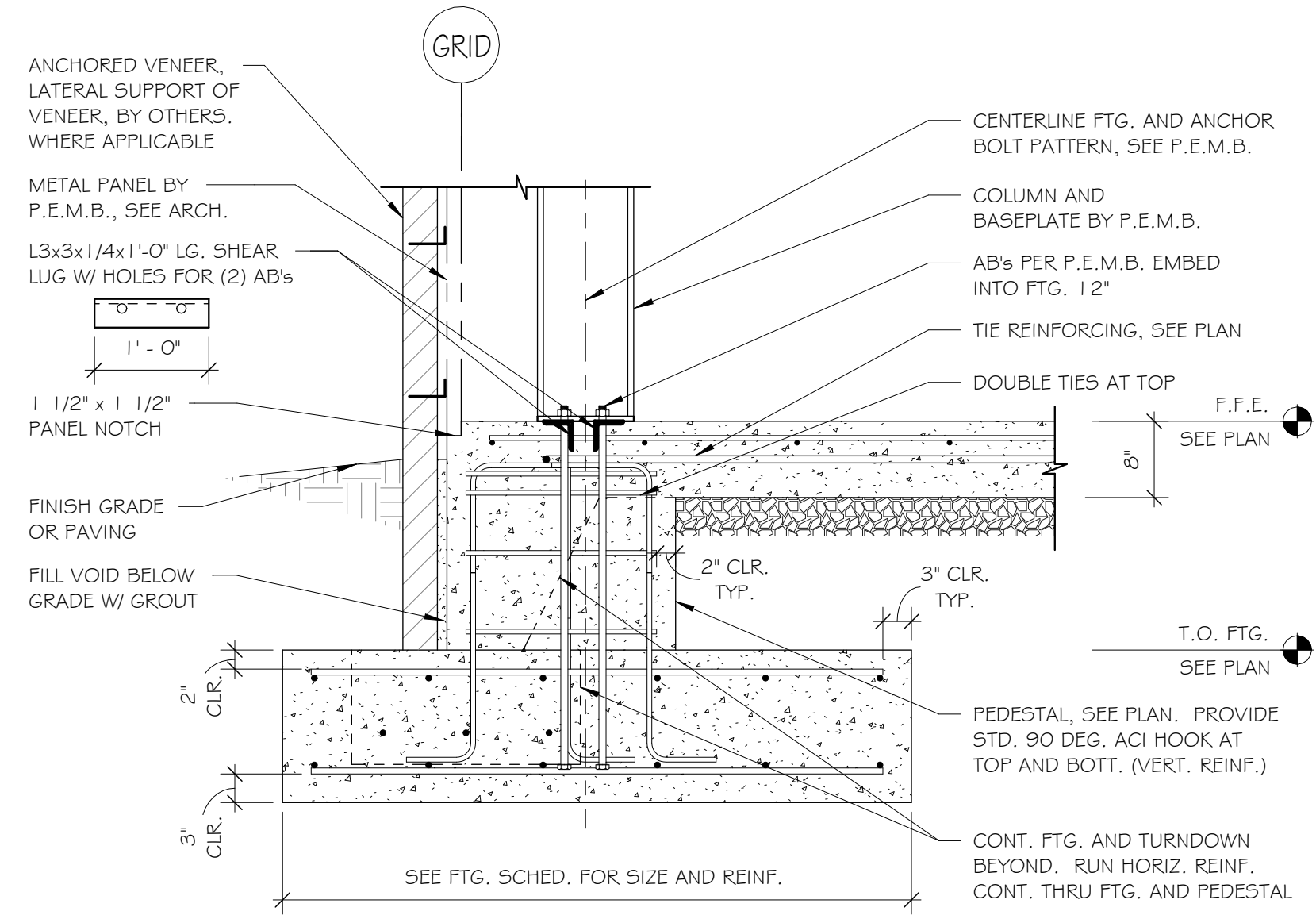
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PROJECT # 2169

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CHECKED BY LCG  
SHEET S1  
FOUNDATION PLAN

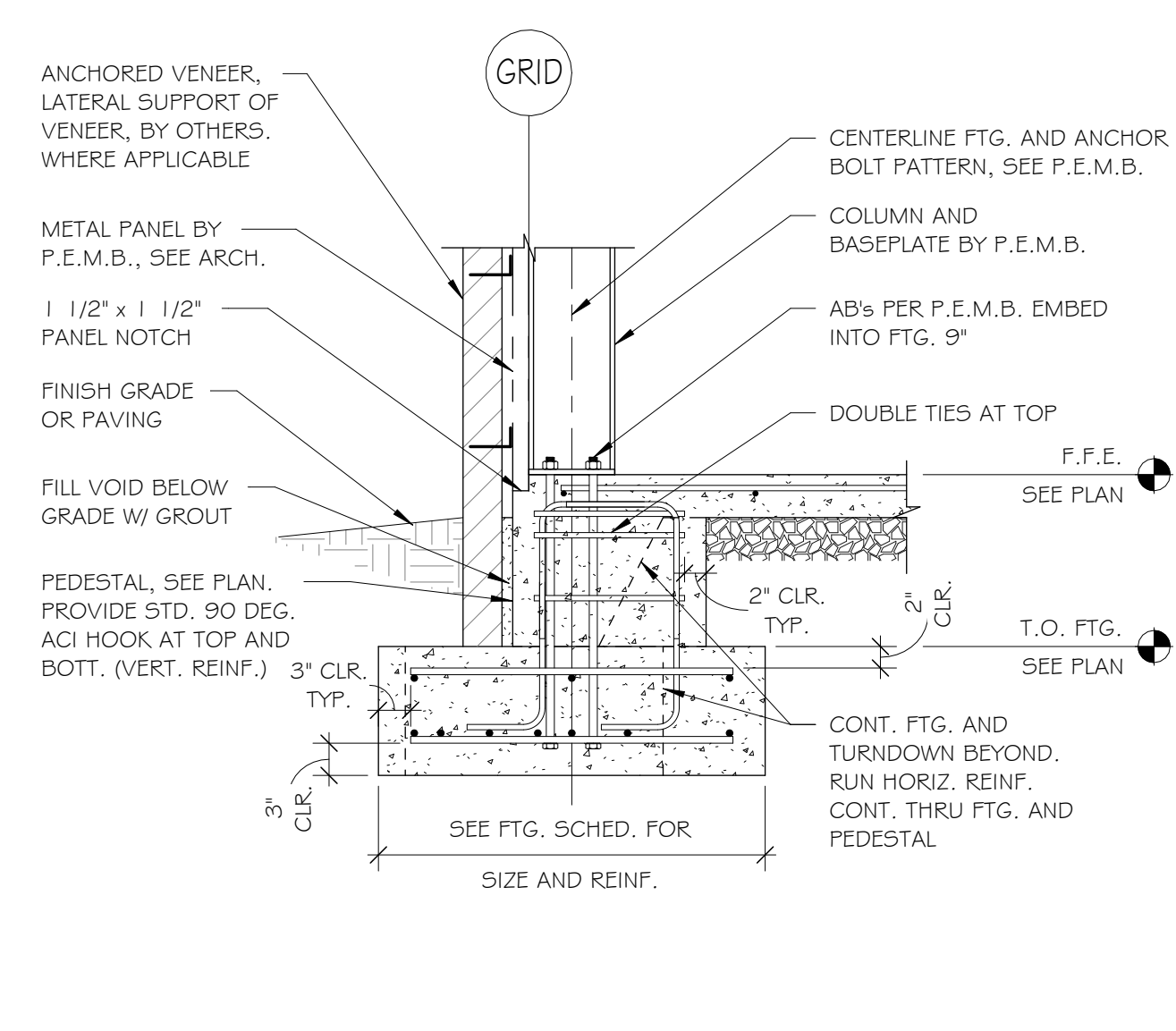
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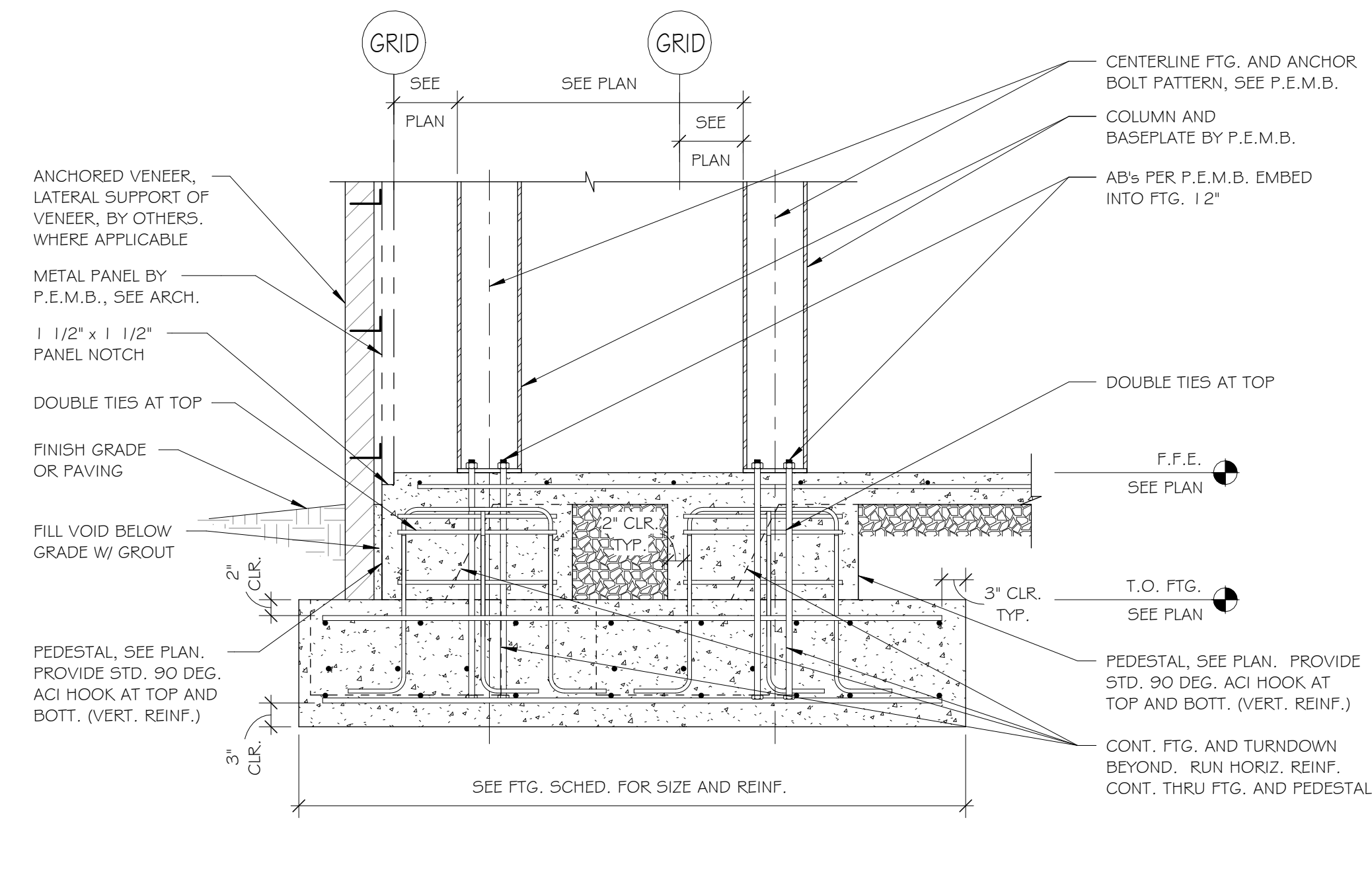
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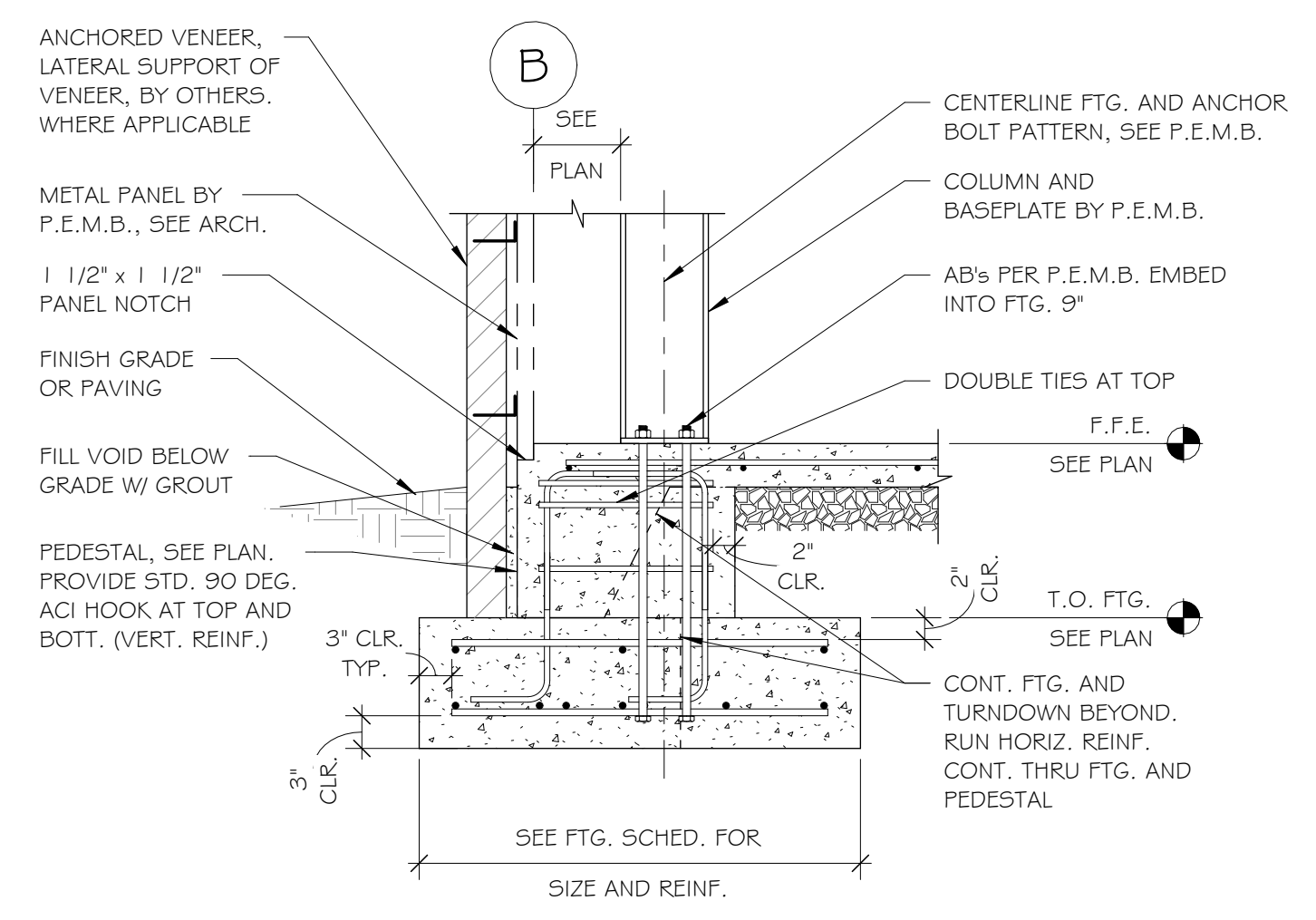
1 TYP. MAIN FRAME COL./FTG.  
3/4" = 1'-0"



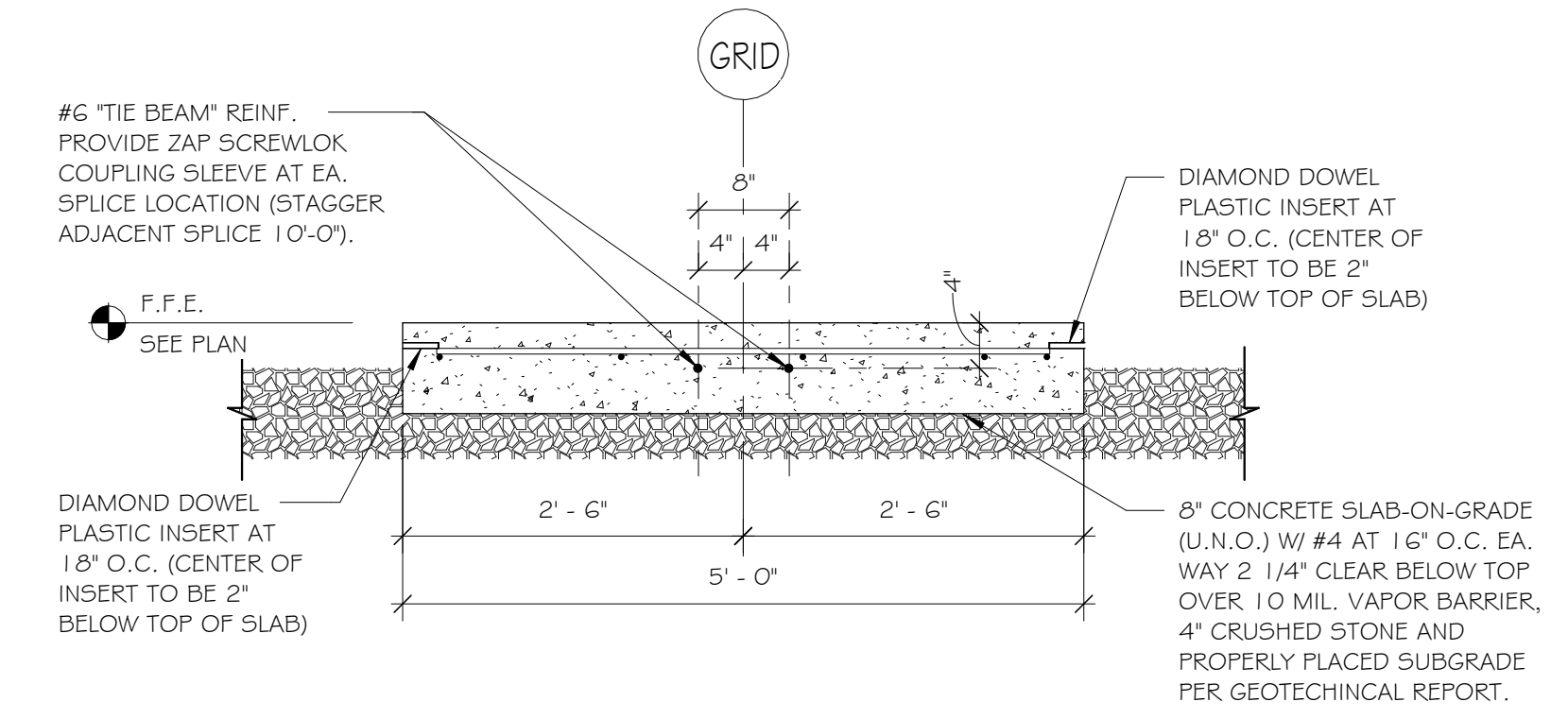
2 TYP. END WALL COL./FTG.  
3/4" = 1'-0"



3 TYP. COL./FTG. AT BUMPOUT  
3/4" = 1'-0"



4 TYP. SOLDIER COL./FTG.  
3/4" = 1'-0"



5 TYPICAL "TIE REINF." & SLAB  
3/4" = 1'-0"

SCHEDULE OF SPECIAL INSPECTIONS (STRUCTURAL)

THIS SCHEDULE OF SPECIAL INSPECTION SERVICES (STRUCTURAL) HAS BEEN PREPARED BY JLA ENGINEERS INC. (STRUCTURAL ENGINEER OF RECORD) AND SHALL BE INCLUDED IN THE STATEMENT OF SPECIAL INSPECTIONS WHICH THE APPLICANT (NOT JLA ENGINEERS INC.) SHALL SUBMIT TO THE BUILDING OFFICIAL AT TIME OF PERMIT APPLICATION IN ACCORDANCE WITH SECTION 1704 OF THE 2012 ARKANSAS FIRE PREVENTION CODE.

SPECIAL INSPECTION IS THE MONITORING OF THE MATERIALS AND WORKMANSHIP CRITICAL TO THE INTEGRITY OF THE BUILDING STRUCTURE. IT IS A REVIEW OF THE WORK OF THE CONTRACTORS AND THEIR EMPLOYEES TO ENSURE THAT THE APPROVED PLANS AND SPECIFICATIONS ARE BEING FOLLOWED AND THAT THE RELEVANT CODES AND REFERENCED STANDARDS ARE BEING OBSERVED. THE SPECIAL INSPECTION PROCESS IS IN ADDITION TO THE INSPECTIONS CONDUCTED BY THE BUILDING OFFICIAL OR AUTHORITY HAVING JURISDICTION AND STRUCTURAL OBSERVATION BY THE DESIGN PROFESSIONAL.

SPECIAL INSPECTIONS AND TESTS ARE REQUIRED TO BE PERFORMED BY QUALIFIED, INDEPENDENT AGENTS (NOT JLA ENGINEERS INC.) WITH SPECIAL EXPERTISE AS APPROVED BY THE BUILDING OFFICIAL. THE QUALIFIED, INDEPENDENT AGENTS SHALL BE RETAINED BY THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT (NOT JLA ENGINEERS INC.) TO COMPLETE THE SPECIAL INSPECTIONS NOTED IN THIS DOCUMENT. REFER TO SECTION 1704 OF THE 2012 ARKANSAS FIRE PREVENTION CODE.

SPECIAL INSPECTIONS PER 2012 ARKANSAS FIRE PREVENTION CODE SECTION 1704 ARE REQUIRED TO BE PROVIDED ON ALL PROFESSIONALLY DESIGNED PROJECTS NOT MEETING THE EXCEPTIONS DESCRIBED IN SECTION 1704.2 OR AS DETERMINED BY THE BUILDING OFFICIAL.

