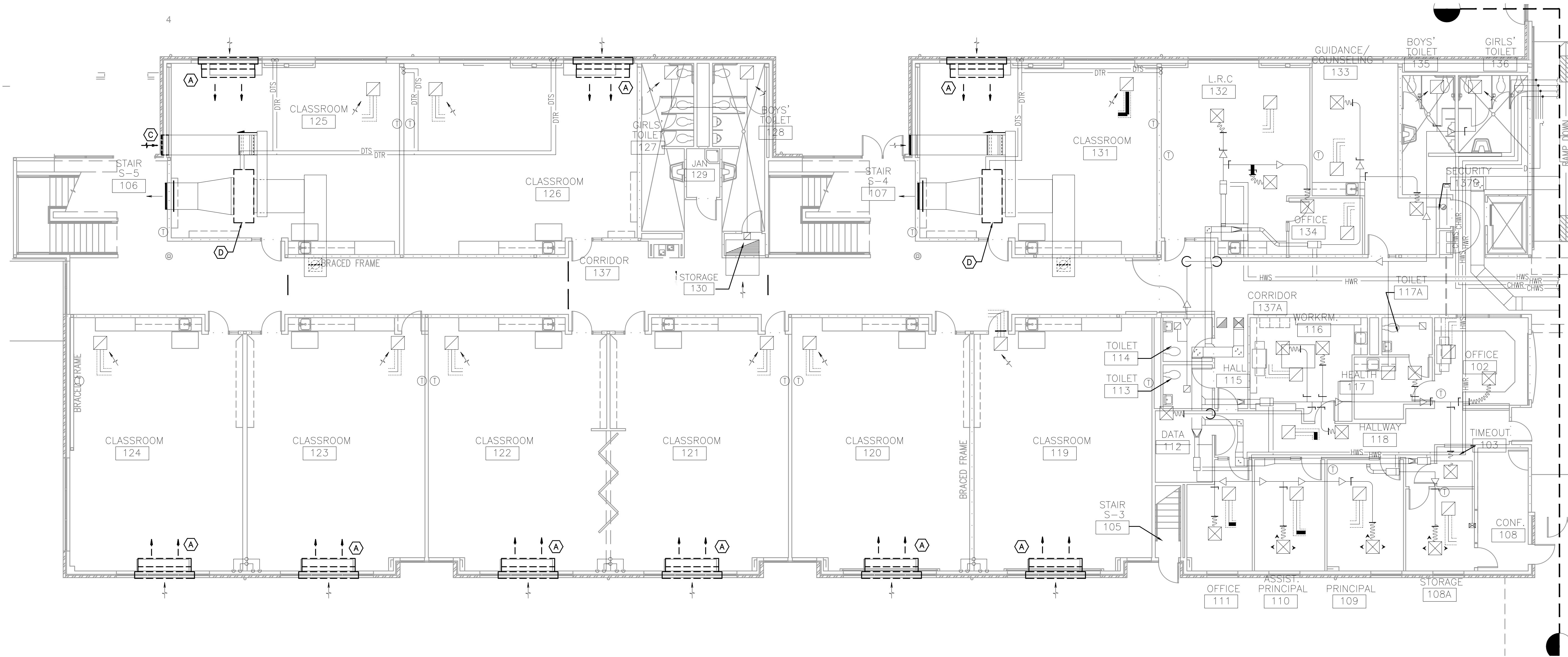


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**MECHANICAL DEMO PLAN NOTES: (X)**

- A. EXISTING SINGLE COIL UNIT VENTILATOR TO BE REMOVED AND REPLACED W/ NEW DOUBLE COIL UNIT VENTILATOR.
- B. DEMO EXISTING CHANGEOVER VALVE STATION.
- C. DEMO EXISTING OSA INTAKE LOUVER AND PORTION OF DUCT FOR NEW CONNECTION TO NEW LOUVER LOCATION.
- D. EXISTING HORIZONTAL UNIT VENTILATOR TO BE REMOVED FOR REPLACEMENT. COORDINATE W/ ARCHITECT FOR REMOVAL OF EXISTING CEILING AS REQUIRED FOR REPLACEMENT OF UNIT. DISCONNECT AND REMOVE ANY EXISTING DUCTWORK/PIPING AS REQUIRED.

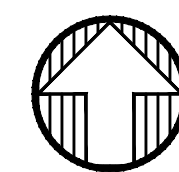


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**HALLMAN ELEMENTARY SCHOOL**  
4000 DEERHAVEN DR. NE  
SALEM, OR

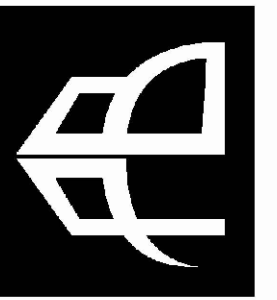
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CHECKED BY: SWM  
DATE: 8-27-21  
TITLE: 1ST FLOOR MECHANICAL DEMO PLAN  
SCALE: 1/8"=1'-0"

SHEET NO:  
**M1.0**  
1 OF 7



**1** MECHANICAL DEMO PLAN - 1ST FLR  
SCALE: 1/8"=1'-0"

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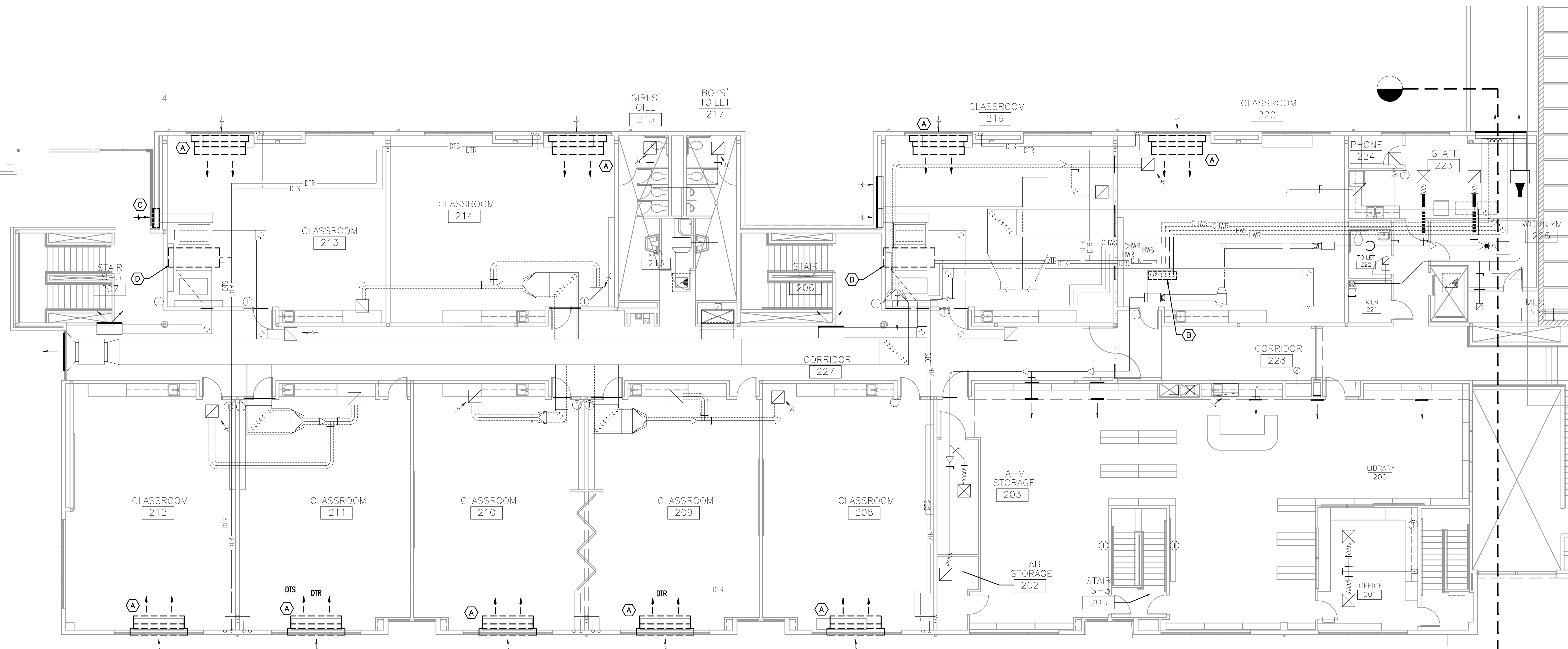


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**1** MECHANICAL DEMO PLAN - 2ND FLR  
 M1.1 SCALE: 1/8"=1'-0"

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 SALEM, OR

DRAWN BY: ARJ  
 CHECKED BY: SWM  
 DATE: 8-27-21  
 TITLE: 2ND FLOOR MECHANICAL DEMO PLAN  
 SCALE: 1/8"=1'-0"

