### **ENERAL NOTES**

AWINGS ARE DIAGRAMMATIC, INDICATIVE OF WORK TO BE FURNISHED AND INSTALLED UNDER S CONTRACT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DIMENSIONS.

ELD VERIFY DIMENSIONS AND CONDITIONS. IF THE CONTRACTOR IS UNABLE TO INTERPRET THE NTRACT DOCUMENTS, HE IS RESPONSIBLE TO REQUEST CLARIFICATION IN WRITING TO THE CHITECT. IF HE PROCEEDS WITH ANY WORK BEFORE OBTAINING CLARIFICATION, HE SHALL BE LD RESPONSIBLE FOR DEFICIENCIES ASSOCIATED THEREWITH.

FORE SUBMITTING FOR THE WORK, EACH BIDDER WILL BE RESPONSIBLE TO EXAMINE THE EMISES AND SATISFY HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL BE BLIGATED TO OPERATE AND COMPLETE THE WORK UNDER THIS CONTRACT. NO ALLOWANCE L SUBSEQUENTLY BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ROR OR OMISSION ON HIS PART.

E CONTRACTOR SHALL PAY FOR INSPECTION PERMITS, CERTIFICATES, CONNECTION FEES, STEM DEMAND CHARGES AND LICENSE FEES IN CONNECTION WITH HIS WORK.

INSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR COORDINATING WORK OF BCONTRACTORS TO AVOID INTERFERENCES.

ORK SHALL COMPLY WITH APPLICABLE O.S.H.A. AND E.P.A. REGULATIONS AND GUIDELINES.

ECT AND MAINTAIN REASONABLE PRECAUTIONS FOR SAFETY AND HEALTH INCLUDING POSTING NGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS INCLUDING PROMULGATING SAFETY GULATIONS. PROVIDE SAFETY PRECAUTIONS AND BARRICADES FOR PEDESTRIANS AT DNSTRUCTION VEHICLE ACCESS AND EGRESS LOCATIONS.

OORDINATE AND SEQUENCE CLEANING AND CONSTRUCTION WORK. SUBMIT A COMPLETELY TAILED CONSTRUCTION SCHEDULE PRIOR TO PRE-CONSTRUCTION CONFERENCE.

E CONTRACTOR SHALL STRICTLY BE HELD TO THE PROJECT SCHEDULE. HE SHALL PROVIDE IFFICIENT MANPOWER AND EQUIPMENT TO FULLY MOBILIZE, PROCEED WITH AND COMPLETE THE

E CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE OWNER FOR ON-SITE ORAGE OF CONSTRUCTION MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR THE OTECTION AND SECURITY OF EQUIPMENT AND MATERIALS.

E CONTRACTOR SHALL MAINTAIN A CLEAN WORK ENVIRONMENT AT ALL TIMES AND SHALL EAN CONSTRUCTION SITE OF DEBRIS AT COMPLETION OF THE JOB AND BEFORE FINAL PAYMENT MADE.

E CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS TO THE ARCHITECT AT COMPLETION OF INSTRUCTION.

NTRACTOR'S USE OF AN APPROVAL STAMP ON DOCUMENTS SUBMITTED AS SHOP DRAWINGS, ODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS CERTIFIES THAT THE CONTRACTOR HAS MPLIED WITH THE CONTRACT DOCUMENT REQUIREMENTS RELATED TO "SHOP DRAWINGS, ODUCT DATA AND SAMPLES".

E CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM QUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECT/ ENGINEER'S APPROVAL OF OP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR S SPECIFICALLY INFORMED THE ARCHITECT/ENGINEER IN WRITING OF SUCH DEVIATION AT THE E OF SUBMITTAL AND THE ARCHITECT/ENGINEER HAS GIVEN WRITTEN APPROVAL TO THE ECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR RORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS THE ARCHITECT/ENGINEER'S APPROVAL THEREOF.

NOR TO INSTALLATION, COORDINATE AND ADJUST THE FINAL LOCATION OF WALL MOUNTED VICES AND EQUIPMENT WITH ALL CASEWORK, SHELVING, MARKER BOARDS, BULLETIN BOARDS OTHER WALL MOUNTED FURNISHINGS.

TE ANY SPECIAL REQUIREMENTS INVOLVED IN INSTALLING THE EQUIPMENT IN THE BUILDING. MANTLING AND REASSEMBLING OF ANY EQUIPMENT SHALL BE DONE AS REQUIRED FOR ENTRY O THE BUILDING AND EQUIPMENT ROOMS.

COTECT THE ROOF FROM DAMAGE WHENEVER ANY WORK ON THE ROOF IS REQUIRED.

IPPORTS AND HANGERS SHALL PRESENT A NEAT, ORDERLY APPEARANCE.

OF MOUNTED EQUIPMENT SHALL BE SECURED TO STRUCTURE TO RESIST A 150 MPH WIND

NTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL FIRE, SMOKE, AND ACOUSTICAL WALL SEMBLIES.

AM AND FLOOR PENETRATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. BEAM EEVES AND BEAM REINFORCING APPROVED BY STRUCTURAL ENGINEER SHALL BE FURNISHED D INSTALLED BY THIS CONTRACTOR.

NTRACTOR SHALL FURNISH U.L. APPROVED DRAWINGS FOR EACH TYPE OF FIRE RATED SEMBLY PENETRATION BY DUCTS, PIPES OR CONDUITS. THESE DRAWINGS SHALL BE DISPLAYED THE JOB SITE AT ALL TIMES DURING CONSTRUCTION. SEE SPECIFICATIONS.

NTRACTOR SHALL GUARANTEE THE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM TE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE IN ADDITION TO THE WARRANTIES OVIDED BY MATERIAL SUPPLIERS AND MANUFACTURERS.

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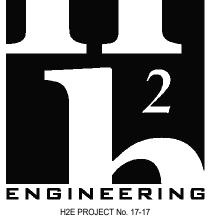
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> NUTE. 11" x 17" SHEETS ARE PLOTTED AT 1/2

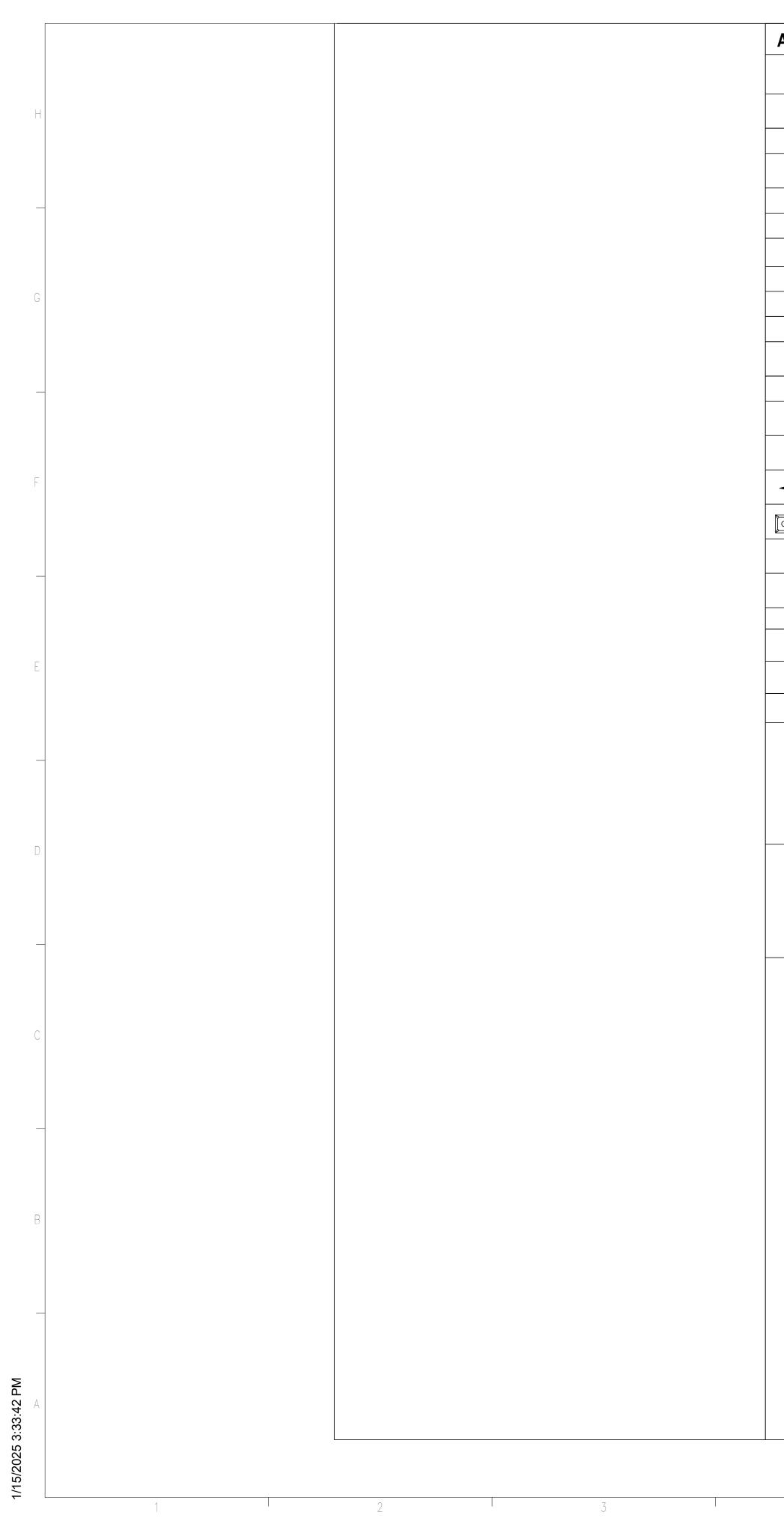


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> Florida Registry #2485 Jeffrey L. Tyler, P.E. #57093

#### WCSD EDUCATIONAL **ANCILLARY FACILITIES -DISTRICT OFFICE**

#### RECEIVED ALLSTATE CONSTRUCTION



AIR DISTRIB	UTION	PIPING AN		CEILING		FUSERS		
< AxB <	RECTANGULAR SHEET METAL DUCT	CC	CONDENSATE DRAIN PIPING FROM COOLING COIL	SYMBOL	CFM NECK	SIZE MINIMUM - MAX		DIMENSION
		CHWS CHWR	CHILLED WATER SUPPLY PIPING     CHILLED WATER RETURN PIPING			1/2 SPACIN	G CEILING	CEILING
6 CØ 3	ROUND SHEET METAL DUCT	G	GAS PIPING		40-80 6"¢ 85-180 8"¢		12x12 12x12	24x24 24x24
0	FLEXIBLE RUNOUT DUCT	HHWS HHWR	HEATING HOT WATER SUPPLY PIPING     HEATING HOT WATER RETURN PIPING		185-340 10"		24x24	24x24
ц <b>г</b>	ROUND OR RECTANGULAR TAKE-OFF FITTING WITH BALANCING DAMPER - SEE DETAIL G/M501	+9'-0"	ELEVATION ABOVE FINISHED FLOOR (TO CENTERLINE OF PIPE)		345-500 12"	ð 9' - 10'	24x24	24x24
$\boxtimes$	SUPPLY AIR DUCTWORK SECTION		ECCENTRIC REDUCER		505-600 14"	ð 10' - 12'	24x24	24x24
			CONCENTRIC REDUCER STRAINER	<u>NOTE:</u> 1. RUNOUT DU	ICTS TO DIFFUSERS SHA	LL BE THE SAME SIZE AS	THE INDICATED NECK	SIZE.
	RETURN AIR DUCTWORK SECTION		UNION	CEILING		EXHAUST R	EGISTERS 8	GRILLES
	EXHAUST AIR DUCTWORK SECTION		FLEXIBLE PIPE CONNECTION	SYMBOL	CFM			OUT DUCT (NOTE 2)
	AIR BALANCING DAMPER (MANUAL)	-15-CI-AAV	AUTOMATIC AIR VENT AND ISOLATION BALL VALVE		0-95		NOTE 1)	6x6
MD <b></b>	CONTROL DAMPER (MOTORIZED)		ELBOW TURNED UP		100-195	10x10	(NOTE 1)	8x8
BDD	BACKDRAFT DAMPER		ELBOW TURNED DOWN		200-295		(NOTE 1)	10x8
FD <b>p</b>	FIRE DAMPER		TEE, OUTLET UP	OR	300-595		(NOTE 1) (NOTE 1)	12x12 12x12
	DUCTWORK FLEXIBLE CONNECTION		TEE, OUTLET DOWN		700-795		(NOTE 1)	14x12
			FLOW DIRECTION IN PIPE		800-1500	48x24	(NOTE 1)	18x14
{ MAP }	DUCTWORK ACCESS PANEL	MISCELLA	NEOUS	<u>NOTES:</u> 1 USE 22x22 GE	RILLE SIZE FOR ALL LAY-I		S USE SIZE INDICATED F	OR HARD CEILING
2)	DUCT ELBOW WITH SINGLE THICKNESS TURNING VANES		POINT OF CONNECTION, NEW TO EXISTING	APPLICATION				
	SIDEWALL REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE		POINT INDICATED CONNECT TO CIVIL	AIRFLOW IS N	RILLE SIZE AND 12x12 RUI IOT INDICATED.			
	FOR SIZES UNLESS NOTED OTHERWISE)		SMOKE RATED WALL     1 HOUR FIRE RATED WALL	4. USE 12x12 RU	IN OUT DUCT FOR LAY-IN	CEILING APPLICATIONS	WHERE AIRFLOW IS NO	T INDICATED.
	SQUARE CEILING SA DIFFUSER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) SHADED REGION INDICATED SECTORIZING BAFFLE(S)	)	2 HOUR FIRE RATED WALL	SIDEWA	LL REGISTE	RS AND GRIL	LES	
••••	RECTANGULAR CEILING RA REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR	VALVES			SUF	PLY AIR	RETURN AIR OF	R EXHAUST AIR
СГМ	SIZES UNLESS NOTED OTHERWISE) WHERE CFM IS NOT INDICATED, PROVIDE STANDARD SIZE FOR CEILING TYPE INDICATED IN SCHEDULE. SEE DETAIL H/M503		BALL VALVE (WITH QUARTER TURN HANDLE)	CFM				
Сгм	RECTANGULAR CEILING EA REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) SEE DETAIL H/M503		BALL VALVE (WITH QUARTER TURN HANDLE)		REGISTER SIZE	RUNOUT DUCT	REGISTER SIZE	RUNOUT DUCT
	ACCESS PANEL IN INACCESSIBLE CEILING (24x24, UNO) SEE DETAIL C/M503		GATE VALVE (WITH GOARTER TORN HANDLE)	0-95	8x6	8x6	8x6	8x6
	SINGLE DUCT AIR TERMINAL UNIT. SEE DETAIL D/M502		GLOBE VALVE	100-195	10x6	10x6	10x6	10x6
			PLUG VALVE	200-295	12x6	12x6	18x6	18x6
lacksquare	DUCT MOUNTED SMOKE DETECTOR (PROVIDED AND INSTALLED BY FIRE ALARM CONTRACTOR)		CHECK VALVE PRESSURE REDUCING VALVE	300-395	16x6	16x6	24x6	24x6
48x8 120	LINEAR BAR GRILLE, SIZE AND AIR FLOW (CFM)		RELIEF VALVE	400-495	18x8	18x8	30x8	30x8
	LENGTH OF DIFFUSER (FEET)	VALVE ACTUATORS:		500-595	18x10	18x10	30x10	30x10
11-	NUMBER OF SLOTS SLOT WIDTH (2 = 1/2", 3 = 3/4", 4 = 1", 6 = 1 1/2")	Г	QUARTER TURN LEVER					
4-4-4-12 <del></del> 460 <del></del>	AIR FLOW (CFM)	Ģ	HANDWHEEL MANUAL GEAR DRIVE (8" QUARTER TURN VALVES AND LARGER)					
►	SA SLOT DIFFUSER WITH PLENUM / BOOT (FLOW DIRECTION INDICATED) -	M	ELECTRIC MOTOR					
╢►	SEE DETAIL E/M503	MEASURE	MENTS AND CONTROLS					
	LENGTH OF DIFFUSER (FEET)	<b></b>	THERMOSTAT/TEMPERATURE SENSOR					
4-4-4	SLOT WIDTH (2 = $1/2^{"}$ , 3 = $3/4^{"}$ , 4 = 1", 6 = 1 $1/2^{"}$ )	H	HUMIDITY SENSOR					
Π		SP	STATIC PRESSURE SENSOR					
	RA SLOT DIFFUSER WITH PLENUM / BOOT (FLOW DIRECTION INDICATED) - SEE DETAIL E/M503	DP	DIFFERENTIAL PRESSURE SENSOR					
		AFS	AIRFLOW MONITORING STATION					
			AUTOMATIC AIR VENT AND ISOLATION VALVE					
			PRESSURE GAUGE AND ISOLATION VALVE					
			CIRCUIT SETTER					
			FLOW CONTROL VALVE					
			VENTURI FLOW METER					
		PT	PRESSURE & TEMPERATURE TEST STATION					

6

7

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<u>NOTE:</u> 11" x 17" SHEETS ARE PLOTTED AT 1/2 THE SCALE NOTED ON THESE DRAWINGS.



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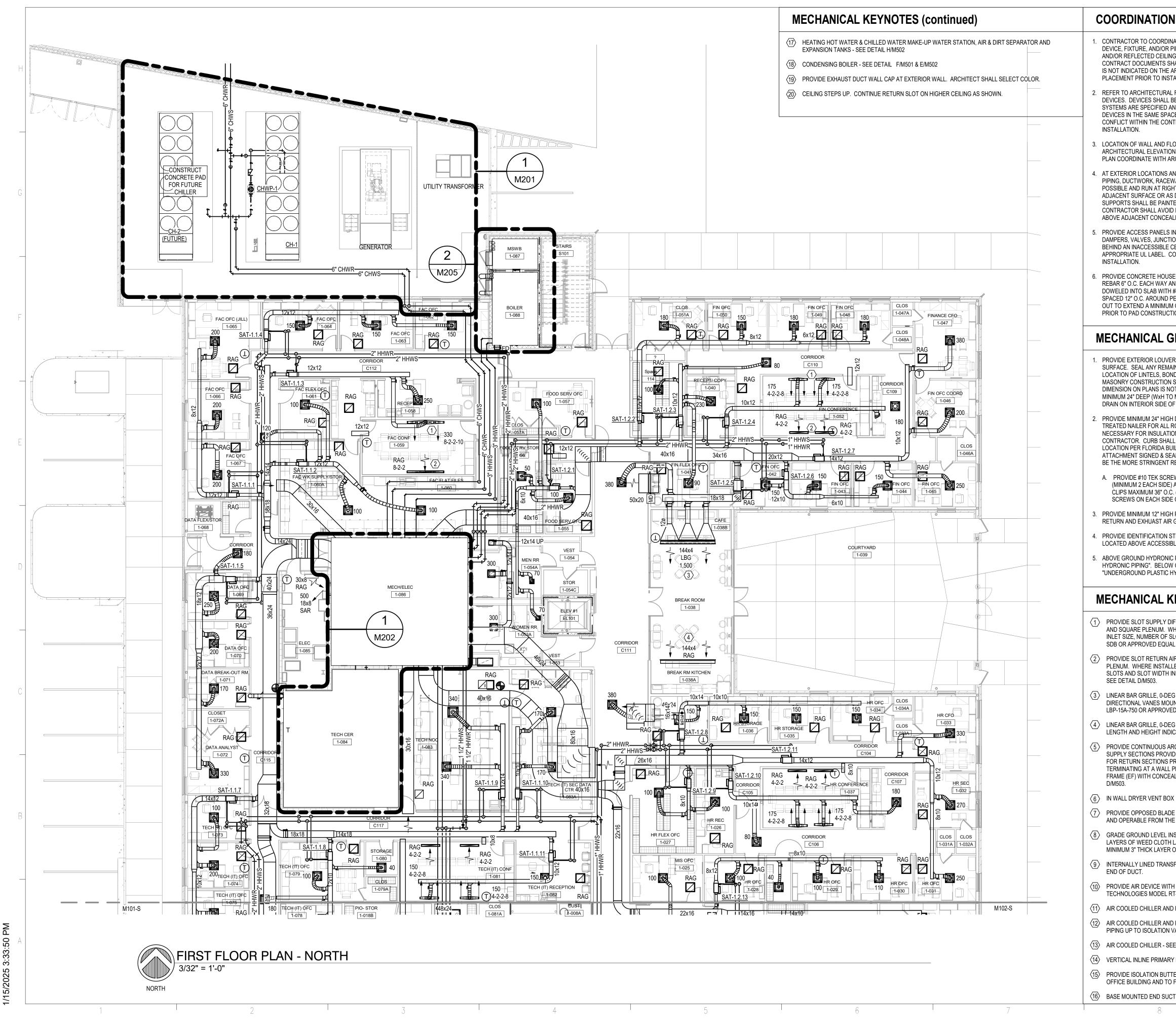
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#### GENERAL NOTES & LEGENDS

SHEET NO

REV NO

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CONTRACTOR TO COORDINATE THE LOCATION, ALIGNMENT, ELEVATION AND/OR SPACING OF ANY EXPOSED DEVICE, FIXTURE, AND/OR PIECE OF EQUIPMENT WITH THE ARCHITECTURAL FLOOR PLANS, ELEVATIONS, AND/OR REFLECTED CEILING PLANS. DISCREPANCIES AND/OR CONFLICTS CONTAINED WITHIN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. IF AN EXPOSED ITEM IS NOT INDICATED ON THE ARCHITECTURAL DOCUMENTS NOTIFY THE ARCHITECT FOR CLARIFICATION OF PLACEMENT PRIOR TO INSTALLATION.

REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR SPECIFIC LOCATIONS OF CEILING MOUNTED DEVICES. DEVICES SHALL BE INSTALLED IN THE CENTER OF CEILING TILES WHERE ACOUSTICAL CEILING SYSTEMS ARE SPECIFIED AND ON THE SAME CENTERLINES WITH OTHER ADJACENT CEILING MOUNTED DEVICES IN THE SAME SPACE. IF A DEVICE'S LOCATION IS NOT CLEARLY INDICATED OR THERE IS A CONFLICT WITHIN THE CONTRACT DOCUMENTS NOTIFY ARCHITECT FOR CLARIFICATION PRIOR TO

LOCATION OF WALL AND FLOOR MOUNT DEVICES IS DIAGRAMMATIC AND SHOWN FOR CLARITY. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION OF DEVICES. WHERE NOT INDICATED ON ARCHITECT'S PLAN COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.

. AT EXTERIOR LOCATIONS AND IN SPACES WITH EXPOSED STRUCTURE EXPOSED UTILITIES (INCLUDING PIPING, DUCTWORK, RACEWAYS, ETC.) SHALL BE INSTALLED NEATLY, BUNDLED TOGETHER TO EXTENT POSSIBLE AND RUN AT RIGHT ANGLES TO BUILDING LINES. THESE UTILITIES SHALL BE PAINTED TO MATCH ADJACENT SURFACE OR AS DIRECTED BY ARCHITECT. HANGERS, STEEL SHAPES AND SLOTTED STEEL SUPPORTS SHALL BE PAINTED TO MATCH RACEWAY OR AS DIRECTED BY ARCHITECT. TO EXTENT POSSIBLE CONTRACTOR SHALL AVOID EXPOSED RACEWAYS BY INSTALLING UTILITIES BELOW GRADE, IN WALL, OR ABOVE ADJACENT CONCEALED CEILING SPACES.

PROVIDE ACCESS PANELS IN CEILING WHERE ANY DEVICE OR EQUIPMENT REQUIRING SERVICE (INCLUDING DAMPERS, VALVES, JUNCTION BOXES, CONTROLLERS, SMOKE DETECTORS, ETC.) IS LOCATED ABOVE OR BEHIND AN INACCESSIBLE CEILING OR WALL. ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR APPROPRIATE UL LABEL. COORDINATE LOCATION AND TYPE OF ACCESS PANEL WITH ARCHITECT PRIOR TO

PROVIDE CONCRETE HOUSEKEEPING PAD FOR ALL FLOOR OR GROUND MOUNTED EQUIPMENT WITH #4 REBAR 6" O.C. EACH WAY AND 1" CHAMFERED TOP EDGE. PADS ON CONCRETE SLAB SHALL BE 4" HIGH AND DOWELED INTO SLAB WITH #4 REBAR EXTENDING 2" INTO PAD, 3" INTO SLAB AND EPOXIED IN PLACE AND SPACED 12" O.C. AROUND PERIMETER OF PAD. PADS ON EARTH SHALL BE MINIMUM 6" THICK AND LAYED OUT TO EXTEND A MINIMUM OF 4" ABOVE GRADE AT HIGHEST GRADE LEVEL; COMPACT EARTH BELOW PAD PRIOR TO PAD CONSTRUCTION.

# **MECHANICAL GENERAL NOTES**

PROVIDE EXTERIOR LOUVERS WITH NECESSARY TRIM KIT TO RECESS LOUVER INTO FINISH MASONRY SURFACE. SEAL ANY REMAINING OPENING AROUND PERIMETER. SEE STRUCTURAL DRAWINGS FOR LOCATION OF LINTELS, BOND BEAMS AND REINFORCING AND COORDINATE ACCORDINGLY. LOUVERS IN MASONRY CONSTRUCTION SHALL BE DIMENSIONED IN BRICK COURSING (MODULES OF 4" W x 8" H); IF DIMENSION ON PLANS IS NOT BRICK COURSING ROUND UP TO NEXT LARGER COURSING MODULE. PROVIDE MINIMUM 24" DEEP (WXH TO MATCH LOUVER) INSULATED SHEET METAL PLENUM WITH BOTTOM SLOPED TO DRAIN ON INTERIOR SIDE OF LOUVERS.

PROVIDE MINIMUM 24" HIGH DOUBLE WALL, FULLY WELDED, INSULATED ROOF CURBS WITH 2x4 PRESSURE TREATED NAILER FOR ALL ROOF MOUNTED EQUIPMENT. HEIGHT SHALL BE EXTENDED BEYOND 24" AS NECESSARY FOR INSULATION THICKNESS AND PROPER FLASHING AS DETERMINED BY ROOFING CONTRACTOR. CURB SHALL BE RATED FOR WIND SPEED AND EXPOSURE CATEGORY FOR PROJECT LOCATION PER FLORIDA BUILDING CODE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ATTACHMENT SIGNED & SEALED BY STRUCTURAL ENGINEER LICENSED IN FLORIDA. ATTACHMENT SHALL BE THE MORE STRINGENT REQUIREMENT AS DETERMINED BY ENGINEER OR THE FOLLOWING:

PROVIDE #10 TEK SCREWS (METAL DECK) OR 1/4" TAPCONS (CONCRETE DECK) AT MAXIMUM 24" O.C. (MINIMUM 2 EACH SIDE) AROUND PERIMTER TO SECURE CURB TO ROOF. PROVIDE MGM STANDARD CLIPS MAXIMUM 36" O.C. (MINIMUM 1 EACH SIDE) TO SECURE EQUIPMENT TO CURB WITH #10 TEK SCREWS ON EACH SIDE OF CLIP.

PROVIDE MINIMUM 12" HIGH PLENUM LINED WITH 1" THICK INSULATION ON TOP OF CEILING MOUNTED RETURN AND EXHUAST AIR GRILLES (WxL TO MATCH GRILLE).

4. PROVIDE IDENTIFICATION STICKERS (1/2" ROUND) ON GRID WHERE VALVES OR TERMINAL UNITS ARE LOCATED ABOVE ACCESSIBLE CEILINGS.

ABOVE GROUND HYDRONIC PIPING SHALL BE METAL PER SPECIFCATION 232113.12 "ABOVE GROUND METAL HYDRONIC PIPING". BELOW GRADE HYDRONIC PIPING MAY BE PLASTIC PER SPECIFICATION 232113.15 "UNDERGROUND PLASTIC HYDRONIC PIPING."

### MECHANICAL KEYNOTES

(1) PROVIDE SLOT SUPPLY DIFFUSER WITH FLANGE PLASTER FRAME, CONCEALED MOUNTING MOUNTING AND SQUARE PLENUM. WHERE INSTALLED IN LAY-IN CEILING PROVIDE TEGULAR LAY IN FRAME. LENGTH, INLET SIZE, NUMBER OF SLOTS AND SLOT WIDTH INDICATED ON PLANS. PRICE; SDS (TYPE 7 OR TYPE 17) SDB OR APPROVED EQUAL - SEE DETAIL E/M503.

(2) PROVIDE SLOT RETURN AIR GRILLE WITH FLANGE PLASTER FRAME, CONCEALED MOUNTING WITHOUT PLENUM. WHERE INSTALLED IN LAY-IN CEILING PROVIDE TEGULAR LAY IN FRAME. LENGTH, NUMBER OF SLOTS AND SLOT WIDTH INDICATED ON PLANS. PRICE; SDR (TYPE 7 OR TYPE 17) OR APPROVED EQUAL

(3) LINEAR BAR GRILLE, 0-DEG DEFLECTION, 3/32" BARS ON 1/4" SPACEING WITH 3/4" FLANGED FRAME AND DIRECTIONAL VANES MOUNTED BEHIND GRILLE. LENGTH AND HEIGHT INDICATED ON PLANS. PRICE; LBP-15A-750 OR APPROVED EQUAL.

4 LINEAR BAR GRILLE, 0-DEG DEFLECTION, 3/32" BARS ON 1/4" SPACEING WITH 3/4" FLANGED FRAME. LENGTH AND HEIGHT INDICATED ON PLANS. PRICE; LBP-15A-750 OR APPROVED EQUAL.

5 PROVIDE CONTINUOUS ARCHITECTURAL SLOT GRILLE ALONG EDGE OF CEILING WITH 1- 2" SLOT. FOR SUPPLY SECTIONS PROVIDE ANGULAR PATTERN AND SUPPLY PLENUM WITH FOAM INSULATION (CFP). FOR RETURN SECTIONS PROVIDE FULLY OPEN SLOT AND RETURN AIR SIGHT BAFFLE. WHERE TERMINATING AT A WALL PROVIDE FLUSH END, OTHERSIE PROVIDE MITERED ENDS. PROVIDE EXPOSED FRAME (EF) WITH CONCEALED MOUNTING CLIP (MP-DR). PRICE; CFJS OR APPROVED EQUAL - SEE DETAIL

(7) PROVIDE OPPOSED BLADE DAMPER AT GRILLE OR DIFFUSER, INTEGRAL WITH AIR DISTRIBUTION DEVICE AND OPERABLE FROM THE GRILLE OR DIFFUSER FACE.

(8) GRADE GROUND LEVEL INSIDE UTILITY YARD AND TREAT SOIL WITH WEED KILLER. PROVIDE TWO LAYERS OF WEED CLOTH LAID WITH SEAMS AT 90 DEGREES TO ONE ANOTHER AND COVER WITH MINIMUM 3" THICK LAYER OF #57 GRAVEL FROM EDGE OF EQUIPMENT PADS TO YARD WALLS.

(9) INTERNALLY LINED TRANSFER AIR DUCT ABOVE CEILING. TURN ELBOW UP AND LEAVE OPEN ONE EACH

(10) PROVIDE AIR DEVICE WITH CABLE ACTUATED DAMPER, EQUIVALENT TO METROPOLITAN AIR TECHNOLOGIES MODEL RT-100. SET CABLE LENGTH AS REQUIRED TO TERMINATE AT AIR DEVICE FACE.

(11) AIR COOLED CHILLER AND PRIMARY PUMP TO BE INSTALLED AS PART OF THIS PROJECT.

(12) AIR COOLED CHILLER AND PRIMARY PUMP TO BE INSTALLED AS PART OF FUTURE EPICENTER PROJECT. PIPING UP TO ISOLATION VALVES AS INDICATED TO BE INSTALLED AS PART OF THIS PROJECT.

(13) AIR COOLED CHILLER - SEE DETAIL A/M501 & E/M501

(14) VERTICAL INLINE PRIMARY PUMP - SEE DETAIL B/M501

(15) PROVIDE ISOLATION BUTTERFLY VALVES ON SECONDARY SUPPLY AND RETURN LINES TO DISTRICT OFFICE BUILDING AND TO FUTURE EPICENTER BUILDING.

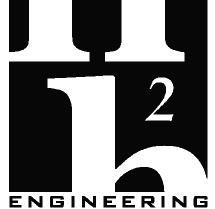
(16) BASE MOUNTED END SUCTION SECONDARY PUMP - SEE DETAIL C/M501



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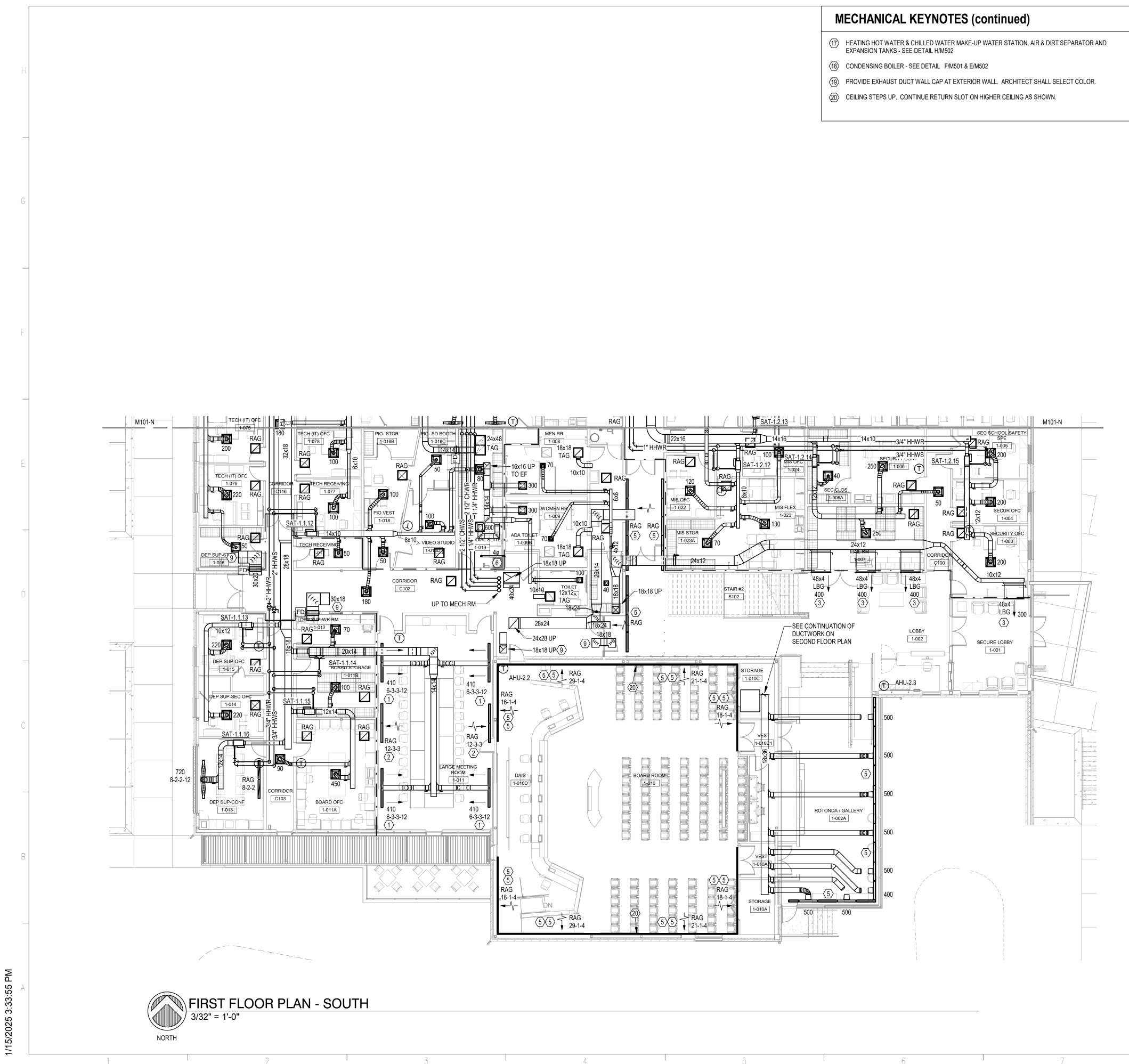
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#### RECEIVED **ALLSTATE CONSTRUCTION** 01-16-2025

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DATE DRAWN BY					
15 JAN	IUARY 2025		JDR		
PROJE	CT NO		CHECKED BY		
68100			JLT		
SHEET TITLE					
FIRST FLOOR PLAN NORTH					

SHEET NO M101-N



- INSTALLATION.
- INSTALLATION.

# MECHANICAL GENERAL NOTES

# **MECHANICAL KEYNOTES**

(1) PROVIDE SLOT SUPPLY DIFFUSER WITH FLANGE PLASTER FRAME, CONCEALED MOUNTING MOUNTING AND SQUARE PLENUM. WHERE INSTALLED IN LAY-IN CEILING PROVIDE TEGULAR LAY IN FRAME. LENGTH, INLET SIZE, NUMBER OF SLOTS AND SLOT WIDTH INDICATED ON PLANS. PRICE; SDS (TYPE 7 OR TYPE 17) SDB OR APPROVED EQUAL - SEE DETAIL E/M503. (2) PROVIDE SLOT RETURN AIR GRILLE WITH FLANGE PLASTER FRAME, CONCEALED MOUNTING WITHOUT PLENUM. WHERE INSTALLED IN LAY-IN CEILING PROVIDE TEGULAR LAY IN FRAME. LENGTH, NUMBER OF SLOTS AND SLOT WIDTH INDICATED ON PLANS. PRICE; SDR (TYPE 7 OR TYPE 17) OR APPROVED EQUAL -SEE DETAIL D/M503.

- D/M503.  $\langle 6 \rangle$  IN WALL DRYER VENT BOX

- END OF DUCT.

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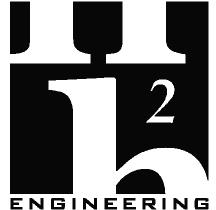
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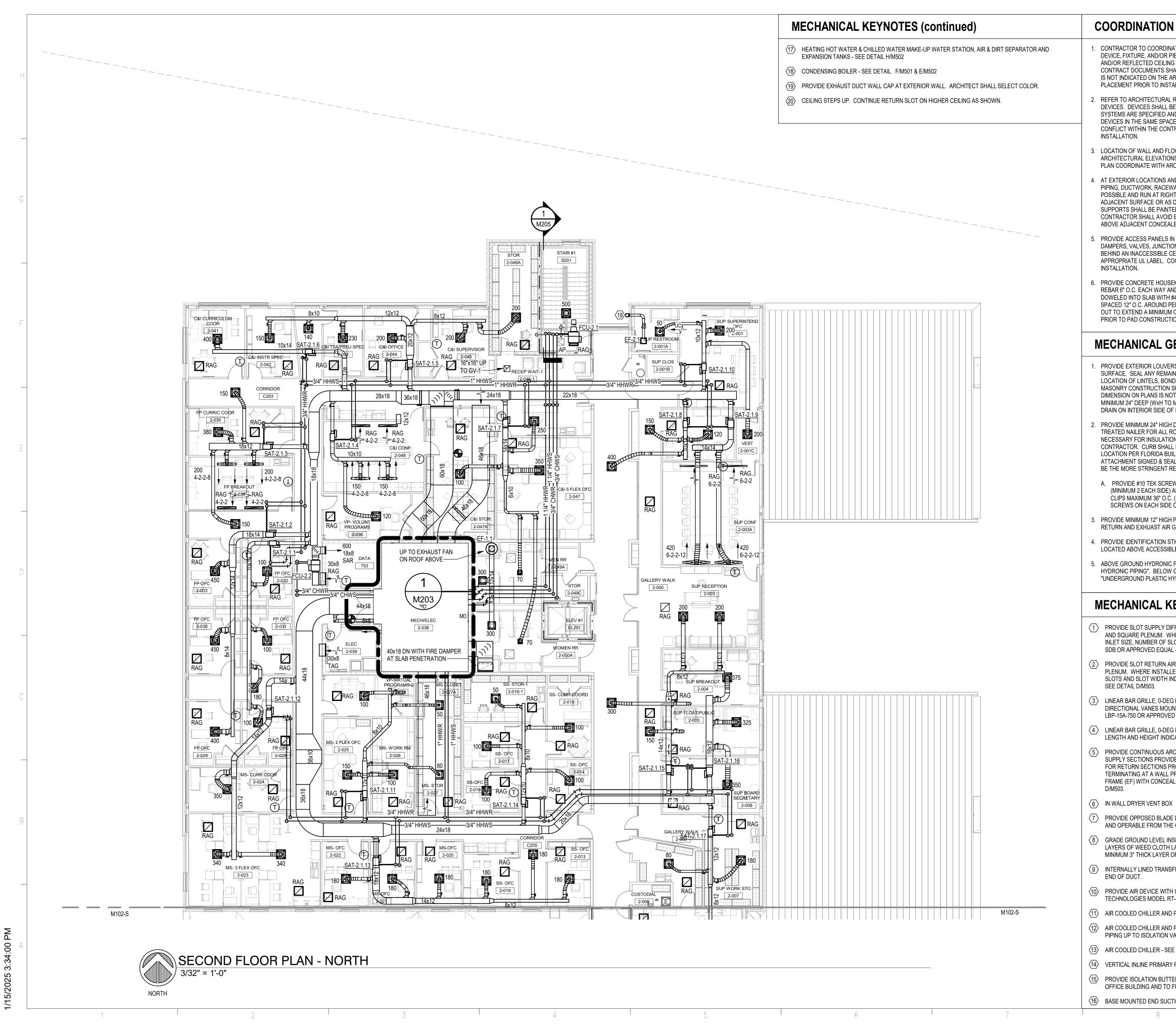
Jeffrey L. Tyler, P.E. #57093

#### **WCSD EDUCATIONAL ANCILLARY FACILITIES -DISTRICT OFFICE**

#### RECEIVED **ALLSTATE CONSTRUCTION** 01-16-2025

REV	DATE	DESCRIPT	ΓΙΟΝ	
PROJEC	CT PHASE			
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DATE			DRAWN BY	
15 JAN	UARY 2025		JDR	
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SHEET TITLE				
FIRST FLOOR PLAN SOUTH				