AS PART OF THE GENERAL REQUIREMENTS SECTION 1704 OF THE 2012 ARKANSAS FIRE PREVENTION CODE, SPECIAL INSPECTIONS, CONTRACTOR RESPONSIBILITY AND STRUCTURAL OBSERVATIONS, A STATEMENT OF SPECIAL INSPECTIONS INCLUDING A SCHEDULE OF SPECIAL INSPECTION SERVICES PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE (NOT JLA ENGINEERS INC.) SHALL BE SUBMITTED TO THE BUILDING OFFICIAL, BY THE APPLICANT, AT TIME OF PERMIT APPLICATION.

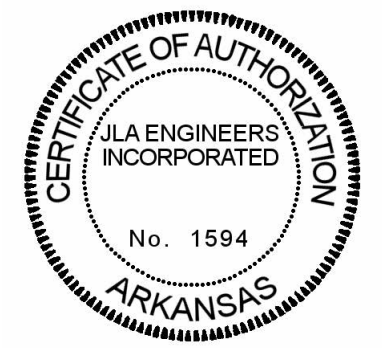
MATERIAL / ACTIVITY	SERVICE	REQD.	EXTENT
1704.2.5 INSPECTION OF FABRICATORS			
VERIFY FABRICATION/QUALITY CONTROL PROCEDURES.	IN-PLANT REVIEW (3)	YES	PERIODIC
1705.6 SOILS			
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATION ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	FIELD INSPECTION	YES	PERIODIC
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	FIELD INSPECTION	YES	PERIODIC
3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	FIELD INSPECTION	YES	PERIODIC
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	FIELD INSPECTION	YES	CONTINUOUS
5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT THE SITE HAS BEEN PREPARED PROPERLY.	FIELD INSPECTION	YES	PERIODIC

NOTES:

- THE INSPECTION AND TESTING AGENT(S) SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL PRIOR TO COMMENCING WORK. THE QUALIFICATIONS OF THE SPECIAL INSPECTOR(S) AND/OR TESTING AGENCIES MAY BE SUBJECT TO THE APPROVAL OF THE BUILDING OFFICIAL AND/OR THE DESIGN PROFESSIONAL.
- THE LIST OF SPECIAL INSPECTORS MAY BE SUBMITTED AS A SEPARATE DOCUMENT.
- SPECIAL INSPECTIONS AS REQUIRED BY SECTION 1704.2.5 ARE NOT REQUIRED WHERE THE FABRICATOR IS APPROVED IN ACCORDANCE WITH THE 2012 ARKANSAS FIRE PREVENTION CODE SECTION 1704.2.5.2.

JLA ENGINEERS INC., HAS PROVIDED THE SCHEDULE OF SPECIAL INSPECTION SERVICES (STRUCTURAL) FOR THE FOUNDATION ONLY. ALL OTHER SPECIAL INSPECTION REQUIREMENTS SHALL BE PROVIDED BY OTHERS.

JLA ENGINEERS INC. DOES NOT PERFORM SPECIAL INSPECTIONS



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SPRINGDALE, AR 72764

DATE	DRAWN BY
06/01/22	LCG
PROJECT #	CHECKED BY
2169	LCG

SHEET  
**S2**  
FOUNDATION DETAILS

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## GENERAL NOTES

### GENERAL NOTES

- REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY).
  - ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
  - CODES: COMPLETE INSTALLATION OF THE PLUMBING SYSTEM SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL AHJ.
  - PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL EQUIPMENT, PIPING, ETC.
    - COORDINATE FLOOR AND BEAM PENETRATIONS WITH STRUCTURAL.
    - COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING, AND OTHER TRADES WORK.
    - INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COMPLETE OPERATING MECHANICAL SYSTEM.
    - PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
  - PLUMBING CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL PLUMBING EQUIPMENT WITHIN THE STRUCTURE.
  - ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
  - ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, AND VTR DETAILS.
  - EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.
  - PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.
  - SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.
  - LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
  - CABLE TRAYS: PIPING INSTALLED ADJACENT TO ELECTRICAL CABLE TRAYS SHALL ALLOW MINIMUM ACCESS OF 6" ABOVE AND TO THE SIDE OF CABLE TRAYS.
  - MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.
  - ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.
- ### COORDINATION REQUIREMENTS
- IRRIGATION: COORDINATE WITH IRRIGATION CONTRACTOR FOR THEIR WATER SUPPLY REQUIREMENTS AND LOCATIONS.
  - GAS: CONTRACTOR/GAS COMPANY SHALL FINALIZE GAS METER AND GAS SERVICE LOCATIONS.
  - UTILITIES: COORDINATE WITH SITE UTILITY CONTRACTOR AND CIVIL DRAWINGS FOR UTILITY CONNECTIONS AND EXTENSIONS.
  - ROOF DRAINAGE: COORDINATE WITH GENERAL CONTRACTOR FOR ROOF DRAIN AND OVERFLOWS, SCUPPER DRAINS, AND CONDENSATE DRAINS.
  - PLUMBING FIXTURES: COORDINATE WITH ARCHITECTURAL AND OTHER TRADES EXACT LOCATION OF ALL PLUMBING FIXTURES.
  - PIPING: COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT THE SITE PRIOR AND DURING THE CONSTRUCTION.

- ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS, GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.
- APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURER SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.
- FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA AND LOCAL CODES. PROVIDE DESIGN, PERMITS, MATERIALS, INSTALLATION, TESTING AND ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES.

### PLUMBING NOTES

- CONNECTIONS: PROVIDE PLUMBING FIXTURE CONNECTIONS TO BUILDING WASTE, VENT, COLD WATER, AND HOT WATER SYSTEM IN ACCORDANCE WITH DRAWINGS, MANUFACTURER'S RECOMMENDATIONS, AND LOCAL CODES. CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNIONS, ETC. AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON PLANS.
- HOT AND COLD: WATER PIPING CONNECTION TO EACH FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE AND HOT WATER ON THE LEFT HAND SIDE.
- HOT WATER: NON-CIRCULATING HOT WATER PIPE SHALL NOT EXCEED 10' UNLESS OTHERWISE SHOWN ON DRAWINGS.
- VENT STACKS: COORDINATE VENT STACK WITH HVAC EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.
- CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT CODE AND AS REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS WHERE THEY ARE NOT HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO BE SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS.
- SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH CURRENT CPC.
- SHUT-OFFS: PROVIDE 1/4 TURN BALL VALVE ANGLE STOP SHUT-OFF VALVES AND BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT BATH/SHOWERS.
- TUB SPOUTS SHALL BE THREADED (NO PUSH-ON FITTINGS).
- TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.
- ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS APPLICATION MEETING ADA REQUIREMENTS. PROVIDE HAND-LAV GUARD OR EQUIVALENT. OFFSET P-TRAPS TO CLEAR WHEELCHAIR ACCESS.
- GAS EQUIPMENT: GAS EQUIPMENT SHALL BE INSTALLED PER EQUIPMENT LISTINGS, LOCAL CODES, AND NFPA.
- GAS CONNECTIONS: INSTALL FLEXIBLE QUICK DISCONNECT ASSEMBLIES FOR ALL GAS FIRED KITCHEN EQUIPMENT PER LOCAL JURISDICTIONS.
- WATER HAMMER ARRESTERS: PROVIDE AT THE END OF HOT AND COLD WATER LINES SERVING TWO OR MORE FIXTURES; SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTERS ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC.
- TRAP PRIMERS: PROVIDE TRAP PRIMERS AND PIPING FOR DRAINS AND FLOOR SINKS. ARRANGE PIPING TO ACHIEVE EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS.
- P-TRAPS: ALL EXPOSED P-TRAPS SHALL BE CHROME-PLATED BRASS.
- PROVIDE BALL VALVES. GATE VALVES SHALL NOT BE USED.

- NO EXCEPTIONS.
- HOT WATER RECIRCULATING BALANCING VALVE VALVES TO BE BELL & GOSSET CIRCUIT SETTER (OR WATTS EQUIVALENT) WITH INTEGRAL READOUT PORTS, ADJUSTMENT KNOB, DRAIN CONNECTION, AND POSITIVE SHUTOFF.
  - DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
  - REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
  - OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
  - DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
  - REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
  - CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.

### INSULATION/LINING NOTES

- ENERGY CODE: AS A MINIMUM, COMPLY WITH THICKNESSES AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.

## PIPE MATERIALS

### APPROVED PLUMBING MATERIAL:

ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.

- UNDERGROUND SERVICE ENTRANCE PIPING: COPPER, TYPE K. PLASTIC WRAP UNDERGROUND WATER SUPPLY PIPING TO PREVENT CORROSION.
- ABOVEGROUND WATER DISTRIBUTION PIPING IN RESTROOMS: PEX.
- STORM, VENT AND GRAVITY WASTE: NO-HUB CAST IRON

ALL CAST IRON SOIL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON SOIL PIPE INSTITUTE (CISPI) AND BE LISTED BY NSF INTERNATIONAL. COUPLINGS: STANDARD COUPLINGS SHALL CONFORM TO CISPI 310 AND ASTM C 1277. SHIELD ASSEMBLIES SHALL CONSIST OF A STAINLESS STEEL BI-DIRECTIONAL CORRUGATED SHIELD; STAINLESS-STEEL BANDS AND TIGHTENING DEVICES; AND A ASTM C 564, RUBBER SLEEVE WITH INTEGRAL CENTER STOP. COUPLINGS SHALL BEAR THE NSF TRADEMARK, AND BE MANUFACTURED IN THE USA.

EXCEPTION: SOLID WALL PVC SCH. 40 ASTM D2665 IS APPROVED ONLY FOR UNDERSLAB PIPING WITH PROPER TRENCHING PER ASTM D2321, FOR PARKING GARAGE AND BUILDING WITH MAXIMUM 3 STORIES. PRIOR TO BIDDING, CONTRACTOR SHALL CONTACT LOCAL AHJ FOR ACCEPTANCE OF PVC PIPING UNDERSLAB, EXPANSION LOOP OR EXPANSION JOINTS SHALL BE PROVIDED PER PIPING MANUFACTURER RECOMMENDATION.

NOTE 1: PVC PIPING SHALL NOT BE USED FOR RECEPTOR & TRAP ARM WHERE WASTE TEMPERATURE CAN EXCEED 110°F. THIS INCLUDE PIPING AND RECEPTORS FOR 3 COMP SINK, DISHWASHER, COMMERCIAL LAUNDRY SINK, AND CONDENSATION DRAIN FOR GAS FIRED EQUIPMENT.

NOTE 2: TRAP ARM FOR WASTE RECEPTOR OF SODA DISPENSER SHALL BE MADE OF SOLID CORE PVC SCH. 40 ASTM D2665. CAST IRON PIPING IS NOT ALLOWED FOR HIGH ACIDITY DRAINS. (PH-3)

NOTE 3: FOAM (CELLULAR) CORE PVC PIPING/FITTING IS PROHIBITED BY ENGINEERING.

- CONDENSATE DRAIN PIPING: CPVC OR COPPER TYPE M.
- TEMPERATURE AND/OR PRESSURE RELIEF VALVE DISCHARGE PIPING: COPPER TYPE M
- GAS PIPING: STEEL PIPE, ASTM A 53; TYPE E OR S; GRADE B; SCHEDULE 40.

## ABBREVIATIONS

ACU	AIR CONDITIONING UNIT
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
BHP	BRAKE HORSEPOWER
BOH	BACK OF HOUSE
BTUH	BRITISH THERMAL UNIT PER HOUR
C	COMMON
CAP	CAPACITY
CC	COOLING COIL
CD	CONDENSATE DRAIN
CFM	CAPPED FOR FUTURE CUBIC FEET PER MINUTE
CI	CAST IRON
CO	CLEANOUTS
COMB	COMBUSTION
CONT	CONTINUE, CONTROL
CONTR	CONTRACTOR
CONTG	CLEANOUTS TO GRADE
CW	COLD WATER
D	DIAMETER
DB	DRY BULB, DECIBEL
DIM	DIMENSION
DN	DOWN
DS	DOWN SPOUT
EFF	EFFICIENCY
ELEC	ELECTRIC
EWC	ELECTRIC WATER COOLER
EXT	EXTERIOR, EXTERNAL
F	FAHRENHEIT
FCO	FLOOR CLEANOUTS
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FLR	FLOOR
FS	FEET PER SECOND
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOOR SINK
G	GAS
GAL	GALLONS
GPG	GRAINS PER GALLON
GPM	GALLONS PER MINUTE
GWB	GYPSONUM WALLBOARD
HB	HOSE BIBB
HD	HEAD
HEDV	HOSE END DRAIN VALVE
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPCW	HIGH PRESSURE COLD WATER HEATING, VENTILATING, AND AIR CONDITIONING
HVAC	HOT WATER
HW	HOT WATER RE-CIRCULATION HEAT EXCHANGER
HX	INDIRECT DRAIN, INSIDE DIAMETER
ID	INCH
IE	INVERT ELEVATION
IN	INCH
KS	KITCHEN SINK
KW	KILOWATT
L	LONG, LENGTH
LAV	LAVATORY
LB	POUND
MBH	THOUSAND BTU PER HOUR
MECH	MECHANICAL
MCA	MIN. CIRCUIT AMPACITY
MCCP	MAX. OVER CURRENT PROTECTION
MFG	MEDIUM PRESSURE GAS
MD	MOUNTED
MTD	OUTSIDE DIMENSION/DIAMETER
OD	OVERFLOW DRAIN/DECK DRAIN OPENING
OPNG	PUMP
P	PRESSURE DROP, PUMPED DRAIN
PD	POINT OF CONNECTION
PCC	PRESSURE REDUCING VALVE
PRV	PRESSURE RELIEF VALVE
PS	PUMPED STORM DRAINAGE
PSIG	POUNDS PER SQUARE INCH GAUGE
PW	PUMPED SANITARY WASTE
RD	ROOF DRAIN
REF	REFERENCE
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
SCH	SCHEDULE
SCW	SOFTENED COLD WATER
SD	STORM DRAIN
SF	SQUARE FOOT
SH	SHOWER
SO	STORM OVERFLOW
SP	STATIC PRESSURE
SR	SUDS RELIEF
SS	STAINLESS STEEL, SANITARY SEWER SQUARE
SQ	SQUARE
TYP	TYPICAL
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VENT
VTR	VENT THRU ROOF
W	WASTE, WATT, WIDE
WC	WATER CLOSET
WCO	WALL CLEANOUTS
WH	WALL HYDRANT
WM	WASHING MACHINE

## SYMBOLS

GENERAL		PIPE CAP	
—	ARCHITECTURAL BACKGROUND (THIN LINE)	—	PIPE PLUG
—	NEW MECHANICAL WORK (HEAVY LINE)	—	UNION
---	MATCHLINE OR PROPERTY LINE	—	FLANGE
SECTION IDENTIFICATION (DETAIL SIMILAR)		—	CLEANOUT
INDICATES DIRECTION OF CUTTING PLANE		—	WYE STRAINER
LETTER INDICATES SECTION CONTRACTOR (NO. INDICATES DETAIL)		—	WYE STRAINER WITH CAPPED HOSE END BLOWDOWN VALVE
SHEET NUMBER WHERE SECTION IS DRAWN		—	BALL VALVE
SHEET NUMBER WHERE SECTION IS TAKEN		—	CHECK VALVE
EQUIPMENT		—	BALANCING OR PLUG VALVE
TYPICAL EQUIPMENT DESIGNATION (EXHAUST FAN SHOWN)		—	BUTTERFLY VALVE
PIPING		—	PRESSURE REDUCING VALVE (PRV)
— SS	SANITARY SEWER (SS)	—	AUTOMATIC CONTROL VALVE, 2-WAY
— PW	PUMPED WASTE	—	AUTOMATIC CONTROL VALVE, 3-WAY
— V	VENT (V)	—	RELIEF VALVE
— RL	RAIN LEADER	—	BALANCING/MEASURING VALVE
— OL	OVERFLOW RAIN LEADER	—	FLEXIBLE CONNECTION IN PIPING
— CD	CONDENSATE DRAIN	—	PIPE ANCHOR
— DW	DOMESTIC WATER (DW)	—	PIPE ALIGNMENT GUIDE
— 140	HOT WATER, POTABLE, 120°F (DHW)	—	PIPE SUPPORT
— 140	HOT WATER, POTABLE, TEMPERATURE OTHER THAN 120°F	—	VALVE STATION OR ASSEMBLY
— 140	HOT WATER CIRCULATING, POTABLE, TEMPERATURE OTHER THAN 120°F	—	INDIRECT DRAIN, PIPE TO DRAIN
— FOF	FUEL OIL FILL	—	FLOOR DRAIN
— FOS	FUEL OIL SUPPLY	—	HOSE BIBB
— FOR	FUEL OIL RETURN	—	BREAK IN PIPING OR DUCTWORK
— FOV	FUEL OIL VENT	—	PUMP
— RV	RELIEF VENT	—	PRESSURE GAUGE
— G	NATURAL GAS	—	THERMOMETER
— MFG	MEDIUM PRESSURE NATURAL GAS	—	PRESSURE/TEMPERATURE TEST PORT
— I	IRRIGATION	—	REDUCED PRESSURE BACKFLOW PREVENTER
—		—	DOUBLE CHECK VALVE ASSEMBLY

## CONTRACTOR SUBSTITUTIONS & REVISIONS

### CONTRACTOR SUBSTITUTIONS & REVISIONS:

PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR REVISIONS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTURER'S NAME AND CATALOG DESIGNATIONS, THE MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFICATION FOR THAT ITEM ARE CONSIDERED PART OF SPECIFICATION. ENGINEERING COSTS FOR REVISING MEP PLANS SHALL BE ADDRESSED IN THE COST ANALYSIS OF THE SUBSTITUTION PROPOSAL. CONTRACTOR TO COORDINATE WITH ENGINEER AND DETERMINE ASSOCIATED DESIGN AND PERMITTING COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OTHER COSTS ASSOCIATED WITH UNFORESEEN ISSUES RESULTING FROM SUBSTITUTIONS OR REVISIONS.

DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

## DRAWING INDEX

DWG	DESCRIPTION
P000	LEGEND, GENERAL NOTES & DRAWING INDEX
P100	SEWER, AND GAS PLUMBING PLAN
P500	DETAILS
P600	ISOMETRICS
P700	SPECIFICATIONS

## APPLICABLE CODES

THESE DRAWINGS ARE BASED ON THE FOLLOWING CODES:

- 2012 INTERNATIONAL BUILDING CODE (IBC)
- 2010 ARKANSAS STATE MECHANICAL CODE (IMC)
- 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)
- 2018 ARKANSAS STATE PLUMBING CODE (IMC)



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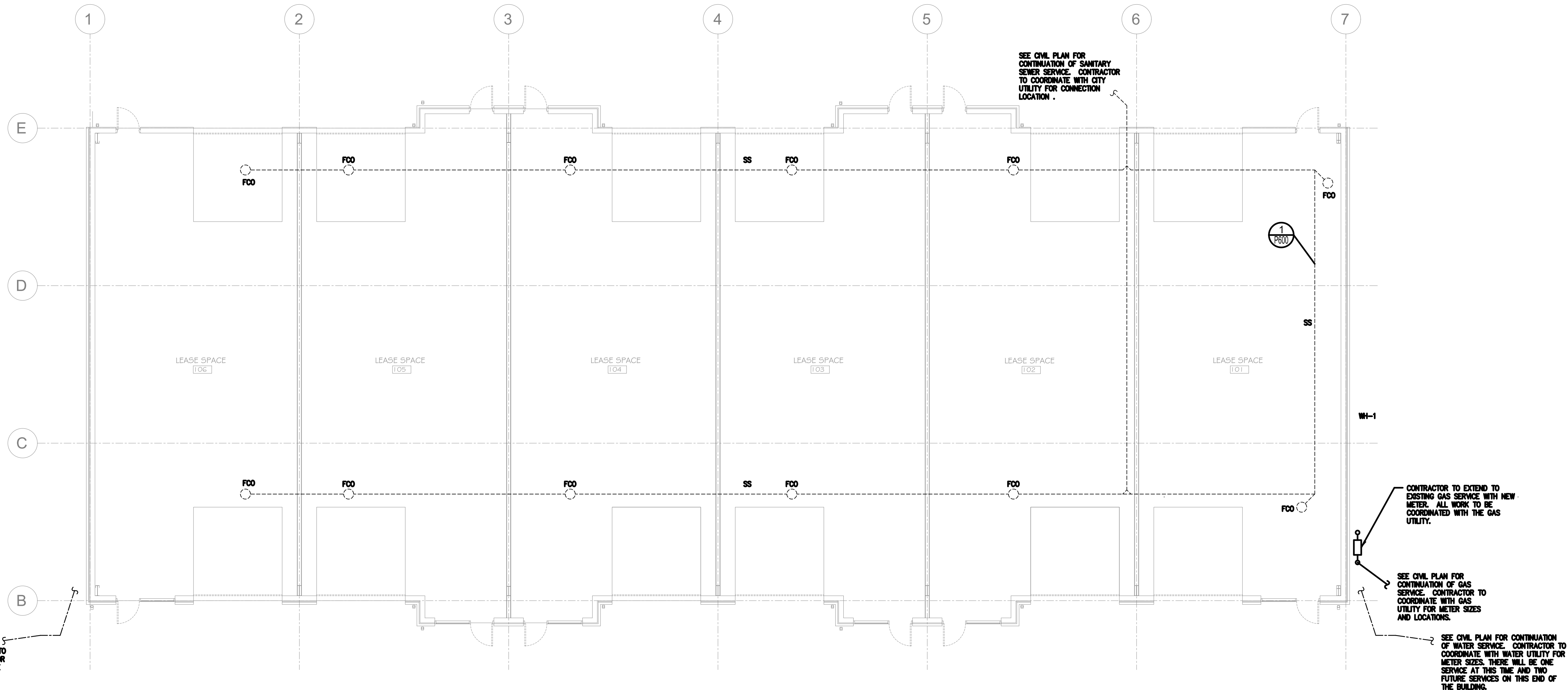
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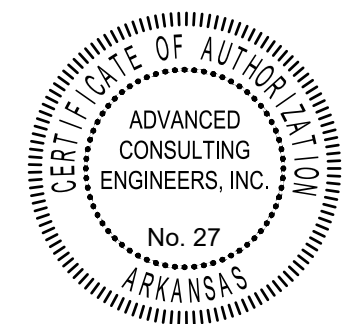
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**1 SEWER / GAS MAINS**  
Scale: 1/8" = 1'



