ABBREVIATIONS, LEGENDS, SYMBOLS AND GENERAL NOTES

ABBREVIATIONS

AC	AIR CONDITIONING
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AO	ANALOG OUTPUT
BHP	BRAKE HORSE POWER
BOT	BOTTOM
BTUH	BRITISH THERMAL UNIT HOUR
CC	COOLING COIL
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEANOUT
CT	COOLING TOWER
CU	CONDENSING UNIT
CW	COLD WATER
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DG	DOOR GRILLE
DI	DIGITAL INPUT
DN	DOWN
DO	DIGITAL OUTPUT
DP	DEW POINT
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EL	ELEVATION
EQUIP	EQUIPMENT
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
F DPR	FIRE DAMPER
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FL	FLOOR
FPF	FINS PER FOOT
FPI	FINS PER INCH
FPM	FEET PER MINUTE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDITY
HB	HOSE BIBB
HC	HEATING COIL
HP	HORSE POWER
HPD	HIGH PRESSURE DUCT
HVAC	HEATING VENTILATION AND AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LP	LOW PRESSURE
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTUH
MD	MOTORIZED DAMPER
MIN	MINIMUM
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPENED
OA	OUTSIDE AIR
PD	PRESSURE DROP
RA	RETURN AIR
RD	ROOF DRAIN
RLA	RUNNING LOAD AMPS
RTU	ROOF TOP UNIT
S	SANITARY
SD	SMOKE DAMPER
SA	SUPPLY AIR
SEER	SEASONAL ENERGY EFFICENCY RATIO
SP	STATIC PRESSURE
T	TEMPERATURE
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UV	UNIT VENTILATOR
V	VENT
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THRU ROOF
W	WASTE
WB	WET BULB

DRAWING SYMBOLS

- 2 / M5 — DETAIL NUMBER / DRAWING NUMBER WHERE DRAWN
- A / M5 — SECTION LETTER / DRAWING NUMBER WHERE DRAWN
- POINT OF INTERFACE BETWEEN NEW & EXISTING
- POINT OF DEMOLITION
- POINT OF INTERFACE BETWEEN CONTRACTORS
- ARCHITECTURAL ROOM NUMBER
- ENGINEERING ROOM NUMBER

DUCTWORK LEGEND

- 10x8 — NEW DUCT – WIDTH X DEPTH (SINGLE LINE)
- EXISTING TO REMAIN (SINGLE LINE)
- EXISTING TO BE REMOVED (SINGLE LINE)
- FLEXIBLE DUCTWORK (INSULATED)
- ACOUSTICALLY LINED DUCT
- DUCT SIZE TRANSITION (CONCENTRIC) (SINGLE LINE)
- DUCT SIZE TRANSITION (ECCENTRIC) (SINGLE LINE)
- DUCT TRANSITION (RECTANGULAR TO ROUND) (SINGLE LINE)
- SPIN-IN FITTING (SINGLE LINE)
- R — INCLINED RISE, IN DIRECTION OF AIR FLOW
- D — INCLINED DROP, IN DIRECTION OF AIR FLOW
- FLEXIBLE CONNECTION
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
- VANED ELBOW (SHORT RADIUS)
- STANDARD RADIUS ELBOW
- VANE TURN ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- UP DN — SUPPLY DUCT (UP & DOWN)
- UP DN — EXHAUST DUCT (UP & DOWN)
- UP DN — RETURN AIR DUCT (UP & DOWN)
- CEILING DIFFUSERS
- SIDE WALL REGISTER OR GRILLE
- EXHAUST OR RETURN WALL MTD GRILLE
- RETURN OR EXHAUST CEILING GRILLE
- 4-WAY AIR FLOW
- 3-WAY AIR FLOW
- 2-WAY AIR FLOW
- 1-WAY AIR FLOW
- MANUAL VOLUME DAMPER
- FIRE DAMPER
- SMOKE DAMPER
- FIRE / SMOKE DAMPER
- MD AD — MOTORIZED DAMPER
- SD — SMOKE DETECTOR
- DUCT HEATER
- HEATING COIL
- T — THERMOSTAT / TEMPERATURE SENSOR
- H — HUMIDISTAT / HUMIDITY SENSOR
- UC — UNDERCUT (3/4" UON)
- DG — DOOR GRILLE (18"x12" UON)
- A / 100 — AIR DEVICE TYPE / AIR FLOW CFM
- LOUVER
- 2X4 DOUBLE PLENUM TROFFER
- 2X4 SINGLE PLENUM TROFFER
- 2X2 DOUBLE PLENUM TROFFER
- 2X2 SINGLE PLENUM TROFFER

PIPING LEGEND

- CWS — CONDENSER WATER SUPPLY
- CWR — CONDENSER WATER RETURN
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- HWS — HOT WATER SUPPLY
- HWR — HOT WATER RETURN
- C — CONDENSATE LINE
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- RHG — REFRIGERANT HOT GAS
- DOMESTIC WATER
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- SIDE CONNECTION
- RISER UP
- RISE OR DROP IN PIPE
- RISER DROP
- BOTTOM CONNECTION, 45 OR 90 DEG.
- TOP CONNECTION, 45 OR 90 DEG.
- CROSS BOTTOM CONNECTION
- VALVE – SEE SPECIFICATION FOR TYPE, GATE VALVE WHEN NOT SPECIFIED
- GATE VALVE
- MOTOR OPERATED VALVE
- GLOBE VALVE
- PRESSURE REGULATING VALVE
- PRESSURE RELIEF VALVE
- PRESSURE REDUCING VALVE
- 2-WAY CONTROL VALVE
- 3-WAY MODULATING CONTROL VALVE
- CHECK VALVE
- BACKFLOW PREVENTER.
- FLOW SWITCH
- UNION
- ORFICE UNION
- BUTTERFLY VALVE
- BALL VALVE
- STRAINER
- EXPANSION JOINT
- FLEXIBLE CONNECTION
- WATER FLOW MEASURING DEVICE
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- DIRECTION OF FLOW
- ANCHOR
- PRESSURE GAGE
- TEMPERATURE GAUGE
- MANUAL AIR VENT
- AUTOMATIC AIR VENT
- TEST PLUG (PRESSURE / TEMPERATURE)
- VALVE IN RISER
- PIPE TRAP
- BLIND FLANGE
- CAPPED OUTLET

GENERAL NOTES

1. HVAC WORK CONSISTS OF PROVIDING AND INSTALLING AIR CONDITIONING SYSTEMS FOR A COMPLETE OPERATING SYSTEM AND AS INDICATED ON THE DRAWINGS. ALL WORK SHALL COMPLY WITH APPLICABLE CODES INCLUDING THE FBC 2023 (8TH EDITION), NATIONAL ELECTRIC CODE, STATE ENERGY CODE, NFPA REQUIREMENTS, AND OTHER LOCAL CODES. IT IS THE INTENTION OF THE CONTRACT DRAWINGS AND SPECIFICATIONS TO CALL FOR COMPLETE, FINISHED WORK, TESTED, AND READY FOR OPERATION.
2. TEST AND BALANCE SHALL BE PROVIDED BY A COMPANY SPECIALIZING IN THE TESTING AND BALANCING OF HVAC SYSTEMS AS SUBCONTRACTOR TO THE HVAC CONTRACTOR. THE TEST AND BALANCE CONTRACTOR SHALL BE A MEMBER OF EITHER AABC OR NEBB.
3. DUCT DIMENSIONS SHOWN ON THE DRAWINGS ARE CLEAR INSIDE AIR PASSAGE DIMENSIONS.
4. ALL PIPING SUBJECT TO THERMAL EXPANSION AND/OR CONTRACTION THAT PENETRATES A SMOKE, FIRE, OR FIRE/SMOKE WALL, PARTITION, OR FLOOR SLAB SHALL BE SUITABLY SLEEVED AND FIRE SAFED.
5. PROVIDE IDENTIFICATION OF THE LOCATION OF ALL FIRE, FIRE/SMOKE, BALANCING DAMPER, AND ALL DUCT SMOKE DETECTORS LOCATED INSIDE SHAFTS (ACCESSED THROUGH DOORS LOCATED IN SHAFT WALLS). IDENTIFICATION TAGS SHALL BE AFFIXED TO THE WALLS OR CEILINGS AND SHALL BE VISIBLE FROM THE OCCUPIED SPACE. COORDINATE WITH OWNER FOR IDENTIFICATION TYPE, COLOR AND LABELING REQUIREMENTS.
6. ALL PIPING SHALL BE SUPPORTED WITH COMMERCIAL MANUFACTURED CLAMPS. PROVIDE ISOLATION SLEEVES TO PREVENT CONTACT OF DISSIMILAR METALS.
7. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS AND RECOMMENDATIONS.
8. CONTRACTOR TO PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND MECHANICAL EQUIPMENT AND MATERIALS.
9. PENETRATIONS THROUGH FIRE RATED ASSEMBLIES, PENETRATIONS FOR PIPES, CONDUITS, OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE RESISTANCE RATING FIRE STOP MATERIAL. FIRE STOP SEALANTS SHALL BE UL LISTED. APPLY FIRE STOP AS RECOMMENDED BY THE MANUFACTURER AND IN ACCORDANCE WITH ITS LISTING TO MEET OR EXCEED THE FIRE RATING OF THE ASSEMBLY IN WHICH IT IS INSTALLED.
10. MOUNT ALL SPACE THERMOSTATS AND/OR SENSORS SUCH THAT ALL OPERABLE CONTROLS ARE MAXIMUM 4 FEET ABOVE THE FLOOR, UNLESS OTHERWISE NOTED.
11. UNLESS OTHERWISE NOTED, INSTALL ALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO THE BOTTOM OF THE STRUCTURE. COORDINATE ELEVATION AND LOCATION WITH ALL EXISTING CONDITIONS, CEILING HEIGHT, LIGHT FIXTURES, BUILDING STRUCTURE, RAIN LEADERS, WATER PIPING, PLUMBING VENTS, AND MAJOR ELECTRICAL CONDUITS OR CABLE TRAY. OFF-SET DUCTWORK OR RELOCATE OBSTRUCTION AS REQUIRED FOR NEW WORK.
12. PROVIDE OPPOSED BLADE VOLUME DAMPERS IN ALL OUTSIDE AIR DUCTS.
13. PROVIDE CONDENSATE TRAPS IN THE CONDENSATE LINES AT ALL AIR HANDLING UNITS.
14. ROUTE FULL SIZE (MIN. 1") COPPER DRAIN PIPE FROM EACH AHU DRAIN PAN TO RESPECTIVE FLOOR DRAIN. INSULATE WITH ¾" ARMSTRONG "ARMAFLEX" INSULATION. FINISH INTERIOR INSULATION WITH ALUMINUM JACKET.
15. THE WORK INDICATED ON THESE DRAWINGS IS GENERALLY DIAGRAMMATIC AND IS INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE THE GENERAL ARRANGEMENT OF DUCTWORK AND EQUIPMENT, ETC.
16. WHEN CONFLICTS OCCUR IN SPECIFICATIONS OR IN THE DRAWINGS, OR BETWEEN EITHER, THE ITEMS OF GREATER QUANTITY OR HIGHER COST SHALL BE PROVIDED.
17. THE CONTRACTOR SHALL CLOSELY COORDINATE WORK WITH OTHER TRADES IN ORDER TO AVOID CONFLICTS.
18. SLOPE WATER PIPING 1" PER 40'. PROVIDE DRAINS AT LOW POINTS. PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS.
19. THE ENGINEER HAS MADE AN EFFORT TO IDENTIFY ABOVE CEILING CONFLICTS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR CHECKING DRAWINGS AND FIELD CONDITIONS PRIOR TO BIDDING AND REPORT ANY PROBLEMS/CONFLICTS TO THE ENGINEER WITHIN 2 DAYS OF DISCOVERY. ANY CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH WERE NOT BROUGHT TO THE ENGINEER'S ATTENTION ARE TO BE MADE BY THIS CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
20. UPON COMPLETION OF THE WORK UNDER THIS CONTRACT, THE CONTRACTOR SHALL REMOVE ALL TOOLS, APPLIANCES, SURPLUS MATERIALS, AND SCRAP. ALL IDENTIFIED EXISTING EQUIPMENT TO BE REMOVED SHALL BE TURNED OVER TO THE OWNER.
21. COORDINATE AND SCHEDULE ALL WORK IN ADVANCE W/OWNER. WORK SCHEDULES MUST BE APPROVED IN ADVANCE BY THE CONSTRUCTION MANAGER AND THE OWNER'S PROJECT MANAGER. WORK CANNOT DISTURB NORMAL SCHEDULE AND OPERATIONS.
22. CONTRACTOR SHALL COORDINATE W/ OWNER AND DOCUMENT ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL VIDEO AND SUBMIT PICTURES (ORGANIZED BY BUILDING, FLOOR, AND ROOM) PRIOR TO BEGINNING WORK. ITEMS WHICH ARE MISSING/DAMAGED BY CONTRACTOR WILL BE REPLACED OR REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
23. UNLESS OTHERWISE NOTED, INSTALL ALL DUCTWORK AND PIPING AS HIGH AS POSSIBLE. COORDINATE FIT AND LOCATIONS WITH OTHER TRADES PRIOR TO BID.
24. PAINT ALL VISIBLE DUCTWORK THRU AIR INLETS/OUTLETS FLAT BLACK.
25. CONTRACTORS SHALL VISIT THE SITE PRIOR TO BID AND VERIFY ALL BUILDING CONSTRAINTS, ALL DUCT, PIPE, AND EQUIPMENT FIT WITH EXISTING CONDITIONS, ALL SITE ACCESS CONSTRAINTS, ALL SCHEDULING CONSTRAINTS, EQUIPMENT REQUIREMENTS (CRANES, ETC.) ALL REQUIRED BUILDING MODIFICATIONS, ETC. AND INCLUDE ALL COSTS IN BID.
26. CONTRACTOR SHALL PROVIDE AND UTILIZE NEGATIVE AIR MACHINES FOR ALL WORK THAT PRODUCES CONSTRUCTION DUST. CONTRACTOR SHALL CLEAN THE BUILDING DAILY. WALK PATHS FROM CONSTRUCTION AREA TO EXTERIOR SHALL BE KEPT CLEAN AND UTILIZE PROTECTION FOR FLOORING, STICKY MATS, ETC.
27. PROVIDE TEMPORARY RETURN AIR CONSTRUCTION FILTERS OVER RETURN AIR OPENINGS DURING WORK. REMOVE FILTERS AT COMPLETION OF WORK.

DESIGN CONDITIONS

OUTDOOR (SUMMER) = 96.0° FDB / 77° FWB

OUTDOOR (WINTER) = 27.0° FDB

INDOOR (SUMMER) = 75.0° FDB / 50% RH.

INDOOR (WINTER) = 72.0° FDB

OUTSIDE AIR = REFER TO CALCULATIONS –
O.A. CFM DETERMINED IN ACCORDANCE W/F.B.C. 2023 (8th EDITION)

EXHAUST AIR = MIN. 50 CFM PER WATER CLOSET, OR URINAL
= MIN. 1 CFM / SF – JANITOR CLOSET

NOTE
THESE ARE STANDARD SYMBOLS AND MAY NOT ALL APPEAR ON THE PROJECT DRAWINGS; HOWEVER WHEREVER THE SYMBOL APPEARS ON THE PROJECT DRAWINGS, THE ITEM SHALL BE PROVIDED AND INSTALLED.

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING
INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

ABBREVIATIONS, LEGENDS
SYMBOLS, AND GENERAL
NOTES

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT ENVISIONED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M001

VAV BOX SCHEDULE - ASSOCIATED WITH RTU-1 (AHU-KR-1)

NEW TAG	---	VKR.1-G-1	VKR.1-G-2	VKR.1-G-3	VKR.1-G-4	VKR.1-G-5	VKR.1-G-6	VKR.1-G-7	VKR.1-G-8	VKR.1-G-9	VKR.1-G-10	VKR.1-1-1	VKR.1-1-2	VKR.1-1-3	VKR.1-1-4	VKR.1-1-5	VKR.1-1-6	VKR.1-1-7	VKR.1-1-8	VKR.1-1-9	VKR.1-1-10	VKR.1-2-1	VKR.1-2-2	VKR.1-2-3	VKR.1-2-4	VKR.1-2-5	VKR.1-2-6	VKR.1-2-7	VKR.1-2-8
FORMER TAG	---	VG1-01	VG1-02	VG1-03	VG1-04	VG1-05	VG1-06	VG1-07	VG1-08	VG1-09	VG1-10	V11-01	V11-02	V11-03	V11-04	V11-05	V11-06	V11-07	V11-08	V11-09	V11-10	V21-01	V21-02	V21-03	V21-04	V21-05	V21-06	V21-07	V21-08
PRIMARY AIR BOX CAPACITY (DESIGN MAX)	CFM	610	460	1175	565	650	510	645	455	405	500	315	585	300	1040	1130	585	1390	935	700	460	270	325	240	950	1025	1030	570	1085
DESIGN MIN. HEATING AIR FLOW	CFM	305	230	590	285	325	255	325	230	205	250	160	294	150	520	565	295	695	470	350	230	135	95	120	475	515	515	285	545
DESIGN MIN. COOLING AIR FLOW	CFM	305	230	590	285	325	255	325	230	205	250	160	294	150	520	565	295	695	470	350	230	135	95	120	475	515	515	285	545
MAX STATIC AIR PRESSURE DROP	IN. WTR.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ELECTRICAL	V/PH/HZ	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HEATING CAPACITY	MBH	6.6	5	12.7	6.2	7	5.5	7	5	4.4	5.4	3.5	6.4	3.2	11.2	12.2	6.4	15	10.2	7.6	5	2.9	3.52	2.6	10.3	11.1	11.1	6.2	11.8
HEATING FLOW	GPM	0.33	0.25	0.64	0.31	0.35	0.28	0.35	0.25	0.22	0.27	0.18	0.32	0.16	0.56	0.61	0.32	0.75	0.51	0.38	0.25	0.15	0.25	0.13	0.52	0.56	0.56	0.31	0.59
HEATING ENTERING/LEAVING AIR	°F/°F	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95
MANUFACTURER	---	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE	PRICE	TRANE	TRANE	TRANE	TRANE	TRANE	TRANE
MODEL NO. / SIZE	---	VCWE-11	VCWE-06	VCWE-17	VCWE-11	VCWE-11	VCWE-11	VCWE-11	VCWE-06	VCWE-06	VCWE-11	VCWE-06	VCWE-06	VCWE-06	VCWE-17	VCWE-17	VCWE-11	VCWE-17	VCWE-17	VCWE-11	VCWE-11	VCWE-06	SDV-08	VCWE-03	VCWE-17	VCWE-17	VCWE-17	VCWE-11	VCWE-17
NOTES	---	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	①	②③④⑤⑥⑦⑧	①	①	①	①	①	①

NEW TAG	---	VKR.1-2-9	VKR.1-2-10	VKR.1-2-11	VKR.1-3-1	VKR.1-3-2	VKR.1-3-3	VKR.1-3-4	VKR.1-3-5	VKR.1-3-6	VKR.1-3-7	VKR.1-3-8	VKR.1-3-9	VKR.1-3-10	VKR.1-3-11	VKR.1-3-12	VKR.1-3-13	VKR.1-3-14	VKR.1-4-1	VKR.1-4-2	VKR.1-4-3	VKR.1-4-4	VKR.1-4-5	VKR.1-4-6	VKR.1-4-7	VKR.1-4-8	VKR.1-4-9	VKR.1-4-10	VKR.1-5-1
FORMER TAG	---	V21-09	V21-10	V21-11	V31-01	V31-02	V31-03	V31-04	V31-05	V31-06	V31-07	V31-08	V31-09	V31-10	V31-11	V31-12	V31-13	V31-14	V41-01	V41-02	V41-03	V41-04	V41-05	V41-06	V41-07	V41-08	V41-09	V41-10	V51-01
PRIMARY AIR BOX CAPACITY (DESIGN MAX)	CFM	735	325	590	620	335	300	540	275	440	420	245	570	630	380	640	280	360	285	340	1300	275	730	300	910	360	910	420	850
DESIGN MIN. HEATING AIR FLOW	CFM	370	165	295	310	170	150	270	140	220	210	125	285	315	190	320	140	340	145	170	650	140	365	150	455	180	455	210	425
DESIGN MIN. COOLING AIR FLOW	CFM	370	165	295	185	100	90	160	80	130	125	75	170	190	115	190	85	105	85	100	390	80	220	90	270	105	270	125	255
MAX STATIC AIR PRESSURE DROP	IN. WTR.	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
ELECTRICAL	V/PH/HZ	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HEATING CAPACITY	MBH	8	3.6	6.4	6.82	3.74	3.3	5.94	3.08	4.84	4.62	2.75	6.27	6.93	4.18	7.04	3.08	7.48	3.19	3.74	14.3	3.08	8.03	3.3	10.01	3.96	10.01	4.62	9.35
HEATING FLOW	GPM	0.4	0.18	0.32	0.34	0.25	0.25	0.30	0.25	0.25	0.25	0.25	0.31	0.35	0.25	0.35	0.25	0.37	0.25	0.25	0.72	0.25	0.40	0.25	0.50	0.25	0.50	0.25	0.47
HEATING ENTERING/LEAVING AIR	°F/°F	75/95	75/85	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95	75/95
MANUFACTURER	---	TRANE	TRANE	TRANE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	TRANE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE
MODEL NO. / SIZE	---	VCWE-11	VCWE-06	VCWE-11	SDV-08	SDV-06	SDV-06	SDV-08	SDV-06	SDV-08	SDV-08	SDV-06	SDV-08	SDV-08	SDV-06	SDV-08	SDV-06	SDV-06	SDV-06	SDV-06	SDV:P-12	SDV-06	SDV-08	SDV-06	SDV-10	SDV-06	SDV-10	SDV-08	SDV-10
NOTES	---	①	①	①	②③④⑤⑥⑦⑧	②③④⑤⑥⑦⑧	②③④⑤⑥⑦⑧

FAN COIL UNIT SCHEDULE

NEW TAG	---	FCU-K3-2	FCU-K4-5	FCU-K5-2
FORMER TAG	---	FCU-8	FCU-9	FCU-10
LOCATION		3RD FLOOR	4TH FLOOR	5TH FLOOR
TOTAL SUPPLY AIR	CFM	800	800	800
OUTSIDE AIR	CFM	0	0	0
STATIC PRES. EXT./TOTAL	IN. WTR.	0.25	0.25	0.25
MOTOR	WATTS	205	205	205
ELECTRICAL	V/PH/HZ	277/1/60	277/1/60	277/1/60
AMPERAGE	MCA / MFS	2 / 15	2 / 15	2 / 15
COOLING COIL				
TOTAL COOLING CAPACITY	MBH	18.0	18.0	18.0
SENSIBLE COOLING CAPACITY	MBH	16.1	16.1	16.1
CHILLED WATER FLOW	GPM	3	3	3
COIL WATER P.D. (MAX)	FT	4.6	4.6	4.6
CHILLED WATER TEMP. (ENT./LVG.)	°F/°F	45 / 57.3	46 / 57.3	47 / 57.3
ENTERING AIR (DB/WB)	°F/°F	75.0/63.0	75.0/63.0	75.0/63.0
LEAVING AIR (DB/WB)	°F/°F	56.6/55.4	56.6/55.4	56.6/55.4
MANUFACTURER	---	TRANE	TRANE	TRANE
MODEL NO.	---	FCCB080	FCCB080	FCCB080
NOTES	---	①②③④⑤	①②③④⑤	①②③④⑤

NOTES:
① FILTER TO BE LOCATED IN GRILLE. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE FILTER PRESSURE DROP.
② CONCEALED, HORIZONTAL TYPE. SUSPEND FROM STRUCTURE; PROVIDE ALL SUPPLEMENTARY STEEL AND VIBRATION ISOLATORS. FOIL FACED OR ELASTOMERIC CLOSED CELL INSULATION.
③ STAINLESS STEEL DRAIN PAN.
④ ECM FAN MOTOR WITH VARIABLE SPEED CONTROLLER.
⑤ SINGLE POINT POWER CONNECTION.

EXHAUST FAN SCHEDULE

NEW TAG	---	EF-K1-2	EF-KR-1	EF-KR-2	EF-KR-3	EF-KR-4	
CONDITION / FORMER TAG	--- / ---	NEW / EF-2	EXISTING / EF-3	EXISTING / EF-4	EXISTING / EF-5	EXISTING / EF-6	
LOCATION	---	1ST FLR MECH	ROOF	ROOF	ROOF	ROOF	
AIR QUANTITY EXIST / REBAL (NEW)	CFM / CFM	--- / 605	3330 / 1810	4750 / 2950	440 / 300	2830 / 3375	
EXT. STATIC PRESSURE	IN. WTR.	1	1	0.6	0.4	0.6	
FAN TYPE	---	IN-LINE	UTILITY SET	UTILITY SET	CENT. ROOF	CENT. ROOF	
DRIVE	---	DIRECT ECM	BELT	BELT	BELT	BELT	
SONES	---	8.3	---	---	---	---	
MOTOR	HP	1/2	3/4	1	1/4	3/4	
FAN SPEED	RPM	1004	837	403	1041	470	
ELECTRICAL	V/PH/HZ	460/3/60	277/1/160	460/3/60	115/1/60	460/3/60	
CONTROLS	---	④⑧	-	-		⑧	
LOCATION	---	MER	ROOF	ROOF	ROOF	ROOF	
MANUFACTURER	---	COOK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	
MODEL NO.	---	195 SQND-XP	SWB22-7	SFB22-10	GB-90-4	GB-260-7	
NOTES	---	④⑤⑥⑦	①⑨⑩	①⑨⑩	①⑨⑩	①③⑨⑩	

NOTES:
① EXISTING FAN TO REMAIN.
② REFER TO CONTROLS DRAWINGS FOR CONTROLS REPLACEMENT SCOPE.
③ EXISTING FAN'S ASSOCIATED VSD TO BE REPLACED. REFER TO VSD SCHEDULE.
④ NEW FAN. ECM MOTOR. PROVIDE WITH 0-10V SPEED CONTROLLER AND CONTROLS INTERFACE. LOCATE CONTROLLER ACCESSIBLE.
⑤ DISCONNECT SWITCH.
⑥ GRAVITY BACKDRAFT DAMPER.
⑦ PROVIDE SUPPLEMENTARY STEEL, SUPPORT HARDWARE, AND VIBRATION ISOLATION AS REQUIRED.
⑧ REFER TO SEQUENCE OF OPERATION FOR EXHAUST FAN CONTROLS.
⑨ PRE-CONSTRUCTION AND POST-CONSTRUCTION T&B REQUIRED.
⑩ PROVIDE NEW ADJUSTABLE SHEAVES AND BELTS.

VARIABLE SPEED DRIVE SCHEDULE

NEW TAG	---	VSD-A,K1-2	VSD-A,K5-1	VSD-E,K5-1
FORMER TAG	---	VSD-AH2B	VSD-AH5	VFD-EF-6
CONDITION	---	NEW	NEW	NEW
LOCATION	---	1ST FLR	5TH FLR	5th FLR
EQUIPMENT SERVED / QUANTITY	--- / ---	AHU-K1-2 / 1	AHU-K5-1 / 1	EF-KR-4 / 1
HP	HP	5	25	3/4
ELECTRICAL	V/PH/HZ	460/3/60	460/3/60	460/3/60
MANUFACTURER	---	DANFOSS (TRANE)	DANFOSS (TRANE)	DANFOSS
MODEL NO.	---	TR200	TR200	FC-102P1K1T4
NOTES	---	①②③④⑤⑥	①②③④⑤⑥	①②③④⑤⑦

NOTES:
① PROVIDE WITH MANUAL BYPASS TRANSFER SWITCH; REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
② OUTPUT CONTACTOR SHALL DISCONNECT MOTOR FROM DRIVE WHEN DRIVE IS STOPPED.
③ VSD FURNISHED MECHANICAL, INSTALLED AND WIRED BY ELECTRICAL. COORDINATE WITH CONTROLS CONTRACTOR FOR CONTROL INTERFACE.
④ CONTRACTOR SHALL FIELD VERIFY HORSEPOWER AND VOLTAGE REQUIREMENTS PRIOR TO ORDERING.
⑤ PROVIDE WITH INTEGRAL DISCONNECT AND OVERCURRENT PROTECTION DEVICE.
⑥ REDUNDANT DRIVE(S) IN ONE ENCLOSURE. IF THE BASE DRIVE FAILS, THE REDUNDANT DRIVE SHALL AUTOMATICALLY TAKE OVER OPERATION (ACROSS-THE-LINE STARTING IS PROHIBITED). REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. VERIFY COMPLIANCE WITH CITY OF TALLAHASSEE REQUIREMENTS (C.O.T. SERVICE MANUAL, SECTION 6.1) FOR REDUCED VOLTAGE OPERATION PRIOR TO ORDERING.
⑦ VSD SHALL HAVE CONTACTS FOR CONNECTION TO REMOTE DISCONNECT EARLY BREAK CONTACTS.

