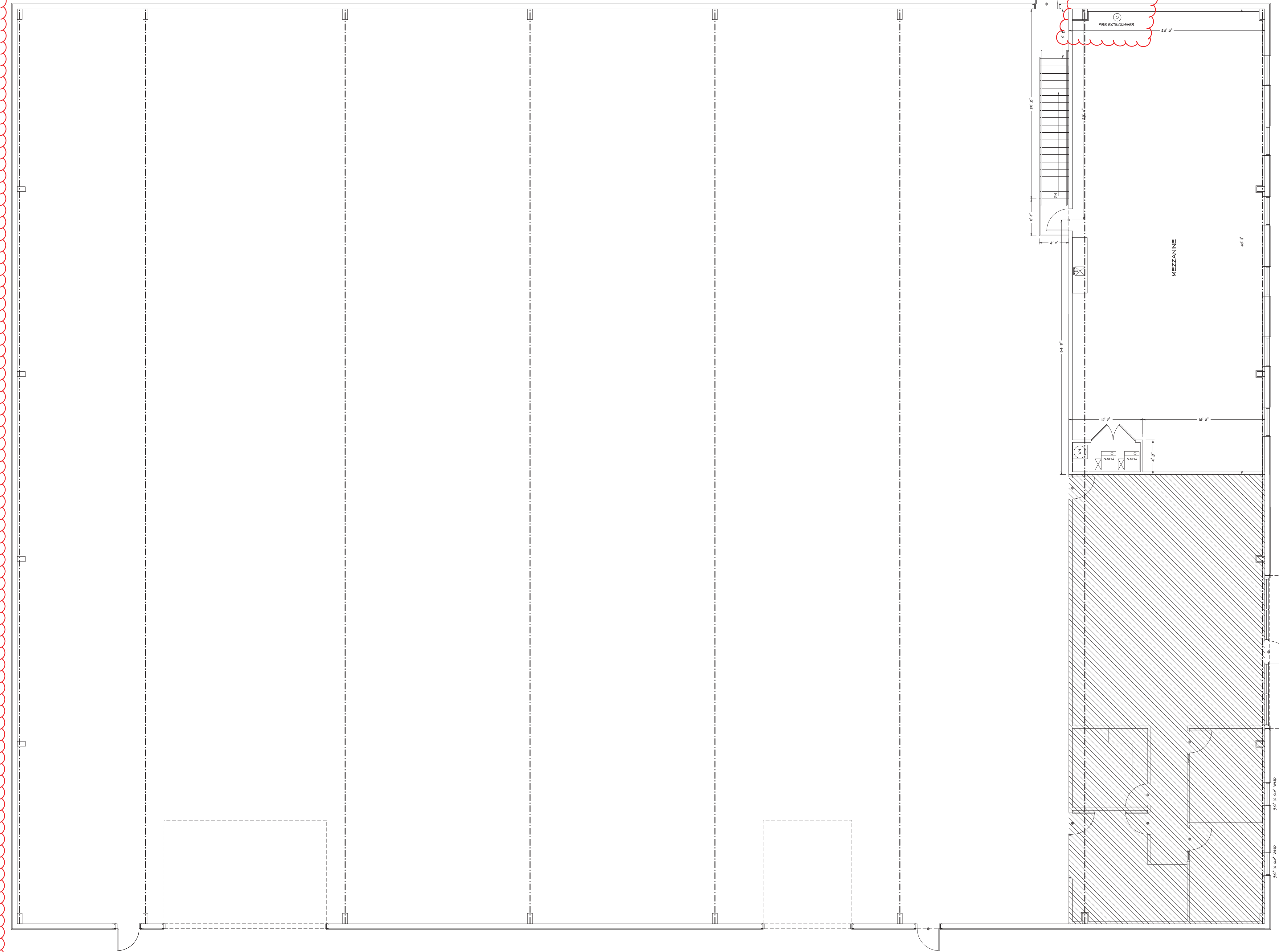


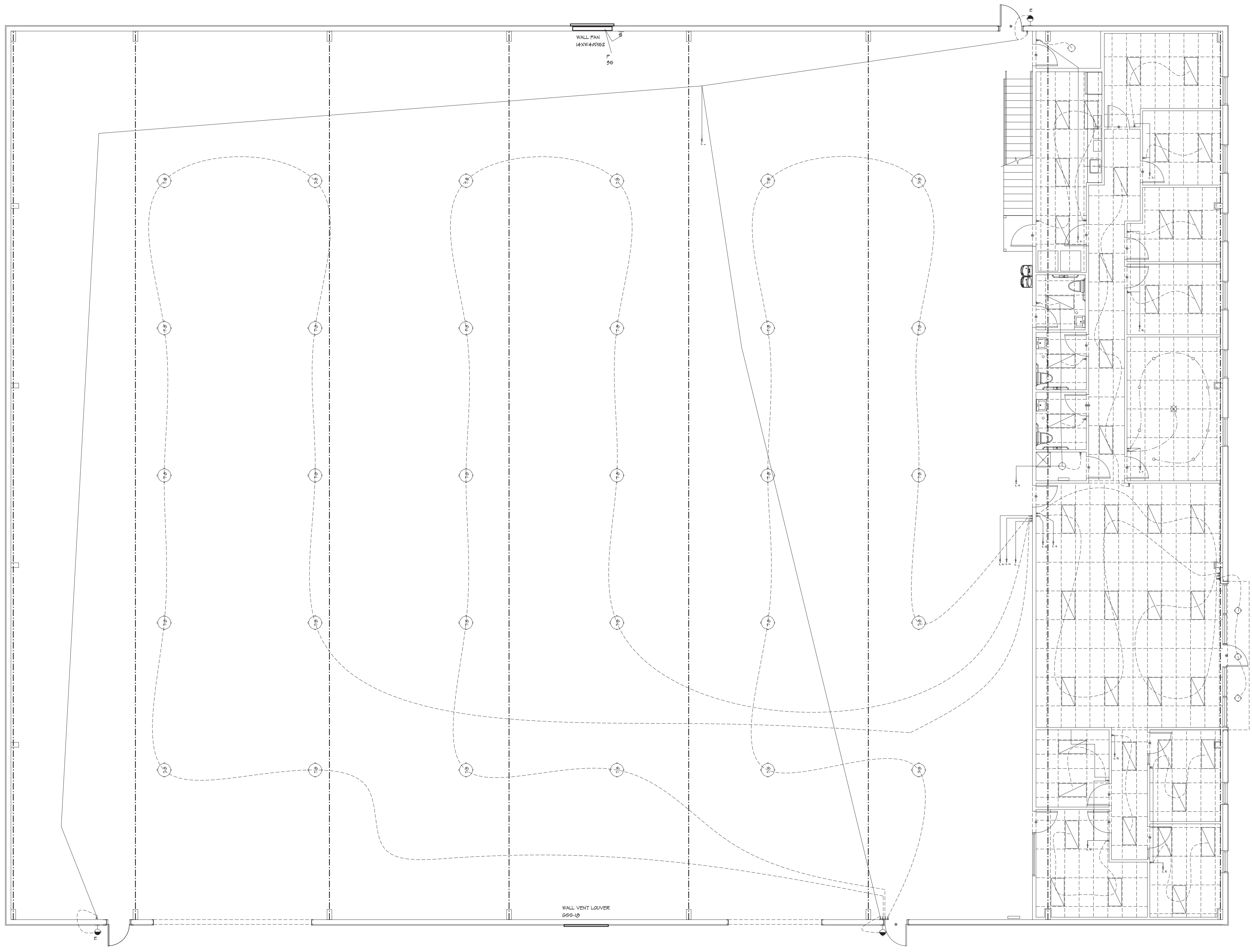
STAIR SECTION (TYP)



SECOND FLOOR
 1/8" = 1'-0"

HOME BUYER:	PHONE:	DATE DRAWN:	PLAN NO.:	SHEET NO.:
BUILDER:	PHONE:	DATE REVISED:	CON-899	4
SUB-DIVISION:	LOT NO.:	DESIGNER:	FILE NAME:	APPROX. SQ. FT.:
			899.P22	899 P.22



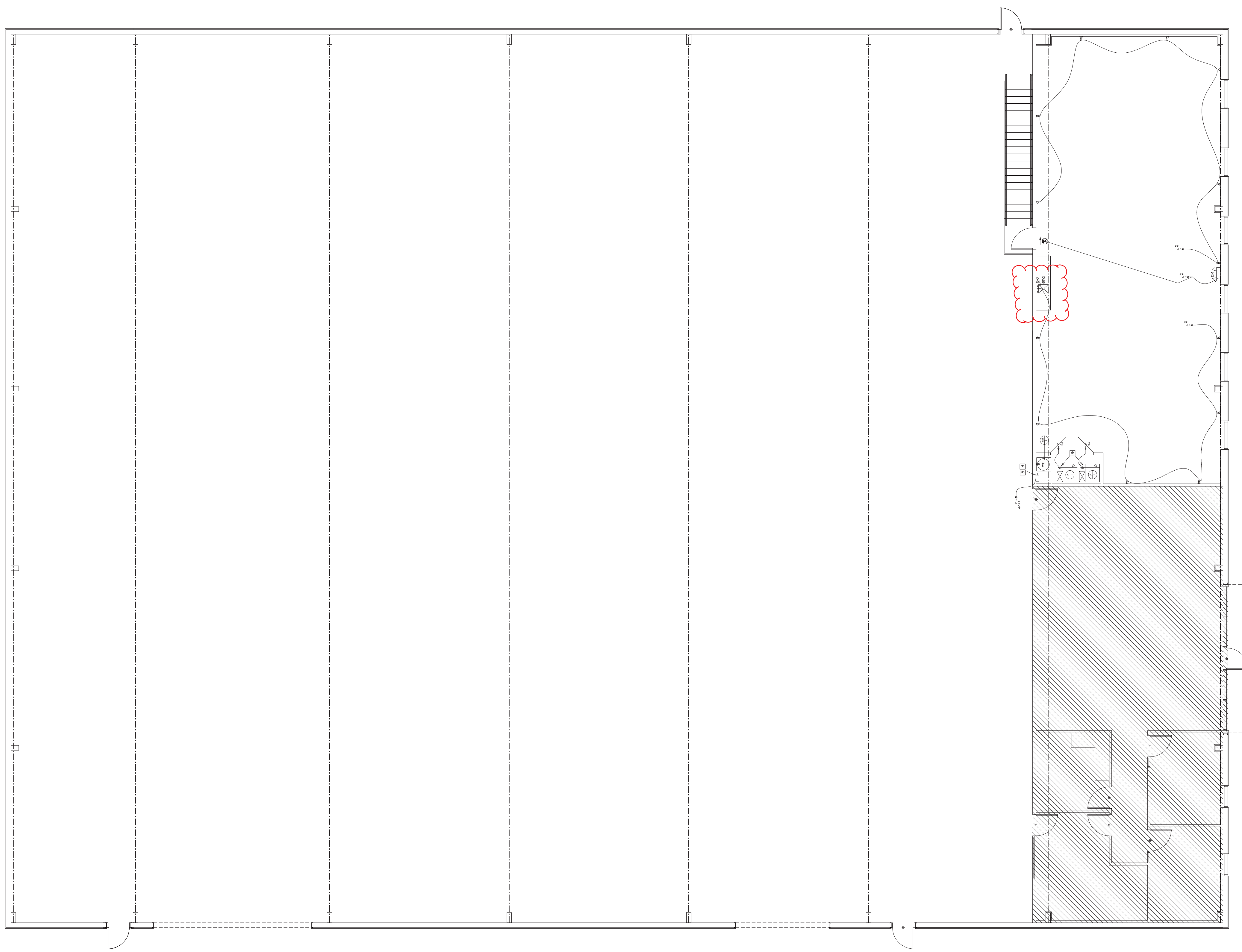


LOWER LEVEL LIGHTING PLAN
1/8" = 1'-0"

DATE DRAWN:	DATE REVISED:	PHONE:	HOME BUYER:	PLAN NO.:	SHEET NO.:
				COM-899	8
DATE REVISED:	DATE REVISED:	PHONE:	BUILDER:	FILE NAME:	APPROX. SQ. FT.
				8998 E-1	
DESIGNER:		LOT NO.:	SUB-DIVISION:		

THESE PLANS ARE PREPARED BY THE ARCHITECT FOR THE CLIENT'S USE. THE ARCHITECT'S RESPONSIBILITY IS LIMITED TO THE DESIGN OF THE BUILDING AS SHOWN ON THESE PLANS. THE ARCHITECT DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT OR THE BUILDER. THE ARCHITECT DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT OR THE BUILDER. THE ARCHITECT DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT OR THE BUILDER. THE ARCHITECT DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED BY THE CLIENT OR THE BUILDER.



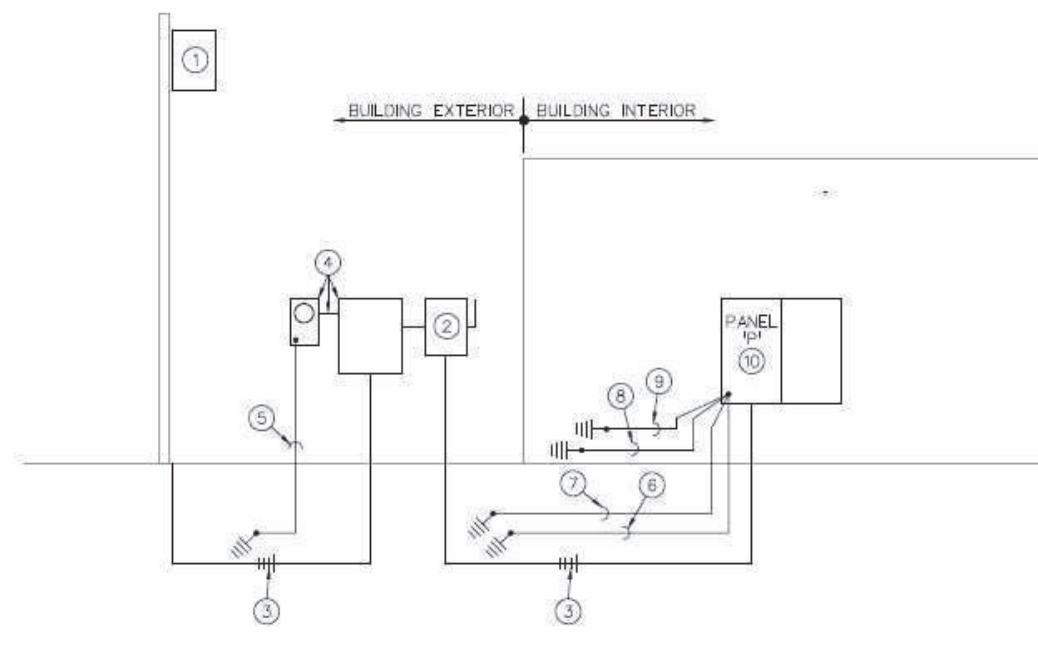


UPPER LEVEL POWER PLAN
 1/8" = 1'-0"

INSTALLER SHALL BE RESPONSIBLE TO VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL ELECTRICAL EQUIPMENT AND TO VERIFY ALL WORK IS DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR OBTAINING ALL NECESSARY APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM ALL APPLICABLE AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY APPROVALS FROM ALL APPLICABLE AGENCIES.

HOME BUYER:	PHONE:	DATE DRAWN:	PLAN NO.:	SHEET NO.:
BUILDER:	PHONE:	DATE REVISED:	COMP.:	0
SUB-DIVISION:	LOT NO.:	DESIGNER:	FILE NAME:	APPROX. SQ. FT.:
			8998 E-4	8998 E-4





ELECTRICAL RISER DIAGRAM
INTS

RISER DIAGRAM NOTES

- UTILITY COMPANY POLE MOUNTED TRANSFORMER WITH 208Y/120V, 3-PHASE 4-WIRE SECONDARY, VERIFY APC AT TRANSFORMER SECONDARY WITH UTILITY COMPANY.
- 400A/3P, NON-FUSED, NEMA 3R DISCONNECT SWITCH
- (2) 2" PVC CONDUITS WITH 4-#5/0 (CU) IN EACH, INSTALL CONDUITS WITH TOP MINIMUM 3'-6" BELOW FINISHED GRADE.
- UTILITY COMPANY C.T. CABINET AND METER CAN/SOCKET, 1/4" CONDUIT FOR METERING CABLES.
- #6 (CU) GROUND WIRE, CONNECT TO 1/2" ROUND X 8'-0" LONG COPPER CLAD STEEL DRIVEN GROUND ROD.
- 1/2" C, 1-#1/0 (CU) GROUND WIRE, CONNECT TO 3/4" ROUND X 10'-0" LONG COPPER CLAD STEEL DRIVEN GROUND ROD.
- 1/2" C, 1-#1/0 (CU) GROUND WIRE, CONNECT TO 2#'-0" LONG CONDUCTOR IN CONCRETE BUILDING FOOTING.
- 1/2" C, 1-#1/0 (CU) GROUND WIRE, CONNECT TO COLD WATER SERVICE PIPE, AHEAD OF MAIN SHUT-OFF VALVE.
- 1/2" C, 1-#1/0 (CU) GROUND WIRE, CONNECT TO BUILDING STEEL.
- PANEL 1st SHALL HAVE SERVICE ENTRANCE LABEL.

