3242 BANNING ROAD, CINCINNATI, OH 45239

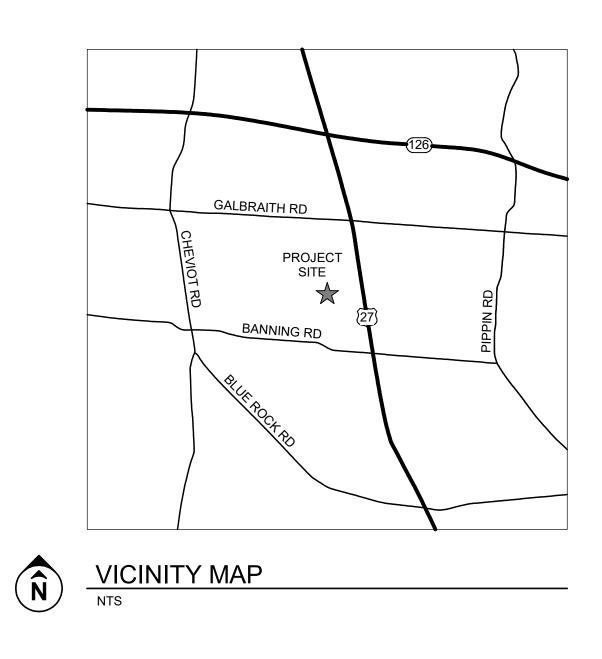
BSHP

SHP - ARCHITECT

312 Plum Street, Suite 700, Cincinnati, OH 45202 PHONE: (513) 381-2112

SHP - PME ENGINEER

312 Plum Street, Suite 700, Cincinnati, OH 45202 PHONE: (513) 381-2112



SHEET INDEX

GENERAL

TITLE SHEET

CODE DATA SHEET

ARCHITECTURAL

LEGENDS AND DETAILS

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ELECTRICAL

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ELECTRICAL LEGENDS

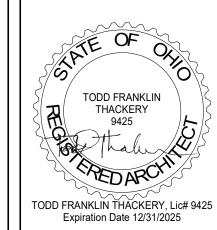
ELECTRICAL DEMOLITION PLAN

ELECTRICAL LIGHTING PLAN ELECTRICAL POWER PLAN

ELECTRICAL FIRE ALARM PLAN

ELECTRICAL ALTERNATE PLANS

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SCHOOL SCHOOL INCINNATI, OH LIONS

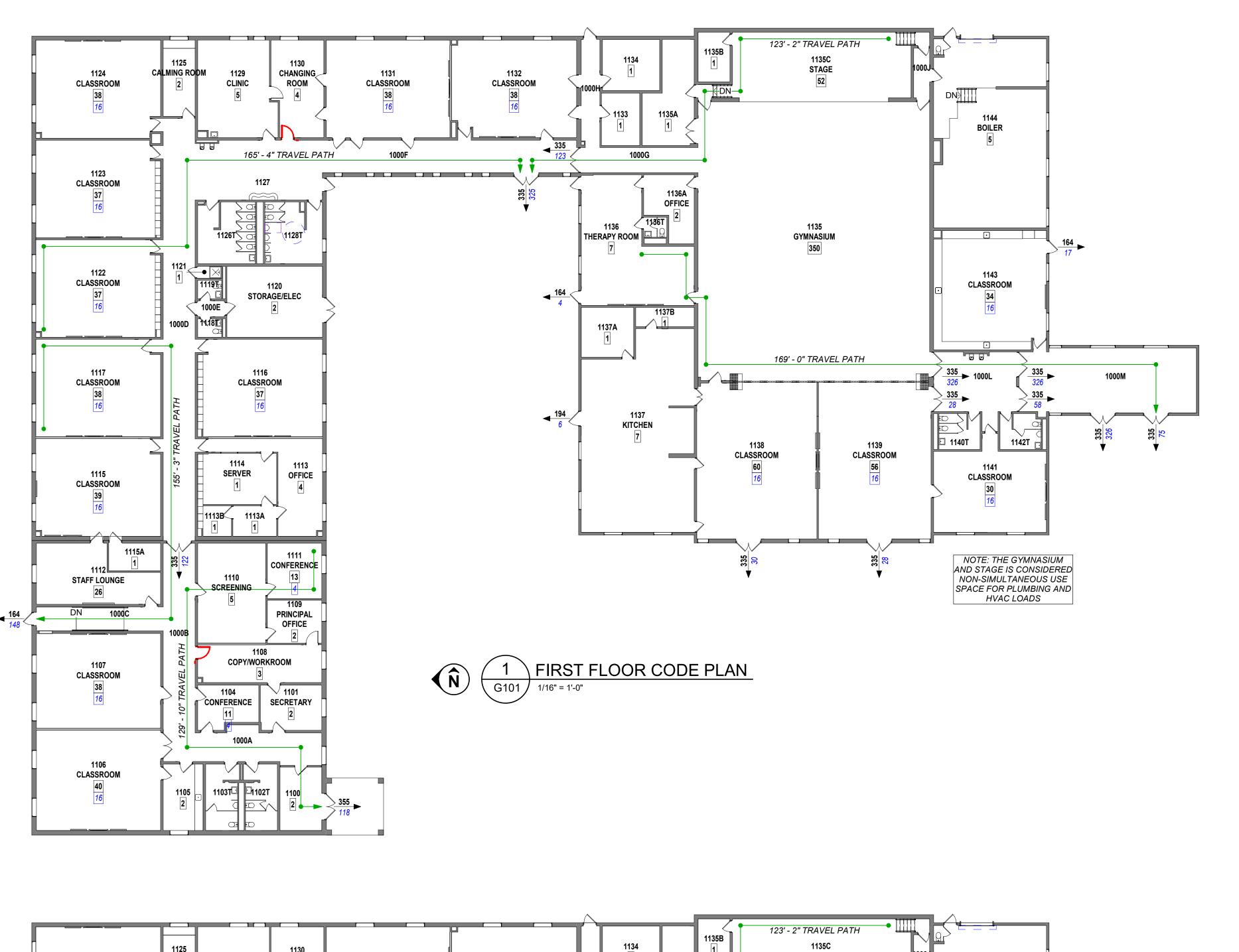
ISSUANCES

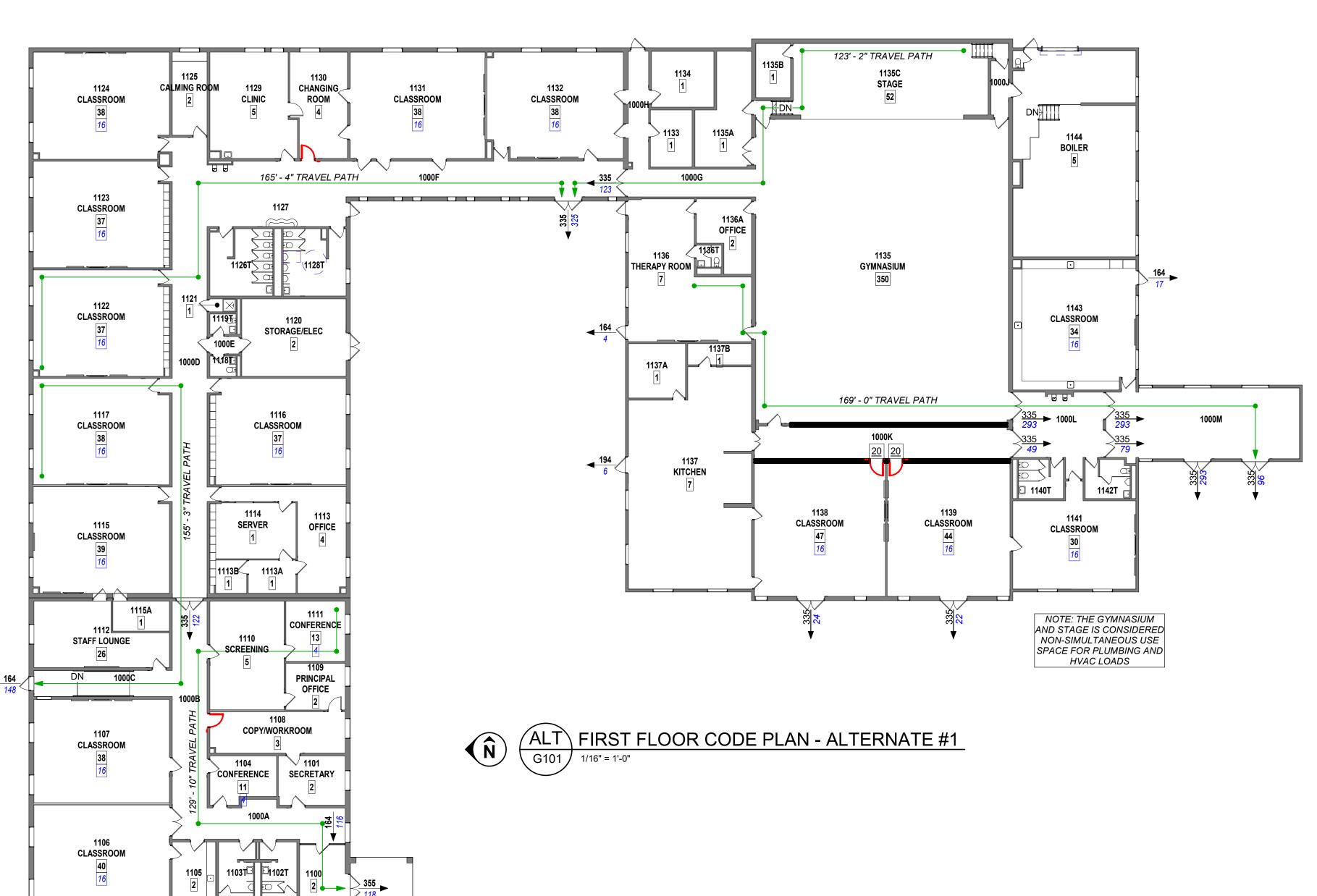
TITLE SHEET

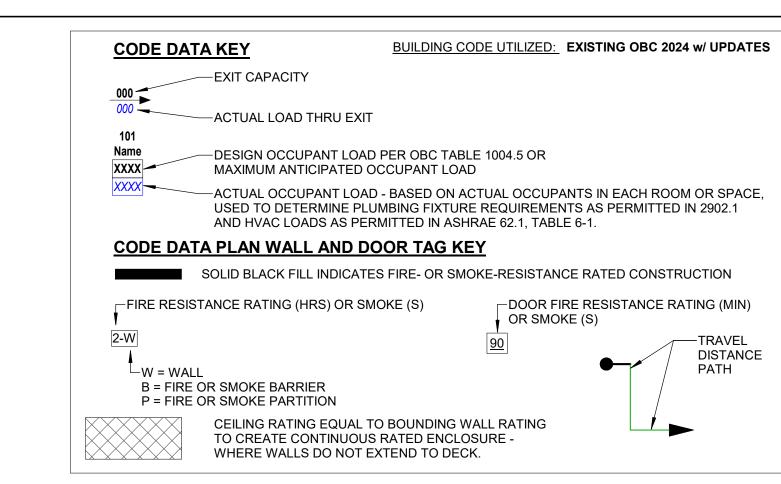
COMM NO. 2024081.0

G001









BUILDING SPRINKLERED?

BUILDING CODE COMPLIANCE INFORMATION OCCUPANCY CLASSIFICATION NON-SEPARATED MIXED USE B, E, & A-3 (UNCHANGED) OBC CONSTRUCTION TYPE IIB (UNCHANGED)

PLUMBING FIXTURE REQUIREMENTS

NS (UNCHANGED)

		М
		175
Water Closets:		173
E Closets.	1: 50M 1: 50F 350 OCCUPANTS	3.5
	Required	4
	Actual Water Closets Provided	6
	Actual Urinals Provided	5
	TOTAL PROVIDED	11
Lavatories:	TOTALTROVIDED	
E	1: 50M 1: 50F 350 OCCUPANTS	3.5
	Required	4
	TOTAL PROVIDED	6
Showers:		
E	Not Required by Code	-
	Required	-
	TOTAL PROVIDED	0
Drinking Fountair	ns:	
E	1: 100 RATIO 350 OCCUPANTS	
	Required	
	TOTAL PROVIDED	
Service Sinks:		
	Required	
	TOTAL PROVIDED	
Plumbing Area P1		

EGRESS TRAVEL DISTANCE SCHEDULE									
PATH NAME	LENGTH								
CLASSROOM 1117	155'-3"								
CLASSROOM 1122	165'-4"								
CONFERENCE 1111	129'-10"								
STAGE 1135C	123'-2"								
THERAPY 1136	169'-0"								

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ISSUANCES

| 06-24-24 | PERMIT SET | 1 08-01-24 | ADDENDUM 1

ERATIONS
3242 BAN

CODE DATA SHEET

COMM NO. 2024081.01

G101

1141

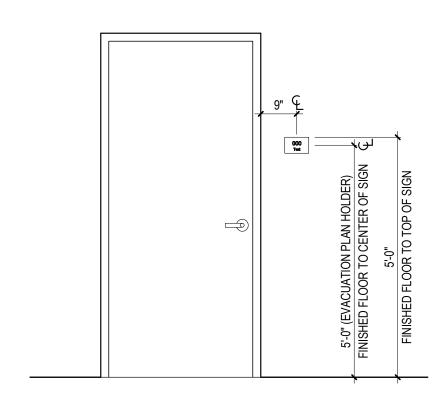
1141

Grand total: 88

CLASSROOM

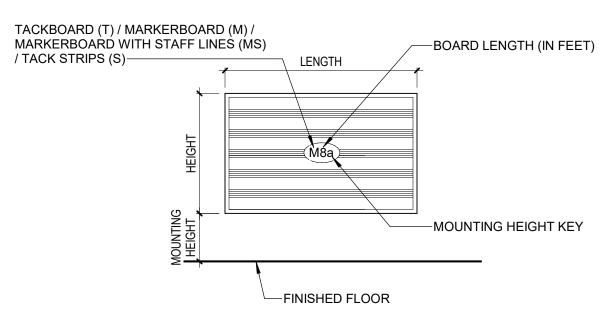
CLASSROOM BOYS RR CLASSROOM CLASSROOM CLASSROOM BOILER

ROOM NUMBER & NAME INSERT SIGN RAISED, 1" HIGH ROOM NUMBER WITH BRAILLE 1" NAME INSERT WINDOW F	WOMEN'S RESTROOM SIGN RAISED GRAPHICS RAISED, 5/8" HIGH ROOM NAME WITH BRAILLE	EVACUATION PLAN SIGN HORIZ. 5/8" HIGH TEXT 8 1/2" X 11" PLAIN INSERT WINDOW
ROOM NUMBER & NAME SIGN RAISED, 1" HIGH ROOM NUMBER WITH BRAILLE RAISED, 5/8" HIGH ROOM NAME G ROOM NUMBER SIGN	MEN'S RESTROOM SIGN RAISED GRAPHICS RAISED, 5/8" HIGH ROOM NAME WITH BRAILLE	
RAISED, 1" HIGH ROOM NUMBER WITH BRAILLE (H) EXIT SIGN	UNISEX RESTROOM SIGN RAISED GRAPHICS RAISED, 5/8" HIGH ROOM NAME WITH BRAILLE	
EXIT \$\int \text{RAISED, 1" HIGH TEXT WITH BRAILLE}		



SIGN TYPE LEGEND

SIGN MOUNTING HEIGHTS

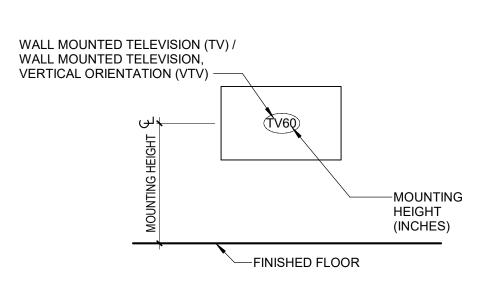


VISUAL DISPLAY BOARD LEGEND

	FRAMED MARKERBOARD ASSEMBLIES LEGEND									
	KEY		LENGTH	HEIGHT	MOUNTING HEIGHT	QUANTITY				
М	4	d	4'-0"	4'-0"	2'-10"	28				
М	6	d	6'-0"	4'-0"	2'-10"	1				
М	8	d	8'-0"	4'-0"	2'-10"	1				

GENERAL NOTES - DISPLAY BOARDS

SEE PLANS FOR BOARD LOCATIONS/DIMENSIONS - IF A BOARD IS NOT DIMENSIONED IT SHOULD BE CENTERED ON THE WALL.



TV MOUNTING HEIGHT LEGEND

CVMDOLC 9 LECENDO

SYMBC	LS & LEGENDS		
	WORK POINT ELEVATION	BD BN	BOARD BULLNOSE
, v	— DETAIL NUMBER	CL	CENTERLINE
(x)		CJ	CONTROL JOINT
Axxx	——SHEET NUMBER WHERE SHOWN	CLG	CEILING
	INTERIOR ELEVATION NUMBER	CFMF CMU	COLD-FORMED METAL FRAMING CONCRETE MASONRY UNIT
(Axxx—1	——SHEET NUMBER WHERE SHOWN	CONC	CONCRETE
	—EXTERIOR ELEVATION NUMBER	CONT DIA	CONTINUOUS DIAMETER
	EXTERIOR ELEVATION NOMBER	DIM	DIMENSION
Axxx X	OUEET NUMBER WILERE OLIOWAL	DEFS	DIRECT-APPLIED EXTERIOR FINISH SYSTEM
	——SHEET NUMBER WHERE SHOWN	DN	DOWN
SIM_		DS	DOWNSPOUT
1-	——SECTION NUMBER	EA EIFS	EACH
A101	——SHEET NUMBER WHERE SHOWN	EL	EXTERIOR INSULATION FINISH SYSTEM ELEVATION
		EQ	EQUAL
SIM 5	——SHEET NUMBER WHERE SHOWN	EJ	EXPANSION JOINT
1/A16	——SECTION NUMBER	FE	FIRE EXTINGUISHER MOUNTED W/ WALL BRACKET
		FEC	FIRE EXTINGUISHER IN CABINET
	WINDOW TYPE (A, B, C, ETC.) OR	FT GA	FOOT OR FEET GAUGE
A	LOUVER TYPE (L1, L2, L3, ETC.)	GYP BD	GYPSUM BOARD
		HR	HOUR
(S1)	STOREFRONT TYPE (S1, S2, S3, ETC.) OR	HT	HEIGHT
~	CURTAINWALL TYPE (C1, C2, C3, ETC.)	LGMF	LIGHT GAUGE METAL FRAMING
1M7a	PARTITION TYPE	NIC NTS	NOT IN CONTRACT NOT TO SCALE
[TAKITION THE	MO	MASONRY OPENING
c >	CONTROL JOINT (MASONRY)	OC	ON CENTER
	~ · · · · · · · · · · · · · · · · · · ·	OPP	OPPOSITE HAND
Ĉ	CONTROL JOINT (GYPSUM BOARD)	R	RADIUS
O	CONTROL CONT (OTT CONT BOARD)	RD	ROOF DRAIN
ΈĴ	EXPANSION JOINT	RO SIM	ROUGH OPENING SIMILAR
<u>∕ EJ∖</u>	LA ANGION JOINT	SRD	SECONDARY ROOF DRAIN
$\widehat{\Omega}$	COLUMN CENTERLINE	TYP	TYPICAL
(22)	COLOMIN CENTERLINE	UNO	UNLESS NOTED OTHERWISE
		WD	WOOD
<u>?</u>	KEYNOTE		
(M8b)	VISUAL DISPLAY BOARD		
(TV54)	TV MOUNTING HEIGHT		CMU
1101	DOOR NUMBER		BRICK
			CMU - SOLID
(C*)	CORNER GUARD		DRAINAGE FILL
P	PENCIL SHARPENER	(A-17) (A-1)	CAST STONE
			GROUT FILL
(D*)	SIGN		EARTH
(10A)	TOILET BATH ACCESSORY		GYPSUM BOARD
\smile			

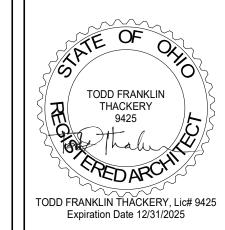
CONTINUOUS WOOD BLOCKING

RIGID INSULATION

FINISH WOOD

BLANKET INSULATION

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EM 45230 SCHOOL SINCINNATI, OH IORTHWEST 3240 BANN ERATIONS 3242 BAN

ISSUANCES 06-24-24 PERMIT SET

LEGENDS AND DETAILS

COMM NO. 2024081.01

DOOR AND FRAME SCHEDULE

OPENING SCHEDULE ABBREVIATIONS

AL ALUMINUM

HM HOLLOW METAL PF PREFINISHED PT PAINT SS STAINLESS STEEL STL STEEL

WD WOOD

DOOR#

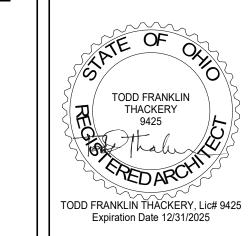
1130A

1138 1139

HOLLOW

METAL FRAME GROUT SOLID

SEALANT, BOTH SIDES



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SCHOOL TRICT **EM DIS** 45239 EKATIONS TO WEIGEL ELE
3242 BANNING ROAD, CINCINNATI, OH 45;
NORTHWEST LOCAL SCHOOL D
3240 BANNING ROAD, CINCINNATI, OH 455 TERATIONS 3242 BAN

ISSUANCES 06-24-24 PERMIT SET 1 08-01-24 ADDENDUM 1

AL

OPENING SCHEDULE & **DETAILS**

COMM NO. 2024081.01

FIRESTOP SEALANT

—1" MIN. CLEARANCE

VOIDS AROUND

-3" SOUND

BLANKETS

ATTENUATION

-CFMF STUDS

—5/8" GYPSUM BOARD

SEALANT BOTH SIDES

@ 16" O.C.