SHEET NO M101-S



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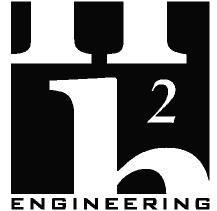
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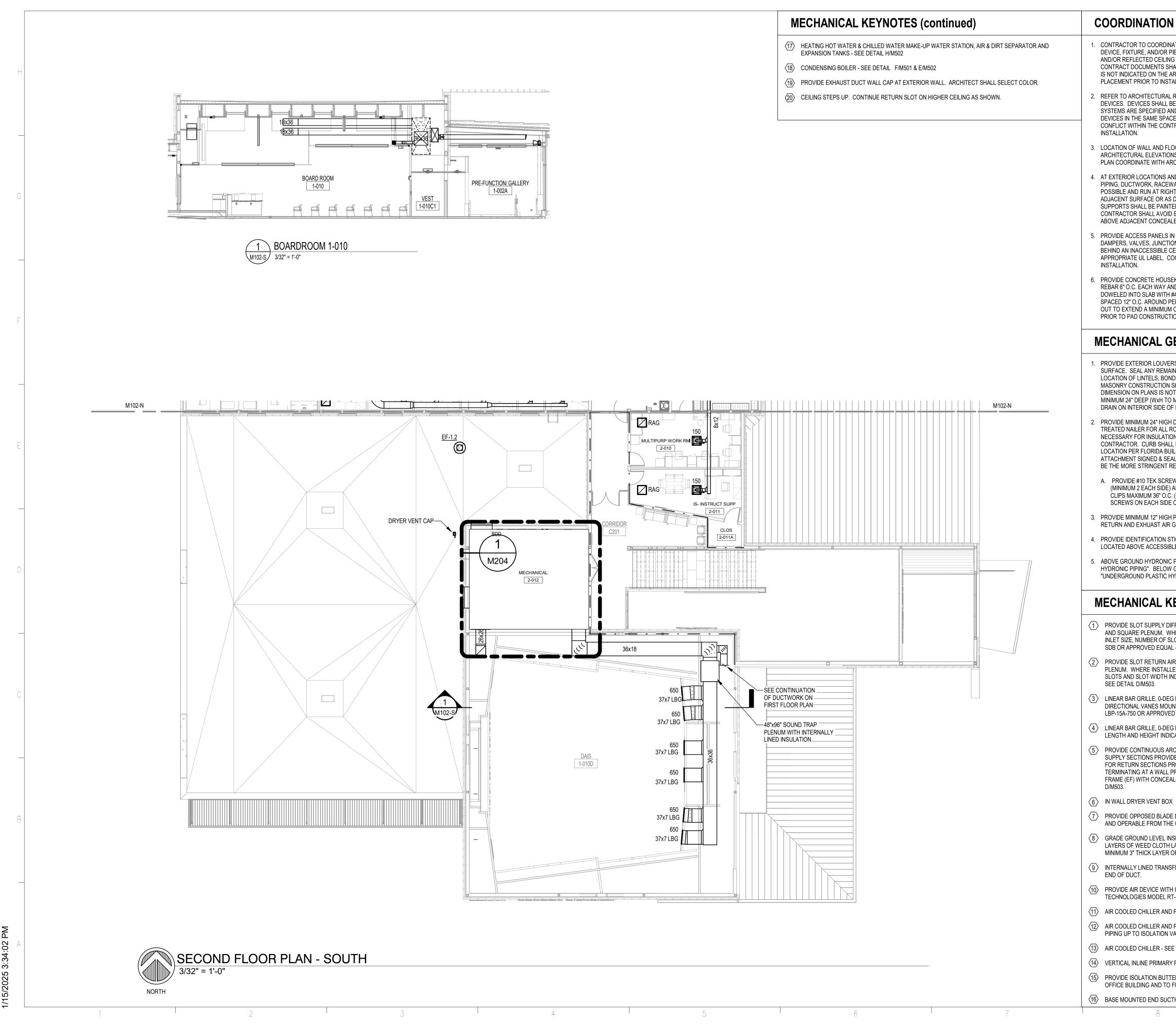
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SE	SECOND FLOOR PLAN				
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SHEET NO

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(7) PROVIDE OPPOSED BLADE DAMPER AT GRILLE OR DIFFUSER, INTEGRAL WITH AIR DISTRIBUTION DEVICE AND OPERABLE FROM THE GRILLE OR DIFFUSER FACE.

(8) GRADE GROUND LEVEL INSIDE UTILITY YARD AND TREAT SOIL WITH WEED KILLER. PROVIDE TWO LAYERS OF WEED CLOTH LAID WITH SEAMS AT 90 DEGREES TO ONE ANOTHER AND COVER WITH MINIMUM 3" THICK LAYER OF #57 GRAVEL FROM EDGE OF EQUIPMENT PADS TO YARD WALLS.

(9) INTERNALLY LINED TRANSFER AIR DUCT ABOVE CEILING. TURN ELBOW UP AND LEAVE OPEN ONE EACH

(10) PROVIDE AIR DEVICE WITH CABLE ACTUATED DAMPER, EQUIVALENT TO METROPOLITAN AIR TECHNOLOGIES MODEL RT-100. SET CABLE LENGTH AS REQUIRED TO TERMINATE AT AIR DEVICE FACE.

(11) AIR COOLED CHILLER AND PRIMARY PUMP TO BE INSTALLED AS PART OF THIS PROJECT.

(12) AIR COOLED CHILLER AND PRIMARY PUMP TO BE INSTALLED AS PART OF FUTURE EPICENTER PROJECT. PIPING UP TO ISOLATION VALVES AS INDICATED TO BE INSTALLED AS PART OF THIS PROJECT.

(13) AIR COOLED CHILLER - SEE DETAIL A/M501 & E/M501

(14) VERTICAL INLINE PRIMARY PUMP - SEE DETAIL B/M501

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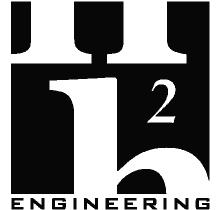
(16) BASE MOUNTED END SUCTION SECONDARY PUMP - SEE DETAIL C/M501



ARCHITECTURE PLANNING INTERIORS GRAPHICS

ELLIOTT MARSHALL INNES P.A. (EMI architects) 251 E. 7TH AVENUE TALLAHASSEE FL 32303 (850) 222 - 7442 www.emiarch.com LICENSE #s AA C000409 IB C000153

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Jeffrey L. Tyler, P.E. #57093

#### **WCSD EDUCATIONAL ANCILLARY FACILITIES -DISTRICT OFFICE**

#### RECEIVED **ALLSTATE CONSTRUCTION** 01-16-2025

REV	DATE	DESCRIPT	ION		
PROJE	CT PHASE				
CONST		OCUMENT	S		
DATE	DATE DRAWN BY				
15 JAN	UARY 2025		JDR		
PROJE	CT NO		CHECKED BY		
68100	68100 JLT				
SHEET TITLE					
SECOND FLOOR PLAN					
SOUTH					

REV NO M102-S

SHEET NO



# **MECHANICAL GENERAL NOTES**

PROVIDE EXTERIOR LOUVERS WITH NECESSARY TRIM KIT TO RECESS LOUVER INTO FINISH MASONRY SURFACE. SEAL ANY REMAINING OPENING AROUND PERIMETER. SEE STRUCTURAL DRAWINGS FOR LOCATION OF LINTELS, BOND BEAMS AND REINFORCING AND COORDINATE ACCORDINGLY, LOUVERS IN MASONRY CONSTRUCTION SHALL BE DIMENSIONED IN BRICK COURSING (MODULES OF 4" W x 8" H); IF DIMENSION ON PLANS IS NOT BRICK COURSING ROUND UP TO NEXT LARGER COURSING MODULE. PROVIDE MINIMUM 24" DEEP (WXH TO MATCH LOUVER) INSULATED SHEET METAL PLENUM WITH BOTTOM SLOPED TO DRAIN ON INTERIOR SIDE OF LOUVERS.

PROVIDE MINIMUM 24" HIGH DOUBLE WALL, FULLY WELDED, INSULATED ROOF CURBS WITH 2x4 PRESSURE TREATED NAILER FOR ALL ROOF MOUNTED EQUIPMENT. HEIGHT SHALL BE EXTENDED BEYOND 24" AS NECESSARY FOR INSULATION THICKNESS AND PROPER FLASHING AS DETERMINED BY ROOFING CONTRACTOR. CURB SHALL BE RATED FOR WIND SPEED AND EXPOSURE CATEGORY FOR PROJECT LOCATION PER FLORIDA BUILDING CODE. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ATTACHMENT SIGNED & SEALED BY STRUCTURAL ENGINEER LICENSED IN FLORIDA. ATTACHMENT SHALL BE THE MORE STRINGENT REQUIREMENT AS DETERMINED BY ENGINEER OR THE FOLLOWING:

A. PROVIDE #10 TEK SCREWS (METAL DECK) OR 1/4" TAPCONS (CONCRETE DECK) AT MAXIMUM 24" O.C. (MINIMUM 2 EACH SIDE) AROUND PERIMTER TO SECURE CURB TO ROOF. PROVIDE MGM STANDARD CLIPS MAXIMUM 36" O.C. (MINIMUM 1 EACH SIDE) TO SECURE EQUIPMENT TO CURB WITH #10 TEK SCREWS ON EACH SIDE OF CLIP.

3. PROVIDE MINIMUM 12" HIGH PLENUM LINED WITH 1" THICK INSULATION ON TOP OF CEILING MOUNTED RETURN AND EXHUAST AIR GRILLES (WxL TO MATCH GRILLE).

4. PROVIDE IDENTIFICATION STICKERS (1/2" ROUND) ON GRID WHERE VALVES OR TERMINAL UNITS ARE LOCATED ABOVE ACCESSIBLE CEILINGS.

5. ABOVE GROUND HYDRONIC PIPING SHALL BE METAL PER SPECIFCATION 232113.12 "ABOVE GROUND METAL HYDRONIC PIPING". BELOW GRADE HYDRONIC PIPING MAY BE PLASTIC PER SPECIFICATION 232113.15 "UNDERGROUND PLASTIC HYDRONIC PIPING."

# MECHANICAL KEYNOTES

(1) PROVIDE SLOT SUPPLY DIFFUSER WITH FLANGE PLASTER FRAME, CONCEALED MOUNTING MOUNTING AND SQUARE PLENUM. WHERE INSTALLED IN LAY-IN CEILING PROVIDE TEGULAR LAY IN FRAME. LENGTH, INLET SIZE, NUMBER OF SLOTS AND SLOT WIDTH INDICATED ON PLANS. PRICE; SDS (TYPE 7 OR TYPE 17) SDB OR APPROVED EQUAL - SEE DETAIL E/M503.

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#### $\langle 6 \rangle$ IN WALL DRYER VENT BOX

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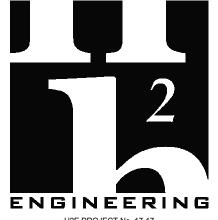
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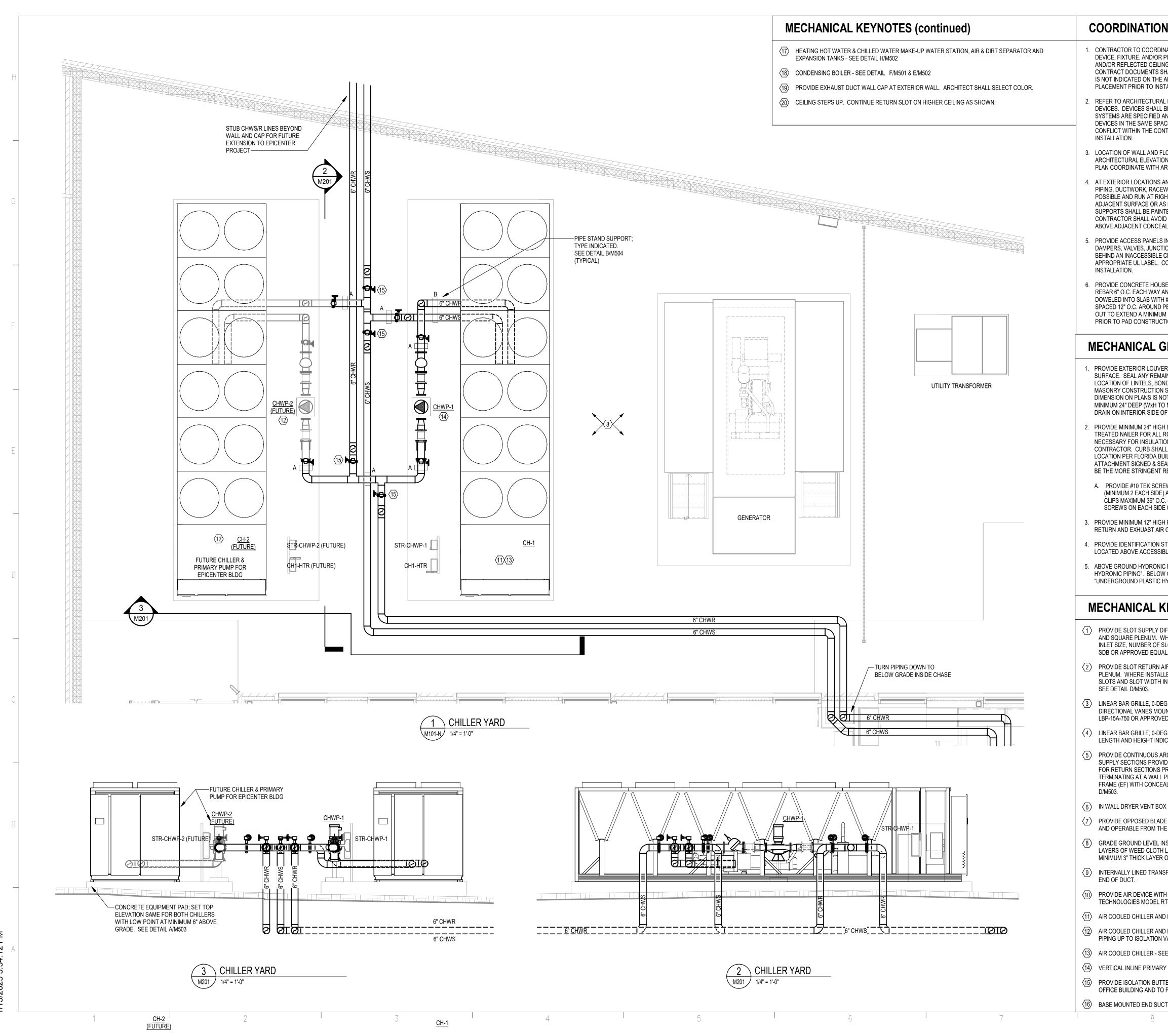
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68100			MTS		
SHEET TITLE					
ROOF PLAN					

SHEET NO

M103



CONTRACTOR TO COORDINATE THE LOCATION, ALIGNMENT, ELEVATION AND/OR SPACING OF ANY EXPOSED DEVICE, FIXTURE, AND/OR PIECE OF EQUIPMENT WITH THE ARCHITECTURAL FLOOR PLANS, ELEVATIONS, AND/OR REFLECTED CEILING PLANS. DISCREPANCIES AND/OR CONFLICTS CONTAINED WITHIN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. IF AN EXPOSED ITEM IS NOT INDICATED ON THE ARCHITECTURAL DOCUMENTS NOTIFY THE ARCHITECT FOR CLARIFICATION OF PLACEMENT PRIOR TO INSTALLATION.

REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR SPECIFIC LOCATIONS OF CEILING MOUNTED DEVICES. DEVICES SHALL BE INSTALLED IN THE CENTER OF CEILING TILES WHERE ACOUSTICAL CEILING SYSTEMS ARE SPECIFIED AND ON THE SAME CENTERLINES WITH OTHER ADJACENT CEILING MOUNTED DEVICES IN THE SAME SPACE. IF A DEVICE'S LOCATION IS NOT CLEARLY INDICATED OR THERE IS A CONFLICT WITHIN THE CONTRACT DOCUMENTS NOTIFY ARCHITECT FOR CLARIFICATION PRIOR TO

LOCATION OF WALL AND FLOOR MOUNT DEVICES IS DIAGRAMMATIC AND SHOWN FOR CLARITY. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOCATION OF DEVICES. WHERE NOT INDICATED ON ARCHITECT'S PLAN COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.

4. AT EXTERIOR LOCATIONS AND IN SPACES WITH EXPOSED STRUCTURE EXPOSED UTILITIES (INCLUDING PIPING, DUCTWORK, RACEWAYS, ETC.) SHALL BE INSTALLED NEATLY, BUNDLED TOGETHER TO EXTENT POSSIBLE AND RUN AT RIGHT ANGLES TO BUILDING LINES. THESE UTILITIES SHALL BE PAINTED TO MATCH ADJACENT SURFACE OR AS DIRECTED BY ARCHITECT. HANGERS, STEEL SHAPES AND SLOTTED STEEL SUPPORTS SHALL BE PAINTED TO MATCH RACEWAY OR AS DIRECTED BY ARCHITECT. TO EXTENT POSSIBLE CONTRACTOR SHALL AVOID EXPOSED RACEWAYS BY INSTALLING UTILITIES BELOW GRADE, IN WALL, OR ABOVE ADJACENT CONCEALED CEILING SPACES.

PROVIDE ACCESS PANELS IN CEILING WHERE ANY DEVICE OR EQUIPMENT REQUIRING SERVICE (INCLUDING DAMPERS, VALVES, JUNCTION BOXES, CONTROLLERS, SMOKE DETECTORS, ETC.) IS LOCATED ABOVE OR BEHIND AN INACCESSIBLE CEILING OR WALL. ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR APPROPRIATE UL LABEL. COORDINATE LOCATION AND TYPE OF ACCESS PANEL WITH ARCHITECT PRIOR TO

PROVIDE CONCRETE HOUSEKEEPING PAD FOR ALL FLOOR OR GROUND MOUNTED EQUIPMENT WITH #4 REBAR 6" O.C. EACH WAY AND 1" CHAMFERED TOP EDGE. PADS ON CONCRETE SLAB SHALL BE 4" HIGH AND DOWELED INTO SLAB WITH #4 REBAR EXTENDING 2" INTO PAD, 3" INTO SLAB AND EPOXIED IN PLACE AND SPACED 12" O.C. AROUND PERIMETER OF PAD. PADS ON EARTH SHALL BE MINIMUM 6" THICK AND LAYED OUT TO EXTEND A MINIMUM OF 4" ABOVE GRADE AT HIGHEST GRADE LEVEL; COMPACT EARTH BELOW PAD PRIOR TO PAD CONSTRUCTION.