ELECTRICAL GENERAL NOTES

- INSTALLATION SHALL COMPLY WITH LATEST EDITION OF N.E.C. AND LOCAL AUTHORITY HAVING JURISDICTION
- CONTRACTOR SHALL BE LICENSED TO PERFORM WORK IN MUNICIPALITY WHERE PROJECT IS LOCATED.
- ALL WIRING SHALL BE INSTALLED IN CONDUIT, EMT CONDUIT WITH SET SCREW FITTINGS MAY BE UTILIZED WHERE PERMITTED BY CODE, MINIMUM CONDUIT SIZE SHALL BE 1/2", IN WOOD FRAMING CONVENTIONAL NM ROMEX WIRE SHALL BE USED
- ALL WIRING SHALL BE COPPER WITH 600 VOLT INSULATION AND COLOR CODED.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMIT AND INSPECTION FEES.
- INSTALL BLANK COVER PLATE ON ALL PULL BOXES AND JUNCTION BOXES.
- TYPEWRITEN PANELBOARD DIRECTORY SHALL BE PROVIDED FOR PANELBOARD AND CORRECTLY FILLED OUT.
- ALL WIRING DEVICES SHALL BE RATED 20 AMP, OR AS NOTED.
- ALL NEW BRANCH CIRCUIT CONDUITS SHALL BE INSTALLED CONCEALED ABOVE LAY-IN CEILING OR IN WALLS.
- CONTRACTOR SHALL FIELD VERIFY EXACT ROUTING OF ALL CONDUITS TO NEW EQUIPMENT.
- DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE, NEMA 1 FOR INDOOR AND NEMA 3R FOR OUTDOOR INSTALLATIONS, MANUFACTURED BY SQUARE D, ITE/SIEMENS, GE, CUTLER-HAMMER, OR EQUAL.
- FURNISH MATERIALS AND LABOR FOR A COMPLETE AND OPERATIONAL ELECTRICAL INSTALLATION.
- MATERIAL AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE 'UL' LABELS AS REQUIRED.
- EMERGENCY AND EXIT LIGHT FIXTURES SHALL BE PROVIDED WITH BATTERY BACK-UP FOR MINIMUM OF (90) MINUTES. EMERGENCY AND EXIT LIGHT FIXTURES SHALL BE CONNECTED TO HOT LEG OF CIRCUIT, NOT SWITCHED.
- E.C. SHALL VERIFY RATINGS, LOCATIONS, AND CONNECTIONS OF ALL EQUIPMENT PROVIDED BY OTHERS AND INSTALLED AND/OR CONNECTED BY THE ELECTRICAL CONTRACTOR.
- NEW PANELBOARDS SHALL BE ITE/SIEMENS TYPE 125 OR EQUAL, WITH BOLT-ON CIRCUIT BREAKERS, ALUMINUM BUS, NEMA 1 ENCLOSURE, GROUND, AND NEUTRAL BUS, AC RATING TO MATCH EXISTING SYSTEM, EQUALS BY SQUARE D, GE, CUTLER-HAMMER OR EQUAL.
- NEW CIRCUIT BREAKERS INSTALLED IN EXISTING PANELBOARD SHALL MATE/MATCH PANEL CONSTRUCTION AND AC RATING.

ELECTRICAL SYMBOLS

	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL, ARROWS INDICATE HOMERUNS TO PANEL. ALL CONDUCTORS ARE #12 EXCEPT AS NOTED.
	CONDUIT RUN UNDERGROUND OR BENEATH FLOOR SLAB
	GROUNDING CONDUCTOR #12 EXCEPT AS NOTED
	WALL MOUNTED JUNCTION BOX
	CEILING MOUNTED JUNCTION BOX
	PANELBOARD (SURFACE MOUNTED), INSTALLED W/TOP 6'0" AFF
	DISCONNECT SWITCH SIZE AS NOTED
	DISCONNECT SWITCH FURNISHED WITH EQUIPMENT
	EXIT LIGHT - SINGLE FACE - ARROW AS SHOWN
	EXIT LIGHT - DOUBLE FACE - ARROW AS SHOWN
	COMBINATION EXIT/EMERGENCY LIGHT FIXTURE WITH (2) HEADS
	CEILING OR WALL MOUNTED EMERGENCY LIGHTING UNIT WITH (2) HEADS.
	2'X4' LIGHT FIXTURE
	NIGHT LIGHT FIXTURE, FIXTURE SHALL BE ON 27'7"
	FLUORESCENT STRIP FIXTURE
	CEILING LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	REMOTE WEATHERPROOF EMERGENCY LIGHT FIXTURE
	WALL PACK LIGHT, 100W COMMERCIAL LED, WALL PACK 120-277V 50,000 - HR LIFE IP65 COMPLY WITH SECT. 7.2.6.0 OF THE UDO
	T-8 HIGH BAY LIGHT FIXTURE
	SINGLE POLE SWITCH +3'-10" AFF
	THREE-WAY SWITCH +3'-10" AFF
	FOUR-WAY SWITCH +3'-10" AFF
	OCCUPANCY SENSOR +3'-10" AFF
	DIMMER SWITCH +3'10" AFF, SIZE AS NOTED
	OCCUPANCY SENSOR POWER PACK
	OCCUPANCY SENSOR
	DUPLEX RECEPTACLE +1'-6" AFF OR AS NOTED
	DUPLEX RECEPTACLE INSTALLED ABOVE COUNTERTOP
	DUPLEX RECEPTACLE WITH WEATHERPROOF PLATE, HEIGHT AS NOTED
	DUPLEX RECEPTACLE W/GROUND FAULT PROTECTION, +1'-6" AFF OR AS NOTED
	FOURPLEX RECEPTACLE +1'-6" AFF OR AS NOTED
	ELECTRIC WATER HEATER AND NUMBER
	EXHAUST FAN AND NUMBER
	CONDENSING UNIT AND NUMBER
	FURNACE AND NUMBER
	FAN COIL UNIT AND NUMBER
	HEAT PUMP UNIT AND NUMBER
	ABOVE FINISHED FLOOR
	ELECTRICAL CONTRACTOR
	ELECTRIC DRINKING FOUNTAIN
	NIGHT LIGHT FIXTURE SHALL BE ON 24'7"

ELECTRICAL PLAN NOTES

- INSTALL OUTLET BOX FOR WIRING DEVICE WITH TOP 48" AFF OF GROUND FLOOR
- ON/OFF/STOP PUSH-BUTTON INSTALLED AT 48" AFF OF GROUND FLOOR FOR OVERHEAD DOOR MOTOR CONTROLE
- 30A 280V, 2-POLE, 5-WIRE DISCONNECTING MEANS
- 3/4" CONDUIT, 2-#12 AND 1-#10 GROUND WIRE
- 20A, 120V, 1-POLE DISCONNECTING MEANS

PANEL	P	120208	VOLTS	Ø 200 A. BUS	Ø SERVICE ENTRANCE
			3	PHASE	Ø 500 A. MAIN BREAKER
SECTION	1	OF 1	4	WIRE	Ø FEED TRU LUGS
					Ø MAIN LUGS ONLY
					Ø SUB FEED LUGS

DESCRIPTION	Qty	Wts	AMPS	Volts	Circ #	Wts	AMPS	Volts	DESCRIPTION
LIGHTS (BAY)	12	20	1500	1	2	1500	20	12	LIGHTS (BAY)
LIGHTS (BAY)	12	20	1500	3	4	1500	20	12	LIGHTS (BAY)
LIGHTS	12	20	1500	5	6	1500	20	12	LIGHTS
LIGHTS	12	20	1500	7	8	1500	20	12	LIGHTS
LIGHTS	12	20	1500	9	10	1500	20	12	LIGHTS
EXTERIORLIGHTS	12	20	1500	11	12	1500	20	12	LIGHTS
LIGHTS	12	20	1820	13	14	1300	20	12	RECEPTACLES (BAY)
LIGHTS	12	20	1820	15	16	1300	20	12	RECEPTACLES (BAY)
EMEXIT LIGHTS	12	20	1820	17	18	1300	20	12	RECEPTACLES (BAY)
EMEXIT LIGHTS	12	20	1820	19	20	1300	20	12	RECEPTACLES
EMERGENCY LIGHTS	12	20	1820	21	22	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1820	23	24	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1820	25	26	1300	20	12	RECEPTACLES
OHIO OPERATOR	12	20	1920	27	28	1300	20	12	RECEPTACLES
OHIO OPERATOR	12	20	1920	29	30	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1920	31	32	1300	20	12	RECEPTACLES
RECEPTACLES	12	20	1920	33	34	1300	20	12	EMEXIT LIGHTS
WALL FANS	10	20	1920	35	36	1920	20	12	F - 1
								12	F - 2
CU-1	10	30	2500	37	38	1920	20	12	F - 2
			2500	39	40	4500	30	8	WATER HEATER
			2500	41	42	4500	2		
			3300	43	44	3300			
			3300	45	46	3300	35		
			3300	47	48	3300	3	8	UH-2
UH-1	8	3							

TYPE	MANUFACTURER	LAMP	WATTS/VOLTS	DISCRPTION
D	BY OWNER	LED	T80	EXTERIOR WALL PACK
E	BY OWNER	LED	T80	EXTERIOR RATED ARCHITECTURAL FIXTURE
EM	BY OWNER	LED	T80	EMERGENCY LIGHTING UNIT, 90 MIN BATTERY
X	BY OWNER	LED	T80	EXIT SIGN, UNIVERSAL MOUNT, 90 MIN BATTERY

INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2012 INTERNATIONAL MECHANICAL, PLUMBING AND FUEL GAS CODES, NFPA 90A AND 101 AND ALL STATE AND LOCAL CODES, ORDINANCES AND REGULATIONS.

DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE GENERAL DESIGN CONCEPT. THEY DO NOT NECESSARILY INDICATE EACH AND EVERY FITTING OR FEATURE. THE CONTRACTOR SHALL PROVIDE ALL ITEMS NECESSARY FOR AN INSTALLATION THAT IS COMPLETE IN EVERY RESPECT.

REFER TO STRUCTURAL DRAWINGS FOR SPECIFIC REQUIREMENTS CONCERNING EQUIPMENT PAD CONSTRUCTION, STRUCTURAL SUPPORTS AND MOUNTINGS FOR MECHANICAL EQUIPMENT AND SUPPLEMENTAL STEEL.

INSTALL ALL MECHANICAL EQUIPMENT LEVEL, ON PAD, THAT EXTEND A MINIMUM OF 4" BEYOND THE EQUIPMENT FOOTPRINT.

COOLING EQUIPMENT LOCATED WHERE DAMAGE FROM OVERFLOW COULD OCCUR AND ELSEWHERE AS INDICATED, SHALL BE MOUNTED IN SECONDARY CONTAINMENT PANS WITH HIGH WATER ALARM SENSOR TO SHUT DOWN THE EQUIPMENT. THE DRAIN PAN SHALL BE PIPED TO FLOOR DRAIN, TO EXTERIOR OR ELSEWHERE AS SHOWN, MINIMUM SIZE SHALL BE 3/4".

COORDINATE EXACT LOCATIONS AND ORIENTATION OF EQUIPMENT WITH ARCHITECTURAL AND STRUCTURAL REQUIREMENTS. EQUIPMENT SHALL BE SLOTTED IN ACCORDANCE WITH LOCAL JURISDICTION REQUIREMENTS AND AS SHOWN ON ARCHITECTURAL DRAWINGS.

DUCTWORK FABRICATION AND INSTALLATION SHALL BE IN ACCORDANCE WITH SMACNA STANDARDS.

ALL DUCTWORK SHALL BE SHEET METAL, CONSTRUCTED TO SMACNA STANDARDS, MINIMUM OF 2" WG PRESSURE CLASS AND SEAL CLASS "C" MINIMUM. ALL LONGITUDINAL AND TRANSVERSE JOINTS TO BE SEALED, EXCEPT AS OTHERWISE NOTED. ROUND AND FLEX DUCT CONNECTIONS SHALL BE MADE WITH SPIN COLLARS WITH EXTRACTORS AND VOLUME DAMPERS.

DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL INCLUDE AN ALLOWANCE FOR 1" DUCT LINER IN LOW VELOCITY DUCTS WHERE APPLICABLE.

SUPPORT ALL SUSPENDED EQUIPMENT, DUCTWORK AND PIPING INDEPENDENTLY, DIRECTLY FROM STRUCTURAL MEMBERS, NOT METAL DECK.

PROVIDE FLEXIBLE FABRIC CONNECTORS AT ALL DUCTWORK CONNECTIONS TO ROTATING EQUIPMENT. CONNECTORS EXPOSED TO SUNLIGHT SHALL BE MADE OF UV RESISTANT MATERIAL.

ROUND OR OVAL EXPOSED DUCT SHALL BE SPIRAL DUCT, PAINT GRADE IF TO BE PAINTED.

ALL ROOF MOUNTING, FLASHINGS AND PENETRATION WORK ASSOCIATED WITH MECHANICAL AND PLUMBING WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE ROOFING MANUFACTURER'S WARRANTY REQUIREMENTS.

IN GENERAL, KEEP DUCTWORK AND PIPING HIGH AS POSSIBLE. IN NO EVENT SHALL HORIZONTAL WORK BE INSTALLED SO THAT HEADROOM IS LESS THAN 7'-0" ABOVE FINISH FLOOR WITHOUT PRIOR APPROVAL.

ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE INSTALLED TO PROVIDE MANUFACTURER'S RECOMMENDED OPERATING AND SERVICE CLEARANCES FOR ALL EQUIPMENT. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS AND DIFFERING CLEARANCE REQUIREMENTS OF ACTUAL EQUIPMENT FURNISHED.

ALL FIXTURES AND EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS AND PER LISTINGS.

IN GENERAL, AND EXCEPT AS OTHERWISE NOTED, DUCTWORK AND PIPING SHALL BE INSTALLED PARALLEL TO COLUMN AND BUILDING WALL LINES. THEY SHALL BE CONCEALED ABOVE CEILINGS, IN CHASES OR WALL CONSTRUCTION OR BELOW FLOORS.

SUPPORT ALL PIPING SYSTEMS IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS AND INDUSTRY STANDARDS TO PREVENT SAGS AND DIPS. PROVIDE STRUTS AND PIPE CLAMPS ON 8' CENTERS AND SUPPORT ALL PIPING RISERS AT BASE OF RISER. THE USE OF RISER CLAMPS TO SUPPORT VERTICAL PIPING IS PROHIBITED.

ALL WATER BEARING PIPING SHALL BE SLOPED FOR DRAINAGE WITH BALL DRAN VALVES AT LOW POINTS.

SUPPORT ALL SUSPENDED EQUIPMENT, DUCTWORK AND PIPING INDEPENDENTLY. PROVIDE ACCESS PANELS TO PROVIDE ACCESS TO INACCESSIBLE VALVES, DAMPERS ANY ANY OTHER EQUIPMENT/DEVICES THAT REQUIRE ADJUSTMENT OR REPLACEMENT.

DRAINAGE PIPING SHALL BE SLOPED IN ACCORDANCE WITH CODE, BUT NOT LESS THAN 1/8" PER FOOT FOR 3" AND LARGER PIPING AND 1/4" PER FOOT FOR 2-1/2" AND SMALLER PIPING. ALL INVERT ELEVATIONS SHALL BE COORDINATED WITH THE STRUCTURAL FOOTINGS.

COORDINATE ALL UNDERGROUND PIPING WITH GRADE BEAMS, WALL FOOTINGS, COLUMN FOUNDATIONS AND OTHER STRUCTURAL CONDITIONS.

PROVIDE DIELECTRIC UNIONS AT ALL CONNECTIONS BETWEEN DISSIMLAR METALS.

TRAP ALL CHILLED CONDENSATE DRAINS AS DETAILED OR AS REQUIRED. PROVIDE A TRAP DEPTH 1" GREATER THAN SYSTEM FAN DEVELOPED STATIC PRESSURE. INSURE AND CERTIFY THAT CONDENSATE DRAINS ARE POSITIVELY SLOPED AT 1/20" MINIMUM IN DIRECTION OF FLOW.

CAULK AND SEAL ALL DUCT AND PIPING PENETRATIONS OF EXTERIOR OR DEMISING WALLS.

REFRIGERANT PIPING SHALL BE TYPE 'ACR' COPPER WITH BRAZED JOINTS OR MANUFACTURER'S STANDARD PRE-CHARGED LINE SETS WITH COMPRESSION JOINTS.

ALL REFRIGERANT PIPING SHALL BE SIZED AND WITH ALL ACCESSORIES AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER.

REFRIGERANT SUCTION LINES TO BE INSULATED WITH 1" UNCELLULAR INSULATION. ALL JOINTS SEALED. INSULATION SHALL BE 25/50 SMOKE AND FIRE RATED. PAINT ALL EXTERIOR INSULATION WITH UV RESISTANT PAINT.

ABOVE GROUND WASTE AND VENT PIPING SHALL BE SCHEDULE 40 PVC WITH SOLVENT CEMENT JOINTS, EXCEPT USE STANDARD WEIGHT NO-HUB CAST IRON IN AIR FLEXINGS. VENT PIPING MAY BE SCHEDULE 40 GALVANIZED STEEL WITH SCREWED JOINTS. PAINT ALL EXTERIOR PIPING WITH UV RESISTANT PAINT.