-RUNNER

-ACOUSTICAL

BETWEEN STRUCTURAL

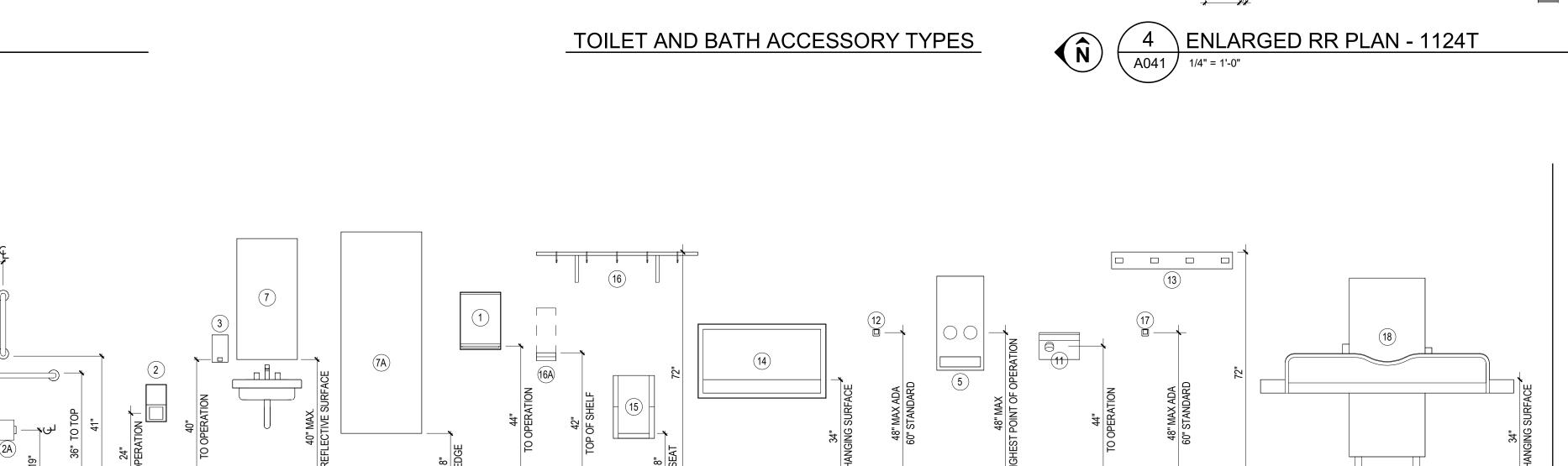
MEMBERS AND CMU. FILL

STRUCTURAL MEMBERS

AND OTHER PENETRATIONS W/ MINERAL WOOL AND FIRESTOP SEALANT

EACH SIDE





8-ADULT

MOUNTING HEIGHTS - GRADE 8 THROUGH ADULT

SEE CODE PLAN FOR HOUR
RATING (SEE PLAN FOR
DIMENSION) 1-HOUR RATED

UL DESIGN U419

RATING PER PLAN

FILL VOIDS BETWEEN
DECK AND TOP OF WALL

WITH MINERAL WOOL-

ROOF DECK OR-FLOOR DECK

ACOUSTICAL —

SEALANT BOTH

LONG LEG RUNNER—

ABOVE

SIDES

SOLID CMU
CUT TO FIT

CEILING-

-MASONRY JOINT REINFORCEMENT

(2) LAYERS 5/8"

GYPSUM BOARD-

PACK FLUTES OF DECK WITH MINERAL WOOL INSULATION—

DECK ABOVE——

CONTINUOUS BRAKE

FORMED METAL ANGLE - ANCHOR TO DECK ONLY

—DEFLECTION TRACK

-3" SOUND

BLANKETS

-LGMF STUDS

——5/8" GYPSUM BOARD

SEALANT BOTH SIDES

M1

@ 16" O.C.

-RUNNER

S1 LGMF

-ACOUSTICAL

ATTENUATION

EXISTING -CEILING

5/8" GYPSUM BOARD ---

PARTITION TYPES

GENERAL NOTES - PARTITIONS

REQUIRED REINFORCING AT MASONRY WALLS.

REINFORCING SPLICE

BOYS

REFER TO STRUCTURAL DRAWINGS FOR TYPE AND LOCATION OF

REFER TO BUILDING AND WALL SECTIONS FOR EXTERIOR WALL TYPES. TATE OF TODD FRANKLIN THACKERY 9425 TODD FRANKLIN THACKERY, Lic# 9425

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9 TRIC **DIS** 15239 SCHOOL SINCINNATI, OH IORTHWEST 3240 BANN 'ERATIONS

ISSUANCES

STANDARD PARTITION TYPES & **ENLARGED PLANS**

COMM NO. 2024081.01



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O LOCAL
NG ROAD, CII

ISSUANCES 08-01-24 ADDENDUM 1

FIRST FLOOR DEMO PLAN

- D8 REMOVE PORTION OF EXISTING MASONRY/METAL STUD CAVITY WALL FOR NEW OPENING. SHORE MASONRY UNTIL LINTEL IS INSTALLED. TOOTH MASONRY AT JAMBS

D9 REMOVE PORTION OF EXISTING METAL STUD WALL. ALIGN WITH

EXISTING HIGH CEILING





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ELEM SCHOOL

DH 45239

L DISTRICT

DH 45239

ALTERATIONS TO WEIGEL ELEM
3242 BANNING ROAD, CINCINNATI, OH 45239
NORTHWEST LOCAL SCHOOL DIST
3240 BANNING ROAD, CINCINNATI, OH 45239

ISSUANCES

| 06-24-24 | PERMIT SET |
| 08-01-24 | ADDENDUM 1

FIRST FLOOR

FIRST FLOOR PLAN INTERIOR

COMM NO. 2024081.01

THACKERY 9425 FODD FRANKLIN THACKERY, Lic# 9425 Expiration Date 12/31/2025

LOCAL SCHOOL

NG ROAD, CINCINNATI, OH NORTHWEST 3240 BANNIN TERATIONS

06-24-24 PERMIT SET 1 08-01-24 ADDENDUM 1	IS	SUANCES
1 08-01-24 ADDENDUM 1	06-24-24	PERMIT SET
	1 08-01-24	ADDENDUM 1
	_	

FIRST FLOOR FINISH PLAN

COMM NO. 2024081.0²

- 1. MOUNT TMV-5 UNDER LAV. REFER TO DETAIL 1/P000.
- 2. THERMOSTATIC MIXING VALVE TO BE INCLUDED WITH UNIT. 3. PROVIDE JUNIOR HEIGHT WALL MOUNTED AT 31" TO RIM.
- 4. HARD-WIRED INFRARED SENSOR VALVE ACTUATION.

	22-WATER CLOSET SCHEDULE												
						WAST	E CONNEC	CTION					
TYPE		BASIS OF DES	BASIS OF DESIGN M		MOUNTING COLD WATER		SIZES		FLUSH VALVE			MISC. ACCESSORY	
LABEL	. DESCRIPTION	MANUFACTURER	MODEL	HEIGHT	CONNECTION	DRAIN	WASTE	VENT	MANUFACTURER	MODEL	FLUSH RATE	MANUFACTURER	MODEL
WC-1	WATER CLOSET / WALL MOUNT / MANUAL FLUSH VALVE	ZURN	Z5615	15" TO RIM	1"	4"	4"	2"	ZURN	Z6000AV	1.6 GPF	OLSONITE	95C

22-URINAL SCHEDULE													
			BASIS OF DESIGN		COLD		WASTE CONNECTION SIZES			IZES	FLUSH VALVE		
	YPE				MOUNTING	WATER							
L/	ABEL	DESCRIPTION	MANUFACTURER	MODEL	HEIGHT	CONNECTION	DRAIN	P-TRAP	WASTE	VENT	MANUFACTURER	MODEL	FLUSH RATE
Ī	JR-2	URINAL / WALL MOUNT / MANUAL FLUSH VALVE / ADA	ZURN	Z5755-U	17" TO LIP	3/4"	2"	2"	2"	1.5"	ZURN	Z6003AV	.5 GPF

22-THERMOSTATIC MIXING VALVE SCHEDULE											
TYPE	BASIS OF	DESIGN	MINIMUM	FLOW @ 10 PSI	CONNECTION SIZ						
LABEL	MANUFACTURER	MODEL	FLOW	DROP	INLET	OUTL					
TMV-5	BRADLEY	S59-4000	.35 GPM	2.5 GPM	1/2"	1/2'					

<u>SPECIFICATIONS</u>

BRANCH OF THE WORK.

SHUTOFF SERVICE: BALL VALVES

THROTTLING SERVICE: BALL VALVES

IN VALVE SCHEDULES BELOW.

IN VALVE SCHEDULES BELOW.

RATING OF 600 PSIG.

EXECUTION

PIPE NPS 2 AND SMALLER:

BRONZE TRIM

PIPE NPS 2-1/2 AND LARGER:

WITH CWP RATING OF 200 PSIG.

PART 1 - PERMITS AND REGULATIONS

THE LATEST EDITION OF THE STATE ADOPTED PLUMBING CODE

PLUMBING MATERIALS USED IN THIS WORK AND ALL WORKMANSHIP AND TESTS PERFORMED THEREIN, UNLESS SPECIFICALLY SPECIFIED

SHALL CONFORM TO THE LATEST RULES AND REGULATIONS AND SPECIFICATIONS OF FEDERAL, STATE, AND LOCAL CODES, LAWS,

REGULATIONS, INSPECTION AGENCIES, UTILITY COMPANIES, AND

PREVAILING CODES, REGULATIONS AND ORDINANCES AND BASE BID

AND WORK ACCORDINGLY. ANY MINOR DISCREPANCY BETWEEN

ORDINANCES, RULES AND REGULATIONS SHALL BE CORRECTED BY THIS CONTRACTOR AS REQUIRED WITHOUT ANY ADDITIONAL

REIMBURSEMENT. MAJOR DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER (IN WRITING),

SHALL BE THE MINIMUM REQUIREMENT FOR ALL WORK. ALL

OTHER AUTHORITIES HAVING JURISDICTION. EXAMINE THE

DRAWINGS AND SPECIFICATIONS FOR COMPLIANCE WITH

THESE DRAWINGS/SPECIFICATIONS AND CODES, LAWS,

PRIOR TO INSTALLATION, ALONG WITH THE CONTRACTOR'S

OBTAIN AND PAY FOR ALL PERMITS OR CERTIFICATES OF

PART 2 - GENERAL-DUTY DOMESTIC WATER VALVES

GENERAL REQUIREMENTS FOR VALVE APPLICATIONS

INDICATED IN VALVE SCHEDULES BELOW.

PROPOSED COST FOR CORRECTION. THIS CONTRACTOR SHALL

GENERAL: ALL VALVES SHALL BE LEAD-FREE PER NSF 61 FOR

POTABLE-WATER SERVICE. LOCATE VALVES FOR EASY ACCESS.

PUMP-DISCHARGE CHECK VALVES: BRONZE SWING CHECK VALVES

SELECT VALVES, EXCEPT WAFER TYPES, WITH THE FOLLOWING END

1. FOR COPPER TUBING, NPS 2 AND SMALLER: THREADED

ENDS EXCEPT WHERE SOLDER-JOINT VALVE-END OPTION IS

2. FOR COPPER TUBING, NPS 2-1/2 TO NPS 4: FLANGED ENDS

EXCEPT WHERE THREADED VALVE-END OPTION IS INDICATED

3. FOR STEEL PIPING. NPS 2 AND SMALLER: THREADED ENDS.

EXCEPT WHERE THREADED VALVE-END OPTION IS INDICATED

4. FOR STEEL PIPING, NPS 2-1/2 TO NPS 4: FLANGED ENDS

BRONZE BALL VALVE - TWO PIECE, FULL-PORT, BRONZE BALL VALVE

BRONZE LIFT CHECK VALVE - LIFT CHECK VALVE WITH NONMETALLIC TFE DISC MEETING STANDARD MSS SP-139 AND CWP RATING OF 200

BRONZE SWING CHECK VALVE - CLASS 125 BRONZE SWING CHECK

BRONZE GATE VALVE - CLASS 125 NRS BRONZE GATE VALVE

IRON GATE VALVE - CLASS 125 NRS IRON GATE VALVE MEETING

MEETING STANDARD MSS SP-70 TYPE 1 WITH CWP RATING OF 200

1. BRONZE VALVES: MAY BE PROVIDED WITH SOLDER-JOINT

3. BALL VALVES: TWO PIECE, REGULAR PORT, BRONZE WITH

4. BRONZE SWING CHECK VALVES: CLASS 125, BRONZE DISC

1. IRON VALVES. NPS 2-1/2 TO NPS 4: MAY BE PROVIDED WITH

2. IRON SWING CHECK VALVES: CLASS 125, METAL SEATS.

2. BRONZE ANGLE VALVES: CLASS 125, BRONZE DISC

5. BRONZE GATE VALVES: CLASS 125, NRS RS

THREADED ENDS INSTEAD OF FLANGED ENDS.

3. IRON GATE VALVES: CLASS 125, NRS OS&Y.

STANDARD MSS SP-70 TYPE 1 WITH CWP RATING OF 200 PSIG.

OS&Y IRON GATE VALVE - CLASS 125 OS&Y IRON GATE VALVE

DOMESTIC HOT AND COLD WATER VALVE SCHEDULE

ENDS INSTEAD OF THREADED ENDS

VALVE WITH BRONZE DISC MEETING STANDARD MSS SP-80, TYPE 3

TING STANDARD MSS SP-80, TYPE 1 WITH CWP RATING OF 200

WITH BRONZE TRIM MEETING STANDARD MSS SP-110 AND CWP

INSPECTION AND APPROVAL REQUIRED FOR THIS BRANCH OF THE

WORK. OWNER SHALL BE FURNISHED WITH CERTIFICATES OF FINAL INSPECTION AND APPROVAL PRIOR TO FINAL ACCEPTANCE OF THIS

1. TMV-5 MOUNTED UNDER LAVS. REFER TO DETAIL 1/P000.

PART 3 - PLUMBING INSULATION

GENERAL: PRODUCTS SHALL NOT CONTAIN ASBESTOS, LEAD, MERCURY, OR

GENERAL REQUIREMENTS FOR PLUMBING INSULATION

FLEXIBLE ELASTOMERIC: 1. COMPLY WITH ASTM C 534, TYPE 1 FOR TUBULAR MATERIALS AND TYPE 2 FOR SHEET MATERIALS 2. THERMAL CONDUCTIVITY MUST HAVE A MINIMUM K VALUE OF 0.23 BTU-IN/HR-FT AT 75 DEG F.

FIBERGLASS, PREFORMED PIPE INSULATION: 1. INSULATION MATERIALS SHALL BE TYPE 1, 850 DEG F MINERAL OR FIBER GLASS FIBERS BONDED WITH A THERMOSETTING RESIN. 2. COMPLY WITH ASTM C 547, TYPE 1, GRADE A, WITH FACTORY-APPLIED

3. THERMAL CONDUCTIVITY MUST HAVE A MINIMUM K VALUE OF 0.23 BTU-IN/HR-FT AT 75 DEG F.

PIPING INSULATION SCHEDULE:

1. FIBERGLASS, PREFORMED PIPE INSULATION, TYPE 1 A. PIPE SIZES 1-1/4" AND SMALLER TO BE 1/2" THICK. 2. FLEXIBLE ELASTOMERIC INSULATION, TYPE 1 A. PIPE SIZES 1-1/4" AND SMALLER TO BE 1/2" THICK.

DOMESTIC HOT WATER:

1. FIBERGLASS, PREFORMED PIPE INSULATION, TYPE 1 A. PIPE SIZES 1-1/4" AND SMALLER TO BE 1" THICK. 2. FLEXIBLE ELASTOMERIC INSULATION, TYPE 1 A. PIPE SIZES 1-1/4" AND SMALLER TO BE 1" THICK.

PART 4 - DOMESTIC WATER PIPE AND FITTINGS

GENERAL - PIPING MATERIALS SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA. PIPING MATERIALS SHALL BEAR LABEL, STAMP, OR OTHER MARKINGS OF SPECIFIED TESTING AGENCY. COMPLY WITH NSF 61 FOR POTABLE DOMESTIC WATER PIPING AND COMPONENTS. SOLDERING PROCEDURES PER ANSI B16.18.

IN CONCEALED LOCATIONS WHERE PIPING OTHER THAN CAST IRON OR STEEL, IS INSTALLED IN HOLES OR NOTCHES IN STUDS OR SIMILAR MEMBERS LESS THAN 1.5 INCHES FROM THE NEAREST EDGE OF MEMBER, THE PIPE SHALL BE PROTECTED BY 16 GAUGE METAL PROTECTIVE SHIELD PLATES. PLATES SHALL COVER THE AREA OF PIPE AND EXTEND 2 INCHES ON EITHER SIDE.

COPPER TUBE AND FITTINGS

1. HARD COPPER TUBE: ASTM 88, TYPE L WATER TUBE, DRAWN TEMPER. A. CAST-COPPER SOLDER-JOINT FITTINGS: ASME B16.18, PRESSURE

B. WROUGHT-COPPER SOLDER-JOINT FITTINGS: ASME B16.22, WROUGHT-COPPER PRESSURE FITTINGS. C. BRONZE FLANGES: ASME B16.24, CLASS 150, WITH SOLDER-JOINT ENDS. D. COPPER PRESSURE-SEAL-JOINT FITTINGS: MAY BE USED AS AN OPTION PER ASTM B16.18 OR ASTM B16.22. O-RINGS SHALL BE EPDM.

a. NPS 2 AND SMALLER: WROUGHT-COPPER FITTING WITH EPDM-RUBBER O-RING SEAL IN EACH END b. NPS 2-1/2 TO NPS 4: CAST-BRONZE OR WROUGHT COPPER FITTING WITH EPDM-RUBBER O-RING SEAL IN EACH END.

2. SOFT COPPER TUBE: ASTM 88, TYPE K WATER TUBE, ANNEALED TEMPER. A. COPPER SOLDER-JOINT FITTINGS: ASME B16.18. PRESSURE FITTINGS B. COPPER PRESSURE-SEAL-JOINT FITTINGS: MAY BE USED AS AN OPTION PER ASTM B16.18 OR ASTM B16.22. O-RINGS SHALL BE EPDM a. NPS 2 AND SMALLER: WROUGHT-COPPER FITTING WITH EPDM-RUBBER O-RING SEAL IN EACH END.

ADS TUBING

1. ADS TUBING: ASTM D2737, AWWA C901, AND NSF STANDARDS 14 & 61. A. ADS POTABLE WATER SERVICE TUBING B. PIPING SHALL CONFORM TO COPPER TUBING SIZE STANDARDS, SDR 9. C. MATERIAL SHALL BE HIGH DENSITY POLYETHYLENE

a. PROPERTIES SHALL CONFORM TO MINIMUM REQUIREMENTS OF CELL CLASSIFICATION 445574E AS DEFINED BY ASTM D3350. b. RESIN SHALL HAVE A MATERIAL DESIGNATION CODE OF PE4710 BY THE PLASTIC PIPE INSTITUTE.

CPVC PIPING & PEX TUBE

1. CPVC PIPE: ASTM F441/F441M, WITH WALL THICKNESS AS INDICATED. A. CPVC SOCKET FITTINGS: ASTM F438, SCHEDULE 40; ASTM F439, B. CPVC THREADED FITTINGS: ASTM F437, SCHEDULE 80. C. CPVC TUBING SYSTEM: ASTM D2846/D2846M, SDR 11, TUBE AND

2. PEX TUBE: PEX PLASTIC ACCORDING TO ASTM F876 AND ASTM 877. A. METAL INSERT AND COPPER CRIMP RINGS PER ASTM F1807. B. COLD EXPANSION FITTINGS AND REINFORCING RINGS PER ASTM F1960. C. PUSH-FIT FITTINGS: ASSE 1061, PUSH-FIT FITTINGS.

PART 5 - SANITARY WASTE AND VENT PIPING

GENERAL - PIPING MATERIAL SHALL BEAR LABEL, STAMP, OR MARKING OF SPECIFIED TESTING AGENCY. PIPING AND COMPONENTS SHALL BE CAPABLE OF WITHSTANDING A MINIMUM OF10 FEET OF HEAD WORKING PRESSURE. PLASTIC PIPING SYSTEMS AND COMPONENTS MUST COMPLY WITH NSF 14.

HUB-AND-SPIGOT CAST IRON SOIL PIPE AND FITTINGS

1. PIPE AND FITTINGS: ASTM A 74, SERVICE CLASS.

2. GASKETS: ASTM C 564, RUBBER. **HUBLESS CAST IRON PIPE AND FITTINGS**

1. PIPE AND FITTINGS: ASTM A 888 AND CISPI STANDARD 301 A. ALL PIPE AND FITTINGS SHALL BE MARKED WITH THE COLLECTIVE TRADEMARK OF THE CAST IRON PIPE INSTITUTE AND LISTED BY NSF

INTERNATIONAL 2. SHIELDED COUPLINGS: ASTM C 1277 ASSEMBLY OF METAL SHIELD OR HOUSING, CORROSION RESISTANT FASTENERS, AND RUBBER SLEEVES WITH INTEGRAL CENTER PIPE STOP.

SOLID WALL PVC PIPE AND FITTINGS

1. PIPE: ASTM D 2665, SOLID-WALL DRAIN, WASTE AND VENT. 2. FITTINGS: ASTM D 2665, SOCKET TYPE, MADE TO ASTM D 3311 DRAIN WASTE AND VENT PATTERNS.