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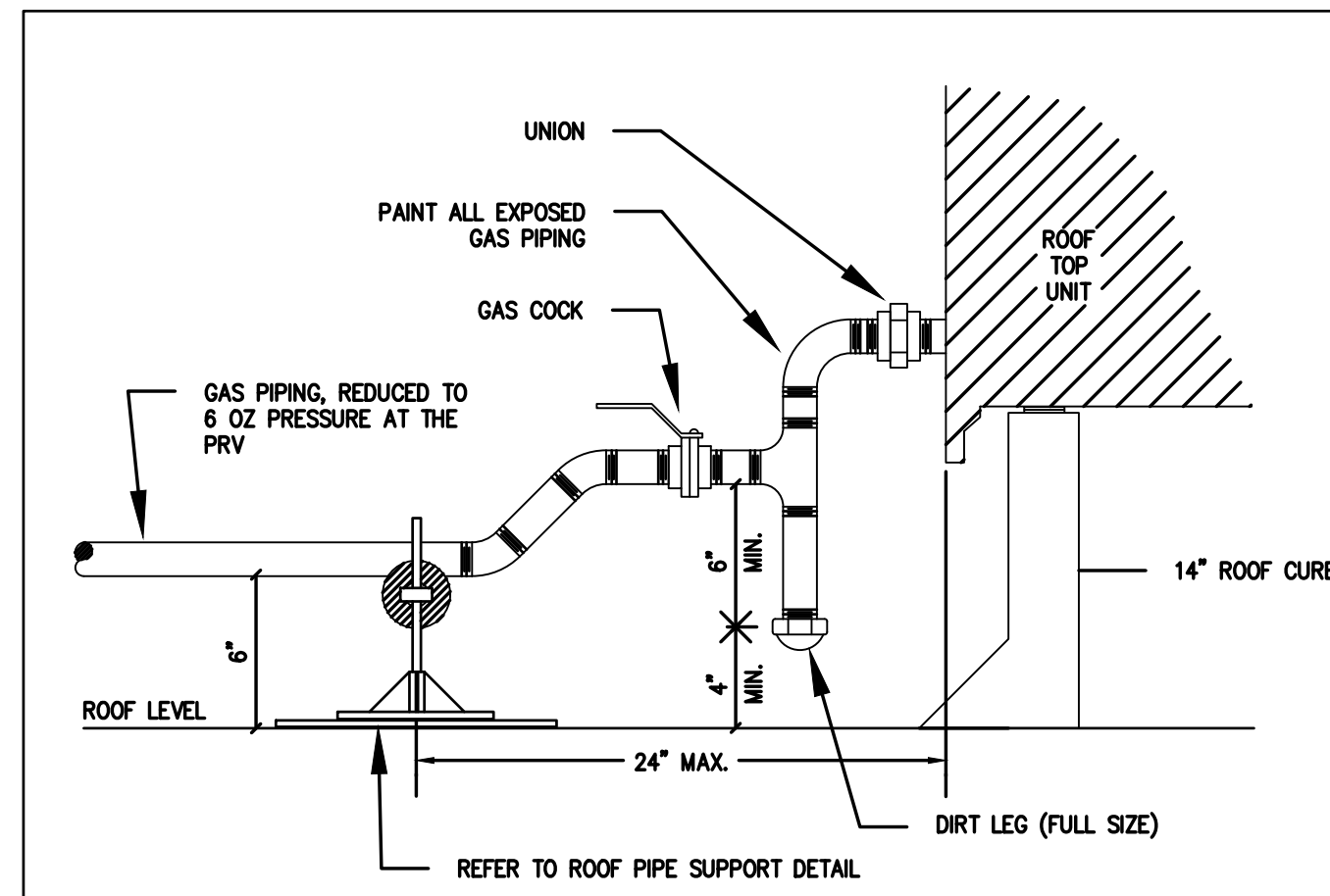


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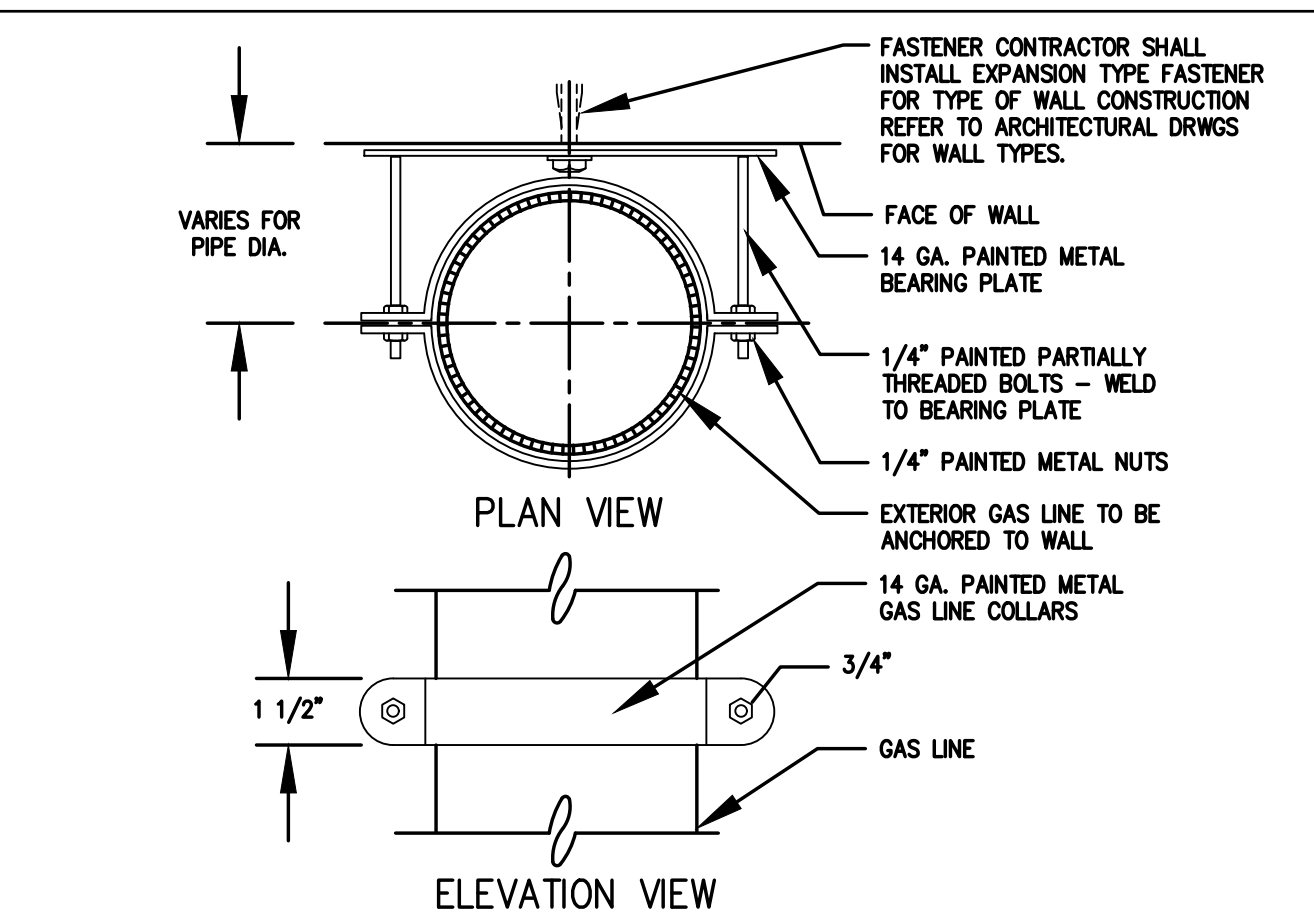
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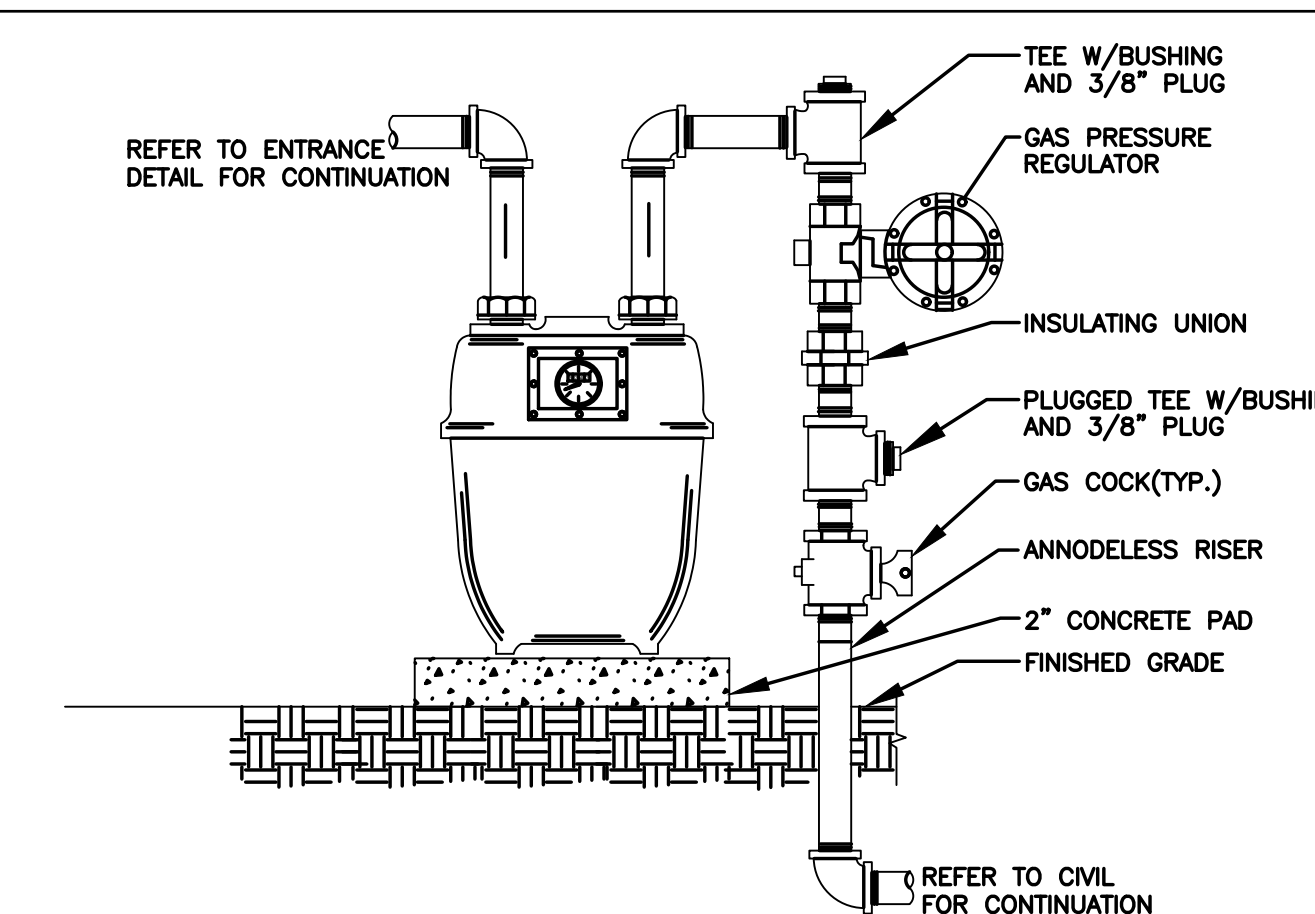
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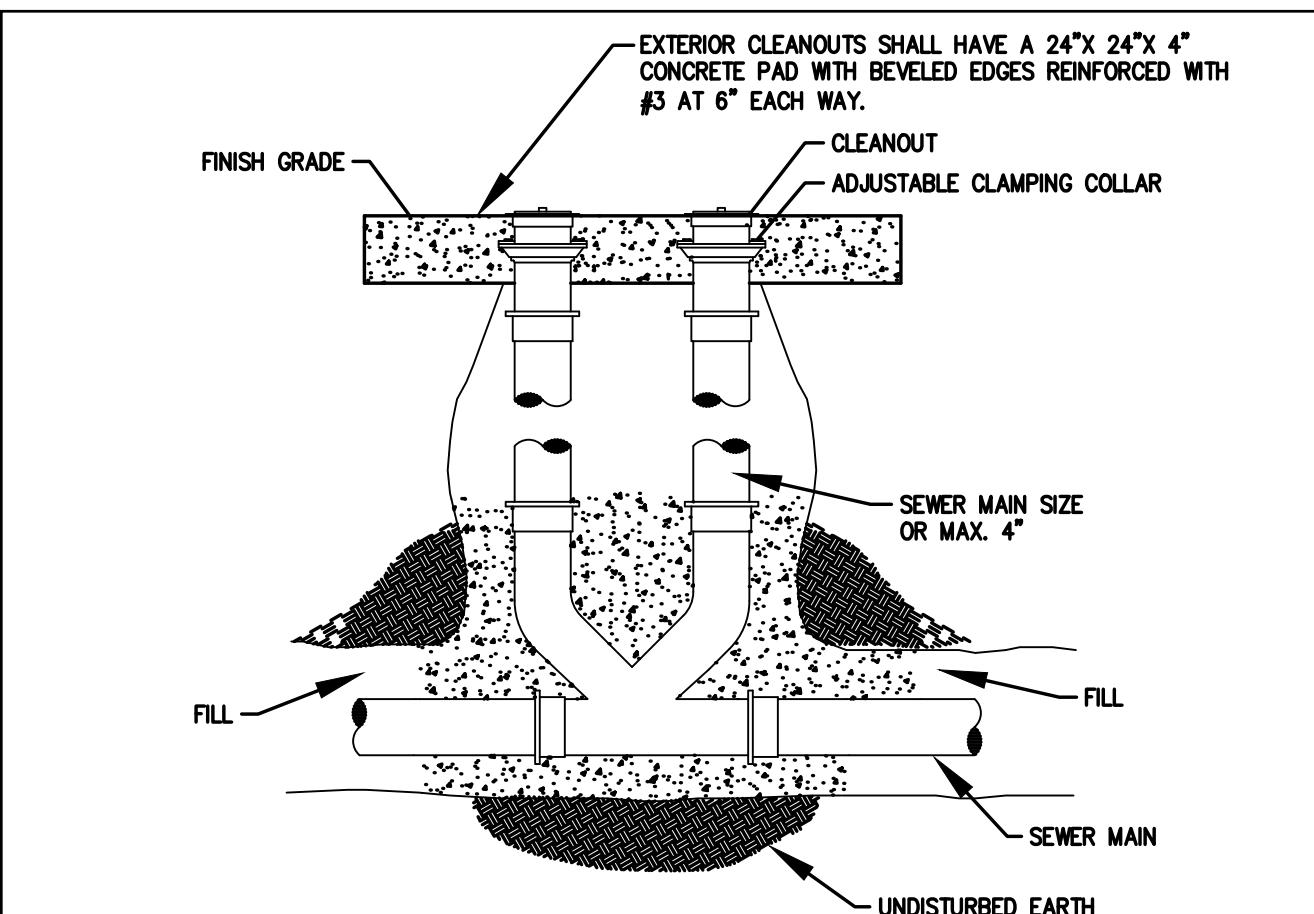
1 EQUIP. NAT. GAS CONN. DETAIL SCALE: NTS



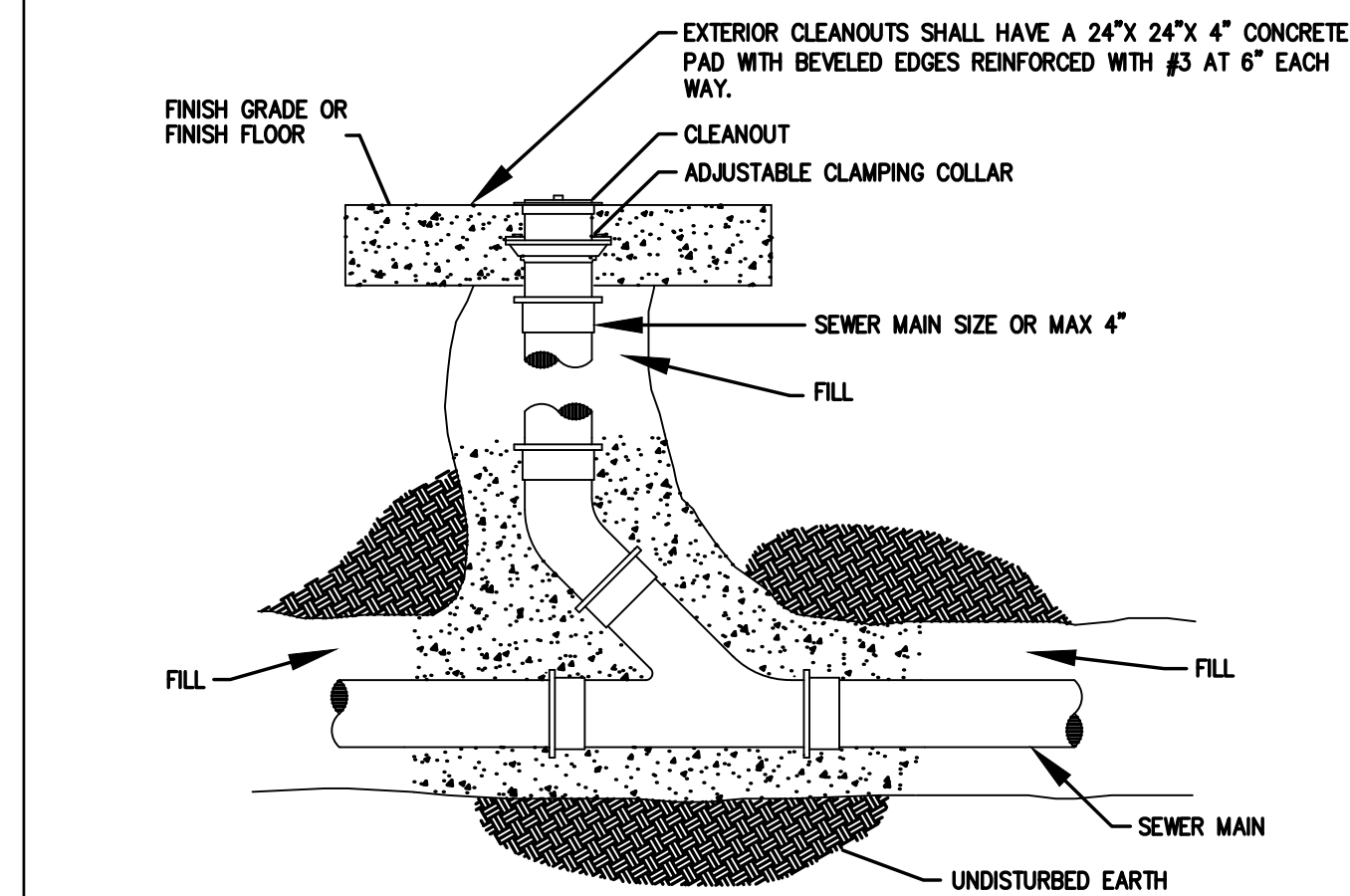
2 EXTERIOR WALL GAS LINE ANCHORING SCALE: NTS