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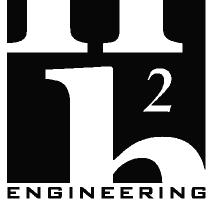
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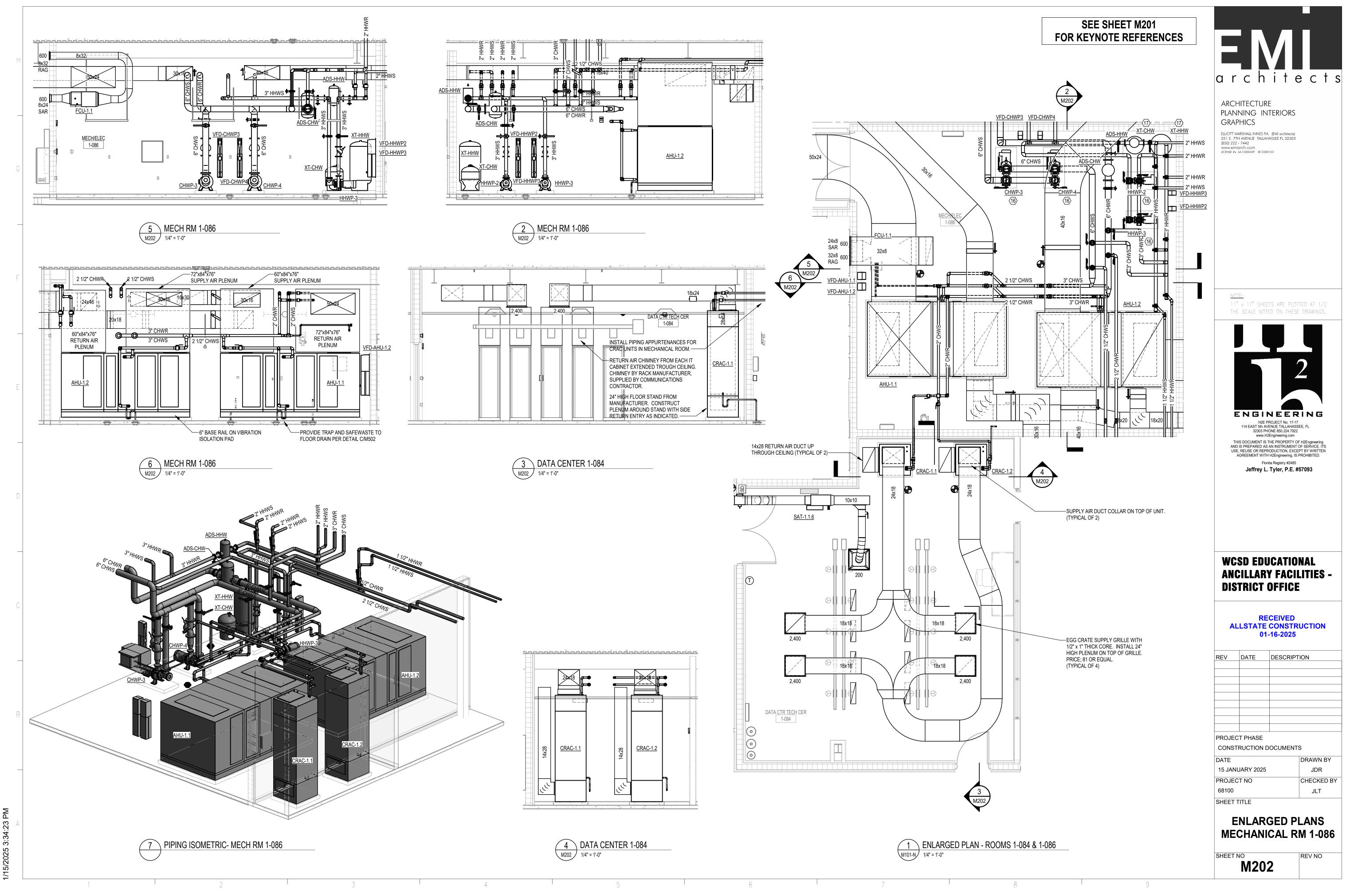
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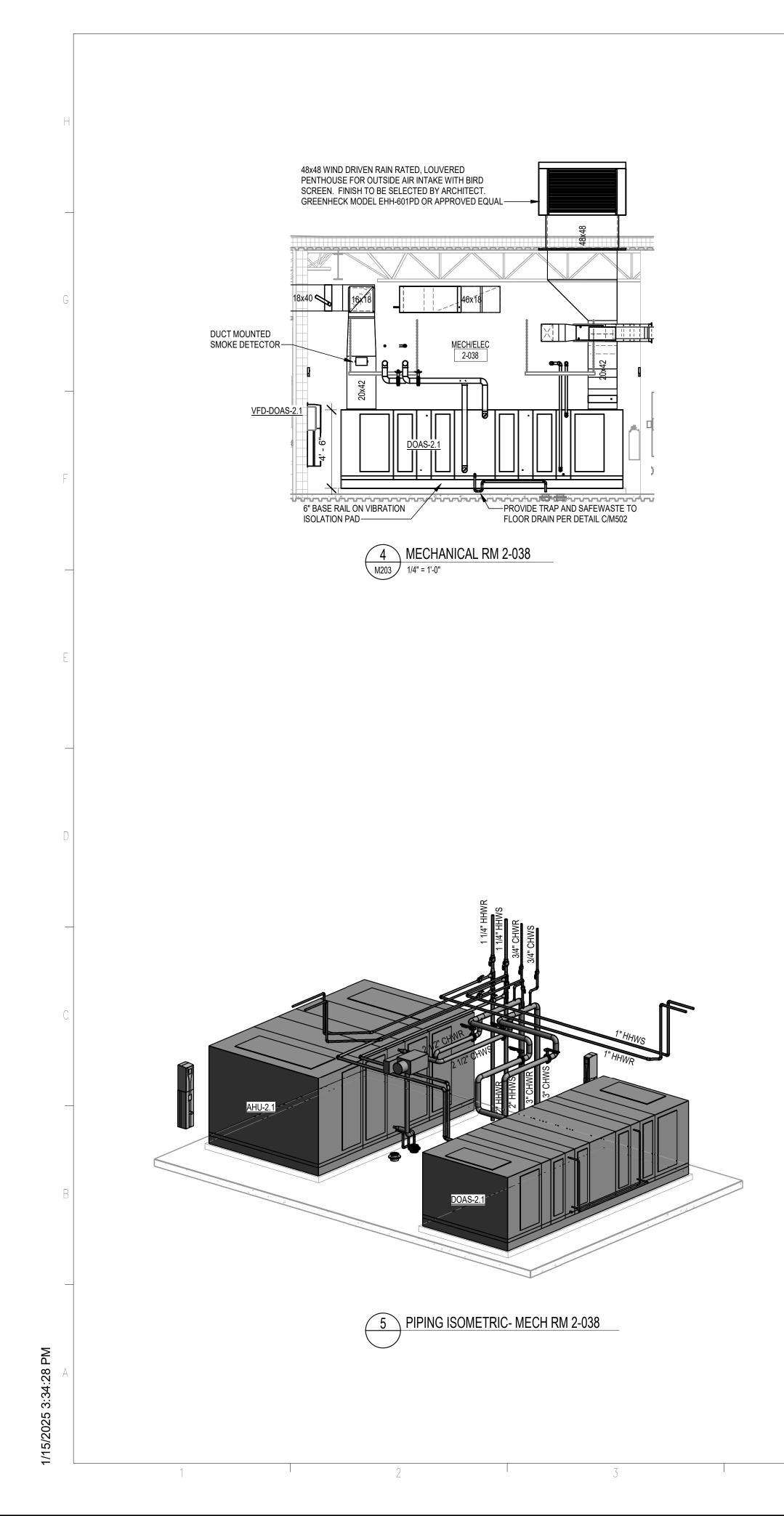
#### WCSD EDUCATIONAL **ANCILLARY FACILITIES -DISTRICT OFFICE**

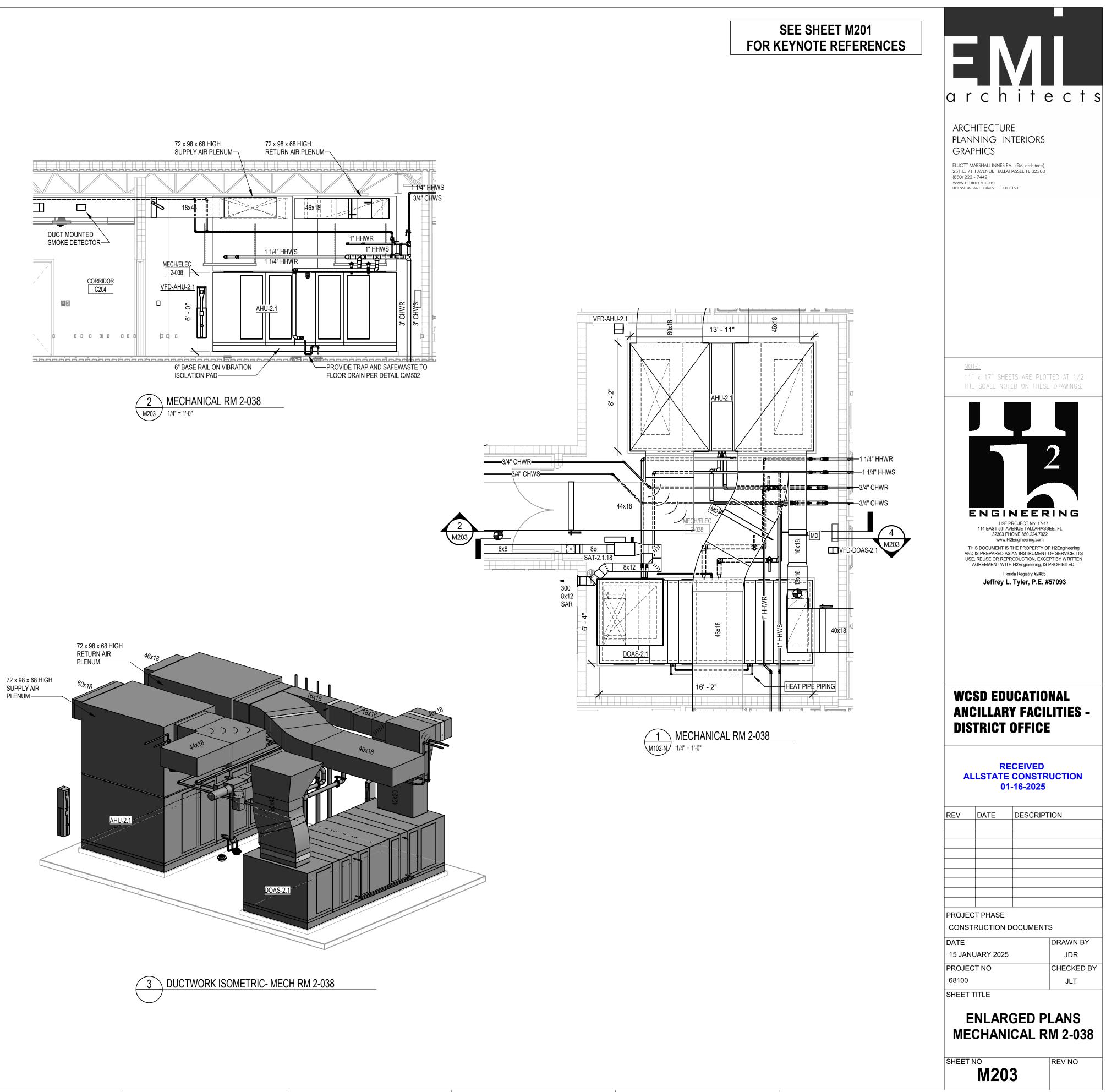
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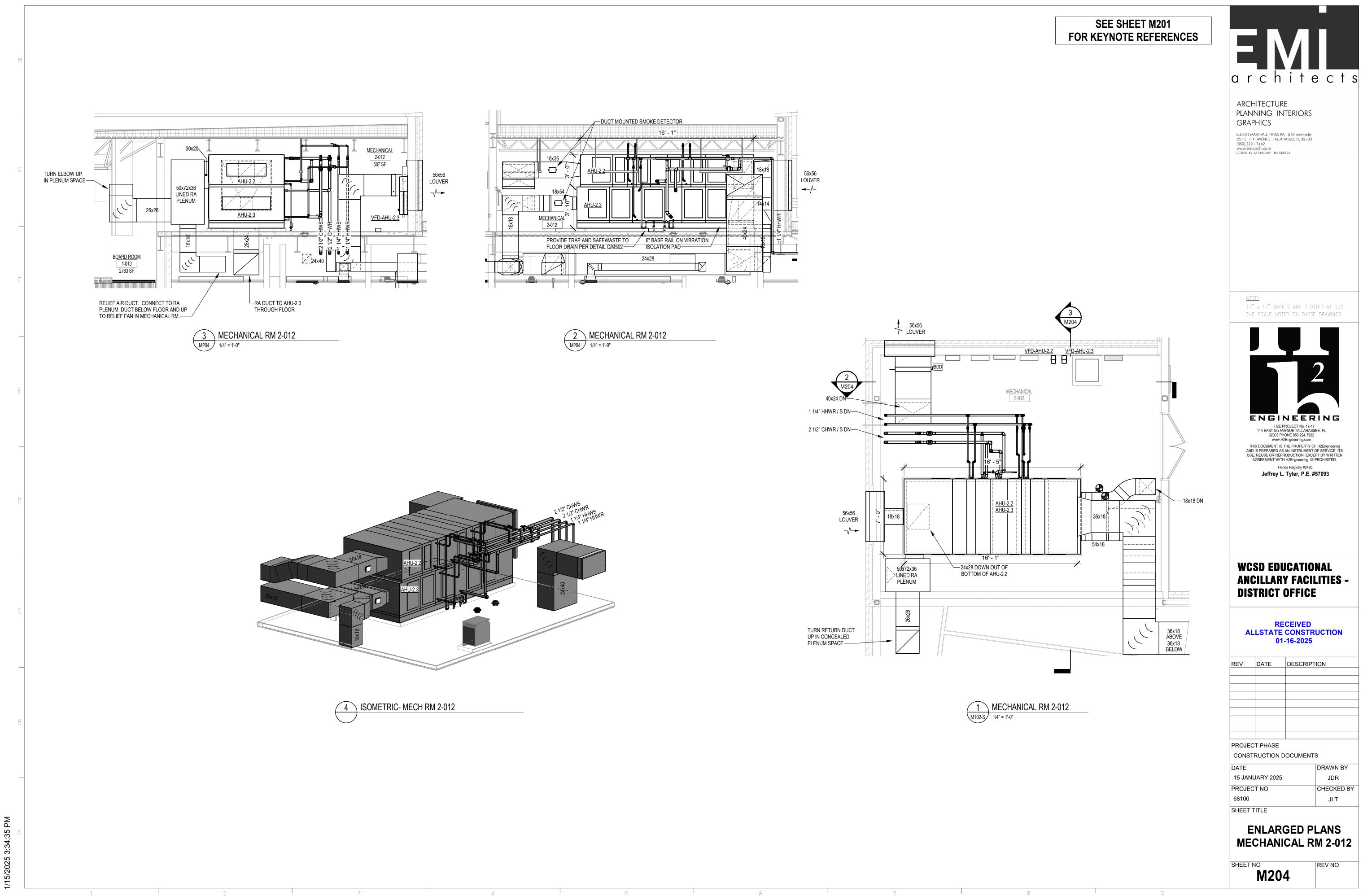
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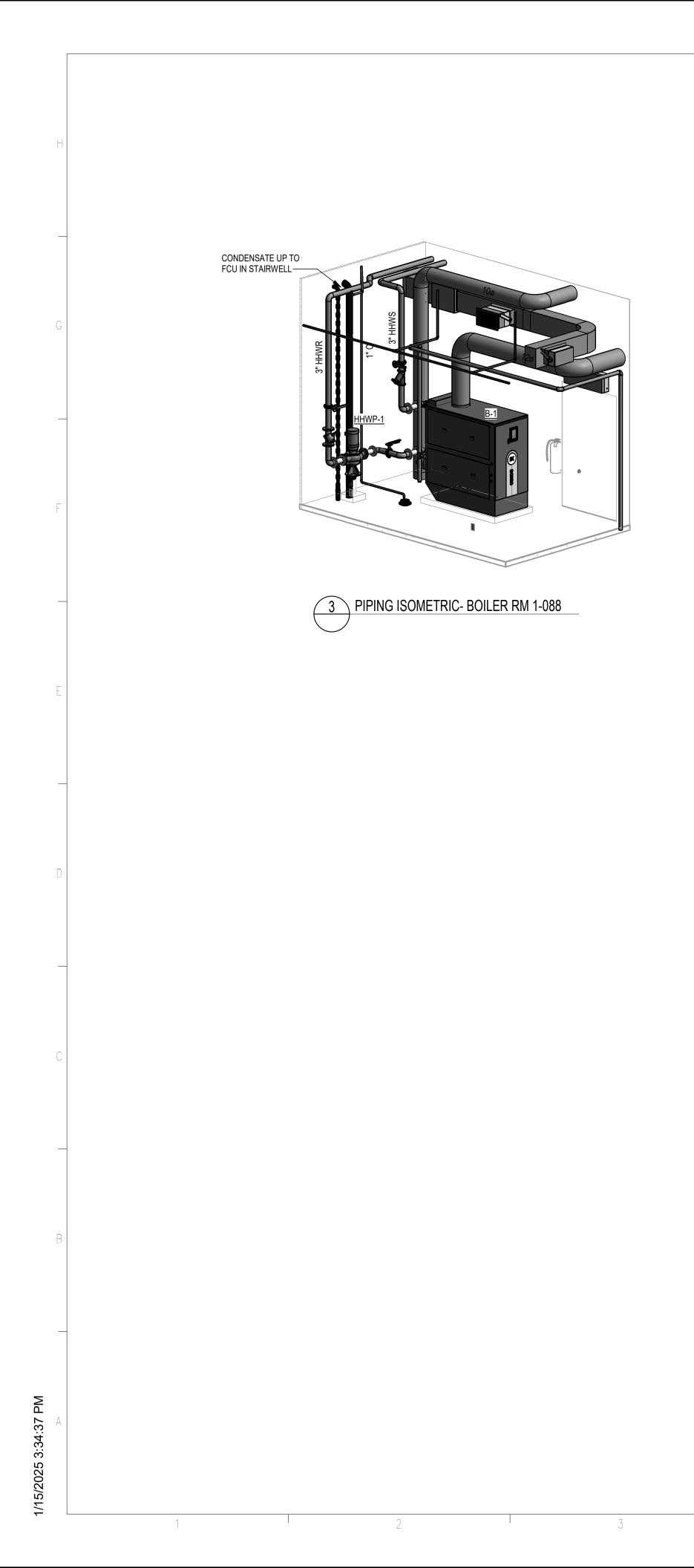


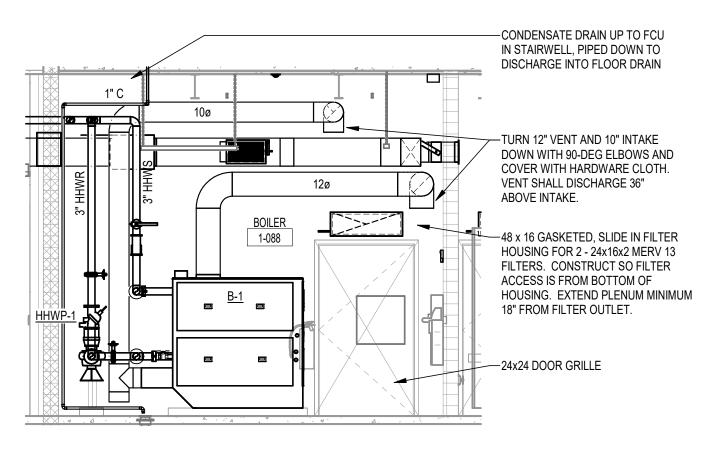




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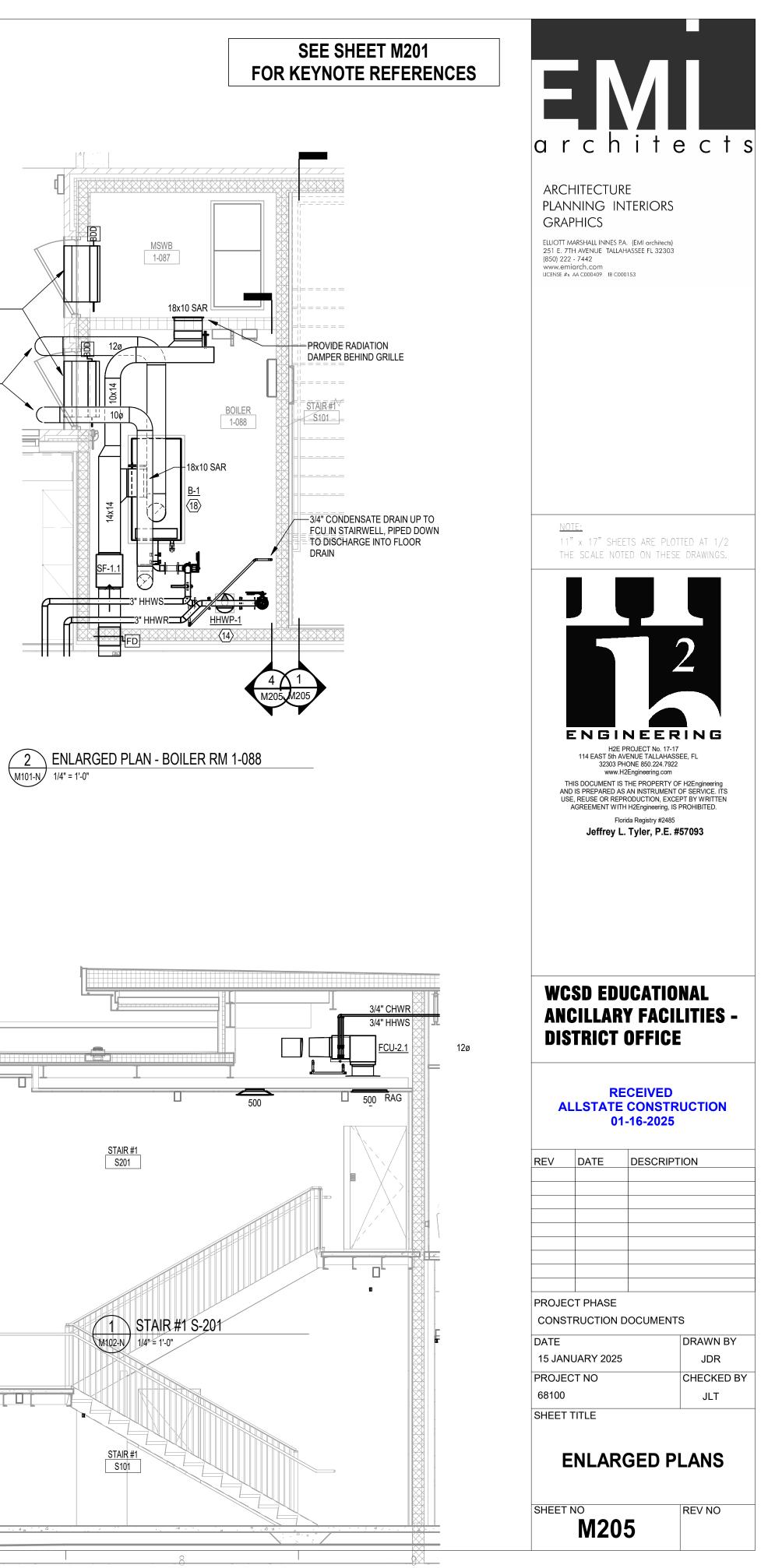