EXECUTION

1. PIPING APPLICATIONS A. ABOVEGROUND SOIL, WASTE AND VENT PIPING NPS 4 AND SMALLER SHALL BE ONE OF THE FOLLOWING: a. HUBLESS CAST IRON SOIL PIPE AND FITTING; STANDARD, SHIELDED,

STAINLESS STEEL COUPLINGS. b. SOLID WALL PVC PIPE, PVC SOCKET FITTINGS. B. UNDERGROUND SOIL, WASTE AND VENT PIPING NPS 4 AND SMALLER SHALL BE ONE OF THE FOLLOWING:

a. SOLID WALL PVC PIPE, PVC SOCKET FITTINGS. PART 6 - PLUMBING FIXTURES

GENERAL - SELECT COMBINATIONS OF FIXTURES AND TRIM, FAUCETS, FITTINGS AND OTHER COMPONENTS THAT ARE COMPATIBLE.

1. WALL HUNG, VITREOUS CHINA, CONCEALED ARM LAVATORY. 2 ZURN MODEL 75360 OR FOLIAL BY AMERICAN STANDARD OR KOHLER 3. FAUCET: ZURN MODEL Z81101-XL WITH 0.5 GPM FLOW OR EQUAL BY CHICAGO OR T&S BRASS

4. PROVIDE CARRIER DESIGNED FOR STANDARD MOUNTING HEIGHT OF WALL-MOUNTING, LAVATORY-TYPE FIXTURE. INCLUDE ALL RELEVANT HARDWARE. 5. PLUMBER RESPONSIBLE FOR P-TRAP, WASTE TRIM AND WATER SUPPLY 6. PROVIDE MANUFACTURED PLASTIC WRAPS FOR COVERING TRAP, DRAIN, AND

HOT & COLD WATER SUPPLIES IN COMPLIANCE WITH ADA REQUIREMENTS. **WC-1 WATER CLOSETS:**

1. WALL-MOUNTED, FLUSH VALVE-TYPE, VITREOUS CHINA WATER CLOSET. 2. ZURN MODEL Z5615 OR EQUAL BY AMERICAN STANDARD OR KOHLER. 3. FLUSH VALVE: ZURN MODEL Z6000AV WITH 1.6 GPF FLOW OR EQUAL BY SLOAN 4. PROVIDE COMBINATION CARRIER DESIGNED FOR STANDARD MOUNTING HEIGHT OF WALL-MOUNTING, WATER-CLOSET-TYPE FIXTURE. INCLUDE ALL RELEVANT PIPING AND HARDWARE. 5. PLUMBER RESPONSIBLE FOR P-TRAP, WASTE TRIM AND WATER SUPPLY

UR-1 URINALS:

1. ZURN MODEL Z5755-U OR EQUAL BY AMERICAN STANDARD OR KOHLER. 2. FLUSH VALVE: ZURN MODEL Z6003AV WITH 0.5 GPM FLOW OR EQUAL BY SLOAN 3. PROVIDE CARRIER DESIGNED FOR STANDARD MOUNTING HEIGHT OF WALL-MOUNTING, URINAL-TYPE FIXTURE. INCLUDE ALL RELEVANT PIPING AND HARDWARE. 4. PLUMBER RESPONSIBLE FOR P-TRAP, WASTE TRIM AND WATER SUPPLY

WALLS. PROVIDE CHROME PLATED COPPER SUPPLY RISERS. BRAIDED STAINLESS STEEL FLEX HOSES ARE NOT ALLOWED LAV - REFER TO PLANS AND PLUMBING FIXTURE SCHEDULE 1/2" 105° TW TO FAUCET-

—1/2" CW SUPPLY TO FAUCET

-1/2" CW SUPPLY TO MIXING VALVE

—1/2" CW SUPPLY STOP

PROVIDE CHROME PLATED ESCUTCHEON TRIM

FLANGES AT ALL PIPE PENETRATIONS THRU

ASSE 1070 - T/P POINT OF USE -

THERMOSTATIC MIXING VALVE W/ INTEGRAL

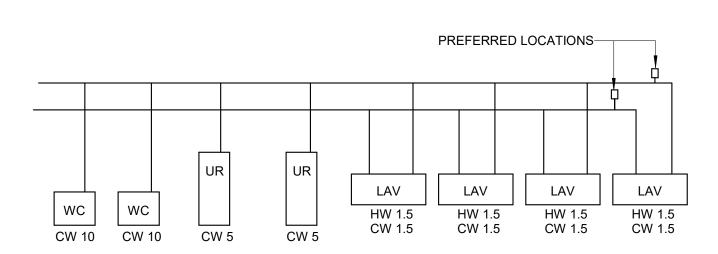
MIXING VALVE-

1/2" 120° HW SUPPLY TO

1/2" HW SUPPLY STOP-

STOPS AND CHECKS SET OUTLET AT 105° F

POINT OF USE MIXING VALVE



SIZING = CW = 36 F.U. USE 5020 HW = 6 F.U. USE 5005

PDI SYMBOLS	А	В	С	D	E	F
FIXTURE UNIT RATING	1 - 11	12 - 32	33 - 60	61 - 113	114 - 155	156 - 330
HYDROTROL	5005	5010	5020	5030	5040	5050

NOTE: CONTRACTORS SHALL USE THE SIZING DATA PROVIDED WITH THE PRODUCT PURCHASED. EXAMPLE BASED ON J.R. SMITH HYDROTROL UP TO 20'-0".

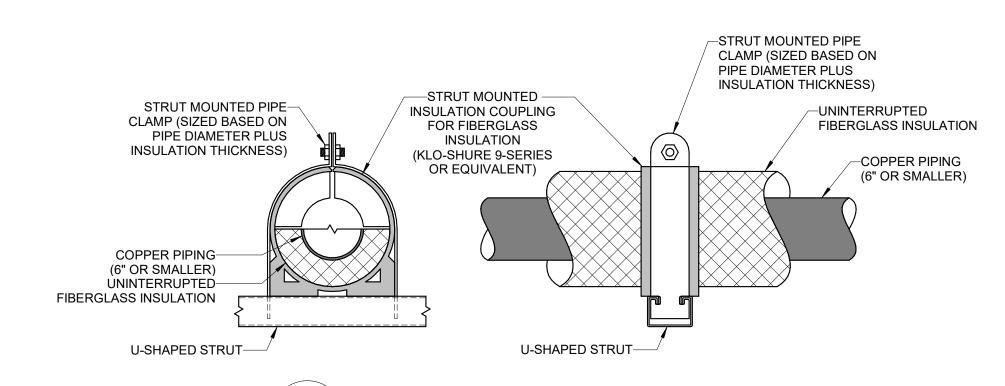
2 WATER HAMMER ARRESTOR SCHEDULE

HANGER ROD -LOCKING NUT--HEAVY DUTY-CLEVIS HANGER -UNINTERRUPTED FIBERGLASS INSULATION -14 GAUGE ZINC COATED— COPPER PIPING SHEET STEEL SADDLE (6" OR SMALLER) AT LEAST 6" LONG COPPER PIPING-

(6" OR SMALLER)

UNINTERRUPTED-

FIBERGLASS INSULATION



PIPE HANGER (6" AND SMALLER)

GENERAL PLUMBING NOTES

- "GENERAL NOTES" APPLY TO ALL P SERIES DRAWINGS ISSUED FOR THIS PROJECT. "DRAWING NOTES" APPLY ONLY TO THE SHEETS ON WHICH THEY APPEAR.
- B. ALL WORK SHALL BE PERFORMED AND INSTALLED PER THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL CODES, LAWS,

REGULATIONS, INSPECTION AGENCIES, UTILITY COMPANIES AND

STEED HAMMOND PAUL, INC ALL RIGHTS RESERVED

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C. COORDINATE WITH WORK OF OTHER TRADES TO AVOID INTERFERENCES BEFORE BEGINNING WORK.

OTHER AUTHORITIES HAVING JURISDICTION.

- D. COORDINATE ALL COLUMN PAD ELEVATIONS, INTERIOR AND EXTERIOR FOUNDATION FOOTINGS WHICH REQUIRE PIPE SLEEVES OR LOWERING TO ACCOMMODATE PLUMBING INVERTS PRIOR TO BEGINNING WORK.
- E. IN GENERAL, THE P SERIES DRAWING FORMAT IS AS FOLLOWS: SANITARY WASTE PIPING IS LOCATED BELOW THE FLOOR WHEN SHOWN DASHED AND ABOVE THE FLOOR WHEN SHOWN SOLID. INVERT AND CENTERLINE ELEVATIONS AS WELL AS OTHER NOTED INFORMATION MAY BE PROVIDED FOR CLARIFICATION.
- INSTALL PIPING IN PIPE CHASES, ABOVE CEILINGS AND IN WALLS. INSTALL HORIZONTAL MAINS AND BRANCHES AS HIGH AS PRACTICAL. MAKE OFFSETS IN PIPING TO AVOID INTERFERENCE WITH WORK OF OTHER TRADES WHETHER SHOWN ON DRAWINGS OR NOT. DO NOT INSTALL LIQUID CARRYING PIPING IN OUTSIDE WALLS. ATTIC SPACES
- OR ANY OTHER AREAS SUBJECT TO FREEZING TEMPERATURES. G. INSTALL VALVES IN ACCESSIBLE LOCATIONS AND IN SUCH A MANNER AS TO BE EASY TO OPERATE. PROVIDE ACCESS PANELS FOR VALVES INSTALLED IN CONCEALED SPACES SUCH AS ABOVE PERMANENT
- PROVIDE ACCESS PANELS FOR ALL EQUIPMENT AND SPECIALTIES SUCH AS WATER HAMMER ARRESTERS OR OTHER DEVICES WHICH MAY REQUIRE ACCESS FOR MAINTENANCE AND OPERATION.

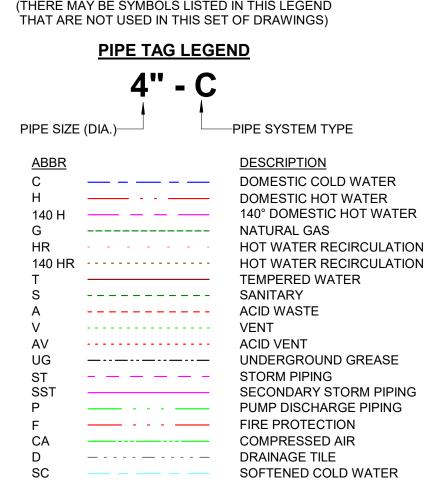
CEILINGS AND IN OR BEHIND WALLS.

I. SLOPE ALL GRAVITY PIPING OF SIZES 3" DIAMETER AND LARGER AT 1/8"/FT. MINIMUM, AND SIZES 2-1/2" DIAMETER AND SMALLER AT 1/4"/FT

MINIMUM WHERE NOT OTHERWISE INDICATED.

PROVIDE WATER HAMMER ARRESTORS AS REQUIRED BY THE LOCAL CODE AND ALL AUTHORITIES HAVING JURISDICTION. INSTALL PER THE MANUFACTURES DRAWINGS AND SIZE PER THE MANUFACTURES RECOMMENDATIONS. REFER TO 5/P200 FOR SIZING EXAMPLE.

> SYMBOLS AND ABBREVIATIONS LEGEND (THERE MAY BE SYMBOLS LISTED IN THIS LEGEND



——⊸

■
BALL VALVE ——N—— BUTTERFLY VALVE ——₩—— PLUG VALVE CIRCUIT BALANCING VALVE **───**₩── PIPE CONTINUES FLOOR CLEANOUT ____ **GRADE CLEANOUT** FLOOR DRAIN PIPE TURNING UP PIPE TURNING DOWN POINT OF CONNECTION

AND LEGENDS

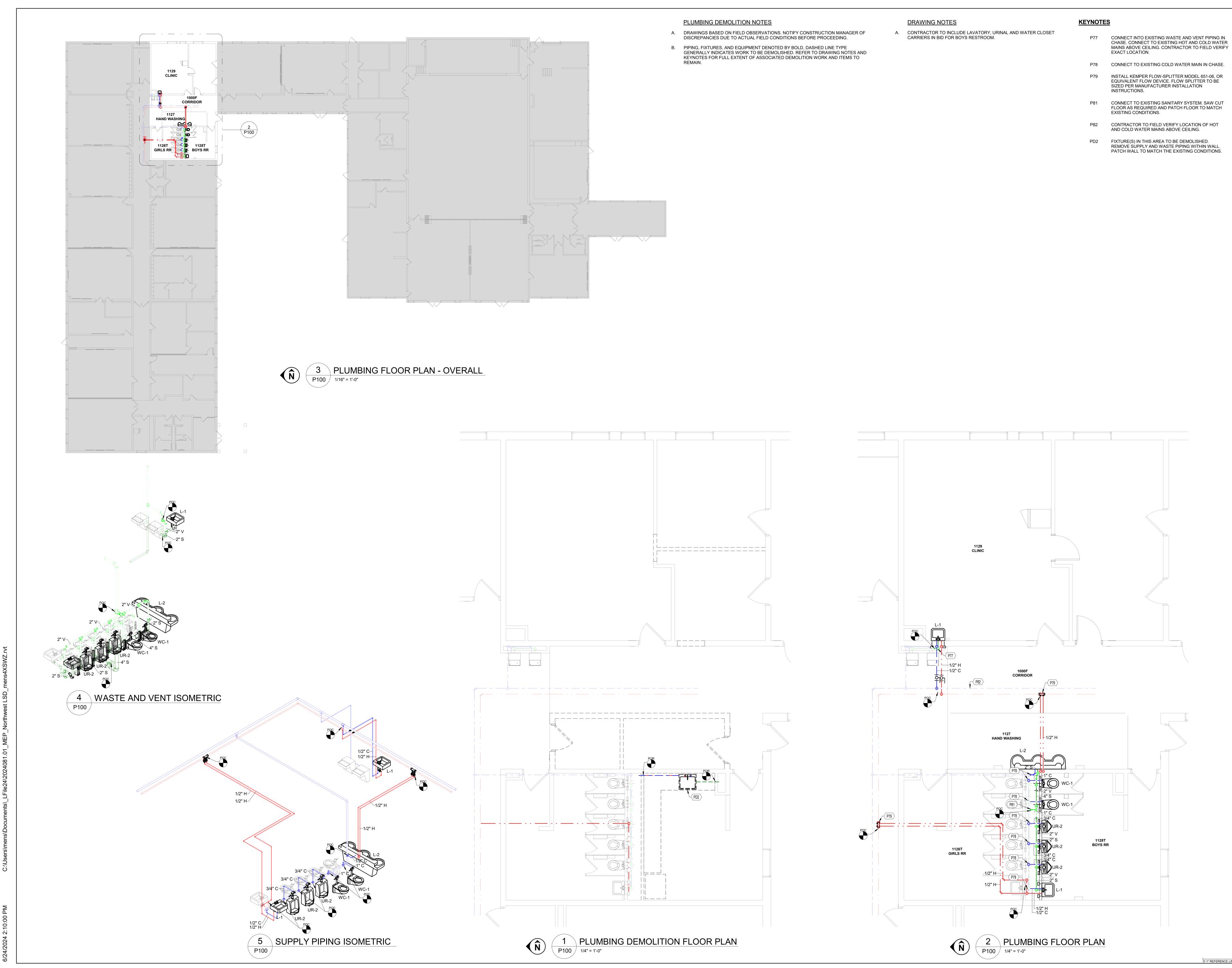
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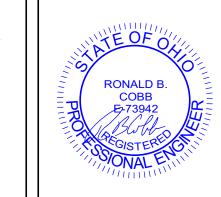
KEYNOTE NOTE

PLUMBING SCHEDULES

ISSUANCES

06-24-24 PERMIT SET





DIS 15239

ISSUANCES

PLUMBING PLANS

COMM NO. 2024081.01

P100

	23-HVAC SHEET LIST
SHEET NUMBER	SHEET NAME
M001	MECHANICAL SCHEDULES AND LEGENDS
M002	MECHANICAL SCHEDULES AND DETAILS
M003	VENTILATION SCHEDULES
M101	FIRST FLOOR DUCTWORK DEMO PLAN
M201	FIRST FLOOR DUCTWORK PLAN
M202	ROOF HVAC PLAN
M401	ENLARGED MECHANICAL PLANS
M500	MECHANICAL ALTERNATE PLANS

ROOFTOP UNITS ARE EXISTING TO REMAIN. SHOWN HERE FOR REFERENCE ONLY. 2. VENTILATION AIR VIA NATURAL VENTILATION IN THE AREA SERVED BY THIS RTU.

	23-NEW EXHAUST FAN SCHEDULE												
					EXHAUST FAN			ELE	CTRICAL	CHARA	CTER	RISTICS	
						EXTERNAL STATIC							
MARK	MANUFACTURER	MODEL	SERVICE	LOCATION	AIRFLOW	PRESSURE	RPM	HP	AMPS	MOCP	Ø	VOLTAGE	NOTE
EF-7	GREENHECK	G-080-E	1128T BOYS RR	ROOF	250 CFM	0.5 in-wg	1591	0.1	1.5 A	15.0 A	1	115 V	1

1. FAN SHALL BE ON DURING OCCUPIED HOURS.

								23-CON	DENSING BOIL	_ER										
								DESIGN	RELIEF						ALLOWABLE G	AS PRESSURE,		ELEC	TRICAL	
					MBH C	APACITY	FLUID	FLUID	VALVE	FLUID TEMP	PERATURE	FLOW RA	FLOW RATE, GPM MAXIMUM		IN-V	NG	RATED THERMAL	CHARAC	TERISTICS	
MARK	MANUFACTURER	MODEL	SERVICE	TYPE	INPUT	OUTPUT	TYPE	PRESSURE	SETTING	ENTERING	LEAVING	DESIGN	MINIMUM	PRESSURE DROP	MINIMUM	MAXIMUM	EFFICIENCY	AMPS Ø	VOLTAGE	NOTES
B-1	LOCHINVAR	FTX400	HEATING HOT WATER	FIRE TUBE CONDENSING	399	392	WATER	60 psi	100 psi	120 °F	140 °F	39	10	3.5 ftH2O	4	14	98.00%	4.0 A 1	120 V	1,2
B-2	LOCHINVAR	FTX400	HEATING HOT WATER	FIRE TUBE CONDENSING	399	392	WATER	60 psi	100 psi	120 °F	140 °F	39	10	3.5 ftH2O	4	14	98.00%	4.0 A 1	120 V	1,2

CONDENSATE NEUTRALIZATION KIT. BOILER CONTROLLER TO CONTROL FIRING RATE TO LEAVING WATER TEMPERATURE. PROVIDE AND INSTALL ALL NECESSARY DEVICES AND WIRING, AND SET UP SEQUENCE.

							23-HYDRO	ONIC PUMP	SCHEDULE								
					DESIGN	FLUID	TOTAL DYNAMIC	SUCTION	DISCHARGE	IMPELLER			ELEC CHARAC			MOTOR	
MARK	MANUFACTURER	MODEL	SERVICE	LOCATION	FLOW RATE	TYPE	HEAD, FT HEAD	SIZE	SIZE	DIAMETER, IN	PUMP TYPE	BHP	MOTOR HP	Ø	VOLTAGE	CONTROLLER	NOTES
BP-1	BELL & GOSSETT	1.5x1.5x9.5B	BOILER	MECH RM	39 GPM	WATER	15	1.5"	1.5"	7.625	INLINE, CLOSE-COUPLED	0.297	0.5	3	230 V	VFD	1
BP-2	BELL & GOSSETT	1.5x1.5x9.5B	BOILER	MECH RM	39 GPM	WATER	15	1.5"	1.5"	7.625	INLINE, CLOSE-COUPLED	0.297	0.5	3	230 V	VFD	1
HWP-1	BELL & GOSSETT	1.5x1.5x7C	HEATING HOT WATER	MECH RM	78 GPM	WATER	72	1.5"	1.5"	5.25	INLINE, CLOSE-COUPLED	2.46	5	3	230 V	VFD	2

PUMP OPERATES AS CONSTANT VOLUME. VFD IS FOR BALANCING PURPOSES ONLY.

CONTROL PUMP SPEED TO MAINTAIN LOOP DIFFERENTIAL PRESSURE.