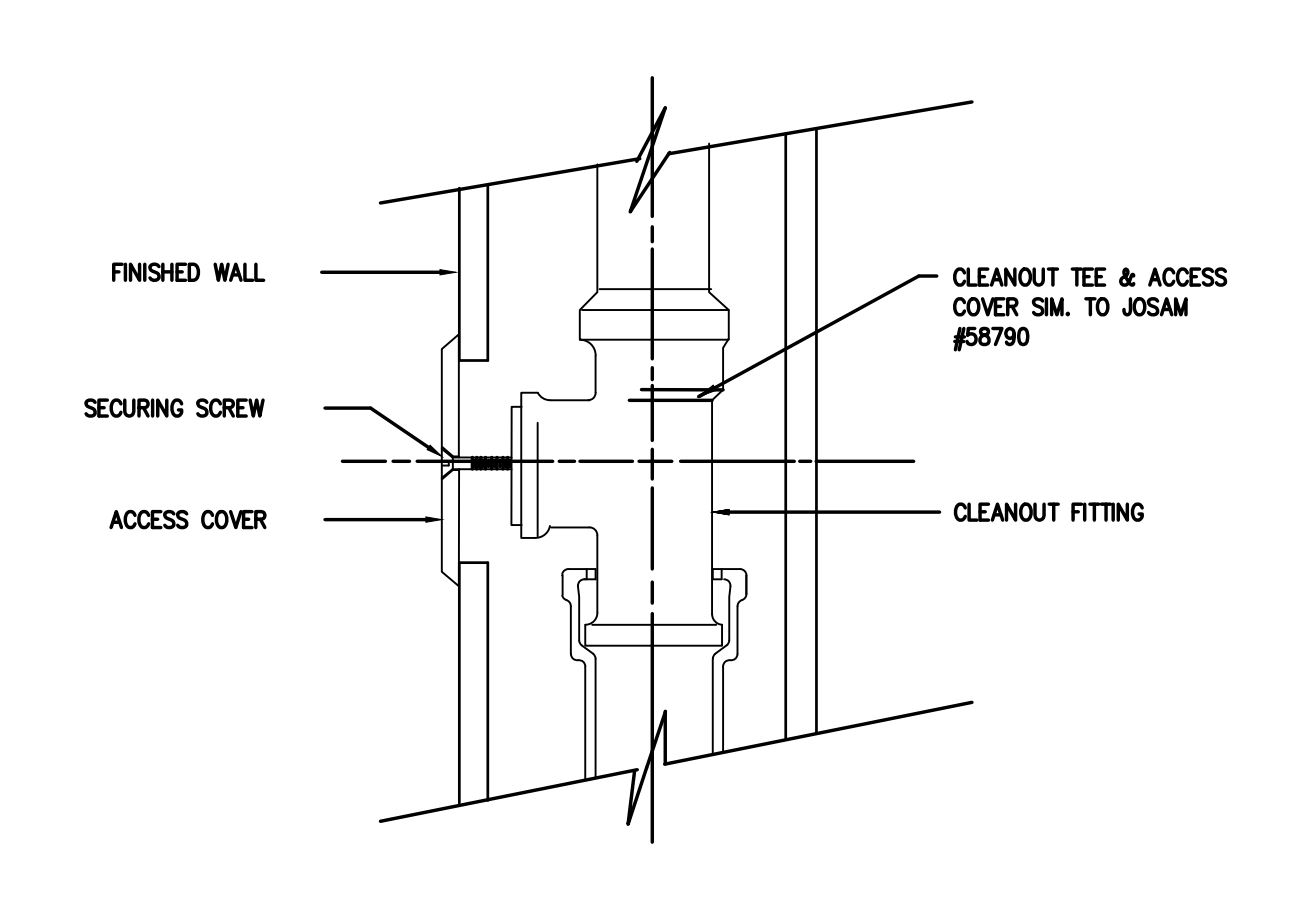
3 TYPICAL GAS SERVICE METER DETAIL SCALE: NTS