SHEET NO:  
**M1.1**  
 2 OF 7

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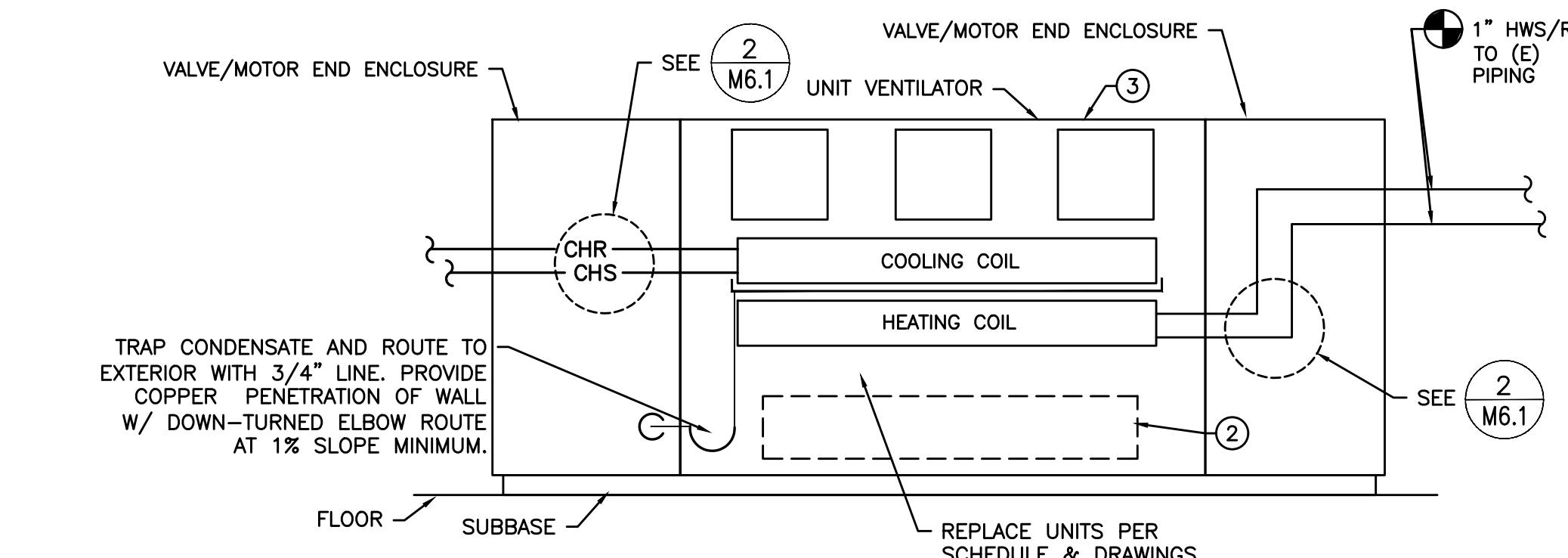
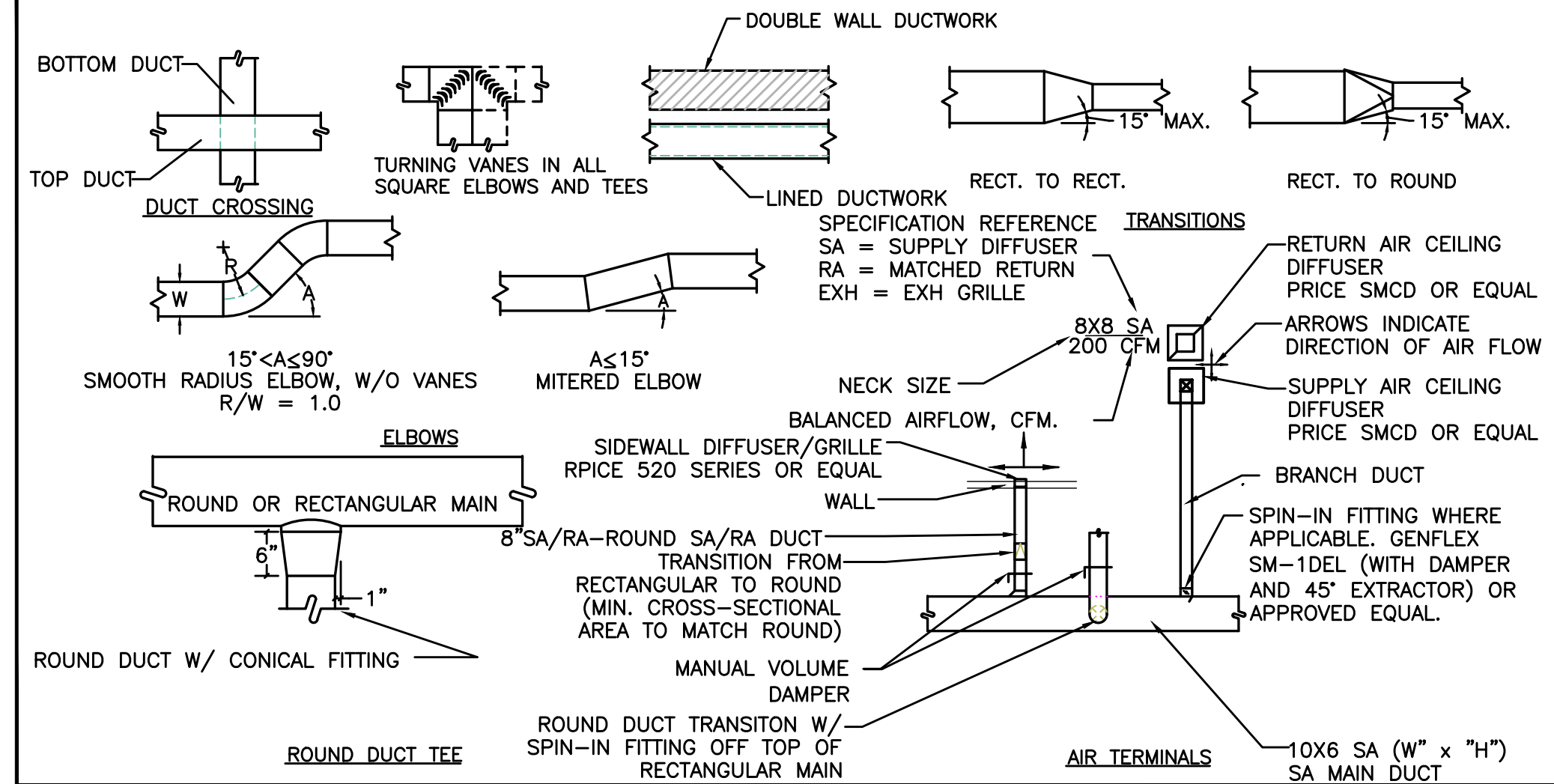




# MECHANICAL LEGEND

	SUPPLY AIR DIFFUSER	AFF	ABOVE FINISH FLOOR
	RETURN AIR DIFFUSER	AHU	AIR HANDLING UNIT
	EXHAUST AIR DIFFUSER	B.D.	BOTTOM OF DUCT
	DIRECTIONAL AIR FLOW	BHP	BRAKE HORSEPOWER
	MANUAL VOLUME DAMPER	BOG	BOTTOM OF GRILLE
	SUPPLY AIR DUCT UP & DOWN	BTU	BRITISH THERMAL UNITS
	RETURN AIR DUCT UP & DOWN	CFM	CUBIC FEET PER MINUTE
	EXHAUST OR OUTSIDE AIR DUCT UP & DOWN	CONN.	CONNECTION
	SUPPLY AIR DUCT UP & DOWN	CONT.	CONTINUATION
	RETURN AIR DUCT UP & DOWN	CW	DOMESTIC COLD WATER
	EXHAUST OR OUTSIDE AIR DUCT UP & DOWN	DB	DRY BULB
	VAV TERMINAL UNIT W/ REHEAT COIL	DIA.	DIAMETER
	DEMOLISH	DIST.	DISTRIBUTION
	CONNECT TO EXISTING	EXH	EXHAUST AIR
	THERMOSTAT	EDB	ENTERING DRY BULB TEMPERATURE
	TEMPERATURE SENSOR	EWB	ENTERING WET BULB TEMPERATURE
	NOTE	EWT	ENTERING WATER TEMPERATURE
	EQUIPMENT DESIGNATOR	FF	FINISH FLOOR
	GAS REGULATOR	FIXT.	FIXTURE
	GATE VALVE	F.O.B.	FLAT ON BOTTOM
	CHECK VALVE	FPM	FEET PER MINUTE
	BALANCING VALVE	FPS	FEET PER SECOND
	THERMOMETER	FT.	FEET / FOOT
	DIRECTION OF FLOW	GA.	GAUGE
	PUMP	GAEXH	GREASE EXHAUST AIR DUCT
	STRAINER	OPM	OPALLONS PER MINUTE
	PRESSURE GAUGE	H	HEIGHT
	PETE'S PLUG	HP	HORSEPOWER
	DOUBLE CHECK ASSEMBLY	I.D.	INSIDE DIAMETER
	PRESSURE REDUCING VALVE	IN.	INCHES
	UNION	L	LENGTH
	2-WAY CONTROL VALVE	LBS.	POUNDS
	3-WAY CONTROL VALVE	LDB	LEAVING DRY BULB
	CAP	LWB	LEAVING WET BULB
	MOTORIZED DAMPER	LWT	LEAVING WATER TEMPERATURE
	BALL SHUT OFF VALVE	MA	MAKE UP AIR
	FIRE DAMPER	MAX.	MAXIMUM
	FIRE / SMOKE DAMPER	MBH	THOUSANDS OF BTUs PER HOUR
		MD	MOTORIZED DAMPER
		MIN.	MINIMUM
		MVD	MANUAL VOLUME DAMPER
		NC	NOISE CRITERIA
		N.C.	NORMALLY CLOSED
		N.I.M.	NOT IN MECHANICAL
		NO.	NUMBER
		N.O.	NORMALLY OPEN
		O.A.	OUTSIDE AIR
		P	PERSON
		PSI	POUNDS PER SQUARE INCH
		P/T	PRESSURE / TEMPERATURE
		R.A.	RETURN AIR
		RECT.	RECTANGULAR
		REQ'D	REQUIRED
		S.A.	SUPPLY AIR
		S.P.	STATIC PRESSURE
		SO.	SQUARE
		TEMP.	TEMPERATURE
		TYP.	TYPICAL
		VAV	VARIABLE AIR VOLUME
		W	WIDTH
		WB	WET BULB
		WPD	WATER PRESSURE DROP
		Ø	DIAMETER
			(HWS) HEATING WATER SUPPLY
			(HWR) HEATING WATER RETURN
			(HWRR) HEATING WATER REVERSE RETURN
			(CHS) CHILLED WATER SUPPLY
			(CHR) CHILLED WATER RETURN
			(PC) PUMPED CONDENSATE
			(HPS) HIGH PRESSURE STEAM
			(HT) HEAT TRACED DOMESTIC HOT WATER