				23	3-AIR DEVICE SCHEDULE						
	BASIS OF D	ESIGN		MAXIMUM	MAXIMUM PRESSURE	MAXIMUM			CONNECTION	FACE SIZE	
MARK	MANUFACTURER	MODEL	DIFFUSER TYPE	AIRFLOW	DROP	SOUND	BLADE SPACING	DIFFUSER PATTERN	SIZE (INCH)	(INCH)	NOTES
ECG-1	PRICE	80	EGG CRATE CRILLE	720 CFM	0.085 in-wg	20	1/2" X 1/2"	0	12" X 12"	12" X 12"	
RG-2	PRICE	535	LOUVERED FACE RETURN GRILLE	300 CFM	0.097 in-wg	24	3/4"	0	12" X 8"	12" X 8"	
SD-1	PRICE	SPD	SQUARE PLAQUE DIFFUSER	195 CFM	0.065 in-wg	22	N/A	0	6Ø	24x24	
SD-2	PRICE	SPD	SQUARE PLAQUE DIFFUSER	350 CFM	0.115 in-wg	27	N/A	0	8Ø	24x24	
SD-7	PRICE	SPD	SQUARE PLAQUE DIFFUSER	175 CFM	0.192 in-wg	22	N/A		6Ø	12X12	

				23-MECH	IANICAL/ELECTRICAL COC	ORDINATION SCHEDULE			
			STARTIN	IG MEANS			DISCONNE	CTING MEANS	}
MARK	SPECIFICATION SECTION	TYPE	PROVIDED BY	INSTALLED BY	LOCATION	TYPE	PROVIDED BY	INSTALLED BY	LOCATION
AC-1	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT
AC-2	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT
AC-3	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT
AC-4	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT
B-1	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT
B-2	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT
BP-1	23	VFD	DIV. 23	DIV. 26	NEAR UNIT	VFD	DIV. 23	DIV. 26	NEAR UNIT
BP-2	23	VFD	DIV. 23	DIV. 26	NEAR UNIT	VFD	DIV. 23	DIV. 26	NEAR UNIT
HWP-1	23	VFD	DIV. 23	DIV. 26	NEAR UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT

				23-AIR AND DIRT SEPARATO	R SCHEDULE			
	MARK	MANUFACTURER	MODEL	SERVICE	LOCATION	FLOW RATE (GPM)	PRESSURE (PSI)	CONNECTION SIZE
ı	AS-1	BELL & GOSSETT	R-3F	HEATING HOT WATER	MECH RM	190 GPM	2.50 psi	3"

			23-W	INDOW AIR	CONDITIC	NER SCHE	DULE					
								С	ELECT HARACT		_	
MARK	MANUFACTURER	MODEL	TOTAL COOLING	AIRFLOW	CEER	EER	REFRIGERANT	AMPS	MOCP	Ø	VOLTAGE	NOTES
AC-1	FRIEDRICH	KCL24A30B	23000.0 Btu/h	640 CFM	10.3	10.4	R410A	11.1 A	20.0 A	1	230 V	1
AC-2	FRIEDRICH	KCL24A30B	23000.0 Btu/h	640 CFM	10.3	10.4	R410A	11.1 A	20.0 A	1	230 V	1
AC-3	FRIEDRICH	KCL24A30B	23000.0 Btu/h	640 CFM	10.3	10.4	R410A	11.1 A	20.0 A	1	230 V	1
AC-4	FRIEDRICH	KCS12A10A	12000.0 Btu/h	300 CFM	12	12	R410A	9.5 A	15.0 A	1	115 V	1
AC-5	FRIEDRICH	KCL24A30B	23000.0 Btu/h	640 CFM	10.3	10.4	R410A	11.1 A	20.0 A	1	230 V	1

SUPPORT UNITS WITH MANUFACTURER'S SUPPORT ACCESSORY KIT ACCORDING TO MANUFACTURER'S WRITTEN

INSTALLATION INSTRUCTIONS. PROVIDE WALL SLEEVE AS NEEDED.

												23	3-ENERGY RI	ECOVERY UN	NIT SCHEDUL	_E													
						SUPPLY FAN			EXHAUST FA	N			SUM	MER AIR TE	MPERATURE	:S				WINT	TER AIR TE	MPERATURES	3		С	ELECTR HARACTE			
						EXTERNAL			EXTERNAL			SUPP	LY AIR		EXHAU	JST AIR	SUMMER ENERGY		SUPPL	_Y AIR		EXHAL	JST AIR	WINTER ENERGY					
						STATIC			STATIC		ENTERI			NG AIR		ING AIR	RECOVERY	ENTER	ING AIR	LEAVII		ENTER		RECOVERY					
MARK	MANUFACTURER	MODEL	SERVICE	LOCATION A	RFLOW	PRESSURE	RPM HP	AIRFLOW	PRESSURE	RPM HP	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	EFFECTIVENESS	DRY BULB	WET BULB	DRY BULB	WET BULE	B DRY BULB	WET BULB	EFFECTIVENESS	AMPS	MOCP	Ø VOLT	AGE NOT	ES
ERV-1	RENEWAIRE LLC	SL70L	1361A OFFICE	1361A OFFICE 5	50 CFM	0.50 in-wg	3290 0.07	50 CFM	0.50 in-wg	3290 0.07	90 °F	74 °F	78 °F	67 °F	75 °F	63 °F	79.2	8 °F	6 °F	57 °F	63 °F	70 °F	51 °F	79.2	15.0 A	15.0 A	1 120	V 1	

1. UNIT SHALL BE ON DURING OCCUPIED HOURS.

		ABBREVIATIONS
ACU	AIR CONDITIONING UNIT	
ACH AFUE	AIR CHANGES PER HOUR ANNUAL FUEL EFFICIENCY RATIO	
AHU	AIR HANDLING UNIT	
AI AO	ANALOG INPUT ANALOG OUTPUT	
В	BOILER	
BACNET BAS	COMMUNICATION PROTOCOL FOR BUILDING AUTOMATION NET BUILDING AUTOMATION SYSTEM	WORKS
BI	BINARY INPUT	
BO BTU	BINARY OUTPUT BRITISH THERMAL UNIT	
BTUH CAV	BRITISH THERMAL UNITS / HOUR CONSTANT AIR VOLUME	
CDD	COOLING DEGREE DAYS	
CFC CFM	CHLOROFLUOROCARBON CUBIC FEET PER MINUTE	
COP	COEFFICIENT OF PERFORMANCE	
CRAC CT	COMPUTER ROOM AIR CONDITIONER COOLING TOWER	
CV	CONSTANT VOLUME	
DAT DB	DISCHARGE AIR TEMPERATURE DRY BULB	
DCV	DEMAND CONTROLLED VENTILATION	
DDC DH	DIRECT DIGITAL CONTROL DUCT HEATER	
DP	DIFFERENTIAL PRESSURE	
DX EAT	DIRECT EXPANSION ENTERING AIR TEMPERATURE	
ECM	ELECTRONICALLY COMMUTATED MOTOR	
EDH EER	ELECTRIC DUCT HEATER ENERGY EFFICIENCY RATIO	
EF	EXHAUST FAN	
EH EMS	ELECTRIC HEATER ENERGY MANAGEMENT SYSTEM	
ESCO	ENERGY SERVICE COMPANY	
EUH EWT	ELECTRIC UNIT HEATER ENTERING WATER TEMPERATURE	
FCU	FAN COIL UNIT	
FLA FMS	FULL LOAD AMPS FACILITY MANAGEMENT SYSTEM	
FPM FW	FEET PER MINUTE FEED WATER	
GPM	GALLONS PER MINUTE	
GUI HCFC	GRAPHICAL USER INTERFACE HYDROCHLOROCFUOROCARBON	
HEPA	HIGH EFFICIENCY PARTICULATE ARRESTING	
HFC HHWP	HYDROFLUOROCARBON HEATING HOT WATER PUMP	
HHWR	HEATING HOT WATER RETURN	,
HHWS HL	HEATING HOT WATER SUPPLY HIGH LIMIT	,
HR	HEAT RECOVERY	,
HRU HRV	HEAT RECOVERY UNIT HEAT RECOVERY VENTILATOR	,
HSPF	HEATING SEASONAL PERFORMANCE FACTOR	,
HVAC HWP	HEATING VENTILATION AND AIR CONDITIONING HOT WATER PUMP	
HWR	HOT WATER RETURN	
HWS HWRT	HOT WATER SUPPLY HOT WATER RETURN TEMPERATURE	
HWST	HOT WATER SUPPLY TEMPERATURE	
HX I/O	HEAT EXCHANGER INPUT OUTPUT	
IAQ	INDOOR AIR QUALITY	
IR LAT	INFRA-RED LEAVING AIR TEMPERATURE	
LHV	LOWER HEATING VALUE	

GENERAL PROJECT NOTES A. DRAWINGS ARE SCHEMATIC IN NATURE AND SHOW DESIGN INTENT. IF CHANGES ARE MADE DUE TO DIFFERING FIELD CONDITIONS, SUGGESTED CHANGES ARE TO BE SUBMITTED TO ARCHITECT FOR APPROVAL PRIOR TO CHANGES BEING MADE.

B. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF FIRE-RATED REPAIR ANY WORK DAMAGED AS A RESULT OF WORK BY THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AND PAY FOR FOR ALL MATERIALS, LABOR, LICENSES, PERMITS, INSPECTIONS, FEES, FINAL CLEANUP, AND QUALITY OF WORKMANSHIP AND MATERIALS REQUIRED TO

PERFORM WORK DESCRIBED IN CONTRACT. CONTRACTOR SHALL VERIFY AND SATISFY THAT ALL EQUIPMENT FURNISHED WILL PROPERLY FIT IN THE SPACE PROVIDED, THAT IT WILL FUNCTION PROPERLY, AND THAT ALL PARTS OF EQUIPMENT REQUIRING SERVICE ARE READILY ACCESSIBLE IN COMPLIANCE WITH THE MECHANICAL CODE. F. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CUTTING AND PATCHING OF WALLS, FLOORS, AND ROOFS REQUIRED FOR DEMOLITION

OF EXISTING AND INSTALLATION OF NEW HVAC COMPONENTS. ALL OPENINGS IN WALLS, FLOORS OR CEILINGS SHALL BE PROPERLY SEALED. G. ALL WORK SHALL BE PERFORMED AND INSTALLED PER THE REQUIREMENTS OF ALL FEDERAL, STATE AND LOCAL CODES, LAWS, REGULATIONS, INSPECTION AGENCIES, UTILITY COMPANIES AND OTHER AUTHORITIES

HAVING JURISDICTION. H. CONTRACTOR SHALL REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO PRICE AND SCHEDULE AFFECTING ANY TRADE RESULTING FROM USE OF NON-BASIS OF DESIGN EQUIPMENT. EQUIPMENT SCHEDULES SHOW BASIS OF DESIGN. OUTDOOR DESIGN CONDITIONS: SUMMER: 91 DB, 73 WB. WINTER: 6 DB.

GENERAL ROOM DESIGN CONDITIONS: SUMMER: 75 DB, 30-60% RH. WINTER: K. ALL EQUIPMENT AND COMPONENTS INSTALLED IN AN AIR PLENUM SHALL BE PLENUM RATED. L. COORDINATE LOCATIONS OF ALL HVAC EQUIPMENT AND ACCESSORIES WITH OTHER TRADES.

M. LOCATE WALL OPENINGS FOR DUCTS, GRILLES, AIR TRANSFER OPENINGS, PIPING, ETC. CENTERED BETWEEN FRAMING MEMBERS WHEN POSSIBLE. N. FOR ALL ROOF-MOUNTED MECHANICAL EQUIPMENT, THE CONTRACTOR SHALL PROVIDE THE CURB, CUT THE ROOF OPENING, AND PROVIDE ROOFING AND ROOF FLASHING AROUND CURB SO THAT ROOF WARRANTY IS MAINTAINED. ALL ROOF PENETRATIONS SHALL BE COORDINATED WITH ALL TRADES. TOPS OF ROOF CURBS SHALL BE 12" ABOVE TOP LAYER OF ROOF INSULATION OR MEMBRANE AND SUPPORTED ON STRUCTURE UNLESS NOTED OTHERWISE.

THE SPECIFICATIONS FOR DUCT LINING REQUIREMENTS. P. ALL DUCT FITTINGS SHALL BE LO-LOSS FITTINGS. ROUND TAPS INTO SQUARE DUCT SHALL BE CONICAL OR BELLMOUTH. SQUARE ELBOWS AND SQUARE OR RECTANGULAR SPLITTERS SHALL USE TURNING VANES. NON-SQUARE ELBOWS SHALL HAVE A MINIMUM RADIUS OF 1.5 TIMES THE RADIUS OF THE DUCT. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIRMENTS. WHEN PENETRATING A NON-FIRE RATED WALL OR FLOOR WITH DUCTWORK OR PIPING, SEAL ANNULAR SPACE BETWEEN WALL/FLOOR AND MECHANICAL MATERIALS WITH NON-COMBUSTIBLE FIBERGLASS INSULATION AND JOINT SEALANTS APPROPRIATE FOR SIZE AND DEPTH AND SOUND ATTENUATION CONSIDERATION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR NON FIRE RATED JOINT SEALANTS.

O. ALL TRANSFER AIR DUCTS SHALL HAVE INTERIOR DUCT LINING. REFER TO

R. ALL FLOOR MOUNTED MECHANICAL EQUIPMENT SHALL BE INSTALLED ON A CONCRETE EQUIPMENT PAD. BALANCE AIR HANDLING UNIT MINIMUM OUTSIDE AIR TO THE OUTSIDE

AIRFLOWS INDICATED ON THE VENTILATION SCHEDULE. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE OR DUCT UP AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR ACCURACY. U. WHEN ABOVE A GYPSUM CEILING, PROVIDE HARD DUCT CONNECTION AT AIR DEVICE AND USE SHEETMETAL SCREWS AND DUCT SEALANT. DO NOT USE FLEX OR WIRE TIE AT FINAL AIR DEVICE CONNECTION WHEN ABOVE A HARD

V. THE USE OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO AIR DEVICE CONNECTIONS AND BE A MAXIMUM OF 60" IN LENGTH. W. ALL 90° ELBOWS SHALL BE SHEET METAL.

TURNING VANES SHALL BE INSTALLED IN ALL MITERED SUPPLY DUCT TURNS. MAINTAIN REQUIRED CLEARANCES FROM EXHAUST AND VENT LOCATIONS TO OUTSIDE AIR INTAKE AND OPERABLE DOORS & WINDOWS. PROVIDE DUCT LINER PER SPECIFICATIONS FOR ALL RETURN DUCT WITHIN 10' OF CONNECTION TO ALL AIR HANDLING EQUIPMENT INCLUDING ROOFTOP

UNITS. FAN COILS. HEAT PUMPS. AND AIR HANDLERS. AA. THERMOSTATS SHALL BE MOUNTED WITH BOTTOM AT 44" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED ON THERMOSTAT INSTALLATION DETAIL ON ELECTRICAL SHEETS.

BB. DUCTS CONNECTING TO INLET AND DISCHARGE OF VAV BOXES SHALL BE SAME SIZE AS BOX CONNECTION. CC. FOR DIFFUSERS AND GRILLES THAT ARE INSTALLED IN DRYWALL CEILINGS OR OTHER INACCESSIBLE AREAS, PROVIDE INTEGRAL BALANCING DAMPERS.

LOW LIMIT LOCAL OPERATING NETWORK LOW PRESSURE LOCKED ROTOR AMPS LEAVING WET BULB TEMPERATURE LEAVING WATER TEMPERATURE MEASUREMENT AND VERIFICATION MIXED AIR

MIXED AIR TEMPERATURE MOTOR CONTROL CENTER MAKE-UP AIR UNIT MULTI-ZONE NORMALLY CLOSED NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NORMALLY OPEN NET POSITIVE SUCTION HEAD

OUTSIDE AIR OUTSIDE AIR PERCENTAGE **OUTSIDE AIR TEMPERATURE**

SEASONAL ENERGY EFFICIENCY RATIO

OPERATOR WORK STATION PERFORMANCE CONTRACTING PROFESSIONAL ENGINEER PRE-HEAT PROPORTIONAL INTEGRAL DERIVATIVE PRESSURE RELIEF VALVE PRESSURE REDUCING VALVE PACKAGED TERMINAL AIR CONDITIONER RETURN AIR

RETURN FAN REHEAT RELATIVE HUMIDITY REVOLUTIONS PER MINUTE RESISTANCE TEMPERATURE DETECTOR **ROOF TOP UNIT** SUPPLY AIR SUPPLY AIR TEMPERATURE

OPEN DRIP PROOF

ODP

SUPPLY FAN SENSIBLE HEAT RATIO SET POINT STATIC PRESSURE THERMOSTAT THERMOSTATIC EXPANSION VALVE TIME OF DAY THERMOSTATIC EXPANSION VALVE UNIT HEATER

ULTRAVIOLET **UNIT VENTILATOR** VARIABLE AIR VOLUME VD VOLUME DAMPER VARIABLE FREQUENCY DRIVE VSD VARIABLE SPEED DRIVE VARIABLE SPEED PUMP(ING)

WET BULB WATER COLUMN YEAR TO DATE

> SYMBOLS AND ABBREVIATIONS LEGEND (THERE MAY BE SYMBOLS LISTED IN THIS LEGEND

THAT ARE NOT US	SED IN THIS SET OF DRAWINGS)
PIPING SYMBOLS	DESCRIPTION
——HHWS——	HEATING HOT WATER SUPPLY PIPING
——HHWR——	HEATING HOT WATER RETURN PIPING
COND	CONDENSATE DRAIN PIPING
RS/L	REFRIGERANT SUCTION/LIQUID PIPIN
——	BALL VALVE
 N	BUTTERFLY VALVE
<u></u>	PLUG VALVE
——₩——	CIRCUIT BALANCING VALVE
	CHECK VALVE
—————————————————————————————————————	PRESSURE REDUCING VALVE
₩	3-WAY VALVE
	MOTORIZED CONTROL VALVE
	MOTORIZED 3-WAY CONTROL VALVE
	SOLENOID VALVE
	WYE STRAINER

PIPE CONTINUATION POINT OF REMOVAL/CONNECTION

KEYNOTE NOTE

DUCTWORK SYMBOLS

LINEAR DIFFUSER SUPPLY DIFFUSER

RETURN GRILLE EXHAUST GRILLE

BALANCING DAMPER

BACKDRAFT DAMPER

SMOKE DAMPER FIRE DAMPER

MOTORIZED CONTROL DAMPER

INTERNALLY LINED DUCTWORK FABRIC DUCTWORK

| | | | | | FLEXIBLE DUCTWORK

CONTROL SYMBOLS

F THERMOSTAT

© CARBON DIOXIDE SENSOR

HUMIDITY SENSOR

© COMBINATION THERMOSTAT / HUMIDITY SENSOR

© CARBON MONOXIDE SENSOR

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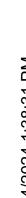
MECHANICAL

SCHEDULES

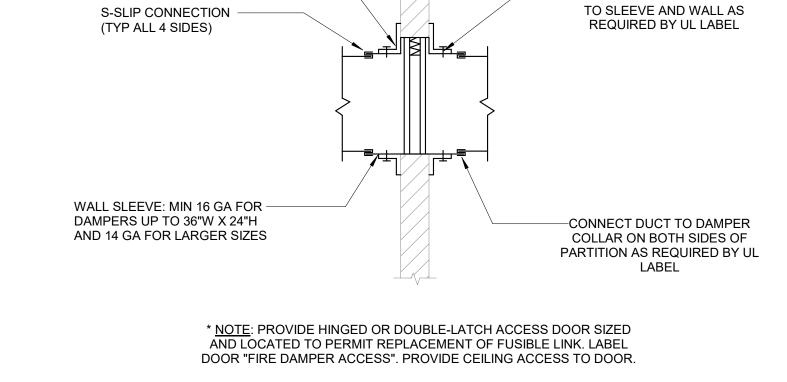
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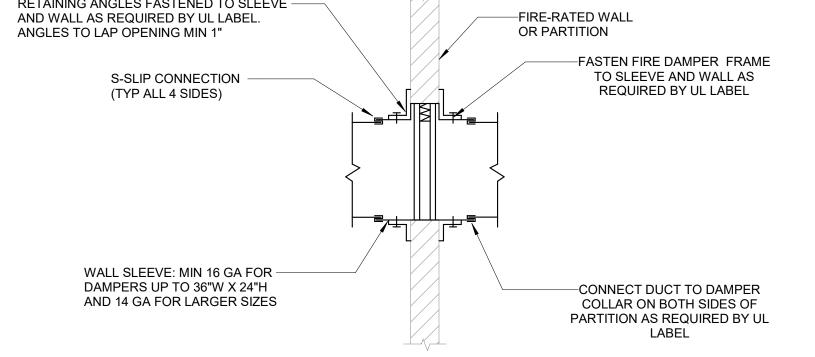
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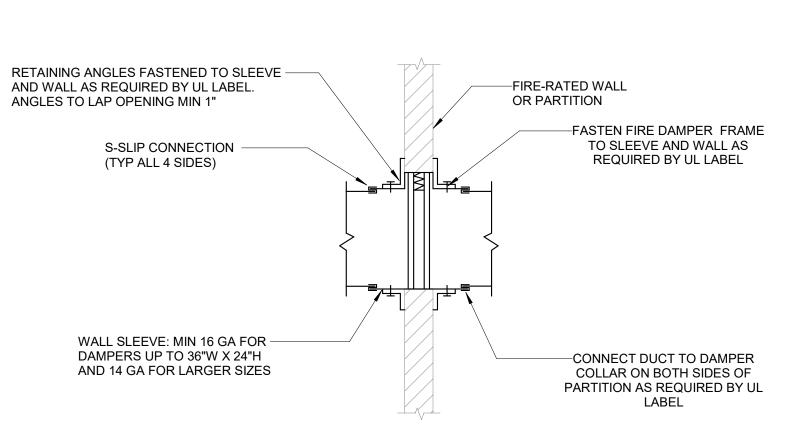
06-24-24 PERMIT SET