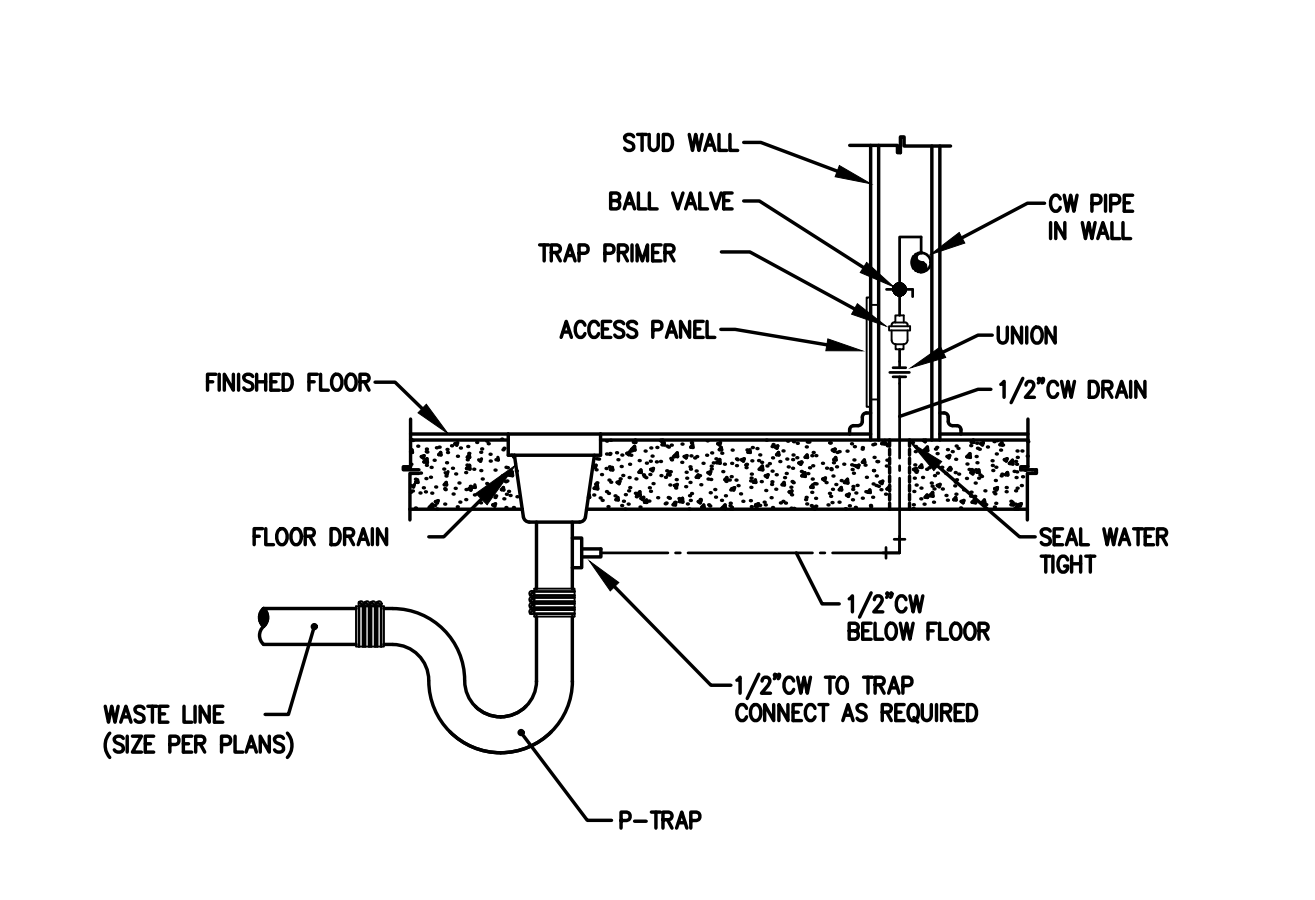
4 TWO WAY CLEANOUT SCALE: NTS



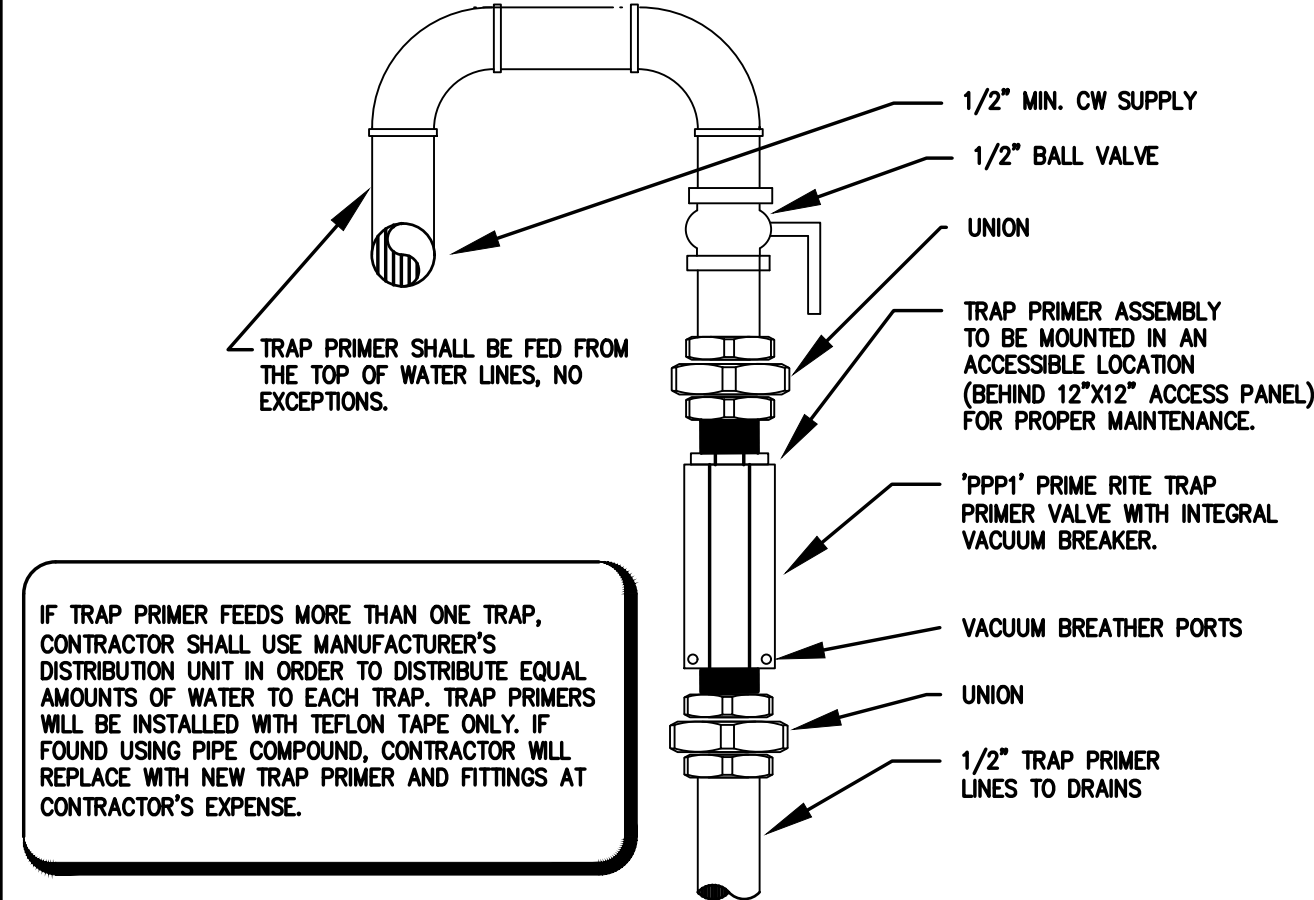
5 CLEANOUT SCALE: NTS



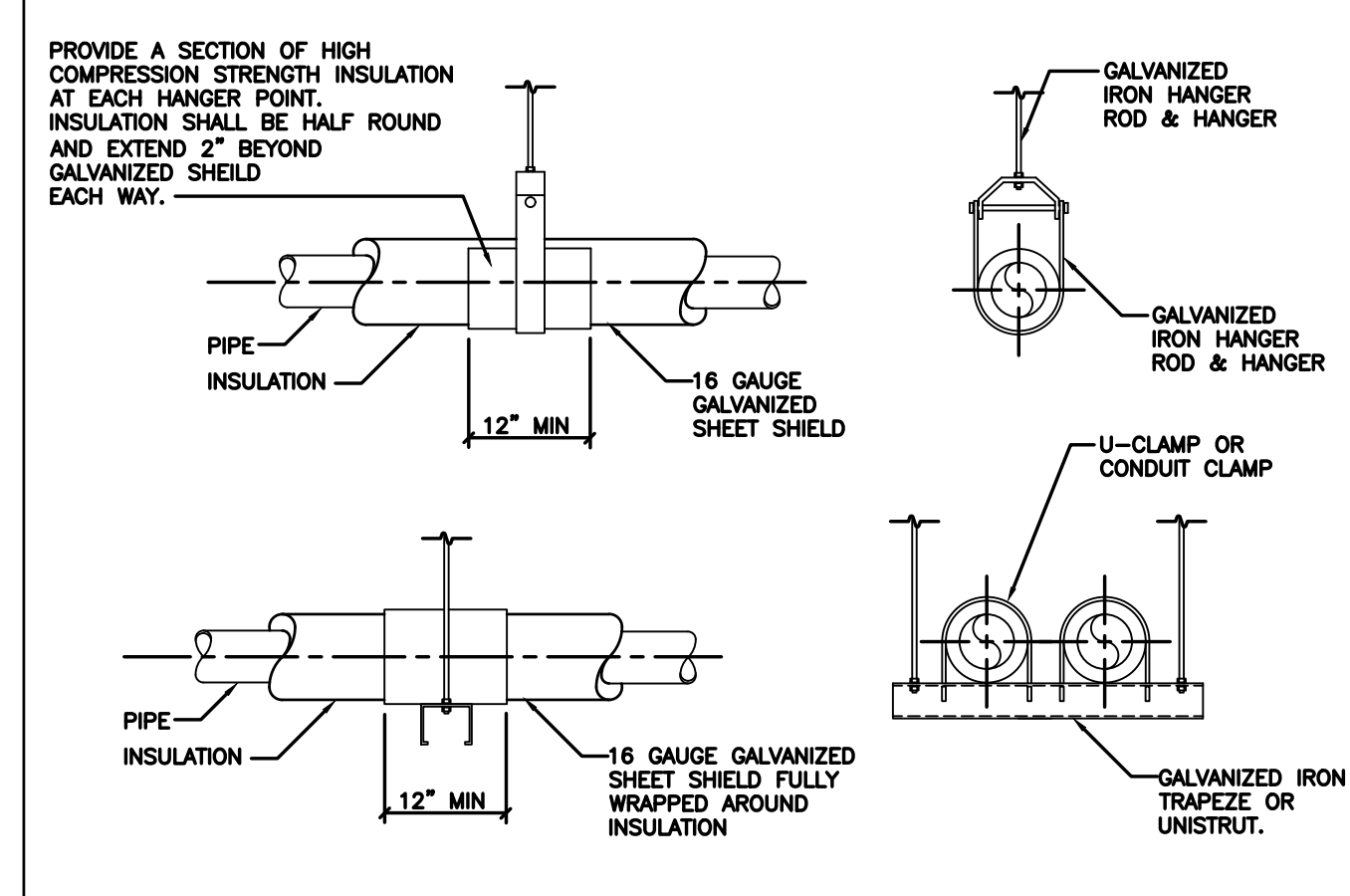
6 WALL CLEANOUT SCALE: NTS



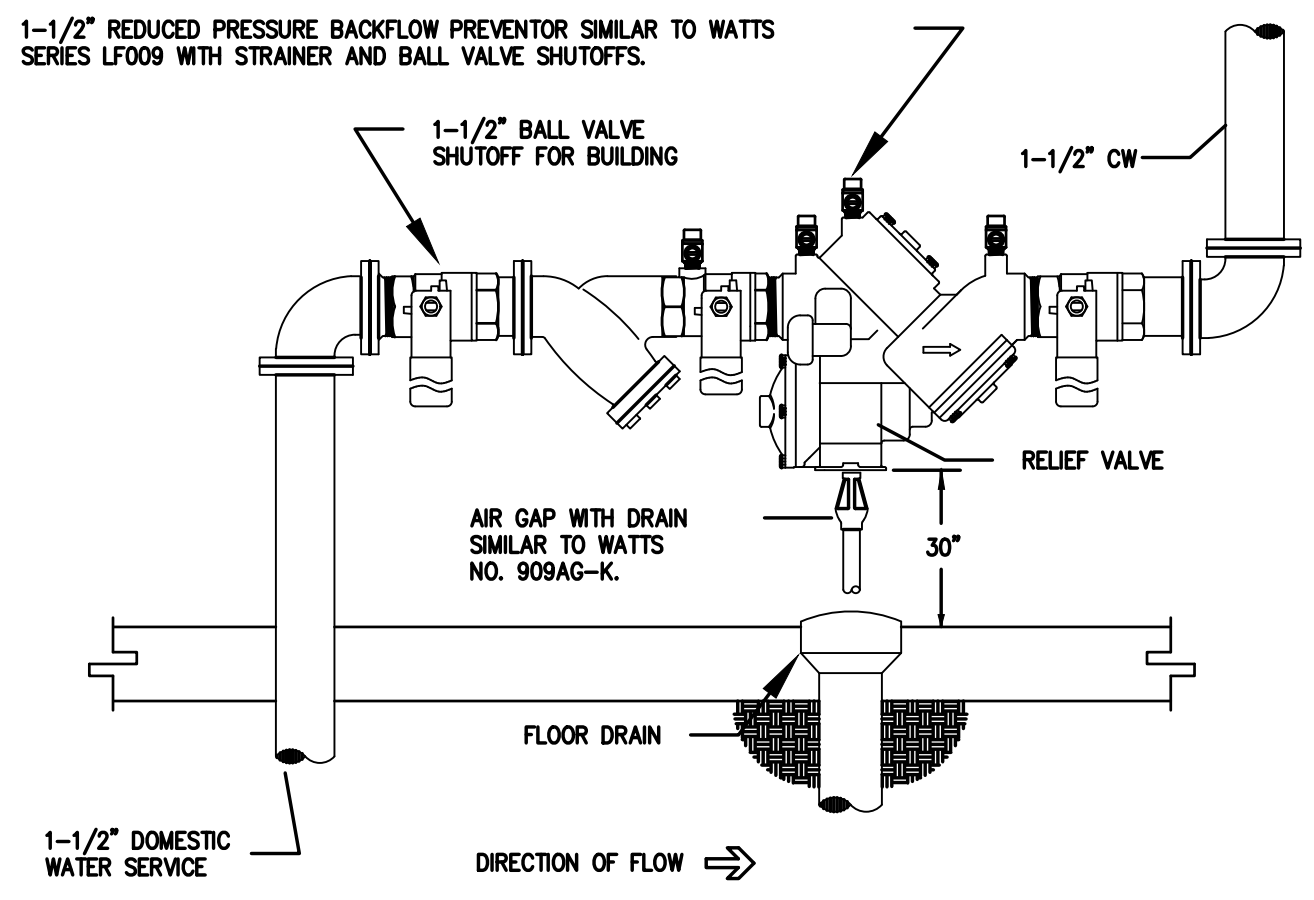
7 TRAP PRIMER TO FLOOR DRAIN SCALE: NTS



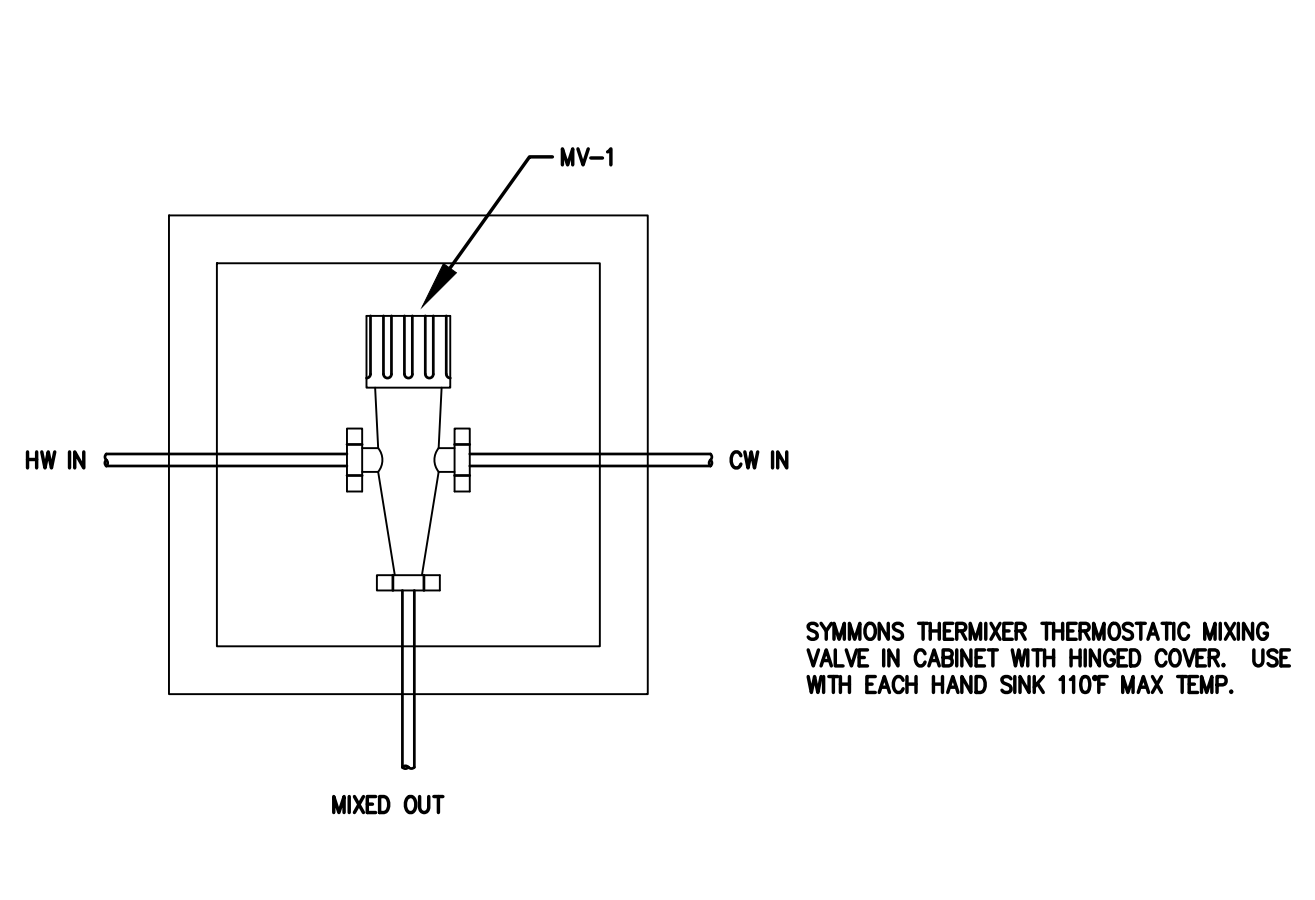
8 TRAP PRIMER SCALE: NTS



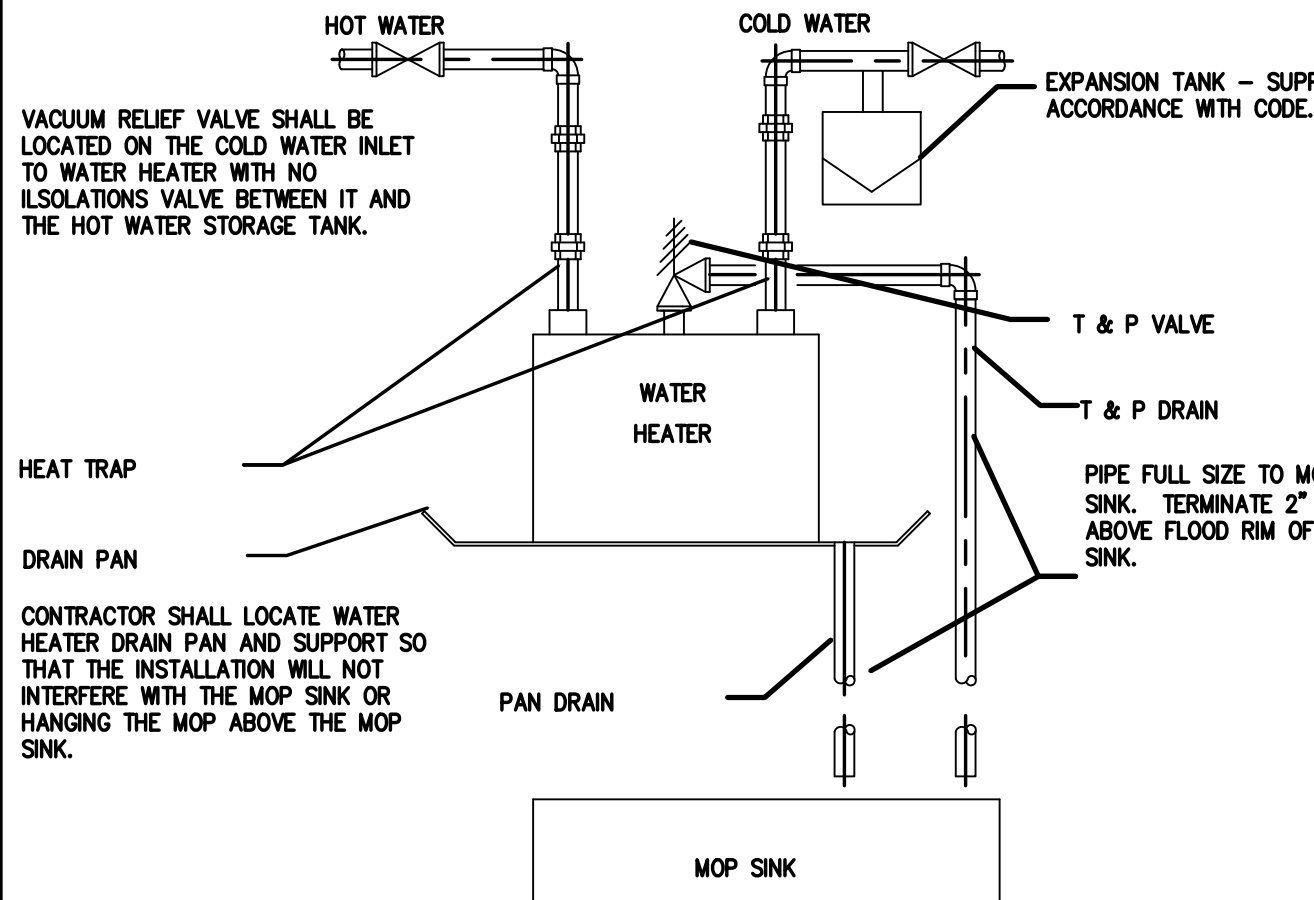
9 PIPE HANGER DETAILS SCALE: NTS



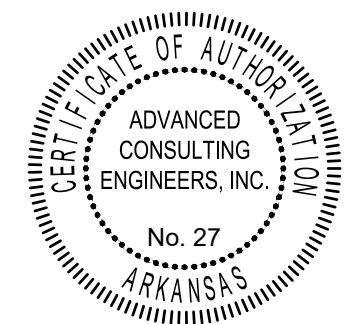
10 REDUCED PRESSURE BACKFLOW PREVENTOR SCALE: NTS



11 TEMPERING VALVE SCALE: NTS

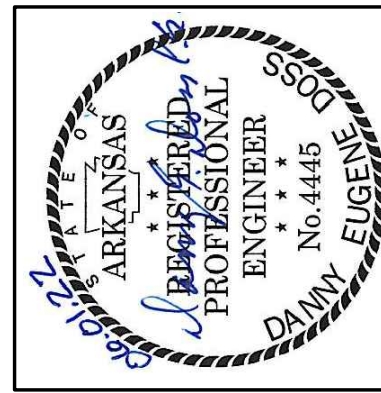


12 WATER HEATER SCALE: NTS



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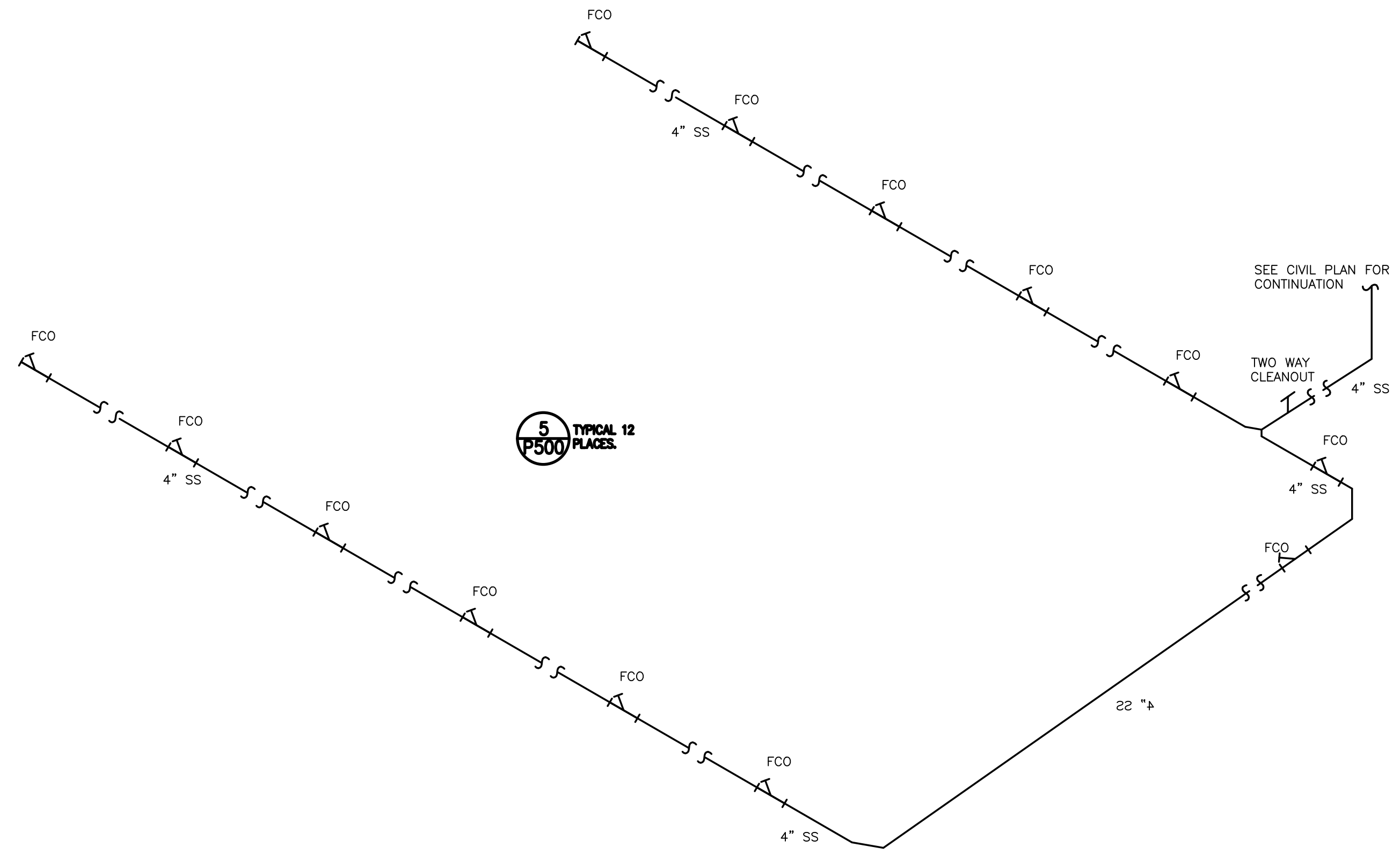
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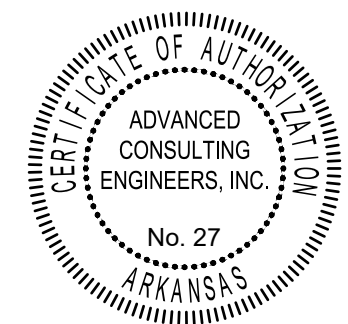
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DRAWN BY:  
PROJECT #: 2169  
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SHEET  
**P-500**



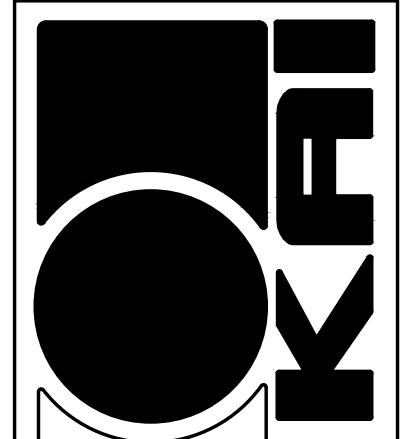
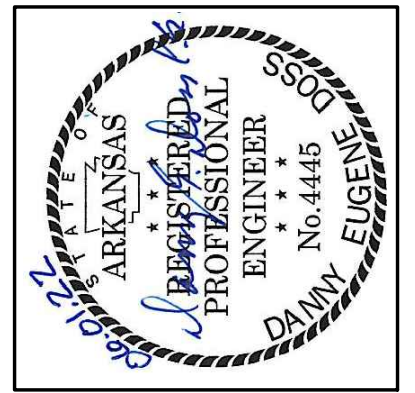
**1** SANITARY RISER  
Scale: N.T.S.



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Revision	Schedule	Description
Rev. #	Date	

NEW OFFICE WAREHOUSE 6-BAY BLDG.  
2303 WORTH LANE  
SPRINGDALE, ARKANSAS  
MTNWA INVESTMENTS, LLC  
1457 E. ROBINSON AVE.  
SPRINGDALE, AR 72764

DATE	DRAWN BY
06/01/22	
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2169	

SHEET  
**P-600**

SANITARY DRAIN, WASTE, AND VENT PIPING SYSTEM  
SECTION 15411

- PART 1 GENERAL
- 1.01 WORK INCLUDED:
- A. UNDERGROUND DRAIN AND VENT PIPING.
  - B. ABOVE GROUND DRAIN, WASTE, AND VENT PIPING.
  - C. SANITARY SEWER SERVICE PIPING.
  - D. CONDENSATION DRIP AND OVERFLOW PIPING.
  - E. CLEANOUTS.
  - F. FLOOR DRAINS.
- 1.02 RELATED WORK:
- A. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.
- 1.03 SUBMITTALS:
- A. SUBMIT MANUFACTURER'S DATA SHEETS ON CLEAN OUTS AND FLOOR DRAINS.
  - B. SUBMIT LIST OF PIPING PRODUCTS TO BE USED FOR THE LISTED SERVICES AND STATE THEIR MANUFACTURERS, CLASSES OR TYPES, AND OTHER APPLICABLE DATA.
  - C. SUBMIT RECORD DRAWINGS INDICATING ACTUAL LOCATION AND ROUTING OF INSTALLED PIPING.
  - D. SUBMIT SHOP DRAWINGS ON MANHOLES INDICATING MANUFACTURED ITEMS, REINFORCING STEEL REQUIREMENTS, ETC.
- PART 2 PRODUCTS
- 2.01 PIPING:
- A. UNDERGROUND DRAIN AND VENT PIPING INSIDE BUILDING AND TO FIVE FEET OUTSIDE BUILDING:
    - 1. SCHEDULE 40 PVC PIPE AND FITTINGS.
  - B. ABOVE GROUND DRAIN AND VENT PIPING:
    - 1. SCHEDULE 40 PVC PIPE AND FITTINGS.
  - C. WASTE ARMS FOR LAVATORIES, SINKS, AND URINALS:
    - 1. DWV COPPER PIPE WITH CAST BRASS ADAPTERS AND WROUGHT COPPER FITTINGS AND JOINTS MADE WITH 50-50 SOLDER.
    - 2. SCHEDULE 40 GALVANIZED STEEL PIPE WITH SCREWED FITTINGS (OPTIONAL).
  - D. UNDERGROUND SEWER PIPING OUTSIDE BUILDING TO SEWER MAIN:
    - 1. SCHEDULE 40 PVC PIPE AND FITTINGS.
  - E. CONDENSATION DRIP AND OVERFLOW PIPING: SOLVENT-CEMENT WELD.
- 2.02 CLEAN OUTS:
- A. PROVIDE CLEAN OUTS COMPATIBLE WITH TYPE OF DRAIN PIPING TO WHICH IT IS CONNECTED. PROVIDE COVERS COMPATIBLE WITH TYPE OF FLOOR OR WALL FINISH WITH CONSIDERATION GIVEN TO TRAFFIC CONDITIONS. MAKE CLEAN OUTS SAME SIZE AS PIPE THROUGH 4 INCHES.
  - B. FLOOR CLEAN OUT (FCO): CAST IRON WITH TAPERED BRASS PLUG, THREADED ADJUSTABLE HOUSING, AND ROUND NICKEL BRONZE SCORIATED TOP.
  - C. CLEAN OUT TO GRADE (COTG): SAME AS FCO EXCEPT WITH HEAVY DUTY CAST IRON SCORIATED TOP. SET COTG IN 10-INCH DIAMETER CONCRETE BASE 4-INCHS THICK AND FLUSH WITH FINISHED GRADE.
- 2.03 FLOOR DRAINS:
- A. STANDARD FLOOR DRAIN (FD): LACQUERED CAST IRON BODY WITH FLANGE, CLAMPING COLLAR WITH SEEPAGE OPENINGS, AND ADJUSTABLE SQUARE SATIN BRONZE STRAINER. FLOOR DRAINS ARE 2 INCHES UNLESS SHOWN OTHERWISE.
- PART 3 EXECUTION
- 3.01 PREPARATION:
- A. SWAB PIPES AND CLEAN JOINTS AND FITTINGS INSIDE AND OUT PRIOR TO MAKING CONNECTIONS. USE PROPER LUBRICANTS ON COMPRESSION GASKETS.
- 3.02 INSTALLATION:
- A. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, SLOPE HORIZONTAL DRAIN AND VENT PIPING IN ACCORDANCE WITH THE FOLLOWING:
 

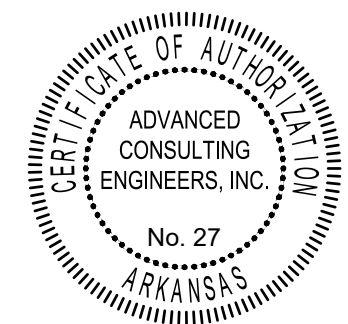
SIZE	MINIMUM SLOPE
3" AND SMALLER	1/4" PER FOOT
4" AND LARGER	1/8" PER FOOT
  - B. BURY ALL UNDERGROUND OUTSIDE SEWER PIPE A MINIMUM OF 2 FEET FROM FINISHED GRADE.
  - C. MAKE CLEAN OUT FREE FROM LEAKS. LUBRICATE CLEAN OUT PLUGS WITH MIXTURE OF GRAPHITE AND LINSSEED OIL AND DO NOT OVER TIGHTEN.
  - D. ARRANGE WITH LOCAL UTILITY FOR SEWER TAP AND PAY ALL COSTS TO ESTABLISH SEWER SERVICE.
- 3.03 TESTING:
- A. BEFORE CONCEALING, TEST DRAIN, WASTE, AND VENT SYSTEM AND PROVE LEAK FREE:
    - 1. WATER TEST - SUBJECT SYSTEM TO AT LEAST 10 FEET OF HYDROSTATIC HEAD FOR 30 MINUTES.
    - 2. AIR TEST - SUBJECT SYSTEM TO AT LEAST 5 PSIG AIR PRESSURE FOR 30 MINUTES. (OPTIONAL)
- END OF SECTION

- DOMESTIC WATER PIPING SYSTEM  
SECTION 15412
- PART 1 GENERAL
- 1.01 WORK INCLUDED:
- A. WATER SERVICE PIPING.
  - B. HOT AND COLD WATER PIPING.
  - C. TEMPERATURE AND PRESSURE (T & P) RELIEF PIPING.
  - D. VALVES.
  - E. SHOCK SUPPRESSORS.
- 1.02 RELATED WORK:
- A. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.
  - B. SECTION 15005 MECHANICAL INSULATION.
- 1.03 SUBMITTALS:
- A. SUBMIT MANUFACTURER'S DATA SHEETS ON VALVES AND SHOCK SUPPRESSORS.
  - B. SUBMIT LIST OF PIPING PRODUCTS TO BE USED AND STATE THEIR MANUFACTURERS, CLASSES OR TYPES, AND OTHER APPLICABLE DATA.
  - C. SUBMIT SHOP DRAWINGS OF SHOCK SUPPRESSORS LAYOUT PROPOSED.
  - D. SUBMIT RECORD DRAWINGS INDICATING ACTUAL LOCATION AND ROUTING OF INSTALLED PIPING.
  - E. SUBMIT CERTIFICATE OF COMPLETION OF CHLORINATION.
- PART 2 PRODUCTS
- 2.01 PIPING:
- A. FOR UNDERGROUND WATER SERVICE PIPING OUTSIDE BUILDING TO WATER METER:
    - 1. ASTM B88 TYPE AS INDICATED ON DRAWINGS HARD COPPER TUBING WITH WROUGHT COPPER FITTINGS AND JOINTS MADE WITH 95-5 SOLDER.
    - 2. THICKNESS CLASS 50, CEMENT LINED, SEAL COATED, HUB AND SPIGOT TYPE DUCTILE IRON WITH JOINTS MADE WITH RUBBER COMPRESSION RINGS MANUFACTURED FOR THE PURPOSE. (OPTIONAL)
  - B. FOR UNDERGROUND WATER PIPING INSIDE BUILDING AND TO FIVE FEET OUTSIDE BUILDING
    - 1. 1" AND SMALLER - ASTM B88 TYPE AS INDICATED ON DRAWINGS SOFT COPPER TUBING WITH NO FITTINGS OR JOINTS PERMITTED UNDER SLAB. MAKE CONNECTIONS ABOVE SLAB USING WROUGHT COPPER FITTINGS AND 95-5 SOLDER.
    - 2. 1-1/4" AND LARGER - ASTM B88 TYPE AS INDICATED ON DRAWINGS HARD COPPER TUBING WITH WROUGHT COPPER FITTINGS AND JOINTS MAKE WITH SIL-FOS SOLDER (15% SILVER CONTENT).
  - C. FOR EXPOSED PIPING IN TOILET ROOMS AND OTHER FINISHED AREAS, USE CHROME PLATED BRASS PIPE WITH THREADED FITTINGS.
  - D. FOR ABOVE GROUND WATER AND T & P RELIEF PIPING INSIDE BUILDING, USE ASTM B88 TYPE AS INDICATED ON DRAWINGS HARD COPPER TUBING WITH WROUGHT COPPER FITTINGS AND JOINTS MADE WITH 95-5 SOLDER.
  - E. SOLDER CONTAINING LEAD SHALL NOT BE USED ON POTABLE WATER SYSTEMS.
- 2.02 VALVES:
- A. PROVIDE VALVES WITH SUITABLE MATERIALS INCLUDING DISC, PLUGS, BALLS, GASKETS, LININGS, AND LUBRICANTS FOR THE SERVICE, TEMPERATURE, AND PRESSURE TO WHICH THEY WILL BE EXPOSED. FURNISH WITH SOLDER OR SCREWED CONNECTIONS.
  - B. GATE VALVES: BRONZE, NON-RISING STEM, INSIDE CREW, DOUBLE WEDGE.
  - C. GLOBE OR ANGLE VALVES: BRONZE, RISING STEM, INSIDE CREW, RENEWABLE COMPOSITION DISC.
  - D. CHECK VALVES: BRONZE WITH SWING DISC.
  - E. FREEZE PROOF HOSE BIBBS (FPHB): 3/4" ANTI-SIPHON NON-FREEZE TYPE WITH BRONZE CASING AND BOX WITH LOOSE KEY HANDLE. FURNISH FOR PROPER WALL THICKNESS.
- PART 3 EXECUTION
- 3.01 PREPARATION:
- A. REAM PIPES AND TUBING AND THOROUGHLY CLEAN INSIDE AND OUTSIDE PRIOR TO CONNECTING.
- 3.02 INSTALLATION:
- A. SLOPE WATER PIPING MINIMUM OF 1 INCH IN 40 FEET AND ARRANGE TO DRAIN AT ALL LOW POINTS.
  - B. BURY ALL UNDERGROUND OUTSIDE PIPING A MINIMUM OF 3 FEET BELOW FINISHED GRADE.
  - C. USE ELECTRICALLY INSULATING TYPE CONNECTIONS FOR JOINING DISSIMILAR METALS SUCH AS BRASS VALVES OR ADAPTERS OR INSULATING COUPLINGS.
  - D. USE PROPER ADAPTERS FOR SCREWED VALVES TO COPPER PIPING.
  - E. USE TEFLON TAPE OR OTHER APPROVED JOINTS COMPOUND TO CONNECT THREADED PIPE.
  - F. CONNECT TO T & P RELIEF VALVE AND EXTEND FULL SIZE TO APPROVED DISCHARGE POINT.
  - G. WHERE PIPE PASSES THROUGH FINISHED WALL, CEILING, OR FLOOR, PROVIDE CHROME PLATED ESCUTCHEON PLATE SECURELY ANCHORED TO PIPE. INSTALL PIPE SO THAT NO THREADS SHOW.
  - H. ARRANGE WITH LOCAL UTILITY FOR WATER TAP AND METER INSTALLATION. PAY ALL COSTS TO ESTABLISH WATER SERVICES.