ABOVE GROUND WATER PIPING SHALL BE TYPE 'L' HARD COPPER WITH LEAD FREE SOLDER JOINTS.

NATURAL GAS PIPING (ABOVE GROUND) SHALL BE SCHEDULE 40 BLACK STEEL WITH THREADED JOINTS. CONNECT USING JOINT COMPENSATORS FOR NATURAL GAS PIPING. ALL EXPOSED BLACK STEEL NATURAL GAS PIPING SHALL BE PROTECTED WITH A RUST INHIBITING COATING IN ACCORDANCE WITH THE PLUMBING CODE.

SERVICE VALVES FOR WATER PIPING SYSTEMS UPH 2" SHALL BE 1/4 TURN, 150 LB. BALL VALVE WITH BRONZE CHROME PLATED BALL AND TPE SEATS, NIBCO S-85-70.

DOMESTIC WATER PIPING SHALL BE INSULATED WITH 1" FIBERGLASS WITH ALL SERVICE JACKET OR COMPARABLE UNCELLULAR INSULATION WITH SMOKE/FLAME RATING OF 25/50. WHEN INSTALLED WITHIN A CHASE, ALONG AN EXTERIOR WALL, THE INSULATION SHALL BE 1-1/2" FIBERGLASS AND THE PIPING SHALL BE LOCATED ON THE INTERIOR SIDE OF THE BUILDING WALL INSULATION.

GAS SERVICE VALVES TO BE LUBRICATED PLUG COCKS, ROCKWELL 142 OR 143. CONNECTIONS TO EQUIPMENT SHALL HAVE SERVICE VALVES, 6" MINIMUM DIRT LEG AND UNION OR AT CONTRACTOR OPTION, UL LISTED APPLIANCE FLEXIBLE CONNECTORS MAY BE USED.

PROVIDE PLUMBING FIXTURES AS SCHEDULED OR SELECTED BY OWNER WITH ALL REQUIRED TRIM AND ACCESSORIES FOR A COMPLETE WORKING AND CODE COMPLIANT INSTALLATION. PROVIDE STOP VALVES AND WATER HAMMER ARRESTORS, SIZED AS INDICATED OR PER MANUFACTURER FOR EACH FIXTURE OR EACH GROUP OF FIXTURES. REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATION OF THE FIXTURES.

MEET ALL REQUIREMENTS OF THE ADA FOR ALL FIXTURES REQUIRED TO BE HANDICAP ACCESSIBLE. INSULATE PIPING BENEATH HANDICAP FIXTURES PER ADA, HAND-LAV-GARD SYSTEM OR EQUIVALENT.

ALL POWER WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. DISCONNECT SWITCHES AND MOTOR STARTERS SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR, EXCEPT WHERE SPECIFICALLY INDICATED TO BE FURNISHED BY THE MECHANICAL CONTRACTOR. COORDINATE REQUIRED POWER FOR EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

ALL CONTROL DEVICES AND INTERLOCK WIRING SHALL THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. CONTRACTOR SHALL FURNISH LOCKING GUARDS FOR DEVICES WHERE INDICATED AND WHERE REQUIRED TO PROTECT THEM FROM PHYSICAL DAMAGE. PROVIDE INSULATED SUBBASES WHERE SENSORS ARE INSTALLED ON 'COLD' OR EXTERIOR WALLS. MOUNT CONTROL DEVICES SUCH AS THERMOSTATS AND SENSORS AT 48" AFF.

CONTRACTOR SHALL BE RESPONSIBLE FOR EQUIPMENT HANDLING AND TRANSPORT FOR ITEMS HE FURNISHES AND/OR INSTALS. HE SHALL BE RESPONSIBLE FOR PROVIDING FOR ACCESS INTO SPACES WHERE WORK IS TO OCCUR.

CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING, PATCHING, FLASHING AND REPAIR OF ROOFS, BUILDING STRUCTURE, COMPONENTS AND FINISHES ASSOCIATED WITH HIS WORK.

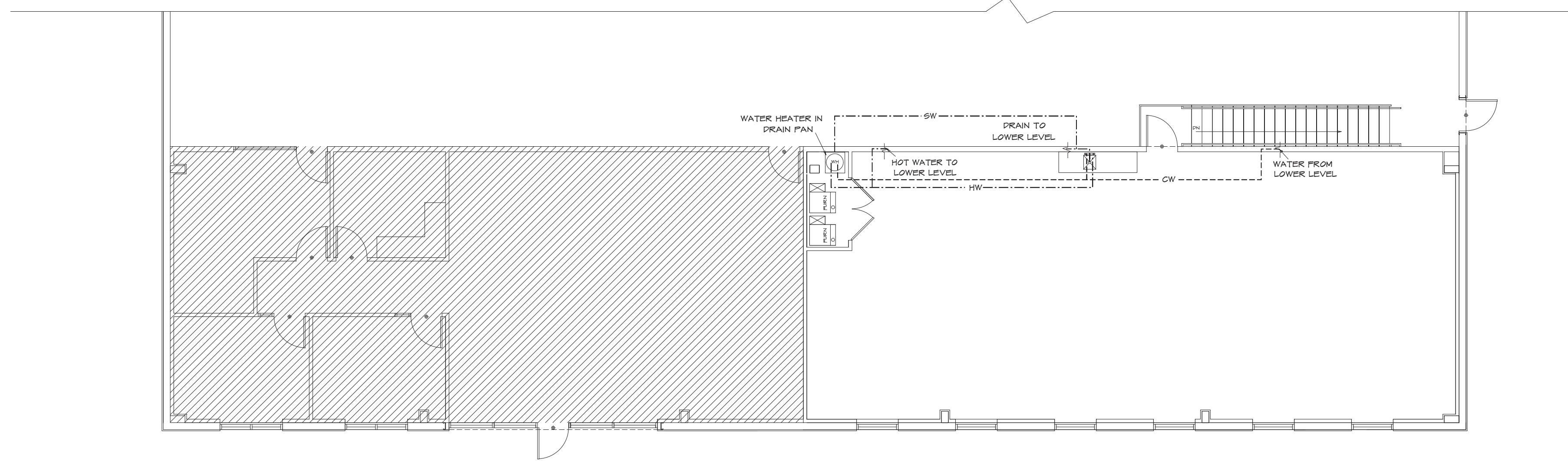
CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES ASSOCIATED WITH CONSTRUCTION ACTIVITY. HE SHALL RESTORE REPAIRED OR REMOVED AREAS TO EXISTING CONDITIONS AND NEW CONSTRUCTION AREAS TO NEW CONDITION. ALL REPAIRS SHALL BE IN ACCORDANCE WITH THE APPLICABLE ARCHITECTURAL AND STRUCTURAL PROVISIONS. TO THE GREATEST EXTENT POSSIBLE, EXISTING BUILDING MATERIALS SHALL NOT BE DISTURBED.

TEST AND CLEAN PIPING SYSTEMS PER INDUSTRY STANDARDS. PRESSURE TEST OF PRESSURE PIPING SHALL BE AT 1-1/2 TIMES THE ANTICIPATED OPERATING PRESSURE, BUT NOT LESS THAN 50 PSI FOR 2 HOURS. NON-PRESSURIZED SYSTEMS SHALL BE TESTED WITH 10" WATER COLUMN ABOVE NORMAL OPERATING CONDITIONS OR 5 PSI FOR 2 HOURS. THERE SHALL BE NO MEASURABLE DROP DURING THE TEST PERIOD.

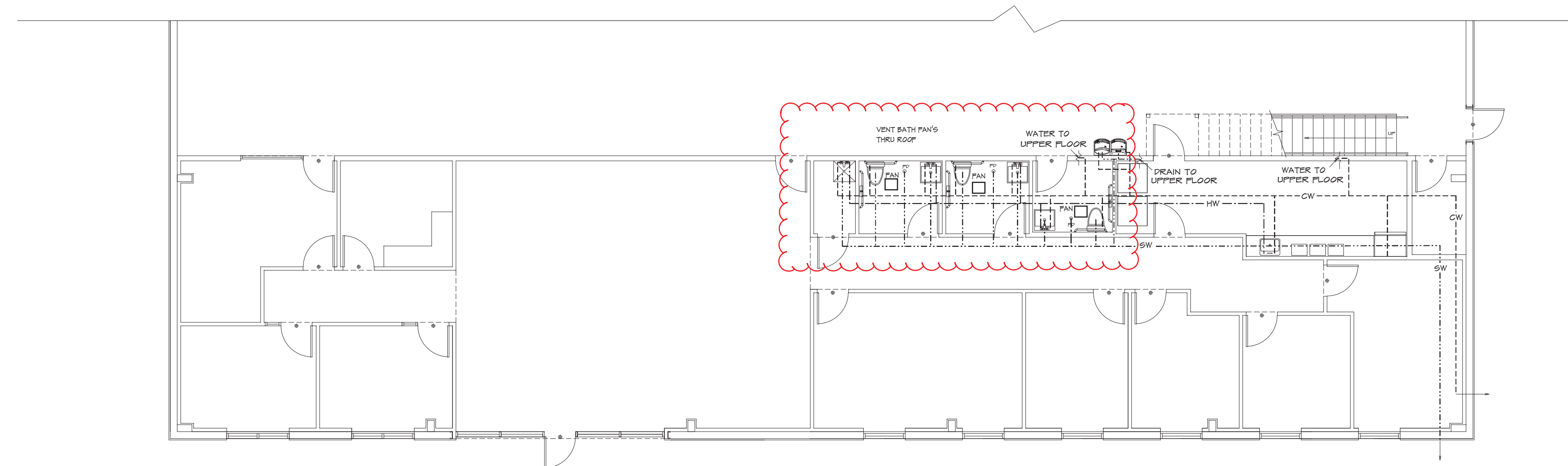
SHEET NO.	9
PLAN NO.	COM-9999
FILE NAME:	9999 E-9
DATE DRAWN:	
DATE REVISED:	
DESIGNER:	
PHONE:	
PHONE:	
LOT NO.	
HOME BUYER:	
BUILDER:	
SUB-DIVISION:	

BUILDER/CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURACY BETWEEN FLOORS, FOUNDATION AND ELEVATIONS. ALSO VERIFY ALL BEAM, HEADERS, PAD LOCATIONS, AND COLUMN SIZES. BUILDER/CONTRACTOR IS TO CHECK FOR COMPLIANCE WITH CONTRACTS, CITY, AND NATIONAL CODES. BUILDER/CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, SETBACKS, AND FLOOR FINISHES. BUILDER/CONTRACTOR AND OWNER SHALL BE RESPONSIBLE FOR OBTAINING ALL COPYRIGHT INFORMATIONS OR PERMISSIONS TO OTHER REGISTERED PLANS. BUILDER/CONTRACTOR ACCEPTS RESPONSIBILITY FOR ANY AN ON SITE CHANGES MADE TO STRUCTURE.

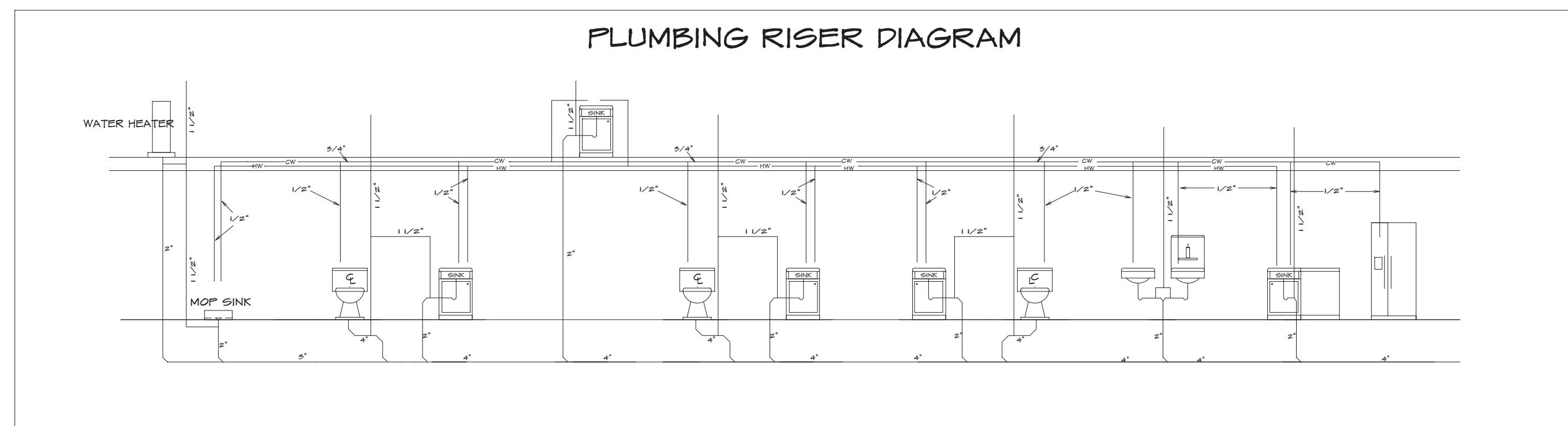




SECOND FLOOR PLUMBING
1/8" = 1'-0"



FIRST FLOOR PLUMBING
1/8" = 1'-0"