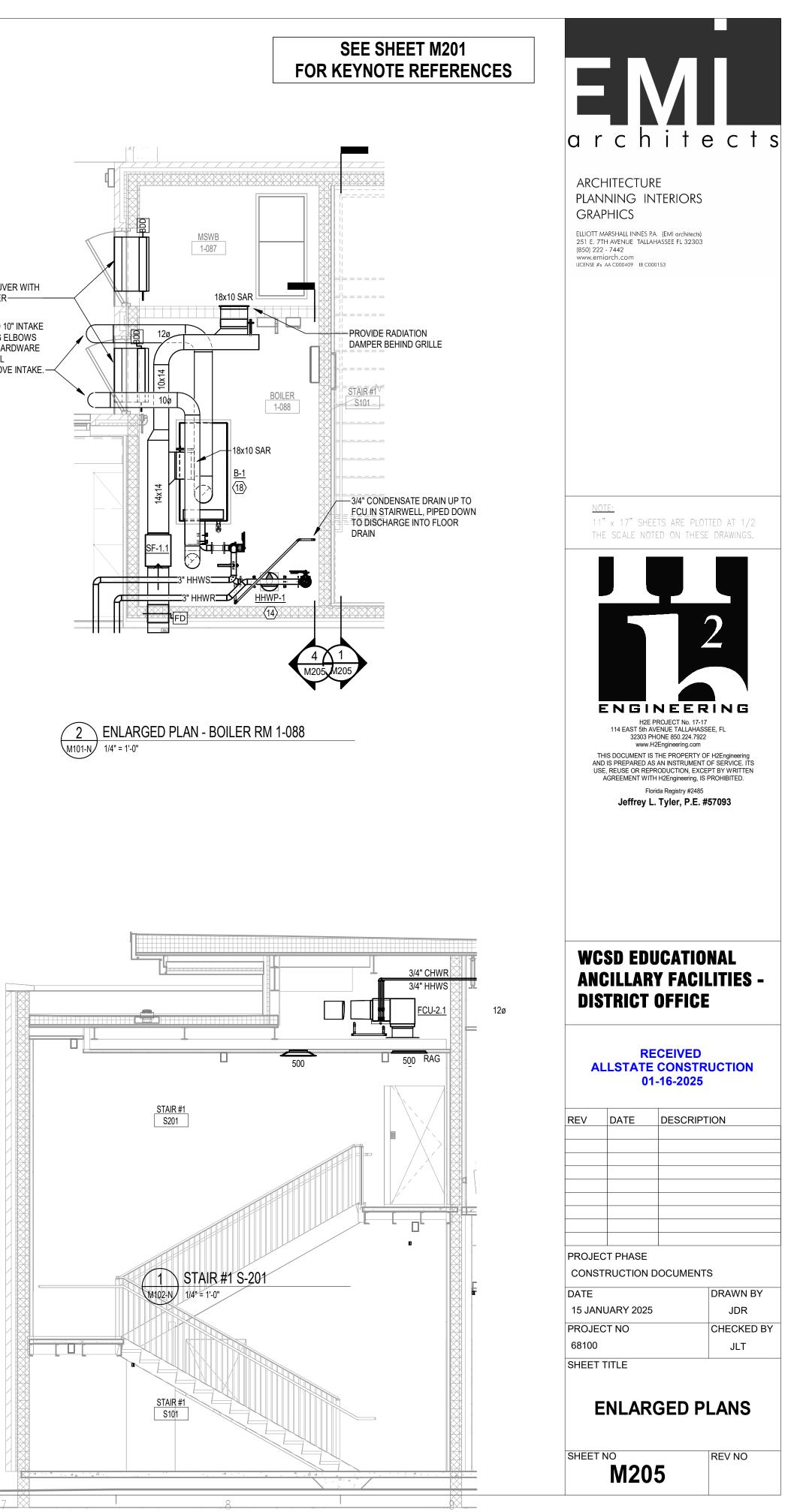


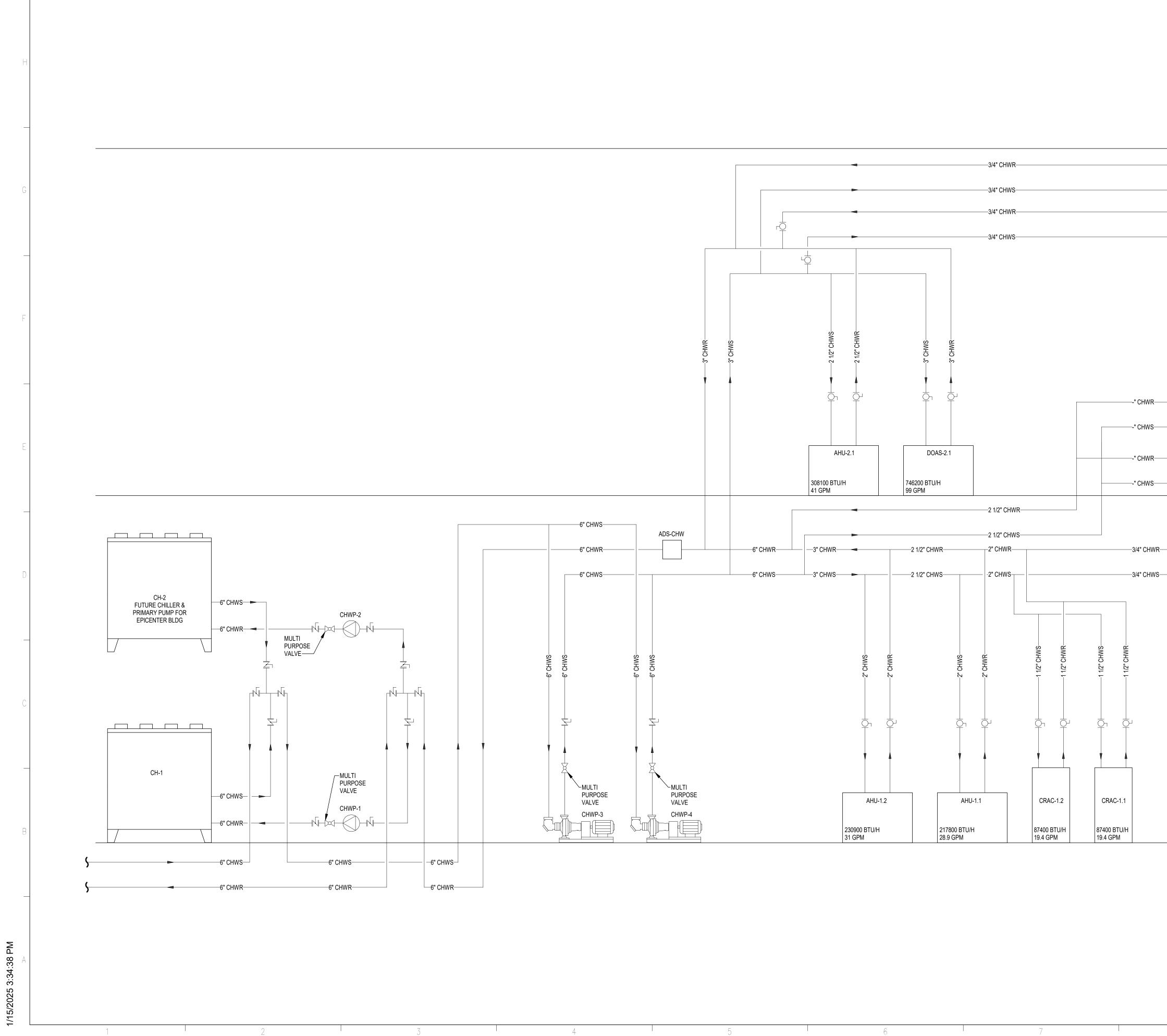
4 MECHANICAL RM 1-088 M205 1/4" = 1'-0"

48x16 EXHAUST LOUVER WITH BACKDRAFT DAMPER—

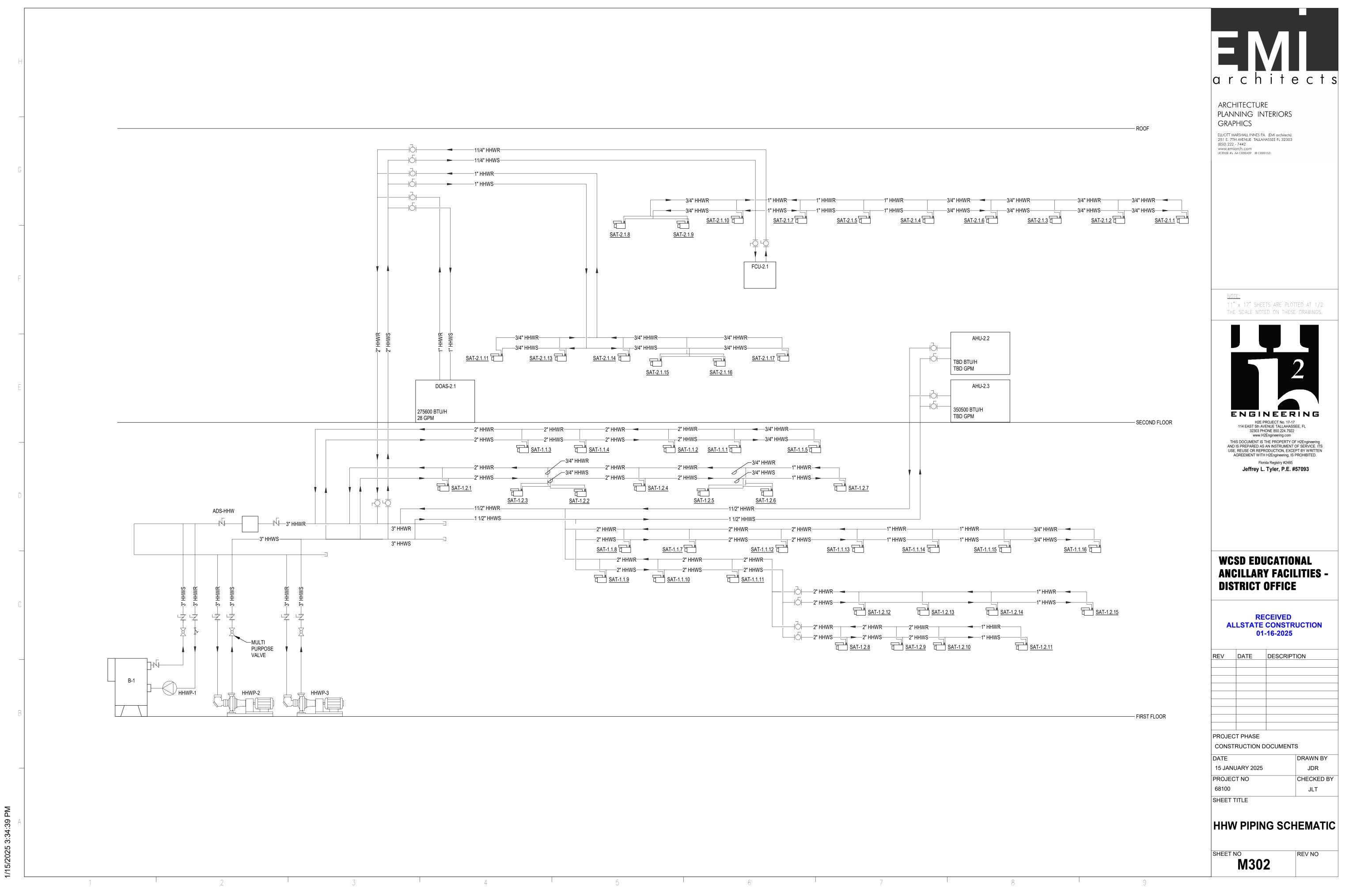
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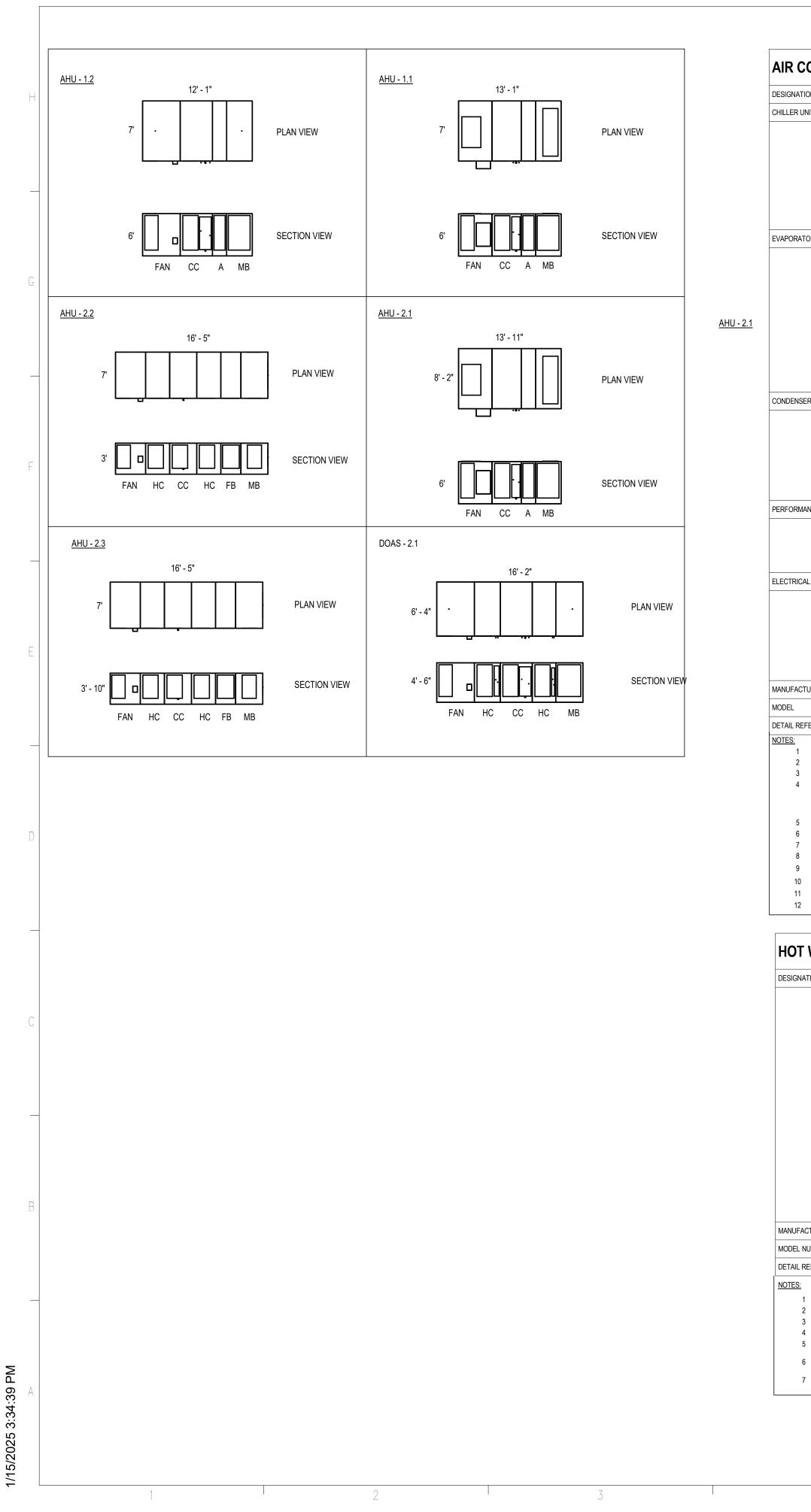






FCU-2.1 14900 BTU/H 2.2 GPM FCU-2.2 BTU/H GPM	ROOF	<section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header>
AHU-2.2 -5 TBD BTU/H TBD GPM -5 AHU-2.3 -5 TBD BTU/H TBD GPM -5 TBD BTU/H TBD GPM	SECOND FLOOR	<text><text><image/><text><text><text><text></text></text></text></text></text></text>
		WCSD EDUCATIONAL         ANCILLARY FACILITIES -         DISTRICT OFFICE         ALLSTATE CONSTRUCTION         01-16-2025         REV       DATE         DESCRIPTION
	FIRST FLOOR	PROJECT PHASE CONSTRUCTION DOCUMENTS DATE 15 JANUARY 2025 DRAWN BY 15 JANUARY 2025 JDR PROJECT NO 68100 CHECKED BY 68100 JLT SHEET TITLE CHW PIPING SCHEMATIC





AIR C	COOLED CHILLER SCHEDULE	C	hiller CH-2 is future
ESIGNAT	TION		CH - 1/2
HILLER U	JNIT DATA		
	NOMINAL CAPACITY	TONS	200
	REFRIGERATION CAPACITY TOTAL	TONS	196.8
	NO. OF COMPRESSORS & NO. OF CIRCUITS	#-#	2 – 2
	TYPE OF REFRIGERANT		R-134A
	REFRIGERANT CHARGE	LBS.	436
	OPERATING WEIGHT	LBS.	14,800
VAPORA	TOR DATA		
	WATER SUPPLY TEMPERATURE	°F	44
	WATER RETURN TEMPERATURE	°F	59
	FLOW RATE	GPM	280
	PASSES	#	2
	PRESSURE DROP	FT.	6.6
	WORKING PRESSURE	PSIG	150
	FOULING FACTOR	HR*SF*DEG/BTU	0.00010
	PERCENT ETHYLENE GLYCOL	%	0
UNDENS			
		۴	98
	NUMBER OF FANS	#	12
	FAN TYPE		VARIABLE SPEED
	CONDENSER COILS (TUBES / FINS)		MICROCHANNEL
	CONDENSER COATING		NONE
ERFORM	IANCE DATA	1	
	ENERGY EFFICIENCY RATIO (@ 100% LOAD)	BTU / (W*HR)	11.9
	NPLV	BTU / (W*HR)	21.2
	IPLV	BTU / (W*HR)	21.2
ECTRIC	AL DATA		
	COMPRESSOR STARTER TYPE		VFD
	ELECTRICAL CHARACTERISTICS & NO. OF CIRCUITS	V/PH - #	460/3 – 1
	MCA	AMPS	330.0
	MOCP	AMPS	450.0
	TOTAL POWER	kW	198.3
ANUFAC	TURER		TRANE
ODEL			ACRB200
-	EFERENCE		A/M503
DTES:			
1 2	PROVIDE SEPARATE 115V/1Ø POWER CONNECTION FOR EVAPOR PROVIDE CONTROL POWER TRANSFORMER.	ATOR HEAT TAPE.	
2	PROVIDE CONTROL FOWER TRAINSFORMER. PROVIDE VARIABLE FREQUENCY DRIVE AND UNIT CONTROLS HO	USED IN AN OUTDOOR RATED W	EATHER TIGHT ENCLOSUR
4	CONDENSER ENVIRONMENT GUARD PREMIUM: PROVIDE ELECTR FLEXIBLE EPOXY COATING, 6,000 HOUR SALT SPRAY RESISTANCI CONDENSER COIL.		
5	PROVIDE SUCTION SERVICE VALVES		
6 7	PROVIDE HOT GAS BYPASS PROVIDE EVAPORATOR NOZZLE EXTENSION KIT		
8	PROVIDE VARIABLE SPEED CONDENSER FANS		
9			
10 11			
12			

#### HOT WATER BOILERS

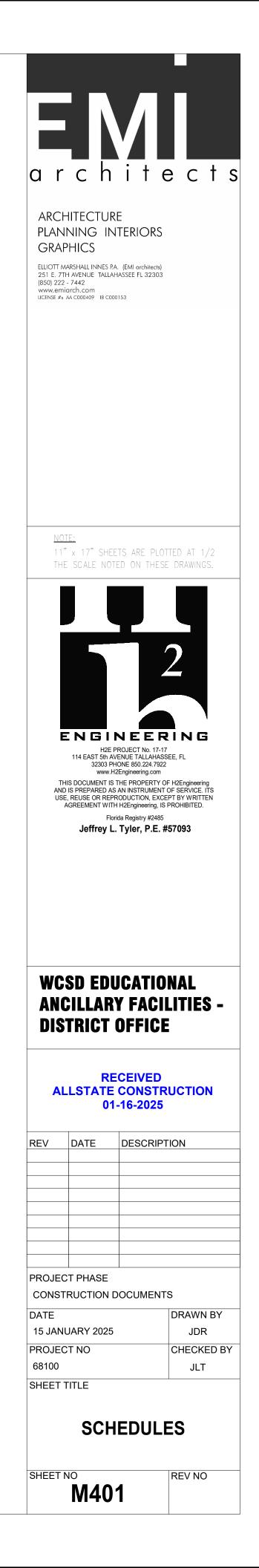
	B - 1
	NATURAL GAS
	INDOOR
	CONDENSING
	WATERTUBE
	STAINLESS STEEL
MBTUH	1,500
MBTUH	1,456
%	97
RATIO	5:1
°F	180
°F	160
GPM	146
V / PH	208 / 1
	PATTERSON-KELLEY
	SC-1500
	E/M502
	MBTUH % RATIO °F °F GPM

PROVIDE SEALED DIRECT VENT KIT. 1

4

- PROVIDE LOW WATER CUT-OFF REMOVE PROBE. 2
- 3 PROVIDE MANUAL HIGH AND LOW GAS PRESSURE SWITCH. 4 PROVIDE HIGH LIMIT CONTROL - MANUAL RESET.
- 5 PROVIDE CONDENSATE NEUTRALIZATION KIT.
- PROVIDE DOCUMENTATION OF ALL START-UP INTERNAL CONFIGURATIONS AND SET-POINTS TO ENGINEER PRIOR TO SUBSTANTIAL COMPLETION 6
- 7 PROVIDE MOTORIZED DAMPERS ON [FLUE AND] COMBUSTION AIR VENTS.