AIR HANDLING UNIT SCHEDULE

NEW TAG	---	AHU-K1-2		AHU-K5-1			AHU-KR-1	AHU-KR-2	
CONDITION / FORMER TAG	--- / ---	EXISTING / AHU-2A/2B		EXISTING / AHU-5A/5B			EXISTING / RTU-1	EXISTING / RTU-2	
LOCATION	---	RM. 127		RM. 528			ROOF	ROOF	
SECTION TYPE	---	OUTSIDE AIR	RETURN AIR	OUTSIDE AIR	RETURN AIR		---	---	
OPERATING WEIGHT	LBS	1824		4499			26,205	26,151	
SUPPLY AIR	CFM	0	2,600	3,575	13,050		38,000	36,000	
RETURN AIR	CFM	0	1,895	0	9,475		33,730	30,750	
OUTSIDE AIR	CFM	705	0	3,575	0		4,270	5,250	
FAN SPEED (PER FAN)	RPM	3,551		2353			3340	3275	
ESP/TSP	IN. WTR.	1.0 / 3.19		2.60 / 5.94			4.75/7.75 ⑳	4.80/7.70 ⑳	
FAN MOTOR (QUANTITY/HP/BHP)	HP	1 / 5 / 2.5		2 / 10 / 17.9			9 / 10 / 7.16	9 / 10 / 6.76	
ELECTRIC	V/PH/HZ	460/3/60		460/3/60			460/3/60	460/3/60	
COOLING COIL SELECTION									
FACE VELOCITY	FPM	241	310	358	478		446	444	
ENT. AIR (DB/WB)	°F/°F	96.0/77.0	75.0/62.5	96.0/77.0	75.0/62.5		77.4/64.2	78.1/64.2	
LV. AIR (DB/WB)	°F/°F	52.5/51.5	52.0/51.9	52.0/51.9	52.0/51.9		54.7/54.1	54.7/54.0	
CAPACITY (TOTAL)	MBH	56.8	28.4	28.4	305.1	86.2	201.0	1,136.1	1,085.2
CAPACITY (SENS.)	MBH	31.3	23.9	23.9	174.8	71.8	167.6	949.9	928
CAPACITY (LAT)	MBH	25.5	4.5	4.5	130.3	14.4	33.4	186.2	157.2
WATER TEMP (ENT./LV.)	°F/°F	45/61	45/61	45/61	45/61	45/61	45/62	45/61	45/61
WATER QUANTITIY	GPM	7.1	3.6	3.6	38.0	10.7	25.1	141.4	135.1
AIR FRICTION	IN. WTR.	1.13	0.38		0.79	0.49		0.49	0.49
WATER FRICTION	FT. WTR.	10 MAX	10 MAX		5.74	10 MAX		12.5	11.09
ROWS DEEP	---	8	6		8	6		6	6
FIN SPACING	FIN/FT	155 MAX	122		166	165 MAX		96	96
HOT WATER HEAT COIL									
TYPE	---	PRE-HEAT	RE-HEAT		PRE-HEAT	RE-HEAT		RE-HEAT	RE-HEAT
TOTAL CAPACITY	MBH	23.3	120.0		145.4	618.6		853.2	815.1
HOT WATER FLOW	GPM	1.2	6.0		7.3	30.9		43.5	41.6
COIL WATER P.D.	FT. WTR.	1	0.6		0.73	3.57		4.71	4.25
HOT WATER TEMP (ENT./LVG.)	°F/°F	180/140	180/140		180/140	180/140		180/140	180/140
ENTERING AIR TEMP.	°F	25	52.5		25	52		55.0	55.0
LEAVING AIR TEMP.	°F	55	95		62.5	95		75.7	75.0
AIR PRESSURE DROP	IN. WTR.	0.3	0.2		0.05	0.24		0.05	0.05
ROWS DEEP	---	1	1		1	2		1	1
FIN SPACING	FIN/FT	144	162		80	84		72	72
PRE-FILTER									
TYPE	---	---	---		---	---		MERV8	MERV8
FILTER BOX	---	---	---		---	---		FLAT	FLAT
DEPTH	IN.	---	---		---	---		2"	2"
MAX S.P. (CLEAN/ADDITIONAL DIRTY)	IN. WTR.	---	---		---	---		0.25/0.40	0.25/0.40
FILTER SECTION									
TYPE	---	MERV13	MERV13		MERV13	MERV13		MERV14	MERV14
FILTER BOX	---	FLAT	ANGLED		FLAT	ANGLED		FLAT	FLAT
DEPTH	IN.	4"	4"		4"	4"		4"	4"
MAX S.P. (CLEAN/ADDITIONAL DIRTY)	IN. WTR.	0.7/0.40	0.7/0.40		0.7/0.40	0.7/0.40		0.70/0.40	0.70/0.40
BASIS OF DESIGN	---	TRANE			TRANE			GOVERNAIR	GOVERNAIR
MODEL NO.	---	CSAA03	CSAA06		CSAA10	CSAA021		SERIES ITF - 3.5	SERIES ITF - 3.5
NOTES:	---	②③④⑤⑥⑧⑨⑩⑪⑫⑬⑭⑮⑯⑰			②③④⑤⑦⑨⑩⑪⑫⑬⑭⑮⑯⑰			①	①

NOTES:
① NOT IN PROJECT SCOPE. UNIT TO BE REPLACED UNDER SEPARATE 'PHASE 3 HVAC MODERNIZATION' SCOPE.
② PROVIDE WITH FACTORY INSTALLED AND WIRED UV-C GERMICIDAL LIGHT ARRAY AND SAFETY SWITCHES. LOCATE UV-C LIGHTS DOWN-STREAM OF COOLING COIL. INCLUDE DOOR INTERLOCKING SAFETY SWITCHES AND ON/OFF SWITCHES. COORDINATE ALL ELECTRICAL AND CONTROLS REQUIREMENTS WITH OTHER TRADES, PRIOR TO BID. COMPONENTS INSIDE AHU SHALL BE RATED FOR USE WITH UV LIGHTING AND SHALL NOT DEGRADE DUE TO EXPOSURE. REFER TO SPECIFICATIONS AND UV LIGHT SCHEDULE FOR ADDITIONAL INFO AND REQUIREMENTS. REFER TO SCHEDULE.
③ CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PROTECT BUILDING AND NEW AHU DURING INSTALLATION. ANY AHU OR BUILDING COMPONENTS DAMAGED DURING INSTALLATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
④ CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO BID AND COORDINATING WITH THE AHU MANUFACTURER FOR THE FIT OF THE NEW AHU INSIDE THE EXISTING MECHANICAL ROOM AND INGRESS INTO THE BUILDING. BREAK AHU INTO COMPONENTS AS REQUIRED. FIELD VERIFY ALL MEASUREMENTS, AND DIMENSIONS, VERIFY FIT WITH EXISTING PIPES, EXISTING DUCTS, NEW SILENCERS, ETC. PRIOR TO BID. INCLUDE ALL COSTS.
⑤ PROVIDE CUSTOM 70/30 SPLIT COIL. COIL CIRCUITING SHALL BE FULL FACE, INTERLACED WITH SEPARATE HEADERS FOR THE 70% AND 30 % SPLITS.
⑥ PROVIDE CUSTOM 50/50 SPLIT COIL. COIL CIRCUITING SHALL BE FULL FACE, INTERLACED WITH SEPARATE HEADERS FOR EACH SPLIT.
⑦ DUAL DIRECT DRIVE PLENUM FANS. FANS SHALL HAVE BACKDRAFT DAMPERS. SELECT FANS FOR A FAN ENERGY INDEX (FEI) OF NOT LESS THAN 1.0, PER FBC 2023 ENERGY C403.2.12.3.
⑧ DIRECT DRIVE PLENUM FAN. SELECT FAN FOR A FAN ENERGY INDEX (FEI) OF NOT LESS THAN 1.0, PER FBC 2023 ENERGY C403.2.12.3.
⑨ CHW COILS SHALL HAVE STAINLESS STEEL COIL CASINGS AND DRAIN PANS.
⑩ HHW COILS SHALL INCLUDE DRAIN PANS FOR CLEANING PURPOSES.
⑪ PROVIDE WITH COIL CONNECTIONS EXTENDED TO UNIT EXTERIOR.
⑫ FIELD VERIFY AHU INLET AND OUTLET LOCATIONS, SIZES, AND FIT PRIOR TO BID.
⑬ AHU SHALL BE EQUIPPED WITH ACCESS DOORS UPSTREAM AND DOWNSTREAM OF EACH COIL AND FAN SECTION. REFER TO FLOOR PLAN DRAWINGS AND ELEVATIONS FOR ADDITIONAL INFO AND REQUIREMENTS. PIPING SHALL BE INSTALLED SUCH THAT FULL ACCESS DOOR SWINGS ARE MAINTAINED. PROVIDE UV-C LIGHT COMPARTMENT ACCESS DOOR WITH WINDOW. WINDOWS EXPOSED TO UV LIGHT SHALL BE RATED AS SUCH.
⑭ REFER TO SPECIFICATIONS FOR AHU THERMAL BREAK AND THERMAL PERFORMANCE REQUIREMENTS.
⑮ PROVIDE ANTI-MICROBIAL CORROSION RESISTANT COATING ON COOLING COILS. (BYGOLD POLU AL XT MB, OR APPROVED EQUAL). COATING SHALL BE UV RESISTANT AND SUITABLE FOR USE WITH GERMICIDAL IRRADIATION UV-C LIGHTING. COATING SHALL BE APPLIED AT MANUFACTURER'S FACTORY.
⑯ COORDINATE ALL UV-C SAFETY SWITCHES, ETC. LOCATIONS AND POWER REQUIREMENTS WITH ELECTRICAL.
⑰ REFER TO AHU ACOUSTICS SCHEDULE. PROVIDE AHU WITH SOUND PERFORMANCE EQUAL OR QUIETER THAN SCHEDULED. ALSO REFER TO EXTERNAL DUCT SOUND ATTENUATOR (SILENCER) SCHEDULE. NOTE THAT THE AHU SCHEDULE ABOVE INCLUDES EXTERNAL STATIC PRESSURE LOSSES FOR SILENCER PRESSURE DROP.

FAN ACOUSTICS SCHEDULE

		63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
AHU-K1-2	RETURN INLET	79	76	74	72	71	71	72	70
	SUPPLY OUTLET	80	76	77	80	74	75	77	74
AHU-K5-1	RETURN INLET	79	78	72	73	67	71	63	58
	SUPPLY OUTLET	84	83	82	89	81	80	75	68
EF-K1-2	INLET	68	61	63	63	63	62	60	56

GENERAL NOTES:
1. PROVIDE FANS THAT ARE AS QUIET OR QUIETER THAN THE BASIS OF DESIGN SOUND DATA ABOVE.
2. DATA ABOVE IN dB.

AHU MOUNTED ULTRAVIOLET GERMICIDAL IRRADIATION LAMP SCHEDULE

NEW AHU TAG	FORMER AHU TAG	PEAK AIRFLOW (CFM)	UV ROWS	LAMP QTY PER ROW	MIN MIXED AIR INACTIVATION RATE	POWER REQUIREMENTS				BASIS OF DESIGN (MANUFACTURER & MODEL NO.)	NOTES
						V/PH/HZ	FLA	MCA	MFS		
AHU-K1-2	AHU-2B	2,600	1	1	99%	115/1/60	1.3	1.63	15	TRANE	1, 2, 3, 4, 5, 6
AHU-K5-1	AHU-5B	13,050	1	1	99%	115/1/61	1.3	1.63	15	TRANE	1, 2, 3, 4, 5, 6

NOTES:
1. UVC LIGHTS SHALL NOT INTERFERE WITH COIL CLEANING AND MAINTENANCE, NOR ACCESS TO COIL SECTIONS.
2. UVC LAMP (S) TO BE INSTALLED DOWNSTREAM OF COOLING COIL.
3. UVC LIGHTS, BALLAST, ETC. TO BE FACTORY INSTALLED FULLY WITHIN AHU AIRSTREAM. PROVIDE COMPONENTS RATED FOR INSTALLATION LOCATION. SEAL WIRING PENETRATIONS AIR TIGHT AGAINST AHU'S OPERATING PRESSURE.
4. PROVIDE FACTORY DOOR SAFETY SWITCHES. SWITCHES SHALL DISCONNECT POWER TO UV-C LIGHT(S) ANY TIME ACCESS DOOR TO UV COMPARTMENT IS OPENED. COORDINATE WITH ELECTRICAL AND CONTROLS CONTRACTORS FOR ALL REQUIREMENTS.
5. SINGLE POINT POWER CONNECTION.
6. INACTIVATION RATE FOR CORONAVIRUS (SARS).

AIR DEVICE SCHEDULE

ITEM NO.	A	B	C	D	E	F	G	H	I	J	K	L	M				
TYPE	PLAQUE	PLAQUE	PLAQUE	PLAQUE	PLAQUE	EGGCRATE	EGGCRATE	EGGCRATE	EGGCRATE	LINEAR	FILTER GRILLE	LINEAR	LINEAR				
FACE	24x24	24x24	24x24	24x24	24x24	–	–	–	–	TWO 3/4" SLOTS; 2'L	24x24	TWO 1" SLOTS; 4'L	TWO 1" SLOTS; 2'L				
NECK	6"ø	8"ø	10"ø	12"ø	14"ø	12x12	16x16	18x18	20x20	5"ø	20x20	8"ø	6"ø				
MATERIAL	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM	ALUM				
FINISH	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	WHITE	④	WHITE	④	④				
ACCESSORIES	①	①	①	①	①	①	①	①	①	①⑤⑥	①③	②⑤⑦⑧	②⑤⑦⑨				
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE				
MODEL NO.	ASPD	ASPD	ASPD	ASPD	ASPD	81	81	81	81	SDS75	81FF	CF-AS	SDS-100				

NOTE
① AIR DISTRIBUTION DEVICES SHALL BE EQUIPPED WITH BORDER TYPE SUITABLE FOR THEIR PARTICULAR APPLICATION PROVIDE TRANSITION TO DIFFUSER NECK AS APPROPRIATE. PROVIDE OBMVD AT EACH AIR INLET AND OUTLET UNLESS DAMPER IS IN TAKEOFF OR IN DUCT.
② FIELD VERIFY FIT PRIOR TO ORDERING.
③ PROVIDE FILTER GRILLE WITH 1/4 TURN FASTENER AND HINGED OPERATION. GRILLE SHALL ACCEPT 2" MERV13 FILTERS. PROVIDE ONE SET OF FILTERS AT START-UP AND ONE SPARE SET.
④ EXTERIOR CUSTOM COLOR SELECTED BY ARCHITECT. INTERNAL COMPONENTS VISIBLE FROM THE SPACE SHALL BE FLAT BLACK.
⑤ PROVIDE LINEAR DIFFUSER WITH FIELD OR FACTORY FABRICATED AND INSULATED PLENUM. NECK SIZE AS SCHEDULED. OFFSET NECK LOCATION FOR FIELD CONDITIONS AND FIT WITH EXISTING AND NEW CONDITIONS.
⑥ BORDER TYPE SHALL BE COMPATIBLE WITH ACOUSTICAL CEILING (PROVIDE WIRE HANGER BRACKETS). COORDINATE WITH ARCHITECTURAL.
⑦ PROVIDE WITH INTEGRAL BALANCING DAMPER.
⑧ EXPOSED FRAME BORDER TYPE SHALL BE COMPATIBLE WITH VERTICAL WALL MOUNTING LOCATION. COORDINATE WITH ARCHITECTURAL.
⑨ CONCEALED PLASTER FRAME MOUNTING TYPE, COORDINATE INSTALLATION WITH DRYWALL CONTRACTOR.

DEHUMIDIFIER SCHEDULE

DEHUMIDIFIER	---	DH-KB1-2, DH-KB5-1
TOTAL QUANTITY	---	3
ELECTRICAL	V/PH/HZ	277/1/60
MCA	AMPS	10.2, 15, 15
WEIGHT	LBS.	215
MOISTURE REMOVAL AT 80°F/60%RH	PTS/DAY	335, 345, 345
DUCT CONNECTION	IN."	22" x 20", 16ø,16ø
BLOWER AT 0.0"WG	CFM	1000, 900, 900
REFRIGERANT	---	R410A
CONDENSATE CONNECTION	IN. ø	3/4" THREADED NPT
FILTER TYPE	---	MERV13 (SEE NOTE #7)
MANUFACTURER	---	QUEST
MODEL NO.	---	335

GENERAL NOTES
(1) REFER TO FLOOR PLAN FOR LOCATION.
(2) PROVIDE RELAYS AS REQUIRED.
(3) FIELD FABRICATE RECTANGULAR DUCT COLLARS.
(4) PROVIDE WITH CONTROL POWER TRANSFORMERS (VERIFY REQUIRED CONTROL VOLTAGE PRIOR TO BID).
(5) PROVIDE WITH FLOAT SWITCH IN PRIMARY DRAIN PAN. PROVIDE SECONDARY DRAIN PAN (REFER TO DETAIL).
(6) PROVIDE WITH CUSTOM HEIGHT FLOOR STAND AND ALL HARDWARE FOR SUPPORT. SEE DETAIL.
(7) PROVIDE WITH INTEGRAL FILTER RACK.

BUILDING PRESURIZATION

EXISTING			MODIFIED		
SA (CFM)	OA (CFM)	EXH (CFM)	SA (CFM)	OA (CFM)	EXH (CFM)
106,855	17,555	15,830	108,655	17,555	13,695
1.61% POSITIVE			3.55% POSITIVE		

SOUND ATTENUATOR (SILENCER) SCHEDULE

ITEM #	TAG	ASSOCIATED AHU	MANUFACTURER / MODEL	TYPE	WEIGHT (LBS)	DUCT WIDTH (IN)	DUCT HEIGHT (IN)	CENTERLINE LENGTH (IN)	INLET LEG (IN)	OUTLET LEG (IN)	FLOW DIRECTION	AIR FLOW (CFM)	VELOCITY (FPM)	PRESSURE DROP (IN W.G.)	PRESSURE DROP W/ SYS. EFF. (IN W.G.)	INSERTION LOSS						
																63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
1	S-K1.2-1	AHU-K1-2	PRICE / ERMT120/1C	ELBOW	203	12	32	120	48	84	FORWARD	2600	975	0.15	0.3	13	18	28	39	47	55	52	27
2	S-K1.2-2	AHU-K1-2	PRICE / RLT96/1C	STRAIGHT	215	40	12	96	--	--	REVERSE	2600	780	0.12	0.21	10	14	22	36	45	53	33	20
3	S-K5.1-1	AHU-K5-1	PRICE / ERMT120/7A	ELBOW	483	50	24	120	85	85	FORWARD	13050	1566	0.15	0.24	11	14	17	32	36	43	33	19
4	S-K5.1-2	AHU-K5-1	PRICE / ERMT120/9A	ELBOW	648	50	30	120	108	42	REVERSE	9475	910	0.06	0.08	13	15	18	31	33	39	31	17

GENERAL NOTES:
1. PRICE OR APPROVED EQUAL. PERFORMANCE SHALL BE DETERMINED IN ACCORDANCE WITH THE LATEST ASTM E477-20 TEST STANDARD. TEST LAB SHALL BE NVLAP ACCREDITED.
2. CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS ASSOCIATED WITH FIT OF SILENCERS AND BUILDING INGRESS PRIOR TO BID AND ORDERING.
3. SILENCER SHALL BE 18GA GALVANIZED STEEL WITH 22GA PERFORATED LINER. MEDIA SHALL MOLD AND MILDEW RESTISTANT GLASS FIBER IN POLYMER FILM LINER, WITH 25/50 FLAIVE SPREAD/SMOKE DEVELOPED RATING.
4. PROVIDE 2" INLET AND OUTLET SLIP JOINT CONNECTIONS.
5. MANUFACTURER SHALL PRODUCE (AND SUBMIT TO ENGINEER) SOUND ANALYSIS CALCULATIONS VERIFYING MAXIMUM SOUND LEVELS. AHU-K1-2 MAX NC=30; AHU-K5-1 MAX NC=25.

AHU NOMENCLATURE: AHU - KX - X
AHU - AIR HANDLING UNIT
KX - KNOTT BUILDING
X - UNIT NUMBER
X - FLOOR LOCATION

VSD NOMENCLATURE: VSD - X.KX - X
VSD - VARIABLE SPEED DRIVE
X - TYPE OF CONNECTED EQUIPMENT
KX - KNOTT BUILDING
X - UNIT NUMBER
X - FLOOR LOCATION

FCU NOMENCLATURE: FCU - KX - X
FCU - FAN COIL UNIT
KX - KNOTT BUILDING
X - UNIT NUMBER
X - FLOOR LOCATION

FAN NOMENCLATURE: EF - KX - X
EF - EXHAUST FAN
KX - KNOTT BUILDING
X - UNIT NUMBER
X - FLOOR LOCATION

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

MECHANICAL SCHEDULES

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INDICATED HEREIN WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M003

VENTILATION AIR CALCULATIONS - KNOTT BUILDING - AHU-KR-1 - FBC 2023 (Note: Building occupancy unchanged for renovations under this project.)

FLOOR NO.	ROOM NO.	P.E.G. ROOM NO.	ROOM NAME	ROOM AREA	NO. PEOPLE	PEOPLE DIVERSITY	OA RATE (CFM/PER)	OA RATE (CFM/SF)	OA CFM (Vou)	SA CFM	MIN. SA CFM	OA/SA RATIO (100%)	Rp x Pz	Ra x Az	NOTES
G	6	G-22	OFFICE	196	3	2	5	0.06	27	360	360	0.076	15	11.8	
G	7	G-2s	MEN'S TOILET ROOM	237	0	0	0	0	0	100	100	0.000	0	0.0	
G	11	G-27	LOBBY	557	0	0	5	0.06	33	500	500	0.067	0	33.4	
G	21	G-21	CORRIDOR	375	0	0	0	0.06	23	220	220	0.102	0	22.5	
G	29	G-1	COMPUTER	1196	0	0	5	0.06	72	500	500	0.143	0	71.7	
G	30	G-6	OFFICE	139	2	1	5	0.06	18	366	366	0.050	10	8.1	
G	31	G-5	STORAGE	81	0	0	0	0.12	10	40	40	0.243	0	9.7	
G	32	G-4	CORRIDOR	125	0	0	0	0.06	8	60	60	0.125	0	7.5	
G	33	G-8	OFFICE	164	2	1	5	0.06	20	340	340	0.058	10	9.8	
G	35	G-11	OPEN OFFICE	91	2	1	5	0.06	15	250	250	0.062	10	5.5	
G	36	G-20	CORRIDOR	392	0	0	0	0.06	24	175	175	0.134	0	23.5	
G	37	G-12	OFFICE	139	2	1	5	0.06	18	315	315	0.058	10	8.3	
G	38	G-13	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
G	39	G-14	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
G	40	G-15	OFFICE	201	3	1	5	0.06	27	510	510	0.053	15	12.1	
G	41	G-16	OFFICE	143	2	1	5	0.06	19	280	280	0.066	10	8.6	
G	42	G-17	OFFICE	143	2	1	5	0.06	19	280	280	0.066	10	8.6	
G	43	G-18	OFFICE	182	2	1	5	0.06	21	455	455	0.046	10	10.9	
G	44	G-19	OPEN OFFICE	215	2	1	5	0.06	23	405	405	0.057	10	12.9	
1	106	1-24	LOBBY	150	0	0	5	0.06	9	70	70	0.129	0	9.0	
1	107	1-27	MEN'S TOILET ROOM	235	0	0	0	0	0	100	100	0.000	0	0.0	
1	111	1-34	CORRIDOR	508	0	0	0	0.06	30	220	220	0.139	0	30.5	
1	112	1-31	LOBBY	439	0	0	5	0.06	26	205	205	0.128	0	26.3	
1	136	1-2	OPEN OFFICE	145	2	1	5	0.06	19	300	300	0.062	10	8.7	
1	137	1-3	OFFICE	131	2	1	5	0.06	18	315	315	0.057	10	7.9	
1	138	1-4	OFFICE	127	2	1	5	0.06	18	315	315	0.056	10	7.6	
1	139	1-5	OFFICE	127	2	1	5	0.06	18	315	315	0.056	10	7.6	
1	140	1-6	OFFICE	168	2	1	5	0.06	20	410	410	0.049	10	10.1	
1	141	1-7	OFFICE	126	2	1	5	0.06	18	315	315	0.056	10	7.6	
1	142	1-8	OFFICE	122	2	1	5	0.06	17	315	315	0.055	10	7.3	
1	143	1-10	CORRIDOR	348	2	1	0	0.06	21	185	185	0.113	0	20.9	
1	144	1-9	OPEN OFFICE	110	2	1	5	0.06	17	210	210	0.079	10	6.6	
1	145	1-16	OFFICE	140	2	1	5	0.06	18	280	280	0.066	10	8.4	
1	146	1-17	OFFICE	140	2	1	5	0.06	18	280	280	0.066	10	8.4	
1	147	1-18	OFFICE	140	2	1	5	0.06	18	280	280	0.066	10	8.4	
1	148	1-19	OFFICE	183	2	1	5	0.06	21	455	455	0.046	10	11.0	
1	149	1-15	CORRIDOR	380	0	0	0	0.06	23	190	190	0.120	0	22.8	
1	150	1-20	OFFICE	136	2	1	5	0.06	18	280	280	0.065	10	8.2	
1	151	1-21	OFFICE	137	2	1	5	0.06	18	280	280	0.065	10	8.2	
1	152	1-22	OFFICE	155	2	1	5	0.06	19	280	280	0.069	10	9.3	
1	153	1-23	OPEN OFFICE	285	2	1	5	0.06	27	700	700	0.039	10	17.1	
1	134	1-25	STORAGE	112	0	0	0	0.12	13	50	50	0.269	0	13.4	
1	1-11	Corridor		494	0	0	0	0.06	30	570	570	0.052	0	29.6	
2	228	2-2	BREAK	581	12	0	5	0.06	95	950	950	0.100	60	34.9	
2	230	2-5	VESTIBULE	152	0	0	0	0.06	9	80	80	0.114	0	9.1	
2	232	2-6	STORAGE	69	0	0	0	0.12	8	50	50	0.166	0	8.3	
2	200	2-10	OFFICE	617	15	0	5	0.06	116	1140	1140	0.066	75	40.6	
2	-	2-13	OFFICE	129	2	1	5	0.06	18	315	315	0.056	10	7.7	
2	-	2-14	OPEN OFFICE	139	2	1	5	0.06	18	285	285	0.064	10	8.3	
2	-	2-15	CORRIDOR	79	0	0	0	0.06	5	85	85	0.056	0	4.7	
2	-	2-16	CORRIDOR	244	0	0	0	0.06	15	220	220	0.067	0	14.6	
2	-	2-23	CORRIDOR	420	0	0	5	0.06	25	135	135	0.187	0	25.2	
2	-	2-24	OFFICE	127	2	1	5	0.06	18	285	285	0.062	10	7.6	
2	-	2-25	OFFICE	127	2	1	5	0.06	18	255	255	0.069	10	7.6	
2	-	2-26	OFFICE	127	2	1	5	0.06	18	255	255	0.069	10	7.6	
2	-	2-27	OFFICE	127	2	1	5	0.06	18	735	735	0.024	10	7.6	
2	-	2-28	OFFICE	127	2	1	5	0.06	18	255	255	0.069	10	7.6	
2	-	2-29	OFFICE	127	2	1	5	0.06	18	735	735	0.024	10	7.6	
2	-	2-30	OFFICE	127	2	1	5	0.06	18	255	255	0.069	10	7.6	
2	-	2-31	OFFICE	126	2	1	5	0.06	18	255	255	0.069	10	7.6	
2	-	2-32	STORAGE	52	0	0	5	0.06	3	255	255	0.012	0	3.1	
2	-	2-33	CORRIDOR	80	0	0	0	0.06	5	80	80	0.060	0	4.8	
2	-	2-22	CORRIDOR	448	0	0	0	0.06	27	220	220	0.122	0	26.9	
2	212	2-35	LOBBY	547	0	0	5	0.06	33	205	205	0.160	0	32.8	
2	206	2-20	LOBBY	110	0	0	5	0.06	7	50	50	0.132	0	6.6	
2	207	2-18	MEN'S TOILET ROOM	314	0	0	0	0	0	135	135	0.000	0	0.0	
3	304	3-26	CONFERENCE	245	0	0	5	0.06	15	510	510	0.029	0	14.7	
3	307	3-27	MEN'S TOILET ROOM	237	0	0	0	0	0	100	100	0.000	0	0.0	
3	309	3-31	LOBBY	490	0	0	5	0.06	29	205	205	0.143	0	29.4	
3	313	3-35	CORRIDOR	586	0	0	0	0.06	35	220	220	0.160	0	35.2	
3	330	3-3	OFFICE	161	2	1	5	0.06	20	410	410	0.048	10	9.7	
3	331	3-2	OFFICE	164	2	1	5	0.06	20	315	315	0.063	10	9.8	
3	332	3-6	OPEN OFFICE	304	3	2	5	0.06	33	730	730	0.046	15	18.2	
3	333	3-4	COPY RM	66	0	0	5	0.06	4	70	70	0.057	0	4.0	
3	334	3-7	OPEN OFFICE	194	2	1	5	0.06	22	490	490	0.044	10	11.6	
3	335	3-8	OFFICE	140	2	1	5	0.06	18	350	350	0.053	10	8.4	
3	336	3-9	OFFICE	197	2	1	5	0.06	22	490	490	0.045	10	11.8	
3	337	3-11	CORRIDOR	176	0	0	0	0.06	11	70	70	0.151	0	10.6	
3	338	3-10	OPEN OFFICE	112	2	1	5	0.06	17	285	285	0.059	10	6.7	
3	340	3-16	CORRIDOR	210	0	0	0	0.06	13	85	85	0.148	0	12.6	
3	-	3-25	CORRIDOR	207	0	0	0	0.06	12	80	80	0.155	0	12.4	
3	341	3-17	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
3	342	3-18	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
3	343	3-19	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
	344	3-20	OPEN OFFICE	182	3	2	5	0.06	26	455	455	0.057	15	10.9	
3	345	3-21	OFFICE	141	2	1	5	0.06	18	280	280	0.066	10	8.5	
3	346	3-22	OFFICE	141	2	1	5	0.06	18	280	280	0.066	10	8.5	
3	347	3-23	OFFICE	141	2	1	5	0.06	18	280	280	0.066	10	8.5	
3	348	3-24	OPEN OFFICE	186	3	2	5	0.06	26	675	675	0.039	15	11.2	
4	405	4-60	LOBBY	133	0	0	5	0.06	8	65	65	0.123	0	8.0	
4	407	4-28	MEN'S TOILET ROOM	352	0	0	0	0	0	130	130	0.000	0	0.0	
4	410	4-26	CORRIDOR	512	0	0	0	0.06	31	220	220	0.140	0	30.7	
4	411	4-30	LOBBY	579	0	0	5	0.06	35	205	205	0.169	0	34.7	
4	430C	4-3	STORAGE	67	0	0	0	0.12	8	50	50	0.161	0	8.0	
4	436	4-5	HALL	468	0	0	0	0.06	28	350	350	0.080	0	28.1	
4	434	4-10	RECEPTION	196	3	1	5	0.06	27	485	485	0.055	15	11.8	
4	438	4-1	BREAK ROOM	570	0	0	5	0.06	34	900	900	0.038	0	34.2	
4	439	4-11	OPEN OFFICE	283	3	2	5	0.06	32	665	665	0.048	15	17.0	
4	440	4-12	OFFICE	147	2	1	5	0.06	19	375	375	0.050	10	8.8	
4	441	4-61	CORRIDOR	124	0	0	0	0.06	7	30	30	0.248	0	7.4	
4	442	4-13	OPEN OFFICE	143	2	1	5	0.06	19	285	285	0.065	10	8.6	
4	443	4-14	CORRIDOR	79	0	0	0	0.06	5	65	65	0.073	0	4.7	
4	445	4-24	CORRIDOR	263	0	0	0	0.06	16	70	70	0.225	0	15.8	
4	446	4-16	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
4	447	4-17	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
4	448	4-18	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
4	449	4-19	OFFICE	182	2	1	5	0.06	21	455	455	0.046	10	10.9	
4	450	4-20	OFFICE	142	2	1	5	0.06	19	280	280	0.066	10	8.5	
4	451	4-21	OFFICE	142	2	1	5	0.06	19	280	280	0.066	10	8.5	
4	452	4-22	Office	142	2	1	5	0.06	19	280	280	0.066	10	8.5	
4	453	4-23	Open Office	208	2	1	5	0.06	22	700	700	0.032	10	12.5	
4	426	4-9	Corridor	212	0	0	0	0.06	13	110	110	0.116	0	12.7	
5	504	5-26	CONFERENCE	249	0	0	5	0.06	15	630	630	0.024	0	14.9	
5	507	5-27	MEN'S TOILET ROOM	236	0	0	0	0	0	150	150	0.000	0	0.0	
5	509	5-32	LOBBY	491	0	0	5	0.06	29	320	320	0.092	0	29.5	
5	510	5-16	CORRIDOR	511	0	0	0	0.06	31	330	330	0.093	0	30.7	
5	531	5-3	OFFICE	131	2	1	5	0.06	18	330	330	0.054	10	7.9	
5	532	5-4	OFFICE	127	2	1	5	0.06	18	315	315	0.056	10	7.6	
5	533	5-5	OFFICE	127	2	1	5	0.06	18	315	315	0.056	10	7.6	
5	534	5-6	OFFICE	168	2	1	5	0.06	20	420	420	0.048	10	10.1	
5	535	5-7	OFFICE	127	2	1	5	0.06	18	315	315	0.056	10	7.6	
5	536	5-8	OFFICE	127	2	1	5	0.06	18	315	315	0.056	10	7.6	
5	537	5-2	OPEN OFFICE	390	3	2	5	0.06	38	785	785	0.049	15	23.4	
5	541	5-10	CORRIDOR	96	0	0	0	0.06	6	40	40	0.144	0	5.8	
5	542	5-9	OPEN OFFICE	281	3	2	5	0.06	32	775	775	0.041	15	16.9	
5	545	5-18	CORRIDOR	271	0	0	0	0.06	16	130	130	0.125	0	16.3	
5	546	5-19	OFFICE	144	2	1	5	0.06	19	280	280	0.067	10	8.6	
5	547	5-20	OFFICE	139	2	1	5	0.06	18	280	280	0.066	10	8.3	
5	548	5-21	OFFICE	182	3	2	5	0.06	26	455	455	0.057	15	10.9	
5	549	5-22	OFFICE	142	2	1	5	0.06	19	280	280	0.066	10	8.5	
5	550	5-23	OFFICE	142	2	1	5	0.06	19	280	280	0.066	10	8.5	
5	551	5-24	OFFICE	142	2	1	5	0.06	19	280	280	0.066	10	8.5	
5	552	5-25	OPEN OFFICE	267	3	2	5	0.06	31	700	700	0.044	15	16.0	
5	-	5-13	CORRIDOR	260	0	0	0	0.06	16	110	110	0.142	0	13.6	
TOTAL				29751	200	90			2698	42355	42355	0.064	990	1708	