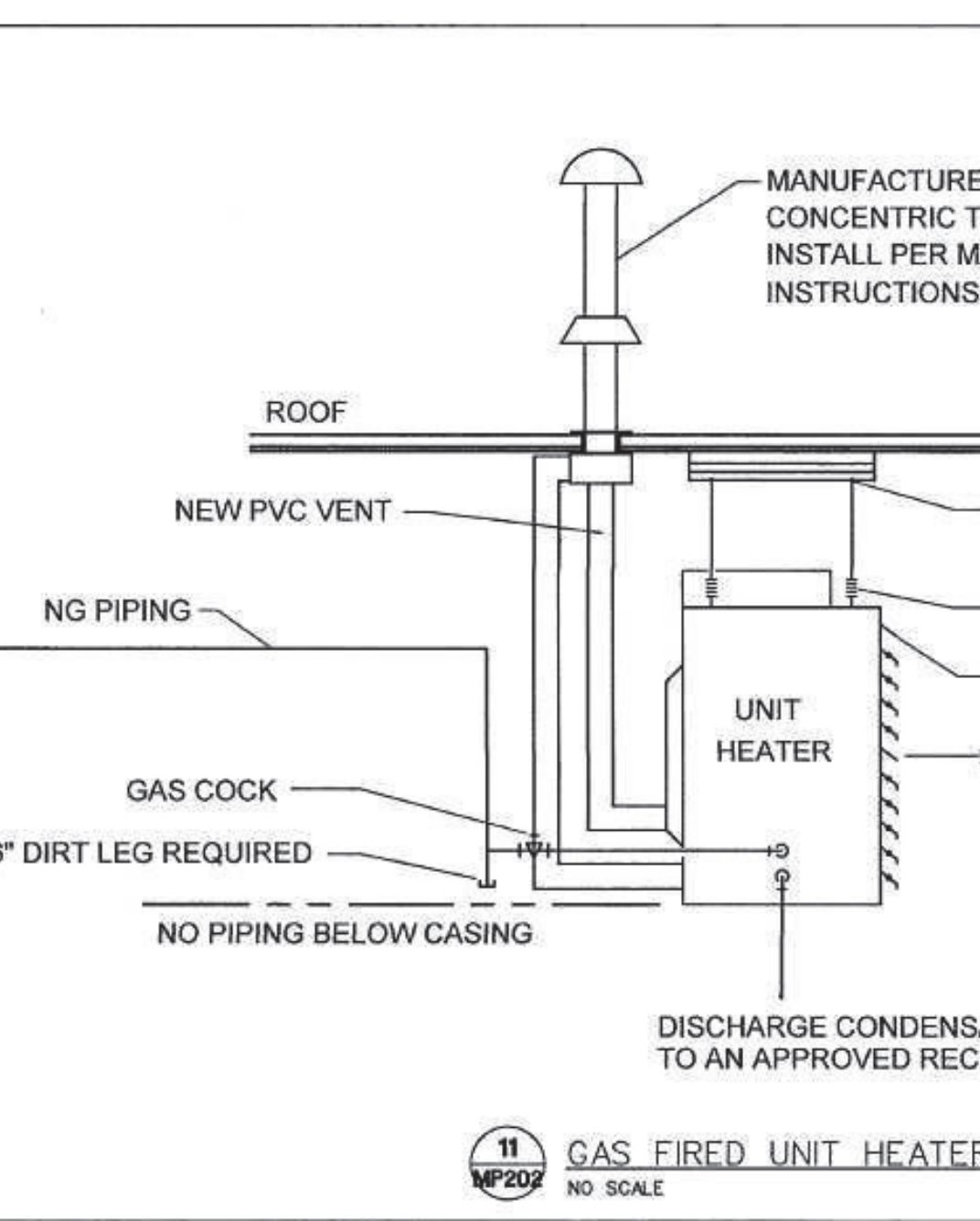
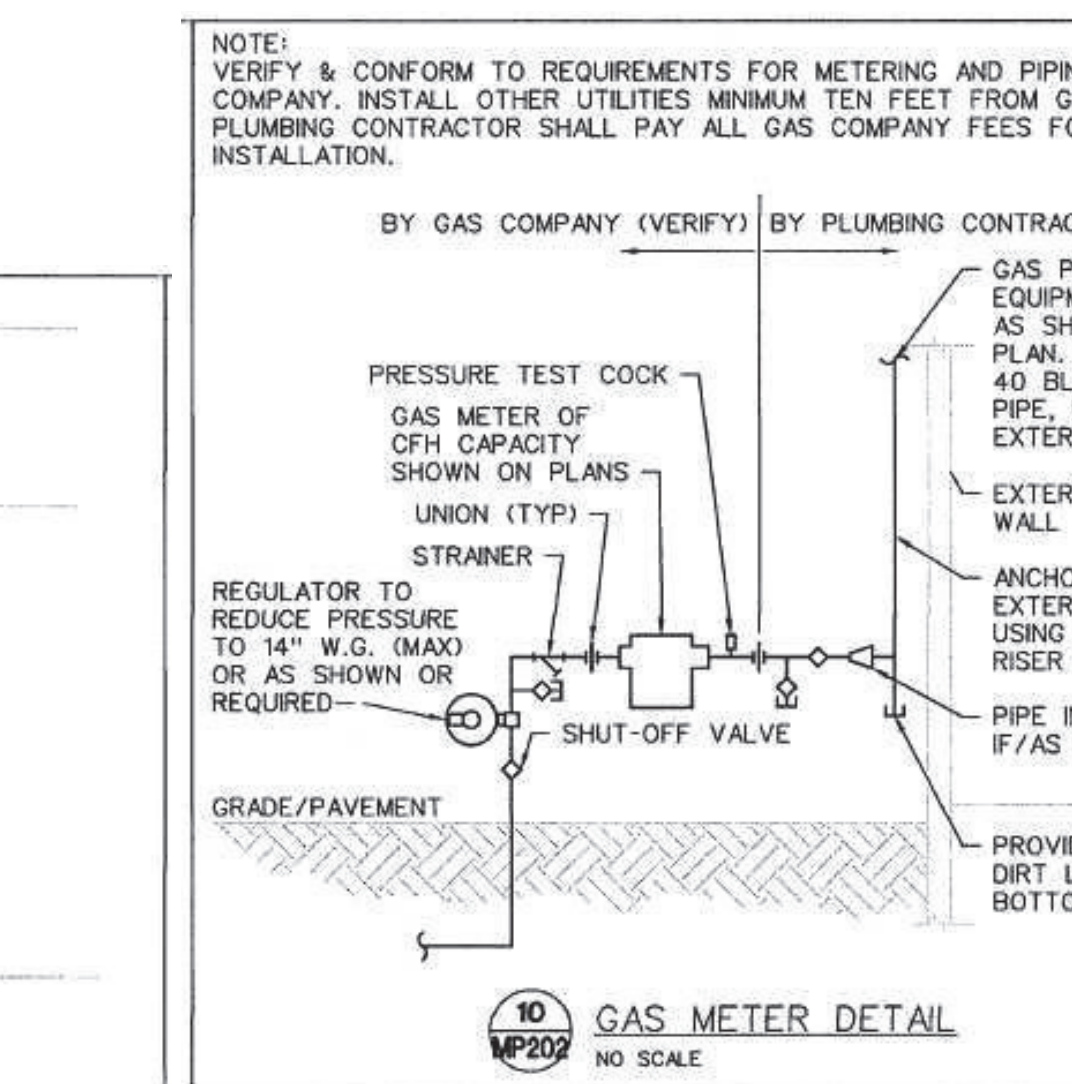
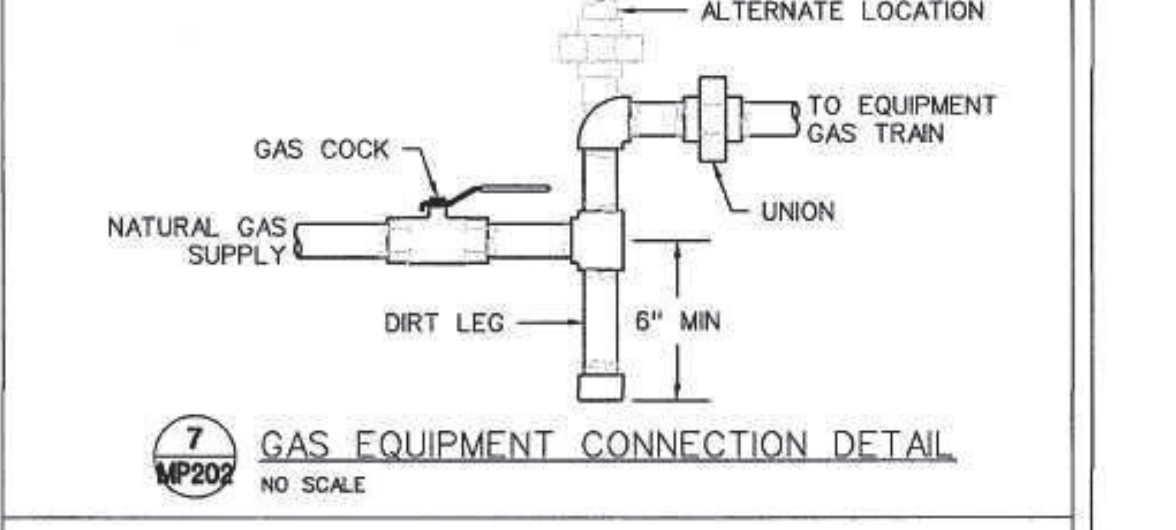
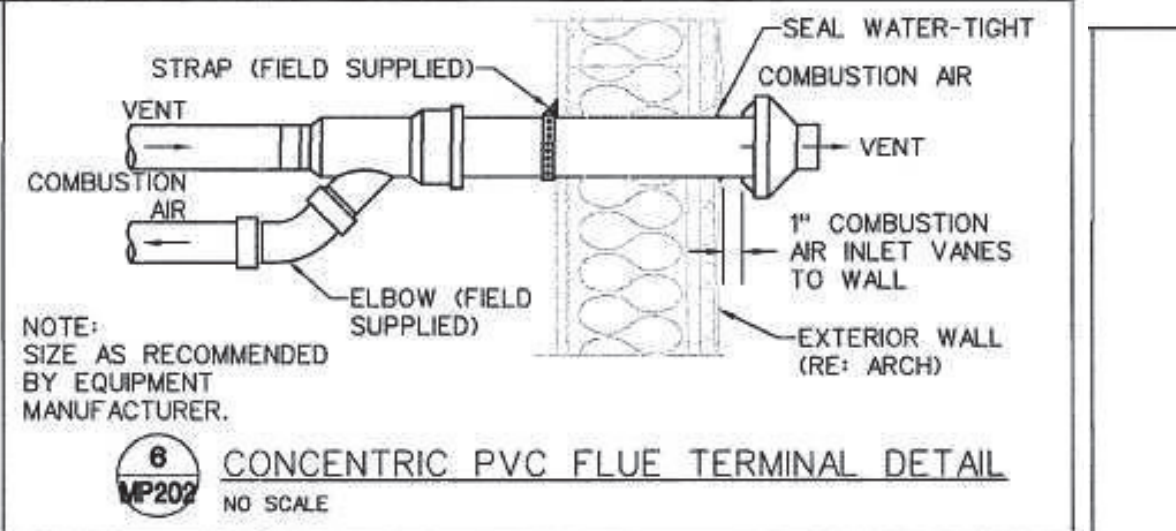
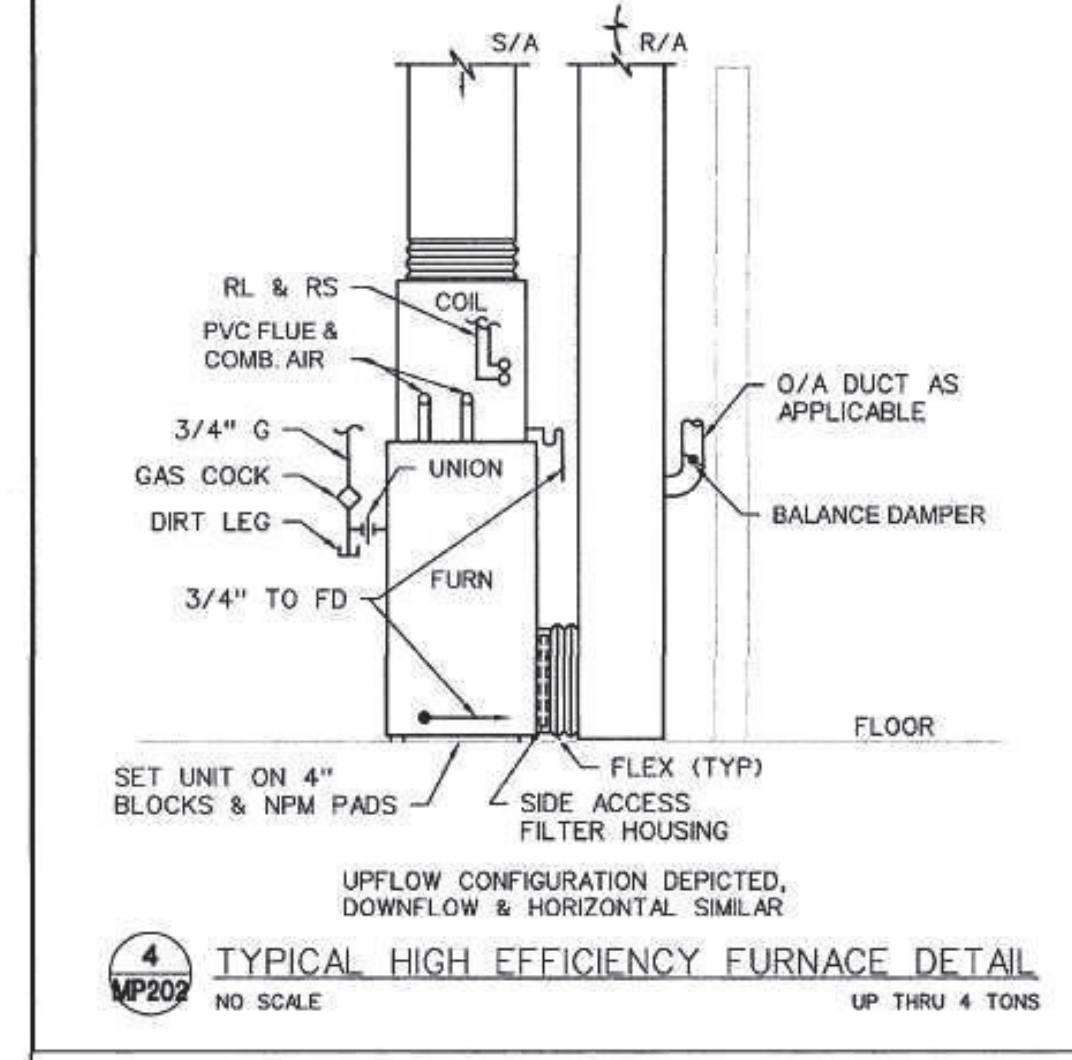
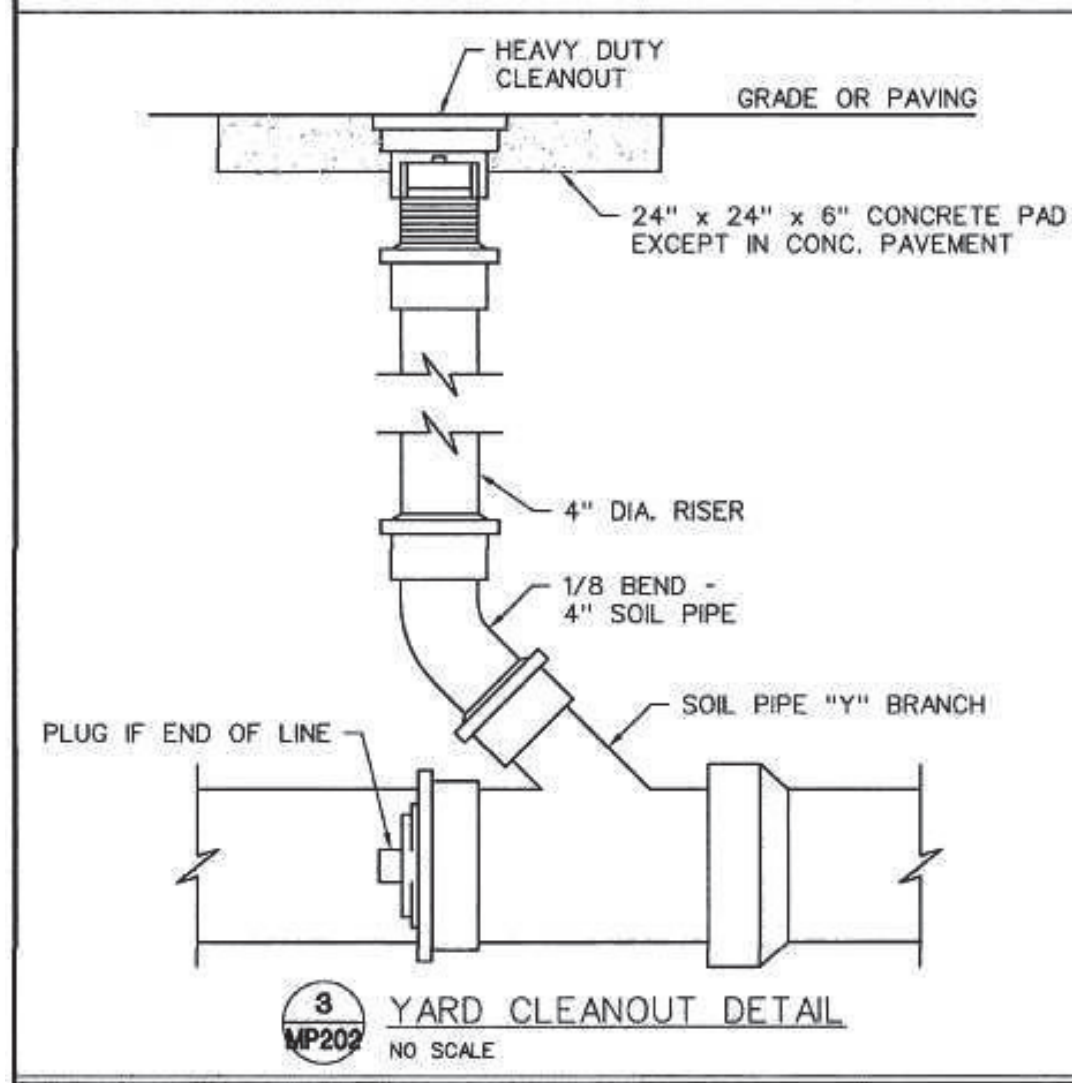
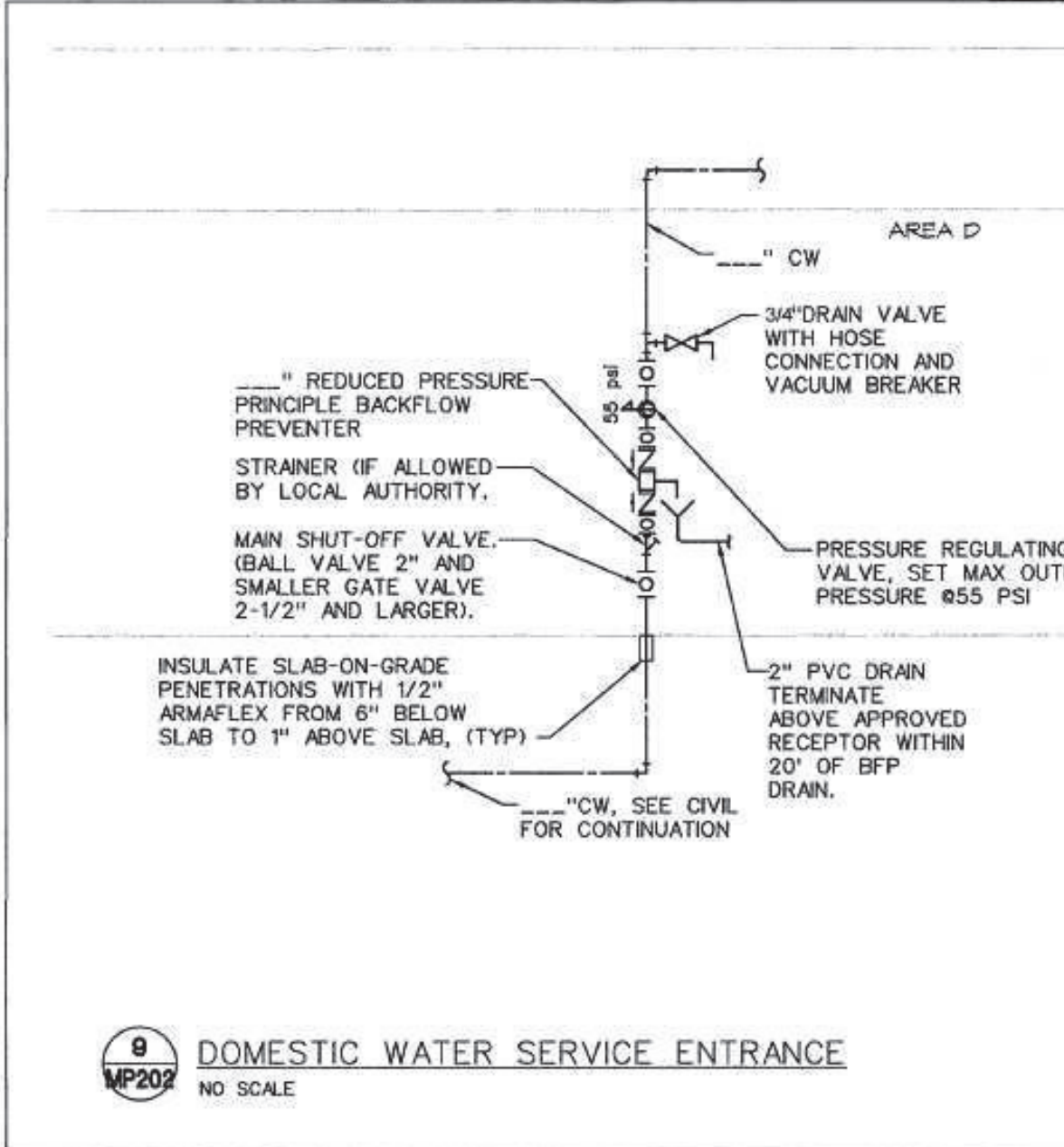
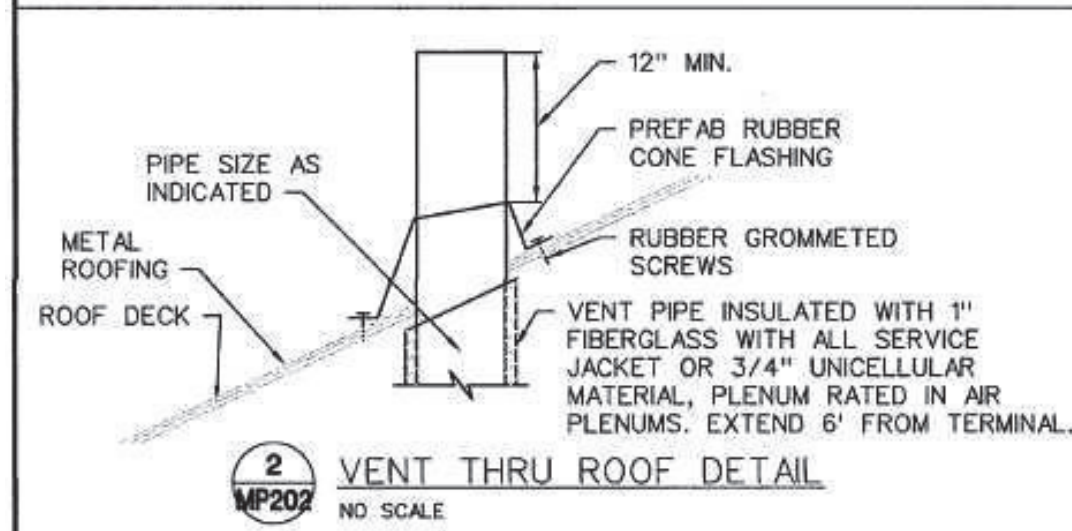
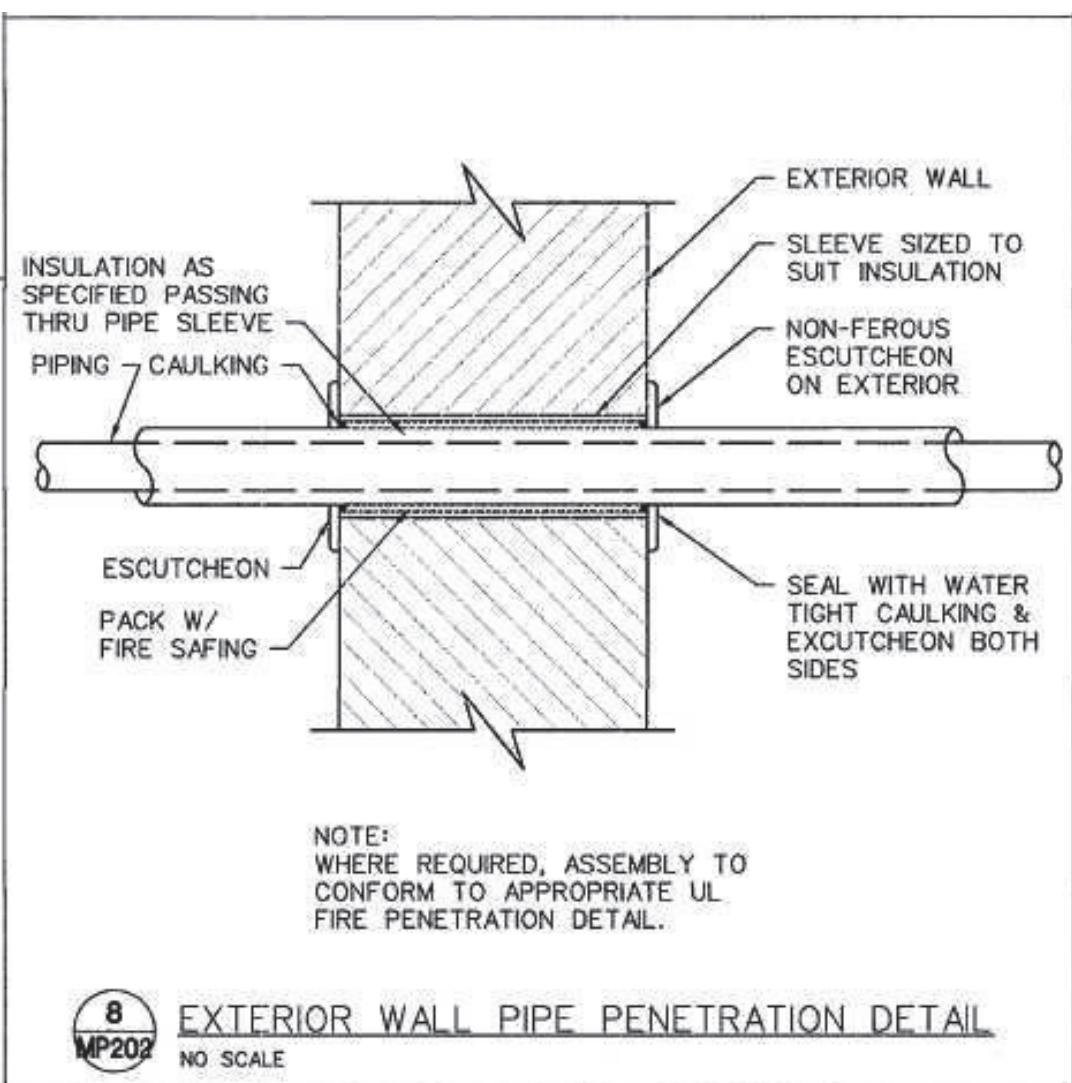
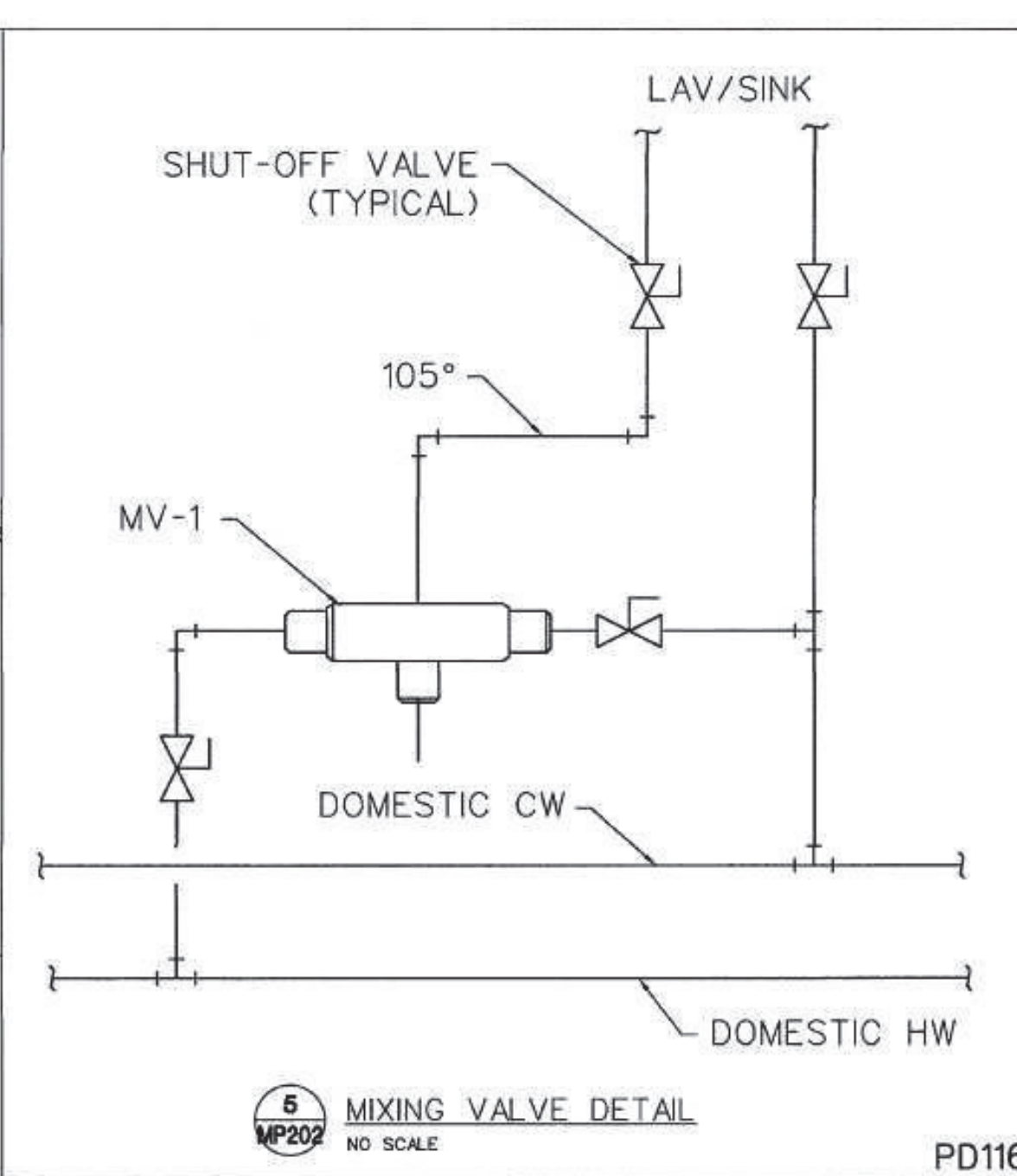
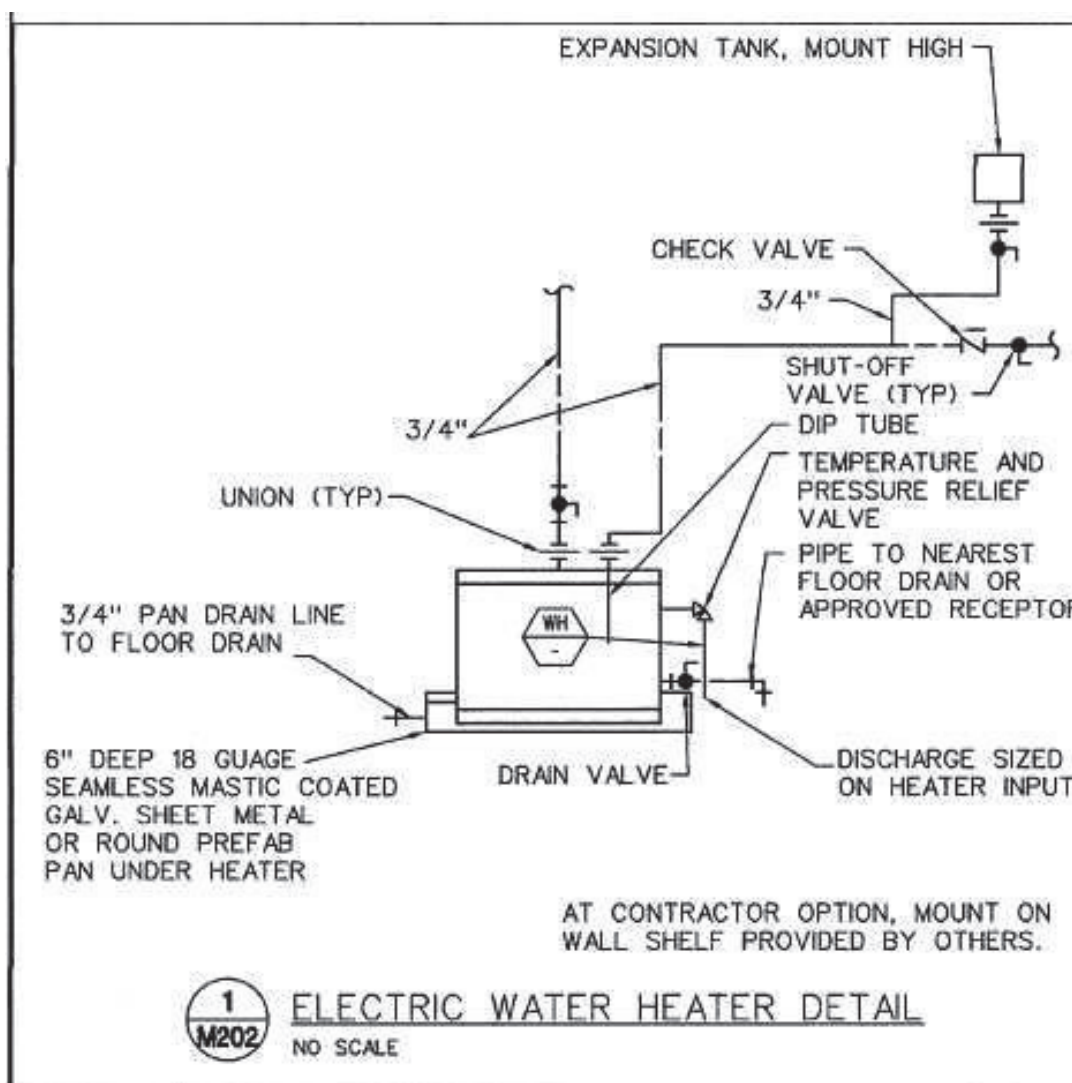