OUTSIDE AIRMINIMUM SUPMINIMUM OUTSILTER SECTIONSILTER SECTIONSILTER SECTIONFILTER ORIENFILTER ORIENFILTER ORIENREHEAT COLL DATA HYDRONICAIR ENTERINGAIR ENTERINGMINIMUM FACOUDLING COLL DATA HYDRONICCONTROL VALSOOLING COLL DATA HYDRONICCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONDENSATECONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALEATING COLL DATA HYDRONICCONTROL VALCONTROL VALCONTROL VALEATING COLL DATA HYDRONICCONTROL VALCONTROL VALEATING COLL DATA HYDRONICCONTROL VALEATING COLL DATA HYDRONICCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCOUND CRITERIAFAN CUANTITCOUND CRITERIAFAN QUANTITCOUND CRITERIACOUND CRITERIA </th <th>TAL SUPPLY AIR</th> <th>CFM</th> <th>10,400</th> <th></th> <th></th> <th></th> <th></th>	TAL SUPPLY AIR	CFM	10,400				
QUITSIDE AIRMINIMUM SUPMINIMUM OUTILTER SECTIONFILTER ORIENFILTER ORIENFILTER ORIENFILTER ORIENREHEAT COIL DAT- HYDRONICAIR ENTERINGAIR LEAVING PIPEOULING COIL DAT- HYDRONICOULING COIL DAT- HYDRONICGUNOUT PIPECONTROL VALQUING COIL DAT- HYDRONICGUYCOL CONDAIR LEAVING COCONTROL VALQUING COIL DAT- HYDRONICGUYCOL CONCGUYCOL CONCGUYCOL CONCGUYCOL CONCRUNOUT PIPECONTROL VALQUPLY FAN SECTIONUPPLY FAN SECTIONQUIND CRITERIAAIR LEAVING PIPEFAN TYPEGUND CRITERIAMAXIMUM TOTCONTROL VALQUND CRITERIAMAXIMUM TOTCONTROL VALCONTROL VALCONDOL CRITERIACONTOL CRITERIAAIN CALL ALL ORAIN CALL ALL ORAIN CALL ALL ORAINTH ANSINGAINTH ANSINGAINTH ANDELAINTH ANSINGAINTH ANSINGAINTH ANDICALAINTH ANSINGAINTH ANDICALAINTH ANSINGAINTH ANDI		CFM	10 400				
ILTER SECTION ILTER ORIEN IL	SIDE AIR	0514		9,900	13,100	3,900	5,600
MINIMUM OUT  LTER SECTION  LTER SECTION  LTER SECTION  LTER SECTION  LTER ORIEN  FILTER ORIEN  FILTER ORIEN  FILTER ORIEN  FILTER ORIEN  REHEAT COIL DATA - HYDRONIC  AIR LEAVING FI HHW ENTERIN  AIR LEAVING FI OUNDCOIL DATA - HYDRONIC  OULING COIL DATA - HYDRONIC  AIR ENTERING  AIR LEAVING CO  AIR LEAVING CO  AIR ENTERING  AIR LEAVING CO  AIR LEAVING		CFM %	2,000	2,400	1,600 	1,800	900
LTER SECTION           DAMPERS           FILTER ORIEN           FILTER ORIEN           TYPE OF FILTE           REHEAT COIL DATA - HYDRONIC           AIR ENTERING           AIR ENTERING           AIR ENTERING           WATER FLOW           RUNOUT PIPE           CONTROL VAL           DOLING COIL DATA - HYDRONIC           SENSIBLE COD           AIR ENTERING           AIR ENTERING           AIR ENTERING           GUYCOL CONG           AIR ENTERING           AIR ENTERING           AIR ENTERING           AIR ENTERING           AIR ENTERING           GUYCOL CONG           RUNOUT PIPE           CONDENSATE           CONTROL VAL           HEATING AIRF           HEATING AIRF           HEATING AIRF           HHW ENTERING           AIR ENTERING <t< td=""><td>IMUM SUPPLY FAN SPEED SETTING</td><td>CFM</td><td>2,000</td><td>30</td><td>1.600</td><td>50 300</td><td>30 900</td></t<>	IMUM SUPPLY FAN SPEED SETTING	CFM	2,000	30	1.600	50 300	30 900
DAMPERS FILTER ORIEN FILTER ORIEN TYPE OF FILTE REHEAT COIL DATA - HYDRONIC AIR ENTERING AIR LEAVING H HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL DOLING COIL DATA - HYDRONIC OLING COIL DATA - HYDRONIC GLYCOL CONG AIR ENTERING AIR LEAVING G GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL AIR LEAVING G HEATING AIRE HEATING AIRE HEATING AIRE HEATING AIRE HEATING AIRE HEATING AIRE AIR LEAVING F HEATING AIRE FAN TYPE DIRIE CONTROL VAL SETENAL AIR LEAVING F HEATING AIRE HEATING AIRE FAN TYPE DIRIE CONTROL VAL AIR LEAVING F HEATING AIRE HEATING AIRE HEATING AIRE AIR LEAVING F HEATING AIRE AIR LEAVING F HIT AIR C AIR		Of M	2,000	2,400	1,000	500	500
TYPE OF FILTE           REHEAT COIL DATA - HYDRONIC           AIR ENTERING           AIR LEAVING H           HHW ENTERING           WATER FLOW           WATER FLOW           RUNOUT PIPE           CONTROL VAL           DOLING COIL DATA - HYDRONIC           SENSIBLE COIL           AIR ENTERING           AIR LEAVING O           CHW ENTERING           AIR LEAVING O           CHW ENTERING           AIR LEAVING O           CONTROL VAL           WATER FLOW           WATER FLOW           WATER FLOW           WATER FLOW           WATER FLOW           WATER FLOW           MINIMUM FAC           GLYCOL COND           AIR LEAVING O           CONTROL VAL           HEATING COIL DAT- HYDRONIC           CONTROL VAL           HEATING CAP           <	IPERS		NONE	NONE	NONE	OA & RA	OA & RA
REHEAT COIL DATA - HYDRONIC           REHEAT COIL DATA - HYDRONIC           AIR ENTERING           AIR LEAVING H           HHW ENTERING           WATER FLOW           RUNOUT PIPE           CONTROL VAL           OOLING COIL DATA - HYDRONIC           SENSIBLE COIL           AIR ENTERING           AIR ENTERING           AIR LEAVING C           CHW ENTERING           AIR LEAVING C           CHW ENTERING           AIR LEAVING C           CONDENSATE           CONDENSATE           CONDENSATE           CONTROL VAL           HEATING AIRE           HEATING COIL DATA - HYDRONIC           CONDENSATE           CONTROL VAL           RUNOUT PIPE           CONTROL VAL           HEATING AIRE           HEATING AIRE           HEATING COIL           AIR ENTERING           AIR ENTERING           HEATING COIL DATA - HYDRONIC           EATING COIL DATA - HYDRONIC           EATING COIL DATA - HYDRONIC           EATING COIL DATA - HYDRONIC           INTROL Y           REDUNDANCY           REATING COIL DATA - HYDRONIC	ER ORIENTATION		ANGLED	ANGLED	ANGLED	FLAT	FLAT
HEATING CAP AIR ENTERING AIR LEAVING H HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL OOLING COIL DATA - HYDRONIC SENSIBLE CO AIR ENTERING AIR ENTERING AIR LEAVING C CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONC RUNOUT PIPE CONTROL VAL GLYCOL CONC RUNOUT PIPE CONTROL VAL AIR ENTERING AIR E	E OF FILTER		2" THICK PLEATED	2" THICK PLEATED	2" THICK PLEATED	2" THICK PLEATED	2" THICK PLEAT
AIR ENTERING         AIR LEAVING F         AIR LEAVING F         HHW ENTERING         RUNOUT PIPE         CONTROL VAL         DOLING COIL DATA - HYDRONIC         SENSIBLE COU         AIR ENTERING         AIR ENTERING         AIR ENTERING         AIR ENTERING         AIR LEAVING C         ChW ENTERING         AIR LEAVING C         CONDENSATE         CONTROL VAL         AIR IEAVING C         RUNOUT PIPE         CONTROL VAL         AIR ENTERING	IYDRONIC						
AIR LEAVING H         HHW ENTERIN         WATER FLOW         RUNOUT PIPE         CONTROL VAL         DOLING COIL DATA - HYDRONIC         SENSIBLE COM         AIR LEAVING G         AIR ENTERING         AIR LEAVING G         CHW ENTERING         AIR LEAVING G         CHW ENTERING         AIR LEAVING G         CHW ENTERING         MINIMUM FAC         GLYCOL CONG         RUNOUT PIPE         CONTROL VAL         EATING COIL DATA - HYDRONIC         EATING COIL DATA - HYDRONIC         BIRNE FLOW         WATER FLOW         MINIMUM FAC         GUYCOL CONG         RUNOUT PIPE         CONTROL VAL         HEATING CAP         HEATING CAP         HIW ENTERING         AIR ENTERING         VATER FLOW         WATER FLOW         WATER FLOW         HEATING CAP         HEATING CAP         HEATING CAP         HHW ENTERING         VATER FLOW         VATER FLOW         IPPLY FAN SECTON         INSTALLAL         QUND CRITERIA	TING CAPACITY	MBTUH				32.6	
HHW ENTERIN           WATER FLOW           WATER FLOW           RUNOUT PIPE           CONTROL VAL           DOLING COIL DATA - HYDRONIC           SENSIBLE COU           AIR ENTERING           AIR ENTERING           GLYCOL CONC           RUNOUT PIPE           CONTROL VAL           WATER FLOW           WINIMUM FAC           GLYCOL CONC           RUNOUT PIPE           CONDENSATE           CONTROL VAL           HEATING AIRE           HEATING AIRE           HEATING AIRE           HEATING AIRE           HEATING COIL DATA - HYDRONIC           AIR ENTERING           INNOUT PIPE           CONTROL VAL           YATER FLOW           INNOUT PIPE           CONTROL VAL           YATER FLOW           INTER FLOW           INTER FLOW           INTER FLOW <td>ENTERING HEATING COIL</td> <td>°F</td> <td></td> <td></td> <td></td> <td>39.6</td> <td></td>	ENTERING HEATING COIL	°F				39.6	
WATER FLOW RUNOUT PIPE CONTROL VAL CONTROL VAL CONTROL VAL SENSIBLE COU AIR ENTERING AIR ENTERING AIR LEAVING O CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONC RUNOUT PIPE CONDENSATE CONTROL VAL EATING COIL DATA - HYDRONIC CONTROL VAL EATING COIL DATA - HYDRONIC AIR ENTERING AIR	LEAVING HEATING COIL	°F				55	
RUNOUT PIPE CONTROL VALCOLING COIL DATA - HYDRONICCONTROL VALSENSIBLE CORAIR ENTERINGAIR ENTERINGAIR LEAVING CCHW ENTERINWATER FLOWMINIMUM FACGLYCOL CONCRUNOUT PIPECONDENSATECONTROL VALEATING COIL DATA - HYDRONICEATING COIL DATA - HYDRONICAIR ENTERINGAIR ENTERINGAIR ENTERINGMAXING AIRHEATING AIREHEATING AIREAIR ENTERINGAIR LEAVING FHHW ENTERINWATER FLOWPIPLY FAN SECTIONJIPPLY FAN SECTIONCONTROL VALCONTROL VALCOND CRITERIAANUFACTURER2ANUFACTURER3MAXIMUM ALLCONTROL VALANUFACTURER3CONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VALCONTROL VAL	V ENTERING & LEAVING TEMPERATURE	°F - °F				160 – 140	
CONTROL VAL COLING COIL DAT - HYDRONIC SENSIBLE COO AIR ENTERING AIR LEAVING O CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONO RUNOUT PIPE CONDENSATE CONTROL VAL EATING COIL DAT - HYDRONIC CONTROL VAL EATING COIL DAT - HYDRONIC AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING MATER FLOW MATER FLOW RUNOUT PIPE CONTROL VAL EATING AIRE FAN TYPE FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN MOTOR H EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL O WARIABLE FRE OUND CRITERIA ANUFACTURER 1 ANUFACTURER 1 ANUFACTURES 1 ANUFACT	ER FLOW	GPM				3.3	
DOLING COIL DATA - HYDRONIC           TOTAL COOLIN           SENSIBLE COUL           AIR ENTERING           AIR ENTERING           AIR LEAVING COUL           CHW ENTERING           WATER FLOW           MINIMUM FAC           GLYCOL CONG           RUNOUT PIPE           CONDENSATE           CONTROL VAL           EATING COIL DATA - HYDRONIC           AIR ENTERING           AIR ENTERING           AIR ENTERING           AIR ENTERING           AIR LEAVING F           HEATING AIRF           HEATING AIRF           HEATING COIL           AIR ENTERING           AIR LEAVING F           HHW ENTERING           WATER FLOW           WATER FLOW           RUNOUT PIPE           CONTROL VAL           PPLY FAN SECTON           REDUNDUT PIPE           FAN TYPE           PAN TYPE           FAN EFFICIEN           FAN EFFICIEN           FAN MOTOR H           ELECTRICAL CO           MCA / MOCP (F           VARIABLE FRE           DUND CRITERIA           A           ANUF	IOUT PIPE SIZE	IN.				3/4	
TOTAL COOLIN SENSIBLE COO AIR ENTERING AIR LEAVING O CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONO RUNOUT PIPE CONDENSATE CONTROL VAL ATING COIL DAT- HYDRONIC AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING AIR ENTERING FAN TYPE CONTROL VAL WATER FLOW RUNOUT PIPE CONTROL VAL FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN AUMAINT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL O WARIABLE FRE 2 NUND CRITERIA ANUFACTURER 2 1 1 1 1 3 3 1 3 1 3 1 3 1 3 1 3 1 3 1	ITROL VALVE (TYPE)					3-WAY	
SENSIBLE COU AIR ENTERING AIR LEAVING C CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL AIR IEATING COIL DATA - HYDRONIC CONTROL VAL AIR ENTERING AIR ENTERING AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL RUNOUT PIPE CONTROL VAL FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE 2 NUND CRITERIA NUFACTURER 1 SANSTALLAL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU							
AIR ENTERING AIR ENTERING AIR LEAVING O CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL CONTROL VAL AIR ENTERING AIR ENTERING AIR LEAVING F HEATING AIRF HEATING AIRF HEATING AIRF HEATING AIRF HEATING AIRF HEATING AIRF HEATING AIRF PELY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL O WCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL		MBTUH	218.0	203.0	298.0	236.0	206.0
AIR LEAVING O         AIR LEAVING O         CHW ENTERIN         WATER FLOW         MINIMUM FAC         GLYCOL CONC         RUNOUT PIPE         CONTROL VAL         AIR LEAVING O         RUNOUT PIPE         CONTROL VAL         AIR ENTERING         AIR ENTERING         AIR ENTERING         AIR ENTERING         AIR LEAVING F         HEATING COIL         AIR ENTERING         AIR LEAVING F         HEATING CAP         QUND CRITERIA         ANUFACTURER         DUND CRITERIA         ANUFACTURER         QUND CRITERIA         A         AXIMUM ALL         X         AXIMUM ALL         X		°Edb °Ewb	193.0	174.0	268.0	115.0	141.0
CHW ENTERIN WATER FLOW MINIMUM FAC GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL ATING COIL DATA - HYDRONIC EATING COIL DATA - HYDRONIC HEATING AIR HEATING AIR HEATING CAP AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL WATER FLOW RUNOUT PIPE CONTROL VAL IPPLY FAN SECTON FAN TYPE FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL		°Fdb - °Fwb	71.1 - 60.9	70.1 - 60.8	72.9 - 61.4	80.6 - 72.1	77.0 - 6
WATER FLOW MINIMUM FAC GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL ATING COIL DAT- HYDRONIC ATING COIL DAT- HYDRONIC AIR ENTERING HEATING AIRF HEATING AIRF HEATING AIRF HEATING CAP AIR ENTERING AIR ENTERING AIR ENTERING WATER FLOW RUNOUT PIPE CONTROL VAL WATER FLOW RUNOUT PIPE CONTROL VAL BUNDUT PIPE CONTROL VAL AIR ENTERING FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL L AUXILIARY DR 3 MAXIMUM ALL	LEAVING COOLING COIL	°Fdb - °Fwb °F - °F	54.0 – 53.5 44 – 59	54.0 – 53.5 44 – 59	54.0 – 53.5 44 – 59	54.0 – 53.5 44 – 59	54.0 – 5 44 –
MINIMUM FAC GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL ATING COIL DATA - HYDRONIC AIR EATING AIRF HEATING AIRF HEATING AIRF HEATING AIRF AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL WATER FLOW RUNOUT PIPE CONTROL VAL PIPLY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN GUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	V ENTERING & LEAVING TEMPERATURE	GPM	44 – 59	44 – 59 27	44 – 59 40	44 – 59 32	44 – 28
GLYCOL CONG RUNOUT PIPE CONDENSATE CONTROL VAL CONTROL VAL ATTING COIL DATA - HYDRONIC HEATING AIRE HEATING AIRE HEATING CAP AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL WATER FLOW RUNOUT PIPE CONTROL VAL PPLY FAN SECTON FAN TYPE FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (F VARIABLE FRE 2 NUND CRITERIA NUFACTURER 2 1 BRAKE HORSE 2 NISTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	IER FLOW IMUM FACE AREA (@ 450 FPM)	SQ. FT.	23.1	22.0	29.1	8.7	12.4
RUNOUT PIPE CONDENSATE CONTROL VAL CONTROL VAL CONTROL VAL ATING COIL DATA - HYDRONIC ATING COIL DATA - HYDRONIC HEATING AIR HEATING CAP AIR ENTERING AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL IPPLY FAN SECTON FAN TYPE TAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (R VARIABLE FRE 1 NUFACTURER 1 RAXIMUM ALL THIS PAGE. S WITH MAXIMU	COL CONCENTRATION	%	0	0	0	0.7	0
CONDENSATE CONDENSATE CONTROL VAL ATING COIL DATA - HYDRONIC HEATING AIRF HEATING AIRF HEATING AIRF AIR ENTERING AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL WATER FLOW RUNOUT PIPE CONTROL VAL DIPPLY FAN SECTON FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (0 VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL		IN.	2	2	2 1/2	2	2
CONTROL VAL CATING COIL DATA - HYDRONIC AIR EATING AIRF HEATING AIRF HEATING CAP AIR ENTERING AIR LEAVING F HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL PPLY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (F VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	NDENSATE DRAIN SIZE	IN.	1	1	1	1	1
ATING COIL DATA - HYDRONIC ATING COIL DATA - HYDRONIC HEATING AIRF HEATING CAP AIR ENTERING AIR ENTERING AIR LEAVING H HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL PPLY FAN SECTION FAN TYPE DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA INUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	ITROL VALVE (TYPE)		2-WAY	2-WAY	2-WAY	2-WAY	2-WAY
HEATING AIRF HEATING CAP AIR ENTERING AIR ENTERING AIR LEAVING H HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL RUNOUT PIPE CONTROL VAL BRIVE TYPE FAN EFFICIEN FAN CONTROL FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL O MCA / MOCP (I VARIABLE FRE DUND CRITERIA NUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL							
AIR ENTERING AIR LEAVING H HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL JPPLY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (F VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	TING AIRFLOW (% OF TOTAL SUPPLY AIR)	%				43	35
AIR LEAVING H HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL JPPLY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	TING CAPACITY	MBTUH				53.5	62.5
HHW ENTERIN WATER FLOW RUNOUT PIPE CONTROL VAL JPPLY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL L AUXILIARY DR 3 MAXIMUM ALL	ENTERING HEATING COIL	°F				55	55
WATER FLOW RUNOUT PIPE CONTROL VAL JPPLY FAN SECTION FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL	LEAVING HEATING COIL	°F				84	84
RUNOUT PIPE CONTROL VAL JPPLY FAN SECTON FAN TYPE DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	V ENTERING & LEAVING TEMPERATURE	°F - °F				160 – 140	160 – 1
CONTROL VAL JPPLY FAN SECTION  JPPLY FAN SECTION  FAN TYPE DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL L AUXILIARY DR 3 MAXIMUM ALL	ER FLOW	GPM				5.3	6.2
JPPLY FAN SECTION FAN TYPE DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL O MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL L AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	IOUT PIPE SIZE	IN.				3/4	1
FAN TYPE DRIVE TYPE FAN EFFICIEN FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	NTROL VALVE (TYPE)					3-WAY	2-WAY
DRIVE TYPE FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER DTES: 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU		1	1			[	T
FAN EFFICIEN FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	ТҮРЕ		PLENUM	PLENUM	PLENUM	PLENUM	PLENUM
FAN QUANTIT REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (F VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	/E TYPE		DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
REDUNDANCY EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE UNUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	EFFICIENCY GRADE		FEG 85	FEG 85	FEG 85	FEG 85	FEG 85
EXTERNAL ST MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	I QUANTITY (INCLUDING REDUNDANCY)	#	1	1	1	1	1
MAXIMUM TOT DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU			NONE	NONE	NONE	NONE	NONE
DIRTY FILTER FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA INUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU		IN. WG	2.5	2.5	2.5	2	2.3
FAN MOTOR H ELECTRICAL C MCA / MOCP (I VARIABLE FRE DUND CRITERIA INUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU		IN. WG	3.85	4.04	4.04	4.5	4.8
UND CRITERIA NUFACTURER 1 BRAKE HORSE 2 INSTALL ALL L AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	TY FILTER ALLOWANCE	IN. WG	0.7	0.7	0.7	0.7	0.7
MCA / MOCP (I VARIABLE FRE DUND CRITERIA ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	TRICAL CHARACTERISTICS & NO. OF CIRCUITS	V/PH - #	<u> </u>	15 – 12.7 460/3 – 1	20 – 17.5 460/3 – 1	7 1/2 – 5.6 460 / 3 – 1	10 – 460/3 –
VARIABLE FRE VARIABLE FRE ANUFACTURER 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	A / MOCP (PER CIRCUIT)	AMPS - AMPS	460/3 - 1 26.3 - 45	460/3 - 1 26.3 - 45	<u>460/3 – 1</u> <u>33.8 – 60</u>	460/3 - 1	460/3 -
DUND CRITERIA ANUFACTURER DTES: 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	A/ MOCP (PER CIRCUIT)		1 PER UNIT	20.3 – 45 1 PER UNIT	1 PER UNIT	13.8 – 20 1 PER UNIT	17.5 – 1 PER UNIT
ANUFACTURER DTES: 1 BRAKE HORSE 2 INSTALL ALL L AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU			LEVEL LP-1	LEVEL LP-1	LEVEL LP-1	LEVEL LP-1	LEVEL LP-1
DTES: 1 BRAKE HORSE 2 INSTALL ALL U AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU			TRANE	TRANE	TRANE	TRANE	TRANE
<ul> <li>2 INSTALL ALL U AUXILIARY DR</li> <li>3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU</li> </ul>							
AUXILIARY DR 3 MAXIMUM ALL THIS PAGE. S WITH MAXIMU	KE HORSEPOWER INDICATED IS MAXIMUM ALLOWED.						
THIS PAGE. S WITH MAXIMU	TALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED FLOOR EN IILIARY DRAIN PAN. PROVIDE SWITCH INTERLOCKED WITH SUPPLY FA						
	KIMUM ALLOWABLE DIMENSIONS FOR EQUIPMENT SHOWN IN AIR HAND S PAGE. SUBMITTAL DATA SHALL INCLUDE INFORMATION DEMONSTRA H MAXIMUM ALLOWABLE WIDTH INCLUDING COIL PULL.						
	OVIDE FANS WITH A MINIMUM DIAMETER OF 16 INCHES AND FAN EFFIC ICATED ABOVE.	CIENCY GRADE AS					
5 REFER TO OT FEATURES.	ER TO OTHER EQUIPMENT SCHEDULES FOR PERFORMANCE REQUIRE TURES.	EMENTS OF SPECIAL					
6 SUPPLY AIR O	PLY AIR OPENING SHALL BE OF SUFFICIENT SIZE TO MINIMIZE SYSTEM	M EFFECT FOR					
	CHARGE INTO SUPPLY PLENUM.						
7 REFER TO SO							
	ER TO SOUND CRITERIA SCHEDULE FOR SOUND PRESSURE LEVELS.						