NOTES:
1. Calculations in accordance with FBC 2023; Rates in accordance with Table 403.3.1.1
2. Zone OA =[(No.People*OA CFM Rate/Person)+(SF*OA Rate/SF)]/1 Zone Air Dist Effectiveness (Table 403.3.1.1.1.2)
3. Transfer Air
4. System Ventilation Efficiency is in accordance with Table 403.3.1.1.2.3.2

OA/SA Ratio	Ev
0.15 or Less	1.0
0.25 or Less	0.9
0.35 or Less	0.8
0.45 or Less	0.7
0.55 or Less	0.6
0.65 or Less	0.5
0.75 or Less	0.4
0.75 or More	0.3

0.270 Maximum OA/SA Ratio (or Max Zp)

5. Uncorrected Outside Air CFM Vou=D(Sum Rp*Pz)+(Sum Ra*Az) — 2203 CFM

Max # of People = 100 — Sum of Zone # of People = 200 — D= 50.0%

6. People Diversity Factor "D" = Total Population in the "building" / Sum of Zone Max # of People =

Corrected Outside CFM = (Uncorrected OA CFM) / Ev

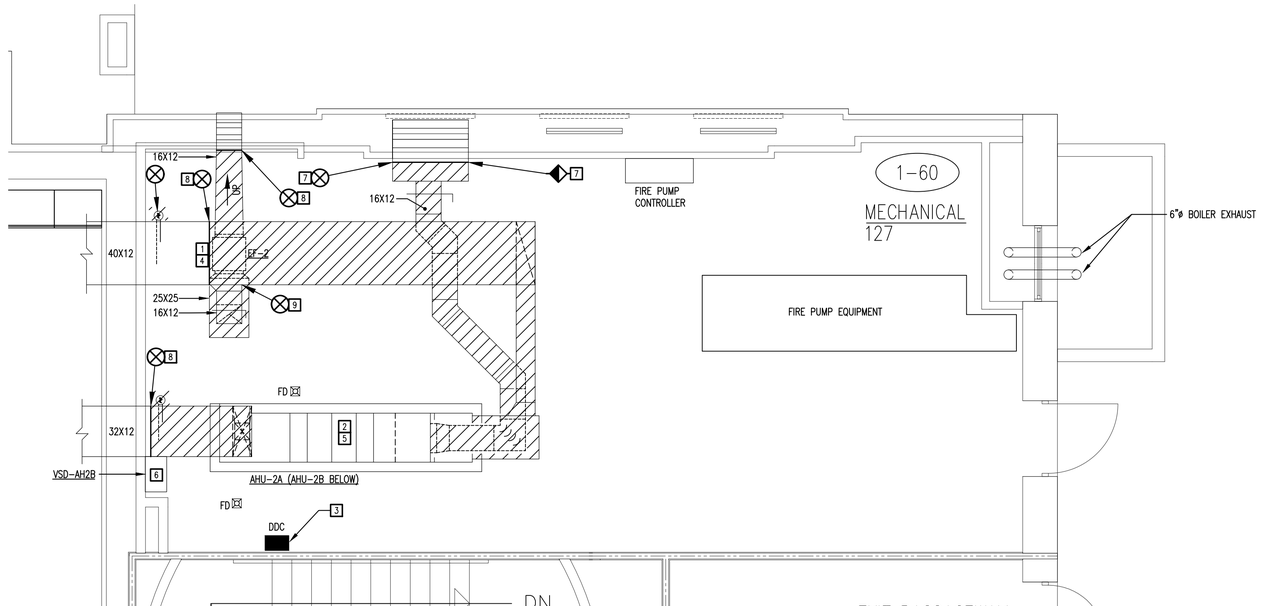
Corrected Outside CFM = 2754 Scheduled at 4270 CFM OA for Building balance.

VENTILATION AIR CALCULATIONS - KNOTT BUILDING - AHU-KR-2 - FBC 2023 (Note: Building occupancy unchanged for renovations under this project.)

FLOOR NO.	ROOM NO.	P.E.G. ROOM NO.	ROOM NAME	ROOM AREA	NO. PEOPLE	PEOPLE DIVERSITY	OA RATE (CFM/PER)	OA RATE (CFM/SF)	OA CFM (Vou)	SA CFM	MIN. SA CFM	OA/SA RATIO (100%)	Rp x Pz	Ra x Az	NOTES
G	12	G-32	WOMENS TOILET ROOM	303	0	0	0	0	0	135	135	0.000	0	0.0	
G	15	G-44	ELEVATOR EQUIP ROOM	139	0	0	0	0.12	17	625	625	0.03	0	16.7	
G	25	G-30	CORRIDOR	560	0	0	0	0.06	34	330	330	0.10	0	33.6	
G	25	G-46	STORAGE	214	0	0	0	0.12	26	75	75	0.34	0	25.7	
G	26	G-48	CORRIDOR	650	0	0	0	0.06	39	220	220	0.18	0	39.0	
G	27	G-47	STORAGE	155	0	0	0	0.12	19	65	65	0.29	0	18.6	
G	45	G-29	OPEN OFFICE	215	2	1	5	0.06	23	405	405	0.06	10	12.9	
G	47	G-35	OFFICE	181	2	1	5	0.06	21	455	455	0.05	10	10.9	
G	48	G-36	OFFICE	143	2	1	5	0.06	19	280	280	0.07	10	8.6	
G	49	G-37	OFFICE	143	2	1	5	0.06	19	280	280	0.07	10	8.6	
G	50	G-38	OFFICE	201	2	1	5	0.06	22	510	510	0.04	10	12.1	
G	51	G-39	OFFICE	140	2	1	5	0.06	18	280	280	0.07	10	8.4	
G	52	G-40	OFFICE	140	2	1	5	0.06	18	280	280	0.07	10	8.4	
G	53	G-41	OFFICE	139	2	1	5	0.06	18	315	315	0.06	10	8.3	
G	46	G-34	CORRIDOR	362	0	0	0	0.06	22	175	175	0.12	0	21.7	
1	114	1-34	LOBBY	581	0	0	5	0.06	35	395	395	0.09	0	34.9	
1	118	1-36	WOMENS TOILET ROOM	311	0	0	0	0	0	130	130	0.00	0	0.0	
1	123	1-52	LOBBY	157	0	0	5	0.06	9	65	65	0.14	0	9.4	
1	131	1-54	STORAGE	331	0	0	0	0.12	40	330	330	0.12	0	39.7	
1	132	1-39	CORRIDOR	722	0	0	0	0.06	43	330	330	0.13	0	43.3	
1	154	1-30	CONFERENCE	342	8	0	5	0.06	61	950	950	0.06	40	20.5	
1	155	1-41	OPEN OFFICE	210	2	1	5	0.06	23	700	700	0.03	10	12.6	
1	156	1-42	OFFICE	143	2	1	5	0.06	19	280	280	0.07	10	8.6	
1	157	1-43	OFFICE	143	2	1	5	0.06	19	280	280	0.07	10	8.6	
1	158	1-44	LOBBY	143	2	1	5	0.06	19	280	280	0.07	10	8.6	
1	160	1-45	OFFICE	183	2	1	5	0.06	21	455	455	0.05	10	11.0	
1	161	1-46	OFFICE	140	2	1	5	0.06	18	280	280	0.07	10	8.4	
1	162	1-47	OFFICE	140	2	1	5	0.06	18	280	280	0.07	10	8.4	
1	163	1-48	OFFICE	140	2	1	5	0.06	18	280	280	0.07	10	8.4	
1	164	1-49	OPEN OFFICE	108	2	1	5	0.06	16	210	210	0.08	10	6.5	
1	165	1-56	OFFICE	280	2	1	5	0.06	27	785	785	0.03	10	16.8	
1	167	1-57	OFFICE	138	2	1	5	0.06	18	275	275	0.07	10	8.3	
1	159	1-40	CORRIDOR	398	0	0	0	0.06	24	150	150	0.13	0	23.9	
2	-	2-34	CONFERENCE	277	8	0	5	0.06	57	760	760	0.07	40	16.6	
2	-	2-44	OFFICE	208	2	1	5	0.06	22	255	255	0.09	10	12.5	
2	-	2-45	OFFICE	127	2	1	5	0.06	18	255	255	0.07	10	7.6	
2	-	2-46	OFFICE	127	2	1	5	0.06	18	255	255	0.07	10	7.6	
2	-	2-47	OFFICE	127	2	1	5	0.06	18	255	255	0.07	10	7.6	
2	-	2-48	OFFICE	127	2	1	5	0.06	18	255	255	0.07	10	7.6	
2	-	2-49	OFFICE	127	2	1	5	0.06	18	255	255	0.07	10	7.6	
2	-	2-50	OFFICE	127	2	1	5	0.06	18	255	255	0.07	10	7.6	
2	-	2-51	OFFICE	127	2	1	5	0.06	18	285	285	0.06	10	7.6	
2	-	2-52	OFFICE	127	2	1	5	0.06	18	285	285	0.06	10	7.6	
2	-	2-53	OPEN OFFICE	111	2	1	5	0.06	17	270	270	0.06	10	6.7	
2	-	2-42	CORRIDOR	323	0	0	0	0.06	19	70	70	0.28	0	19.4	
2	224	2-41	CORRIDOR	559	0	0	0	0.06	34	330	330	0.10	0	33.5	
2	214	2-37	WOMENS TOILET ROOM	315	0	0	0	0	0	130	130	0.00	0	0.0	
2	221	2-42	LOBBY	90	0	0	5	0.06	5	90	90	0.06	0	5.4	
2	219	2-56	STORAGE	130	0	0	0	0.12	16	130	130	0.12	0	15.6	
2	235	2-59	STORAGE	259	0	0	0	0.12	31	105	105	0.30	0	31.1	
2	233	2-60	GALLERY	452	8	0	5	0.06	54	505	505	0.11	40	27.1	
2	234	2-58	GALLERY LOBBY	560	12	0	5	0.06	94	490	490	0.19	60	33.6	
2	-	2-57	MEETING	144	12	0	5	0.06	69	490	490	0.14	60	8.6	
2	-	2-11	RECEPTION	175	2	1	5	0.06	21	245	245	0.08	10	10.5	
2	-	2-12	CORRIDOR	206	0	0	0	0.06	12	65	65	0.19	0	12.4	
3	310	3-51	STORAGE	223	0	0	0	0.12	27	130	130	0.21	0	26.8	
3	315	3-33	WOMENS TOILET ROOM	317	0	0	0	0	0	130	130	0.00	0	0.0	
3	317	3-35	CORRIDOR	570	0	0	0	0.06	34	330	330	0.10	0	34.2	
3	321	3-60	CONTROL ROOM	235	3	0	10	0.06	44	685	685	0.06	30	14.1	
3	349	3-30	CONFERENCE	341	8	0	5	0.06	60	850	850	0.07	40	20.5	
3	352	3-37	OPEN OFFICE	267	2	1	5	0.06	26	775	775	0.03	10	16.0	
3	356	3-38	OFFICE	142	2	1	5	0.06	19	280	280	0.07	10	8.5	
3	357	3-39	OFFICE	142	2	1	5	0.06	19	280	280	0.07	10	8.5	
3	358	3-40	OFFICE	142	2	1	5	0.06	19	280	280	0.07	10	8.5	
3	359	3-41	OPEN OFFICE	182	2	1	5	0.06	21	455	455	0.05	10	10.9	
3	360	3-42	OFFICE	139	2	1	5	0.06	18	280	280	0.07	10	8.3	
3	361	3-43	OFFICE	139	2	1	5	0.06	18	280	280	0.07	10	8.3	
3	362	3-44	OFFICE	139	2	1	5	0.06	18	280	280	0.07	10	8.3	
3	363	3-45	OPEN OFFICE	112	2	1	5	0.06	17	220	220

MECHANICAL NOTES:

1. REMOVE EXISTING EF CONTROLS. TURN OVER TO DMS.
2. REMOVE AHU CONTROLS, CHW & HHW VAVLE CONTROLS, VSD CONTROLS, ETC. TURN OVER TO DMS.
3. REMOVE EXISTING CONTROLS ENCLOSURE (VERIFY ASSOCIATED WITH HVAC CONTROLS). TURN OVER TO DMS.
4. REMOVE EXISTING EXHAUST FAN.
5. REMOVE EXISTING AHU. DISPOSE OFF-SITE IN LEGAL MANNER.
6. REMOVE EXISTING VARIABLE SPEED DRIVE. TURN OVER TO DMS.
7. REMOVE EXISTING SHEET METAL PLENUM OVER EXISTING OA LOUVER. LOUVER TO BE REMOVED BY OTHERS, UNDER SEPARATE CONTRACT.
8. REMOVE EXISTING DUCT AND INSULATION AS REQUIRED FOR NEW WORK.
9. REMOVE EXISTING EXHAUST DUCT TO TAP. REPAIR RETURN DUCT AND REINSULATE AS REQUIRED.



PARTIAL FIRST FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

SCALE: 1/4"=1'-0"

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIRST FLOOR PLAN - EXISTING CONDITIONS /DEMO - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT FOR WHICH THEY WERE PREPARED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M102.1

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING WALL MOUNTED THERMOSTAT. PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED TO MEET NEW WORK SENSOR HEIGHT REQUIREMENTS. REMOVE CONTROL WIRING.
2. REFER TO ENLARGED PLAN FOR WORK SCOPE.



FIRST FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FIRST FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT DESIGNATED HEREIN IS PROHIBITED WITHOUT THE EXPRESS WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

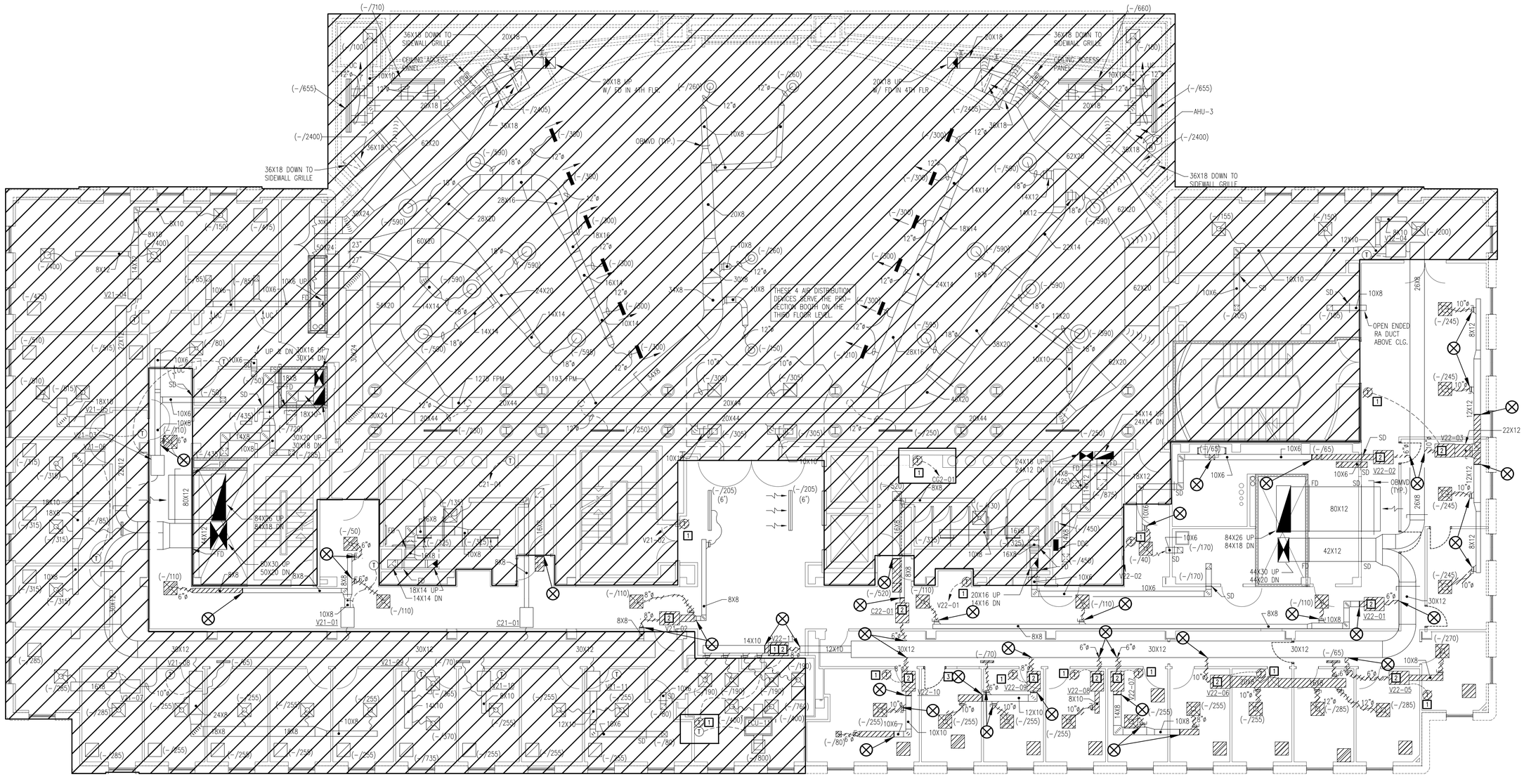
M102

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING WALL MOUNTED THERMOSTAT. PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED TO MEET NEW WORK SENSOR HEIGHT REQUIREMENTS. REMOVE CONTROL WIRING.
2. REMOVE EXISTING VAV BOX (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
3. CAP AND INSULATE.



SECOND FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

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

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

SECOND FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT SPECIFICALLY INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

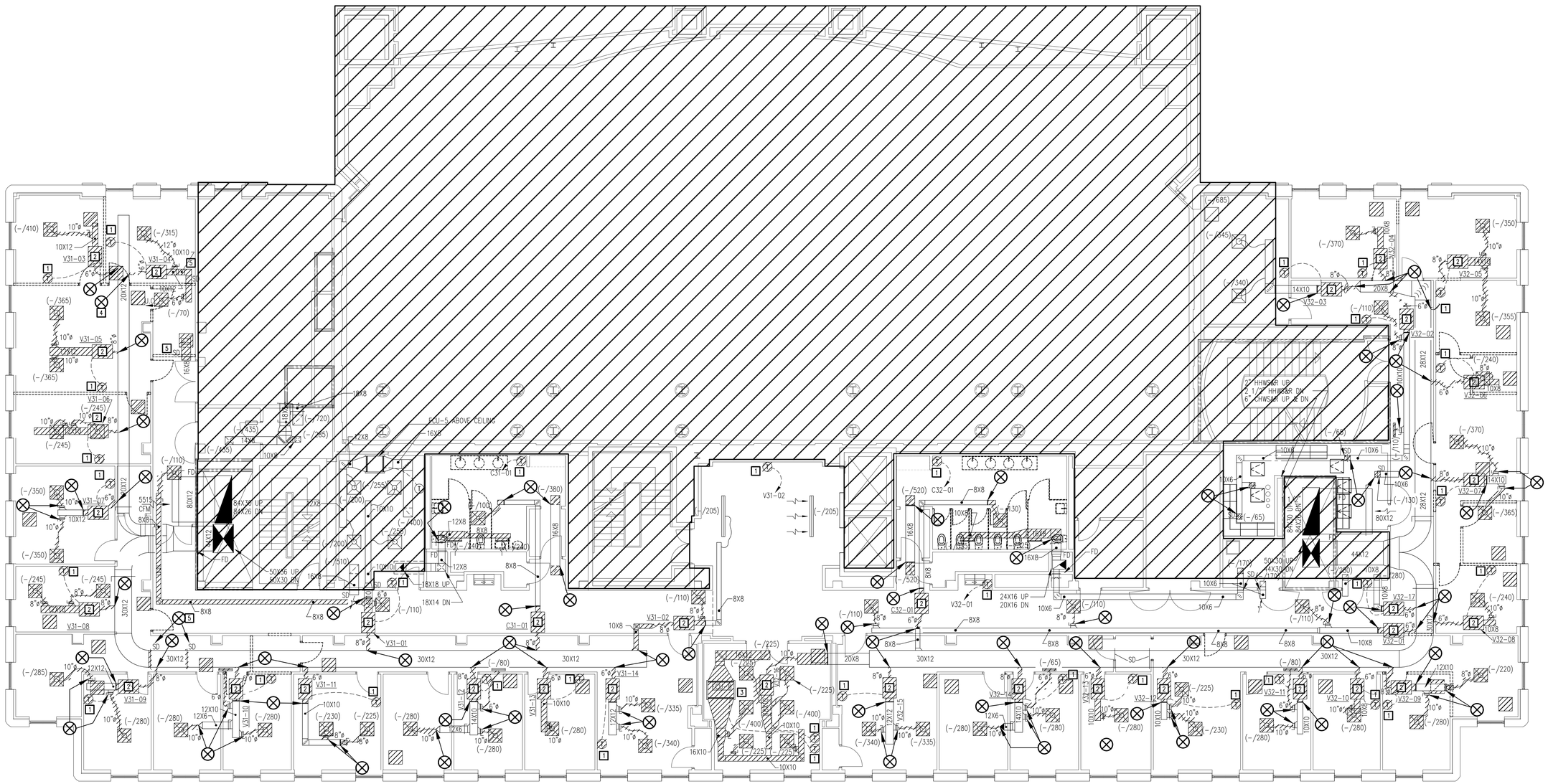
M103

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING WALL MOUNTED THERMOSTAT. PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED TO MEET NEW WORK SENSOR HEIGHT REQUIREMENTS. REMOVE CONTROL WIRING.
2. REMOVE EXISTING VAV BOX (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
3. REMOVE EXISTING FCU (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
4. REMOVE EXISTING DUCT AS INDICATED. PATCH AND SEAL DUCT TO REMAIN. REPAIR INSULATION AS REQUIRED.
5. REMOVE EXISTING SMOKE DAMPER AND ACTUATOR. COORDINATE REMOVAL WITH FIRE ALARM.