PLUMBING RISER DIAGRAM

PLUMBING CONTRACTOR IS RESPONSIBLE TO VERIFY ALL DIMENSIONS AND LOCATIONS OF ALL MECHANICAL, ELECTRICAL, AND COMMUNICATIONS EQUIPMENT AND TO VERIFY ALL DIMENSIONS, LOCATIONS, AND COORDINATION OF ALL MECHANICAL, ELECTRICAL, AND COMMUNICATIONS EQUIPMENT WITH ALL OTHER TRADES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM ALL APPLICABLE AGENCIES.

HOME BUYER:	PHONE:	DATE DRAWN:	PLAN NO.:	SHEET NO.:
BUILDER:	PHONE:	DATE REVISED:	CON-8999	OF
SUB-DIVISION:	LOT NO.:	DESIGNER:	FILE NAME:	APPROX. SQ. FT.:
			8999 P.L.	8999 P.L.





605.3 Water service pipe.

Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table 605.3. Water service pipe or tubing, installed underground and outside of the structure, shall have a working pressure rating of not less than 160 psi (1100 kPa) at 73.4°F (23°C). Where the water pressure exceeds 160 psi (1100 kPa), piping material shall have a working pressure rating not less than the highest available pressure. Water service piping materials not third-party certified for water distribution shall terminate at or before the full open valve located at the entrance to the structure. Ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

WATER HEATER SCHEDULE (ELECTRIC)

MARK NO.	MANUFACTURER	MODEL NO.	TYPE	ASME	TANK LINING	STORAGE (GALLONS)	RECOVERY (GAL/HR)	TEMP RISE (°F)	DISCH. SET POINT (°F)	ELECTRICAL	REMARKS			
										KW	VOLT	#	HZ	
1	LOCHINVAR	KSA03DKD	TANK	N	GL	28	-	-	120	4.5	208	1	60	1

NOTES:
1. INSTALL IN DRIN PAN. SEE DETAIL ON SHEET MP202.