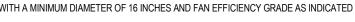
CHWP-3 CHW SECOND/ INTERIC 300	I	HHWP-1	HHWP-2 / 3
SECOND/ INTERIC 300			
300	сни	HHW	HHW
300		SECONDARY	SECONDARY
	ERIOR	INTERIOR	INTERIOR
	300	150	450
DUTY / STA			150 DUTY / STANDB
2		DUTY 1	2
Z	<u> </u>		
CLOSE-COUPL	OUPLED END CL(	OSE-COUPLED END	CLOSE-COUPLED
SUCTIO 100		SUCTION 100	SUCTION 100
300		150	150
60		35	60
77	77	77	73
70		46	72
8.25		6.35	8.0
MECHANI	HANICAL	MECHANICAL	MECHANICAL
1,760	,760	1,760	1,760
10 -	- 5.9 3	3 - 2	5 - 3
ODP	ODP	ODP	ODP
FULL	-ULL	FULL	FULL
460 / 3		460 / 3	460 / 3
17.5 –		6.0 – 15	9.5 –
YES		NO	YES
N/A		N/A	N/A
TACO		TACO	TACO
CI 3009 B/M501		CI 2007D C/M501	CI 2009D C/M501

UNIT DESIGN	IATION		CRAC-1.1 / 1.2			
	BLOWER CONFIGURATION		UPFLOW			
	SUPPLY AIR DISCHARGE LOCATION		ТОР			
	RETURN AIR LOCATION		BOTTOM			
	FILTER TYPE		2" THICK PLEATED			
	UNIT WEIGHT LBS.					
SUPPLY FAN	DATA					
	SUPPLY AIR	CFM	4,300			
	EXTERNAL STATIC PRESSURE	IN. WG	0.2			
	BLOWER (ECM)	HP - QTY	4.2 – 1			
COOLING CO	JIL DATA - HYDRONIC					
	TOTAL COOLING CAPACITY	MBTUH	87.4			
	SENSIBLE COOLING CAPACITY	MBTUH	82.2			
	AIR ENTERING COOLING COIL	°Fdb - °Fwb	75.0 – 61.0			
	CHW ENTERING & LEAVING TEMPERATURE	°F - °F	44 – 54			
	WATER FLOW	GPM	19.4			
	PRESSURE DROP	FT.	13.1			
	FACE VELOCITY	FPM	490			
	GLYCOL CONCENTRATION	%	0			
	RUNOUT PIPE SIZE	IN.	1 1/2			
	CONDENSATE DRAIN SIZE	IN.	3/4			
	CONTROL VALVE (TYPE)		2-WAY			
ELECTRICAL	DATA					
	ELECTRICAL CHARACTERISTICS	V / PH	460 / 3			
	FULL LOAD AMPS	AMPS	5			
	MAXIMUM OVERCURRENT PROTECTION	AMPS	15			
MANUFACTU	RER		LIEBERT			
MODEL NUM	BER		PCW029			
DETAIL REFE	RENCE		G/M505			
NOTES: 1 2 3 4	PROVIDE ADJUSTABLE HEIGHT FLOOR STAND PROVIDE ECM FANS PROVIDE CONDENSATE PUMP PROVIDE FLOW SWITCH TO ACTIVATE WARNING SYSTEM					

# DES

DESIGNATION			DOAS-2.1
AIR FLOW RATE	S	I	
	TOTAL SUPPLY AIR	CFM	7,500
	OUTSIDE AIR	CFM	7,500
	MINIMUM SUPPLY FAN SPEED SETTING	%	100
	MINIMUM OUTSIDE AIR FLOW SETTING	CFM	7,500
PRE-JFILTER SE	CTION		
	DAMPERS		OA
	FILTER ORIENTATION		ANGLED
	TYPE OF FILTER		2" THICK PLEA
PREHEAT COIL	DATA - HYDRONIC		- 1
	HEATING CAPACITY	MBTUH	275.6
	AIR ENTERING HEATING COIL	°F	25
	AIR LEAVING HEATING COIL	°F	58.9
	HHW ENTERING & LEAVING TEMPERATURE	°F - °F	180
	WATER FLOW	GPM	28
	RUNOUT PIPE SIZE	IN.	2
	CONTROL VALVE (TYPE)		2-WAY
COOLING COIL	DATA - HYDRONIC		
	TOTAL COOLING CAPACITY	MBTUH	746.2
	SENSIBLE COOLING CAPACITY	MBTUH	360.4
	AIR ENTERING COOLING COIL	°Fdb - °Fwb	95.0 –
	AIR LEAVING COOLING COIL	°Fdb - °Fwb	52.0 –
	CHW ENTERING & LEAVING TEMPERATURE	°F - °F	42 –
	WATER FLOW	GPM	99
	MINIMUM FACE AREA (@ 450 FPM)	SQ. FT.	16.7
	GLYCOL CONCENTRATION	%	0
	RUNOUT PIPE SIZE	IN.	3
		IN.	1 1/4
	CONTROL VALVE (TYPE)		2-WAY
SUPPLY FAN SE			2-11/1
	FAN TYPE		
			FAN ARRAY
			DIRECT
	FAN EFFICIENCY GRADE		FEG 85
	FAN QUANTITY (INCLUDING REDUNDANCY)	#	2
	REDUNDANCY		NONE
	EXTERNAL STATIC PRESSURE	IN. WG	1.5
	MAXIMUM TOTAL STATIC PRESSURE (INCLUDING DIRTY FILTER)	IN. WG	3.51
	DIRTY FILTER ALLOWANCE	IN. WG	0.7
	FAN MOTOR HORSEPOWER (PER FAN)	HP - BHP	15 –
	FAN MOTOR HORSEPOWER (UNIT TOTAL @ DESIGN)	HP - BHP	30 –
	ELECTRICAL CHARACTERISTICS & NO. OF CIRCUITS	V/PH - #	460/3 –
	MCA / MOCP (PER CIRCUIT)	AMPS - AMPS	47.3 –
		AMPS - AMPS	47.3 – 1 PER FAN
SOUND CRITER	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE	AMPS - AMPS	
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE	AMPS - AMPS	1 PER FAN
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE	AMPS - AMPS	1 PER FAN
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES	AMPS - AMPS	1 PER FAN LEVEL LP-1
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES HEAT PIPE	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES IRES IRES IRES INCAT PIPE RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE]	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES IRES IRES IRES IRES IRES IREAT PIPE IRUN-AROUND LOOP IRUNIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES RES RES RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES RES RES RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A
	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES IRES IRES IRES COVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A
PECIAL FEATU	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES RES RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A
SPECIAL FEATU	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES RES RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A
SPECIAL FEATU MANUFACTURE	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES IRES IN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS R	AMPS - AMPS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A
SPECIAL FEATU	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES RES RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS		1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A N/A
SPECIAL FEATU MANUFACTURE NOTES: 1 2	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES HEAT PIPE RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS R BRAKE HORSEPOWER INDICATED IS MAXIMUM ALLOWED. INSTALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED FLOOR ENT DRAIN PAN. PROVIDE SWITCH INTERLOCKED WITH SUPPLY FAN IN DRAIN	TIRELY WITHIN AN AUXILIARY PAN.	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A N/A
SPECIAL FEATU MANUFACTURE NOTES: 1	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRES HEAT PIPE RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS R BRAKE HORSEPOWER INDICATED IS MAXIMUM ALLOWED. INSTALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED FLOOR ENT	TIRELY WITHIN AN AUXILIARY PAN. LING UNIT LAYOUTS THIS	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A N/A
2	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES IRE HEAT PIPE RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS R BRAKE HORSEPOWER INDICATED IS MAXIMUM ALLOWED. INSTALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED FLOOR ENT DRAIN PAN. PROVIDE SWITCH INTERLOCKED WITH SUPPLY FAN IN DRAIN I MAXIMUM ALLOWABLE DIMENSIONS FOR EQUIPMENT SHOWN IN AIR HAND PAGE. SUBMITTAL DATA SHALL INCLUDE INFORMATION DEMONSTRATING	TIRELY WITHIN AN AUXILIARY PAN. LING UNIT LAYOUTS THIS COMPLIANCE WITH	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A N/A
IANUFACTURE	MCA / MOCP (PER CIRCUIT)         VARIABLE FREQUENCY DRIVE         IA         IRES         HEAT PIPE         RUN-AROUND LOOP         HUMIDIFIER         ENERGY RECOVERY [WHEEL] [CUBE]         DESICCANT WHEEL         CONDENSING UNIT         FACE-AND-BYPASS         RETURN AIR BYPASS         OUTSIDE AIR BYPASS         OUTSIDE AIR BYPASS         R         BRAKE HORSEPOWER INDICATED IS MAXIMUM ALLOWED.         INSTALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED FLOOR EN'         DRAIN PAN. PROVIDE SWITCH INTERLOCKED WITH SUPPLY FAN IN DRAIN I         MAXIMUM ALLOWABLE DIMENSIONS FOR EQUIPMENT SHOWN IN AIR HAND         PAGE. SUBMITTAL DATA SHALL INCLUDE INFORMATION DEMONSTRATING         MAXIMUM ALLOWABLE WIDTH INCLUDING COIL PULL.         PROVIDE FANS WITH A MINIMUM DIAMETER OF 16 INCHES AND FAN EFFICI	TIRELY WITHIN AN AUXILIARY PAN. LING UNIT LAYOUTS THIS COMPLIANCE WITH ENCY GRADE AS INDICATED	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A N/A
MANUFACTURE NOTES: 1 2 3 4	MCA / MOCP (PER CIRCUIT) VARIABLE FREQUENCY DRIVE IA IRES HEAT PIPE RUN-AROUND LOOP HUMIDIFIER ENERGY RECOVERY [WHEEL] [CUBE] DESICCANT WHEEL CONDENSING UNIT FACE-AND-BYPASS RETURN AIR BYPASS OUTSIDE AIR BYPASS R BRAKE HORSEPOWER INDICATED IS MAXIMUM ALLOWED. INSTALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED FLOOR EN DRAIN PAN. PROVIDE SWITCH INTERLOCKED WITH SUPPLY FAN IN DRAIN I MAXIMUM ALLOWABLE DIMENSIONS FOR EQUIPMENT SHOWN IN AIR HAND PAGE. SUBMITTAL DATA SHALL INCLUDE INFORMATION DEMONSTRATING MAXIMUM ALLOWABLE WIDTH INCLUDING COIL PULL. PROVIDE FANS WITH A MINIMUM DIAMETER OF 16 INCHES AND FAN EFFICI ABOVE. REFER TO OTHER EQUIPMENT SCHEDULES FOR PERFORMANCE REQUIPMENT	TIRELY WITHIN AN AUXILIARY PAN. LING UNIT LAYOUTS THIS COMPLIANCE WITH ENCY GRADE AS INDICATED MENTS OF SPECIAL	1 PER FAN LEVEL LP-1 N/A N/A N/A N/A N/A N/A N/A N/A N/A

3



7 REFER TO SOUND CRITERIA SCHEDULE FOR SOUND PRESSURE LEVELS.



ARCHITECTURE PLANNING INTERIORS GRAPHICS

ELLIOTT MARSHALL INNES P.A. (EMI architects) 251 E. 7TH AVENUE TALLAHASSEE FL 32303 (850) 222 - 7442 www.emiarch.com LICENSE #s AA C000409 IB C000153

<u>NOTE:</u> 11" x 17" SHEETS ARE PLOTTED AT 1/2 THE SCALE NOTED ON THESE DRAWINGS.



Florida Registry #2485 Jeffrey L. Tyler, P.E. #57093

### WCSD EDUCATIONAL **ANCILLARY FACILITIES -DISTRICT OFFICE**

# RECEIVED ALLSTATE CONSTRUCTION 01-16-2025

REV	DATE	DESCRIPT	ION
PROJEC	T PHASE		
CONST	RUCTION D	OCUMENT	S
DATE			DRAWN BY
15 JAN	UARY 2025		JDR
PROJEC	CT NO		CHECKED BY
68100			JLT
SHEET -	TITLE		

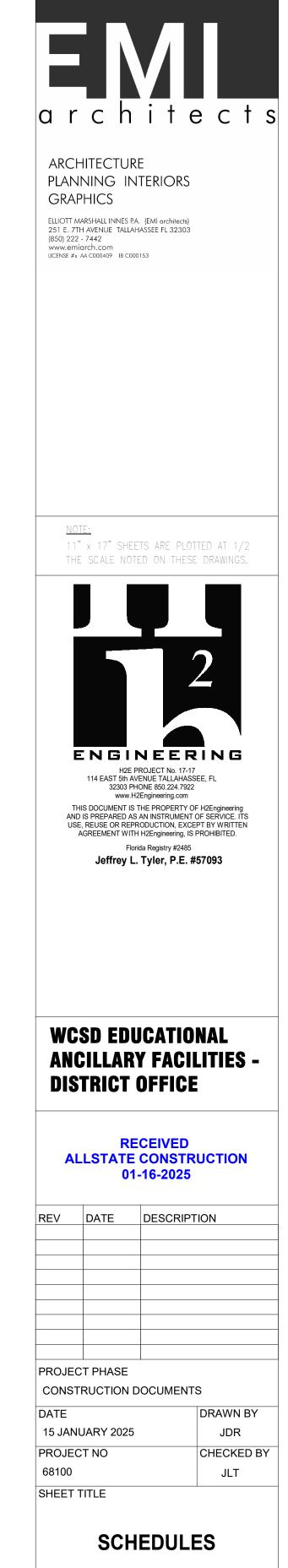
#### SCHEDULES

SHEET NO

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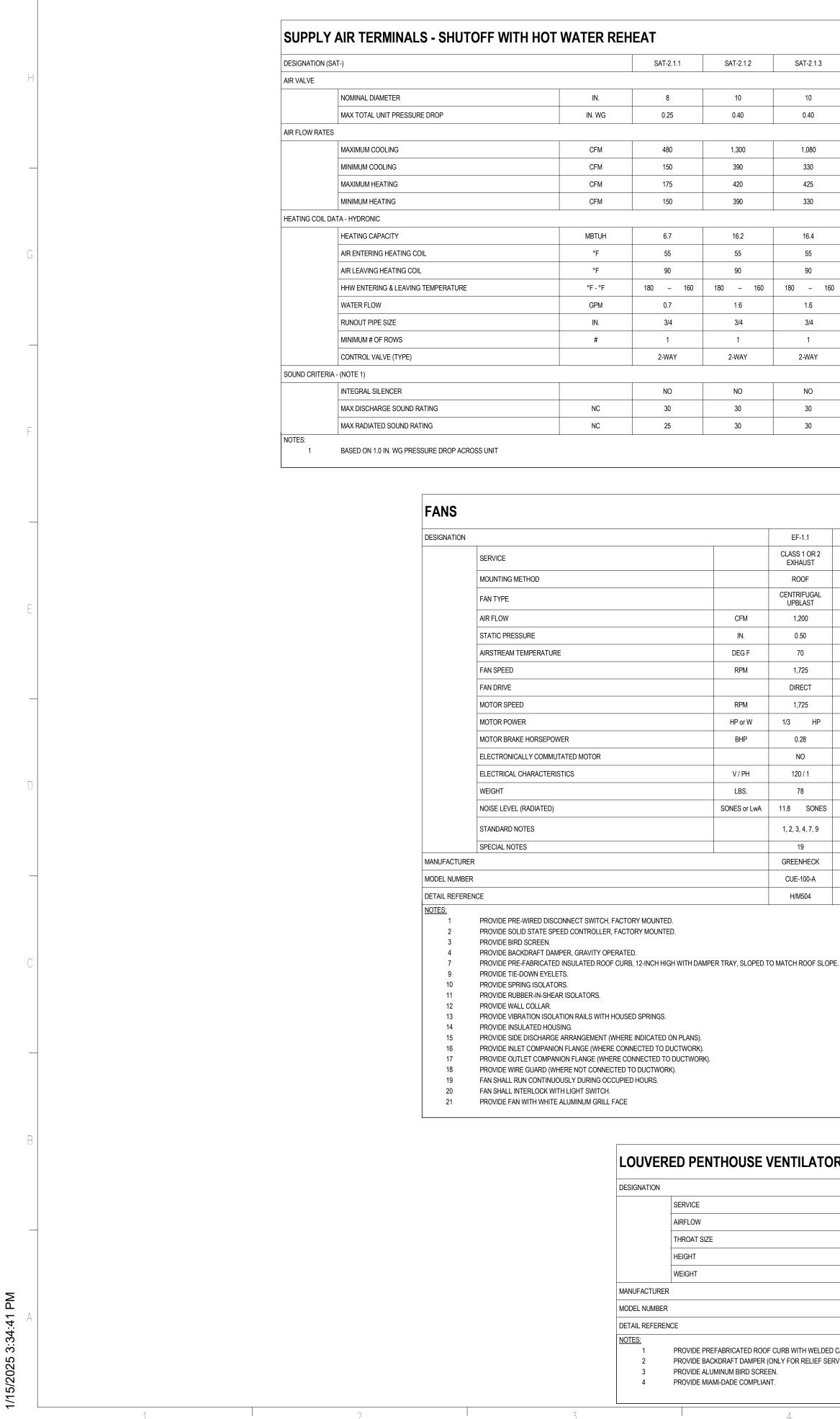
M402