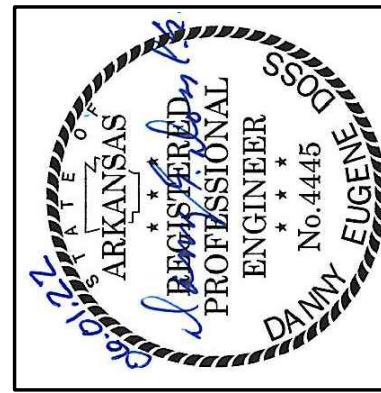
- 3.02 INSTALLATION CONTINUED:
- I. INSTALL GATE VALVE TO ISOLATE OR SHUT-OFF EQUIPMENT OR BRANCH LINES. USE GLOBE VALVES WHERE ADJUSTABLE FLOW OR THROTTLING IS REQUIRED.
  - J. INSTALL HOSE BIBBS CENTERLINE, 2 FEET ABOVE FLOOR OR GRADE. INSTALL GARBAGE CAN WASH VALVE 4 FEET ABOVE FLOOR OR DRAIN.
  - K. PROVIDE PRV TO LIMIT MAXIMUM STATIC PRESSURE AT PLUMBING FIXTURES TO 70 PSIG. SUBMIT PRESSURE DATA TAKEN AT DIFFERENT TIMES AS APPROVED OR INSTALL PRV AT SERVICE CONNECTION OR IN BUILDING. PROVIDE PRV AT OTHER SEPARATE FIXTURES WHEN SHOWN ON DRAWINGS.
  - L. MAKE PROVISIONS NECESSARY TO PREVENT CROSS CONNECTIONS WITH SANITARY DRAINAGE SYSTEM OR OTHER NON-POTABLE SOURCES. PROVIDE REDUCED PRESSURE TYPE BACKFLOW PREVENTERS WHEN REQUIRED.
- 3.03 TESTING:
- A. BEFORE CONCEALING OR INSULATING, TEST DOMESTIC WATER PIPING AND PROVE LEAK FREE. SUBJECT SYSTEM TO MINIMUM HYDROSTATIC PRESSURE OF 100 PSIG AND HOLD FOR ONE HOUR.
- 3.04 STERILIZATION:
- A. AFTER TESTS HAVE BEEN SUCCESSFULLY COMPLETED, THOROUGHLY FLUSH AND STERILIZE THE COMPLETED DOMESTIC WATER SYSTEM IN ACCORDANCE WITH AWWA C601.
  - B. FLUSH ENTIRE SYSTEM AFTER STERILIZATION UNTIL RESIDUAL CHLORINE CONTENT IS NO GREATER THAN 0.2 PARTS PER MILLION.
  - C. CHLORINATE ONLY WHEN THE BUILDING IS UNOCCUPIED.
- END OF SECTION
- NATURAL GAS PIPING SYSTEM  
SECTION 15413
- PART 1 GENERAL
- 1.01 WORK INCLUDED:
- A. UNDERGROUND NATURAL GAS SERVICE PIPING.
  - B. INTERIOR NATURAL GAS PIPING.
  - C. EXTERIOR EXPOSED NATURAL GAS PIPING.
  - D. CONNECTORS FOR APPLIANCES AND OTHER EQUIPMENT.
  - E. COCKS.
- 1.02 RELATED WORK:
- A. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.
- 1.03 SUBMITTALS:
- A. SUBMIT MANUFACTURER'S DATA SHEETS ON GAS COCKS.
  - B. SUBMIT LIST OF PIPING PRODUCTS TO BE USED AND STATE THEIR MANUFACTURERS, CLASSES OR TYPES, AND THERE APPLICABLE DATA.
  - C. SUBMIT RECORD DRAWINGS INDICATING ACTUAL LOCATION AND ROUTING OF PIPING AS INSTALLED.
- 1.04 QUALITY ASSURANCE:
- A. CONFORM TO ASME CODE AND APPLICABLE STATE REGULATIONS WITH ALL WELDING MATERIALS AND WELDING OPERATOR'S QUALIFICATIONS. USE ONLY OPERATORS FULLY QUALIFIED AND CERTIFIED UNDER THE REQUIREMENTS OF THE ARKANSAS GAS PIPELINE CODE (AFPG).
- PART 2 PRODUCTS
- 2.01 PIPING:
- A. UNDERGROUND PIPING:
    - 1. PLASTIC PIPE OR TUBING AND FITTINGS CONFORMING WITH ASTM D 2513. REINFORCED EPOXY RESIN GAS PIPE AND FITTINGS CONFORMING TO ASTM D 2517 FOR OUTSIDE UNDERGROUND USE ONLY. PLASTIC SHALL BE USED ONLY BELOW GRADE. PLASTIC PIPE AND FITTINGS SHALL BE JOINED BY APPROVED METHODS AND MANUFACTURING INSTRUCTIONS.
    - 2. MILL COAT PIPE WITH HIGH DENSITY POLYETHYLENE OVER ADHESIVE UNDERCOATING.
    - 3. WRAP FIELD JOINTS AND FITTINGS WITH REPUBLIC "X-TRU-TAPE" OR EQUAL PER MANUFACTURER'S RECOMMENDATIONS.
  - B. ABOVE GROUND PIPING:
    - 1. SCHEDULE 40 BLACK STEEL OR GALVANIZED STEEL WITH MALLEABLE IRON FITTINGS OR WELDED JOINTS WITH BUTTWELD FITTINGS.
    - 2. STAINLESS STEEL TUBING, FITTINGS, AND ACCESSORIES SHALL BE TESTED, LISTED, AND INSTALLED PER ANSI/ASA LC-1, MFPA AND FACTORY MUTUAL. SHALL HAVE POLYETHYLENE JACKET. SHALL MEET STATE AND LOCAL APPROVALS. SHALL BE EQUAL TO TRACE PIPE BY OMEGA FLEX.
  - C. CONNECTORS FOR APPLIANCES AND OTHER EQUIPMENT:
    - 1. PVC COOLED SPIRAL FLEXIBLE BRASS CONNECTOR WITH BRASS FLARED GAS TUBING FITTINGS.
  - D. CATHODIC PROTECTION - PACKAGED MAGNESIUM ANODES.
  - E. WELDING ROD - SAME MATERIAL AS PIPE.
- 2.02 GAS COCKS:
- A. IRON BODY WITH BRASS PLUG AND WASHER WITH SCREWED OR FLANGED ENDS RATED FOR 125 LB. WOG.
- PART 3 EXECUTION
- 3.01 PREPARATION:
- A. REAM PIPES AND TUBING PRIOR TO CONNECTION.
  - B. REMOVE WELDING SLAG FROM WELDED CONNECTIONS.

- 3.02 INSTALLATION:
- A. SLOPE NATURAL GAS PIPING MINIMUM OF 1 INCH IN 40 FEET AND PROVIDE MINIMUM 12 INCH DEEP DRIP POCKET SAME SIZE AS PIPE, AT ALL LOW POINTS AND AT FINAL CONNECTIONS TO EQUIPMENT. PROVIDE MALLEABLE IRON REMOVABLE SCREW-ON CAP ON BOTTOM OF DRIP POCKET.
  - B. BUY UNDERGROUND GAS PIPING MINIMUM OF 2 FEET BELOW FINISHED GRADE.
  - C. PROVIDE ONE OR MORE ANODES, SIZED FOR PIPE SIZE AND LENGTH OF UNDERGROUND SERVICE.
  - D. USE FLEXIBLE CONNECTOR AND GAS COCK FOR FINAL CONNECTION TO EACH APPLIANCE OR OTHER GAS FUELED UNIT.
  - E. PROVIDE DIELECTRIC UNION WHERE PIPING EMERGES FROM UNDERGROUND.
  - F. WELD ALL CONNECTIONS WHERE PIPING MUST BE CONCEALED. PROVIDE VENTILATED PIPE SLEEVES WHERE REQUIRED.
  - G. USE TEFLON TAPE OR OTHER APPROVED JOINT COMPOUND TO CONNECT THREADED PIPE.
  - H. ARRANGE WITH LOCAL UTILITY FOR GAS TAP AND METER INSTALLATION. PAY ALL COSTS TO ESTABLISH NATURAL GAS SERVICE.
  - I. MAKE SURE ALL PIPING CONCEALED IN WALLS OR OTHER AREAS ARE PROPERLY VENTED. AT TOP OF SOLID WALLS VENT WITH OPENING WHICH IS 2 TIMES THE DIAMETER OF THE PIPE.
  - J. PROVIDE VENTILATED PIPE SLEEVES UNDER ALL PAVING AND OTHER HARD SURFACES.
  - K. BOND INTERIOR METAL GAS PIPING TO THE ELECTRICAL SYSTEM GROUND. PIPING SHALL BE ELECTRICALLY CONTINUOUS.
  - L. INSTALL CONTINUOUS STRIP OF PLASTIC UTILITY MARKER TAPE OVER GAS PIPING. USE STRIP WITH TRACE WIRE FOR PLASTIC PIPE.
  - M. IDENTIFY AND LABEL MEDIUM PRESSURE GAS PIPING AT BOTH ENDS AND THE 6 FOOT INTERVALS IN BETWEEN.
  - N. CONTRACTOR SHALL COORDINATE WITH LOCAL GAS COMPANY THE STANDARD GAS PRESSURE. SHOULD THE SYSTEM EXCEED THE STANDARD GAS PRESSURE AND USE MEDIUM OR HIGH PRESSURE GAS CONTRACTOR SHALL PROVIDE A GAS REGULATOR AT EACH PIECE OF EQUIPMENT REQUIRING GAS SHOULD LOCATIONS NOT BE SHOWN ON DRAWINGS. PROVIDE VENTING ACCORDINGLY SHOULD THE REGULATOR BE INSTALLED INSIDE THE BUILDING.
- 3.03 TESTING:
- A. BEFORE CONCEALING, TEST NATURAL GAS PIPING SYSTEM AND PROVE LEAK FREE. SUBJECT SYSTEM TO AT LEAST 50 PSIG AIR PRESSURE FOR 3 MINUTES.
  - B. CHECK UNDERGROUND PIPING COATING WITH A "HOLIDAY" DETECTOR AND PROVE FREE FROM LEAKAGE CURRENTS THROUGH COATING.
- END OF SECTION
- INSULATION  
SECTION 15414
- PART 1 GENERAL
- 1.01 WORK INCLUDED:
- A. INSULATION MATERIALS.
  - B. INSULATING CEMENTS.
  - C. ADHESIVES.
  - D. MASTICS.
  - E. SEALANTS.
  - F. FACTORY-APPLIED JACKETS.
  - G. FIELD-APPLIED FABRIC-REINFORCING MESH.
  - H. FIELD-APPLIED JACKETS.
  - I. TAPES.
  - J. SECUREMENTS.
  - K. CORNER ANGLES.
- 1.02 RELATED WORK:
- A. SECTION 15000 GENERAL MECHANICAL REQUIREMENTS.
  - B. SECTION 15005 MECHANICAL INSULATION.
- 1.03 SUBMITTALS:
- A. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED.
  - B. SHOP DRAWINGS DETAILING APPLICATION OF PROTECTIVE SHIELDS, SADDLES, AND INSERTS AT HANGERS FOR EACH TYPE OF INSULATION AND HANGER.
  - C. DETAIL ATTACHMENT AND COVERING OF HEAT TRACING INSIDE INSULATION.
  - D. DETAIL INSULATION APPLICATION AT PIPE EXPANSION JOINTS FOR EACH TYPE OF INSULATION.
  - E. DETAIL INSULATION APPLICATION AT ELBOWS, FITTINGS, FLANGES, VALVES, AND SPECIALTIES FOR EACH TYPE OF INSULATION.
  - F. DETAIL REMOVABLE INSULATION AT PIPING SPECIALTIES, EQUIPMENT CONNECTIONS, AND ACCESS PANELS.
  - G. DETAIL APPLICATION OF FIELD-APPLIED JACKETS.
  - H. DETAIL APPLICATION AT LINKAGES OF CONTROL DEVICES.
  - I. DETAIL FIELD APPLICATION FOR EACH EQUIPMENT TYPE.
  - J. FIELD QUALITY-CONTROL REPORTS.
- PART 1 GENERAL
- 2.01 PRODUCTS:
- A. INSULATION MATERIALS.
    - 1. PRODUCTS SHALL NOT CONTAIN ASBESTOS, LEAD, MERCURY, OR MERCURY COMPOUNDS.
    - 2. PRODUCTS THAT COME IN CONTACT WITH STAINLESS STEEL SHALL HAVE A LEACHABLE CHLORIDE CONTENT OF LESS THAN 50 PPM WHEN TESTED ACCORDING TO ASTM C 871.
    - 3. INSULATION MATERIALS FOR USE ON AUSTENITIC STAINLESS STEEL SHALL BE QUALIFIED AS ACCEPTABLE ACCORDING TO ASTM C 795.
  - 4. FOAM INSULATION MATERIALS SHALL NOT USE CFC OR HCFC BLOWING AGENTS IN THE MANUFACTURING PROCESS.

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**KEY ARCHITECTURE INC.**  
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Rev. #	Date	Description

NEW OFFICE WAREHOUSE 6-BAY BLDG.  
2303 WORTH LANE  
SPRINGDALE, ARKANSAS  
MTNWA INVESTMENTS, LLC  
1457 E. ROBINSON AVE.  
SPRINGDALE, AR 72764

DATE 06/01/22 DRAWN BY  
PROJECT # 2169 CHECKED BY  
SHEET P-700

LEGEND

Table of electrical symbols and their descriptions, including conduit types, luminaire symbols, switches, receptacles, and distribution equipment.

NEC GENERAL NOTES:

- 1. WHERE THE CONDUCTORS IN A RACEWAY OR CABLE EXCEEDS THREE, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED PER TABLE 310.15(B)(2).
2. WHERE THE CONDUCTORS OR CABLES ARE INSTALLED IN CONDUITS EXPOSED TO DIRECT SUNLIGHT OR ABOVE ROOFTOPS SHALL BE REDUCED PER TABLE 310.15(B)(2)(C).
3. WHERE TWO DIFFERENT AMPACITIES APPLY TO ADJACENT PORTIONS OF A CIRCUIT, THE AMPACITY SHALL BE PER THE 310.15(2) EXCEPTION.

APPLICABLE CODES

- CODES:
• NATIONAL ELECTRICAL CODE 2017
• COMPLY WITH LOCAL JURISDICTION REQUIREMENTS

VOLTAGE DROP NOTES:

HOMERUN TO PANEL INDICATED (CONCEALED). MINIMUM 3/4" CONDUIT. UNLESS OTHERWISE NOTED PROVIDE #12 CONDUCTORS AS REQUIRED BY THE NUMBER OF CIRCUITS SHOWN. INCLUDE #12 GROUND AND #12 NEUTRAL CONDUCTORS.
FOR HOMERUNS EXCEEDING 75' USE THE NEXT TABLE TO SIZE THE CONDUCTORS:
0 - 75 Feet -----#12 AWG
75 - 150 Feet -----#10 AWG
150 - 250 Feet -----# 8 AWG
250 - 350 Feet -----# 6 AWG

ABBREVIATIONS

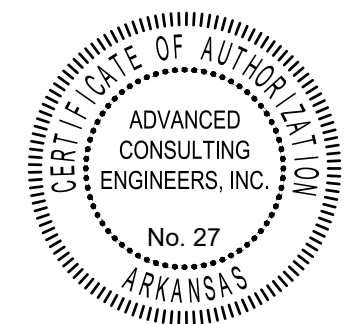
Table of abbreviations and their meanings, such as AMPERE, ALUMINUM, AMPACITY, and various electrical components.

GENERAL NOTES

- 1. PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LOCAL CODES, ORDINANCES AND REQUIREMENTS OF UTILITY COMPANIES FURNISHING SERVICES TO INSTALLATION.
2. PROVIDE ITEMS NECESSARY TO COMPLETE ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.

SHEET INDEX

Table with columns for SHEET NUMBER and SHEET NAME, listing sheets E-000 through E-107.



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PO BOX 427 ROGERS, AR 72756 PH 479-631-1712 FX 479-631-1854 ACEI@ADVENGINEERS.COM



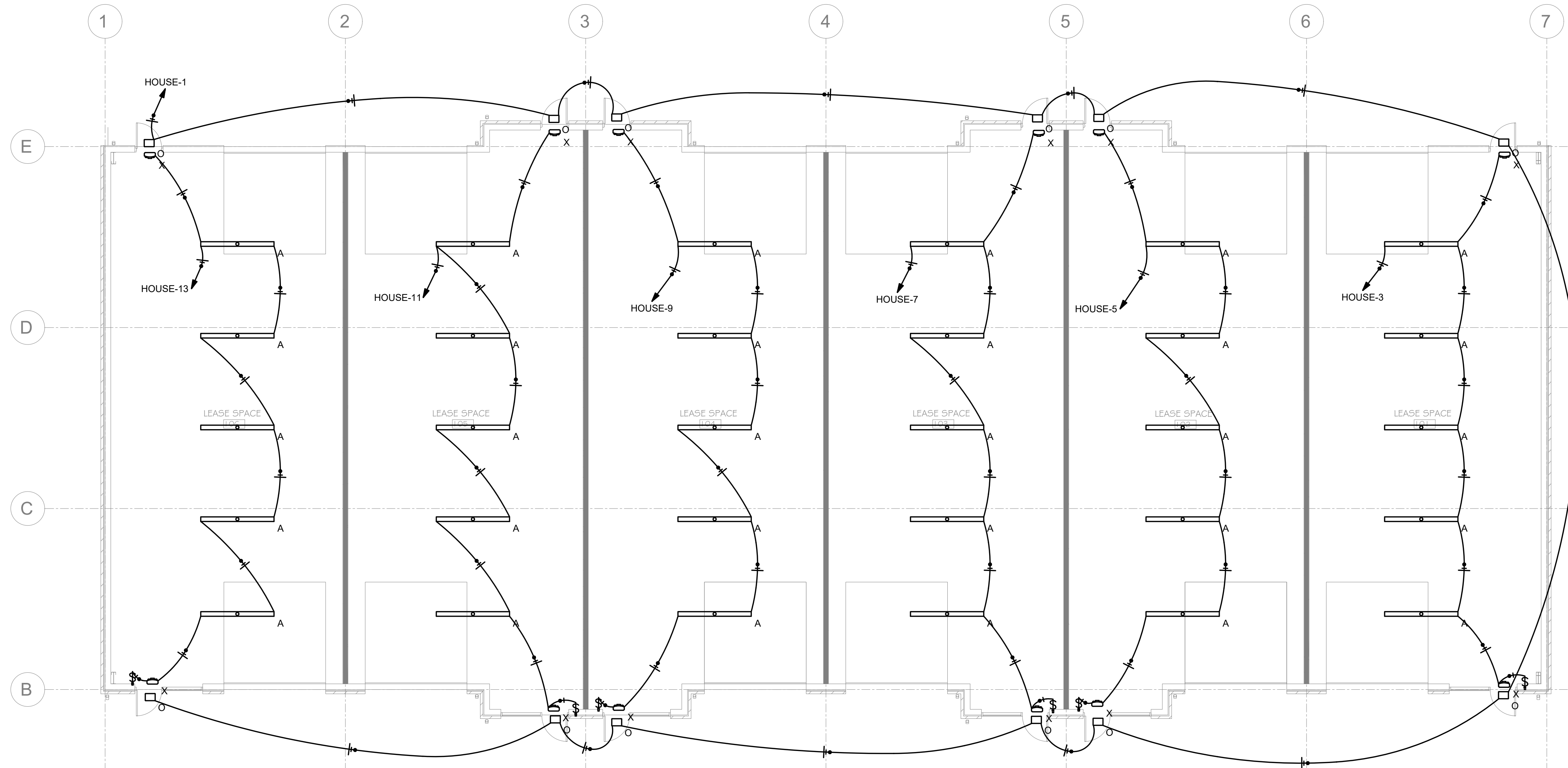
KEY ARCHITECTURE INC. P.O. BOX 748 FAYETTEVILLE, ARKANSAS 72702 PH. 479.444.6066 FAX. 479.444.1445

Revision Schedule table with columns for Rev. #, Date, and Description.

NEW OFFICE WAREHOUSE 6-BAY BLDG. 2303 WORTH LANE SPRINGDALE, ARKANSAS MTNWA INVESTMENTS, LLC 1457 E. ROBINSON AVE. SPRINGDALE, AR 72764

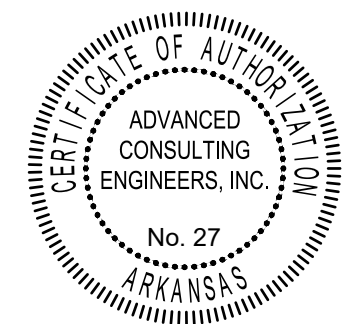
Project information table including DATE (06/01/22), PROJECT # (2169), DRAWN BY, and CHECKED BY.