TABLE 605.3 WATER SERVICE PIPE

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe	ASTM D 2848; ASTM F 441; ASTM F 442; CSA B137.6
Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC)	ASTM F 2855
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, L, N or M)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene (PEX) plastic pipe and tubing	ASTM F 876; ASTM F 877; AWWA C304; CSA B137.5
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PE)	ASTM F 1281; ASTM F 2262; CSA B137.10
Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)	ASTM F 1986
Ductile iron water pipe	AWWA C151/A21.51; AWWA C115/A21.15
Galvanized steel pipe	ASTM A 53
Polyethylene (PE) plastic pipe	ASTM D 2330; ASTM D 3035; AWWA C301; CSA B137.11
Polyethylene (PE) plastic tubing	ASTM D 2737; AWWA C301; CSA B137.1
Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe	ASTM F 1282; CSA B137.9
Polyethylene of raised temperature (PE-RT) plastic tubing	ASTM F 2769
Polypropylene (PP) plastic pipe or tubing	ASTM F 2385; CSA B137.11
Polyvinyl chloride (PVC) plastic pipe	ASTM D 1785; ASTM D 2241; ASTM D 2672; CSA B137.3
Stainless steel pipe (Type 304/304L)	ASTM A 312; ASTM A 778
Stainless steel pipe (Type 316/316L)	ASTM A 312; ASTM A 778

FIXTURE BRANCH SCHEDULE

FIXTURE	WASTE	VENT	COLD	HOT
Water Closet (ft)	4"	2"	1/2"	---
Water Closet (fv)	4"	2"	1"	---
Urinal	2"	1 1/2"	3/4"	---
Lavatory	1 1/2"	1 1/2"	1/2"	1/2"
Sink	2"	1 1/2"	1/2"	1/2"
Triple Sink	2"	1 1/2"	(2) 1/2"	(2) 1/2"
Shower, Tub	2"	1 1/2"	1/2"	1/2"
Water Fountain	1 1/2"	1 1/2"	1/2"	---
Janitor Sink (fr)	3"	2"	3/4"	3/4"
Janitor Sink (wall)	2"	1 1/2"	1/2"	1/2"
Floor Drain	2"	1 1/2"	---	---
Floor Sink	3"	2"	---	---
Egpt Floor Drain	3"	2"	---	---
Hub Drain	2"	1 1/2"	---	---
Dishwasher	2"	1 1/2"	---	1/2"
Washer Box	2"	1 1/2"	1/2"	1/2"
Ice Maker	---	---	1/2"	---
FPWH, HB	---	---	3/4"	---

1. Minimum waste or vent size below slab on grade shall be 2".
2. Size as shown on drawings and diagrams, but not less than listed.

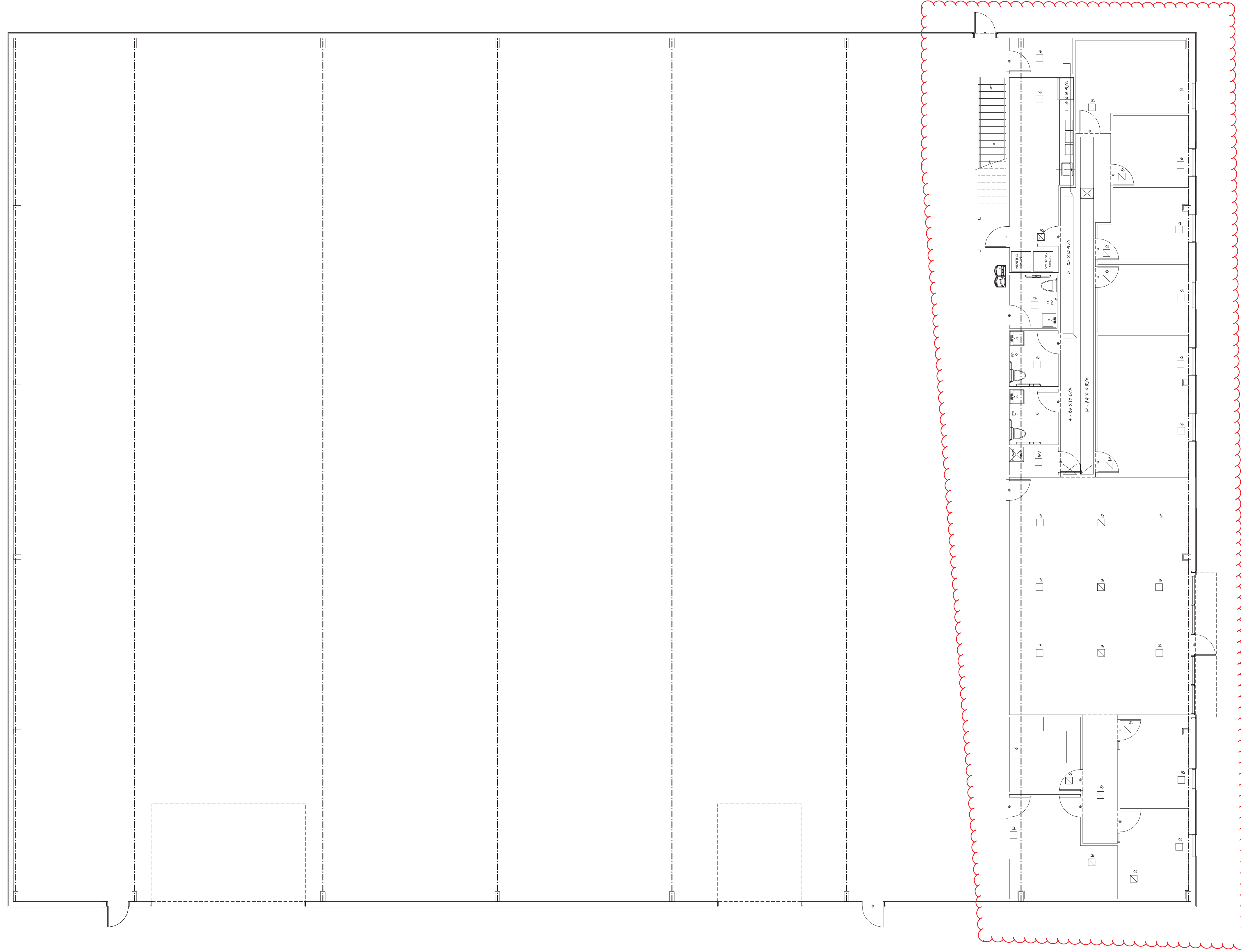
PLUMBING FIXTURE SCHEDULE

- INSTALL PLUMBING FIXTURES AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VERIFY ROUGH-IN REQUIREMENTS WITH MANUFACTURER'S DRAWINGS AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE WATER-CONSERVING FIXTURES AND APPURTENANCES IF/AS REQUIRED BY LOCAL AUTHORITIES. CONFIRM ALL LOCATION AND MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS. CAULK FIXTURES TO WALL/FLOOR. SET COUNTER MOUNTED SINKS AND LAVATORIES IN A BED OF CAULK. THE SPECIFIED PLUMBING FIXTURES, OR APPROVED EQUALS, SHALL BE USED UNLESS OTHERWISE NOTED OR INDICATED.
- WATER CLOSET, TOTO #CSC744SL.01, FLOOR MOUNTED, CONSTRUCTED OF VITREOUS CHINA, MEETING ANSI A-117.1 AND ADA BARRIER-FREE REQUIREMENTS, 17" HIGH, 1.6-GALLON FLUSH, CLOSE-COUPLED TANK DESIGN WITH ELONGATED BOWL AND SIPHON JET ACTION. TANK SHALL BE VITREOUS CHINA WITH COVER, 3/8" FLEXIBLE RISER WITH LOOSE KEY ANGLE STOP VALVE, CHROME-PLATED BRASS TRIP LEVER AND MANUFACTURER'S BOLT CAPS. PROVIDE BENKE #527 WHITE ELONGATED OPEN FRONT SEAT LESS COVER, PERMA BUMPER.
- LAVATORY, TOTO #LT307.4 (20"x18"), WALL-HUNG TYPE, CONSTRUCTED OF VITREOUS CHINA, MEETING ANSI A-117.1 AND ADA BARRIER-FREE REQUIREMENTS. LAVATORY SHALL HAVE 4-INCH FAUCET CENTERS AND DRILLED FOR CONCEALED ARM CARRIER. PROVIDE 3/8-INCH FLEXIBLE RISER W/ANGLE SUPPLIES WITH LOOSE KEY STOPS, 1-1/4-INCH INLET 1-1/2-INCH OUTLET CHROME PLATED CAST BRASS "P" TRAP W/CLEANOUT PLUG AND ESCUTCHEON W/SET SCREW. PROVIDE DELTA #523-WFOGHDF HEAVY DUTY SINGLE LEVER FAUCET, 4-INCH CENTERS, VANDAL-RESISTANT 2.2 GPM AERATOR, PERFORATED OFFSET GRID DRAIN (W. 1-1/4" TAILPIPE) AND VANDAL-RESISTANT SINGLE LEVER HANDLE. PROVIDE WITH J.R. SMITH CARRIER (TO MATCH WALL TYPE). MOUNT AT ADA HEIGHT AND MAINTAIN CLEARANCES UNDER LAVATORY AS REQUIRED BY ADA REGULATIONS. INSULATE WASTE AND HOT WATER SUPPLY UNDER LAVATORY WITH UNDERSINK PROTECTIVE PIPE COVER, MOLDED, ANTIMICROBIAL, WITH FLUSH REUSABLE FASTENERS. TRUEBRO LAV GUARD.
- ALL FIXTURES USED SPECIFICALLY FOR HANDWASHING PURPOSES (LAVATORIES, HAND SINKS, ECT.) SHALL BE PROVIDED WITH A TEMPERING VALVE TO TEMPER THE HOT WATER TO THE FIXTURE (MAXIMUM OF 105-DEGREES F).
- ALL SINKS AND ASSOCIATED FAUCETS ARE PROVIDED BY THE KEG. PC TO PROVIDE BASKET STRAINER DRAIN, TAILPIPE, 3/8-INCH FLEXIBLE RISER W/ANGLE SUPPLIES WITH LOOSE KEY STOPS, 1-1/4-INCH INLET 1-1/2-INCH OUTLET CHROME PLATED CAST BRASS "P" TRAP W/CLEANOUT PLUG AND ESCUTCHEON W/SET SCREW. PC TO PROVIDE OWNER FAUCETS (DELTA OR EQUAL) TO GO ALONG WITH FIXTURES PROVIDED BY THE KEG UNLESS OTHERWISE NOTED.
- ELECTRIC WATER COOLER, BI-LEVEL BARRIER FREE WITH STAINLESS STEEL TOP WITH SATIN FINISH, GRANITE POWDER COAT FINISH ON GALVANIZED STEEL CABINET, FRONT AND SIDE TOUCHPAD OPERATORS, FLEX GUARD BUBBLER, 8 GPH @ 90 DEGREES F AMBIENT. PROVIDE 3/8-INCH FLEXIBLE RISER W/ANGLE SUPPLIES WITH LOOSE KEY STOP, AND 1-1/4-INCH INLET 1-1/2-INCH OUTLET CHROME-PLATED CAST BRASS "P" TRAP W/CLEANOUT PLUG AND ESCUTCHEON W/SET SCREW. MOUNT PER MANUFACTURER'S INSTRUCTIONS AND AS SHOWN ON THE ARCHITECTURAL PLANS

SHEET NO. 11
PLAN NO. COM-9999
FILE NAME: 9199 PL-1
DATE DRAWN:
DATE REVISID:
DESIGNER:
HOME BUYER:
BUILDER:
SUB-DIVISION:

SUB-CONTRACTOR IS RESPONSIBLE TO CHECK ALL DIMENSIONS FOR ACCURACY BETWEEN FLOORS, FOUNDATION AND ELEVATIONS. ALSO VERIFY ALL ROOM HEADERS, PIPING LOCATIONS, AND COLUMN SIZES. SUB-CONTRACTOR SHALL VERIFY ALL CHECK FOR ACCURACY. ALL DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED. SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS. SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS. SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS. SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS.



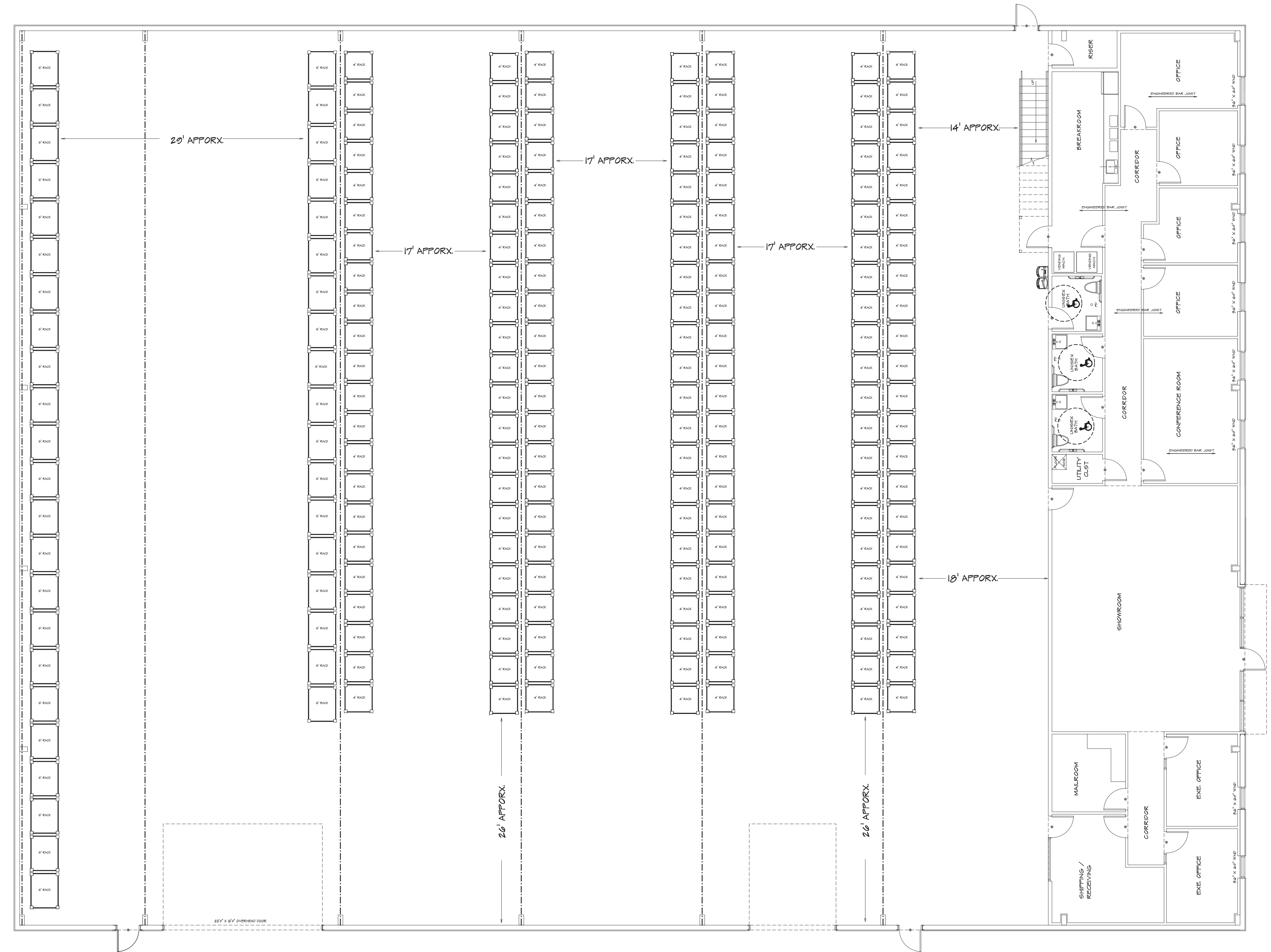
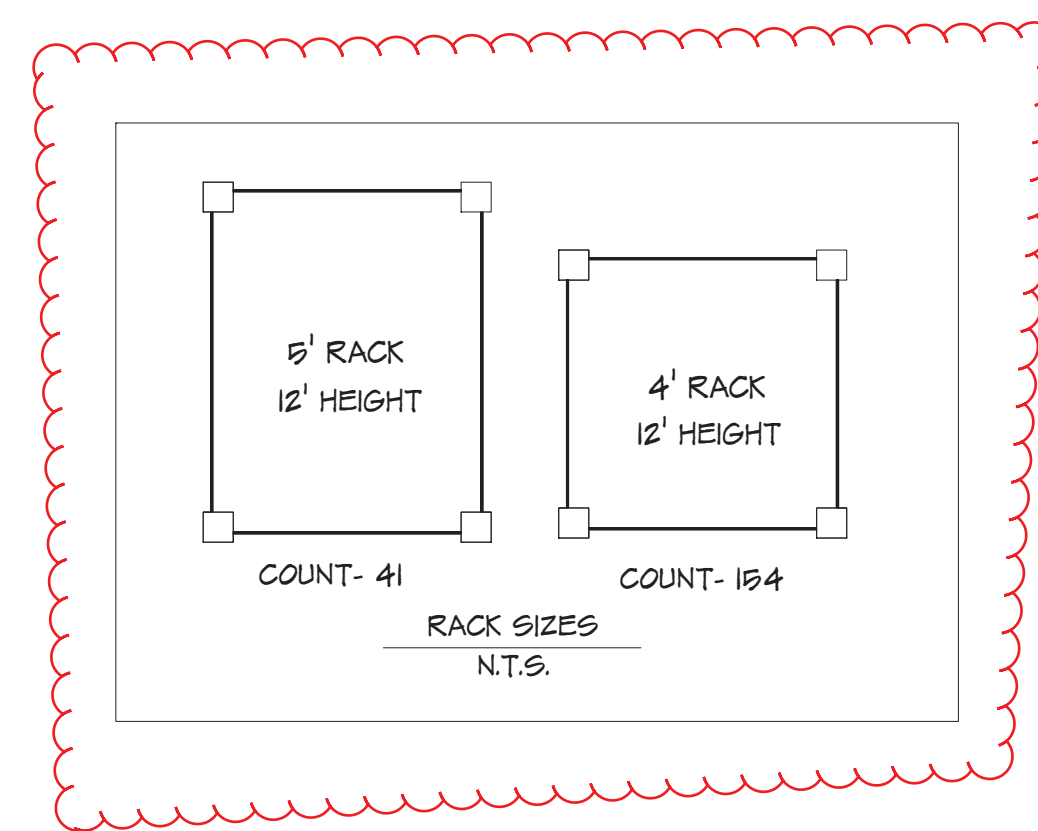


LOWER LEVEL HVAC PLAN
1/8" = 1'-0"

MECHANICAL CONTRACTOR IS RESPONSIBLE TO VERIFY ALL INFORMATION FOR CORRECT
PLACEMENT, FUNCTION, AND RELATIONS. ALSO VERIFY ALL SEAM, JOINTS,
PENETRATIONS, AND COLUMN SIZES. MECHANICAL CONTRACTOR TO VERIFY THE
CORRECTNESS OF ALL INFORMATION AND TO VERIFY THE CORRECTNESS OF ALL
DIMENSIONS. ALL RESPONSIBILITY FOR LOT PLACEMENTS, SET-BACKS, AND PLUMBING
DIMENSIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL
DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED. ALL
DIMENSIONS SHALL BE TO FACE UNLESS OTHERWISE NOTED.