# AIR DISTRIBUTION DETAILS

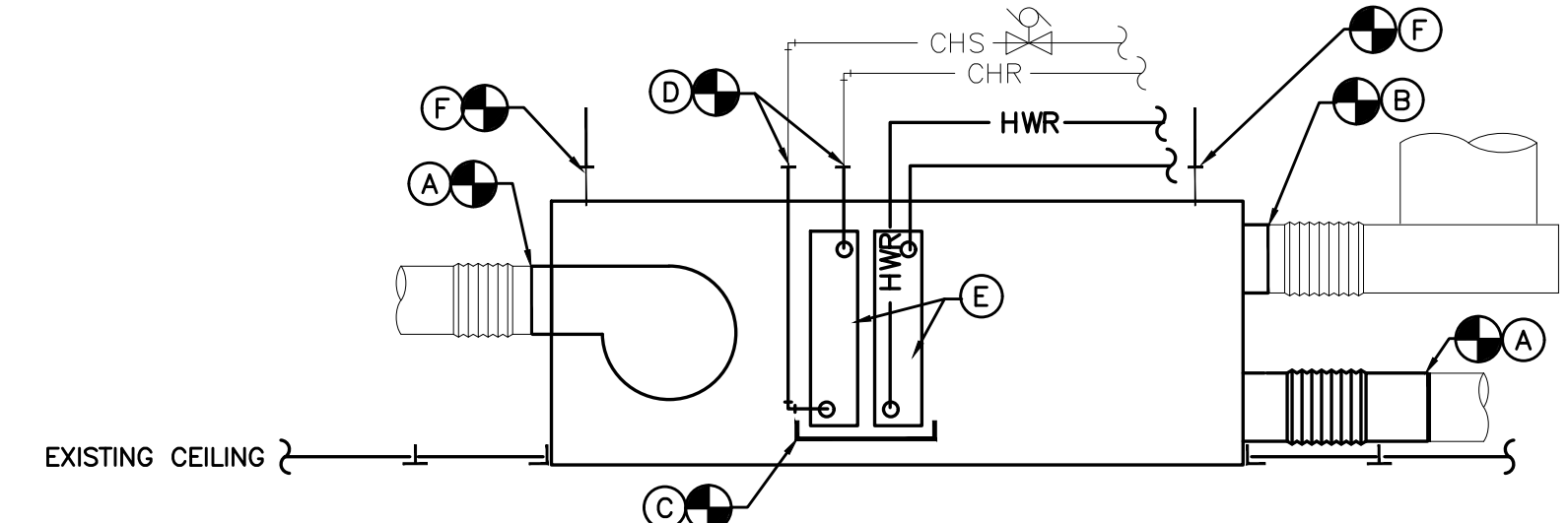


- NOTES:
- 1) CONFIRM WHICH SIDE OF THE UNIT THE CONNECTION FOR HEATING WATER IS PRIOR TO ORDERING / SUBMITAL. NEW UNITS TO MATCH SITE CONNECTION. NOTE: TRANSITION BEHIND U.V. MAY BE NECESSARY FOR CHILLED WATER AND HEATING COIL CONNECTIONS TO BE MADE ON OPPOSITE ENDS OF UNITS.
  - 2) RE USE EXISTING LOUVER, CLEAN LOUVER. CENTER UNIT AT EXISTING LOUVER FOR NEW CONNECTION TO NEW UNIT.
  - 3) SET TOP TO MATCH EXISTING.
  - 4) PROVIDE MOCK-UP INCLUDING CONTROLS TO REVIEW PRIOR TO INSTALLING MORE THAN ONE UNIT.

**1 UNIT VENTILATOR - VERTICAL**  
SCALE: DETAIL

## DETAIL 2/M6.0 NOTES: (X)

- CONNECT NEW SA/RA FROM UNIT TO (E) SA/RA DUCT. MODIFY (E) DUCTWORK AS NEEDED FOR NEW CONNECTION.
- CONNECT NEW OSA FROM UNIT TO (E) OSA DUCT/FLEX. ALTER ELEVATION AND CONNECTION TO HOOD AS REQUIRED TO CLEAR NEW RA DUCT.
- CONNECT TO (E) COPPER CONDENSATE DRAIN W/ TRAP.
- CONNECT (E) PIPING (NOW USED ONLY FOR CHILLED WATER OPERATION) TO CHILLED WATER COIL. RE-USE (E) VALVE AND COIL TRIM.
- SEE DETAIL 2/M6.3 & 3/M6.3 FOR COIL CONNECTION. SEE SCHEDULE FOR VALVE TYPE.
- CONNECT TO (E) SUPPORT, MAINTAIN (E) VIBRATION ISOLATION MEANS.
- TRANSITION UP FOR LIGHTS AS REQUIRED.



**2 UNIT VENTILATOR - HORIZONTAL**  
SCALE: DETAIL

## AIR HANDLERS

MARK NUMBER	AHU 106	AHU 206
SYSTEM	NEW CLASSROOM 106	NEW CLASSROOM 206
TYPE		
CFM	1200	1200
MIN OSA CFM		
EXTERNAL STATIC PRESS (" H2O)	2.5	2.5
RPM	2206	2206
MOTOR H.P.	2.1	2.1
BRAKE H.P.	0.83	0.83
ISOLATION		
SHAFT GROUNDING	NO	NO
WHEEL TYPE		
WHEEL DIA ("	NO	NO
SPEED CONTROLLER		
MIN. FILTER AREA (SQ FT)		
PRIMARY FILTER TYPE		
EXHAUST FILTER TYPE		
SMOKE DETECTOR		
CFM	1200	1200
ENTERING AIR TEMP (°F)(DB/WB)	44	44
LEAVING AIR TEMP (°F)(DB/WB)	56	56
NOMINAL CAPACITY (MBH)	42.92	42.92
SENSIBLE CAPACITY (MBH)	38.30	38.30
AMBIENT AIR (°F)	95	95
EFFICIENCY EER (ARI)		
MIN FACE AREA (SQ. FT)		
MAX AIR PRESS DROP ("H2O)		
TYPE	HOT WATER	HOT WATER
CFM	1200	1200
UNIT SIZE (SQ FT)		
MAX FACE VELOCITY (FPM)		
ENTERING AIR TEMP (°F)	50	50
LEAVING AIR TEMP (°F)	80	80
ENTERING WATER TEMP (°F)	140	140
LEAVING WATER TEMP (°F)	110	110
TOTAL CAPACITY (MBH)	40.5	40.5
FLOW RATE (GPM)	2.6	2.6
MIN ROWS		
MAX AIR PRESS DROP ("H2O)		
MAX WATER PRESS DROP ("H2O)		
VALVE (2-WAY / 3-WAY)	2-WAY	2-WAY
ELECTRICAL (VOLT/PHASE)	208/1	
FLUID	20% PROPYLENE GLYCOL	
BASIS OF DESIGN	AAON H3	

## UNIT VENTILATOR SCHEDULE - CLASSROOMS & HALL

MARK NUMBER	UV 106	UV 107	UV 119	UV 120	UV 121	UV 122	UV 123	UV 124	UV 125	UV 126	UV 131	UV 206	UV 207	UV 208	UV 209	UV 210	UV 211	UV 212	UV 213	UV 214	UV 219	UV 220
LOCATION	STAIR 106	STAIR 107	CR 119	CR 120	CR 121	CR 122	CR 123	CR 124	CR 125	CR 126	CR 131	STAIR 206	STAIR 207	CR 208	CR 209	CR 210	CR 211	CR 212	CR 213	CR 214	CR 219	CR 220
EXISTING UNIT DIMENSIONS (SEE NOTE 4)	96L X 32H X 14D																					
NEW UNIT DIMENSIONS	98L X 30H X 16.6D																					
TOTAL CFM (HIGH SPEED)	1500																					
OSA MINIMUM	SEE VENTILATION SCHEDULE. CONSULT ENGINEER PRIOR TO AIR BALANCE																					
UNIT STYLE (VERTICAL OR HORIZONTAL)	HORIZ.											VERTICAL										
HEATING	HEATING COIL INLET/OUTLET TEMP: 57/107 HEATING WATER TEMP: 140/110 HEATING COIL PRESSURE DROP: 6.0 FT H2O HEATING WATER FLOW RATE: 4.8 HEATING CAPACITY (BTU/HR): 62400																					
LOUVER SIZE	EXISTING SEE NOTE #1																					
% PROPYLENE GLYCOL	15% FOR HEATING AND 20% FOR COOLING																					
COOLING	ENTERING AIR TEMP (°F) (DB/WB): 83/64 LEAVING AIR TEMP (°F) (DB/WB): 56/53 TOTAL CAPACITY (BTU/HR): 38169 SENSIBLE CAPACITY (BTU/HR): 32720 CHILLED WATER GPM: 6.4 EWT/LWT: 44/56 CHILLED WATER P.D.: 4.2 FT H2O																					
CONTROL VALVE HEATING	2-WAY																					
CONTROL VALVE COOLING	2-WAY																					
ELECTRICAL (VOLTAGE/MOTOR/AMP)	120V / 0.25 / 4.4																					
BASIS OF DESIGN:	DAIKIN AVS S15A											DAIKIN AVS S15A										

## UNIT VENTILATOR NOTES:

1. RE-USE EXISTING LOUVER (AND GRILLE). REMOVE BIRD SCREEN, CLEAN LOUVER AND APPLY NEW GALV. BIRD SCREEN.
  2. SEE SPECS FOR ALTERNATE RELATED TO UNIT CONTROLS.
  3. PROVIDE WITH SUB BASE TO MATCH EXISTING UNIT HEIGHT.
  4. CONTRACTOR TO VERIFY ALL SITE CONDITIONS, DIMENSIONS, AND UNIT HAND PRIOR TO EQUIPMENT SUBMITTAL.
  5. NOT USED
  6. NOT USED
- \* SEE SPECS FOR FURTHER DETAIL.