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

LUMINAIRE SCHEDULE						
CALLOUT	SYMBOL	LAMP	MOUNTING	MODEL	INPUT WATTS	VOLTS
A		(1)	SURFACE	Lithonia Lighting, CSS L96 ALO4 MVOLT SWW3 80CRI (8000LM 3500K)	68.4	120V 1P 2W
B		(1)	CEILING	Lithonia Lighting, 2GTL2 40L A12125 LP840	33.61	MULTIPLE
C		(1) LED	WALL	Lithonia Lighting, BLWP2 40L ADSM LP840	37.34	MULTIPLE
D		(1)	SURFACE	Lithonia Lighting, CLX L48 4000LM SEF FDL MVOLT GZ10 35K 80CRI WH	27.58	MULTIPLE
E		(2) TWO 3.3-WATT LED, ELP L372	WALL	Lithonia Lighting, ELM4L	5	MULTIPLE
O		(1) LED, NICHIA 219B 4000K	WALL	Lithonia Lighting, DSXW2 LED 20C 700 40K T2M 120 PE DBLXD	47	120V 1P 2W
R		(1)	WALL	Lithonia Lighting, ERE B T RD WP	1.6	MULTIPLE
SL		(1)	POLE	Lithonia Lighting, RSX3 LED P4 40K R4 120 AASP PE CE34 DBLXD	311.92	120V 1P 2W
X		(2) TWO 1.5-WATT LED ASSEMBLY, ELP L275	WALL	Lithonia Lighting, LHQM LED	3	120V 1P 2W



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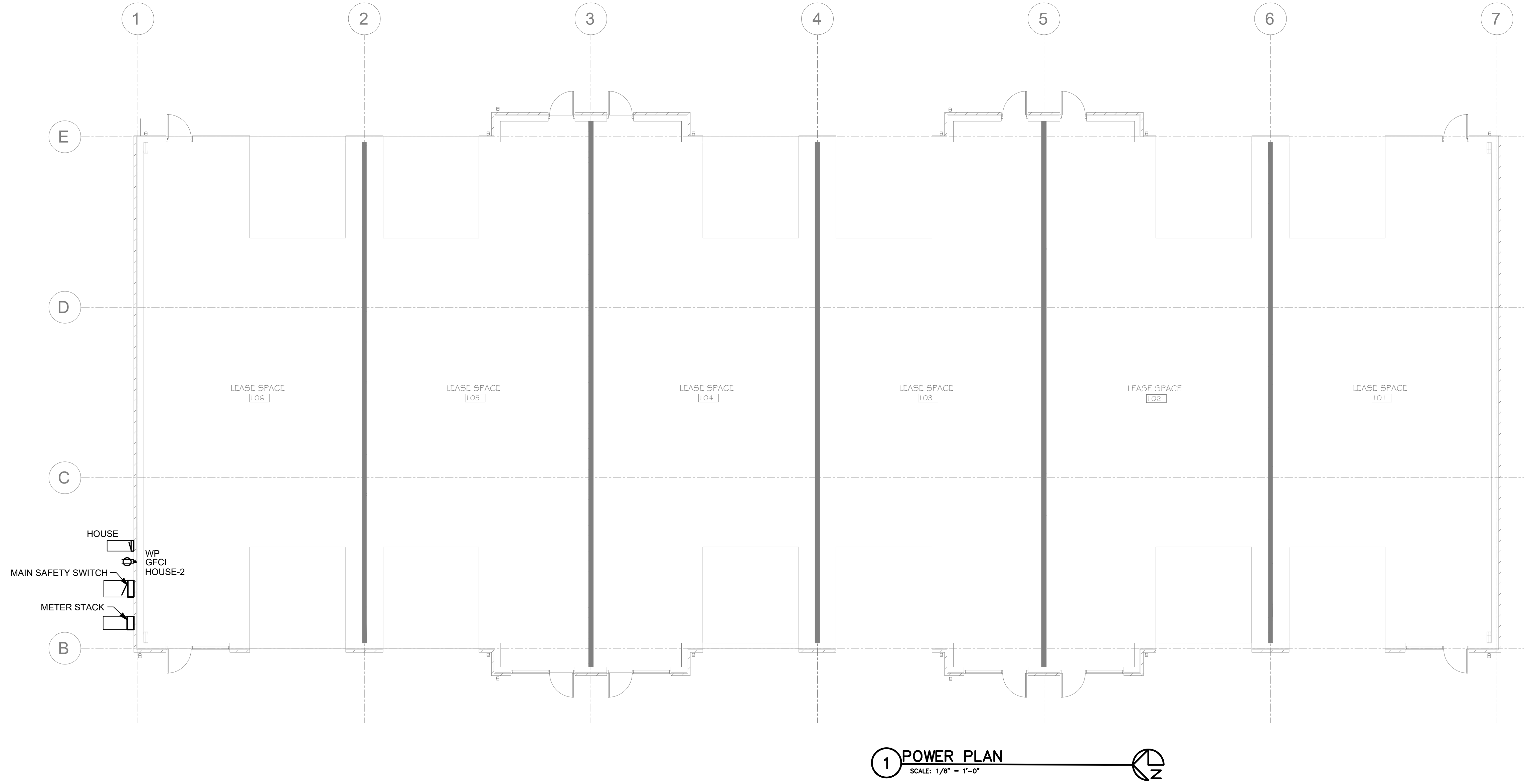
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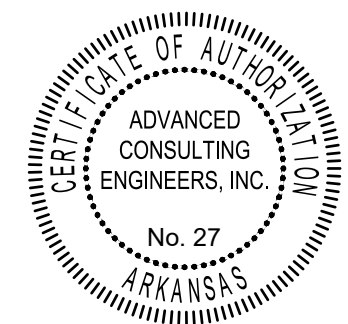
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SPRINGDALE, AR 72764

DATE: 06/01/22  
PROJECT #: 2169  
DRAWN BY:  
CHECKED BY:

SHEET  
**E-100**



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



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**E-101**

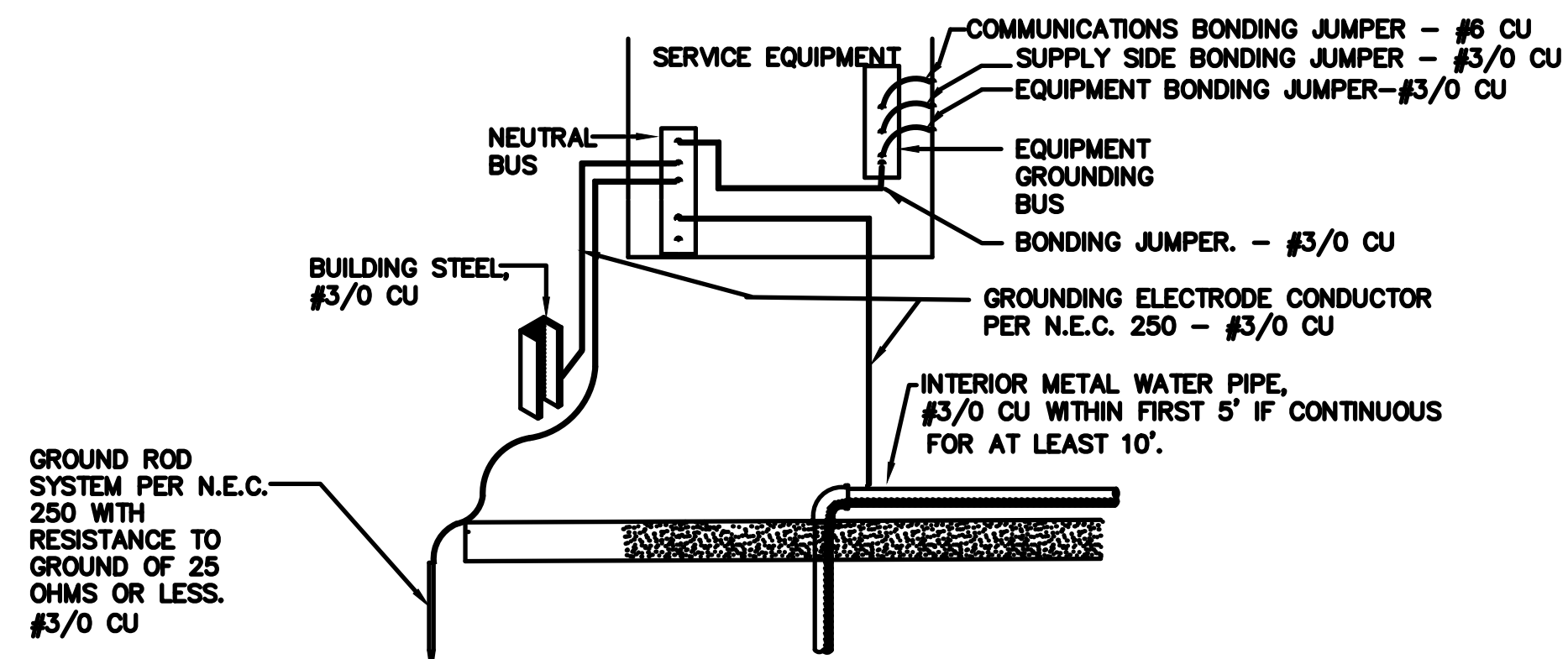


BRANCH CIRCUITS TO BE IDENTIFIED PER NEC 210.5.  
 FMC TO BE PER NEC 348.  
 RECEPTACLES, CORD CONNECTORS & ATTACHMENT PLUGS TO BE PER NEC 406.  
 SWITCHBOARDS, SWITCH GEAR & PANEL BOARDS TO BE PER NEC 406.  
 LIGHTING TO BE PER NEC 410.

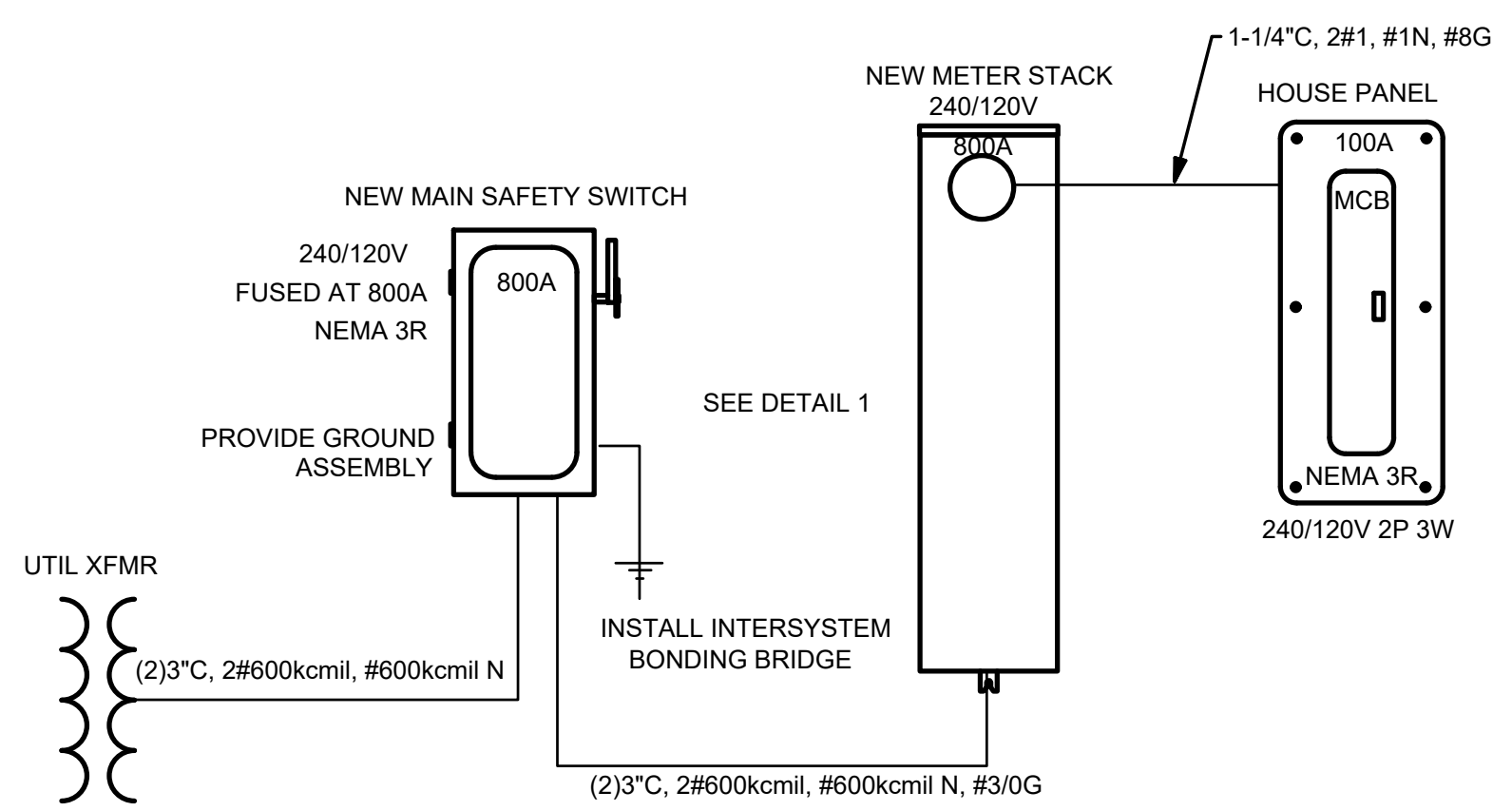
PANELS AND THEIR CIRCUITS  
 TO BE IDENTIFIED PER NEC  
 SECTION 408.4 (A) & (B)

PANELS TO BE IDENTIFIED  
 FOR ARC FLASH HAZARD  
 PER NEC SECTION 110.16.

HOUSE						
ROOM	VOLTS 240/120V 2P 3W			AIC 30,000		
MOUNTING SURFACE	BUS AMPS 100			MAIN BKR 100		
FED FROM METER STACK	NEUTRAL 100%			LUGS STANDARD		
NOTE	NEMA 3R					
CKT #	BREAKER TRIP/POLES	CIRCUIT DESCRIPTION	LOAD KVA			FEEDER RACEWAY AND CONDUCTORS
			A	B	C	
1	20/1	EXTERIOR LIGHTING	564			1/2"C,1#10,#10N,#10G
3	20/1	101 LIGHTING		348		1/2"C,1#10,#10N,#10G
5	20/1	102 LIGHTING	348			1/2"C,1#10,#10N,#10G
7	20/1	103 LIGHTING		348		1/2"C,1#10,#10N,#10G
9	20/1	104 LIGHTING	348			1/2"C,1#10,#10N,#10G
11	20/1	105 LIGHTING		348		1/2"C,1#10,#10N,#10G
13	20/1	106 LIGHTING	348			1/2"C,1#10,#10N,#10G
15	20/1	SPARE		0		
17	20/1	SPARE	0	0		
19	20/1	SPARE	0	0		
21	20/1	SPARE	0	0		
23	20/1	SPARE	0	0		
25	20/1	SPARE	0	0		
27	20/1	SPARE	0	0		
29	20/1	SPARE	0	0		
2	20/1	EXTERIOR RECEPTACLE		180		1/2"C,1#12,#12N,#12G
4	20/1	SPARE	0	0		
6	20/1	SPARE	0	0		
8	20/1	SPARE	0	0		
10	20/1	SPARE	0	0		
12	20/1	SPARE	0	0		
14	20/1	SPARE	0	0		
16	20/1	SPARE	0	0		
18	20/1	SPARE	0	0		
20	20/1	SPARE	0	0		
22	20/1	SPARE	0	0		
24	20/1	SPARE	0	0		
26	20/1	SPARE	0	0		
28	20/1	SPARE	0	0		
30	20/1	SPARE	0	0		
TOTAL CONNECTED KVA BY PHASE			1,790	1,040	0	
CONN VA			CALC VA			
LIGHTING	2,650	3,320	(125%)	TOTAL LOAD		3,500
RECEPTACLES	180	180	(50%>10)	BALANCED LOAD		14.6 A

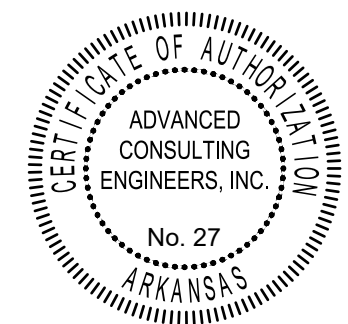


1 GROUNDING ELECTRODE SYSTEM  
 N.T.S.



2 SINGLE-LINE DIAGRAM  
 SCALE: N.T.S.

CONTRACTOR SHALL VISIT THE SITE AND PERFORM A COMPLETE FIELD SURVEY PRIOR TO BID AND/OR CONSTRUCTION  
 COORDINATE ALL WORK WITH SERVING UTILITY COMPANY REQUIREMENTS AND MAKE CONTACT WITH LOCAL REPRESENTATIVE PRIOR TO BID AND/OR CONSTRUCTION. PRIOR TO BID, NOTIFY THIS ENGINEER, IN WRITING, OF ANY CHANGES REQUIRED.



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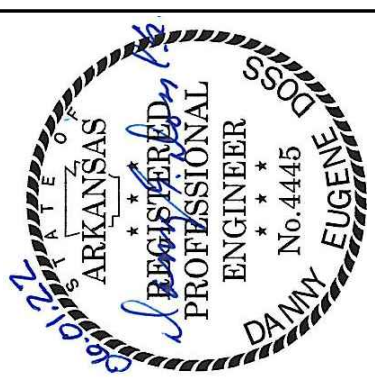
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 PROJECT # 2169  
 DRAWN BY  
 CHECKED BY  
 SHEET E-601

16010 BASIC ELECTRICAL REQUIREMENTS	
PART 1 GENERAL	
1.01 SECTION INCLUDES	
A. BASIC ELECTRICAL REQUIREMENTS SPECIFICALLY APPLICABLE TO DIVISION 16, IN ADDITION TO DIVISION 1 - GENERAL REQUIREMENTS.	
1.02 SUBMITTALS	
A. SUBMIT UNDER PROVISIONS OF ARCHITECTURAL SPECIFICATIONS.	
B. SUBMIT THE FOLLOWING PRODUCTS:	
1. WIRING DEVICES AND COVER PLATES.	
2. DISCONNECT SWITCHES.	
3. PANELBOARDS.	
4. LIGHT FIXTURES.	
C. INDICATE MANUFACTURER'S NAME AND COMPLETE CATALOG NUMBER WITH THE LABEL OR NUMBER OF THE EQUIPMENT, AS DESIGNATED ON DRAWINGS, ADJACENT THERETO.	
D. SUBSTITUTIONS: WHERE A SPECIFIC MANUFACTURER OR TRADE NAME IS MENTIONED IN THE SPECIFICATION, IT IS TO ESTABLISH A STANDARD OF QUALITY. SUBSTITUTIONS FOR SPECIFIED EQUIPMENT ARE ALLOWED ONLY WHEN SUBSTITUTIONS OR APPROVED EQUALS ARE NOTED. SUBSTITUTION OF OTHER MAKES SHALL BE APPROVED BY THE ARCHITECT/ENGINEER AND/OR OWNER, 10 DAYS PRIOR TO BIDS.	
1.03 REGULATORY REQUIREMENTS	
A. CONFORM TO APPLICABLE BUILDING CODES.	
1.04 PROJECT/SITE CONDITIONS	
A. VISIT THE SITE, EXAMINE AND VERIFY THE CONDITIONS UNDER WHICH WORK MUST BE CONDUCTED BEFORE SUBMITTING A PROPOSAL. THE SUBMITTING OF A PROPOSAL IMPLIES THAT THE CONTRACTOR HAS VISITED THE SITE, IS CONVERSANT WITH ALL SITE CONDITIONS, INCLUDING EXISTING SERVICES AND EQUIPMENT, OBSTRUCTION AND ALL CONDITIONS, WHICH WILL BE ENCOUNTERED IN THE REMOVAL AND/OR RELOCATION OF PRESENT MATERIALS AND EQUIPMENT, INSTALLATION OF NEW MATERIALS, ETC., FOR A COMPLETE INSTALLATION.	
B. THE DRAWINGS SHOW THE LOCATION AND GENERAL ARRANGEMENT OF ALL EQUIPMENT AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND WORK OF OTHER TRADES PERMIT. INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING WORK AND ARRANGE WORK ACCORDINGLY.	
PART 2 PRODUCTS	
2.01 MATERIALS AND EQUIPMENT	
A. MATERIALS AND EQUIPMENT: ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION AS SUITABLE FOR THE USE INTENDED.	
B. ALL EQUIPMENT OF SAME OR SIMILAR SYSTEMS SHALL BE OF THE SAME MANUFACTURER.	
C. ALL ELECTRICAL EQUIPMENT SHALL BE NEW UNLESS OTHERWISE STATED IN DRAWINGS.	
PART 3 EXECUTION	
3.01 WORKMANSHIP	
A. INSTALL WORK USING PROCEDURES DEFINED IN NECA STANDARD OF INSTALLATION.	
END OF SECTION	
16111 CONDUIT	
PART 1 GENERAL	
1.01 WORK INCLUDED	
A. RIGID METAL CONDUIT AND FITTINGS.	
B. INTERMEDIATE METAL CONDUIT AND FITTINGS.	
C. ELECTRICAL METAL TUBING AND FITTINGS.	
D. FLEXIBLE METAL CONDUIT AND FITTINGS.	
E. LIQUIDTIGHT FLEXIBLE METAL CONDUIT AND FITTINGS.	
PART 2 PRODUCTS	
2.01 MANUFACTURERS - CONDUIT	
A. STEELDUCT, PITTSBURGH, NATIONAL, REPUBLIC, TRIANGLE, ANACONDA.	
2.02 CONDUIT SUPPORTS	
A. CONDUIT CLAMPS, STRAPS, AND SUPPORTS: STEEL OR MALLEABLE IRON.	
PART 3 EXECUTION	
3.01 CONDUIT SIZING, ARRANGEMENT, AND SUPPORT	
A. IF NOT INDICATED ON DRAWINGS, SIZE CONDUIT FOR CONDUCTOR TYPE INSTALLED: 1/2 INCH MINIMUM SIZE.	
B. CONCEAL ALL WORK IN WALLS AND ABOVE CEILINGS IN FINISHED ROOMS. NO CONDUIT SHALL BE INSTALLED ON OR ABOVE ROOF. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILINGS PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING.	
3.02 CONDUIT INSTALLATION	
A. USE CONDUIT HUBS OR SEALING LOCKNUTS FOR FASTENING CONDUIT TO CAST BOXES, AND FOR FASTENING CONDUIT TO SHEET METAL BOXES IN DAMP OR WET LOCATIONS.	
B. USE SUITE CONDUIT CAPS TO PROTECT INSTALLED CONDUIT AGAINST ENTRANCE OF DIRT AND MOISTURE.	
C. INSTALL EXPANSION JOINTS WHERE CONDUIT CROSSES BUILDING EXPANSION JOINTS.	
D. WHERE CONDUIT PENETRATES FIRE-RATED WALLS AND FLOORS, PROVIDE MECHANICAL FIRE-STOP FITTINGS WITH UL LISTED FIRE RATING EQUAL TO WALL OR FLOOR RATING.	
E. ROUTE CONDUIT THROUGH ROOF OPENINGS FOR PIPING AND DUCTWORK WHERE POSSIBLE; OTHERWISE, ROUTE THROUGH ROOF JACK WITH PITCH POCKET.	
3.03 CONDUIT INSTALLATION SCHEDULE	
A. INSTALLATIONS IN SLAB OR UNDER CONCRETE SLAB ON GRADE: RIGID GALVANIZED CONDUIT, INTERMEDIATE METAL CONDUIT, IN SLAB ABOVE GRADE: RIGID GALVANIZED CONDUIT, ELECTRICAL METALLIC TUBING, INTERMEDIATE METAL CONDUIT.	
B. CONCEALED DRY INTERIOR LOCATIONS: RIGID GALVANIZED CONDUIT, INTERMEDIATE METAL CONDUIT, OR ELECTRICAL METALLIC TUBING.	
C. EXPOSED DRY INTERIOR LOCATIONS: RIGID GALVANIZED CONDUIT, INTERMEDIATE METAL CONDUIT, OR ELECTRICAL METALLIC TUBING.	
END OF SECTION	