THIRD FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

THIRD FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE SPECIFIC PROJECT INTENDED IS PROHIBITED WITHOUT THE WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

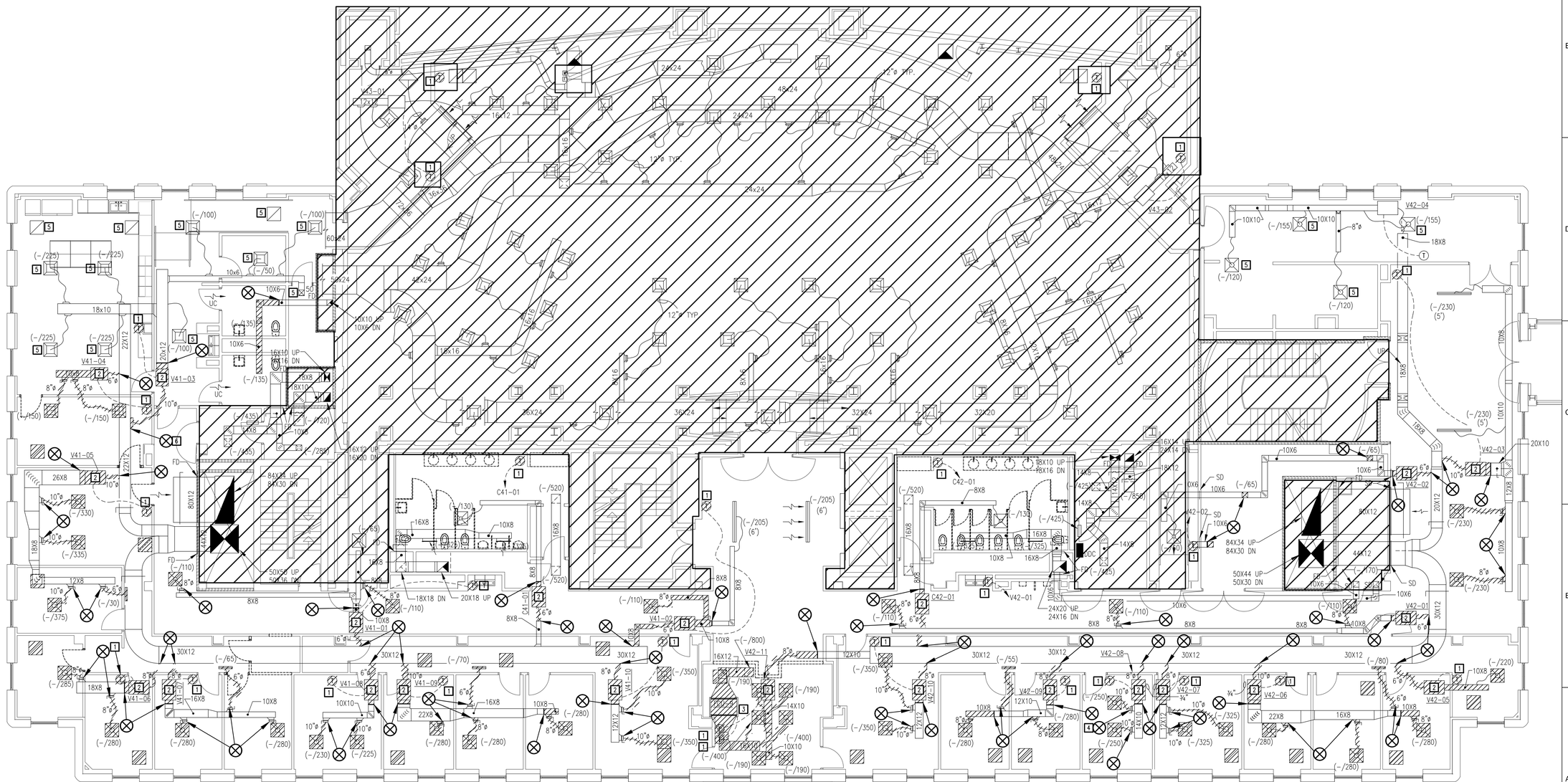
M104

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING WALL MOUNTED THERMOSTAT. PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED TO MEET NEW WORK SENSOR HEIGHT REQUIREMENTS. REMOVE CONTROL WIRING.
2. REMOVE EXISTING VAV BOX (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
3. REMOVE EXISTING FCU (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
4. CAP AND INSULATE.
5. EXISTING AIR DEVICE TO REMAIN. TEMPORARILY SUSPEND OR STORE. REINSTALL IN CEILING GRID AS REQUIRED.
6. REMOVE EXISTING DUCT AS INDICATED. PATCH AND SEAL DUCT TO REMAIN. REPAIR INSULATION AS REQUIRED.



FOURTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FOURTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PERFECTION OF THIS PROJECT IS PROHIBITED WITHOUT PRIOR WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC., IS PROHIBITED.

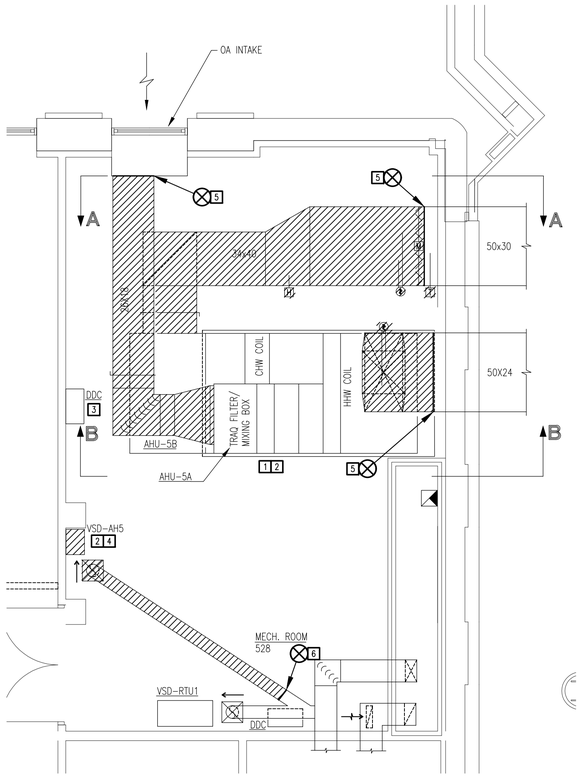
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M105

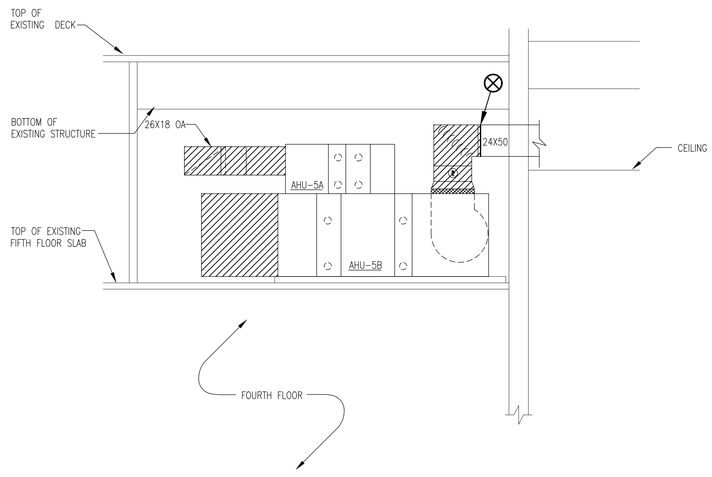
MECHANICAL NOTES:

1. REMOVE EXISTING AHU. REMOVE EXISTING CONCRETE HOUSEKEEPING PAD; SMOOTH FLOOR UNDER PAD TO MATCH. DISPOSE DEMOLISHED AHU AND CONCRETE PAD OFF-SITE IN LEGAL MANNER.
2. REMOVE AHU CONTROLS, VSD CONTROLS, ETC. TURN OVER TO DMS.
3. REMOVE EXISTING CONTROLS ENCLOSURE (VERIFY ASSOCIATED WITH HVAC CONTROLS; VERIFY CONTINUITY IS MAINTAINED FOR EXISTING TO REMAIN EQUIPMENT AND DEVICES. RELOCATE CONDUIT AND WIRING AS REQUIRED TO MAINTAIN CONNECTIONS TO ANY EXISTING TO REMAIN EQUIPMENT AND DEVICES.). TURN OVER TO DMS.
4. REMOVE EXISTING VARIABLE SPEED DRIVE. TURN OVER TO DMS.
5. REMOVE EXISTING DUCT AND INSULATION AS REQUIRED FOR NEW WORK.
6. CAP AND INSULATE.



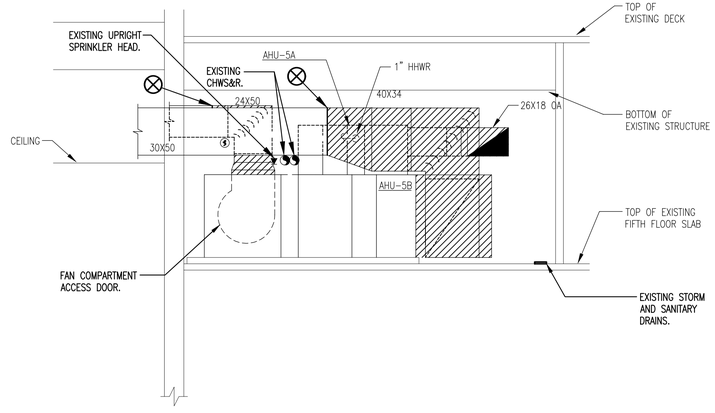
PARTIAL FIFTH FLOOR DUCTWORK PLAN - EXISTING CONDITIONS/DEMO - HVAC DUCTWORK

SCALE: 1/4"=1'-0"



AHU ELEVATION B-B - EXISTING CONDITIONS/DEMOLITION - HVAC

SCALE: 1/4"=1'-0"



AHU ELEVATION A-A - EXISTING CONDITIONS/DEMOLITION - HVAC

SCALE: 1/4"=1'-0"

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIFTH FLOOR PLAN - EXISTING CONDITIONS /DEMO - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PURPOSE EXPRESSLY AUTHORIZED IN WRITING BY DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

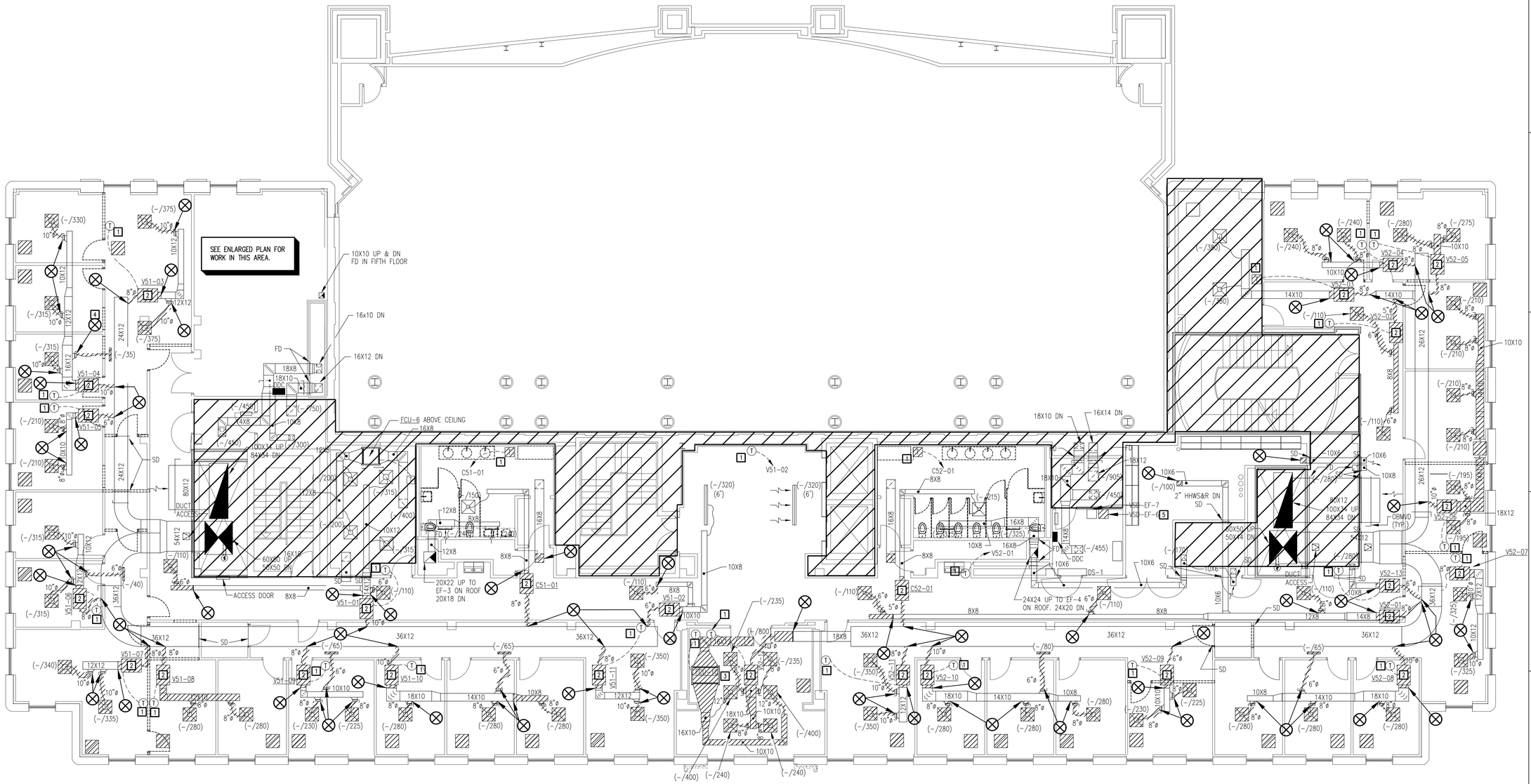
M106.1

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING WALL MOUNTED THERMOSTAT. PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED TO MEET NEW WORK SENSOR HEIGHT REQUIREMENTS. REMOVE CONTROL WIRING.
2. REMOVE EXISTING VAV BOX (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
3. REMOVE EXISTING FCU (EMCS CONTROLLER, CONTROL WIRING, SENSORS, ETC.). TURN OVER CONTROLLER TO DMS.
4. CAP AND INSULATE.
5. REMOVE EXISTING VSD.



FIFTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FIFTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT DESIGNED HEREIN WITHOUT PERMISSION FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

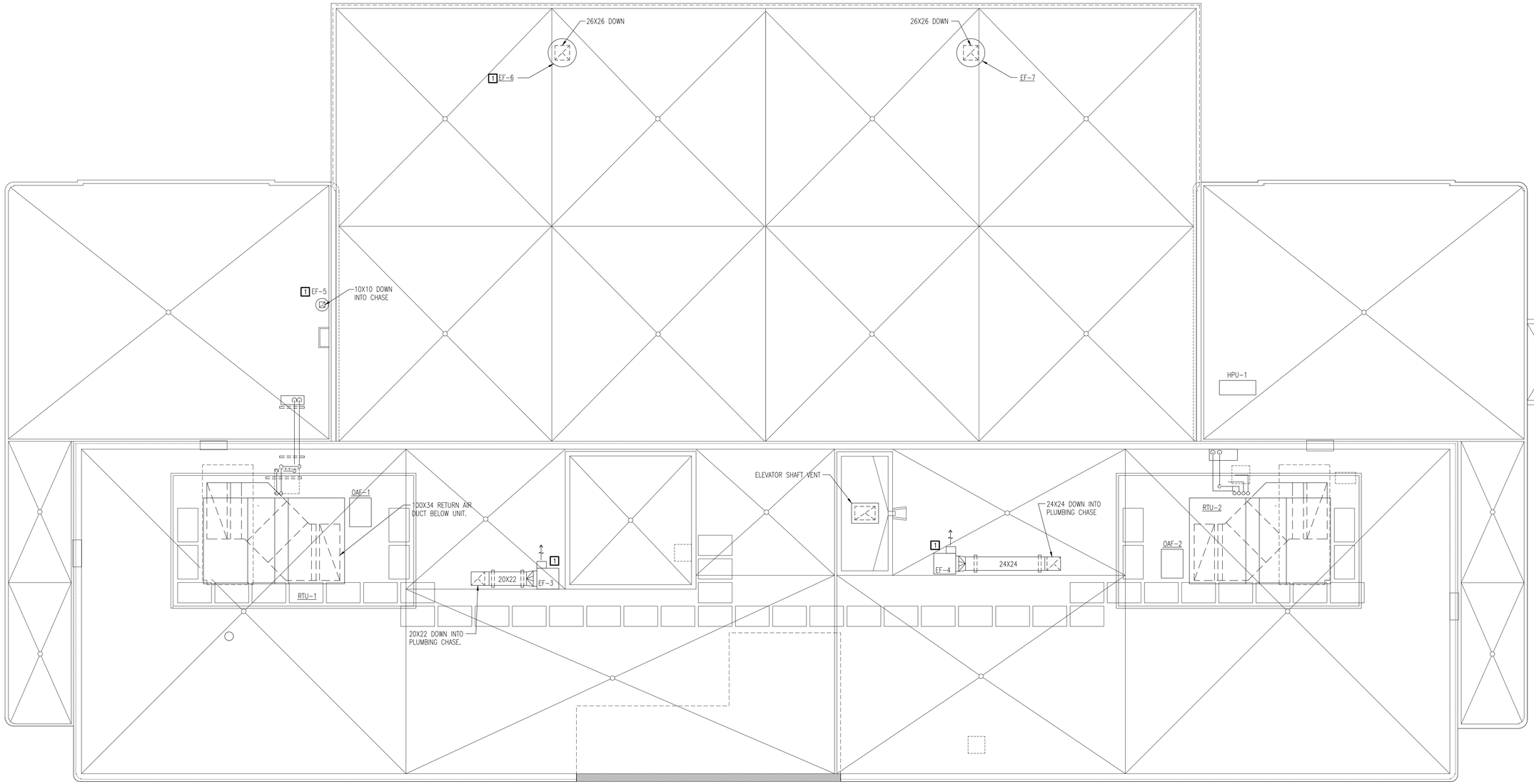
M106

GENERAL NOTES:

1. TAKE ALL PRECAUTIONS TO PROTECT EXISTING ROOF, ROOF MOUNTED COMPONENTS, ROOF MOUNTED EQUIPMENT, ETC. DO NOT VOID ROOF WARRANTY.

MECHANICAL NOTES:

1 PRE-CONSTRUCTION T&B REQUIRED. PROVIDE REPORT TO ENGINEER PRIOR TO ANY NEW WORK OR MODIFICATIONS.



ROOF - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850)422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

ROOF - EXISTING CONDITIONS/DEMOLITION - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, P.A. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT THE CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

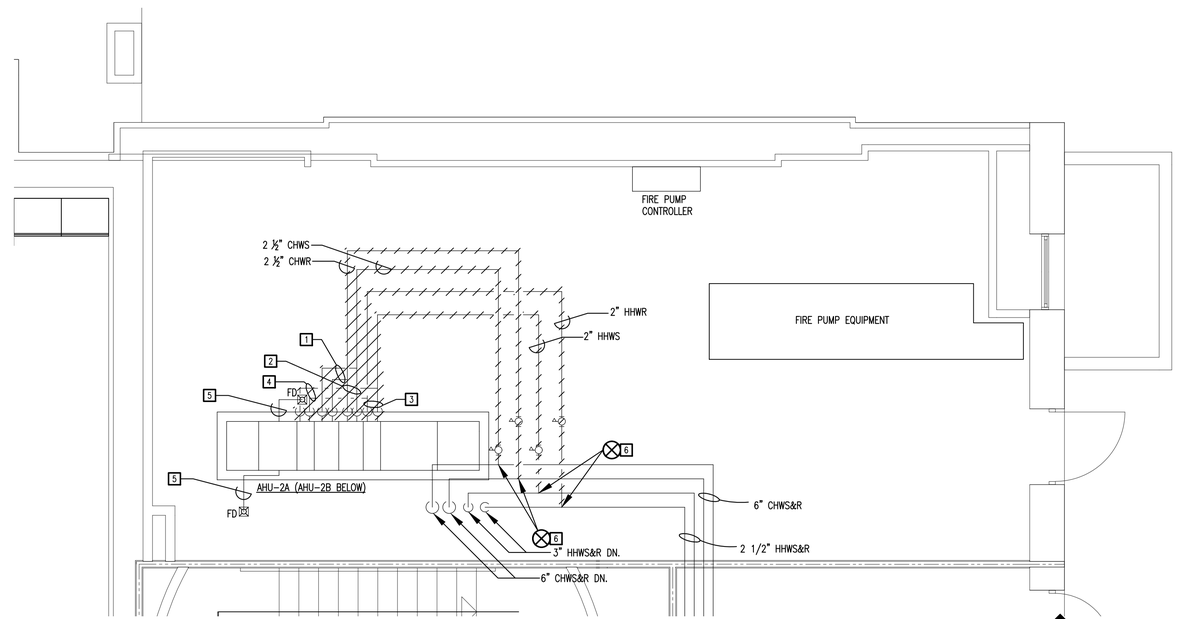
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M107

MECHANICAL NOTES:

1. 1.5" CHWS & R TO AHU-1A.
2. 1.5" CHWS & R TO AHU-1B.
3. 3/4" HHWS & R TO AHU-1A.
4. 1" HHWS & R TO AHU-1B.
5. CONDENSATE PIPE TO DRAIN.
6. REMOVE EXISTING PIPE AND INSULATION AS REQUIRED FOR NEW WORK.



PARTIAL FIRST FLOOR PLAN - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

SCALE: 1/4"=1'-0"

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIRST FLOOR PLAN - EXISTING CONDITIONS /DEMO - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT FOR WHICH THEY WERE PREPARED WITHOUT THE CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

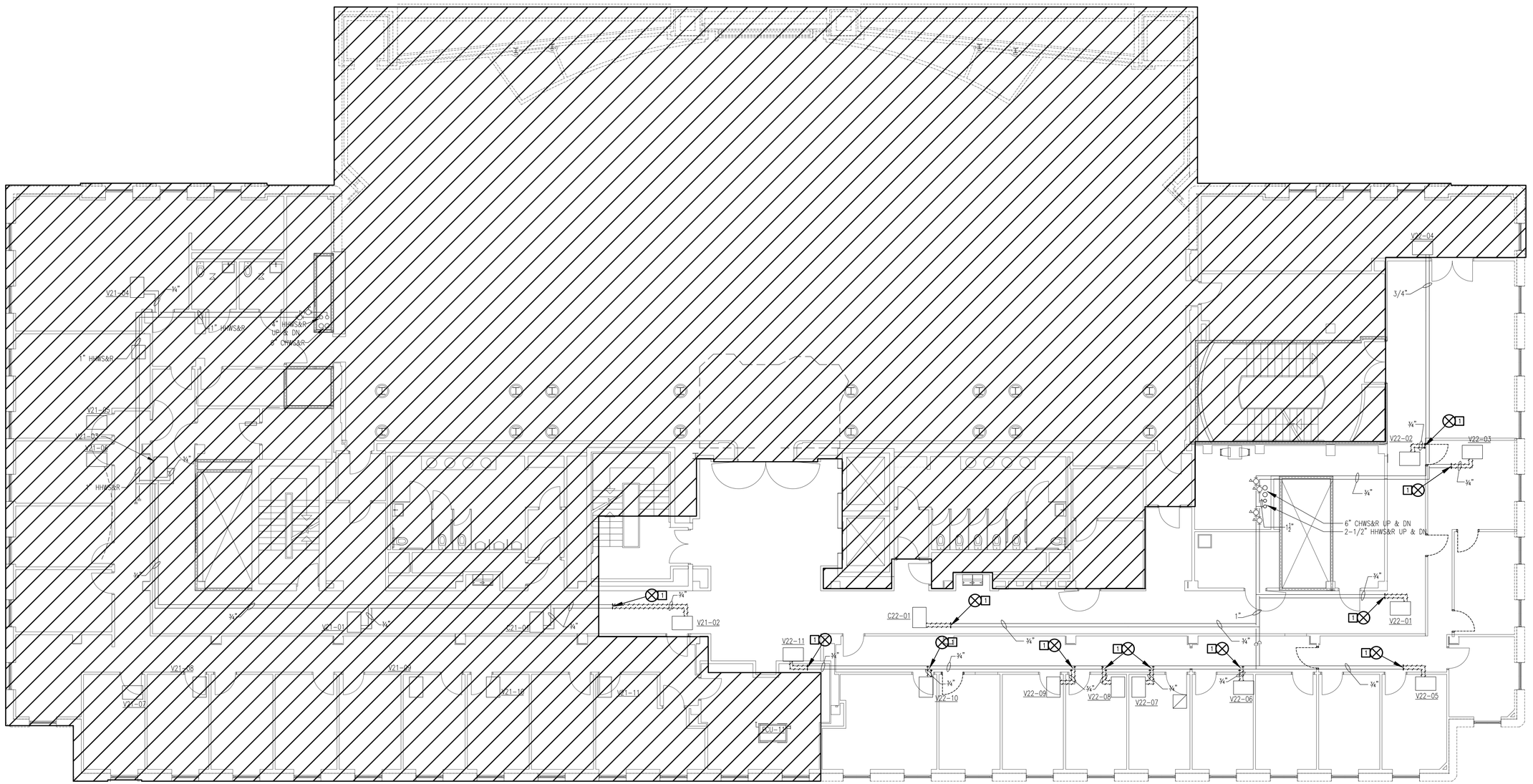
M202.1

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED REFER TO NEW WORK AND DETAIL.



SECOND FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

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

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

SECOND FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED HEREIN WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

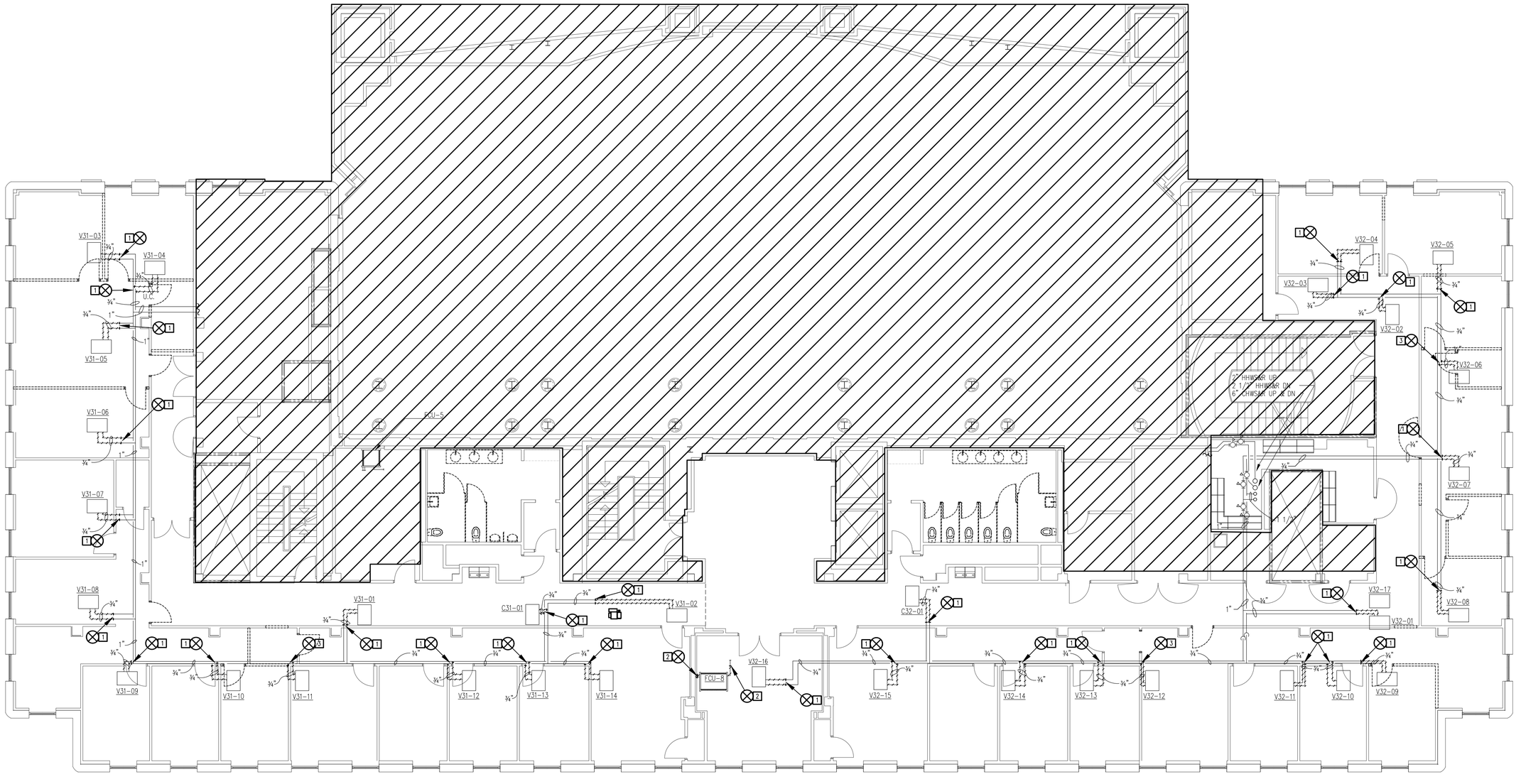
M203

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED REFER TO NEW WORK AND DETAIL.
2. REMOVE EXISTING FCU CHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED. REMOVE EXISTING CONDENSATE PIPING AS INDICATED. REFER TO NEW WORK AND DETAIL.
3. CAP AND INSULATE.