HOME BUYER:	PHONE:	DATE DRAWN:	PLAN NO.:	SHEET NO.:
BUILDER:	PHONE:	DATE REVISED:	COM-899	8
SUB-DIVISION:	LOT NO.:	DESIGNER:	FILE NAME:	APPROX. SQ.FT.:
			899 HVAC	899 HVAC





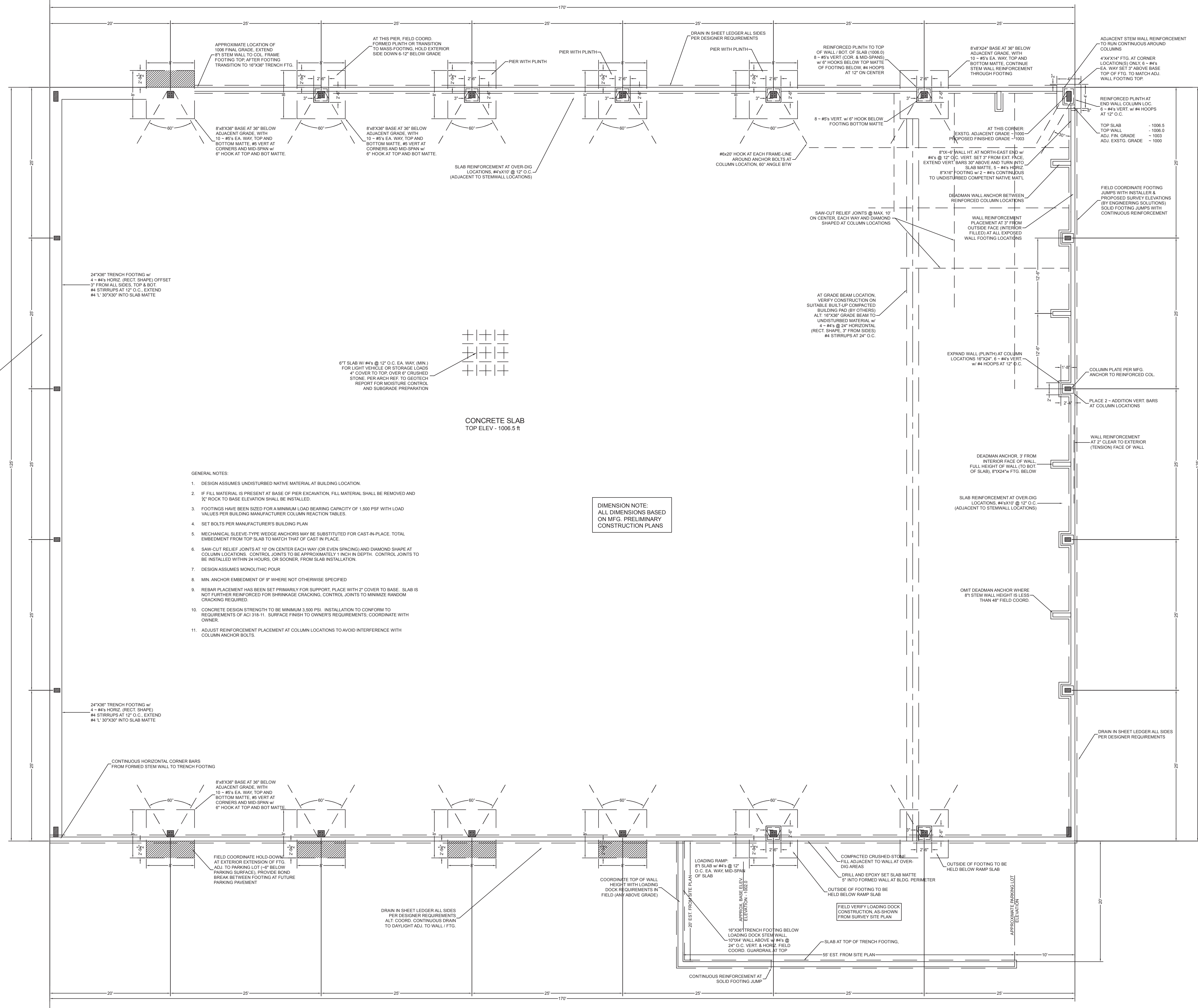
RACK LAY-OUT
FIRST FLOOR
1/8" = 1'

THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, LICENSES, AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, LICENSES, AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS, LICENSES, AND APPROVALS FROM ALL APPLICABLE AGENCIES AND AUTHORITIES.

HOME BUYER:	PHONE:	DATE DRAWN:	PLAN NO.:	SHEET NO.:
BUILDER:	PHONE:	DATE REVISED:	COM-899	1
SUB-DIVISION:	LOT NO.:	DESIGNER:	FILE NAME:	APPROX. SQ. FT.:
			899.PLD	



1 125'x170' MOMENT-FRAME BUILDING FOUNDATION
S1.0 SCALE: 1/8" = 1'



- GENERAL NOTES:
- DESIGN ASSUMES UNDISTURBED NATIVE MATERIAL AT BUILDING LOCATION.
 - IF FILL MATERIAL IS PRESENT AT BASE OF PIER EXCAVATION, FILL MATERIAL SHALL BE REMOVED AND 3/4" ROCK TO BASE ELEVATION SHALL BE INSTALLED.
 - FOOTINGS HAVE BEEN SIZED FOR A MINIMUM LOAD BEARING CAPACITY OF 1,500 PSF WITH LOAD VALUES PER BUILDING MANUFACTURER COLUMN REACTION TABLES.
 - SET BOLTS PER MANUFACTURER'S BUILDING PLAN.
 - MECHANICAL SLEEVE-TYPE WEDGE ANCHORS MAY BE SUBSTITUTED FOR CAST-IN-PLACE. TOTAL EMBEDMENT FROM TOP SLAB TO MATCH THAT OF CAST IN PLACE.
 - SAW-CUT RELIEF JOINTS AT 10' ON CENTER EACH WAY (OR EVEN SPACING) AND DIAMOND SHAPES AT COLUMN LOCATIONS. CONTROL JOINTS TO BE APPROXIMATELY 1 INCH IN DEPTH. CONTROL JOINTS TO BE INSTALLED WITHIN 24 HOURS, OR SOONER, FROM SLAB INSTALLATION.
 - DESIGN ASSUMES MONOLITHIC POUR.
 - MIN. ANCHOR EMBEDMENT OF 9" WHERE NOT OTHERWISE SPECIFIED.
 - REBAR PLACEMENT HAS BEEN SET PRIMARILY FOR SUPPORT. PLACE WITH 2" COVER TO BASE. SLAB IS NOT FURTHER REINFORCED FOR SHRINKAGE CRACKING. CONTROL JOINTS TO MINIMIZE RANDOM CRACKING REQUIRED.
 - CONCRETE DESIGN STRENGTH TO BE MINIMUM 3,500 PSI. INSTALLATION TO CONFORM TO REQUIREMENTS OF ACI 318-11. SURFACE FINISH TO OWNER'S REQUIREMENTS; COORDINATE WITH OWNER.
 - ADJUST REINFORCEMENT PLACEMENT AT COLUMN LOCATIONS TO AVOID INTERFERENCE WITH COLUMN ANCHOR BOLTS.

DIMENSION NOTE:
ALL DIMENSIONS BASED ON MFG. PRELIMINARY CONSTRUCTION PLANS

SCALES

PROFILE	SCALE	NOTED
PLAN	SCALE	
HORIZ.	SCALE	
VERTICAL	SCALE	

BENCHMARK

NO.	DATE	DESCRIPTION	BY
1	12-16-24	FIRST PRINT	ADD

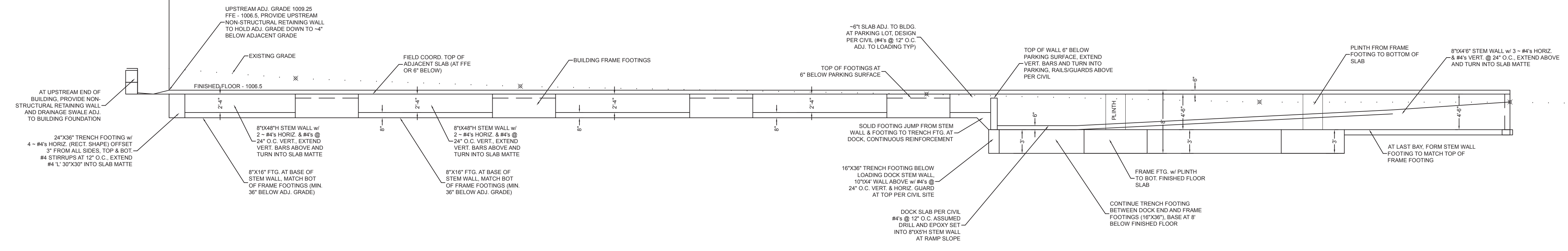
NEWBERRY LANDING
LOT 294 NEWBERRY LANDING
LEE'S SUMMIT, MO
MOMENT FRAME BLDG.
FOUNDATION PLAN

ENGINEERING, P.C.
CIVIL ENGINEERING CONSULTANTS
1805 WATERS ROAD, HARRISONVILLE, MISSOURI 64701
PH: (816) 380-5150 FAX: (816) 894-3220 EMAIL: MAIL@REDEENGINEERING.COM

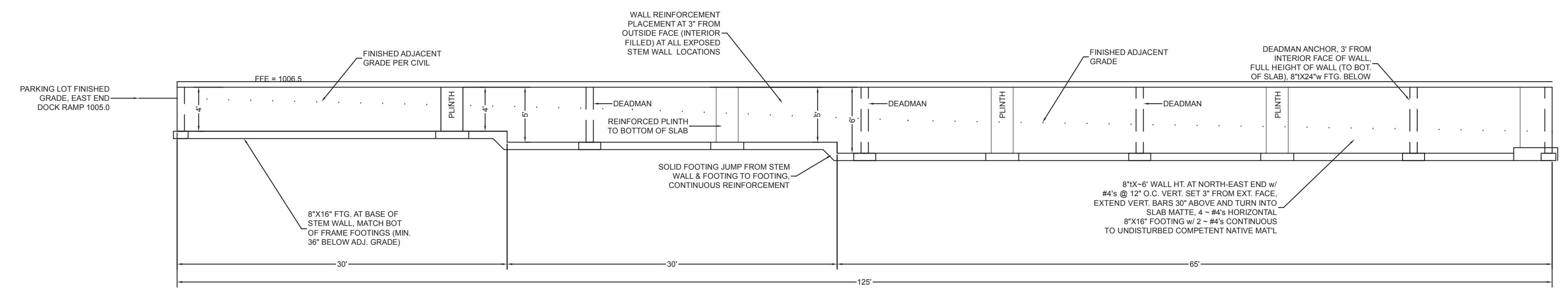


AARON OBERMILLER, P.E.
MO:PE-2008019580
KS:25237
PROJECT NUMBER
24-097-04
DATE
12-16-24
SHEET
S1.0

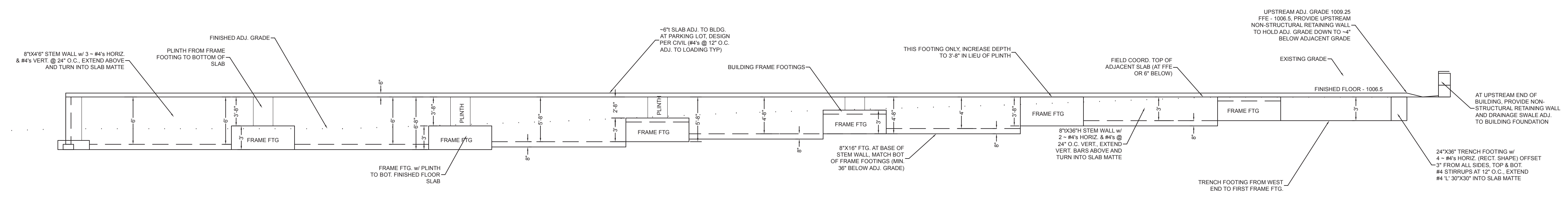
1 SOUTH FACE FOUNDATION
S1.1 SCALE: 1/8" = 1'



1 EAST FACE FOUNDATION
S1.1 SCALE: 1/8" = 1'



1 NORTH FACE FOUNDATION
S1.1 SCALE: 1/8" = 1'



PROFILES

NO.	DATE	DESCRIPTION	BY
1	12-16-24	FIRST PRINT	ADD

PLAN SCALE NOTED
VERTICAL SCALE

BENCHMARK

NEWBERRY LANDING
LOT 294 NEWBERRY LANDING
LEE'S SUMMIT, MO

MOMENT FRAME BLDG.
FOUNDATION PLAN

RE ENGINEERING, P.C.
CIVIL ENGINEERING CONSULTANTS
1805 WATERS ROAD, HARRISONVILLE, MISSOURI 64701
PH: (816) 380-5150 FAX: (816) 894-3220 EMAIL: MAIL@REENGINEERING.COM