8 FIRE DAMPER INSTALLATION DETAIL M002







REFER TO FLOOR PLANS FOR DUCT WIDTH

2 TRANSFER DUCT - ACOUSTIC LINED ELBOW

-HANGER ROD-

-LOCKING NUT

-HEAVY DUTY-

CLEVIS HANGER

-14 GAUGE ZINC COATS-

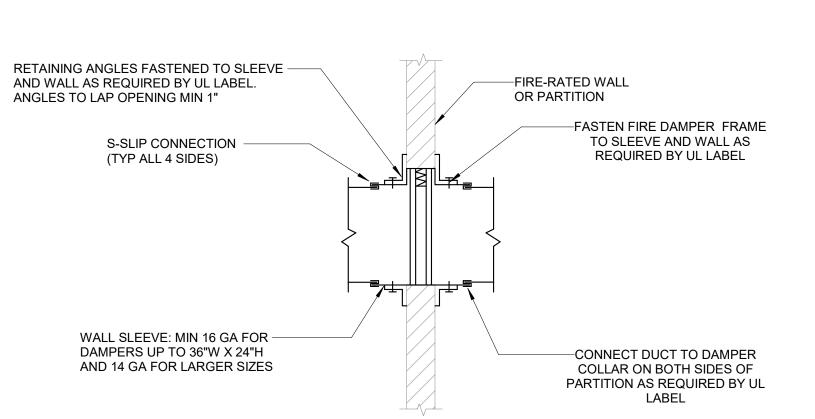
SHEET STELL SADDLE

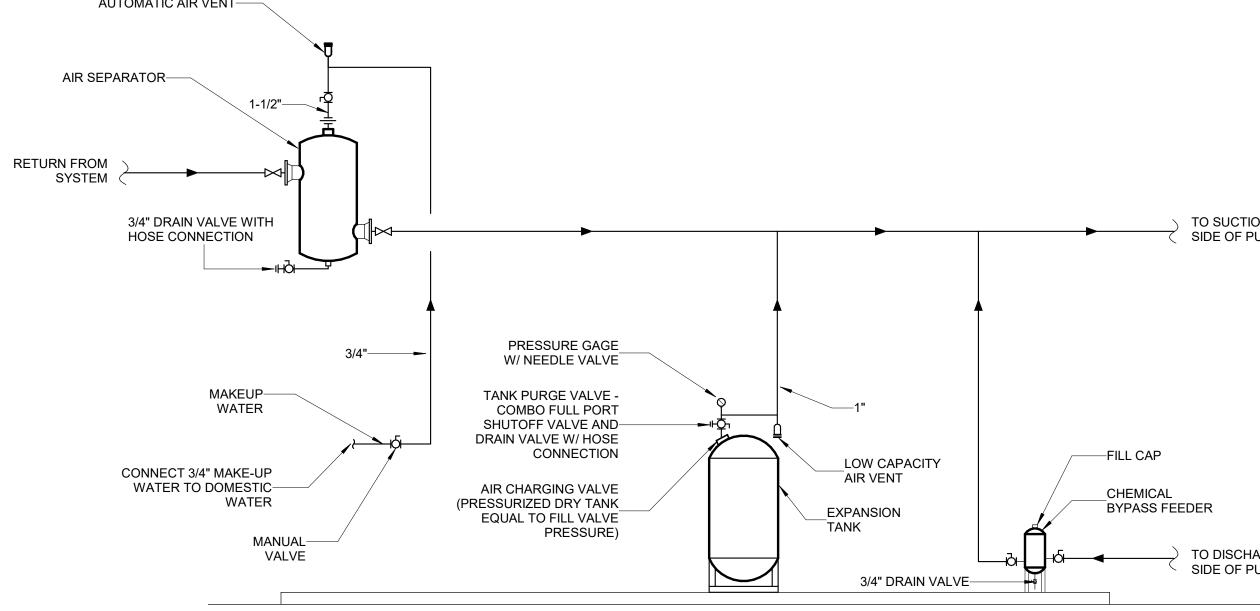
AT LEAST 6" LONG

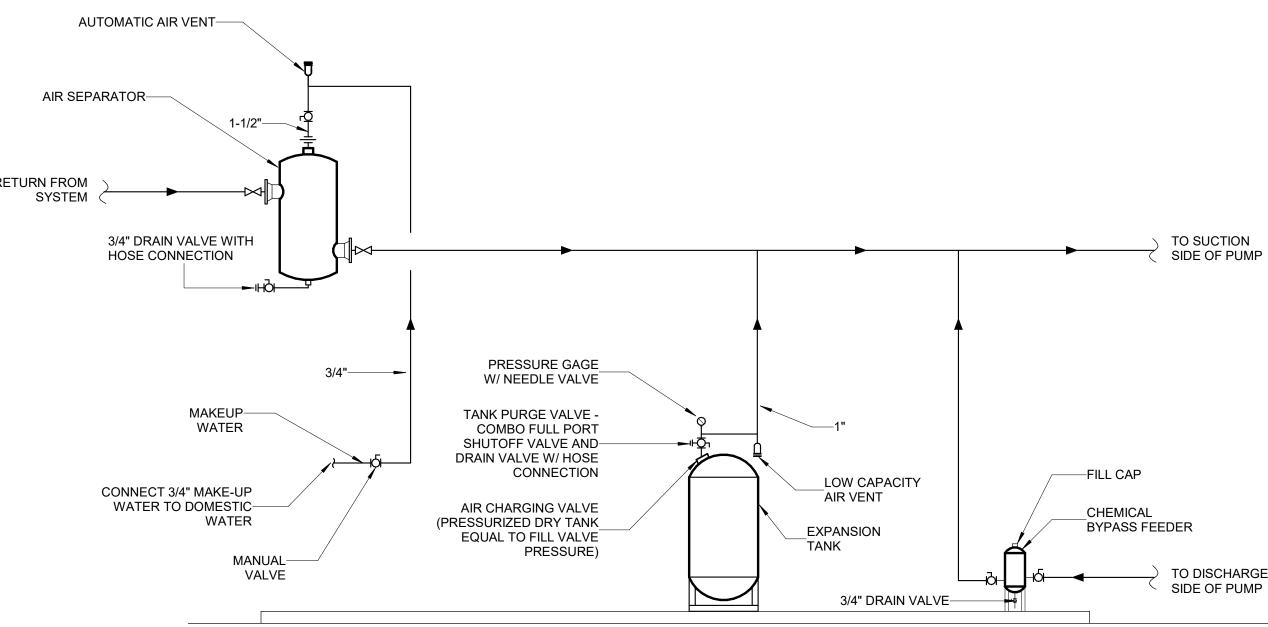
-MSS SHAPE-

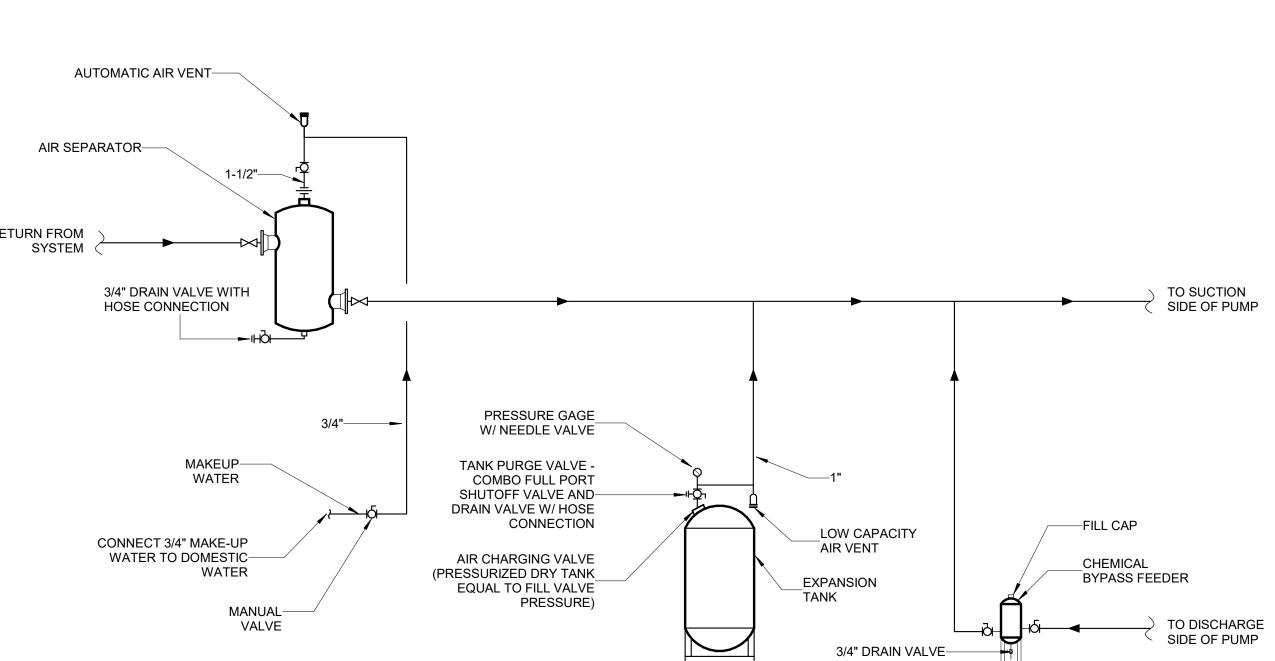
PIPE HANGER (6" AND SMALLER)

M002

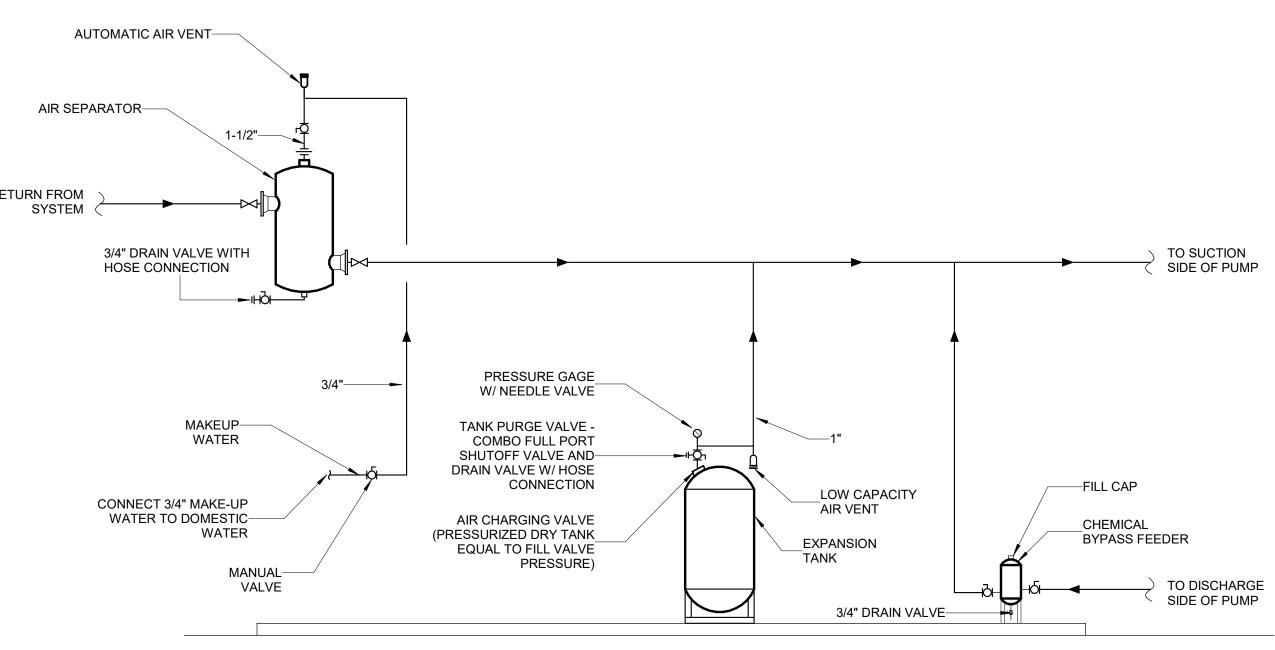


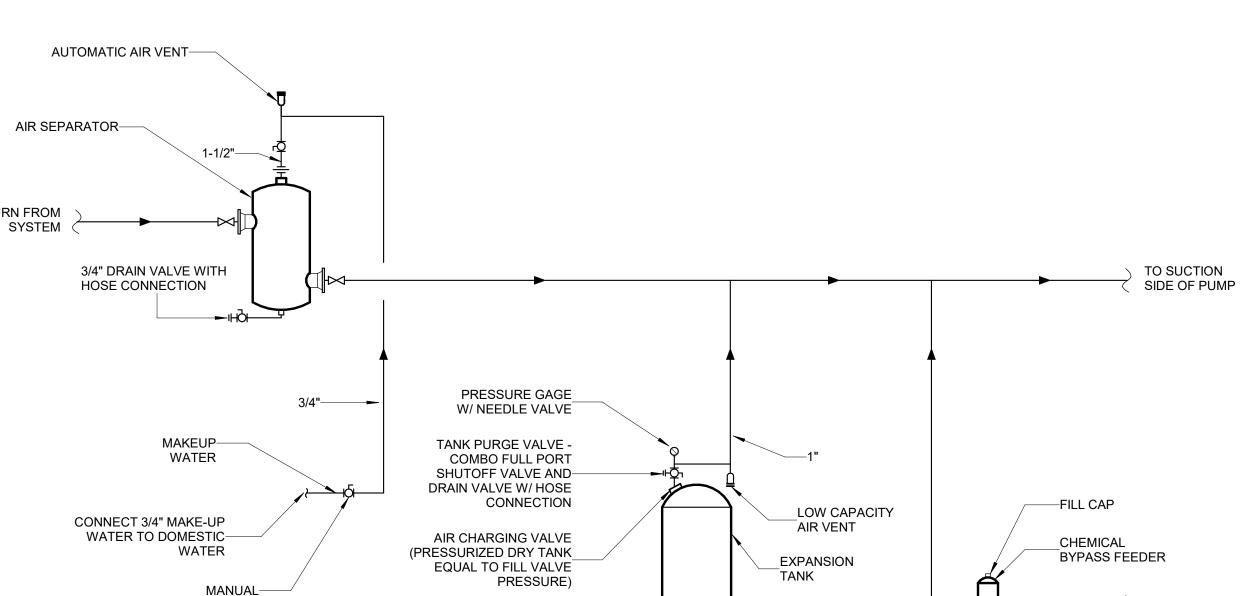






6 MAKEUP WATER CONNECTION DETAIL





—GAS COCK

—FIRE STOP SEALANT

—PIPE INSULATION

KEYNOTES

4. UNION (TYP)

7. PRESSURE GAUGE

5. STRAINER

1. GLOBE VALVE (SYSTEM FILL VALVE NORMALLY

PRESSURE REDUCING VALVE WITH 3-30 PSI

RANGE (SET AT 15 PSIG)

BALL VALVE (NORMALLY CLOSED)

6. FLOW SWITCH: IF FLOW CONTINUES FOR MORE THAN 10 SECONDS (ADJ.), PROVIDE

FACILITIES STAFF WHO ARE ON CALL.

CRITICAL ALARM TO BAS WITH MESSAGING TO

-STANDARD WEIGHT STEEL PIPE SLEEVE 2"

LARGER THAN PIPE OR INSULATION DIAMETER. ANCHOR IN CONCRETE OR

GAS FIRED EQUIPMENT

FILL VOID WITH FIBERGLASS—

INSULATION

—1" CONNECT TO HEATING HOT WATER AND CHILLED WATER SYSTEM AT AIR SEPARATOR.

COPPER PIPE OR METAL CONDUIT

M002

SLEEVE

PIPE AND INSULATION CENTERED IN -SLEEVE, DO NOT SUPPORT PIPE FROM

—1" ACOUSTIC LINING

GAS EQUIPMENT CONNECTION DETAIL

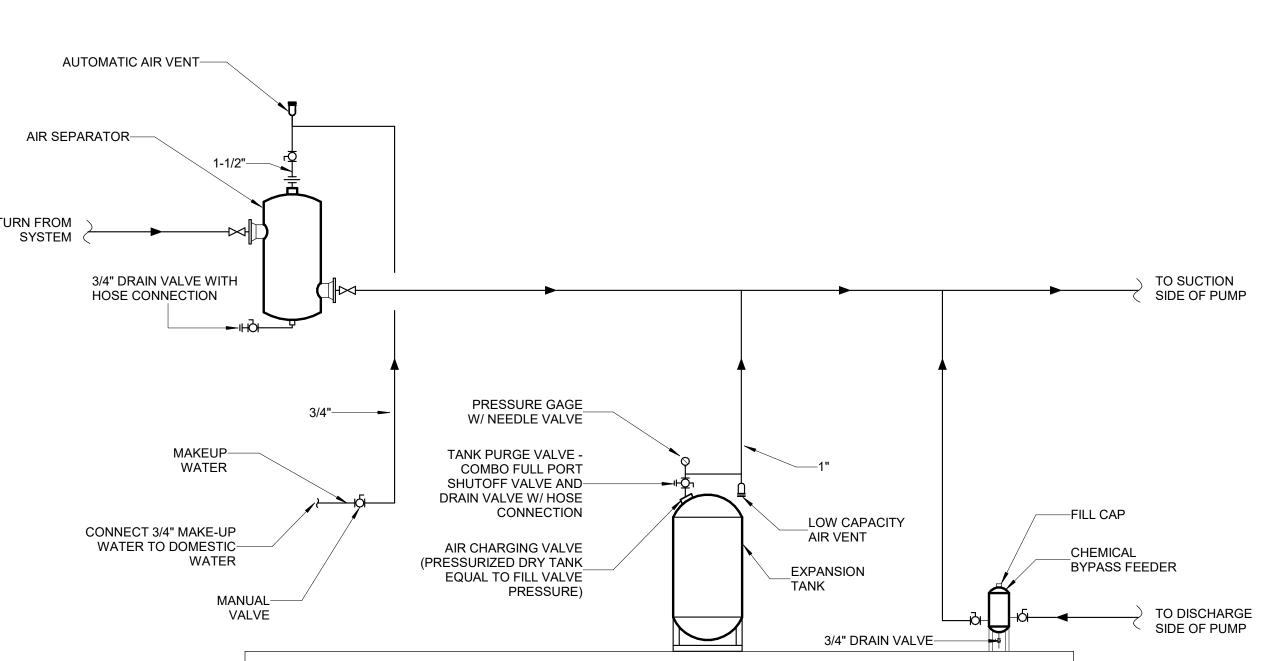
NOTE: REFER TO SPECIFICATION SECTION 232113 FOR HDPE PIPE PENETRATION REQUIREMENTS THROUGH FIRE RATED WALLS

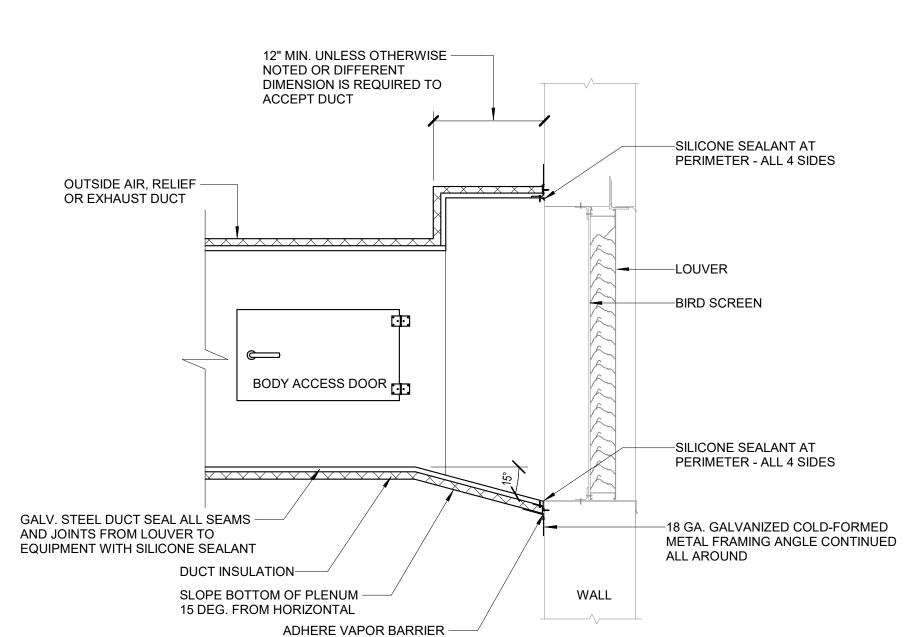
3 PIPE PENETRATION THROUGH FIRE RATED WALL

1" CONNECT TO MAKE UP WATER BACKFLOW -

PREVENTER PROVIDED BY PLUMBING

CONTRACTOR





7 LOUVER DUCTWORK CONNECTION

2>

4

10 BOILER PIPING SCHEMATIC TYPICAL

THERMOWELL (TYP)

6. UNION (TYP)

3. BUTTERFLY VALVE (TYP)

5. SST FLEX CONNECTOR (TYP)

7. CONDENSATE DRAIN P-TRAP

2. TEMPERATURE GAUGE IN THERMOWELL (TYP)

4. PRESSURE AND TEMPERATURE PORT (TYP)

TAPE TO WALL

NATURAL GAS-

BOILER

-BOILER

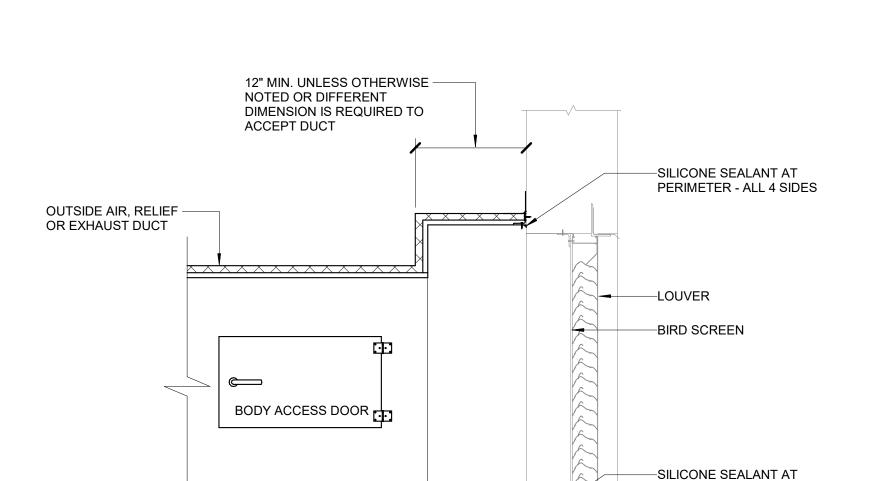
M002

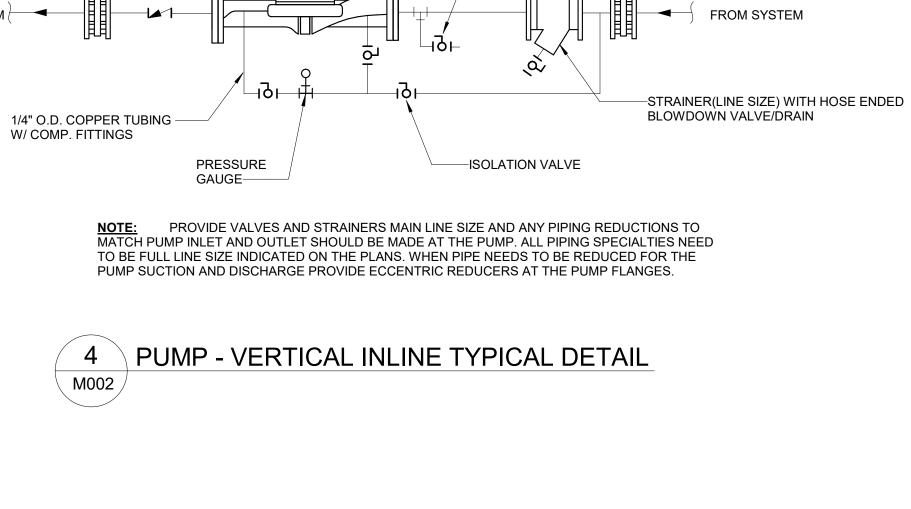
DRAIN

1

3>--

TO FLOOR DRAIN



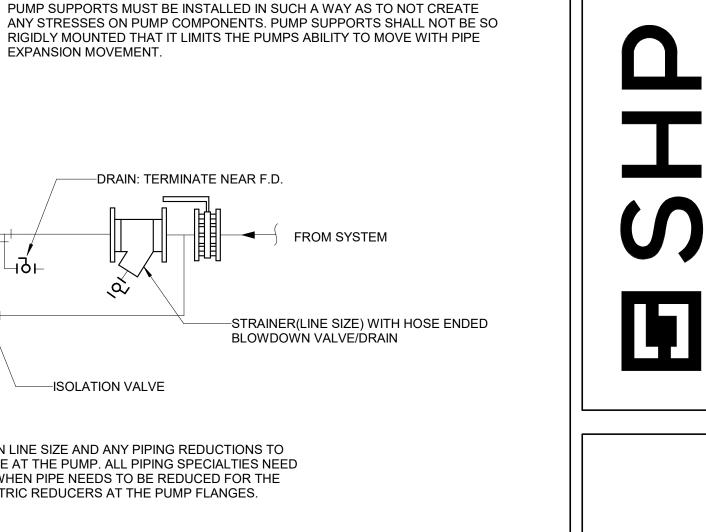


EXPANSION MOVEMENT.