THIRD FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

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

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

THIRD FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT HEREIN WITHOUT THE CONSENT IN WRITING FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

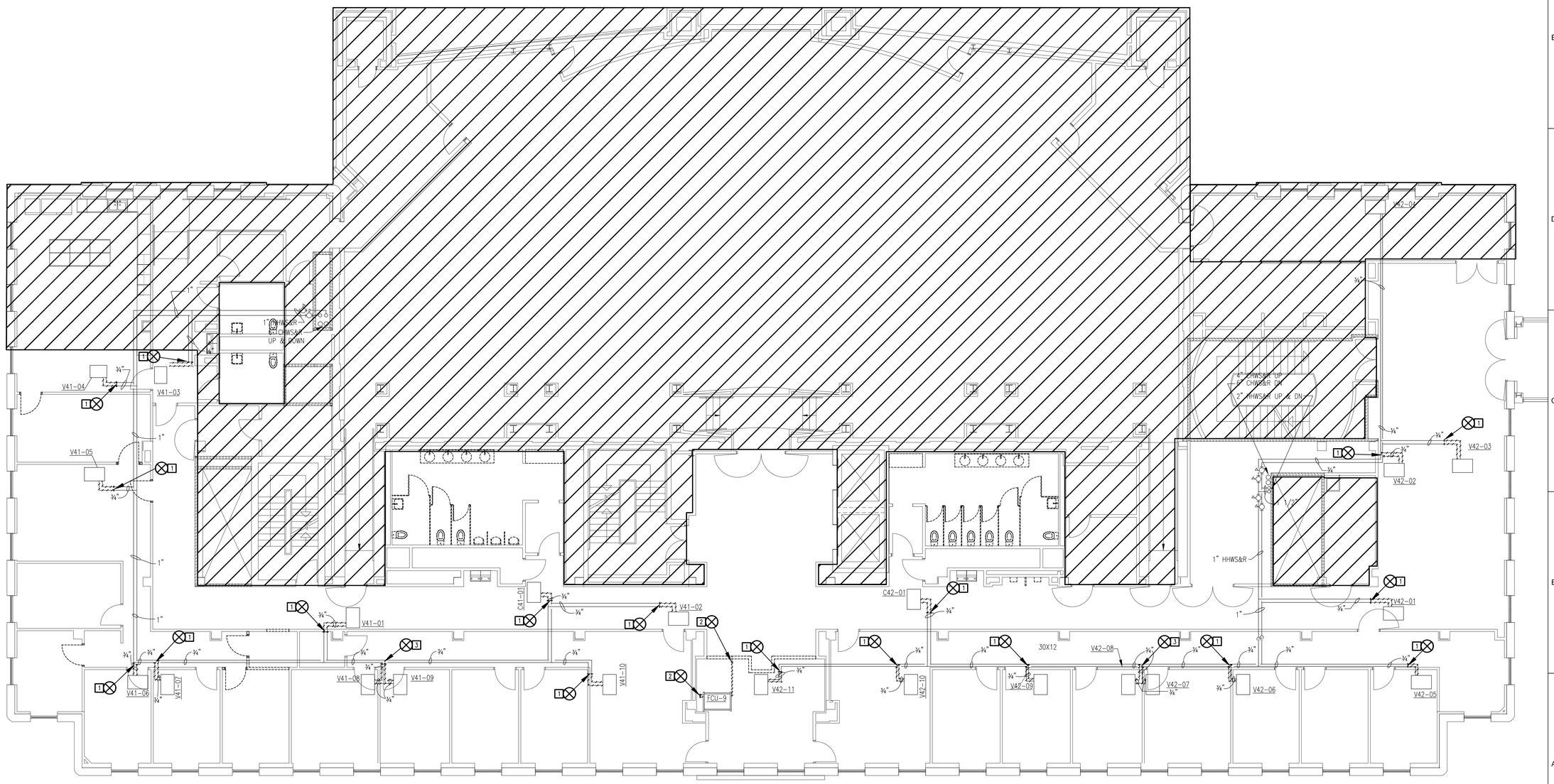
M204

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED REFER TO NEW WORK AND DETAIL.
2. REMOVE EXISTING FCU CHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED. REMOVE EXISTING CONDENSATE PIPING AS INDICATED. REFER TO NEW WORK AND DETAIL.
3. CAP AND INSULATE.



FOURTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FOURTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED AND WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

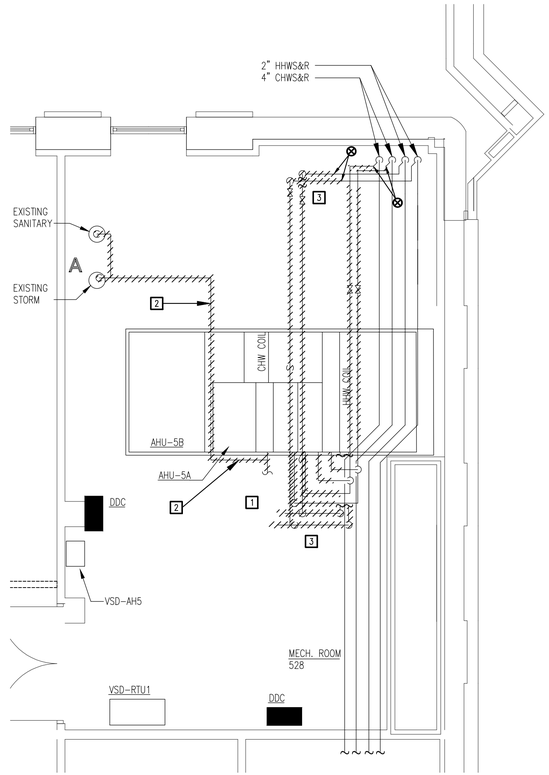
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M205

MECHANICAL NOTES:

1. REMOVE CHW & HHW VAVLE CONTROLS, TURN OVER TO DMS.
2. CONDENSATE PIPE TO DRAIN.
3. REMOVE EXISTING PIPE AND INSULATION AS REQUIRED FOR NEW WORK.



PARTIAL FIFTH FLOOR PIPING PLAN - EXISTING CONDITIONS/DEMO - HVAC PIPING

SCALE: 1/4"=1'-0"

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIFTH FLOOR PLAN
- EXISTING CONDITIONS
/DEMO - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT ITSELF WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

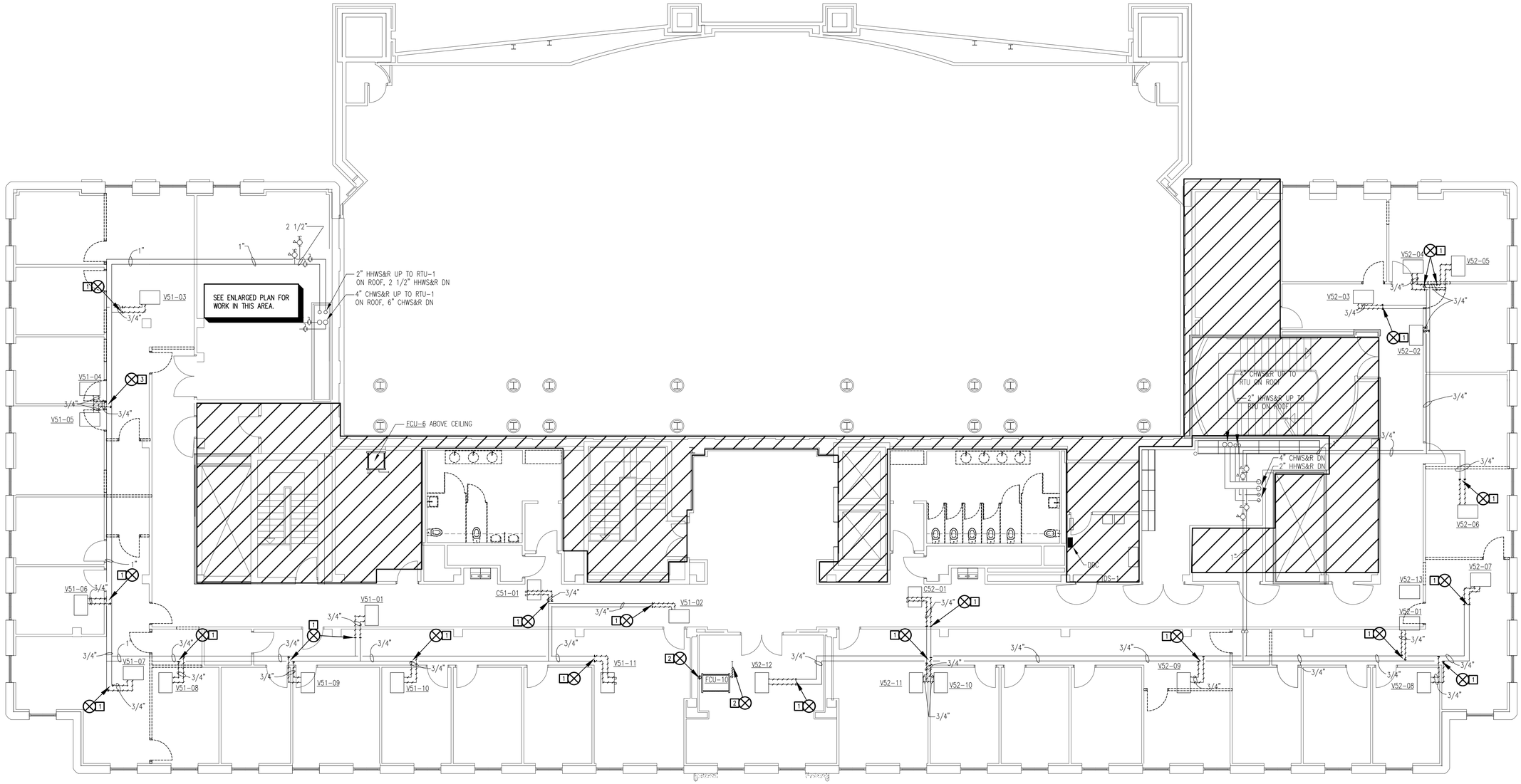
M206.1

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. REMOVE EXISTING VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED REFER TO NEW WORK AND DETAIL.
2. REMOVE EXISTING FCU CHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. AS INDICATED. REMOVE EXISTING CONDENSATE PIPING AS INDICATED. REFER TO NEW WORK AND DETAIL.
3. CAP AND INSULATE.



FIFTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

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

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FIFTH FLOOR - EXISTING CONDITIONS/DEMOLITION - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT SPECIFICALLY AUTHORIZED IN WRITING FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

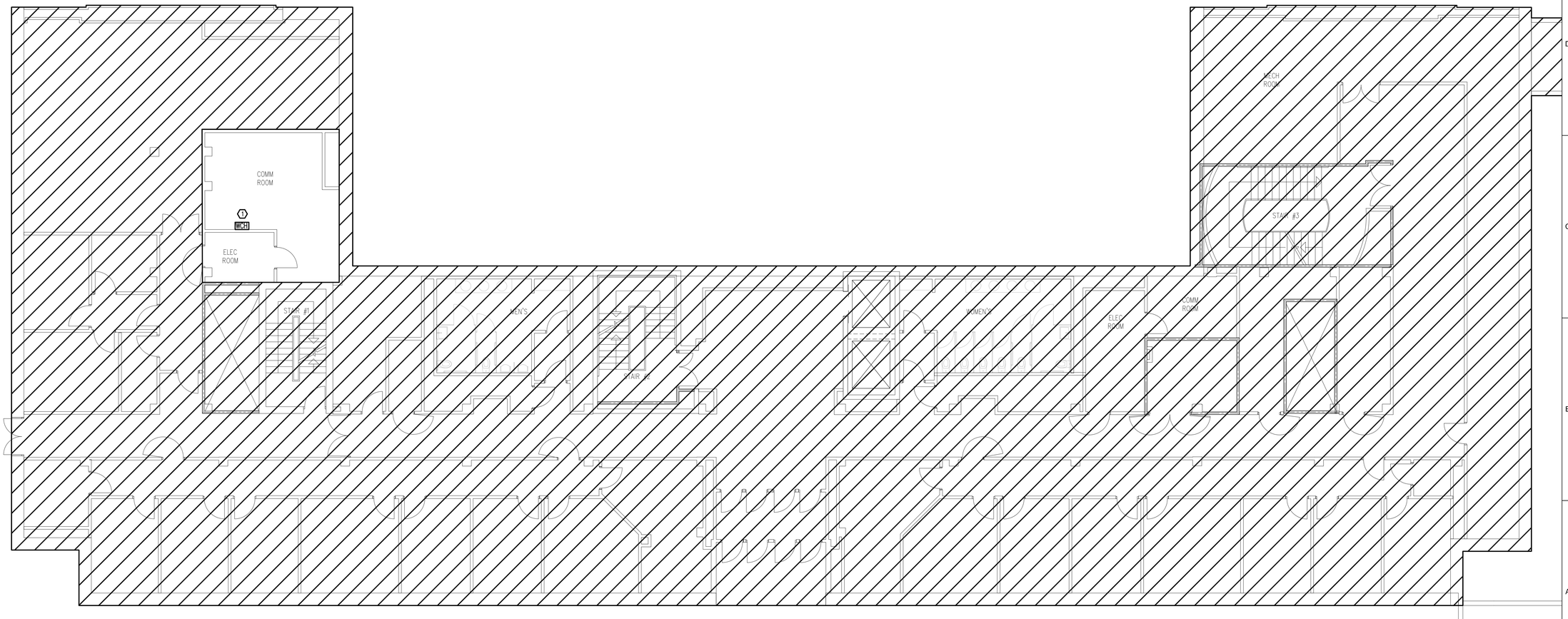
M206

LEGEND:

NOT IN PROJECT SCOPE.

MECHANICAL NOTES:

1. COORDINATE FINAL WCH LOCATION WITH OWNER AND FIELD CONDITIONS.



GROUND FLOOR - NEW WORK - HVAC

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

RICHARD NELSON
P.E. #63080

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

GROUND FLOOR - NEW WORK - HVAC

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT AUTHORIZED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: DFL DRAWN BY: CLA

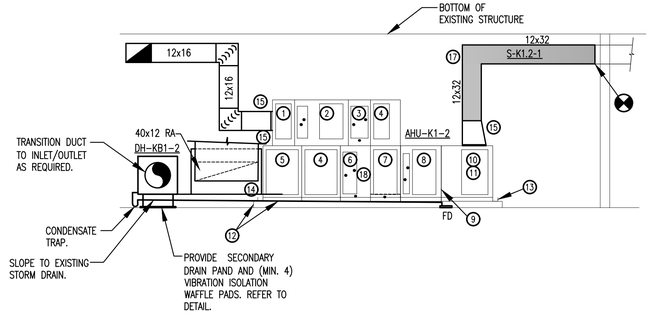
M301

MECHANICAL NOTES:

1. RELOCATE EXISTING FIRE PUMP CONTROLLER PIPING AS REQUIRED FOR LOUVER AND DUCT WORK INSTALLATION.
2. LOCATE NEW EXHAUST FAN ACCESSIBLE. ORIENT SUCH THAT SERVICE ACCESS IS ON THE BOTTOM.
3. COORDINATE FINAL LOCATION OF NEW EMCS PANEL WITH OWNER. COORDINATE ALL POWER REQUIREMENTS WITH ELECTRICAL.
4. COORDINATE WITH WINDOW REPLACEMENT PROJECT ARCHITECT / INSTALLATION CONTRACTOR FOR CONNECTION TO NEW LOUVER.

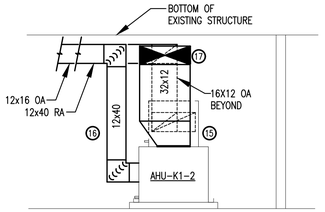
AHU NOTES:

1. OA FLAT FILTER SECTION. PROVIDE FULL ACCESS DOOR SWING.
2. OA HHW PRE-HEAT COIL SECTION WITH ACCESS DOOR DOWNSTREAM OF COIL. INCLUDE DRAIN PAN. PIPE DRAIN PAN WITH NORMALLY CLOSED BALL VALVE TO DRAIN. LABEL VALVE AS NORMALLY CLOSED. REFER TO PIPING PLAN. PROVIDE FULL ACCESS DOOR SWING.
3. OA CHW COOLING COIL SECTION.
4. TURNING/ACCESS SECTION WITH DOOR. PROVIDE FULL ACCESS DOOR SWING.
5. RA ANGLED FILTER SECTION. PROVIDE FULL ACCESS DOOR SWING.
6. RA 50/50 SPLIT CHW COOLING COIL SECTION.
7. TURNING/ACCESS SECTION WITH ACCESS DOOR AND DRAIN PAN. PROVIDE FULL ACCESS DOOR SWING. ACCESS DOOR SHALL BE EQUIPPED WITH UV PROTECTED WINDOW FOR VIEWING UV-C LAMP OPERATION.
8. HHW REHEAT COIL SECTION WITH ACCESS DOOR DOWNSTREAM OF COIL. PROVIDE FULL ACCESS DOOR SWING. INCLUDE DRAIN PAN. PIPE DRAIN PAN WITH NORMALLY CLOSED BALL VALVE TO DRAIN. LABEL VALVE AS NORMALLY CLOSED. REFER TO PIPING PLAN.
9. PROVIDE BULKHEAD BETWEEN HHW REHEAT COIL SECTION AND PLENUM FAN SECTION.
10. PLENUM FAN SECTION WITH TOP DISCHARGE. COORDINATE DISCHARGE SIZE AND LOCATION WITH ENGINEER AND MANUFACTURER PRIOR TO ORDERING. PROVIDE ACCESS DOOR AND FULL ACCESS DOOR SWING. PERFORATED INNER LINER FOR SOUND ATTENUATION.
11. DIRECT DRIVE PLENUM FAN, WITH BACKDRAFT DAMPER.
12. NEW CONCRETE HOUSEKEEPING PAD AND BASERAIL HIGH ENOUGH FOR FULL CONDENSATE TRAP AND SLOPE TO DRAIN. REFER TO PIPING PLAN. CHAMFER HOUSEKEEPING PAD EDGES. PRIME AND PAINT HOUSEKEEPING PAD BRIGHT YELLOW.
13. SET ENTIRE AHU IN SHEET METAL SECONDARY DRAIN PAN. PROVIDE NEOPRENE VIBRATION ISOLATOR PADS BETWEEN THE AHU BASERAIL AND THE SECONDARY DRAIN PAN.
14. SUPPORT DUCT FROM FLOOR AS REQUIRED.
15. TRANSITION DUCT AS REQUIRED TO AHU INLET / OUTLET.
16. NEW RETURN AIR DUCT SILENCER. SUPPORT AS REQUIRED.
17. NEW SUPPLY AIR DUCT SILENCER. SUPPORT AS REQUIRED.
18. PROVIDE FACTORY INSTALLED AND WIRED U.V. DISINFECTING (U.V.-C) LIGHTS. (REFER TO SCHEDULE AND SPECIFICATIONS.) ALL WIRING AND INTERNAL AHU COMPONENTS SHALL BE UV RESISTANT SUCH THAT IT WILL NOT DEGRADE OVER TIME DUE TO U.V. EXPOSURE. PROVIDE ALL SAFETY KILL SWITCHES. COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS.



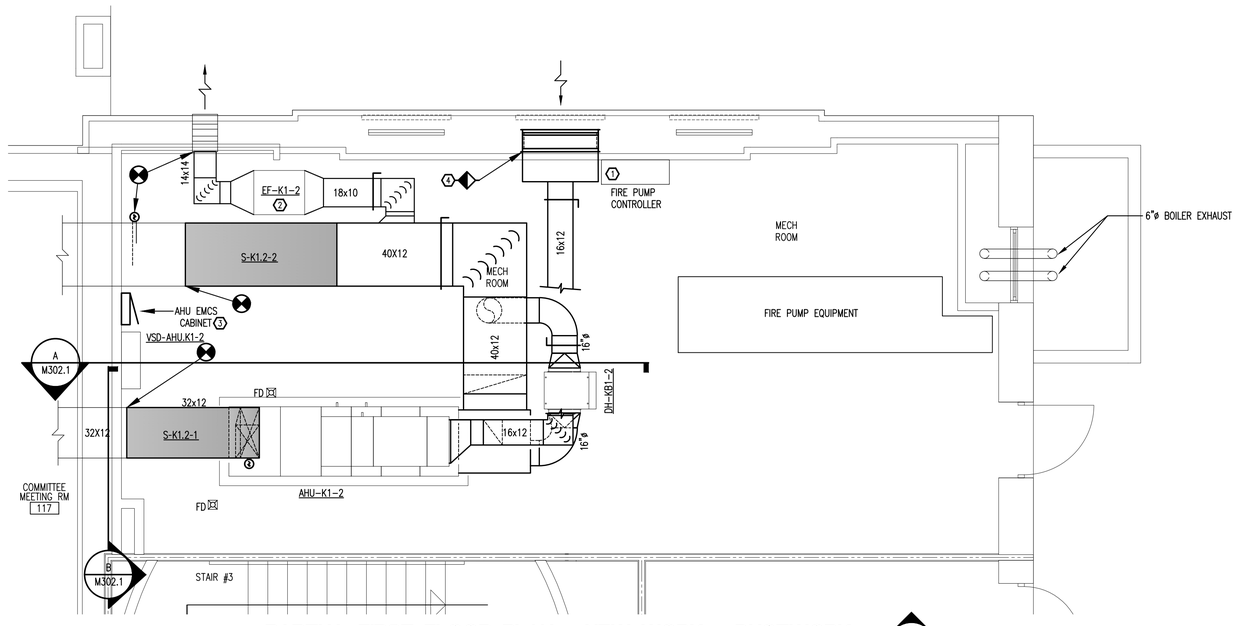
AHU-K1-2 - ELEVATION A

SCALE: 1/4"=1'-0"



AHU-K1-2 - ELEVATION B

SCALE: 1/4"=1'-0"



PARTIAL FIRST FLOOR PLAN - NEW WORK - DUCTWORK

SCALE: 1/4"=1'-0"

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

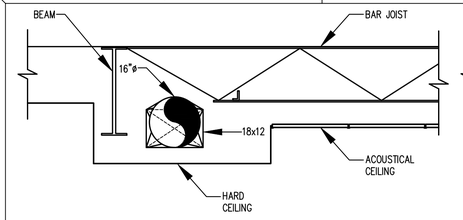
PARTIAL FIRST FLOOR PLAN - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC., IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

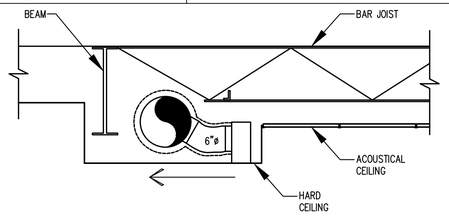
REVIEWED BY: CB DRAWN BY: RDA

M302.1



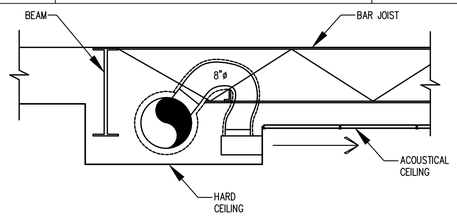
SECTION A

SCALE: 1/2"=1'-0"



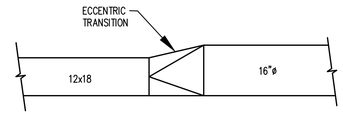
SECTION B

SCALE: 1/2"=1'-0"



SECTION C

SCALE: 1/2"=1'-0"



SECTION D

SCALE: 1/2"=1'-0"

GENERAL NOTES:

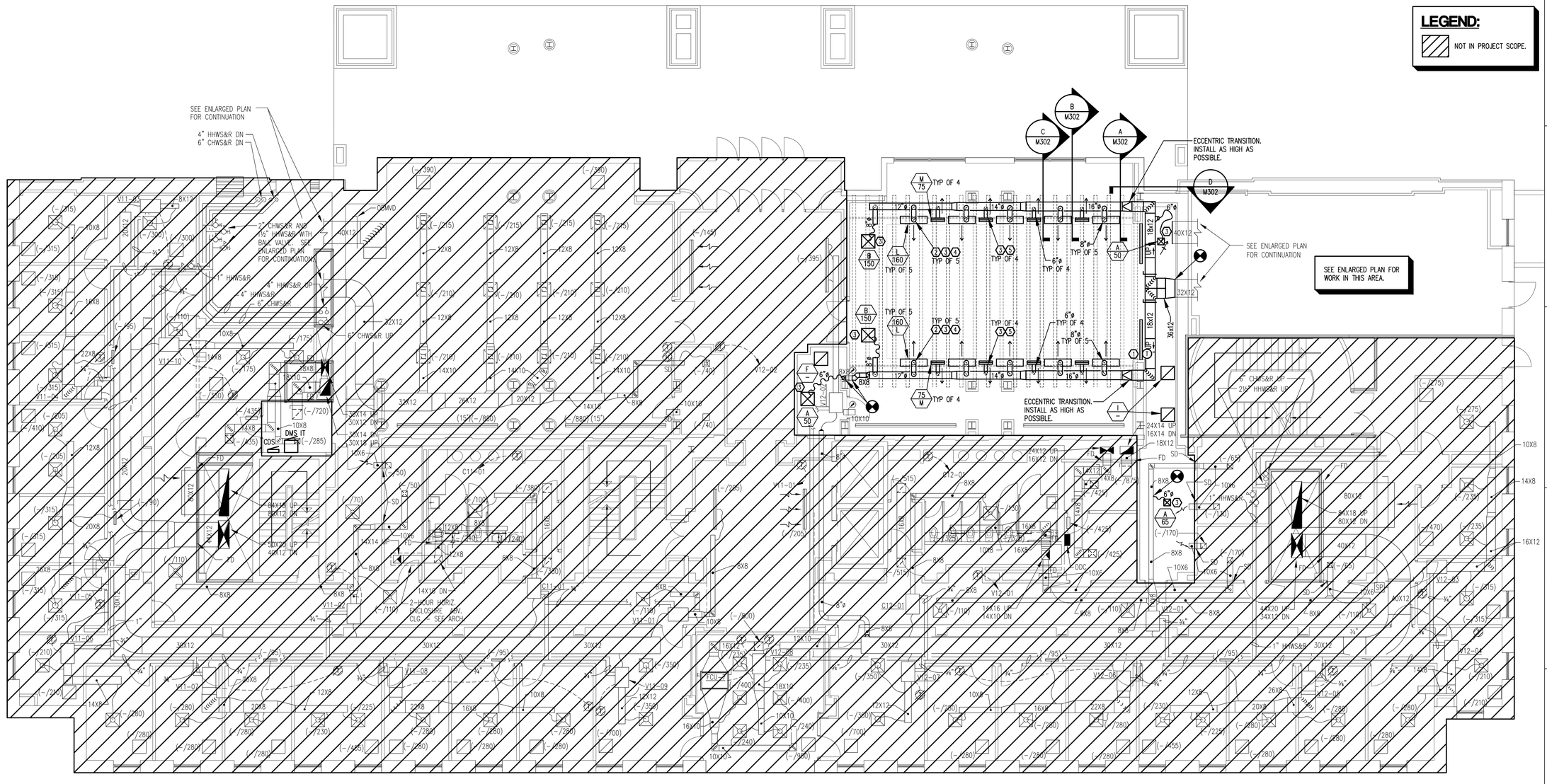
1. NEW WALL MOUNTED TEMPERATURE/HUMIDITY SENSORS SHALL BE MOUNTED MAX 48" FROM FINISHED FLOOR TO OPERABLE CONTROLS; PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
3. WHERE NEW DUCT TAKE-OFFS ARE SHOWN, PROVIDE SHALLOW SUPPLY TAKE-OFFS IF TRUNK DUCT DEPTH IS EQUAL TO OR SMALLER THAN THE TAKE-OFF DUCT DEPTH.

MECHANICAL NOTES:

1. NEW WALL MOUNTED TEMPERATURE/HUMIDITY SENSOR AND WIRING.
2. ROUTE FLEX DUCT UP, BETWEEN BAR JOISTS, AND TO LINEAR DIFFUSER PLENUM INLET.
3. PROVIDE BALANCING DAMPER IN DIFFUSER NECK.
4. SURFACE MOUNT DIFFUSER IN FACE OF VERTICAL SOFFIT.
5. MUD-IN CONCEALED PLASTER FRAME, MOUNTED TO THE BOTTOM OF THE SOFFIT.

LEGEND:

NOT IN PROJECT SCOPE.