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A NEW PROJECT FOR:

SALEM KEIZER SCHOOL DISTRICT AT

**HALLMAN ELEMENTARY SCHOOL**

SALEM, OR

4000 DEERHAVEN DR. NE

DRAWN BY: ARJ

CHECKED BY: SWM

DATE: 8-27-21

TITLE: MECHANICAL SCHEDULES & DETAILS

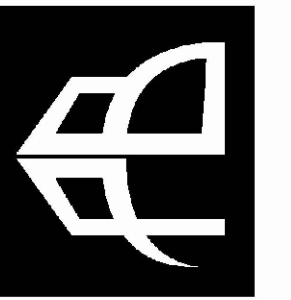
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**M6.0**

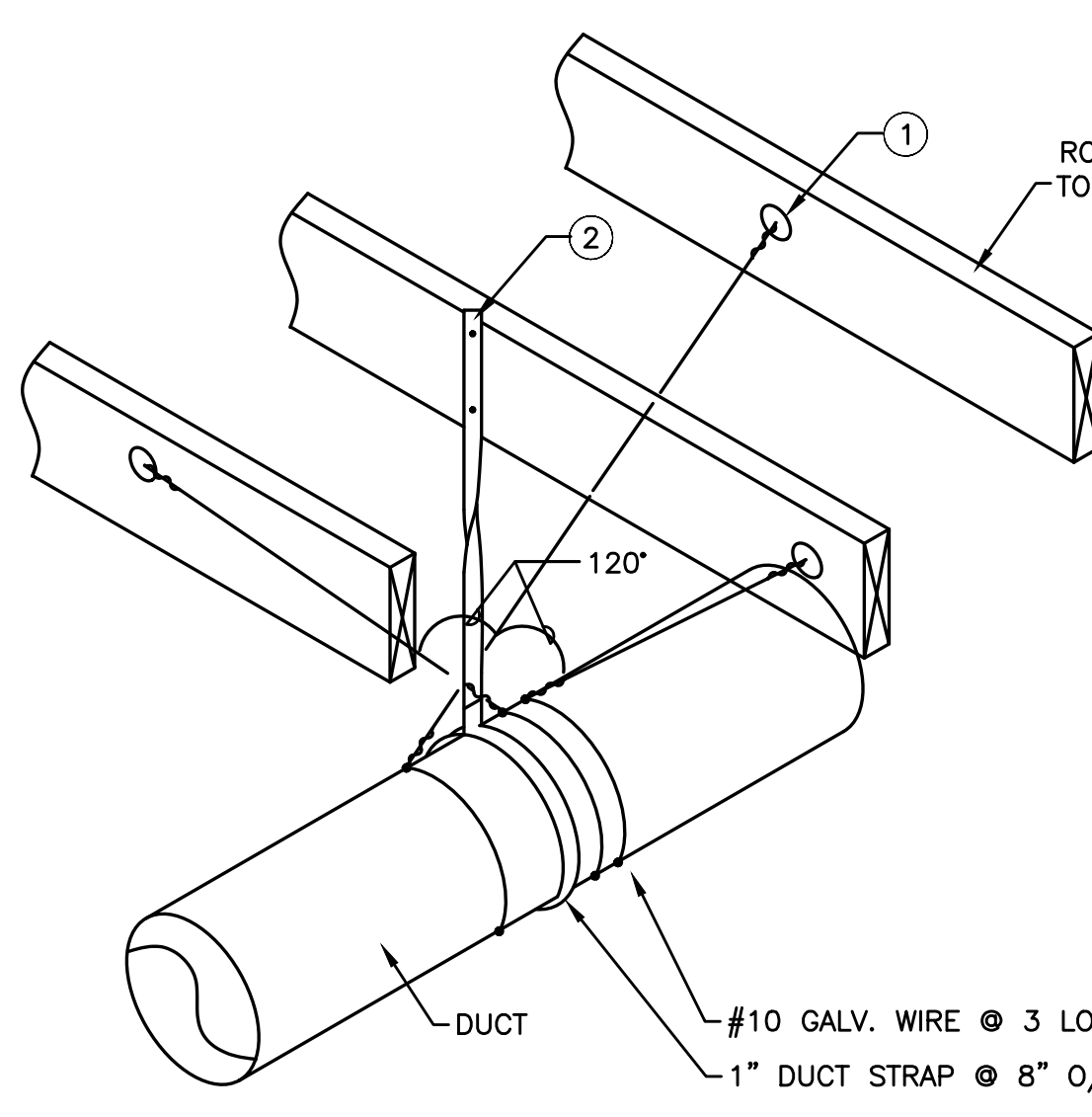
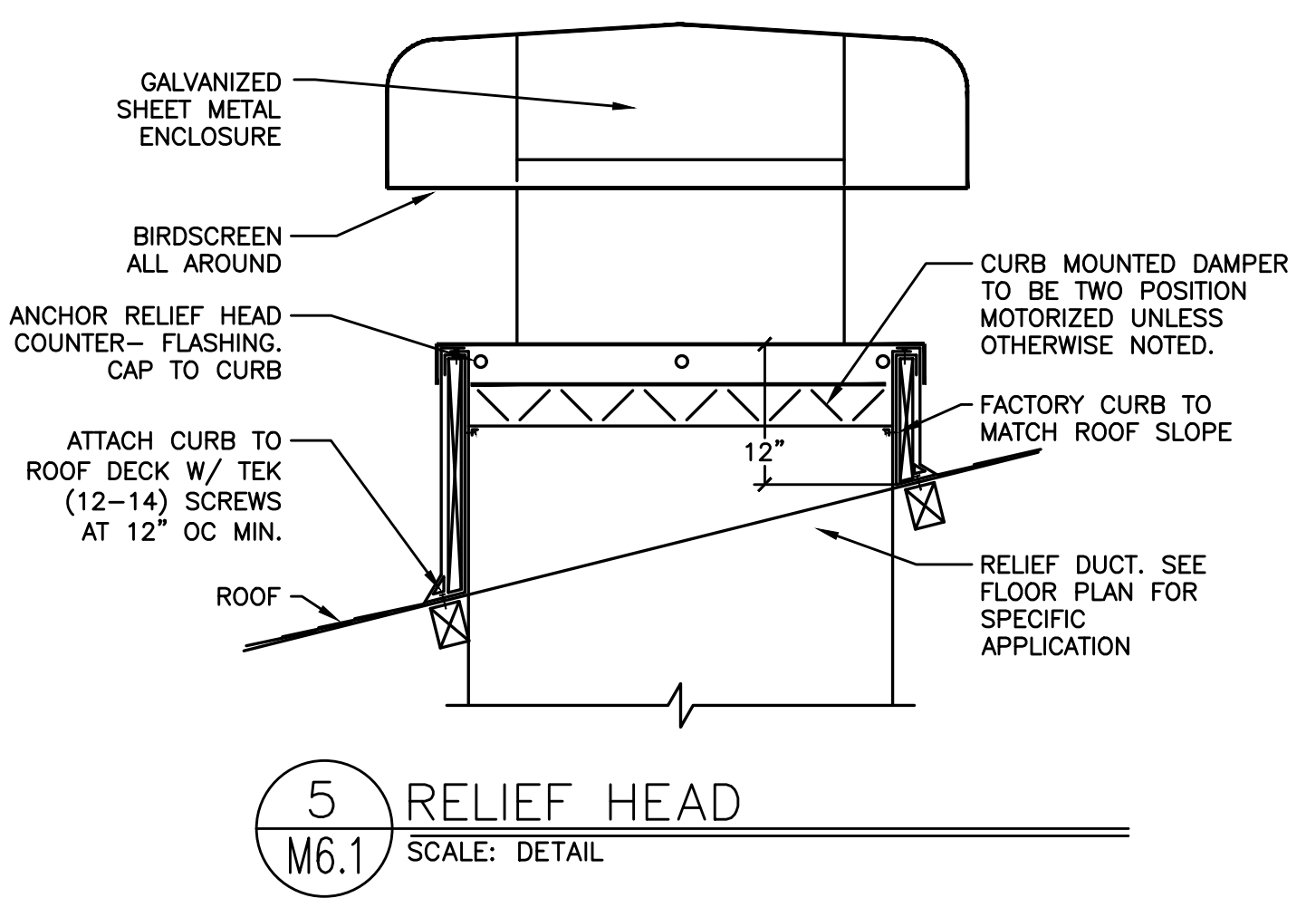
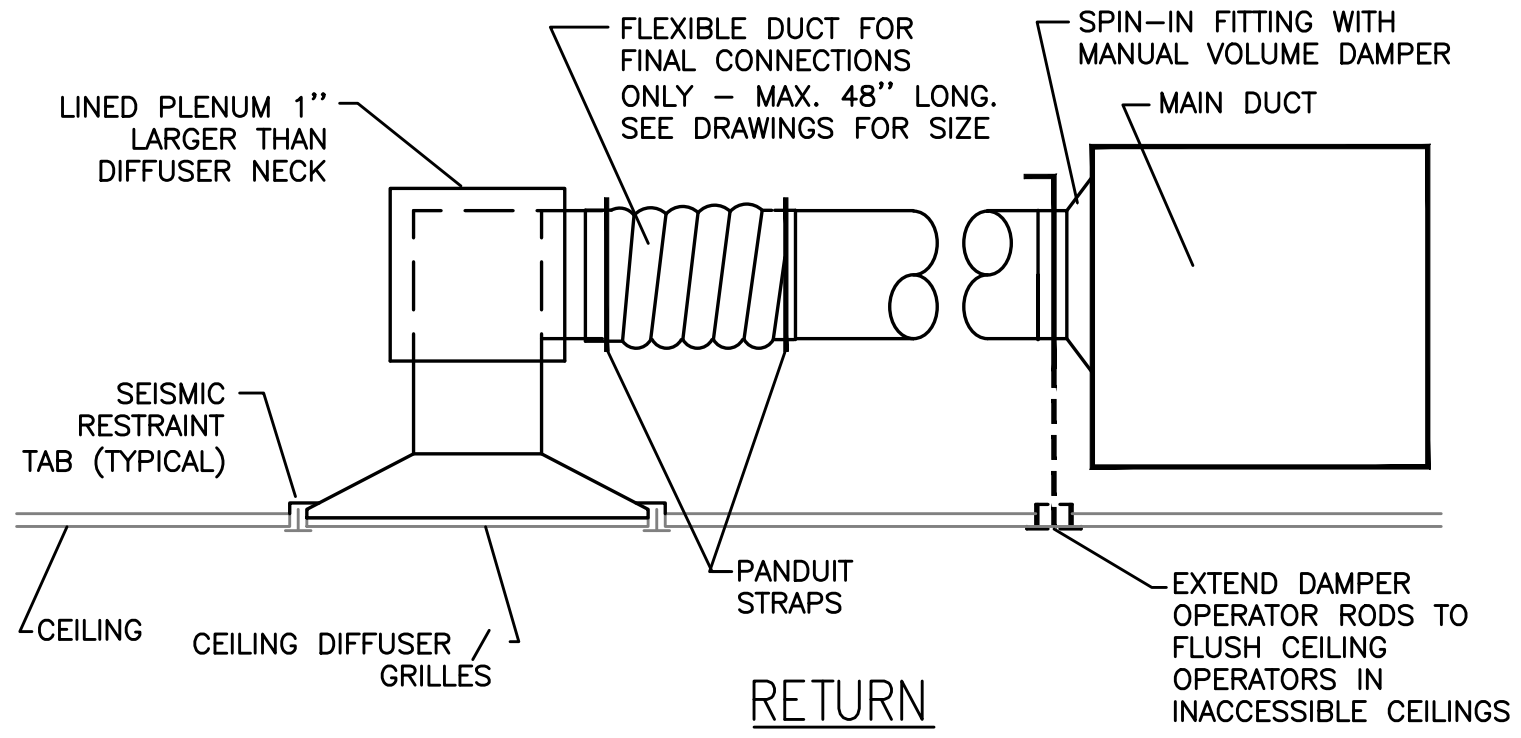
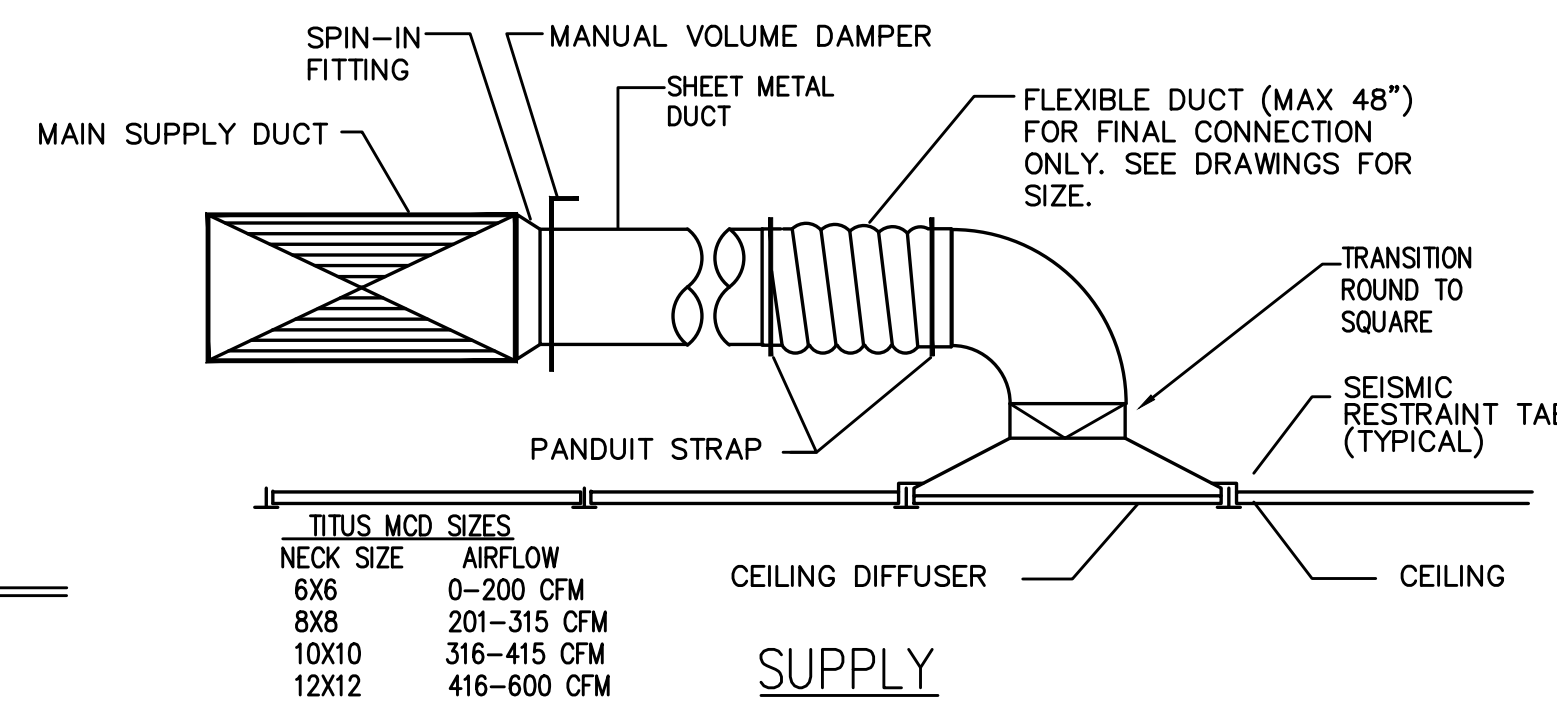
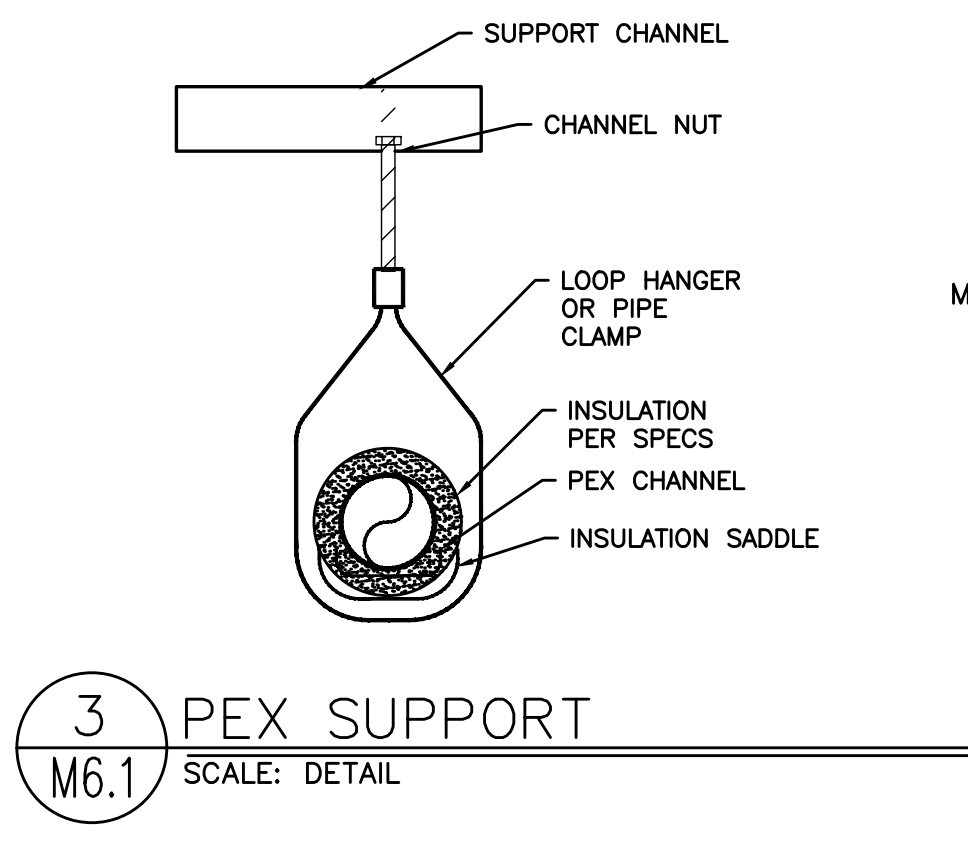