INSTALLER IS RESPONSIBLE FOR SUPPORTING -THE VERTICAL INLINE PUMP PER THE MANUFACTURER'S RECOMMENDED INSTALLATION INSTRUCTIONS.

-WHERE REQ'D, AN ADDITIONAL PUMP SUPPORT BRACKET MAY BE PROVIDED.

—DRAIN: TERMINATE NEAR F.D.



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CHO TRIC **DIS**

6 SCHO LOCAL
NG ROAD, CI IORTHWEST 3240 BANN TIONS

ISSUANCES 06-24-24 PERMIT SET

> **MECHANICAL** SCHEDULES AND DETAILS

COMM NO. 2024081.0⁻

M002

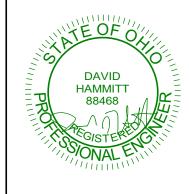
M002

9 EXP. TANK, AIR SEPARATOR, CHEM. FEEDER DETAIL

Natural Ventilation Schedule

	,	√entilation F	Rate Proced	lure Schedu	ıle					
							Cod	oling	Hea	ating
System Zone Room	Occupancy Category	Rp	Pz	Ra	Az	Vbz	Ez	Voz	Ez	Voz
1104 Conference Room	Office space	5.00	4.00	0.06	156	29	1.00	19	0.80	24
1106 Classroom	Classrooms (ages 5-8)	10.00	16.00	0.12	769	252	1.00	252	0.80	315
1107 Classroom	Classrooms (ages 5-8)	10.00	16.00	0.12	757	251	1.00	251	0.80	313
1110 Screening	Classrooms (ages 5-8)	10.00	8.00	0.12	429	131	1.00	131	0.80	164
1130 Gymnasium	Health club/ aerobics room	20.00	10.00	0.06	4,100	446	1.00	446	0.80	558
1136A Office	Office space	5.00	1.00	0.06	171	15	1.00	15	0.80	19

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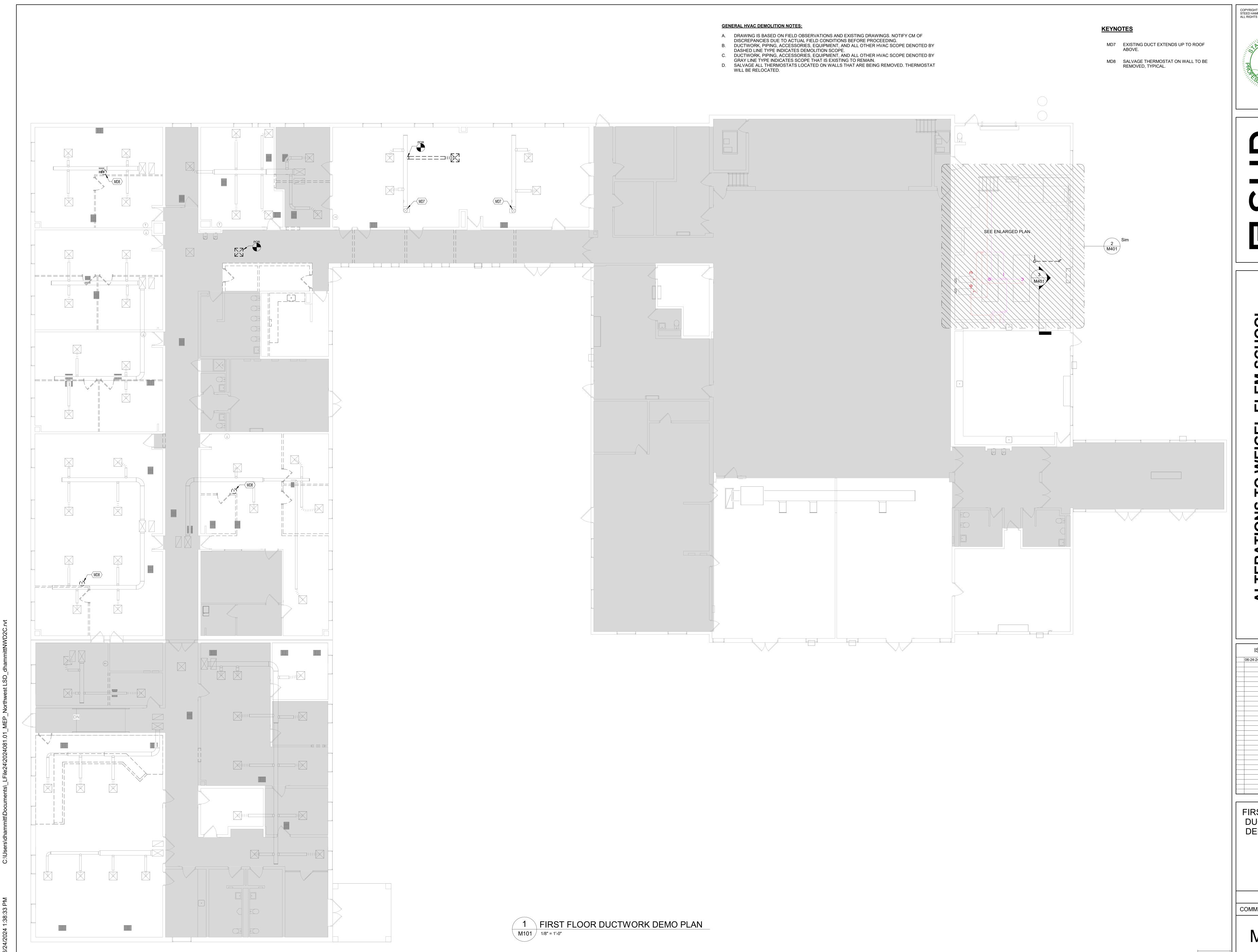


SCHO TRICT **EM** 45239 **DIS** 45239 ERATIONS TO WEIGEL ELE
3242 BANNING ROAD, CINCINNATI OH, 45;
NORTHWEST LOCAL SCHOOL D
3240 BANNING ROAD, CINCINNATI, OH 452 ALTERATIONS
3242 BAN

ISSUANCES

VENTILATION SCHEDULES

COMM NO. 2024081.01



ALTERATIONS TO WEIGEL EL
3242 BANNING ROAD, CINCINNATI OH,
3240 BANNING ROAD, CINCINNATI, OH

ISSUANCES

FIRST FLOOR DUCTWORK DEMO PLAN

COMM NO. 2024081.01



TRICT

DIS. RATIONS TO WEIGEL EL
3242 BANNING ROAD, CINCINNATI OH,
NORTHWEST LOCAL SCHOOL
3240 BANNING ROAD, CINCINNATI, OH ALTERATIONS
3242 BAN

ISSUANCES

FIRST FLOOR DUCTWORK PLAN

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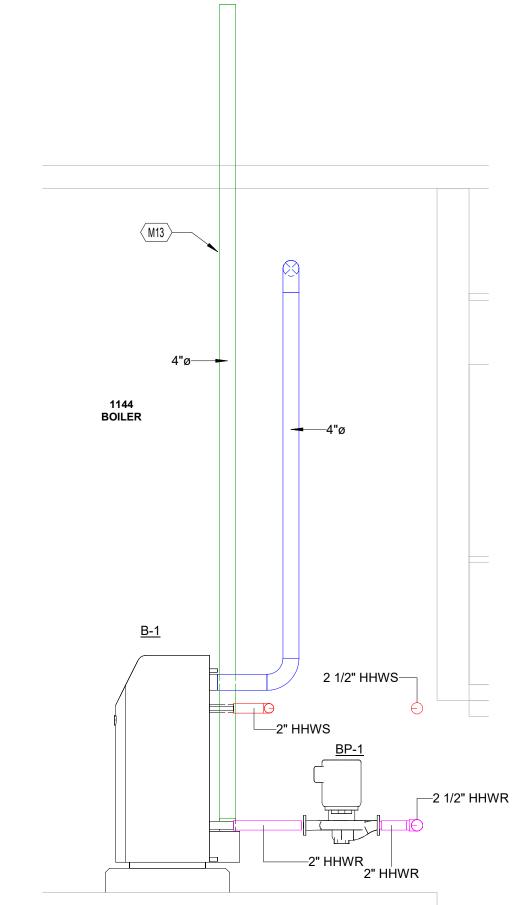
DISTRICT 45239 ALTERATIONS TO WEIGEL ELEM
3242 BANNING ROAD, CINCINNATI OH, 45239
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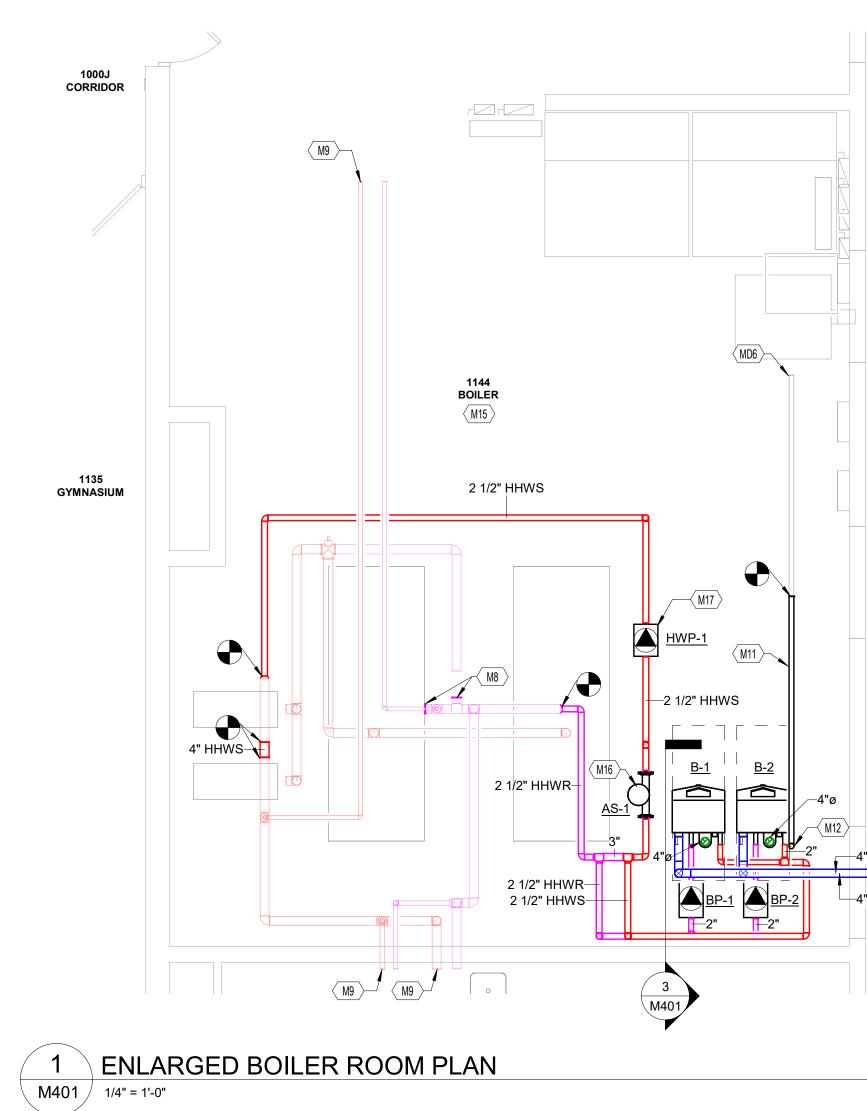
ROOF HVAC PLAN

COMM NO. 2024081.01









KEYNOTES

- M8 CAP EXISTING HEATING HOT WATER PIPING AT THIS LOCATION AND INSULATE.
- M9 EXISTING HEATING HOT WATER PIPES EXTEND TO BUILDING.
- M11 EXTEND NATURAL GAS PIPING FULL SIZE TO NEW BOILERS.
- M12 CONNECT NATURAL GAS PIPING TO EACH BOILER WITH REGULATOR PER BOILER. SEE NATURAL GAS CONNECTION DETAIL.
- M13 FLUE DUCT TO BE UL 1738-RATED FOR CONDENSING APPLICATIONS. ROUTE UP THROUGH ROOF AND FLASH AT ROOF. DISCHARGE 36" ABOVE ROOF
- M14 (2) SIDEWALL COMBUSTION AIR INLETS PROTECTED BY 1/2" WIRE MESH.
- M15 REUSE EXISTING EXPANSION TANK AND MODIFY PIPING AS REQUIRED TO KEEP EXPANSION TANK IN SERVICE.
- M16 EXTEND EXISTING MAKEUP WATER LINE TO NEW AIR SEPARATOR.
- M17 HOT WATER PUMP SHALL BE PROVIDED WITH VFD AND SHALL MODULATE SPEED TO MEET HWS/R DIFFERENTIAL PRESSURE SENSOR SETPOINT (ADJ) INSTALLED APPROXIMATELY 2/3RDS DOWN LONGEST RUN. PROVIDE AND INSTALL SENSOR, WIRING, CONTROLLERS, AND PROGRAMMING REQUIRED TO ACHIEVE THIS SEQUENCE.
- MD1 EXISTING HEATING HOT WATER PIPES EXTEND TO BUILDING.
- MD2 EXISTING NATURAL GAS PIPING.
- MD3 EXISTING HEATING HOT WATER PUMP TO BE ABANDONED IN PLACE.
- MD4 EXISTING BOILER TO BE ABANDONED IN PLACE.
- MD5 REMOVE GAS PIPING AND TRIM FROM BOILER BACK TO OVERHEAD TO MAKE ROOM FOR NEW CONSTRUCTION.
- MD6 EXISTING NATURAL GAS PIPING EXTENDS BACK TO SERVICE ENTRANCE.

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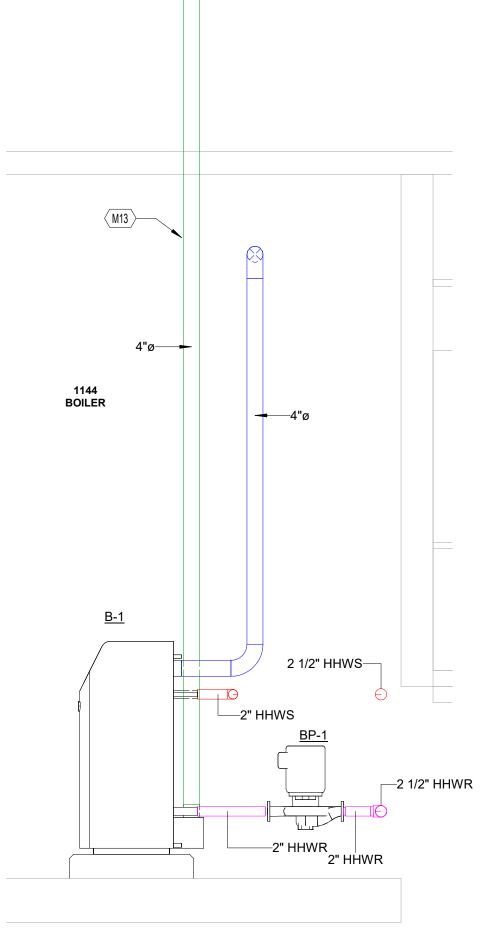
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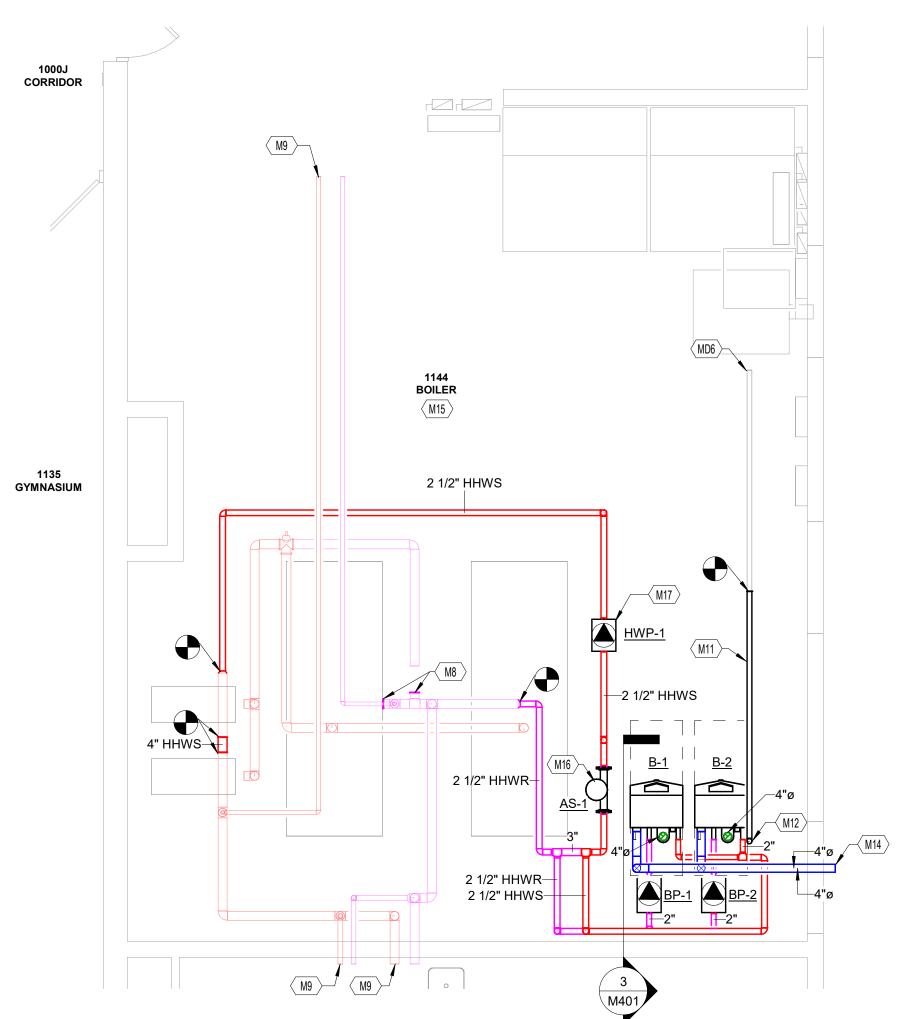
ENLARGED MECHANICAL PLANS