FIRST FLOOR - NEW WORK - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FIRST FLOOR - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT AND WITHOUT THE EXPRESS CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M302

LEGEND:

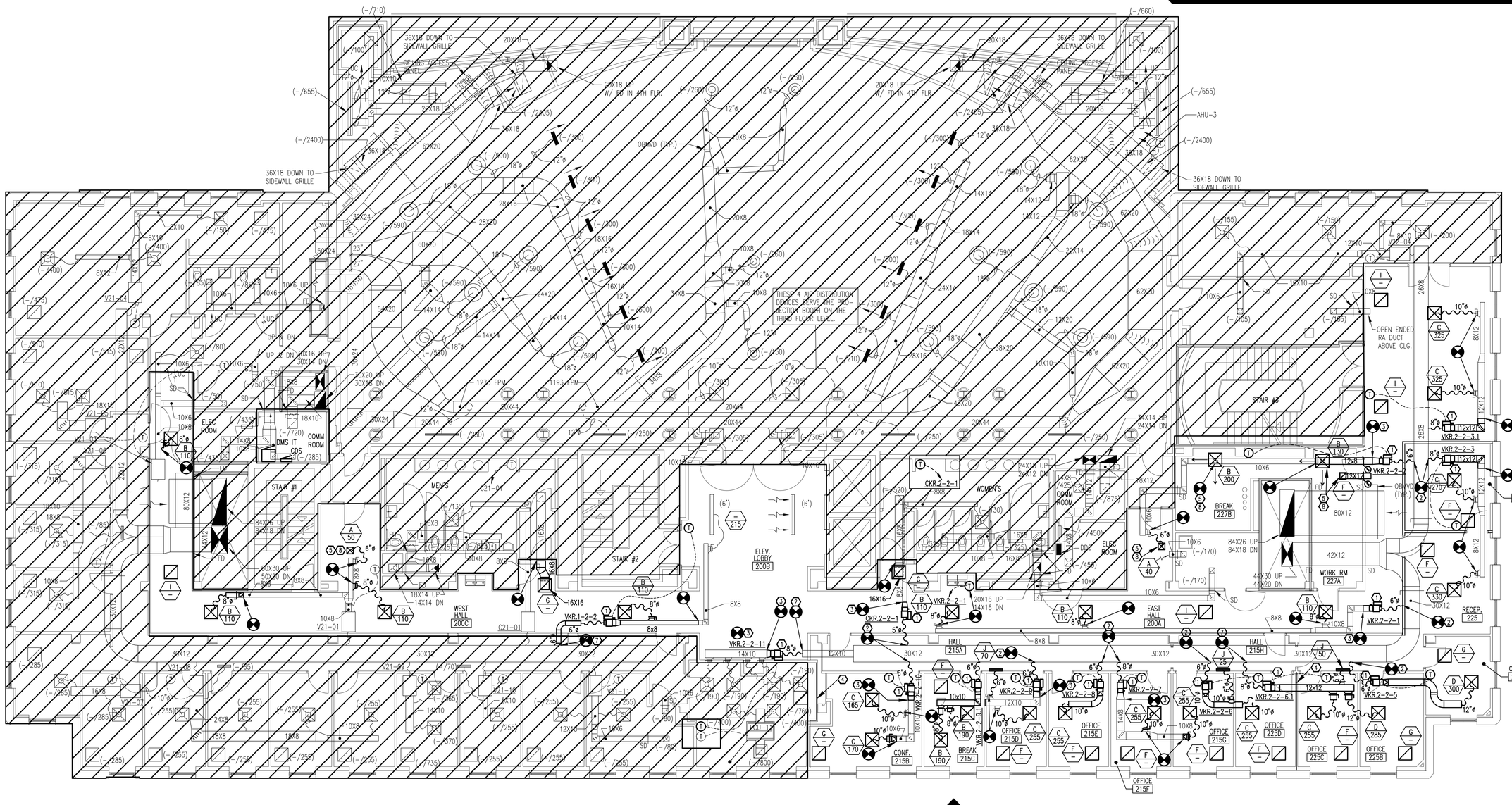
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. NEW WALL MOUNTED TEMPERATURE/HUMIDITY SENSORS SHALL BE MOUNTED MAX 48" FROM FINISHED FLOOR TO OPERABLE CONTROLS; PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
3. WHERE NEW DUCT TAKE-OFFS ARE SHOWN, PROVIDE SHALLOW SUPPLY TAKE-OFFS IF TRUNK DUCT DEPTH IS EQUAL TO OR SMALLER THAN THE TAKE-OFF DUCT DEPTH.

MECHANICAL NOTES:

1. LOCATE NEW VAV BOX TO MAXIMIZE SERVICE ACCESS. COORDINATE WITH OTHER TRADES AND EXISTING FIELD CONDITIONS.
2. PROVIDE NEW MEDIUM PRESSURE FLEX DUCT FROM EXISTING DUCT TAP TO NEW VAV BOX INLET. MODIFY OR MOVE EXISTING TAP AS REQUIRED FOR FIT. REINSULATE AS REQUIRED.
3. TRANSITION NEW DUCT FROM VAV BOX OUTLET TO EXISTING DUCT AS REQUIRED.
4. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.
5. NEW SURFACE MOUNT AIR DEVICE (SIZE AS INDICATED). PROVIDE INTEGRAL DAMPER, ADJUSTABLE FROM FACE OF AIR DEVICE. PROVIDE AIR BAFFLES FOR DIRECTIONAL THROW AS INDICATED. CONNECT TO EXISTING DUCT AS REQUIRED. COORDINATE FIT WITH OTHER TRADES AND EXISTING CONDITIONS.
6. NEW SMOKE DAMPER. COORDINATE POWER REQUIREMENTS WITH FIRE ALARM CONTRACTOR PRIOR TO BID.
7. PROVIDE NEW HIGH PRESSURE DUCT TAP IN EXISTING MAIN TRUNK DUCT AND NEW MEDIUM PRESSURE FLEX DUCT TO NEW VAV BOX INLET.
8. COORDINATE ALL CEILING MODIFICATIONS, PATCHING, FINISHING, PRIMING AND PAINTING REQUIREMENTS WITH ARCHITECTURAL.



SECOND FLOOR - NEW WORK - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

SECOND FLOOR - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND SPECIFICATIONS ARE AND SHALL REMAIN THE PROPERTY OF ARCHITECTS, INC. AND AS SUCH ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS AND SPECIFICATIONS ON THIS PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M303

LEGEND:

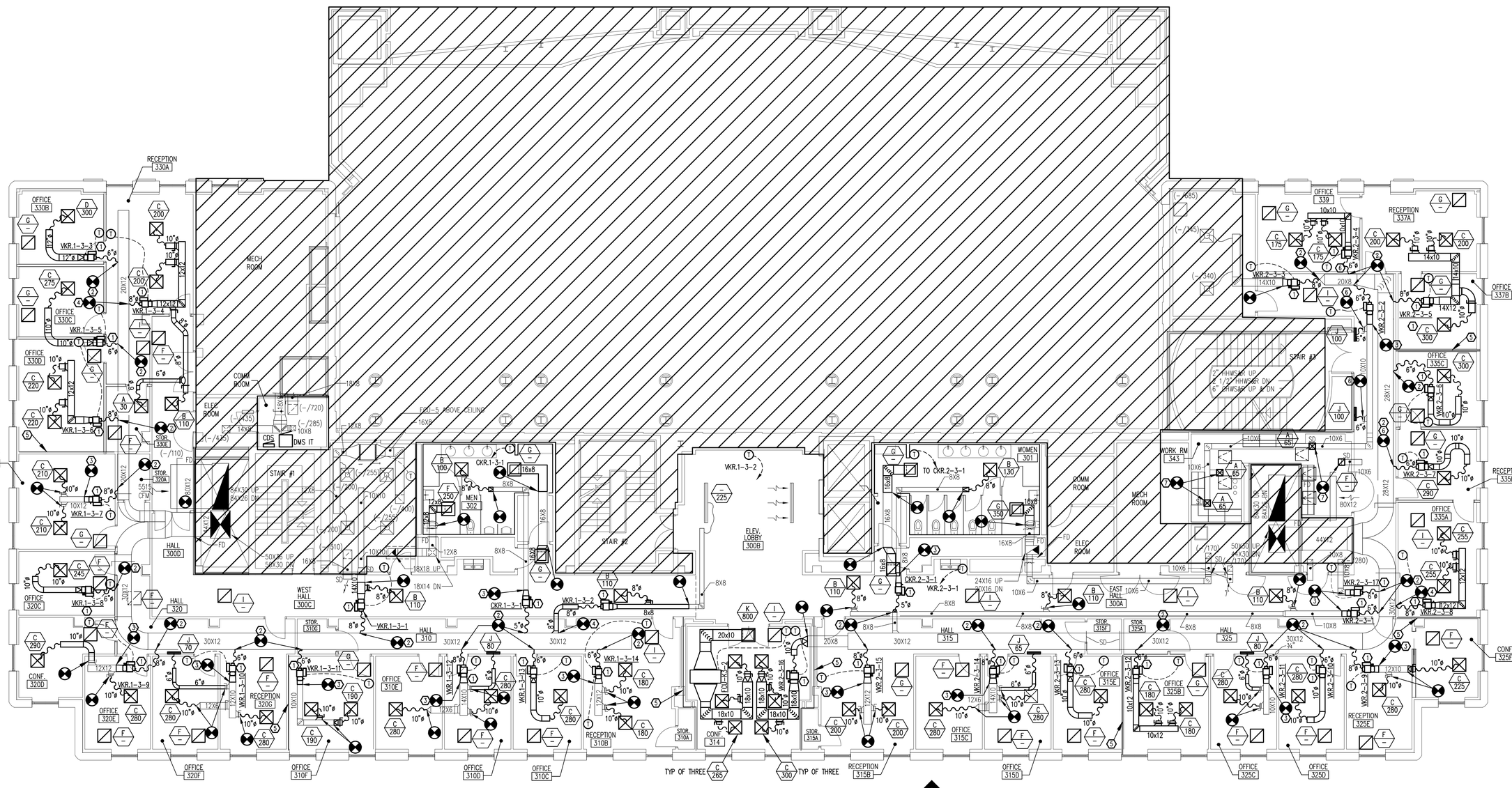
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. NEW WALL MOUNTED TEMPERATURE/HUMIDITY SENSORS SHALL BE MOUNTED MAX 48" FROM FINISHED FLOOR TO OPERABLE CONTROLS; PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
3. WHERE NEW DUCT TAKE-OFFS ARE SHOWN, PROVIDE SHALLOW SUPPLY TAKE-OFFS IF TRUNK DUCT DEPTH IS EQUAL TO OR SMALLER THAN THE TAKE-OFF DUCT DEPTH.

MECHANICAL NOTES:

1. LOCATE NEW VAV BOX TO MAXIMIZE SERVICE ACCESS. COORDINATE WITH OTHER TRADES AND EXISTING FIELD CONDITIONS.
2. PROVIDE NEW MEDIUM PRESSURE FLEX DUCT FROM EXISTING DUCT TAP TO NEW VAV BOX INLET. MODIFY OR MOVE EXISTING TAP AS REQUIRED FOR FIT. REINSULATE AS REQUIRED.
3. TRANSITION NEW DUCT FROM VAV BOX OUTLET TO EXISTING DUCT AS REQUIRED.
4. PROVIDE NEW HIGH PRESSURE DUCT TAP IN EXISTING MAIN TRUNK DUCT AND NEW MEDIUM PRESSURE FLEX DUCT TO NEW VAV BOX INLET.
5. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.
6. PROVIDE REDUCER FROM EXISTING TAP TO NEW DUCT.
7. NEW 12X12 SURFACE MOUNT AIR DEVICE. CONNECT TO EXISTING DUCT AS REQUIRED. EXISTING SMOKE DAMPER TO REMAIN. COORDINATE FIT WITH OTHER TRADES AND EXISTING CONDITIONS.



THIRD FLOOR - NEW WORK - HVAC DUCTWORK

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

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
00	6/12/25	SCHEMATIC DESIGN
01	10/09/25	100% CONSTRUCTION DOCUMENTS
02	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

THIRD FLOOR - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND SPECIFICATIONS, AND COPIES THEREOF, FURNISHED BY ARCHITECTS, INC. AND AS SUCH ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OF THESE DRAWINGS AND SPECIFICATIONS FOR USE ON THE PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M304

LEGEND:

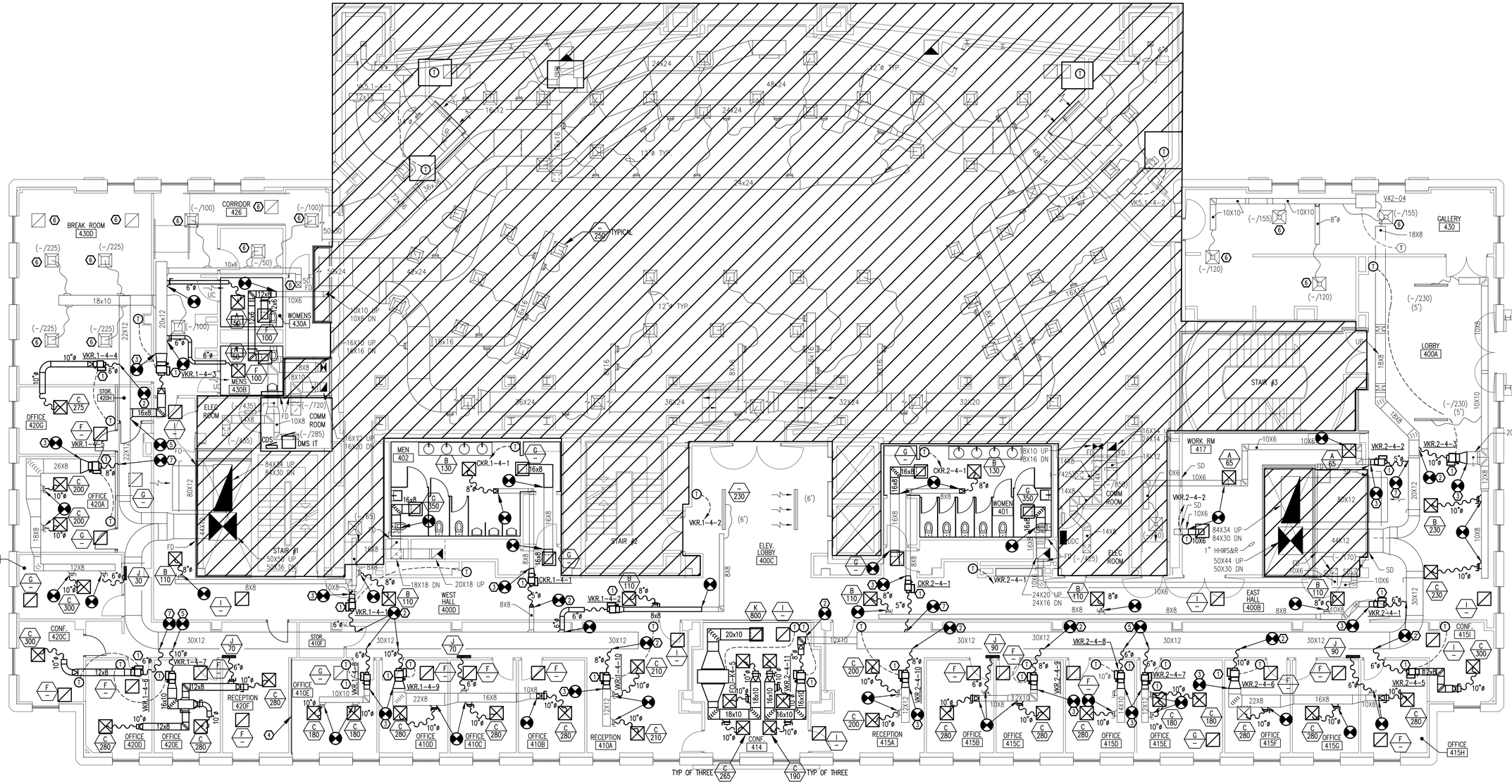
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. NEW WALL MOUNTED TEMPERATURE/HUMIDITY SENSORS SHALL BE MOUNTED MAX 48" FROM FINISHED FLOOR TO OPERABLE CONTROLS; PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
3. WHERE NEW DUCT TAKE-OFFS ARE SHOWN, PROVIDE SHALLOW SUPPLY TAKE-OFFS IF TRUNK DUCT DEPTH IS EQUAL TO OR SMALLER THAN THE TAKE-OFF DUCT DEPTH.

MECHANICAL NOTES:

1. LOCATE NEW VAV BOX TO MAXIMIZE SERVICE ACCESS. COORDINATE WITH OTHER TRADES AND EXISTING FIELD CONDITIONS.
2. PROVIDE NEW MEDIUM PRESSURE FLEX DUCT FROM EXISTING DUCT TAP TO NEW VAV BOX INLET. MODIFY OR MOVE EXISTING TAP AS REQUIRED FOR FIT. REINSULATE AS REQUIRED.
3. TRANSITION NEW DUCT FROM VAV BOX OUTLET TO EXISTING DUCT AS REQUIRED.
4. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.
5. PROVIDE NEW HIGH PRESSURE DUCT TAP IN EXISTING MAIN TRUNK DUCT AND NEW MEDIUM PRESSURE FLEX DUCT TO NEW VAV BOX INLET.
6. REINSTALL EXISTING TEMPORARILY SUSPENDED AIR DEVICE.
7. PROVIDE REDUCER FROM EXISTING TAP TO NEW DUCT.



FOURTH FLOOR - NEW WORK - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

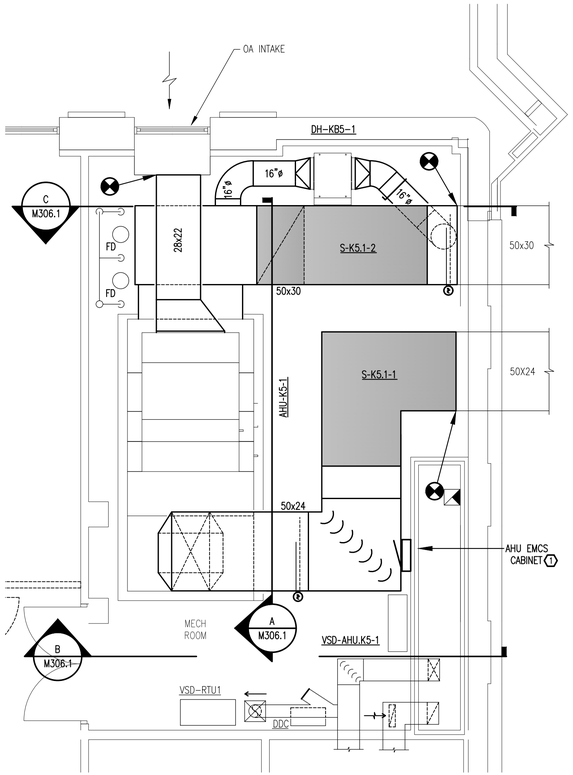
FOURTH FLOOR - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND AS SUCH ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OF THESE DRAWINGS AND SPECIFICATIONS FOR USE ON PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M305



PARTIAL FIFTH FLOOR DUCTWORK PLAN
NEW WORK - HVAC

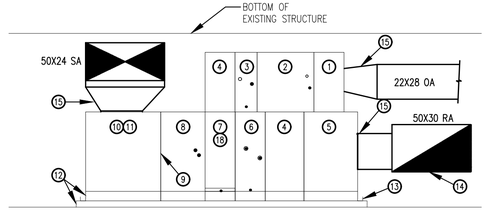
SCALE: 1/4"=1'-0"

MECHANICAL NOTES:

1. COORDINATE FINAL LOCATION OF NEW EMCS PANEL WITH OWNER. COORDINATE ALL POWER REQUIREMENTS WITH ELECTRICAL.
2. NEW SPRINKLER HEAD. COORDINATE WITH FIRE PROTECTION.

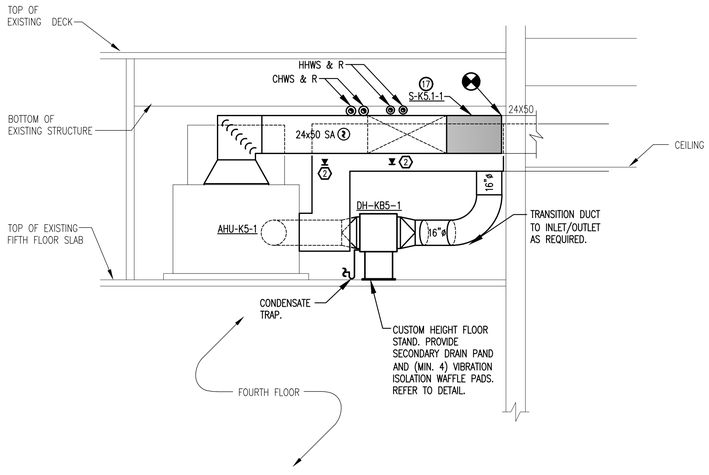
AHU NOTES:

1. OA FLAT FILTER SECTION. PROVIDE FULL ACCESS DOOR SWING.
2. OA HHW PRE-HEAT COIL SECTION WITH ACCESS DOOR DOWNSTREAM OF COIL. INCLUDE DRAIN PAN. PIPE DRAIN PAN WITH NORMALLY CLOSED BALL VALVE TO DRAIN. LABEL VALVE AS NORMALLY CLOSED. REFER TO PIPING PLAN. PROVIDE FULL ACCESS DOOR SWING.
3. OA CHW COOLING COIL SECTION.
4. TURNING/ACCESS SECTION WITH DOOR. PROVIDE FULL ACCESS DOOR SWING.
5. RA ANGLED FILTER SECTION. PROVIDE FULL ACCESS DOOR SWING.
6. RA 70/30 SPLIT CHW COOLING COIL SECTION.
7. TURNING/ACCESS SECTION WITH DOOR AND DRAIN PAN. PROVIDE FULL ACCESS DOOR SWING. ACCESS DOOR SHALL BE EQUIPPED WITH UV PROTECTED WINDOW FOR VIEWING UV-C LAMP OPERATION.
8. HHW REHEAT COIL SECTION WITH ACCESS DOOR DOWNSTREAM OF COIL. PROVIDE FULL ACCESS DOOR SWING. INCLUDE DRAIN PAN. PIPE DRAIN PAN WITH NORMALLY CLOSED BALL VALVE TO DRAIN. LABEL VALVE AS NORMALLY CLOSED. REFER TO PIPING PLAN.
9. PROVIDE BULKHEAD BETWEEN HHW REHEAT COIL SECTION AND PLENUM FAN SECTION.
10. PLENUM FAN SECTION WITH TOP DISCHARGE. COORDINATE DISCHARGE SIZE AND LOCATION WITH ENGINEER AND MANUFACTURER PRIOR TO ORDERING. PROVIDE ACCESS DOOR AND FULL ACCESS DOOR SWING. PERFORATED INNER LINER FOR SOUND ATTENUATION.
11. DUAL DIRECT DRIVE PLENUM FANS, WITH BACKDRAFT DAMPERS.
12. NEW CONCRETE HOUSEKEEPING PAD AND BASERAIL HIGH ENOUGH FOR FULL CONDENSATE TRAP AND SLOPE TO DRAIN. REFER TO PIPING PLAN. CHAMFER HOUSEKEEPING PAD EDGES. PRIME AND PAINT HOUSEKEEPING PAD BRIGHT YELLOW.
13. SET ENTIRE AHU IN SHEET METAL SECONDARY DRAIN PAN. PROVIDE NEOPRENE VIBRATION ISOLATOR PADS BETWEEN THE AHU BASERAIL AND THE SECONDARY DRAIN PAN.
14. SUPPORT DUCT FROM FLOOR AS REQUIRED.
15. TRANSITION DUCT AS REQUIRED TO AHU INLET / OUTLET.
16. NEW RETURN AIR DUCT SILENCER. SUPPORT AS REQUIRED.
17. NEW SUPPLY AIR DUCT SILENCER. SUPPORT AS REQUIRED.
18. PROVIDE FACTORY INSTALLED AND WIRED U.V. DISINFECTING (U.V.-C) LIGHTS. (REFER TO SCHEDULE AND SPECIFICATIONS.) ALL WIRING AND INTERNAL AHU COMPONENTS SHALL BE UV RESISTANT SUCH THAT IT WILL NOT DEGRADE OVER TIME DUE TO U.V. EXPOSURE. PROVIDE ALL SAFETY KILL SWITCHES. COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS.



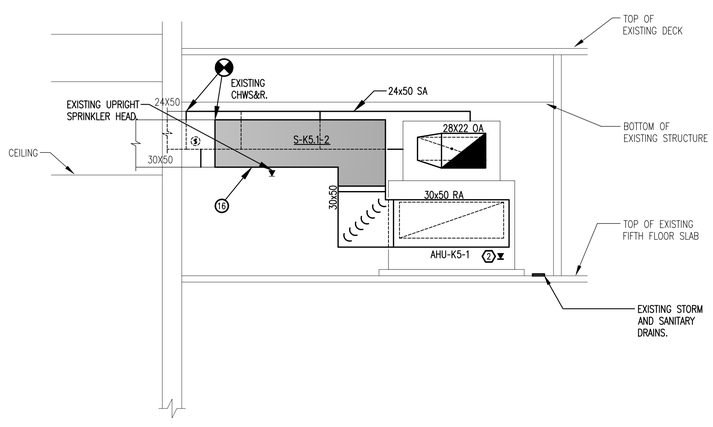
AHU ELEVATION A - NEW WORK

SCALE: 1/4"=1'-0"



AHU ELEVATION B - NEW WORK

SCALE: 1/4"=1'-0"



AHU ELEVATION C - NEW WORK

SCALE: 1/4"=1'-0"

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797
CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850)-422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING
INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIFTH FLOOR PLAN
- NEW WORK - HVAC
DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT THE EXPRESS CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M306.1

LEGEND:

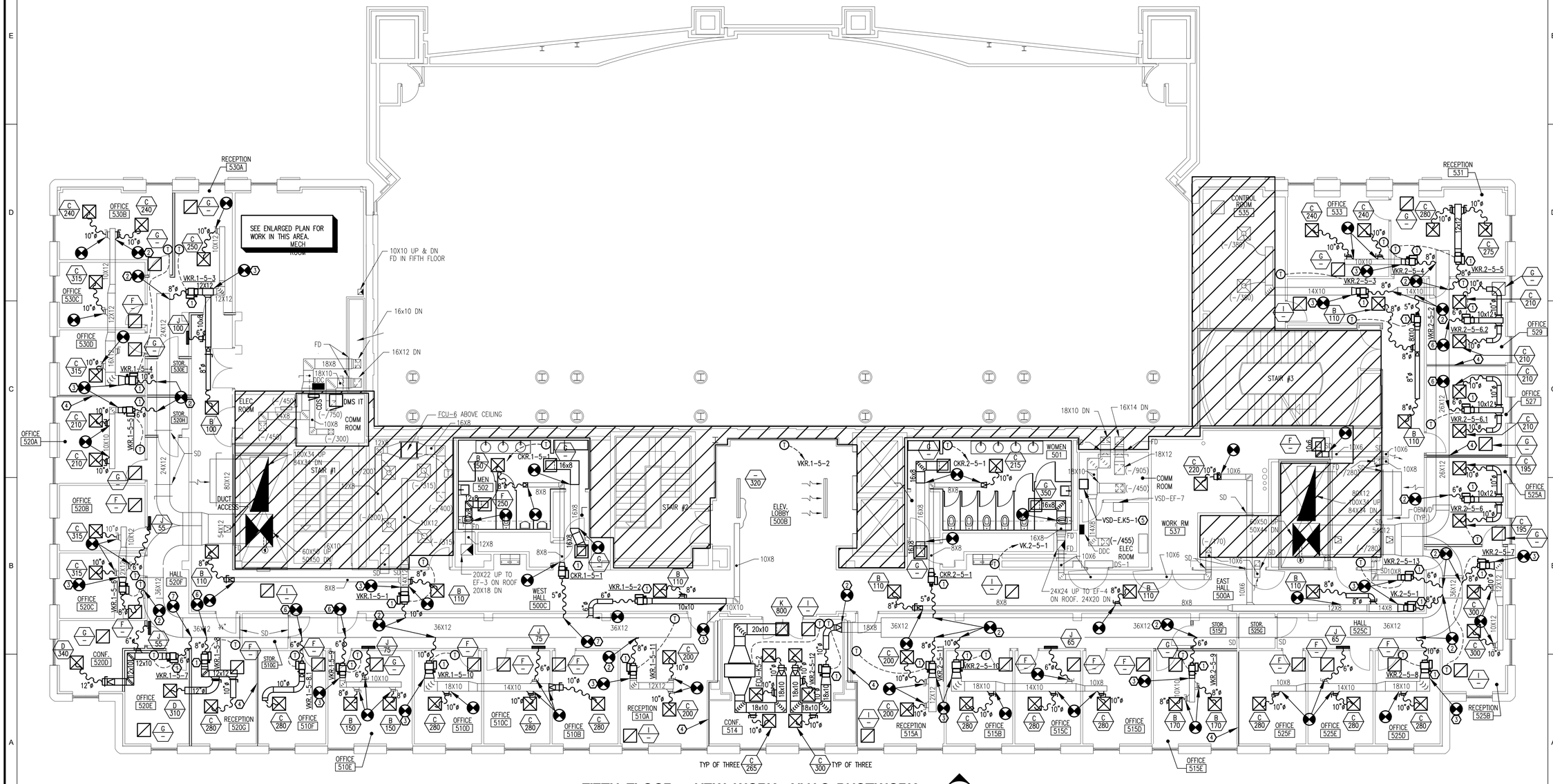
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. NEW WALL MOUNTED TEMPERATURE/HUMIDITY SENSORS SHALL BE MOUNTED MAX 48" FROM FINISHED FLOOR TO OPERABLE CONTROLS; PATCH, FINISH, PRIME AND PAINT WALL TO MATCH AS REQUIRED.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN.
3. WHERE NEW DUCT TAKE-OFFS ARE SHOWN, PROVIDE SHALLOW SUPPLY TAKE-OFFS IF TRUNK DUCT DEPTH IS EQUAL TO OR SMALLER THAN THE TAKE-OFF DUCT DEPTH.