National problem         No
Induced on the set of t
Internation       OFM       Into
HEATING CAPACITY       MBTUH
HATING CAPACITY MBTUH NBTUH
AR LEAVING CALL O <
MATER FLOW         GPM         0.8         0.7         0.8         0.7         1.5         1.1         0.7         1.4         0.5         0.7         0.8         1.2           NNOUT PIPE SIZE         NN.         3/4
Image: Normal state
MNIMUM # OF ROWS         #         1
SOUND CRITERIA - (NOTE 1)
INTEGRAL SILENCER         NO
MAX DISCHARGE SOUND RATING         NC         30 <th< th=""></th<>
NOTES:         1         BASED ON 1.0 IN. WG PRESSURE DROP ACROSS UNIT         23         <
SUPPLY AIR TERMINALS - SHUTOFF WITH HOT WATER REHEAT           DESIGNATION (SAT-)         SAT-1.2.1         SAT-1.2.2         SAT-1.2.3         SAT-1.2.5         SAT-1.2.6         SAT-1.2.8         SAT-1.2.10         SAT-1.2.10         SAT-1.2.12           AIR VALVE         SAT-1.2.10         SAT-1.2.10         SAT-1.2.11         SAT-1.2.12
NOMINAL DIAMETER         IN.         6         8         8         14         8         10         6         8         10         8
MAX TOTAL UNIT PRESSURE DROP         IN. WG         0.25         0.25         0.25         0.40         0.40         0.25         0.40         0.25
AIR FLOW RATES       CFM       390       690       500       1,880       450       830       980       200       610       850       520
MINIMUM COOLING         CFM         120         210         150         160         150         250         300         200         100         320         320         320         300
MAXIMUM HEATING         CFM         150         230         180         190         660         180         320         350         110         230         325         200
MINIMUM HEATING         CFM         120         210         160         600         150         250         300         80         190         260         160
HEATING COIL DATA - HYDRONIC         MEATING CAPACITY       MBTUH       5.8       8.9       6.9       7.3       25.4       6.9       12.3       13.5       4.2       8.9       12.5       7.7
AIR ENTERING HEATING COIL         °F         55
AIR LEAVING HEATING COIL         °F         90         9
HHW ENTERING & LEAVING TEMPERATURE       °F - °F       180 - 160
WATER FLOW         GPM         0.6         0.9         0.7         0.7         1.2         1.3         0.9         1.3         0.8           RUNOUT PIPE SIZE         IN.         3/4
MNIMUM # OF ROWS         #         1
CONTROL VALVE (TYPE)         2-WAY         2-WAY </th
SOUND CRITERIA - (NOTE 1)         INTEGRAL SILENCER       NO
INTEGRAL SILENCER         NO
MAX RADIATED SOUND RATING         NC         25         25         25         30         25         30         25         30         25         30         25



SHEET NO

M403



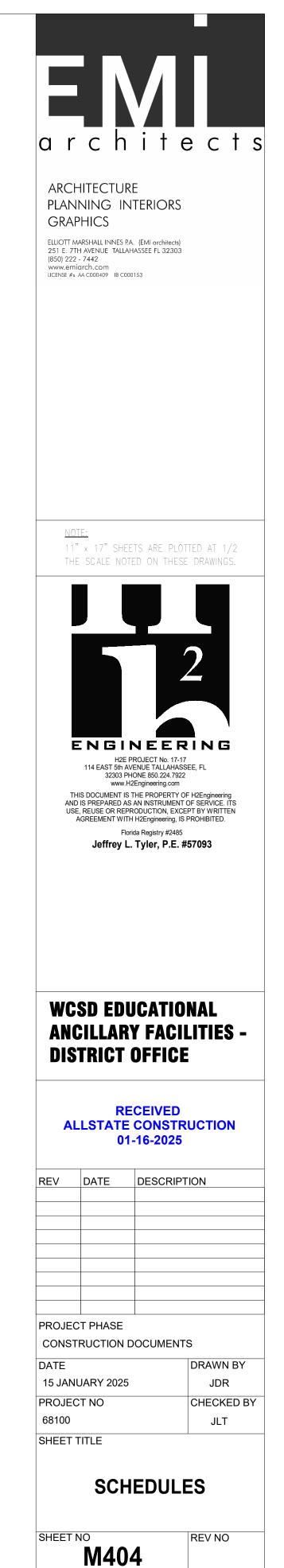
-2.1.2	SAT-2.1.3	SAT-2.1.4	SAT-2.1.5	SAT-2.1.6	SAT-2.1.7	SAT-2.1.8	SAT-2.1.9	SAT-2.1.10	SAT-2.1.11	SAT-2.1.12	SAT-2.1.13	SAT-2.1.14	SAT-2.1.15	SAT-2.1.16	SAT-2.1.17	SAT-2.1.1
				I	1	1									1	
10	10	8	10	6	10	8	10	8	8	10	10	8	10	10	8	6
40	0.40	0.25	0.40	0.25	0.40	0.25	0.40	0.25	0.25	0.40	0.40	0.25	0.40	0.40	0.25	0.15
				1	1	I									II	
300	1,080	420	1,120	400	840	670	840	450	480	1,030	1,080	450	850	1,050	560	300
90	330	150	340	120	260	210	240	150	150	310	330	150	260	320	170	90
20	425	175	380	160	300	230	330	180	180	355	420	180	310	380	195	
90	330	150	340	120	260	210	240	150	150	310	330	150	260	320	170	
					•											
5.2	16.4	6.7	14.6	6.2	11.6	8.9	12.7	6.9	6.9	13.7	16.2	6.9	11.9	14.6	7.5	
5	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	
0	90	90	90	90	90	90	90	90	90	90	90	90	90	90	90	
- 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	180 – 160	
6	1.6	0.7	1.5	0.6	1.2	0.9	1.3	0.7	0.7	1.4	1.6	0.7	1.2	1.5	0.8	
4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	
	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
ΆΥ	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY	2-WAY								
														n		
0	NO	NO	NO	NO	NO	NO	NO	NO	NO							
0	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
0	30	25	30	25	30	25	30	25	25	30	30	25	30	30	25	25

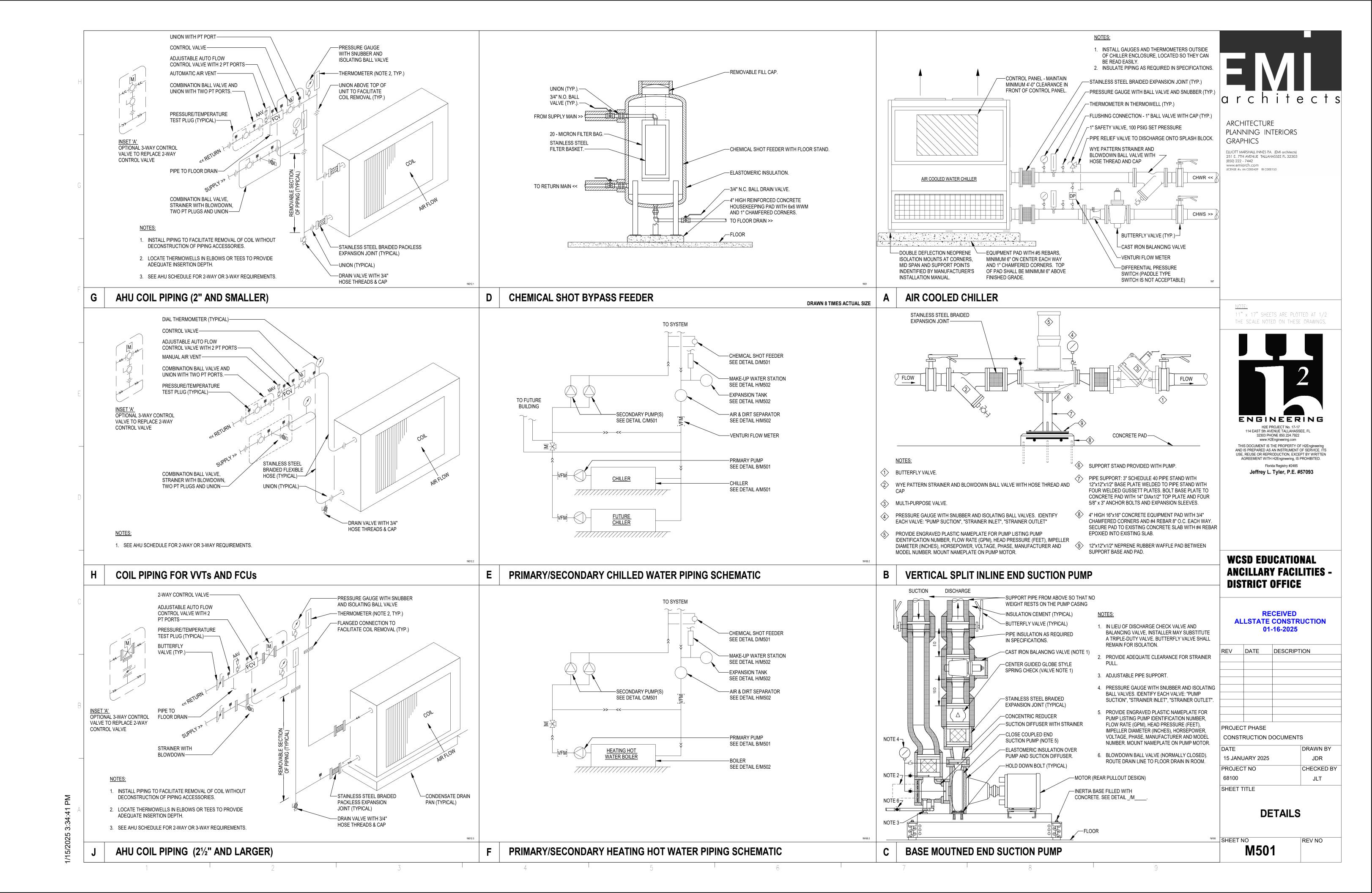
	EF	-1.1	EF	-1.2	S	F-1.1	EI	-2.1
		S 1 OR 2 AUST	CLASS 1 OR 2 EXHAUST		CLASS 1 OR 2 EXHAUST		CLASS 1 OR 2 EXHAUST	
	RC	DOF	R	DOF	SUSF	PENDED	CEILING	
		RIFUGAL LAST		RIFUGAL BLAST	CENTRIFUGAL SQUARE IN-LINE		CENTRIFUGAL CABINET	
FM	1,	200	1,	500	1	,200		120
N.	0	.50	0	.45	(	).35	(	).25
GF	7	70		70		70	70	
PM	1,725		1,140		1,725		1,100	
	DIRECT		DIRECT		DIRECT		DIRECT	
PM	1,	725	1,140		1	,725	1,100	
or W	1/3	HP	1/3	HP	1/4	HP	22	W
HP	0	.28	0.28		(	).24	C	).01
	Ν	10	NO		NO		NO	
PH	12	0/1	12	0/1	27	77/1	12	20 / 1
BS.	7	78		95		35		17
6 or LwA	11.8	SONES	10.3	SONES	7.6	SONES	0.4	SONES
	1, 2, 3	, 4, 7, 9	1, 2, 3	, 4, 7, 9	1, 2, 4, 10, 14, 15, 16, 17, 18		1, 2, 4, 11, 20, 21	
		19		19		19		20
	GREE	NHECK	GREE	NHECK	GREE	ENHECK	GREE	NHECK
	CUE	-100-A	CUE	-140-B	SC	Q-100	SP	-A125
	H/N	//504	H/N	//504	G/	M504		

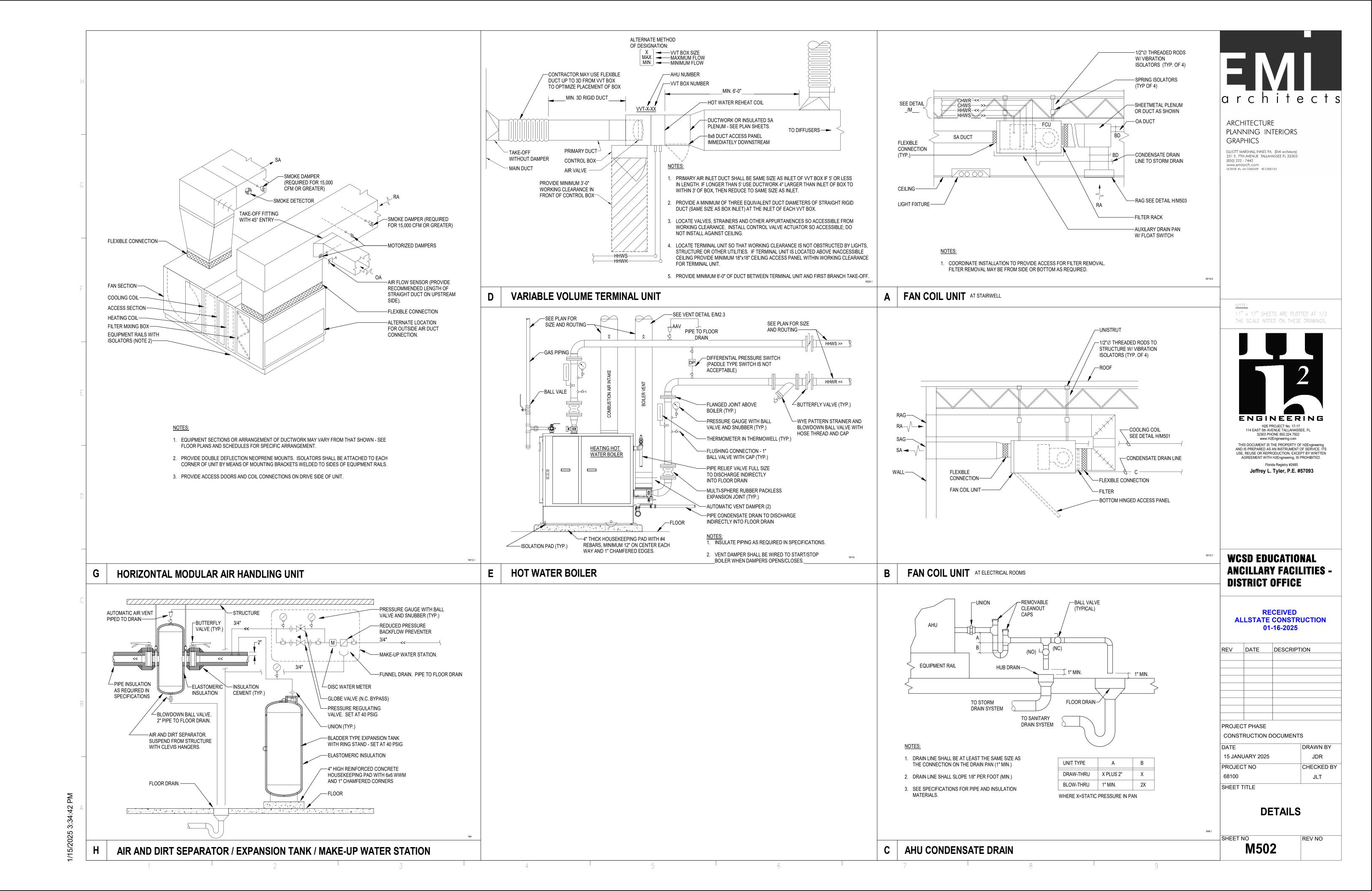
#### LOUVERED PENTHOUSE VENTILATOR SCHEDULE

		L	_PV-1	
		11	NTAKE	
	CFM		7,800	
	IN. x IN.	48	х	48
	IN.		23	
	LBS.		213	
		LORI	EN CO	OK
		TRE	48x48	lx6
ITED ROOF CURB WITH WELDED CAP CORNERS AND DAM DAMPER (ONLY FOR RELIEF SERVICE) IRD SCREEN. COMPLIANT.	IPER TRAY.			

DESIGNATION		FCU-1.1	FCU-2.1	FCU-2.1 FCU-2		
AIR FLOW RATES						
	TOTAL SUPPLY AIR	CFM	500	500	50	0
COOLING COIL DA	ATA					
	TOTAL COOLING CAPACITY	MBTUH	14.9	14.9	14	9
	SENSIBLE COOLING CAPACITY	MBTUH	12.0	12.0	12	0
	AIR ENTERING COOLING COIL	°Fdb - °Fwb	76.8 – 64.0	76.8 – 64.0	76.8 -	64
	AIR LEAVING COOLING COIL	°Fdb - °Fwb	54.5 – 54.0	54.5 – 54.0	54.5 -	54
	CHW ENTERING & LEAVING TEMPERATURE	°F - °F	44.5 – 58.0	44.5 – 58.0	44.5 -	58
	WATER FLOW	GPM	2.2	2.2	2.	2
	GLYCOL CONCENTRATION	%	0	0	C	
	RUNOUT PIPE SIZE	IN.	3/4	3/4	3/	4
	CONDENSATE DRAIN SIZE	IN.	3/4	3/4	3/	4
	CONTROL VALVE (TYPE)		3-WAY	3-WAY	3-W	AY
HEATING COIL DA	TA - HYDRONIC					
	HEATING CAPACITY	MBTUH		13.8		
	AIR ENTERING HEATING COIL	°F		60	1	
	AIR LEAVING HEATING COIL	°F		85	1	
	HHW ENTERING & LEAVING TEMPERATURE	°F - °F		180.0 – 160.0	1	
	WATER FLOW	GPM		1.4	1	
	RUNOUT PIPE SIZE	IN.		3/4		
	CONTROL VALVE (TYPE)			3-WAY	1	
SUPPLY FAN DAT	Â					
	FAN TYPE		TANGENTAL	TANGENTAL	TANGE	NTAL
	DRIVE TYPE		DIRECT	DIRECT	DIRE	CT
	FAN MOTOR HORSEPOWER	HP	1/4	1/4	1/	4
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 1	208 / 1	208	/ 1
JNIT DATA						
	ORIENTATION		HORIZONTAL	HORIZONTAL	HORIZO	ONTAL
	WEIGHT	LBS	62	62	6	2
	FILTER		1" THICK PLEATED	1" THICK PLEATED	1" THICK I	PLEATE
MANUFACTURER			ENVIRO-TEC	ENVIRO-TEC	ENVIR	D-TEC
MODEL NUMBER			HPP-08	HPP-08	HPP	-08
NOTES: 1	PROVIDE WALL MOUNTED THERMOSTAT. UNIT TO BE CONTROL TEMPERATURE (SET POINT 75 DEG ADJ.)	LED ON/OFF BASED ON ROOM			1	
2	INSTALL ALL UNITS LOCATED ABOVE GROUND LEVEL FINISHED AUXILIARY DRAIN PAN. PROVIDE SWITCH INTERLOCKED WITH S					
3	UNIT FCU-2.1 SHALL BE MOUNTED ABOVE CEILING WITH CEILIN RETURN AND TELESCOPING RETURN CONNECTION.	G ACCESS PANEL, BOTTOM				
4	UNIT FCU-1.1 AND FCU-2.2 SHALL BE HORIZONTALLY MOUNTED					





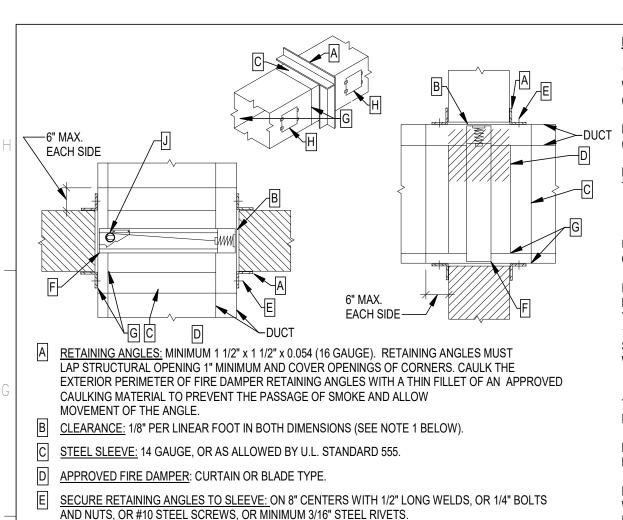




ANGLES A. THESE MUST OVERLAP THE EDGES OF THE

WERE REQUIRED. THE FIRE RESISTIVE MATERIALS SHALL CONTINUOUS RATING EXISTS AT THE WALL/FLOOR

TESTED AND APPROVED BY U.L. MUST BE USED IN LIEU



F <u>SECURE FIRE DAMPER TO SLEEVE:</u> ON 8" CENTERS WITH 1/2" LONG WELDS, OR 1/4" BOLTS AND NUTS, OR #10 STEEL SCREWS, OR MINIMUM 3/16" STEEL RIVETS.

- G CONNECT DUCT TO SLEEVE OR FIRE DAMPER: WITH BREAKAWAY CONNECTION.
- H INSTALL HINGED ACCESS DOOR
- J NEGATOR CLOSURE SPRING

G



#### A x B TRUNK DUCT (A=WIDTH, B=HEIGHT) (W=WIDTH, H=HEIGHT) NOTE 2 NOTE 1 -NOTE 3 (DIAMETER WALL TO STRUCTURE -NOTE 4

D	E	WxH	TRUNK DUCT	С			
U	(NOTE 5)	(NOTE 5)	HEIGHT (B MIN.)	NO FIRE DAMPER	WITH FIRE DAMPER		
6	8.5	12 x 6	8	9	12		
8	8.5	12 x 6	8	9	12		
10	9.5	16 x 6.75	10	10	13		
12	10.5	18 x 8.5	12	11	14		
14	10.5	20 x 9.5	12	11	14		
16	12	24 x 12	14	13	16		
DIME	NSIONS B	ASED ON CRO	WN PRODUCTS CO.	. INC.			

45° ENTRY.