COMM NO. 2024081.01

M401







(MD1) MD1

2 ENLARGED BOILER ROOM DEMOLITION PLAN
1/4" = 1'-0"

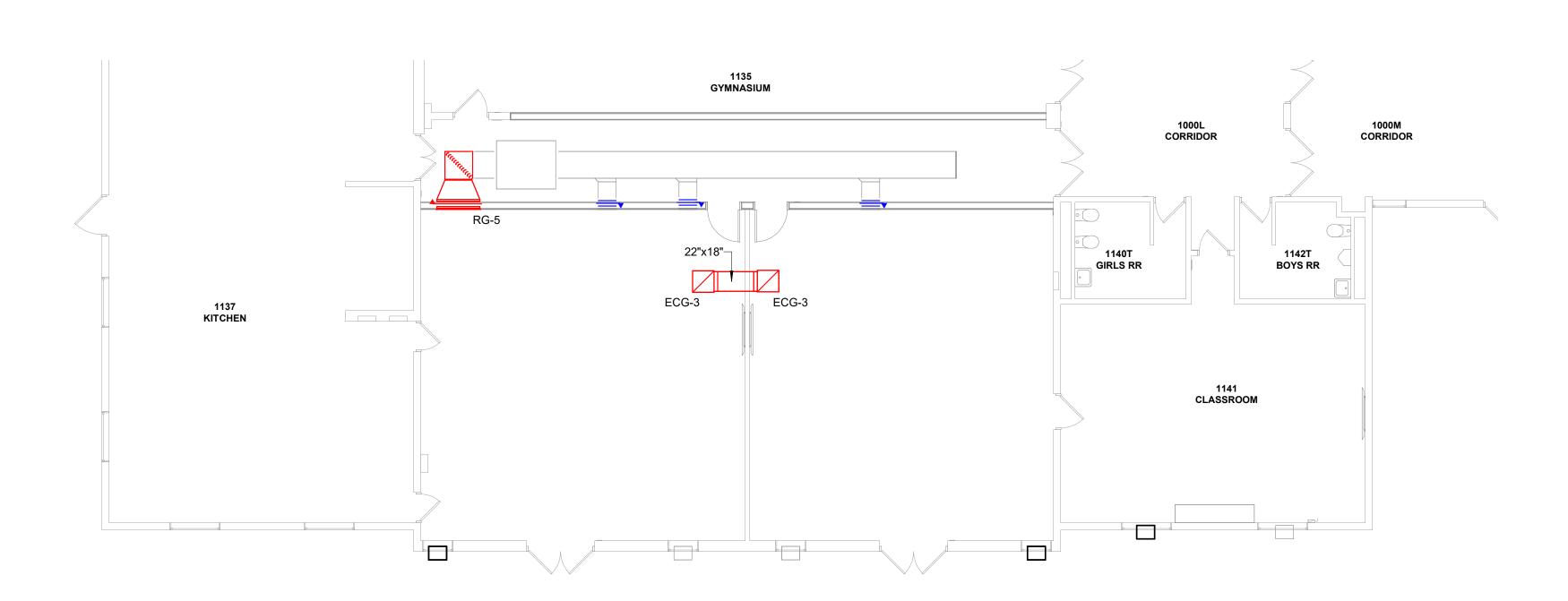
KEYNOTES

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COMM NO. 2024081.01

M500

2 FIRST FLOOR DUCTWORK DEMO PLAN - ALTERNATE
M500 1/8" = 1'-0"



1 FIRST FLOOR DUCTWORK PLAN - ALTERNATE
M500 1/8" = 1'-0"

AF	PPLICATION	LOCATION	ALLOWABLE CONDUIT AND RACEWAY TYPE	OUTLET BOXES	CONDUIT BODIES	ENCLOSURE TYPE	FASTENERS/ SUPPORTS	CONDUIT AND RACEWAY NOTES:
	CONCEALED	CMU WALLS	EMT	STEEL METAL	CAST	NEMA 1	ZINC PLATED	-MINIMUM SIZE 3/4"C
"		METAL STUD PARTITIONS	EMT AND MC CABLE		ALUMINIUM			
Š O		ABOVE ACCESSIBLE CEILINGS	EMT					
APPLICATIONS		CONNECTIONS BETWEEN LIGHT FIXTURES ABOVE ACCESSIBLE CEILINGS	MC CABLE					
NTERIOR	EXPOSED	FINISHED SPACES (SEE NOTE A)	SURFACE RACEWAY	STEEL METAL	CAST	NEMA 1	ZINC PLATED	-MINIMUM SIZE 3/4"C
		UNFINISHED SPACES (SEE NOTE A)	EMT		ALUMINIUM			
∠		FINAL CONNECTION TO MOTORIZED EQUIPMENT	FMC (PLENUMS) LFMC (NON-PLENUMS)					
	BELOW GRADE	FEEDERS	RNC					-MINIMUM SIZE 1"C
APPLICATIONS		BRANCH CIRCUITS	RNC					-DO NOT ROUTE BRANCH CIRCUITS UNDER SLAB UNLESS OTHERWISE NOTED ON THE PLANS.
IOR APPL	ABOVE GRADE	FINAL CONNECTION TO MOTORIZED EQUIPMENT	LFMC	GALVANIZED MALLEABLE IRON	GALVANIZED MALLEABLE IRON	NEMA 3R	GALVANIZED	-CONDUIT SHALL ENTER FROM SIDE OR BOTTOM WHERE PRACTICAL. -PROVIDE WATERTIGHT HUBS FOR CONDU
EXTERIOR		ALL OTHER LOCATIONS	IMC AND RSC	- IRON	IKUN			CONNECTION.

CONDUCTOR AND CONDUIT COLOR CODING

APPLICATION	COLOR
PHASE A CONDUCTOR	BLACK (240V)
PHASE B CONDUCTOR	RED (240V)
PHASE C CONDUCTOR	BLUE (240V)
NEUTRAL CONDUCTOR	WHITE (120V)
GROUND CONDUCTOR	GREEN
CONTROL CONDUCTOR, 120V	RED
CONTROL CONDUCTOR, NEU	WHITE
CONTROL CONDUCTOR, 24V	BLUE
CONTROL CONDUCTOR, EXTERNAL SOURCE	YELLOW

ABBREVIATIONS: CA CAST ALUMINUM

- ELECTRICAL METALLIC TUBING FLEXIBLE METALLIC CONDUIT GALVANIZED
- GALVANIZED MALLEABLE IRON INTERMEDIATE METAL CONDUIT LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT METAL CLAD CABLE POLYVINYL CHLORIDE, SCHEDULE 40

RIGID NONMETALLIC CONDUIT RIGID STEEL CONDUIT SHEET METAL ZINC PLATED

PROTECTED

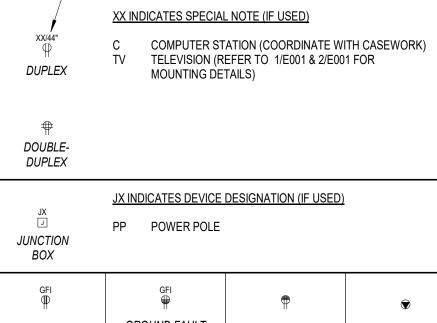
A) UNFINISHED SPACES INCLUDE DEDICATED MECHANICAL, ELECTRICAL, TECHNOLOGY ROOMS ONLY. UNLESS OTHERWISE INDICATED ON DRAWINGS, TREAT ALL OTHER SPACES AS FINISHED SPACES.

- B) CONDUITS FOR FEEDERS WHICH ARE SCHEDULED FOR UNDER SLAB INSTALLATION SHALL BE LOCATED A MINIMUM OF 2' BELOW FINISHED FLOOR. COORDINATE WITH ALL OTHER DISCIPLINES.
- C) CONDUITS FOR BRANCH CIRCUITS NOT PERMITED UNDER SLAB, UNLESS OTHERWISE INDICATED ON DRAWINGS.

RECEPTACLE

		B HEIGHT OF BACKBOX, RELATIVE TO BOTTOM OF BOX. IF DEFAULT MOUNTING HEIGHT IS 16"
/	XX IN	IDICATES SPECIAL NOTE (IF USED)
XX/44" (D)	С	COMPUTER STATION (COORDINATE WITH CASEWORK)

WIRING DEVICE LEGEND



PROTECTED, ABOVE | ABOVE COUNTER

COUNTER

	FIRE ALA	RM LEGEND
OF DEVICES, APPLIAN SHALL REVISE THE PI	ICES, CONTROL PANE LANS AS REQUIRED TO	OF DESIGN FOR LOCATIONS AND QUANTITIES LS, ETC. FIRE ALARM SYSTEM DESIGNER O MEET ALL CODE AND PROJECT LL BE DESIGNED BY A LICENSED FIRE ALARM
NOTIFICATION	WALL	F INDICATES DEVICE DESIGNATION
APPLIANCES	MOUNTED	HS HORN/STROBE COMBO
	75 D F XX	

APPLIANCES	MOUNTED 75 □ F	HS	HORN/STROBE COMBO
CANDELA RATING (75 IF NOT NOTED)	CEILING MOUNTED 75 DF XX		
INITIATING DEVICES	XX INDICATES F MANUA	<u>DEVICE T</u> AL PULL S	
XX			
	·		

PANELS	XXXX INDICATES PANEL TYPE FACP FIRE ALARM CONTROL PANEL
XXXX	

TECHNOLOGY SYMBOL LEGEND

	MOUNTING HEIGHT OF BACKBOX, R OMITTED, DEFAULT MOUNTING HEIC	
	XX INDICATES TYPE OF TECHN	
DATA DROP WITH DEVICE XX/44" DATA DROP (NO DEVICE)	1D (1) DATA OUTLET 2D (2) DATA OUTLETS 4D (4) DATA OUTLETS 6D (6) DATA OUTLETS COAX COAXIAL OUTLET SS SOUND SYSTEM TV TELEVISION VC VOLUME CONTROL WAP WIRELESS ACCESS PO	DINT
SYMBOL	DESCRIPTION	MOUNTING HEIGHT

	, ,	WAP WIRELESS ACCESS POINT	
	SYMBOL	DESCRIPTION	MOUNTING HEIGHT
	TV-XX	TELEVISION XX INDICATES SCREEN SIZE	REFER TO ARCHITECTURAL ELEVATIONS
		MOBILE TV CART XX INDICATES SCREEN SIZE	FLOOR

ACCESS CONTROL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
СВ	CALL BUTTON	WALL MOUNTED
MD	MOTION DETECTOR	WALL MOUNTED

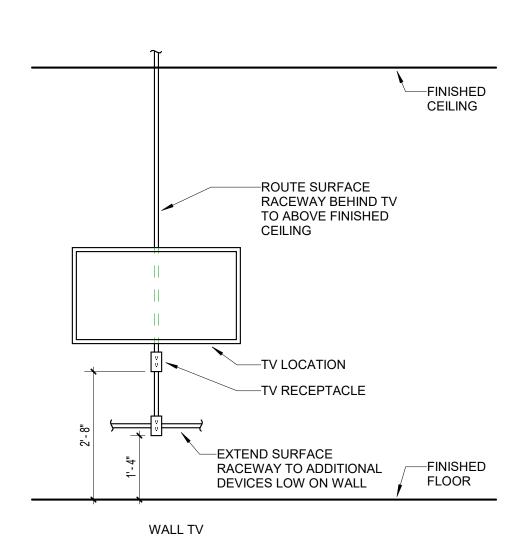
COMMUNICATION SYMBOL LEGEND

	COMMUNICATION STWIBE	<u>DE LEGEND</u>
SYMBOL	DESCRIPTION	MOUNTING HEIGHT
©S)	CLASSROOM SOUND SYSTEM	CEILING MOUNTED
(PA)	PUBLIC ADDRESS SPEAKER	CEILING MOUNTED
PA P	PUBLIC ADDRESS SPEAKER	WALL MOUNTED 10'-0" AFF UNO

FINISHED CEILING WALL MOUNTED FIRE ALARM NOTIFICATION DEVICE TV POWER AND DATA OUTLETS -LIGHTING CONTROLS -THERMOSTAT ∷ BB — ABOVE COUNTER POWER AND DATA OUTLETS —STANDARD POWER OUTLET FINISHED FLOOR

1 TYPICAL DEVICE MOUNTING LOCATION

E001



2 TV OUTLET MOUNTING DETAIL

GENERAL DEVICE MOUNTING NOTES:

- A. EC SHALL REFER TO A600-SERIES DRAWINGS, A640-SERIES ELEVATIONS, AND F-SERIES DRAWINGS FOR ALL CASEWORK AND FURNITURE COORDINATION REQUIREMENTS. WHERE CUTOUTS IN CASEWORK ARE REQUIRED, EC SHALL COORDINATE EXACT LOCATION
- WITH CASEWORK PROVIDER. B. MOUNTING HEIGHTS FOR RECESSED J-BOXES INSTALLED IN CMU WALLS SHALL BE COORDINATED TO ALIGN WITH THE TOP EDGE OR BOTTOM EDGE OF THE BLOCK.
- C. J-BOX LOCATIONS THAT SHIFT TO ALIGN WITH A CMU BLOCK SHALL BE INSTALLED NO CLOSER THAN 4" TO THE TOP OF A COUNTER OR BACKSPLASH AS SHOWN.
- D. J-BOX LOCATIONS THAT SHIFT TO ALIGN WITH A CMU BLOCK SHALL BE COORDINATED TO NOT CONFLICT WITH CASEWORK INSTALLATION.

DRAFTING SYMBOL LEGEND

SYMBOL	DESCRIPTION
(X)	DRAWING KEY NOTE ONLY NOTES THAT APPLY APPEAR ON EACH SHEET. KEY NOTE NUMBERS ARE CONSISTENT FROM SHEET TO SHEET, AND THEREFORE MAY NOT APPEAR IN NUMERICAL ORDER.
2 E501	DETAIL CALLOUT REFER TO DETAIL 2 ON SHEET E501

	26-ELECTRICAL SHEET LIST
SHEET NUMBER	SHEET NAME
E001	ELECTRICAL LEGENDS
E002	ELECTRICAL LEGENDS
E010	ELECTRICAL DEMOLITION PLAN
E100	ELECTRICAL LIGHTING PLAN
E200	ELECTRICAL POWER PLAN
E300	ELECTRICAL FIRE ALARM PLAN

E530 ELECTRICAL ALTERNATE PLANS

ABBREVIATION LEGEND

COMMON ELECTRICAL ABBREVIATIONS AND NOTATIONS		
AFF	ABOVE FINISHED FLOOR	
AHJ	AUTHORITY HAVING JURISDICTION	
AIC	AMPERE INTERRUPTING CAPACITY	
AL	ALUMINUM	
ALT	ALTERNATE	
BAS	BUILDING AUTOMATION SYSTEM	
BM	BRANCH METER	
С	CONDUIT	
CB	CIRCUIT BREAKER	
CD	CANDELA	
CM	CONSTRUCTION MANAGER	
CU	COPPER	
DS	DISCONNECT SWITCH	
EC	ELECTRICAL CONTRACTOR	
ED	EXISTING TO BE DEMOLISHED	
EGC	EQUIPMENT GROUNDING CONDUCTOR	
EM	EMERGENCY	
EPO	EMERGENCY POWER OFF	
ER	EXISTING TO REMAIN	
ERL	EXISTING TO BE RELOCATED	
FC	FOOTCANDLE	
GC	GENERAL CONTRACTOR	
GEC	GROUNDING ELECTRODE CONDUCTOR	
GFCI	GROUND-FAULT CIRCUIT INTERRUPTER	
GND	GROUND	
HP	HORSEPOWER LOCK OUT DEVICE CAPABLE	
LOD LPF		
LTS	LUMENS PER FOOT LIGHTS	
LIS	LOW VOLTAGE	
MCB	MAIN CIRCUIT BREAKER	
MLO	MAIN LUGS ONLY	
MRTS	MOTOR RATED TOGGLE SWITCH	
OC	ON CENTER	
OCPD	OVERCURRENT PROTECTIVE DEVICE	
OM	OWNER'S METER	
SE	SERVICE ENTRANCE	
TR	TECHNOLOGY RACK	
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR	
TYP	TYPICAL	
UNO	UNLESS NOTED OTHERWISE	
UM	UTILITY METER	
UT	UTILITY TRANSFORMER	
VA	VOLT-AMPERE	
VFD	VARIABLE FREQUENCY DRIVE	

GENERAL NOTES: - APPLIES TO ALL ELECTRICAL DRAWINGS

- EC SHALL BE RESPONSIBLE TO INSTALL A SWITCH BOX AND 3/4" CONDUIT TO ABOVE THE CEILING IN EACH ROOM FOR TEMPERATURE CONTROL THERMOSTAT. REFER TO THE MECHANICAL DRAWINGS FOR LOCATIONS OF THESE DEVICES.
- EC MAY COMBINE MULTIPLE CIRCUITS INTO HOME RUNS. NO MORE THAN 3 CIRCUITS SHALL BE IN EACH HOME RUN CONDUIT, AND THE WIRE MUST BE DERATED IN ACCORDANCE WITH NEC. THESE CIRCUITS SHALL BE REQUIRED TO BE ON SEPARATE PHASES (A,B,C).
- EC SHALL UPSIZE WIRE IN LONG RUNS ACCORDING TO THE WIRE SIZING TABLE SHOWN BELOW:

WIRE SIZING CHART												
RUN L	ENGTH	CIRCUIT BREAKER										
120V	277V	20A	30A	40A								
000-100'	000-200'	12	10	8								
101-150'	201-300'	10	8	6								
151-200'	301-450'	8	6	4								

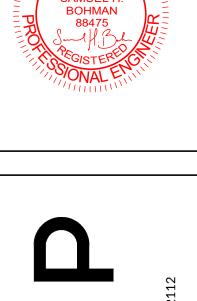
- WHERE ELECTRICAL LOAD ON A CIRCUIT IS OVER 20 AMPERES, EACH CIRCUIT SHALL BE RUN IN A SEPARATE CONDUIT TO THE PANELBOARD.
- EACH BRANCH CIRCUIT SHALL BE PROVIDED WITH A DEDICATED NEUTRAL. EC SHALL NOT SHARE NEUTRALS FOR MULTI-WIRE BRANCH CIRCUITS.

PROVIDE DISCONNECTING MEANS AS REQUIRED BY THE NEC.

- ALL VAV BOXES, EXHAUST FANS, MOTORS, MISC. HVAC EQUIPMENT, APPLIANCES, ETC. INDICATED ON THESE DRAWINGS SHALL HAVE A MOTOR RATED SWITCH LOCATED NEAR THE MOTOR FOR SERVICING.
- HEIGHT DIMENSIONS SHOWN ON THIS PLAN ARE MEASURED FROM THE BOTTOM OF THE DEVICE.
- HORIZONTAL DIMENSIONS ARE MEASURED TO THE CENTER OF THE DEVICE OR GROUP OF DEVICES WHICH THE DIMENSION PERTAINS TO.
- GROUPINGS OF DEVICES LOCATED ON THE SAME WALL AT THE SAME ELEVATION SHALL BE PLACED SO THAT THE HORIZONTAL DISTANCE BETWEEN DEVICES IS NO GREATER THAN 4". PROVIDE ADDITIONAL SUPPORTS AS REQUIRED.
- FOR LIGHT FIXTURE MOUNTING DETAILS, SEE LIGHTING FIXTURE SCHEDULE, ON SHEET E002. CONTRACTOR SHALL REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER WORK OF THE CONTRACT AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES TO PRICE AND SCHEDULE AFFECTING ANY TRADE RESULTING FROM USE OF NON-BASIS OF DESIGN EQUIPMENT.
- ALL NEW ELECTRICAL AND FIRE ALARM WORK SHALL ADHERE TO THE 2024 OHIO BUILDING CODE, 2023 NEC, AND NFPA 72.



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LIGHTING FIXTURE TAGS

- CAPITAL LETTER WITH NUMBER DENOTES FIXTURE TYPE - REFER TO LIGHT FIXTURE SCHEDULE BELOW.
- SMALL LETTER DENOTES SWITCH LEG/RELAY NUMBER - REFER TO E100 SERIES DRAWINGS FOR TYPICAL ROOM LAYOUTS.

STANDARD LIGHTING FIXTURE SYMBOLS

1'x4' RECESSED TROFFER

c10 LINEAR PENDANT

2'x4' RECESSED TROFFER RECESSED DOWNLIGHT CYLINDRICAL PENDANT 2'x2' RECESSED TROFFER

SHOWN ON PLANS, WHITE HOUSING, EMERGENCY BATTERY BACKUP WITH SELF-DIAGNOSTIC

4. SPECIAL LIGHTING REQUIREMENTS:

(NL) NIGHT LIGHTING SHALL BE SET TO NOT ALLOW PATH OF EGRESS TO DIM BELOW 1 FC.

(EM) EMERGENCY LIGHTS SHALL BE BROUGHT TO FULL BRIGHTNESS IN THE EVENT OF POWER LOSS OR FIRE ALARM

ACTUATION. PROVIDE UL 924 RELAY WITH REMOTE TEST AND EMERGENCY SPECIFIC PANELS AS REQUIRED.

EMERGENCY LIGHTING FIXTURES - GRAY FILLED IN AREA DENOTES EMERGENCY FIXTURE. - CONNECT TO EMERGENCY POWER

CIRCUIT AHEAD OF SWITCHING.

- NL DENOTES NIGHT LIGHT.

- SHADED AREA DENOTES FACE - ARROW DENOTES ARROW DIRECTION ABOVE TOP OF NEAREST DOORWAY

DUAL HEAD EMERGENCY FIXTURE

- WHEN ON WALL, MOUNT NO HIGHER THAN 6" 2'x4' RECESSED TROFFER - NIGHT LIGHT

GENERAL NOTES - LIGHTING FIXTURES

A. ALL FIXTURES MARKED 'ED' ARE EXISTING TO BE DEMOLISHED. VERIFY SERVING PANEL AND CIRCUIT NUMBER PRIOR TO DISCONNECTION. REMOVE LIGHTING BRANCH CIRCUITING ABOVE FINISHED CEILING. MAINTAIN HOME RUN CONDUIT FOR CONNECTION TO NEW FIXTURES.