AARON OBERMILLER, P.E.
MO:PE-2008019580
KS:25237

PROJECT NUMBER
24-097-04

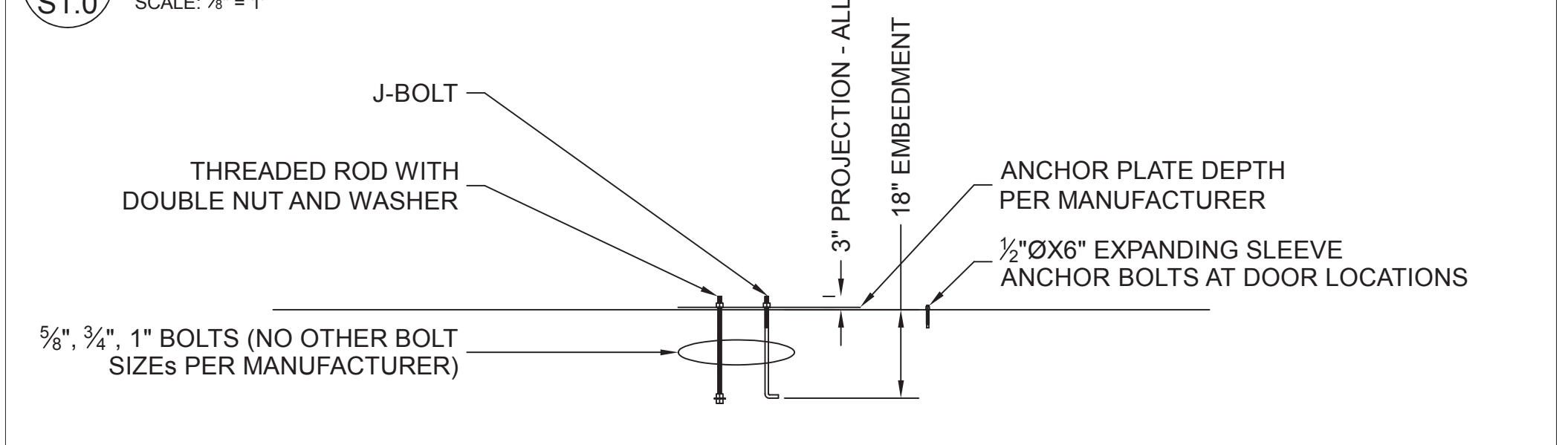
DATE
12-16-24

SHEET
S1.1

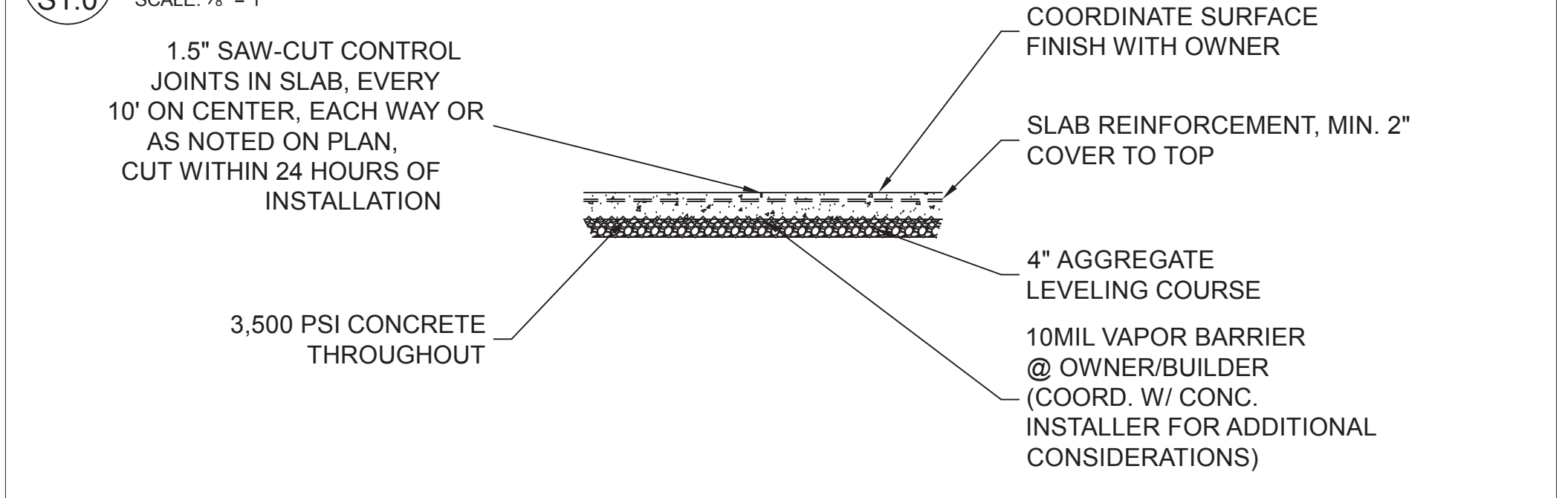
4 GENERAL NOTES

- DESIGN ASSUMES UNDISTURBED NATIVE MATERIAL AT BUILDING LOCATION.
- IF FILL MATERIAL IS PRESENT AT BASE OF PIER EXCAVATION, FILL MATERIAL SHALL BE REMOVED AND 3/4" ROCK TO BASE ELEVATION SHALL BE INSTALLED. ALTERNATELY SUITABLE EARTHEN MATERIAL COMPACTED TO 95% OPTIMUM MAY BE PERMITTED.
- FOOTINGS HAVE BEEN SIZED FOR A MINIMUM LOAD BEARING CAPACITY OF 1,500 PSF WITH LOAD VALUES PER BUILDING MANUFACTURER COLUMN REACTION TABLES.
- SET BOLTS PER MANUFACTURER'S BUILDING PLAN
- MECHANICAL SLEEVE-TYPE WEDGE ANCHORS MAY BE SUBSTITUTED FOR CAST-IN-PLACE. TOTAL EMBEDMENT FROM TOP SLAB TO MATCH THAT OF CAST IN PLACE.
- SAW-CUT RELIEF JOINTS AT 10' ON CENTER EACH WAY (OR EVEN SPACING) AND DIAMOND SHAPE AT COLUMN LOCATIONS. CONTROL JOINTS TO BE APPROXIMATELY 1 INCH IN DEPTH. CONTROL JOINTS TO BE INSTALLED WITHIN 24 HOURS, OR SOONER, FROM SLAB INSTALLATION.
- DESIGN ASSUMES MONOLITHIC POUR
- MIN. ANCHOR EMBEDMENT OF 9" WHERE NOT OTHERWISE SPECIFIED. 6" EMBEDMENT AT NON-BEARING LOCATIONS (TYPICALLY DOOR / WINDOW FRAMES)
- REBAR PLACEMENT PRIMARILY FOR SUPPORT, PLACE WITH 2" COVER TO BASE. SLAB IS NOT FURTHER REINFORCED FOR SHRINKAGE CRACKING, CONTROL JOINTS TO MINIMIZE RANDOM CRACKING REQUIRED.
- CONCRETE DESIGN STRENGTH TO BE MINIMUM 3,500 PSI. INSTALLATION TO CONFORM TO REQUIREMENTS OF ACI 318-11. SURFACE FINISH TO OWNER'S REQUIREMENTS; COORDINATE WITH OWNER. COORDINATE FOR INCREASED CURE TIME FROM VAPOR BARRIER PLACEMENT.
- ADJUST REINFORCEMENT PLACEMENT AT COLUMN LOCATIONS TO AVOID INTERFERENCE WITH COLUMN ANCHOR BOLTS AS NECESSARY.

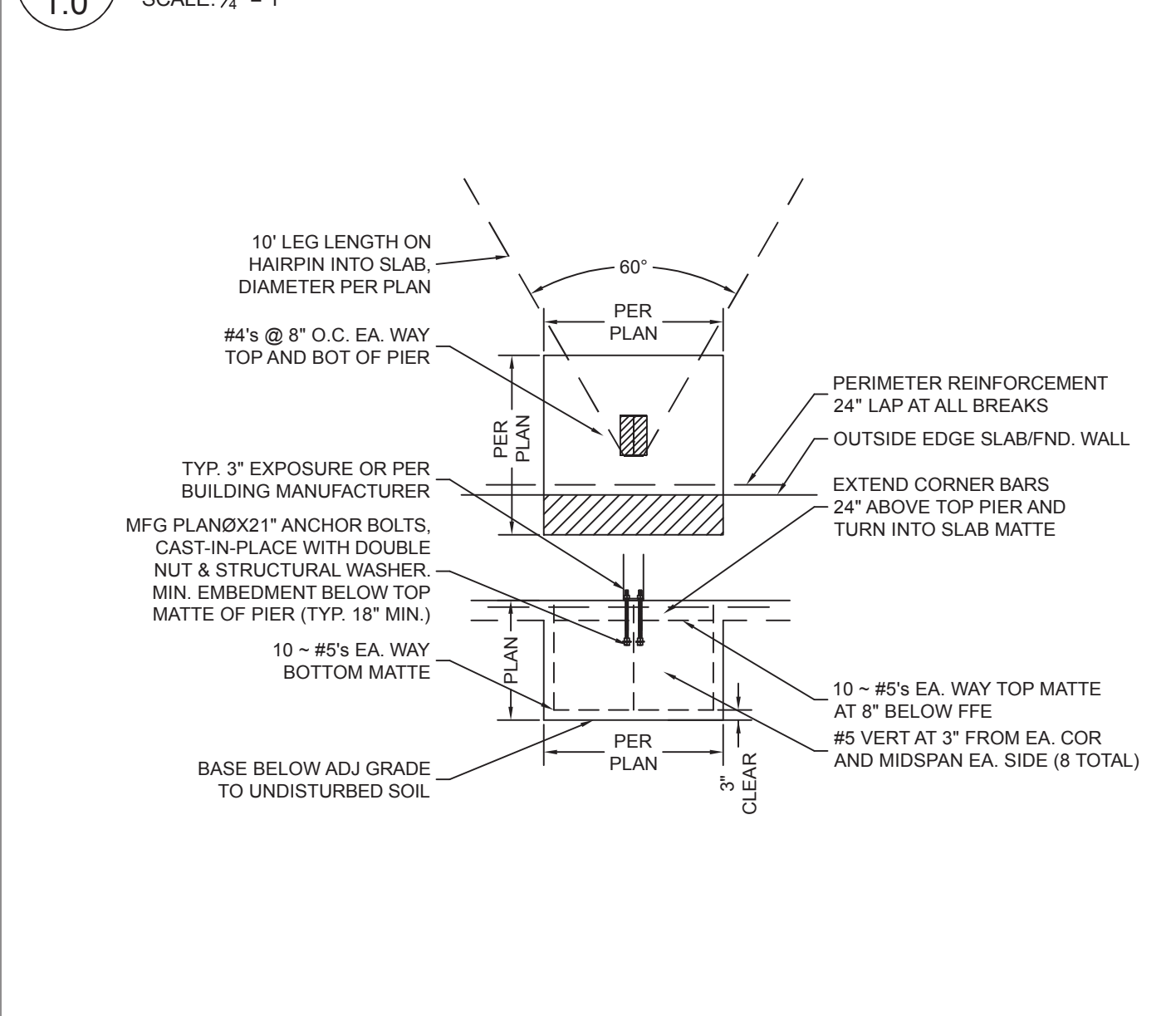
5 ANCHOR BOLT EMBEDMENT DETAIL



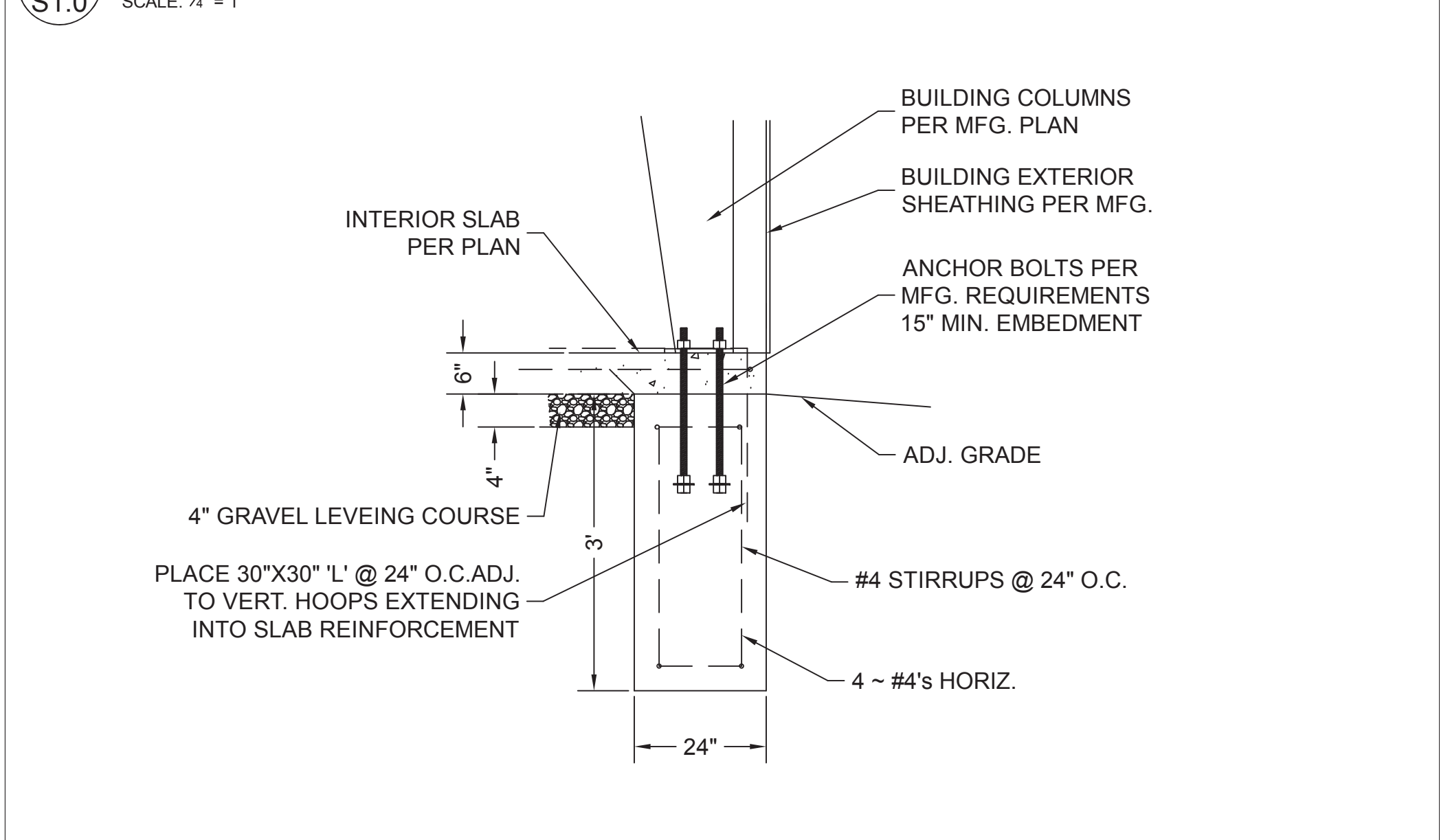
7 SAW CUT AT SLAB DETAIL



2 FRAME LINE PIERS



7 TYPICAL TRENCH FOOTING



SCALES

PLAN SCALE	NOTED SCALE	PROFILE HORIZ. SCALE	VERTICAL SCALE

BENCHMARK

NO.	DATE	DESCRIPTION	BY
1	12-16-24	FIRST PRINT	ADD

NEWBERRY LANDING
LOT 294 NEWBERRY LANDING
LEE'S SUMMIT, MO

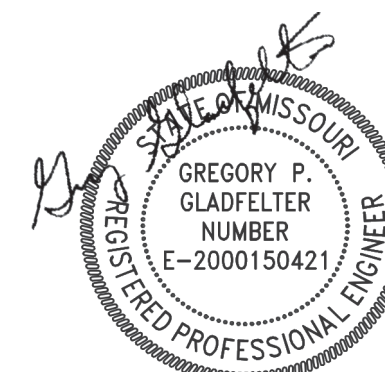
ENGINEERING, P.C.
CIVIL ENGINEERING CONSULTANTS
1805 WATERS ROAD, HARRISONVILLE, MISSOURI 64701
PH: (816) 380-5150 FAX: (816) 894-3220 EMAIL: MAIL@REGENGINEERING.COM



AARON OBERMILLER, P.E.
MO:PE-2008019580
KS:25237
PROJECT NUMBER
24-097-04
DATE
12-16-24
SHEET
S1.2

OUTSIDE AIR SUMMARY (SINGLE ZONE SYSTEMS) (NOTES 2 & 3)												
SYSTEM	SPACE	AREA (SQUARE FEET)	CALCULATED OCCUPANT TOTAL (Pz)	VENTILATION RATE (CFM/PERS) (Rp)	AREA OUTDOOR AIRFLOW IN BREATHING ZONE (Ra) CFM/SF	SPACE OUTDOOR AIRFLOW IN BREATHING ZONE $V_{bz}=R_p P_z + R_a A_z$ CFM	ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) COOLING/HEATING (NOTE 1)	ZONE OUTDOOR AIRFLOW (Voz=Vbz/Ez) COOLING	ZONE OUTDOOR AIRFLOW (Voz=Vbz/Ez) HEATING	ZONE OUTDOOR AIR SETPOINT (CFM)	EXHAUST REQUIRED (CFM) (NOTE 5)	REMARKS
FURNACE F1	EXECUTIVE OFFICE 1	142	1	5	0.06	13.52	1.0/0.8	13.52	16.90	17		
	EXECUTIVE OFFICE 2	137	1	5	0.06	13.22	1.0/0.8	13.22	16.53	17		
	MAILROOM	113	1	5	0.06	11.78	1.0/0.8	11.78	14.73	15	57	6
	SHOWROOM	916	14	7.5	0.12	214.92	1.0/0.8	214.92	268.65	269		
	SHIPPING & RECEIVING	208	2	5	0.06	22.48	1.0/0.8	22.48	28.10	29		
	CORRIDOR	100	0	0	0.06	6.00	1.0/0.8	6.00	7.50	8		
	TOTAL	1,616	19							355	57	
FURNACE F2	CONFERENCE ROOM	278	14	5	0.06	86.68	1.0/0.8	86.68	108.35	109		
	OFFICE 1	139	1	5	0.06	13.34	1.0/0.8	13.34	16.68	17		
	OFFICE 2	135	1	5	0.06	13.10	1.0/0.8	13.10	16.38	17		
	OFFICE 3	123	1	5	0.06	12.38	1.0/0.8	12.38	15.48	16		
	OFFICE 4	197	1	5	0.06	16.82	1.0/0.8	16.82	21.03	22		
	BREAKROOM	267	14	5	0.06	86.02	1.0/0.8	86.02	107.53	108		
	UNISEX BATHROOM 1	63									70	
	UNISEX BATHROOM 2	66									70	
	UNISEX BATHROOM 3	66									70	
	CORRIDOR	249	0	0	0.06	14.94	1.0/0.8	14.94	18.68	19		
	TOTAL	1,583	32							308	210	
WAREHOUSE		18,000	0	10	0.06	1080.00	1.0/0.8	1080.00	1350.00	1350		
	TOTAL	18,000	0							1,350	0	
MEZZANINE		297	0	10	0.06	17.82	1.0/0.8	17.82	22.28	23		
	TOTAL	297	0							23	0	

1. ZONE AIR DISTRIBUTION EFFECTIVENESS (Ez) DETERMINED FROM TABLE 403.3.1.2 AND IS BASED ON AIR DISTRIBUTION CONFIGURATION IN ACCORDANCE WITH THE 2018 IMC.
2. CALCULATION DONE IN ACCORDANCE WITH 2018 IMC, CHAPTER 4.
3. VENTILATION AIR PROVIDED BY DIRECT CONNECTION TO THE OUTDOORS IN ACCORDANCE WITH SECTION 401, 2018 IMC.
4. BATHROOM MINIMUM EXHAUST AIR PROVIDED AT MINIMUM 70 CFM PER FIXTURE IN ACCORDANCE WITH CHAPTER 4, 2018 IMC.
5. SPACE EXHAUST REQUIRED AT THE INDICATED RATE.



02/05/2025