MECHANICAL NOTES:

1. LOCATE NEW VAV BOX TO MAXIMIZE SERVICE ACCESS. COORDINATE WITH OTHER TRADES AND EXISTING FIELD CONDITIONS.
2. PROVIDE NEW MEDIUM PRESSURE FLEX DUCT FROM EXISTING DUCT TAP TO NEW VAV BOX INLET. MODIFY OR MOVE EXISTING TAP AS REQUIRED FOR FIT. REINSULATE AS REQUIRED.
3. TRANSITION NEW DUCT FROM VAV BOX OUTLET TO EXISTING DUCT AS REQUIRED.
4. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.
5. NEW VARIABLE SPEED DRIVE TO SERVE EXISTING EF-KR-4 ON ROOF.
6. PROVIDE NEW HIGH PRESSURE DUCT TAP IN EXISTING MAIN TRUNK DUCT AND NEW MEDIUM PRESSURE FLEX DUCT TO NEW VAV BOX INLET.
7. PROVIDE REDUCER FROM EXISTING TAP TO NEW DUCT.



FIFTH FLOOR - NEW WORK- HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FIFTH FLOOR - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND SPECIFICATIONS ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECTS. INC. AND AS SUCH ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OF THESE DRAWINGS AND SPECIFICATIONS FOR USE ON THE PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

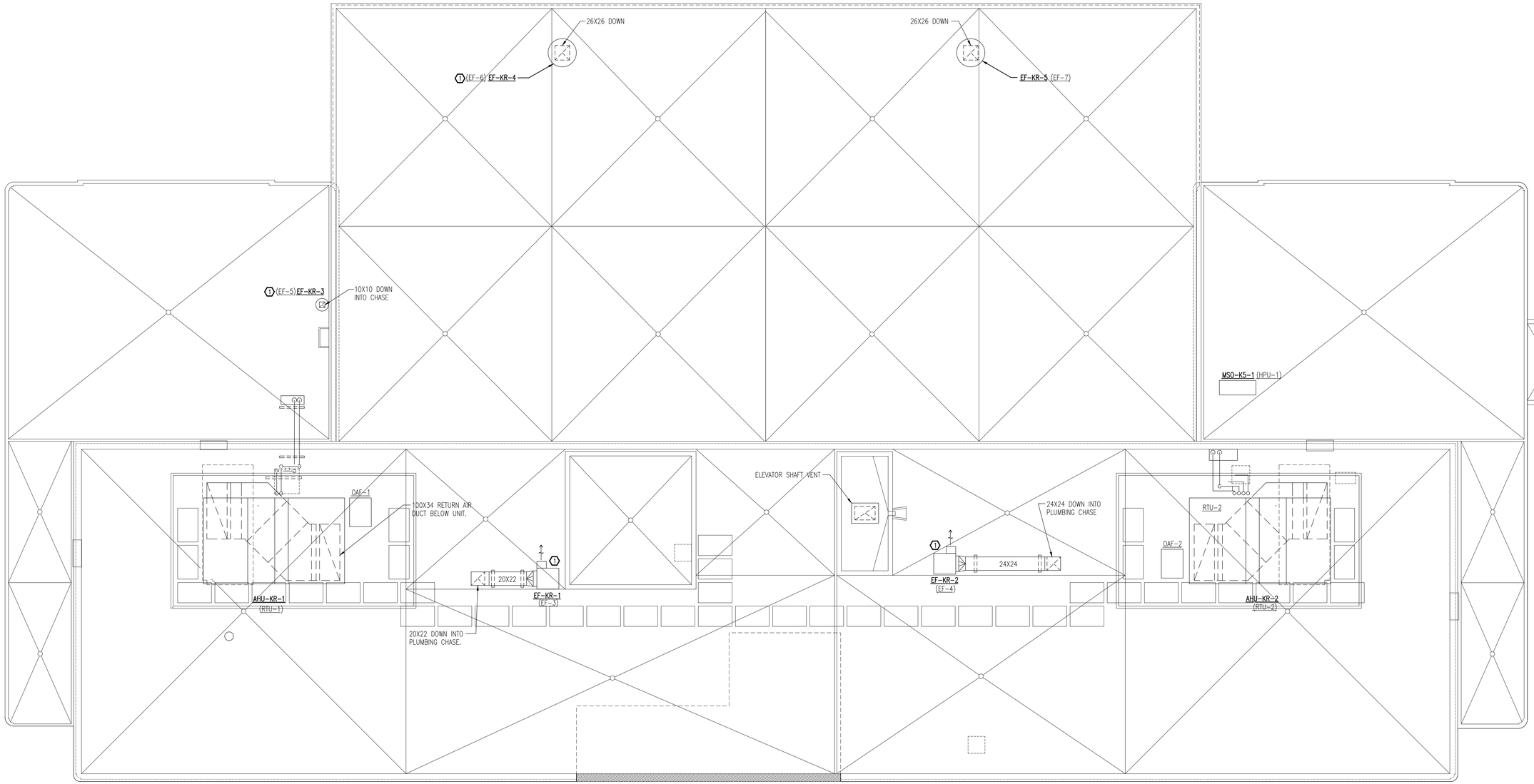
M306

GENERAL NOTES:

1. TAKE ALL PRECAUTIONS TO PROTECT EXISTING ROOF, ROOF MOUNTED COMPONENTS, ROOF MOUNTED EQUIPMENT, ETC. DO NOT VOID ROOF WARRANTY.

MECHANICAL NOTES:

1. POST-CONSTRUCTION T&B REQUIRED. BALANCE TO SCHEDULED CONDITIONS. PROVIDE NEW BELTS. PROVIDE NEW ADJUSTABLE PITCH SHEAVES AS REQUIRED.



ROOF - NEW WORK - HVAC DUCTWORK

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850)-422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

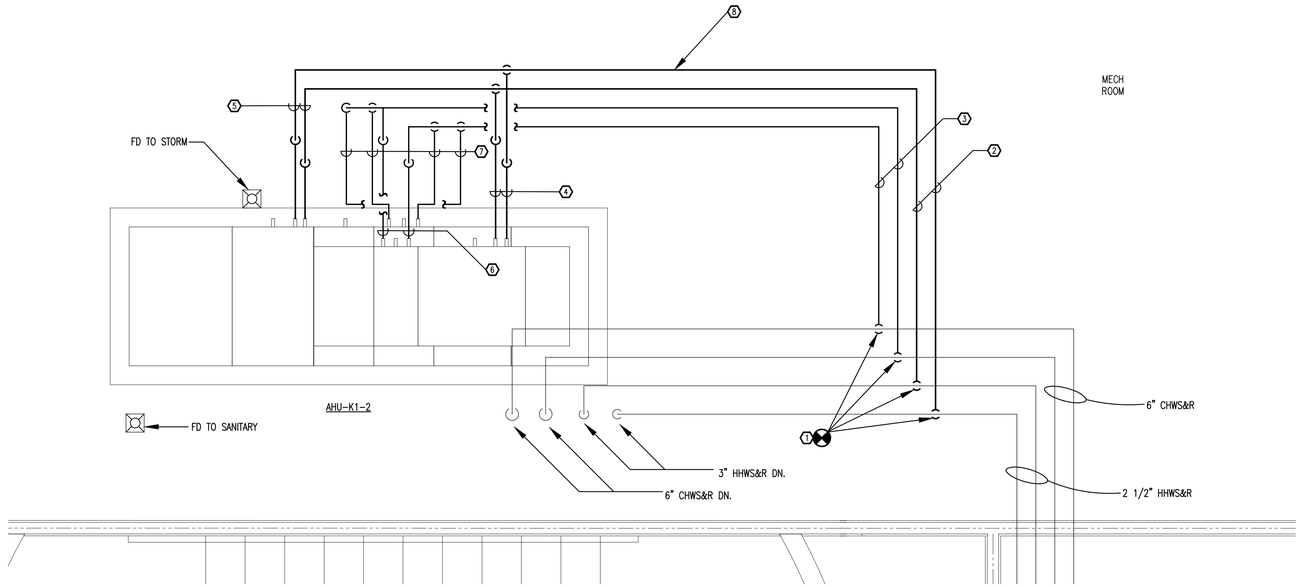
ROOF - NEW WORK - HVAC DUCTWORK

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT FOR WHICH THEY WERE PREPARED IS PROHIBITED FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M307



PARTIAL FIRST FLOOR PLAN - NEW WORK - HVAC PIPING

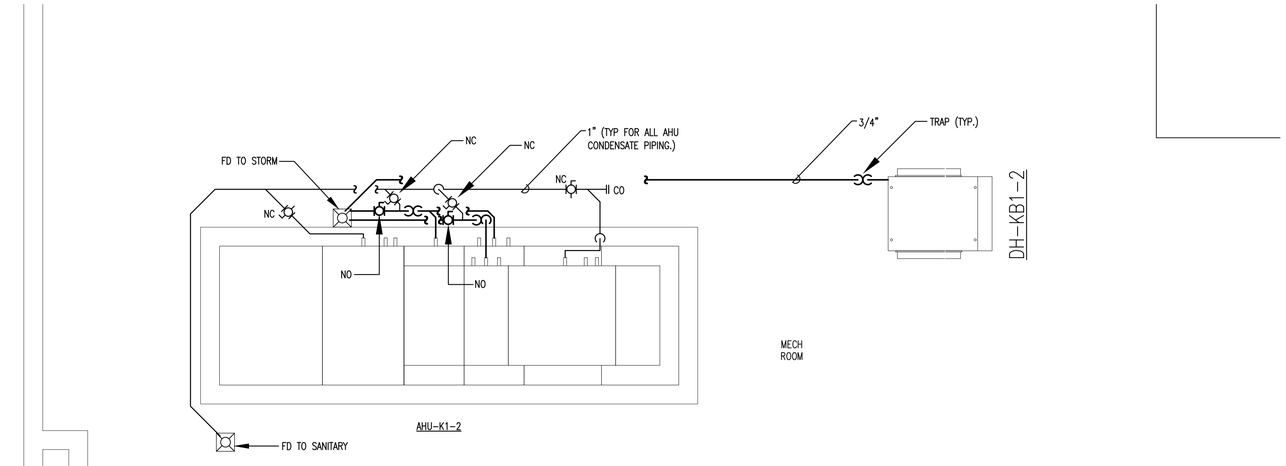
SCALE: 1/2"=1'-0"

MECHANICAL NOTES:

1. PROVIDE NEW TEES IN EXISTING PIPING. REMOVE AND REPLACE INSULATION AND JACKETING AS REQUIRED.
2. 1.5" HHWS & R.
3. 2" CHWS & R.
4. ROUTE 1.25" HHWS & R PIPES TO OA PRE-HEAT COIL. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
5. ROUTE 1.25" HHWS & R PIPES TO RE-HEAT COIL. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
6. ROUTE 1.5" CHWS & R PIPES TO OA CHW COOLING COIL. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
7. ROUTE 1" CHWS & R PIPES TO EACH 50/50 SPLIT CHILLED WATER COIL CONNECTION (REQUIRES TWO SEPARATE VALVETRAINS). REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
8. COORDINATE PIPE LOCATIONS WITH OTHER TRADES PRIOR TO BID. ROUTE PIPES AS HIGH AS POSSIBLE, UNDER NEW DUCTWORK.

GENERAL NOTES:

1. LOCATE ALL SERVICEABLE ITEMS ACCESSIBLE.
2. PROVIDE AUTO AIR VENTS AT ALL HIGH POINTS IN PIPING. AIR VENT DISCHARGE PIPING SHALL BE PIPED TO NEAREST FLOOR DRAIN.



PARTIAL FIRST FLOOR PLAN - NEW WORK - CONDENSATE AND SANITARY PIPING

SCALE: 1/2"=1'-0"

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797
CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIRST FLOOR PLAN
- NEW WORK - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC., IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M402.1

LEGEND:

NOT IN PROJECT SCOPE.

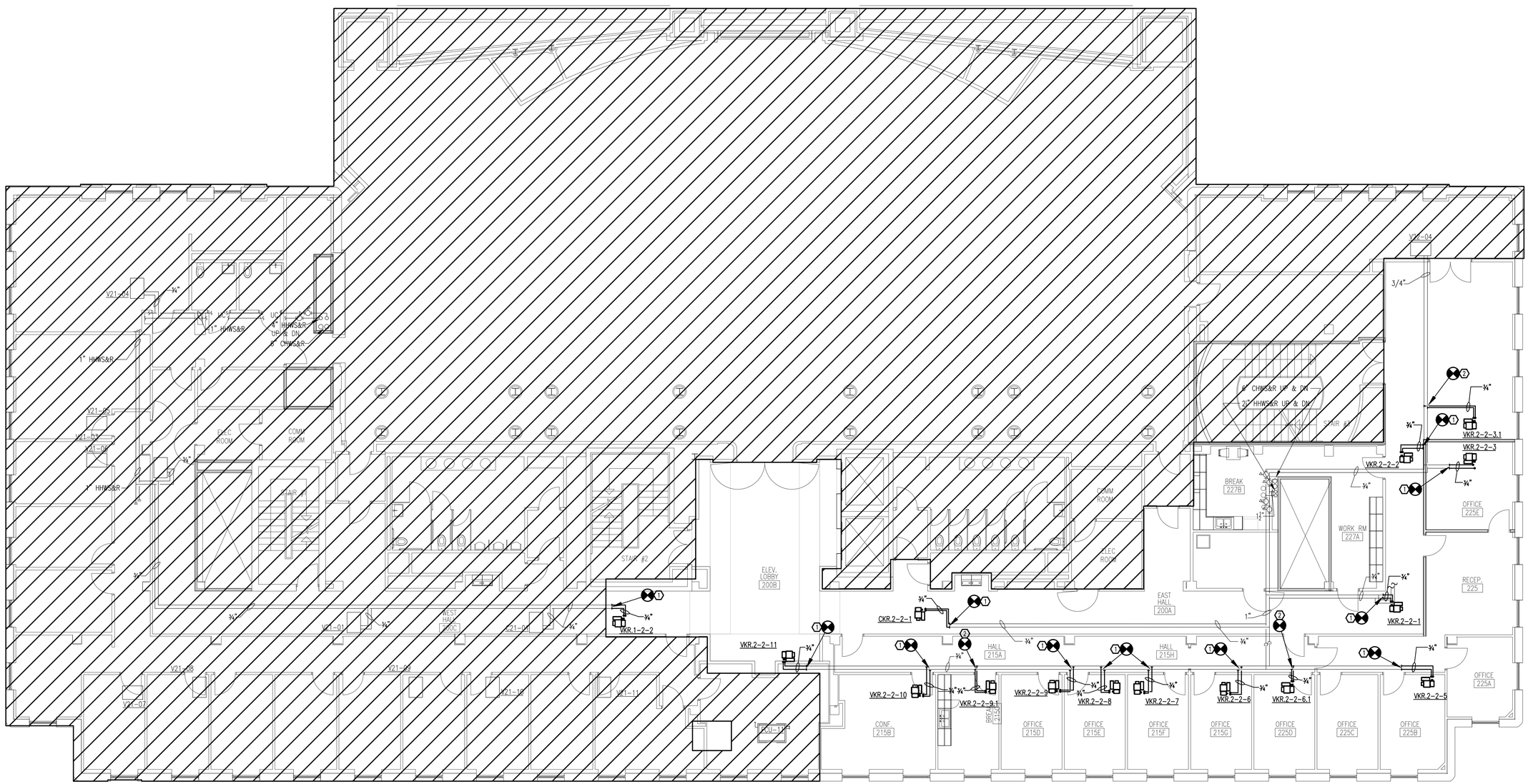
GENERAL NOTES:

1. LOCATE ALL SERVICEABLE ITEMS ACCESSIBLE.
2. PROVIDE AUTO AIR VENTS AT ALL HIGH POINTS IN PIPING. AIR VENT DISCHARGE PIPING SHALL BE PIPED TO NEAREST FLOOR DRAIN.

MECHANICAL NOTES:

(1) CONNECT NEW VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK VAV BOX SERVICE ACCESS.

(2) PROVIDE NEW 3/4" TEES. REINSULATE AS REQUIRED.



SECOND FLOOR - NEW WORK - HVAC PIPING

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

SECOND FLOOR - NEW WORK - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED HEREIN WITHOUT WRITTEN PERMISSION FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M403

LEGEND:

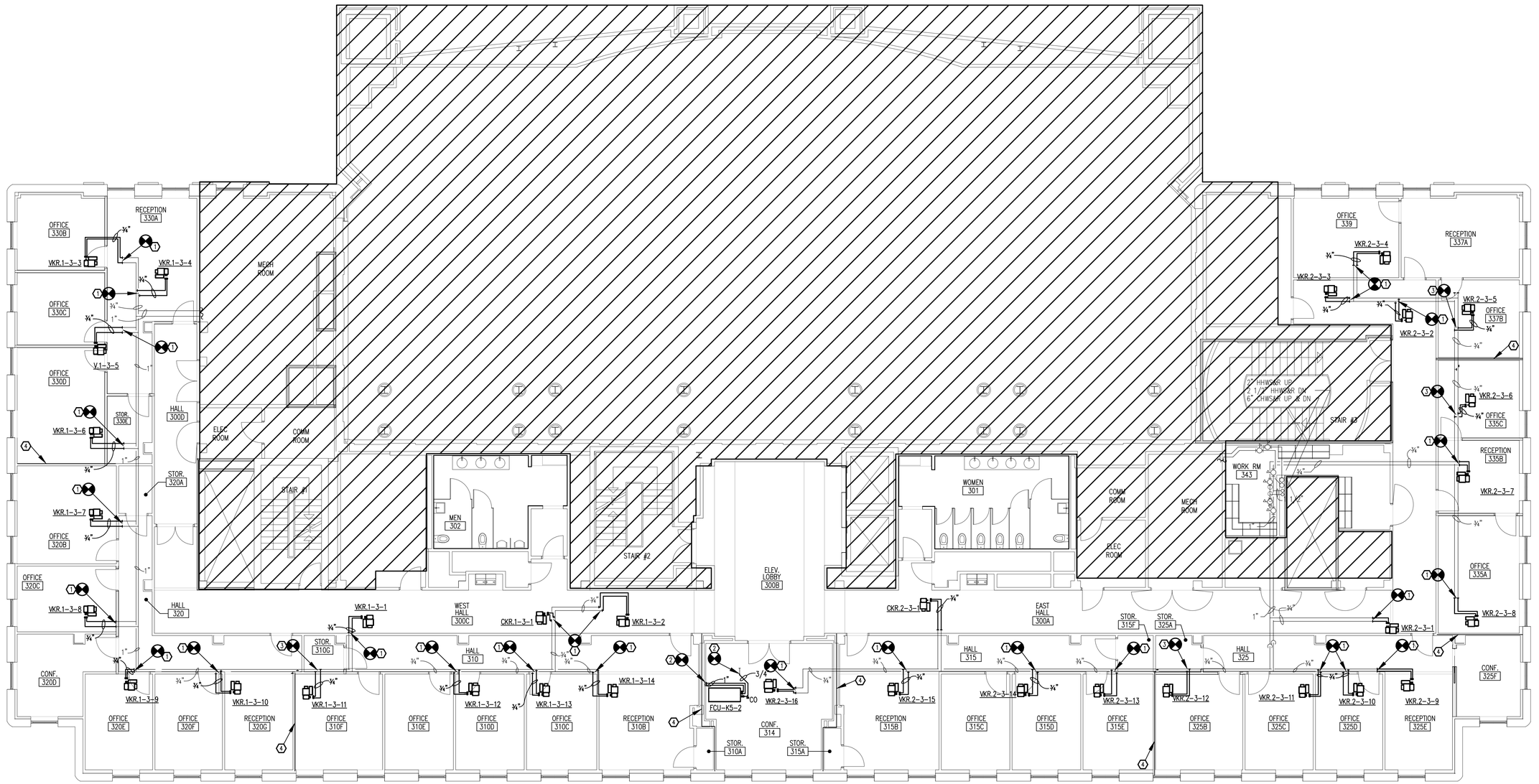
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. LOCATE ALL SERVICEABLE ITEMS ACCESSIBLE.
2. PROVIDE AUTO AIR VENTS AT ALL HIGH POINTS IN PIPING. AIR VENT DISCHARGE PIPING SHALL BE PIPED TO NEAREST FLOOR DRAIN.

MECHANICAL NOTES:

1. CONNECT NEW VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK VAV BOX SERVICE ACCESS.
2. CONNECT NEW FCU HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK FCU SERVICE ACCESS.
3. PROVIDE NEW 3/4" TEES. REINSULATE AS REQUIRED.
4. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.



THIRD FLOOR - NEW WORK - HVAC PIPING

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

THIRD FLOOR - NEW WORK - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE SPECIFIC PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M404

LEGEND:

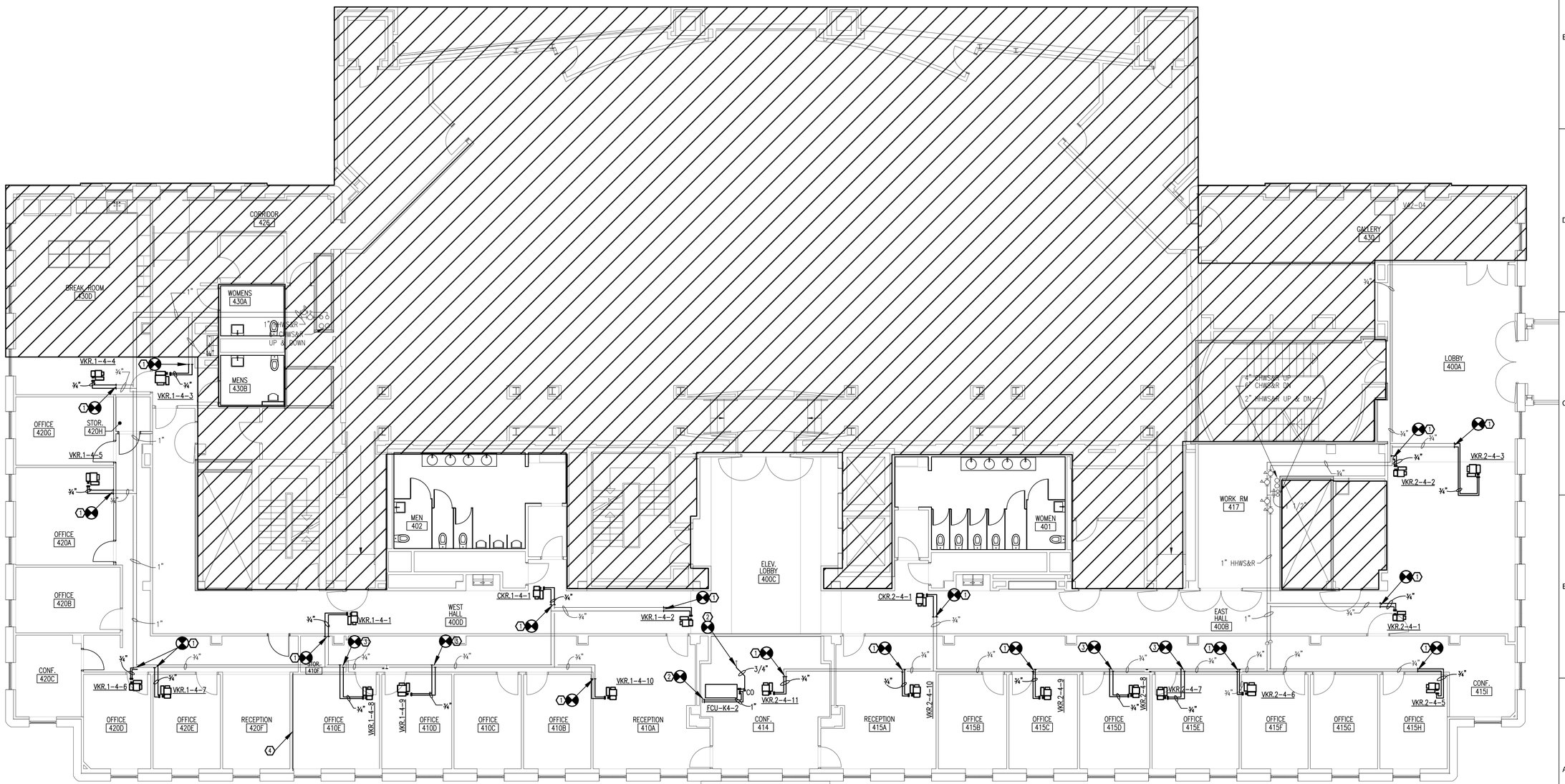
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. LOCATE ALL SERVICEABLE ITEMS ACCESSIBLE.
2. PROVIDE AUTO AIR VENTS AT ALL HIGH POINTS IN PIPING. AIR VENT DISCHARGE PIPING SHALL BE PIPED TO NEAREST FLOOR DRAIN.

MECHANICAL NOTES:

1. CONNECT NEW VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK VAV BOX SERVICE ACCESS.
2. CONNECT NEW FCU HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK FCU SERVICE ACCESS.
3. PROVIDE NEW 3/4" TEES. REINSULATE AS REQUIRED.
4. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.



FOURTH FLOOR - NEW WORK - HVAC PIPING

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

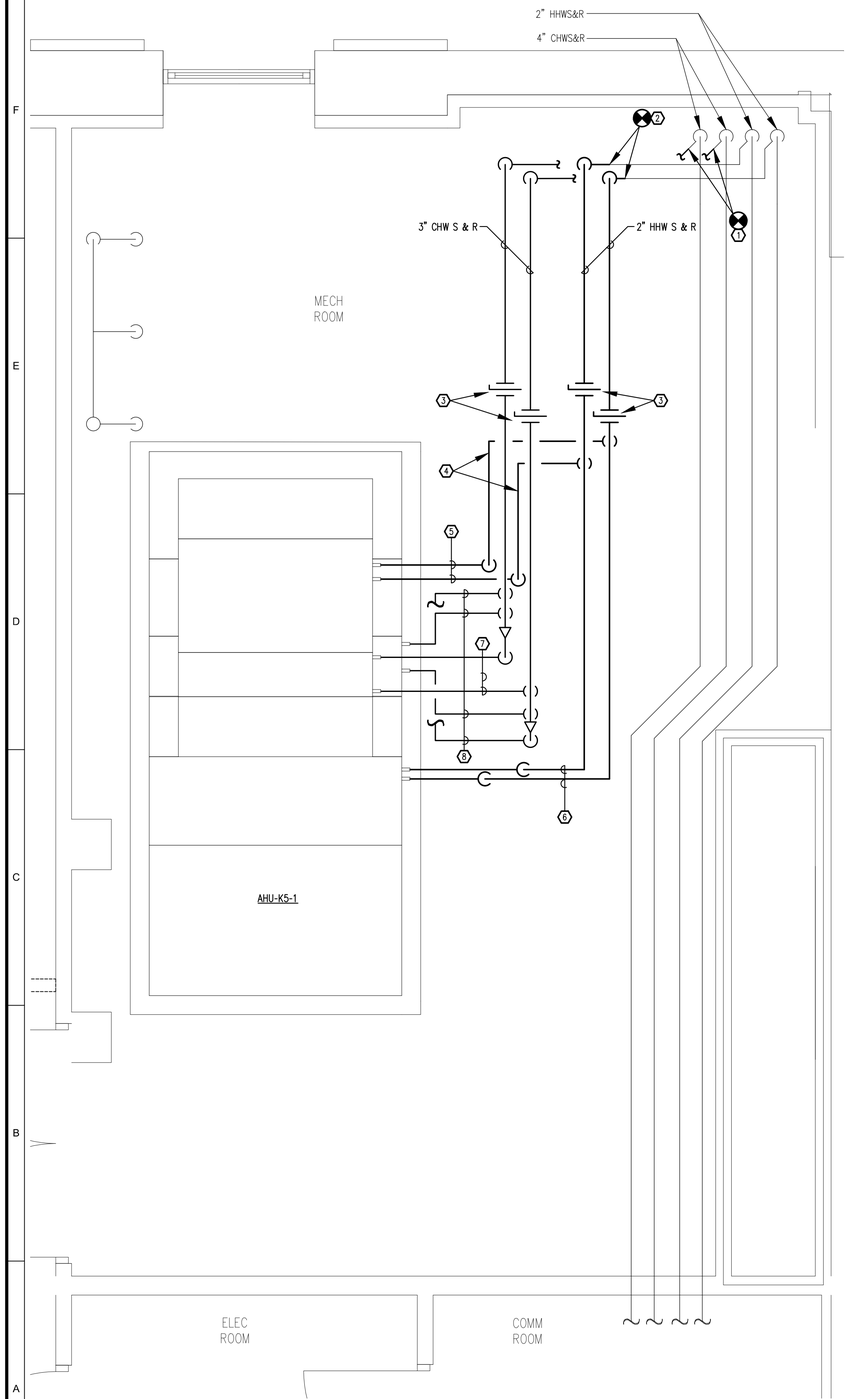
FOURTH FLOOR - NEW WORK - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE SPECIFIC PROJECT INTENDED IS PROHIBITED WITHOUT PRIOR WRITTEN PERMISSION FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