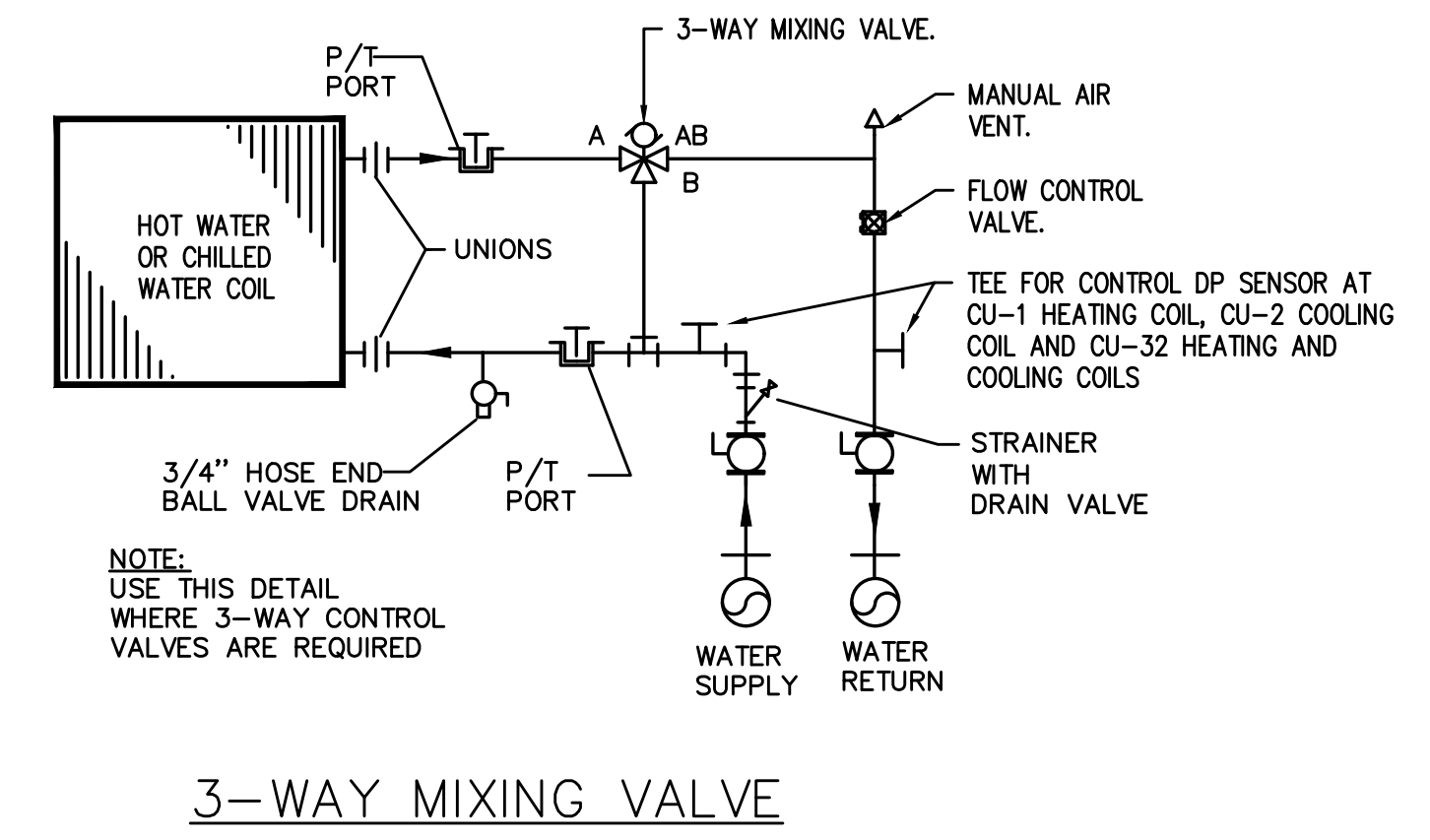
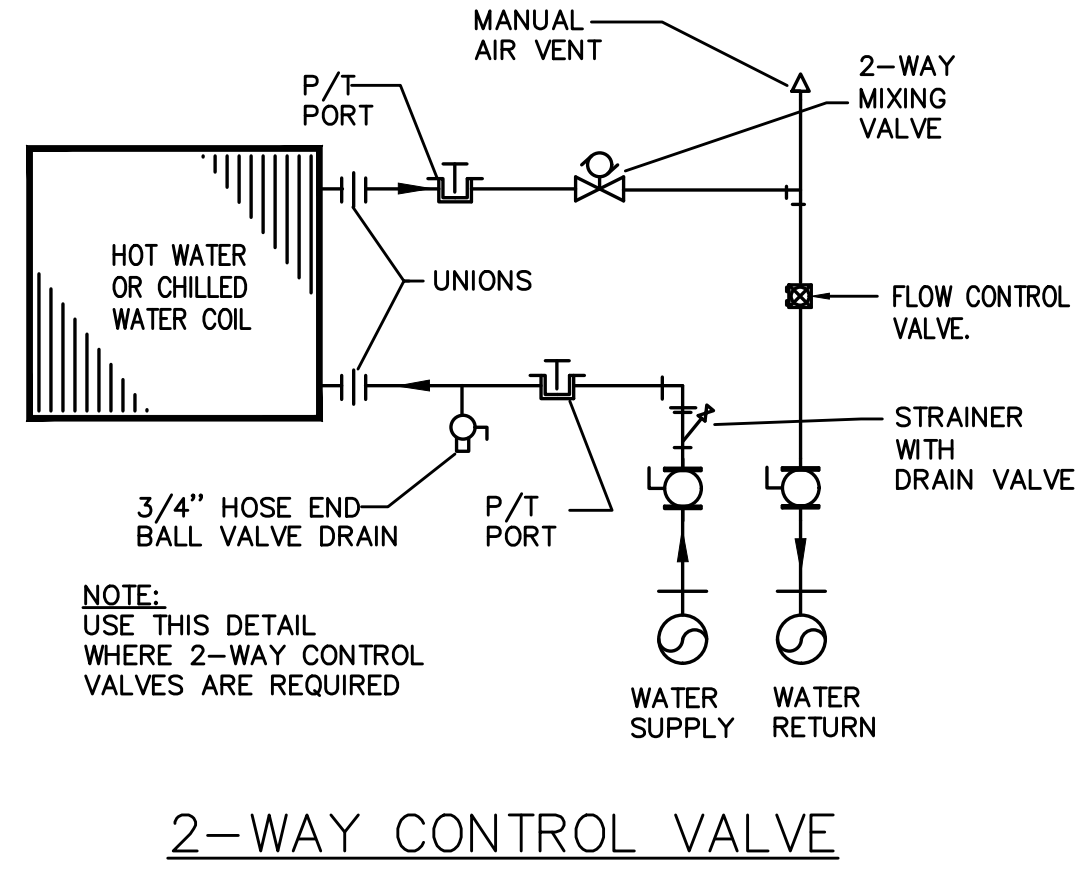
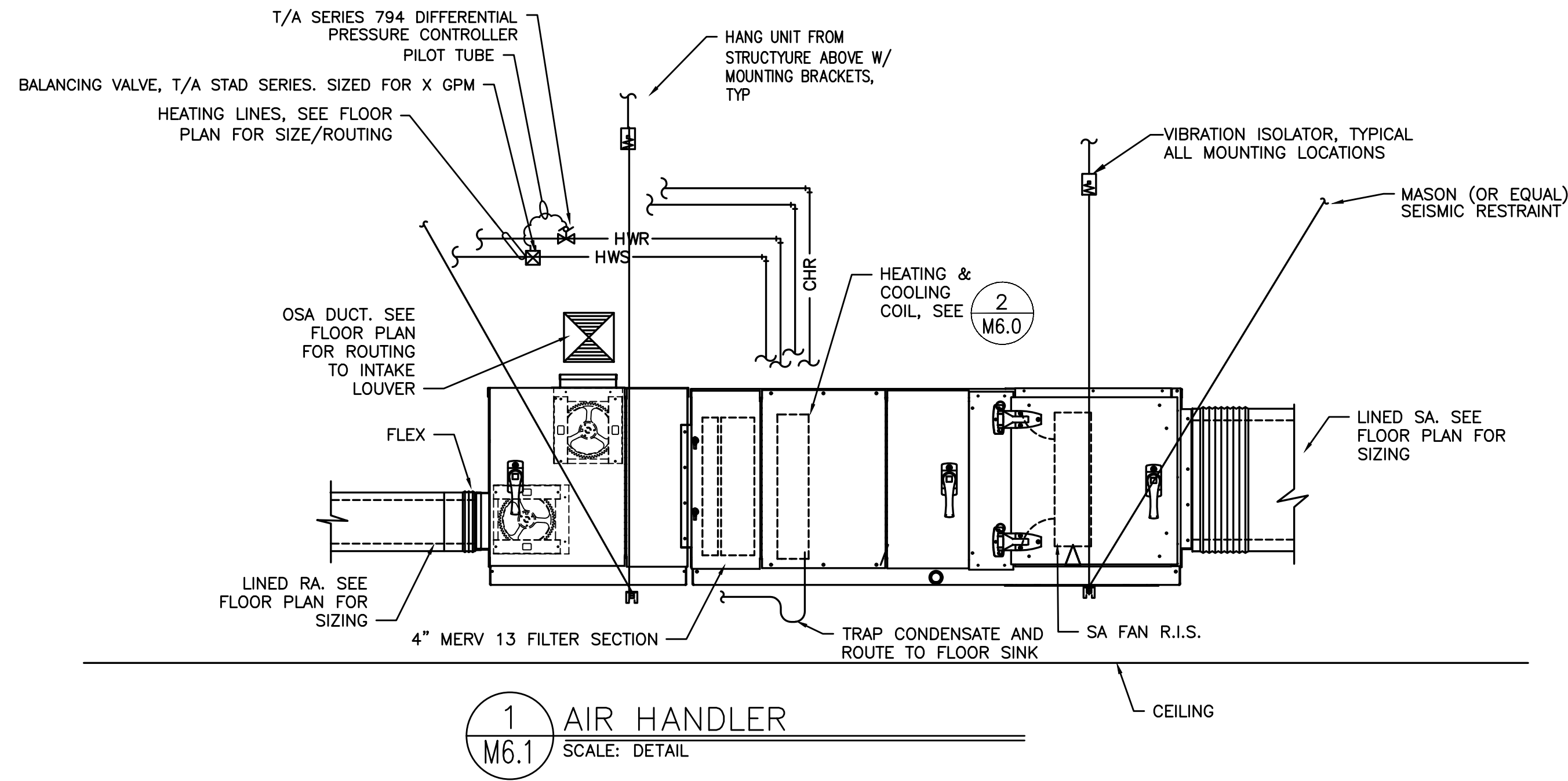
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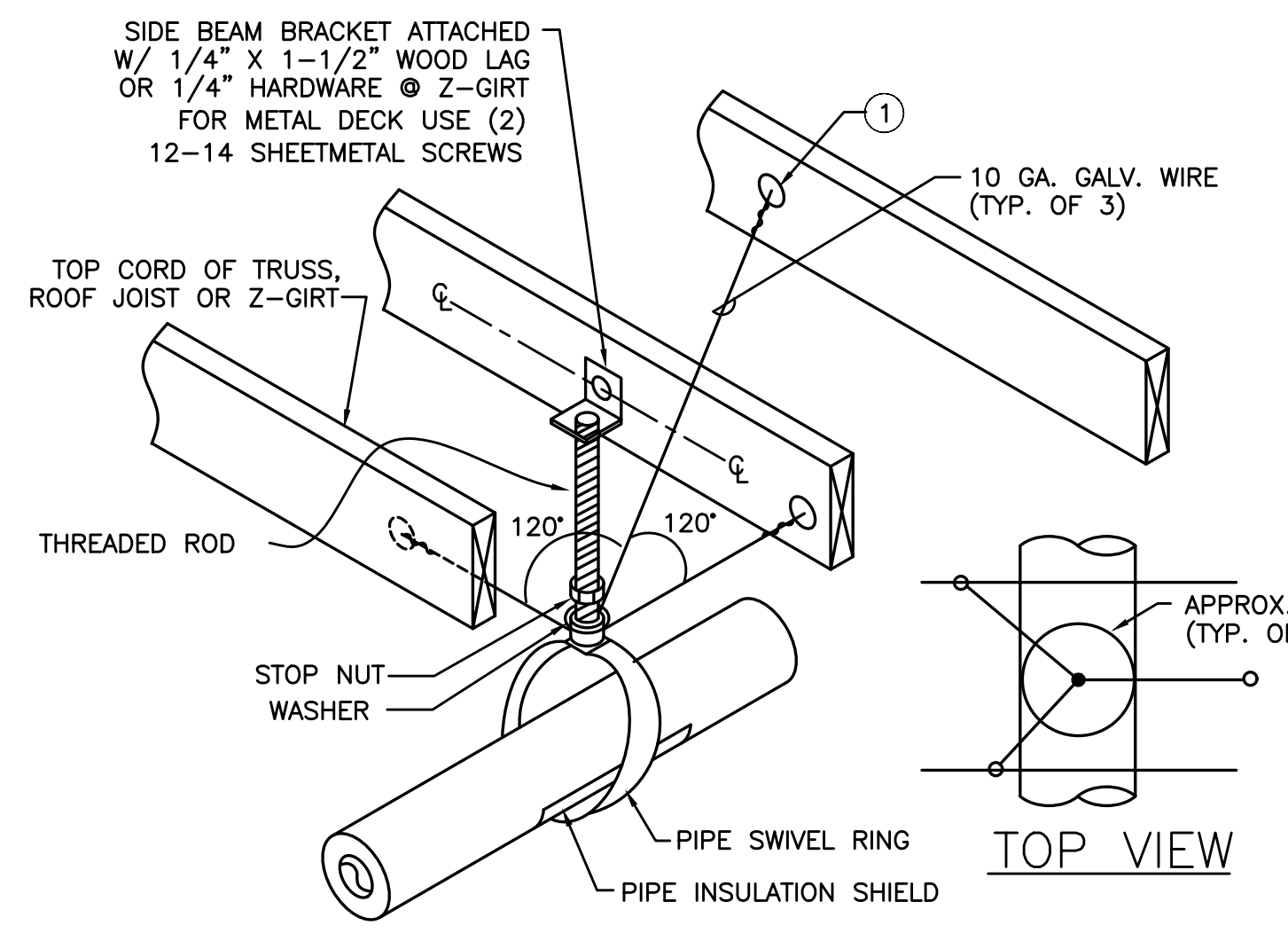
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**DUCT SUPPORT NOTES**