16123 BUILDING WIRE AND CABLE	
PART 1 GENERAL	
1.01 SECTION INCLUDES	
A. BUILDING WIRE AND CABLE.	
B. WIRING CONNECTORS AND CONNECTIONS.	
1.02 PROJECT CONDITIONS	
A. VERIFY THAT FIELD MEASUREMENTS ARE AS SHOWN ON DRAWINGS. CONDUCTOR SIZES ARE BASED ON COPPER.	
PART 2 PRODUCTS	
2.01 MANUFACTURERS	
A. GENERAL ELECTRIC, ROME, HATFIELD, CRESNET, GENERAL CABLE, TRIANGLE, ANACONDA.	
2.02 WIRE AND CABLE	
A. DESCRIPTION: SINGLE CONDUCTOR INSULATED WIRE.	
B. CONDUCTOR: COPPER.	
C. INSULATION VOLTAGE RATING: 600 VOLTS.	
D. INSULATION: ANSI/WFPA 70: TYPE THW, THHN/THWN OR XHHW INSULATION FOR FEEDERS AND BRANCH CIRCUITS LARGER THAN 8 AWG; TYPE THHN/THWN INSULATION FOR FEEDERS AND BRANCH CIRCUITS 8 AWG AND SMALLER. THW OR XHHW MAY BE USED IF CONDUIT SIZE IS INCREASED FOR FEEDERS AND BRANCH CIRCUITS 8 AWG AND SMALLER.	
PART 3 EXECUTION	
3.01 WIRING METHODS	
A. USE ONLY BUILDING WIRE IN RACEWAYS IN ALL LOCATIONS.	
B. USE WIRING METHODS INDICATED ON DRAWINGS.	
C. ALL CONDUCTORS IN PLENUM AREA SHALL BE PLENUM RATED.	
3.02 INSTALLATION	
A. USE SOLID CONDUCTOR FOR FEEDERS AND BRANCH CIRCUITS 10 AWG AND SMALLER, STRANDED CONDUCTOR 8 AWG AND LARGER.	
B. USE STRANDED CONDUCTORS FOR CONTROL CIRCUITS.	
C. USE CONDUCTOR NOT SMALLER THAN 12 AWG FOR POWER AND LIGHTING CIRCUITS.	
D. USE CONDUCTOR NOT SMALLER THAN 14 AWG FOR CONTROL CIRCUITS.	
E. USE SOLDERLESS PRESSURE CONNECTORS WITH INSULATING COVERS FOR COPPER CONDUCTOR SPLICES AND TAPE, 6 AWG AND LARGER.	
F. USE INSULATED SPRING WIRE CONNECTORS WITH PLASTIC CAPS FOR COPPER CONDUCTOR SPLICES AND TAPE, 8 AWG AND SMALLER.	
END OF SECTION	
16130 BOXES	
PART 1 GENERAL	
1.01 SECTION INCLUDES	
A. WALL AND CEILING OUTLET BOXES.	
B. PULL AND JUNCTION BOXES.	
1.02 PROJECT CONDITIONS	
A. VERIFY FIELD MEASUREMENTS ARE AS SHOWN ON DRAWINGS. ELECTRICAL BOXES ARE SHOWN ON DRAWINGS IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. INSTALL AT LOCATION REQUIRED FOR BOX TO SERVE INTENDED PURPOSE.	
PART 2 PRODUCTS	
2.01 OUTLET BOXES	
A. SHEET METAL OUTLET BOXES: ANSI/NEMA OS 1. GALVANIZED STEEL.	
1. LUMINAIRE AND EQUIPMENT SUPPORTING BOXES: RATED FOR WEIGHT OF EQUIPMENT SUPPORTED, INCLUDE 1/2 INCH MALE FIXTURE STUDS WHERE REQUIRED.	
B. NONMETALLIC OUTLET BOXES: ANSI/NEMA OS 2.	
C. CAST BOXES: NEMA FB 1, TYPE FD CAST FERROALLOY. PROVIDE GASKETED COVER BY BOX MANUFACTURER. PROVIDE THREADED HUBS.	
2.02 PULL AND JUNCTION BOXES	
A. SHEET METAL BOXES: NEMA OS 1, GALVANIZED STEEL.	
PART 3 EXECUTION	
3.01 INSTALLATION	
A. INSTALL ELECTRICAL BOXES AS SHOWN ON DRAWINGS, AND AS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS AND COMPLIANCE WITH REGULATORY REQUIREMENTS.	
B. INSTALL PULL BOXES AND JUNCTION BOXES ABOVE ACCESSIBLE CEILINGS AND IN UNFINISHED AREAS ONLY, UNLESS NOTED OTHERWISE.	
C. INSTALL BOXES TO PRESERVE FIRE RESISTANCE RATING OF PARTITIONS AND OTHER ELEMENTS.	
D. ALIGN ADJACENT WALL-MOUNTED OUTLET BOXES FOR SWITCHES, THERMOSTATS, AND SIMILAR DEVICES WITH EACH OTHER.	
E. USE CAST FLOOR BOXES FOR INSTALLATIONS IN SLAB ON GRADE; FORMED STEEL BOXES ARE ACCEPTABLE FOR OTHER INSTALLATIONS.	
3.03 INTERFACE WITH OTHER PRODUCTS	
A. LOCATE FLUSH MOUNTING BOX IN MASONRY WALL TO REQUIRE CUTTING OF MASONRY UNIT CORNER ONLY. COORDINATE MASONRY CUTTING TO ACHIEVE NEAT OPENING.	
B. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF OUTLETS MOUNTED ABOVE COUNTERS, BENCHES AND BACKSPASHES.	
END OF SECTION	
16141 WIRING DEVICES	
PART 1 GENERAL	
1.01 SECTION INCLUDES	
A. WALL SWITCHES.	
B. RECEPTACLES.	
C. DEVICES PLATES AND COVERS.	
PART 2 PRODUCTS	
2.01 WALL SWITCHES	
A. MANUFACTURERS: ARROW HART, GENERAL ELECTRIC, HUBBELL, LEVITON, PASS & SEYMOUR, SLATER.	
B. DEVICE BODY: PLASTIC BODY WITH IVORY NYLON TOGGLE HANDLE.	
C. VOLTAGE RATING: 120-277 VOLTS, AC.	
D. CURRENT RATING: 20 AMPERES.	
E. DESCRIPTION: NEMA WD 1, SPECIFICATION GRADE, AC TOGGLE SWITCH AS FOLLOWS:	
1. SINGLE POLE: ARROW HART 1221.	
2. DOUBLE POLE: ARROW HART 1222.	
3. THREE WAY: ARROW HART 1223.	
(CON'T.)	

16141 WIRING DEVICES	
2.02 RECEPTACLES	
A. MANUFACTURERS: ARROW HART, GENERAL ELECTRIC, HUBBELL, LEVITON, PASS & SEYMOUR, SLATER.	
B. DEVICE BODY: PLASTIC BODY WITH IVORY NYLON FACE.	
C. CONVENIENCE AND STRAIGHT-BLADE RECEPTACLES: NEMA WD 1, SPECIFICATION GRADE, GROUNDING TYPE; LOCKING-BLADE RECEPTACLES: NEMA WD 5, SPECIFICATION GRADE, GROUNDING TYPE; AS FOLLOWS:	
1. DUPLEX RECEPTACLE 20 A, 125 V: HUBBELL 5362, ARROW HART 5362, P & S 5362, SLATER 5362-AG, LEVITON 5362, OR G.E. 5362-1.	
2. COMPUTER DUPLEX RECEPTACLE 20A, 125V ISOLATED GROUND: HUBBELL IG 5362, ARROW HART L-5362, P & S IG6300, SLATER IG5362-AG-OR, LEVITON 5362-IG, OR G.E. 5362-IG2.	
2.03 WALL PLATES	
A. HIGH IMPACT NYLON, IVORY COLOR, SAME AS DEVICE MANUFACTURER, TO MATCH DEVICE.	
PART 3 EXECUTION	
3.01 EXAMINATION	
A. VERIFY OUTLET BOXES ARE INSTALLED AT PROPER HEIGHT.	
B. VERIFY WALL OPENINGS ARE NEATLY CUT AND WILL BE COMPLETELY COVERED BY WALL PLATES.	
3.02 PREPARATION	
A. PROVIDE EXTENSION RINGS TO BRING OUTLET BOXES FLUSH WITH FINISHED SURFACE, IF REQUIRED.	
3.03 INSTALLATION	
A. CONNECT WIRING DEVICE GROUNDING TERMINAL TO BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR.	
B. CONNECT WIRING DEVICES BY WRAPPING CONDUCTOR AROUND SCREW TERMINAL.	
C. USE JUMBO SIZE PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS.	
D. INSTALL GALVANIZED STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS ABOVE ACCESSIBLE CEILINGS AND ON SURFACE MOUNTED OUTLETS IN STOCKROOM AREAS.	
END OF SECTION	
16190 SUPPORTING DEVICES	
PART 1 GENERAL	
1.01 WORK INCLUDED	
A. CONDUIT AND EQUIPMENT SUPPORTS.	
B. FASTENING HARDWARE.	
1.02 QUALITY ASSURANCE	
A. SUPPORT SYSTEMS SHALL BE ADEQUATE FOR WEIGHT OF EQUIPMENT AND CONDUIT, INCLUDING WIRING, WHICH THEY CARRY.	
PART 2 PRODUCTS	
2.01 MATERIAL	
A. SUPPORT CHANNEL: GALVANIZED OR PAINTED STEEL.	
B. HARDWARE: CORROSION RESISTANT.	
PART 3 EXECUTION	
3.01 INSTALLATION	
A. FASTEN HANGER RODS, CONDUIT CLAMPS, AND OUTLET AND JUNCTION BOXES TO BUILDING STRUCTURE.	
B. USE TOGGLE BOLTS OR HOLLOW WALL FASTENERS IN HOLLOW MASONRY, PLASTER, OR GYPSUM BOARD PARTITIONS AND WALLS; EXPANSION ANCHORS OR PRESET INSERTS IN SOLID MASONRY WALLS; SELF-DRILLING ANCHORS OR EXPANSION ANCHOR ON CONCRETE SURFACES; SHEET METAL SCREWS IN SHEET METAL STUDS; AND WOOD SCREWS IN WOOD CONSTRUCTION.	
C. DO NOT FASTEN SUPPORTS TO METAL DECK, PIPING, DUCTWORK, MECHANICAL EQUIPMENT, OR CONDUIT.	
D. DO NOT USE POWDER-ACTUATED ANCHORS.	
E. DO NOT WELD TO OR DRILL BUILDING STRUCTURAL STEEL MEMBERS.	
F. FABRICATE SUPPORTS FROM STRUCTURAL STEEL OR STEEL CHANNEL, RIGIDLY WELDED OR BOLTED TO PRESENT A NEAT APPEARANCE. USE HEXAGON HEAD BOLTS WITH SPRING LOCK WASHERS UNDER ALL NUTS.	
G. INSTALL SURFACE-MOUNTED CABINETS AND PANELBOARDS WITH MINIMUM OF FOUR ANCHORS.	
H. BRIDGE STUDS TOP AND BOTTOM WITH CHANNELS TO SUPPORT FLUSH-MOUNTED CABINETS AND PANELBOARDS IN STUD WALLS.	
END OF SECTION	
16195 ELECTRICAL IDENTIFICATION	
PART 1 GENERAL	
1.01 WORK INCLUDED	
A. NAMEPLATES AND TAPE LABELS.	
B. WIRE AND CABLE MARKERS.	
PART 2 PRODUCTS	
2.01 MATERIALS	
A. NAMEPLATES: ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON A BLACK BACKGROUND.	
B. TAPE LABELS: EMBOSSED ADHESIVE TAPE, WITH 3/16 INCH WHITE LETTERS ON A BLACK BACKGROUND.	
C. WIRE AND CABLE MARKERS: CLOTH MARKERS, SPLIT SLEEVE OR TUBING TYPE.	
PART 3 EXECUTION	
3.01 INSTALLATION	
A. USE EMBOSSED TAPE ONLY FOR IDENTIFICATION OF INDIVIDUAL WALL SWITCHES, RECEPTACLES AND CONTROL DEVICE STATIONS WHERE NOTED ON DRAWINGS.	
END OF SECTION	

3.02 NAMEPLATE ENGRAVING SCHEDULE	
A. PROVIDE NAMEPLATES OF MINIMUM LETTER HEIGHT AS SCHEDULED BELOW.	
B. PANELBOARDS: 3/4 INCH. IDENTIFY EQUIPMENT DESIGNATION.	
C. 3/4 INCH. IDENTIFY VOLTAGE RATING AND SOURCE.	
D. INDIVIDUAL CIRCUIT BREAKERS, SWITCHES, AND MOTOR STARTERS IN PANELBOARDS, SWITCHBOARDS, AND MOTOR CONTROL CENTERS: 1/8 INCH. IDENTIFY CIRCUIT AND LOAD SERVED, INCLUDING LOCATION.	
E. INDIVIDUAL CIRCUIT BREAKERS, ENCLOSED SWITCHES AND MOTOR STARTERS: 1/4 INCH. IDENTIFY LOAD SERVED.	
END OF SECTION	
16470 PANELBOARDS	
PART 1 GENERAL	
1.01 WORK INCLUDED	
A. LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARDS.	
1.02 SPARE PARTS	
A. KEYS: FURNISH TWO EACH TO OWNER.	
PART 2 PRODUCTS	
2.01 ACCEPTABLE MANUFACTURERS - PANELBOARDS	
A. SQUARE D, GENERAL ELECTRIC, ITE/SIEMENS-ALLIS, WESTINGHOUSE, CUTLER HAMMER.	
2.02 PANELBOARDS	
A. LIGHTING AND APPLIANCE BRANCH CIRCUIT PANELBOARDS: CIRCUIT BREAKER TYPE AS INDICATED ON THE PANELBOARD SCHEDULES ON DRAWINGS. PROVIDE CABINET FRONT WITH CONCEALED TRIM CLAMPS, CONCEALED HINGE AND FLUSH LOCK ALL KEYS ALIKE. FINISH IN MANUFACTURER'S STANDARD GRAY ENAMEL.	
B. ENCLOSURE: TYPE 1.	
C. MINIMUM SHORT CIRCUIT RATING: AS SHOWN ON DRAWINGS.	
D. PROVIDE PANELBOARDS WITH COPPER BUS RATINGS AS SCHEDULED ON DRAWINGS. PROVIDE GROUND BUS IN ALL PANELBOARDS.	
E. MOLDED CASE CIRCUIT BREAKERS: BOLT-ON TYPE THERMAL MAGNETIC TRIP CIRCUIT BREAKERS, WITH COMMON TRIP HANDLE FOR ALL POLES. PROVIDE CIRCUIT BREAKERS UL LISTED AS TYPE SWD FOR LIGHTING CIRCUITS. PROVIDE UL CLASS A GROUND FAULT INTERRUPTER CIRCUIT BREAKERS WHERE SCHEDULED ON DRAWINGS.	
PART 3 EXECUTION	
3.01 INSTALLATION	
A. HEIGHT: 6 FEET TO TOP SWITCH OR CIRCUIT BREAKER IN PANELBOARDS, UNLESS OTHERWISE NOTED.	
B. PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD. REVISE DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS.	
END OF SECTION	
16510 INTERIOR LUMINAIRES	
PART 1 GENERAL	
1.01 SECTION INCLUDES	
A. INTERIOR LUMINAIRES AND ACCESSORIES.	
B. EMERGENCY LIGHTING UNITS.	
C. EXIT SIGNS.	
D. BALLASTS.	
E. LAMPS.	
F. LUMINAIRE ACCESSORIES.	
PART 2 PRODUCTS	
2.01 LUMINAIRES	
A. THE LIGHTING FIXTURES ARE SHOWN ON THE DRAWINGS WITH A LETTER OR LETTER/NUMBER KEY. THE LETTER OR LETTER/NUMBER OF THE KEY INDICATES THE TYPE OF THE FIXTURE.	
B. FIXTURE MANUFACTURERS: AS SCHEDULED IN LIGHT FIXTURE SCHEDULE ON DRAWINGS.	
2.02 BALLAST	
A. MANUFACTURERS:	
1. ADVANCE, UNIVERSAL, GENERAL ELECTRIC, JEFFERSON.	
2. DESCRIPTION: ANSI C82.1, HIGH POWER FACTOR TYPE BALLAST.	
3. PROVIDE BALLAST SUITABLE FOR LAMPS SPECIFIED.	
4. SOURCE QUALITY CONTROL: CERTIFY BALLAST DESIGN AND CONSTRUCTION BY CERTIFIED BALLAST MANUFACTURERS, INC.	
3.03 LAMPS	
A. MANUFACTURERS:	
1. SYLVANIA, GENERAL ELECTRIC, NORTH AMERICAN PHILLIPS/WESTINGHOUSE.	
2. FLOURESCENT LAMPS SHALL BE OF TYPE SPECIFIED ON LIGHT FIXTURE SCHEDULE AND PLANS.	
PART 3 EXECUTION	
3.01 EXAMINATION	
A. EXAMINE EACH LUMINAIRE TO DETERMINE SUITABILITY FOR LAMPS SPECIFIED.	
3.02 INSTALLATION	
A. EXPOSED GRID CEILING: FURNISH AND INSTALL AUXILIARY MEMBERS SPANNING CEILING TEES TO SUPPORT SURFACE MOUNTED LUMINAIRES.	
B. INSTALL RECESSED LUMINAIRES TO PERMIT REMOVAL FROM BELOW. INSTALL RECESSED LUMINAIRES USING ACCESSORIES AND FIRESTOPPING MATERIALS TO MEET REGULATORY REQUIREMENTS FOR FIRE RATING.	
D. MAKE WIRING CONNECTIONS TO BRANCH CIRCUIT USING BUILDING WIRE WITH INSULATION SUITABLE FOR TEMPERATURE CONDITIONS WITHIN LUMINAIRE.	
3.03 ADJUSTING	
A. AIM AND ADJUST LUMINAIRES AS INDICATED ON DRAWINGS OR AS DIRECTED.	
END OF SECTION	



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Revision	Schedule	Description
Rev. #	Date	

NEW OFFICE WAREHOUSE 6-BAY BLDG.  
 2303 WORTH LANE  
 SPRINGDALE, ARKANSAS  
 MTNWA INVESTMENTS, LLC  
 1457 E. ROBINSON AVE.  
 SPRINGDALE, AR 72764



PRIOR TO BID/START OF CONSTRUCTION REQUIREMENTS THESE DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND IN SOME CASES, BASED ON INFORMATION THAT IS PROVIDED BY THE OWNER, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD PRIOR TO BID. ANY DISCREPANCIES OR CONDITIONS INTERFERING WITH THE ABILITY OF THE CONTRACTOR TO COMPLETE THE WORK AS OUTLINED, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT ANY COST SAVINGS OPTIONS OR REUSE OF EXISTING EQUIPMENT, MATERIAL OR DEVICES SHALL BE MADE AVAILABLE TO THE OWNER AND THE ARCHITECT FOR REVIEW, ANY REQUESTED CHANGES DUE TO THE CONTRACTORS OVERSIGHT OR FAILURE TO VISIT THE SITE PRIOR TO BID, SHALL NOT BE AUTHORIZED OR COMPENSATED. COORDINATE ALL LOWER SIZES AND LOCATIONS PRIOR TO START OF CONSTRUCTION. LAYOUT ALL EQUIPMENT IN MECHANICAL ROOM TO ENSURE PROPER SPACE AND CLEARANCES ARE AVAILABLE. CONTACT ARCHITECT IMMEDIATELY WITH ANY ISSUES.

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DATE	DRAWN BY
06/01/22	
PROJECT #	CHECKED BY
2169	
SHEET	E-700