B. ALL FIXTURES MARKED 'ER' ARE EXISTING TO REMAIN. FIXTURES SHALL BE CLEANED AND RELAMPED.

C. ALL FIXTURES MARKED 'ERL' ARE EXISTING TO BE RELOCATED. FIXTURES SHALL BE CLEANED AND RELAMPED.

D. REFER TO LIGHTING CONTROL SCHEMATICS AND LIGHTING CIRCUIT SCHEDULES ON THIS SHEET.

MOUNTED

LIGHT FIXTURE SCHEDULE - INTERIOR OCCUPIED FIXTURE FIXTURE BASIS OF MIN LUMEN COLOR FIXTURE DESCRIPTION LAMP DISTRIBUTION OUTPUT TEMPERATURE CRI VOLTAGE | WATTAGE | MOUNTING METHOD | SPACE TYPE COMMENTS DESIGN ALTERNATE MANUFACTURERS LED DRIVER WITH 0-10V DIMMING | 120 V COLUMBIA CFP, LSI SFP, PHILIPS FXP, RAB EZPAN RECESSED TROFFER, FLAT PANEL, EDGE-LIT, STEEL CONSTRUCTION, DLC RATED, 2' x 4' x LED STANDARD LITHONIA EPANL 29 VA CEILING GRID LITHONIA EPANL COLUMBIA CFP, LSI SFP, PHILIPS FXP, RAB EZPAN RECESSED TROFFER, FLAT PANEL, EDGE-LIT, STEEL CONSTRUCTION, DLC RATED, 2' x 4' x LED LED DRIVER WITH 0-10V DIMMING 120 V RECESSED TROFFER, FLAT PANEL, EDGE-LIT, STEEL CONSTRUCTION, DLC RATED, 2' x 4' x LED LITHONIA EPANL COLUMBIA CFP, LSI SFP, PHILIPS FXP, RAB EZPAN LED DRIVER WITH 0-10V DIMMING 277 V CEILING GRID EMERGENCY LIGHT, DUAL HEAD, THERMOPLASTIC, WHITE FINISH, INTEGRAL BATTERY PACK LED WIRE AHEAD OF LOCAL SWITCHING DUAL-LITE LZ2 BARRON LED-60, LSI EAS, LITHONIA ELM2, SURE-LITES SEL25 CEILING / WALL MOUNTED EXIT SIGN, DOUBLE FACE, RED LETTERS, THERMOPLASTIC, DIRECTIONAL ARROWS AS LED N/A DUAL-LITE EVE LITHONIA LQM, APPROVED EQUALS CEILING/WALL WIRED TO UNSWITCHED CIRCUIT 120 V

LIGHTING CONTROL MATRIX NOTES

- 1. CONTRACTOR SHALL PROVIDE MOTION SENSORS, ROOM CONTROLLERS, AND ACCESSORIES AS REQUIRED FOR A FULLY OPERATIONAL SYSTEM. SYSTEM FUNCTIONALITY SHALL COMPLY WITH THE REQUIREMENTS OF THE OHIO ENERGY CODE. IT IS THE RESPONSIBILITY OF THE EC TO REVIEW MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO ROUGH-IN. PROVIDE ADDITIONAL ROOM CONTROLLERS/POWER PACKS AND ASSOCIATED WIRING FOR MULTIPLE SWITCH LEG LOCATIONS AS REQUIRED. SEE PLANS FOR EXACT SWITCH LEGS WITH-IN EACH AREA OR ROOM.
- 2. LOCATE AND AIM SENSORS IN THE CORRECT LOCATION REQUIRED FOR PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE(S) OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS.
- 3. COORDINATE QUANTITIES, LOCATIONS OF ALL LIGHTING CONTROLS OVERRIDES WITH OWNER PRIOR TO ROUGH-IN.

					:6-LIGHTING CO	NTROL MATRIX	
	WALL CO	NTROL STATION				TIC CONTROL	
ROOM NAME	TYPE	CONTROL SEQUENCE	TYPE	ACTIVATION	TIMEOUT	SCHEDULING	NOTES
BOYS RR	N/A	N/A	OCCUPANCY SENSOR	AUTOMATIC	15 MIN	N/A	
CALMING ROOM	LINE VOLTAGE	ON / OFF / DIM	OCCUPANCY SENSOR	MANUAL	20 MIN	N/A	
CLASSROOM	LINE VOLTAGE	ON / OFF / DIM	OCCUPANCY SENSOR	MANUAL	20 MIN	N/A	
CLINIC	LINE VOLTAGE	ON / OFF / DIM	OCCUPANCY SENSOR	MANUAL	20 MIN	N/A	
CORRIDOR	N/A	N/A	OCCUPANCY SENSOR	AUTOMATIC	20 MIN	N/A	LIGHTING CONTROLS TO TIE INTO EXISTING CORRIDOR SWITCH OVERRIDE.
OFFICE	LINE VOLTAGE	ON / OFF / DIM	OCCUPANCY SENSOR	MANUAL	20 MIN	N/A	

POWERED EQUIPMENT LEGEND

- A. COORDINATE ALL ELECTRICAL REQUIREMENTS, INCLUDING ROUGH-IN LOCATION, CONNECTION TYPE, AND POWER REQUIREMENTS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
- B. WIRING TERMINATIONS TO EQUIPMENT SHALL BE DONE PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
- C. LOCATIONS OF DEVICES SHOWN ON DRAWINGS ARE SCHEMATIC IN NATURE. COORDINATE LOCATIONS WITH EQUIPMENT INSTALLER.
- D. BRANCH WIRING TO EQUIPMENT SHALL BE COPPER.
- E. CONNECTIONS, LOCAL DISCONNECTS, STARTERS, AND VFDS SHALL BE COORDINATED WITH MECHANICAL AND PLUMBING CONTRACTORS TO ENSURE ACCESS AND WORKING CLEARANCE IS MAINTAINED PER NEC.

	26-POWERED EQUIPMENT SCHEDULE															
		STARTING MEANS			DISCONNECTING MEANS				ELECTRICAL							
		SPECIFICATION			INSTALLED				INSTALLED							
MARK	DESCRIPTION	SECTION	TYPE	PROVIDED BY	BY	LOCATION	TYPE	PROVIDED BY	BY		LOCATION	VOLTS	POLES	AMPS	MOCP	WIRING NOTES
.C-1	WINDOW AIR CONDITIONING UNIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT		240 V	2	11.1 A	20.0 A	PROVIDE NEMA 6-20R ADJACENT TO UNIT FOR CONNECTION.
C-2	WINDOW AIR CONDITIONING UNIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT		240 V	2	11.1 A	20.0 A	PROVIDE NEMA 6-20R ADJACENT TO UNIT FOR CONNECTION.
C-3	WINDOW AIR CONDITIONING UNIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT		240 V	2	11.1 A	20.0 A	PROVIDE NEMA 6-20R ADJACENT TO UNIT FOR CONNECTION.
C-4	WINDOW AIR CONDITIONING UNIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	RECEPTACLE	DIV. 26	DIV. 26	NEAR UNIT		120 V	1	9.5 A	15.0 A	PROVIDE NEMA 5-15R ADJACENT TO UNIT FOR CONNECTION.
.1	GAS BOILER CONTROL CIRCUIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT		120 V	1	4.0 A	20.0 A	
-2	GAS BOILER CONTROL CIRCUIT	23	CONTROL PANEL	DIV. 23	DIV. 23	INTEGRAL TO UNIT	MRTS	DIV. 26	DIV. 26	NEAR UNIT		120 V	1	4.0 A	20.0 A	
P-1	BOILER PUMP	23	VFD	DIV. 23	DIV. 26	NEAR UNIT	VFD	DIV. 23	DIV. 26	NEAR UNIT		240 V	3	6.0 A	15.0 A	
-2	BOILER PUMP	23	VFD	DIV. 23	DIV. 26	NEAR UNIT	VFD	DIV. 23	DIV. 26	NEAR UNIT		240 V	3	6.0 A	15.0 A	
WP-1	HEATER HOT WATER PUMP	23	VFD	DIV. 23	DIV. 26	NEAR UNIT	DISCONNECT SWITCH	DIV. 26	DIV. 26	NEAR UNIT		240 V	3	15.2 A	30.0 A	

LIGHTING CONTROL SYMBOL LEGEND

OCCUPANCY/VACANCY SENSOR X INDICATES SENSOR TYPE OR SPECIAL NOTE. IF OMITTED, SENSOR IS DUAL FUNCTION OCCUPANCY/VACANCY SENSOR.

STEM INDICATES WALL MOUNTED AT

10'-0" AFF UNO

WALL CONTROL STATION

SX INDICATES CONTROL STATION TYPE OR SPECIAL NOTE. IF OMITTED, CONTROL STATION IS SINGLE POLE SWITCH.

a/b/c INDICATES ZONE OF CONTROL. REFER TO DRAWINGS.

CONTROL STATION TYPES CS1 CONTROL STATION - ON/OFF/DIM LIGHTING SWITCH

OSD OCCUPANCY SENSOR - DIMMING

OF "\$" INDICATES NUMBER OF **SWITCHES**

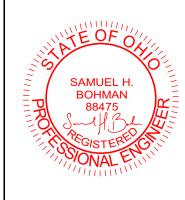
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ELECTRICAL LEGENDS

COMM NO. 2024081.0⁻²



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CINCINNATI, OH 45202 - 513.381.2112

312 PLUM ST CINCINNATI, OH

LTERATIONS TO WEIGEL ELEM SCHO
3242 BANNING ROAD, CINCINNATI OH, 45239
NORTHWEST LOCAL SCHOOL DISTRICT
3240 BANNING ROAD, CINCINNATI, OH 45239

ISSUANCES

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ELECTRICAL DEMOLITION PLAN

COMM NO. 2024081.01

SAMUEL H.
BOHMAN
88475

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NORTHWEST LOCAL SCHOOL DISTRICT
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ELECTRICAL LIGHTING PLAN

COMM NO. 2024081.0⁻²

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M SCHOOL

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NORTHWEST LOCAL SCHOOL DISTRIC 3240 BANNING ROAD, CINCINNATI, OH 45239

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ELECTRICAL POWER PLAN

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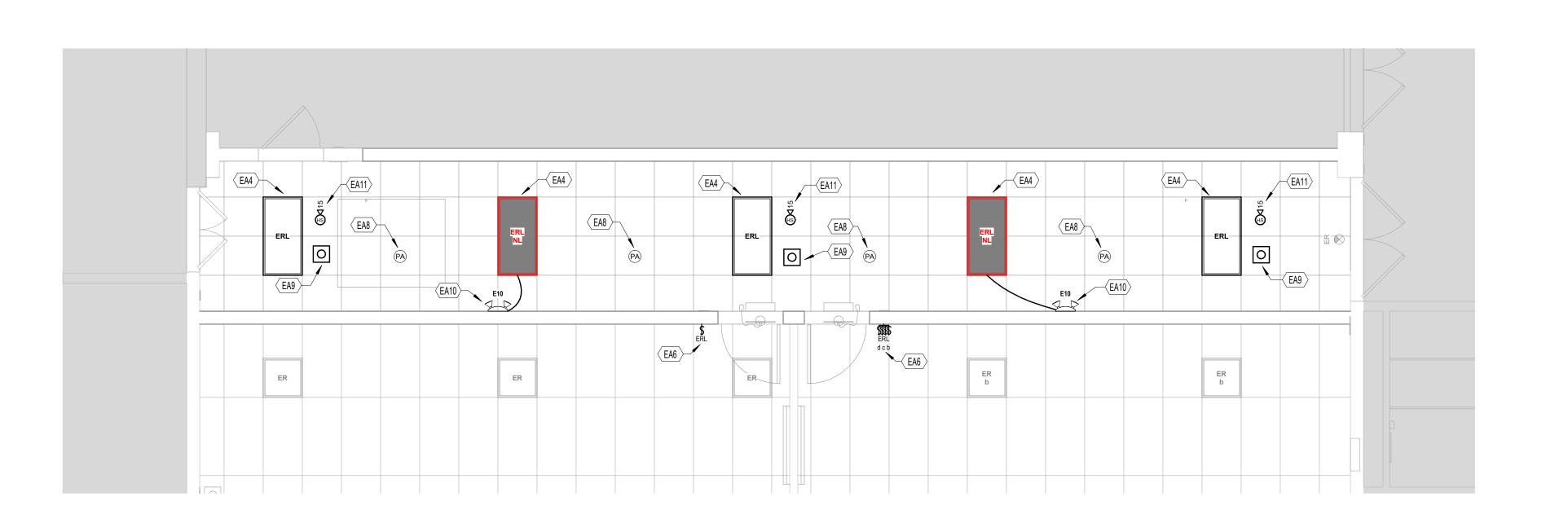
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ELECTRICAL FIRE ALARM PLAN

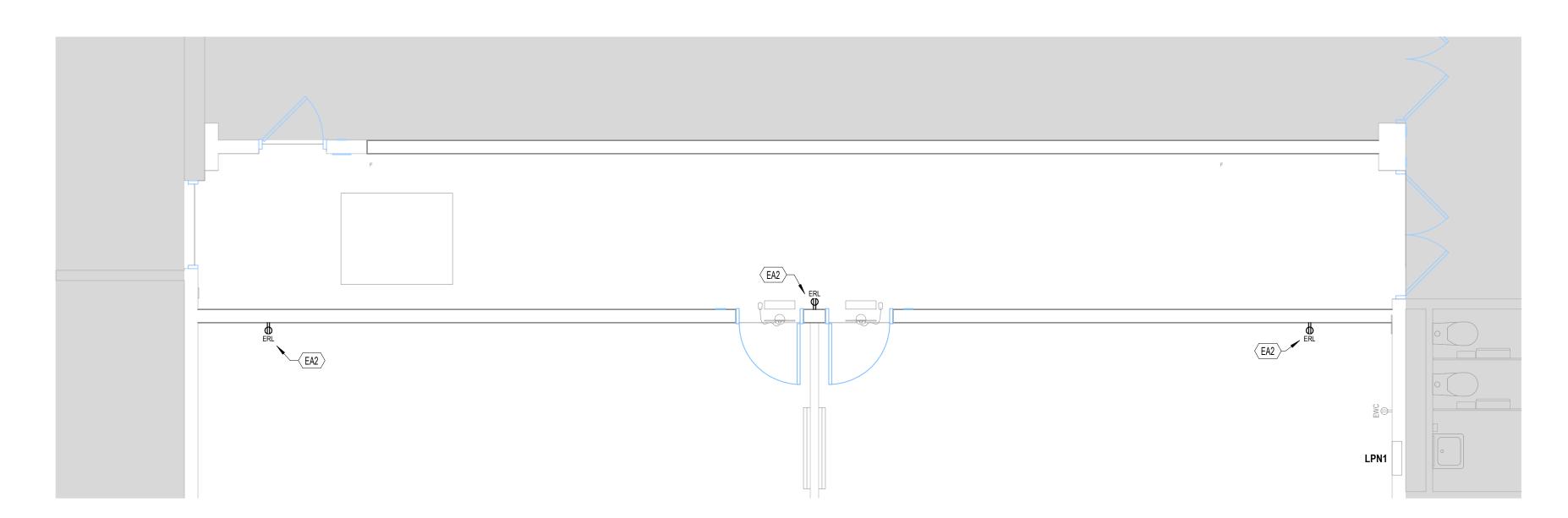
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FIRST FLOOR LIGHTING & FIRE ALARM PLAN ALTERNATE

1/4" = 1'-0"



FIRST FLOOR POWER PLAN ALTERNATE

1/4" = 1'-0"

DEMOLITION DRAWING NOTES

- A. DRAWING IS BASED ON FIELD OBSERVATIONS AND EXISTING DRAWINGS. NOTIFY CM OF DISCREPANCIES DUE TO ACTUAL FIELD CONDITIONS BEFORE PROCEEDING.
- B. FIXTURES, DEVICES, AND EQUIPMENT DENOTED BY BOLD, DASHED LINE TYPE OR LABELED BY ED GENERALLY INDICATES EQUIPMENT TO BE DEMOLISHED. REFER TO DRAWING NOTES AND KEYNOTES FOR FULL EXTENT OF ASSOCIATED DEMOLITION WORK AND ITEMS TO REMAIN. UNLESS OTHERWISE NOTED, REMOVE WIRING BACK TO ABOVE FINISHED CEILING. MAINTAIN CIRCUITS FOR CONNECTION TO NEW DEVICES. REFER TO E200 SERIES DRAWINGS.
- C. PROVIDE BLANK COVERS FOR RECESSED BACKBOXES MADE AVAILABLE THROUGH DEMOLITION, UNLESS NOTED FOR REUSE. REFER TO E200 SERIES DRAWINGS.

GENERAL LIGHTING NOTES:

- A. EXIT SIGNS AND EMERGENCY LIGHTING SHALL BE CONNECTED AHEAD OF ALL SWITCHING. REFER TO E000 SERIES DRAWINGS FOR DETAILS.
- B. POWER FOR EXIT SIGNS MOUNTED AT LOCATIONS WITH GLAZING, SUCH AS CURTAINWALLS OR STOREFRONT, SHALL BE CONCEALED THROUGH

GENERAL POWER NOTES:

- A. REFER TO E000 SERIES SHEETS FOR PANEL AND CIRCUIT NUMBERS FOR MECHANICAL AND PLUMBING EQUIPMENT.
- B. REFER TO E000 SERIES SHEETS FOR STARTER AND DISCONNECT TYPES AND CONTRACTOR RESPONSIBILITIES. STARTER AND DISCONNECT LOCATIONS TO BE NEAR EQUIPMENT WITH PROPER CLEARANCE AND WORKING SPACE PER NEC. COORDINATE MOUNTING WITH OTHER DISCIPLINES.
- C. EC SHALL BE RESPONSIBLE TO INSTALL A SWITCH BOX AND 3/4"
 CONDUIT TO ABOVE THE ACCESSIBLE CEILING IN EACH ROOM FOR
 TEMPERATURE CONTROL THERMOSTAT. DEVICES SHOWN ON
 ELECTRICAL DRAWINGS ARE FOR REFERENCE ONLY. REFER TO THE M
 SERIES DRAWINGS FOR THERMOSTAT LOCATIONS.
- D. ALL NEW 15A AND 20A, 125V AND 250V, NON-LOCKING TYPE RECEPTACLES IN LOCATIONS AS REQUIRED BY NEC 406.12 SHALL BE
- TAMPER-RESISTANT RECEPTACLES.
 E. COORDINATE ALL ELECTRICAL REQUIREMENTS, INCLUDING ROUGH-IN LOCATION, CONNECTION TYPE, AND POWER REQUIREMENTS WITH
- F. PRIOR TO DEVICE ROUGH-IN, REFER TO E000 SERIES SHEETS FOR DEVICE LEGENDS AND SPECIALTY INFORMATION.

EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.

G. PRIOR TO DEVICE ROUGH-IN, REFER TO E000 SERIES SHEETS FOR SPECIALTY MOUNTING DETAILS.

GENERAL FIRE ALARM NOTES:

- A. FIRE ALARM DRAWINGS INDICATE A BASIS OF DESIGN FOR LOCATIONS AND QUANTITIES OF DEVICES, APPLIANCES, CONTROL PANELS, ETC. FIRE ALARM SYSTEM DESIGNER SHALL REVISE THE PLANS AS REQUIRED TO MEET ALL CODE AND PROJECT REQUIREMENTS. FIRE ALARM SYSTEM SHALL BE DESIGNED BY A LICENSED FIRE ALARM SYSTEM DESIGNER.
- B. CEILING MOUNTED VISUAL ALARM NOTIFICATION DEVICES SHALL BE MOUNTED BELOW THE LOWEST OBSTRUCTION. PROVIDE HARDWARE AS REQUIRED FOR PENDANT TYPE INSTALLATION.

KEYNOTES

- EA1 DISCONNECT AND RELOCATE EXISTING RECEPTACLE TO NEW LOCATION AS PART OF ALTERNATE #1. RE-USE FEEDERS WHERE POSSIBLE AND RE-USE EXISTING CIRCUIT. REFER TO NEW ALTERNATE PLANS FOR RELOCATED DEVICE LOCATION.
- EA2 RELOCATE EXISTING RECEPTACLE TO NEW LOCATION AS PART OF ALTERNATE #1. REFER TO DEMOLITION ALTERNATE PLANS FOR PREVIOUS LOCATION.
- EA3 DISCONNECT AND RELOCATE EXISTING LIGHT FIXTURE TO NEW LOCATION AS PART OF ALTERNATE #1. RE-USE FEEDERS WHERE POSSIBLE AND RE-USE EXISTING CIRCUIT. REFER TO NEW ALTERNATE PLANS FOR RELCOATED FIXTURE LOCATION.
- EA4 RELOCATE EXISTING LIGHT FIXTURE TO NEW LOCATION AS PART OF ALTERNATE #1. REFER TO DEMOLITION ALTERNATE PLANS FOR PREVIOUS LOCATION.
- DISCONNECT AND RELOCATE EXISTING LIGHTING CONTROL DEVICE TO NEW LOCATION AS PART OF ALTERNATE #1.

 REFER TO NEW ALTERNATE PLANS FOR RELOCATED DEVICE LOCATION.
- RELOCATE EXISTING LIGHTING CONTROL DEVICE TO NEW LOCATION AS PART OF ALTERNATE #1. REFER TO DEMOLITION ALTERNATE PLANS FOR PREVIOUS LOCATION. RELOCATED LIGHTING CONTROL DEVICE SHALL ONLY CONTROL FIXTURES WITHIN THE ENCLOSED AREA. RE-WORK EXISTING LIGHTING CONTROL DEVICE(S) AND
- DISCONNECT AND RELOCATE EXISTING SPEAKER TO NEW LOCATION AS PART OF ALTERNATE #1. REFER TO NEW

ALTERNATE PLANS FOR RELOCATED DEVICE LOCATION.

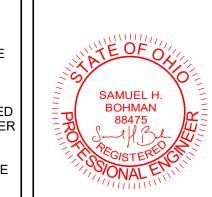
CONTROL WIRING AS NECESSARY.

- RELOCATE EXISTING SPEAKER TO NEW LOCATION AS PART OF ALTERNATE #1. REFER TO DEMOLITION ALTERNATE PLANS FOR PREVIOUS LOCATION. COORDINATE EXACT LOCATIONS IN FIELD BASED ON OWNER DIRECTION.
- EA9 PROVIDE NEW LIGHTING CONTROL DEVICE AS PART OF ALTERNATE #1. LIGHTING CONTROL DEVICE SHALL ONLY CONTROL FIXTURES IN ENCLOSED AREA.
- EA10 PROVIDE NEW EMERGENCY LIGHT FIXTURE AS PART OF ALTERNATE #1.

EXISTING FIRE ALARM SYSTEM.

PROVIDE NEW FIRE ALARM NOTIFICATION DEVICE AS PART
OF ALTERNATE #1. DEVICE SHALL INTEGRATE WITH

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ELECTRICAL ALTERNATE PLANS

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