① - 1/4" GALV. THREADED EYE BOLT @ CENTER OF WOOD MEMBER (TYP. OF 3). FOR Z-GIRT USE MACHINE THREAD EYE BOLT W/ JAMB NUT & 1/4" WASHER @ EACH SIDE OF GIRT. FOR METAL DECK USE 12 SHEETMETAL SCREWS & 16 GA. MIN STRUT ANGLE CLIP

② - ATTACH TO TOP CORD. OF TRUSS ONLY OR WOOD JOIST W/ #12 X 1-5/8 DECK SCREW @ MIN. 1" FROM WOOD MATERIAL EDGE. ATTACH TO Z-GIRT W/ (2) #12 TEK SCREWS. FOR METAL DECK USE (2) 12-14 SHEETMETAL SCREWS



**PIPE SUPPORT NOTES**

① - 1/4" GALV. THREADED EYE BOLT @ CENTER OF WOOD MEMBER (TYP. OF 3). FOR 2 GIRT USE MACHINE THREAD EYE BOLT W/ JAMB NUT & 1/4" WASHER @ EACH SIDE OF GIRT. USE 12 SHEETMETAL SCREWS & 16 GA. MIN. 16 GA. MIN STRUT ANGLE CLIP

• FOR SINGLE 1-1/2" TO 3" STEEL LINES  
• FOR SINGLE 2" COPPER LINES

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SALEM, OR  
4000 DEERHAVEN DR. NE

DRAWN BY: ARJ  
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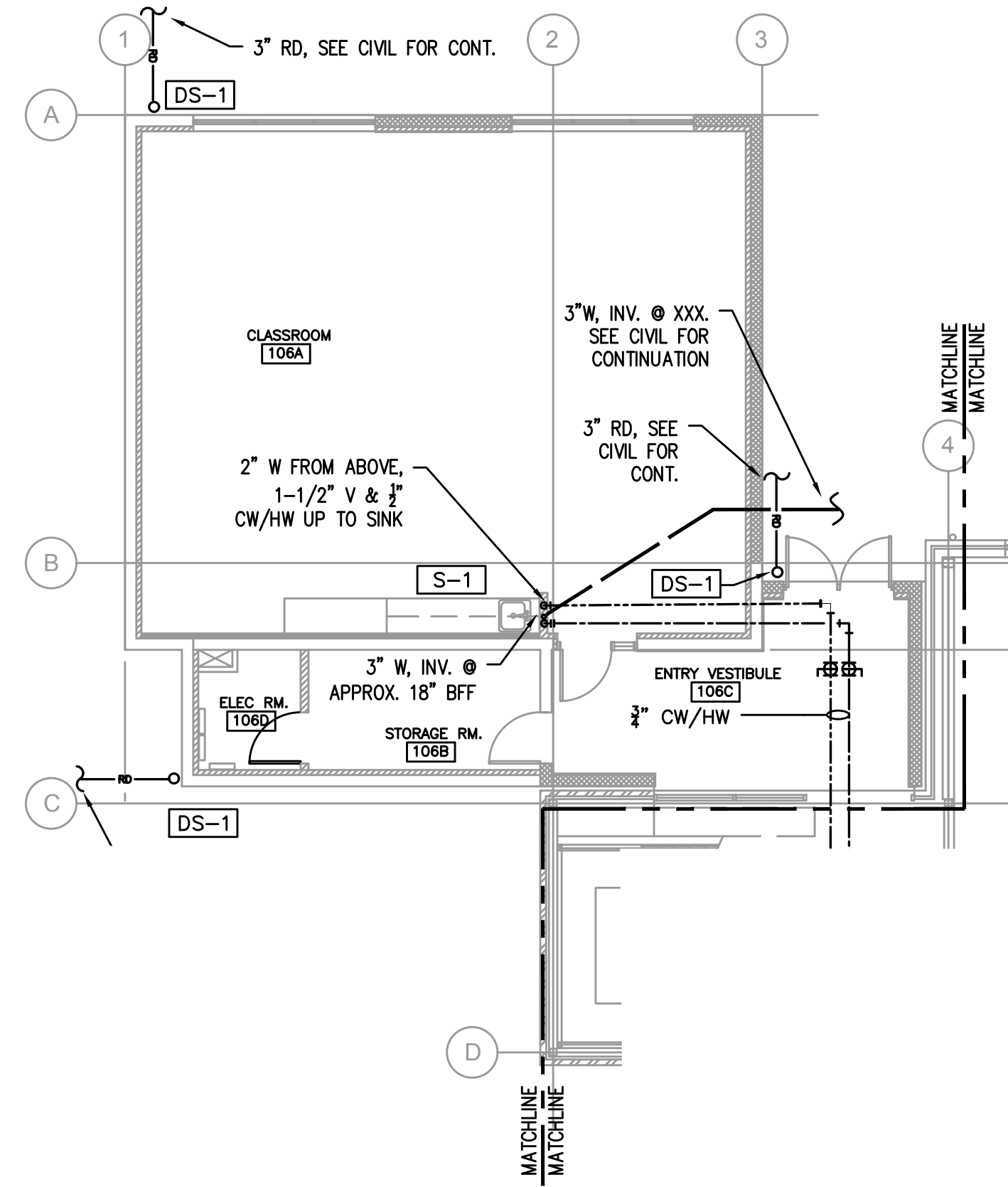
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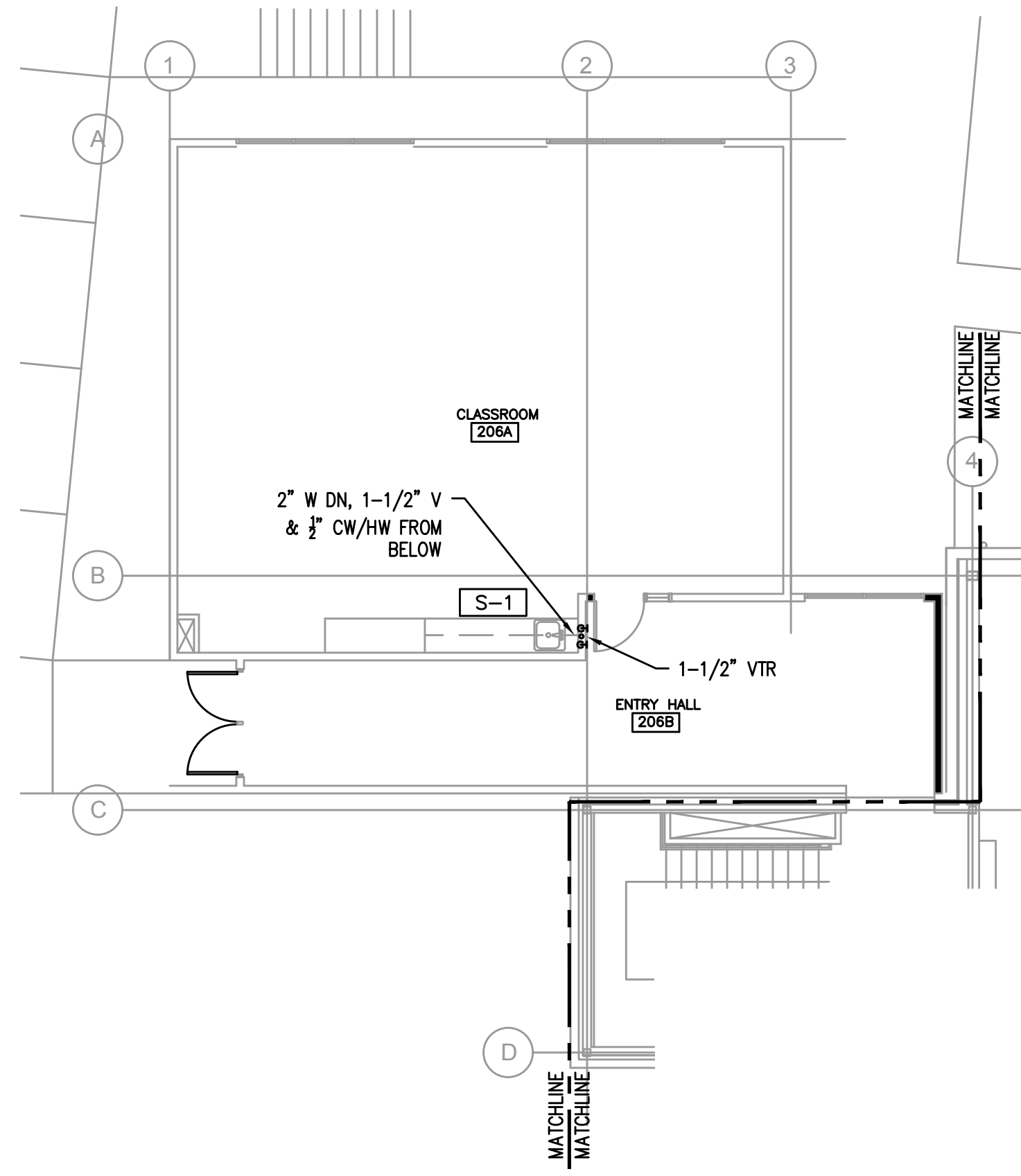


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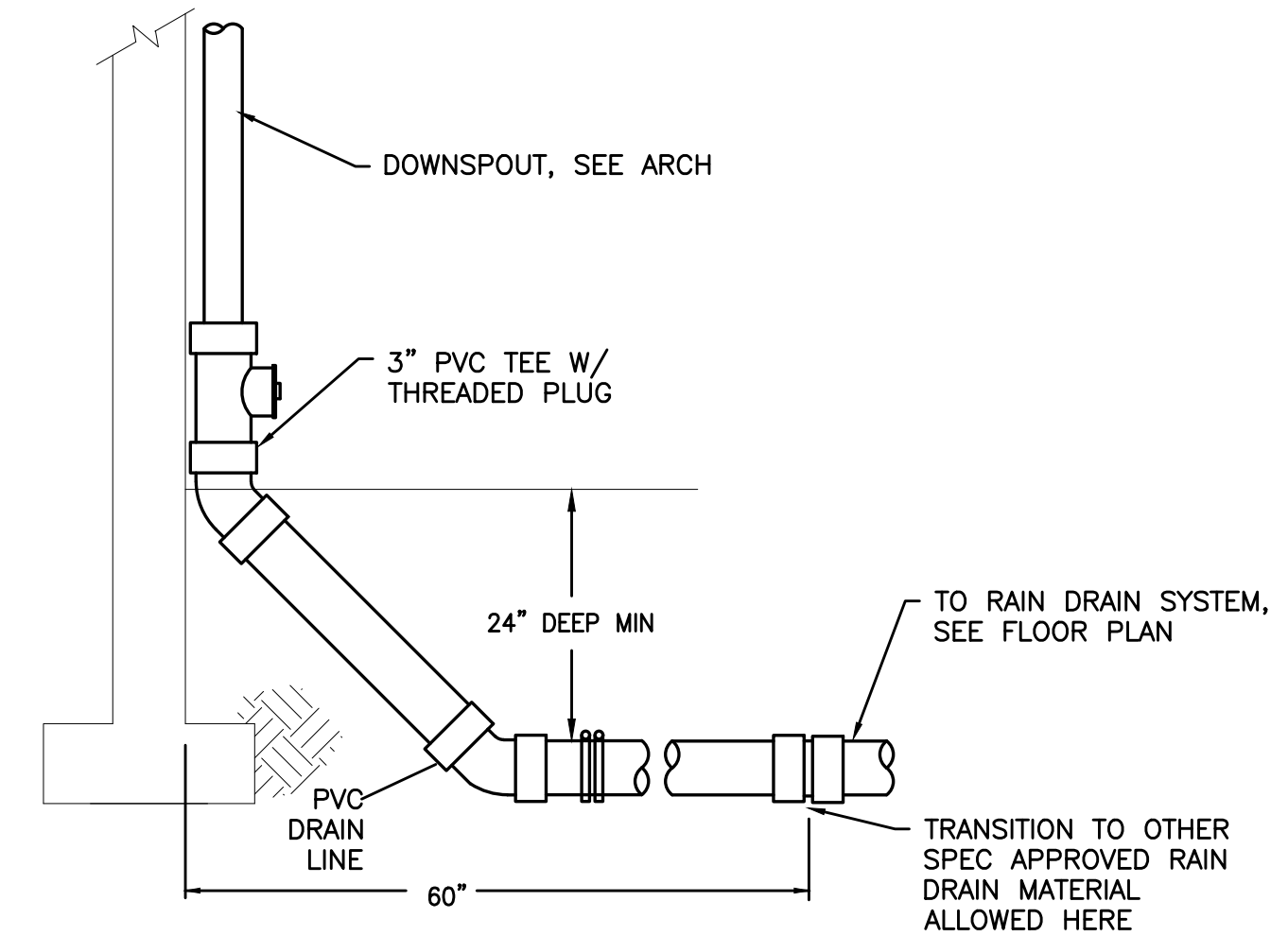
2 1ST FLOOR PLUMBING PLAN - CR ADDITION  
P2.0 SCALE: 1/8"=1'-0"



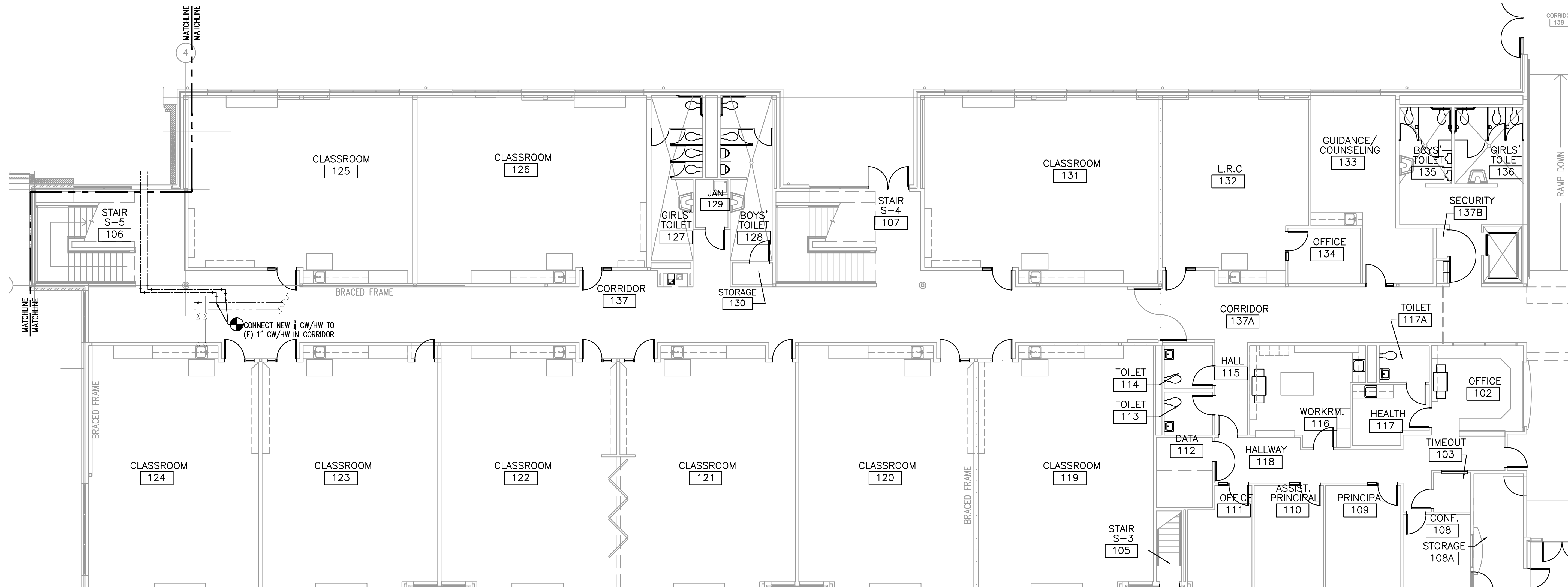
3 2ND FLOOR PLUMBING PLAN - CR ADDITION  
P2.0 SCALE: 1/4"=1'-0"

MARK	FIXTURE	W	V	CW	HW	REMARKS
S-1	CR SINK W/ BUBBLER	2"	1-1/2"	1/2"	1/2"	SINGLE COMP, SEE SPECS
DS-1	DOWNSPOUT	-	-	-	-	SEE DETAIL 4/P2.0

NOTES: V.L. - VENTED LINE  
1. PROVIDE WALL CLEAN-OUT BELOW SINK.



4 DOWNSPOUT  
P2.0 SCALE: DETAIL



1 1ST FLOOR PLUMBING PLAN  
P2.0 SCALE: 1/8"=1'-0"

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DRAWN BY: ARJ  
CHECKED BY: SWM  
DATE: 8-27-21  
TITLE: PLUMBING PLANS  
SCALE: SEE FLOOR PLAN

SHEET NO:  
**P2.0**  
1 OF 1

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