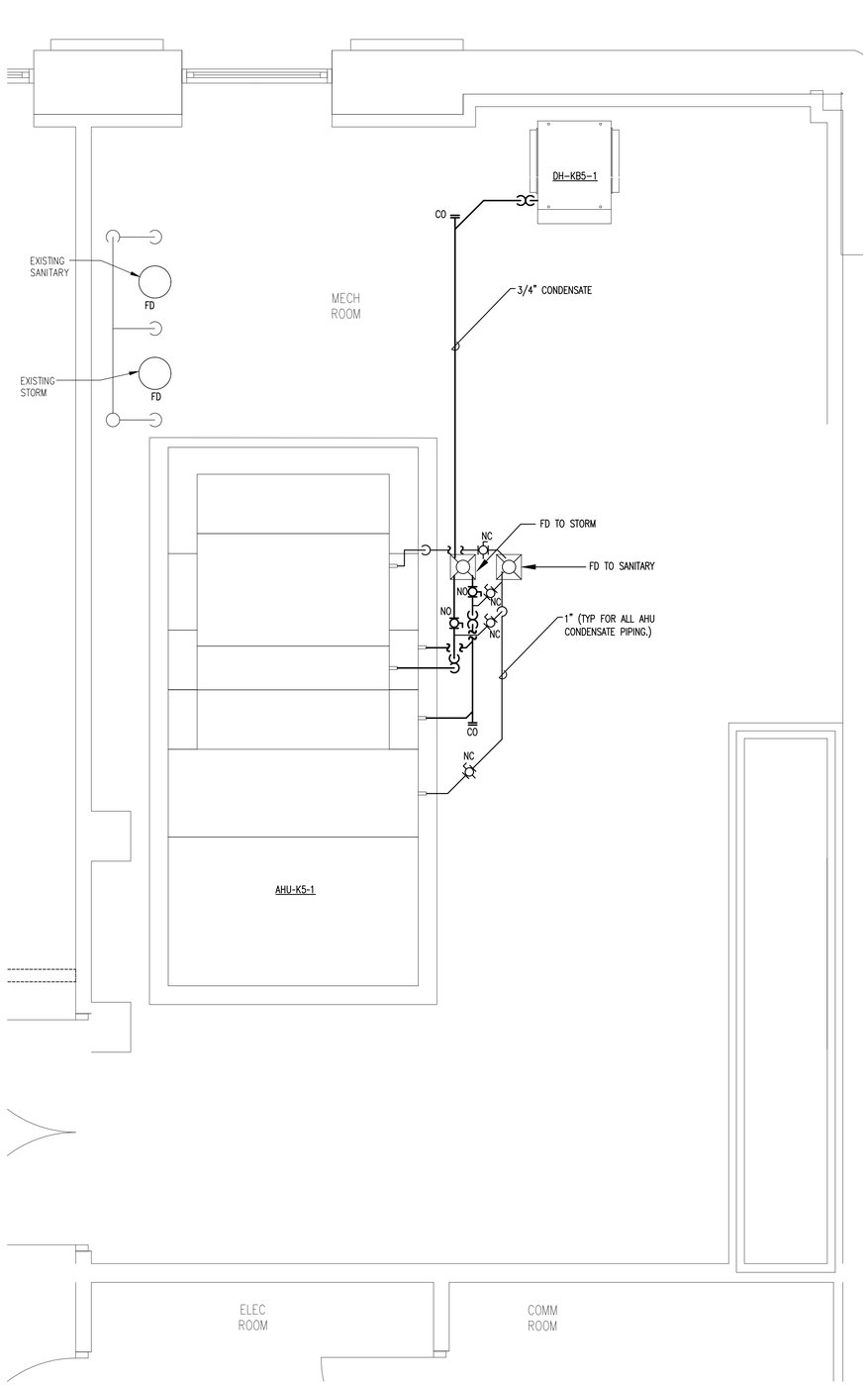
REVIEWED BY: CHA DRAWN BY: RDA

M405



PARTIAL FIFTH FLOOR PLAN - NEW WORK - HVAC PIPING

SCALE: 1/2"=1'-0"



PARTIAL FIFTH FLOOR PLAN - NEW WORK - CONDENSATE AND SANITARY PIPING

SCALE: 1/2"=1'-0"

MECHANICAL NOTES:

1. CONNECT TO EXISTING 4" TEES IN EXISTING CHWS & R PIPING. REMOVE AND REPLACE INSULATION AND JACKETING AS REQUIRED. STACK PIPES UNDER HHW PIPING, REDUCE TO 3" AND TURN UP, ABOVE DUCTWORK TIGHT TO THE BOTTOM OF THE JOISTS.
2. CONNECT TO EXISTING 2" HHWS & R PIPING. REMOVE AND REPLACE INSULATION AND JACKETING AS REQUIRED. TURN UP, ABOVE DUCTWORK TIGHT TO THE BOTTOM OF THE JOISTS.
3. LOCATE SHUT-OFF VALVES IN GAP BETWEEN SUPPLY AND RETURN AIR DUCTS. PROVIDE CHAIN WHEEL OPERATORS
4. ROUTE HHWS & R PIPE AROUND DUCT ELBOW.
5. ROUTE 1.25" HHWS & R PIPES TO OA PRE-HEAT COIL. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
6. ROUTE 2" HHWS & R PIPES TO RE-HEAT COIL. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
7. ROUTE 2" CHWS & R PIPES TO OA CHW COOLING COIL. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.
8. 70/30 SPLIT COOLING COIL REQUIRES TWO SEPARATE VALVETRAINS. ROUTE 2" CHWS & R PIPES TO THE 70% COIL HEADER. ROUTE 1.5" CHWS & R PIPES TO THE 30% COIL HEADER. REFER TO DETAILS AND SCHEMATICS FOR VALVETRAIN REQUIREMENTS. DO NOT BLOCK AHU MAINTENANCE ACCESS.

GENERAL NOTES:

1. LOCATE ALL SERVICEABLE ITEMS ACCESSIBLE.
2. PROVIDE AUTO AIR VENTS AT ALL HIGH POINTS IN PIPING. AIR VENT DISCHARGE PIPING SHALL BE PIPED TO NEAREST FLOOR DRAIN.

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

PARTIAL FIFTH FLOOR PLAN - NEW WORK - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M406.1

LEGEND:

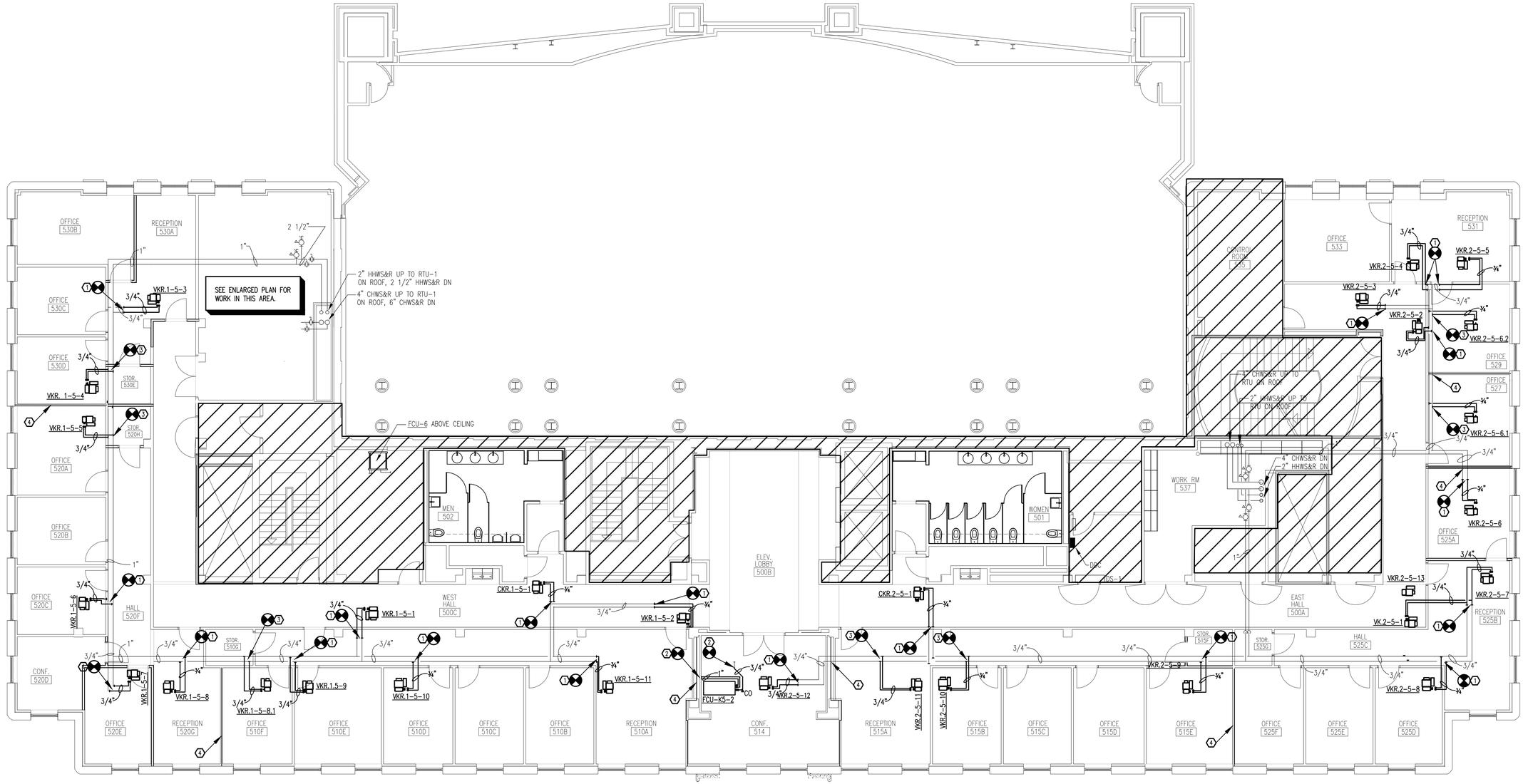
NOT IN PROJECT SCOPE.

GENERAL NOTES:

1. LOCATE ALL SERVICEABLE ITEMS ACCESSIBLE.
2. PROVIDE AUTO AIR VENTS AT ALL HIGH POINTS IN PIPING. AIR VENT DISCHARGE PIPING SHALL BE PIPED TO NEAREST FLOOR DRAIN.

MECHANICAL NOTES:

1. CONNECT NEW VAV BOX HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK VAV BOX SERVICE ACCESS.
2. CONNECT NEW FCU HHW VALVETRAIN, FLEX HOSES, CONTROL VALVE ETC. TO EXISTING HHW PIPING. REFER TO DETAIL. LOCATE COMPONENTS ACCESSIBLE. DO NOT BLOCK FCU SERVICE ACCESS.
3. PROVIDE NEW 3/4" TEES. REINSULATE AS REQUIRED.
4. NEW/MODIFIED WALL EXTENDS TO STRUCTURE. SEAL ALL EXISTING AND NEW PENETRATIONS. FIELD VERIFY LOCATIONS AND QUANTITIES PRIOR TO BID.



FIFTH FLOOR - NEW WORK- HVAC PIPING

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

N

Dodstone Architects

3011-1 Powell Road
Tallahassee, FL 32308

850.656.7326

CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850)-422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

FIFTH FLOOR - NEW WORK - HVAC PIPING

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY COPYRIGHT BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT FOR WHICH THEY WERE PREPARED WITHOUT PRIOR WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.

©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M406

SEQUENCE OF OPERATION

GENERAL

SEQUENCE OF OPERATION IS HEREBY DEFINED AS THE MANNER AND METHOD BY WHICH CONTROLS FUNCTION. REQUIREMENTS FOR EACH TYPE OF CONTROL SYSTEM OPERATION ARE SPECIFIED IN THIS SECTION.

ALL SETPOINTS SHALL BE USER ADJUSTABLE. PROGRAMMING SHALL HAVE SUFFICIENT RANGES, DEADBANDS, ETC. TO PREVENT EXCESSIVE CYCLING AND/OR UNSTABLE CONTROL.

EACH ANALOG SENSOR (TEMPERATURE, HUMIDITY, PRESSURE, FLOW, ETC.) SHALL HAVE ADJUSTABLE HIGH AND LOW LIMIT ALARM SETPOINTS. WHENEVER A SETPOINT IS EXCEEDED, THE DDC SHALL SEND AN ALARM MESSAGE TO THE BUILDING (AND OFF-SITE MAINTENANCE) EMCS WORKSTATION(S). THE ALARM SHALL REMAIN ACTIVE UNTIL THE SENSOR REPORTS TO THE DDC THAT THE READING IS IN THE NORMAL RANGE.

ALL ALARMS SHALL BE INTERLOCKED WITH THE ASSOCIATED EQUIPMENT SO THAT ALARMS SHALL BE SUPPRESSED WHEN THE EQUIPMENT OR SYSTEM IS INACTIVE. STATUS ALARMS SHALL HAVE A ADJUSTABLE TIME DELAY SET LONG ENOUGH TO ALLOW THE EQUIPMENT STATUS TO BE SENSED TO HELP PREVENT NUISANCE ALARMS. ANALOG SENSOR ALARMS SHALL HAVE A TIME DELAY AS WELL AS AN ADJUSTABLE DEADBAND TO PREVENT TOGGLING BETWEEN NORMAL AND ALARM STATES. MEANS SHALL BE PROVIDED TO THE OPERATOR TO MANUALLY SUPPRESS EACH ALARM AND TO ADJUST ALARM LIMITS.

SEE EQUIPMENT SCHEMATICS FOR ADDITIONAL REQUIREMENTS.

AIR-SIDE CONTROL SEQUENCES

AHU (TYPICAL FOR AHU-K1-2 & AHU-K5-1)

EACH AHU WILL BE CONTROLLED BY A STAND-ALONE DDC CONTROLLER. THE EMCS SHALL START/STOP THE AHU THROUGH THE AUTOMATIC CIRCUIT OF THE AHU STARTER. THE EMCS SHALL START/STOP THE AHU BASED ON TIME SCHEDULES, COMMANDS GENERATED BY THE DDC CONTROLLER, THE EMCS OR BY REMOTE COMMANDS FROM BUILDING (AND OFF SITE MAINTENANCE) EMCS WORKSTATION(S). AHU POSITIVE RUN STATUS SHALL BE REPORTED TO THE EMCS VIA CURRENT SENSOR RELAYS OR DIFFERENTIAL PRESSURE SWITCH AS SHOWN. WHEN THE AHU IS "OFF", THE EMCS SHALL POSITION THE AHU CONTROL VALVES AND DAMPERS TO THE STATIC OR DEFAULT SETTING.

A. SUPPLY AIR FAN(S)

WHEN THE AHU IS CALLED TO RUN, THE EMCS SHALL MODULATE THE VARIABLE SPEED DRIVE (VSD) (VIA PID ALGORITHMS) TO MAINTAIN A CONSTANT SPACE TEMPERATURE SETPOINT. IF MULITPLE SPACE TEMPERATURE SENSORS ARE SHOWN, THE EMCS SHALL POLL THE SENSORS AND MODULATE THE VSD TO SATISFY THE WORST CASE CONDITION. ON A DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE VSD SHALL MODULATE TO A MINIMUM POSITION (30% ADJUSTABLE). THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT.

IN HEATING MODE, THE VSD SHALL MODULATE TO MAINTAIN MINIMUM SPACE TEMPERATURE SETPOINT. ON A DROP IN TEMPERATURE BELOW THE MINIMUM SPACE TEMPERATURE SETPOINT, THE VSD SHALL MODULATE TO A MAXIMUM POSITION (100% ADJUSTABLE). THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT.

IF ONE OR MORE FANS FAIL TO START, AN ALARM SIGNAL WILL BE SENT TO THE BUILDING EMCS WORKSTATION(S) AND OPCON; THE VSD SHALL ADJUST THE SPEED OF THE REMAINING FANS TO MAINTAIN SPACE TEMPERATURE SETPOINT.

IN THE EVENT OF A VSD FAILURE, AN ALARM SIGNAL WILL BE SENT TO THE BUILDING EMCS WORKSTATION(S) AND OPCON; THE EMCS SHALL AUTOMATICALLY START THE REDUNDANT VSD.

WHEN THE AHU IS STARTED IN THE OPTIMUM START MODE, UNOCCUPIED MODE, OR SAFETY MODE, THE SA FAN(S) MAXIMUM CFM WILL BE LIMITED TO THE RA CFM INDICATED ON THE AHU SCHEDULE. AT THE SCHEDULED OCCUPIED TIME, THE SYSTEM WILL RETURN TO NORMAL OPERATION AND MODULATE THE FAN(S) TO MAINTAIN SPACE TEMPERATURE SETPOINT AS REQUIRED.

B. OUTSIDE AIR FLOW

WHEN THE AHU IS CALLED TO RUN IN THE OPTIMUM START MODE OR UNOCCUPIED MODE, THE RETURN AIR DAMPER(S) WILL BE POSITIONED FULLY OPEN AND THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED. AT THE SCHEDULED OCCUPIED TIME, THE OUTSIDE AIR DAMPER WILL OPEN AND MODULATE IN CONJUNCTION WITH RETURN AIR DAMPER TO MAINTAIN A CONSTANT MINIMUM OUTSIDE AIR FLOW AND CO2 LEVEL AT OR BELOW 800 PPM (ADJ.). THE EMCS SHALL TREND THE OUTSIDE AIR FLOW (CFM).

WHEN IN UNOCCUPIED MODE, IF CO2 LEVEL RISES ABOVE 800 PPM (ADJUSTABLE), THE SYSTEM SHALL OPERATE IN THE OCCUPIED MODE UNTIL THE CO2 LEVEL HAS DROPPED 10% BELOW THE CO2 SETPOINT.

THE EMCS SHALL CONTINUALLY TREND THE CO2 PPM LEVEL. IF THE PPM LEVEL EXCEEDS 800 PPM FOR A PERIOD OF TIME (ADJUSTABLE), AN ALARM SIGNAL WILL BE SENT TO THE BUILDING (AND OFF SITE MAINTENANCE) EMCS WORKSTATION(S).

SEE SPECIFIC SEQUENCE OF OPERATION AND MISCELLANEOUS CONTROL SEQUENCES BELOW FOR ADDITIONAL REQUIREMENTS.

C. OUTSIDE AIR PRE-HEAT COIL

WHEN THE AHU IS RUNNING IN A MODE THAT REQUIRES OA FLOW, AND THE ENTERING OA TEMPERATURE IS 50°F (ADJ.) OR BELOW, THE EMCS SHALL CYCLE THE BOILER(S) ON AND THE HEATING COIL VALVE SHALL MODULATE TO MAINTAIN A CONSTANT COIL LEAVING AIR TEMPERATURE (55°F ADJUSTABLE). THE HEATING COIL VALVE SHALL SHUT WHENEVER THE ACTUAL LEAVING AIR TEMPERATURE IS ABOVE THE LEAVING AIR TEMPERATURE SETPOINT. WHEN THE AHU IS OFF, THE HEATING COIL VALVE SHALL SHUT.

D. OUTSIDE AIR COOLING COIL

WHEN THE AHU IS RUNNING IN A MODE THAT REQUIRES OA FLOW, AND THE ENTERING OA TEMPERATURE IS 60°F (ADJ.) OR ABOVE, THE OA COOLING COIL VALVE SHALL MODULATE TO MAINTAIN A CONSTANT COIL LEAVING AIR TEMPERATURE SETPOINT (TEMPERATURE AS SCHEDULED (ADJUSTABLE)). THE OA COOLING COIL VALVE SHALL SHUT WHENEVER THE ACTUAL LEAVING AIR TEMPERATURE IS BELOW THE LEAVING AIR TEMPERATURE SETPOINT. WHEN THE AHU IS OFF, THE OA COOLING COIL VALVE SHALL SHUT.

E. RETURN AIR SPLIT COOLING COILS

WHEN THE AHU IS RUNNING, THE EMCS SHALL STAGE THE SPLIT COOLING COILS AND THE COOLING COIL VALVES SHALL MODULATE TO MAINTAIN A MAXIMUM SCHEDULED SUPPLY AIR TEMPERATURE SETPOINT. (EMCS CONTRACTOR SHALL INCLUDE SETPOINTS AND DEADBANDS TO PREVENT EXCESSIVE STAGING OF COILS. INCLUDE MEANS TO ENGAGE AND DISENGAGE COILS.) THE COOLING COIL VALVES SHALL SHUT WHENEVER THE ACTUAL SUPPLY AIR TEMPERATURE IS BELOW THE MAXIMUM SUPPLY AIR TEMPERATURE SETPOINT. WHEN THE AHU IS OFF, THE COOLING COIL VALVES SHALL SHUT. (NOTE: IN NORMAL OPERATION, WHEN ALL CHW COILS ARE OPERATIONAL, THE AHU'S SPLIT COIL CONTROL VALVES SHALL MODULATE TOGETHER.

THE MAXIMUM SUPPLY AIR TEMPERATURE SETPOINT SHALL BE RESET UP WHENEVER THE VSD IS AT A MINIMUM AND THE ACTUAL SPACE TEMPERATURE IS BELOW THE MAXIMUM SPACE TEMPERATURE SETPOINT.

IF SPACE TEMPERATURE CONTINUES TO DROP BELOW THE MINIMUM SPACE TEMPERATURE SETPOINT (AND SPACE HUMIDITY IS BELOW SETPOINT), THE COOLING COIL VALVES WILL SHUT AND THE SYSTEM WILL TRANSITION TO HEATING MODE. THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE ABOVE THE MAXIMUM SPACE TEMPERATURE SETPOINT. THE USER SHALL ALSO HAVE THE ABILITY TO TOGGLE (ON SCREEN) THE MODE OF OPERATION (I.E. HEATING OR COOLING).

THE EMCS SHALL MAINTAIN AN "UNOCCUPIED" MAXIMUM SPACE TEMPERATURE AND HUMIDITY SETPOINTS. IF THE UNOCCUPIED MAXIMUM SPACE TEMPERATURE OR HUMIDITY SETPOINT (OF ANY SENSOR IF MULTIPLE SENSORS INSTALLED) IS EXCEEDED, THE EMCS SHALL CYCLE THE UNIT ON TO MAINTAIN THE UNOCCUPIED MAXIMUM SPACE TEMPERATURE AND HUMIDITY SETPOINT.

F. REHEAT COILS

WHEN THE AHU IS RUNNING (DURING HEATING MODE), THE HEATING COIL VALVE SHALL MODULATE TO MAINTAIN A MINIMUM COIL LEAVING AIR TEMPERATURE SETPOINT (AS SCHEDULED; ADJUSTABLE). THE HEATING COIL VALVE SHALL SHUT WHENEVER THE ACTUAL LEAVING AIR TEMPERATURE IS ABOVE THE LEAVING AIR TEMPERATURE SETPOINT. WHEN THE AHU IS OFF, THE HEATING COIL VALVE SHALL SHUT.

REFER TO HUMIDITY CONTROL SEQUENCE (THIS SHEET), FOR HEATING COIL CONTROL FOR RE-HEAT.

G. HUMIDITY CONTROL

THE EMCS SHALL CONTINUOUSLY CALCULATE AND MONITOR SPACE RELATIVE HUMIDITY. IF THE SPACE RELATIVE HUMIDITY RISES ABOVE 60% (ADJ.), THE EMCS SHALL:

ADJUST THE SUPPLY AIR TEMPERATURE LEAVING THE COOLING COIL DOWNWARD TO SCHEDULED LEAVING AIR TEMP. AND STAGE THE SPLIT COOLING COILS AS REQUIRED, WITH ONE COOLING COIL BEING THE BASE LOADED COIL; CYCLE THE BOILER(S) ON AND MODULATE THE AHU RE-HEAT COIL VALVE TO MAINTAIN SPACE TEMPERATURE SETPOINT;

IF THE SPACE RELATIVE HUMIDITY DECREASES BELOW SETPOINT (INCLUDE DEADBANDS TO AVOID CYCLING), THE BOILER(S) WILL CYCLE OFF LINE (IF NOT REQUIRED ELSEWHERE), AHU RE-HEAT COIL VALVE WILL CLOSE AND THE AHU WILL RESUME NORMAL OPERATION.

H. SAFETIES

ON DETECTION OF SMOKE, THE AHU DUCT SMOKE DETECTORS WILL SIGNAL THE FIRE ALARM PANEL AND STOP THE AHU SUPPLY AIR FAN(S). COORDINATE WITH FIRE ALARM CONTRACTOR. AN ALARM SIGNAL WILL BE SENT TO THE BUILDING (AND OFF SITE MAINTENANCE) EMCS WORKSTATION(S). FANS WILL BE RESTARTED WHEN THE FIRE ALARM CIRCUIT IS RESET. (COORDINATE WITH FIRE ALARM CONTRACTOR FOR ALL LIFE SAFETY WORK SCOPE).

COORDINATE W/ OWNER FOR FINAL FREEZE PROTECTION SEQUENCE. AS A LAST RESORT, THE FOLLOWING SHALL OCCUR:

WHEN THE OA TEMPERATURE DROPS BELOW 37°F (ADJUSTABLE), THE AHU WILL BE CYCLED ON, THE HEATING SYSTEM (BOILERS) WILL BE CYCLED ON AND THE HOT WATER COIL VALVES SHALL MODULATE TO MAINTAIN MINIMUM LEAVING AIR TEMPERATURE SETPOINT. IF ENTERING CHW COIL TEMPERATURE DROPS BELOW 40°F, THE AHU WILL SHUT DOWN, THE OA DAMPER WILL POSITION FULLY CLOSED, CHW & HHW VALVES SHALL OPEN AND THE CHW & HHW PUMPS SHALL START AND CIRCULATE WATER THROUGH THE COILS. SOUND CRITICAL ALARM TO EMCS OPERATIONS.

I. UV-C LIGHT CONTROL

WHEN THE AHU IS CALLED TO RUN, THE UV-C CONTROL CIRCUIT SHALL SIGNAL THE RELAY TO BRING THE UV-C LIGHTS ON. IF THE FAN(S) FAIL TO START, THE UV-C LIGHTS SHALL REMAIN OFF.

WHEN THE AHU IS OFF THE UV-C LIGHTS SHALL BE OFF. WHEN THE UV LIGHT AHU ACCESS DOOR IS OPEN, FACTORY PROVIDED CUTOFF SWITCHES SHALL INTERRUPT POWER TO THE UV-C LIGHTS, TURNING THEM OFF.

THE EMCS SHALL MONITOR UV-C RUN-TIME AND DISPLAY TOTAL ON GRAPHICS FOR EACH AHU. TOTAL RUN-TIME SHALL BE RESETABLE BY THE USER WHEN BULBS ARE CHANGED. EMCS SHALL SEND AN ALARM MESSAGE WHEN BULBS REACH A USER DEFINED AND ADJUSTABLE AMOUNT OF RUN TIME.

J. MISCELLANEOUS CONTROL SEQUENCES

REFERENCE MISCELLANEOUS CONTROL SEQUENCES FOR OTHER REQUIRED SEQUENCES OF OPERATION. THESE SEQUENCES SHALL BE PROGRAMMED IN THE SOFTWARE; HOWEVER, THE OWNER MUST BE ABLE TO "TOGGLE" SEQUENCES ON OR OFF. REQUIRED MISCELLANEOUS CONTROL SEQUENCES ARE:

- -SCHEDULED START/STOP
- -OPTIMUM START
- -MORNING WARM-UP CYCLE
- -MORNING COOL-DOWN CYCLE
- -SUPPLY AIR TEMPERATURE RESET W/ HUMIDITY OVERRIDE
- -UNOCCUPIED/OCCUPIED

MISCELLANEOUS CONTROL SEQUENCES:

THE FOLLOWING CONTROL STRATEGIES ARE DEFINED AS REQUIRED FOR THE INITIAL IMPLEMENTATION OF THIS PROJECT BUT ARE NOT TO BE CONSTRUED AS DEFINING ALL AVAILABLE STRATEGIES OF THE EMCS. THE NEW EMCS SHALL ACCOMPLISH THE DEFINED STRATEGIES.

1. SCHEDULED START/STOP:

THE SCHEDULED START/STOP PROGRAM SHALL START AND STOP EQUIPMENT BASED ON THE TIME-OF-DAY AND DAY-OF-WEEK. A FEEDBACK SIGNAL SHALL VERIFY THAT THE COMMAND HAS BEEN CARRIED OUT AND PROVIDE THE EMCS OPERATOR WITH AN ALARM WHEN THE EQUIPMENT FAILS OR IS LOCALLY STARTED OR STOPPED.

2. OPTIMUM START:

THE EMCS SHALL CALCULATE THE OPTIMUM START WARM-UP/COOL DOWN PERIOD REQUIRED TO CONDITION THE SPACE TO TARGET HEATING/COOLING SETPOINTS (NEEDED AT THE SCHEDULED "OCCUPIED" MODE) AS SENSED BY SPACE TEMPERATURE SENSOR(S). THE OPTIMUM START CALCULATION SHALL BE SELF-CORRECTING BASED ON AN AUTOMATIC ANALYSIS OF ACCUMULATED HISTORICAL DATA. CALCULATION ADJUSTMENTS SHALL BE MADE ON A DAILY BASIS. ALL COMPONENTS USED IN THE CALCULATION SHALL BE OPERATOR ADJUSTABLE SETPOINTS. THIS PROGRAM SHALL COMPUTE THE START TIME REQUIRED BASED ON THE ACTUAL SPACE TEMPERATURE, REQUIRED SPACE TEMPERATURE, OUTSIDE AIR TEMPERATURE, AND LENGTH OF TIME THE AHU HAS BEEN OFF.

WHEN THE COMPUTED START TIME IS REACHED, THE EMCS SHALL START THE AHU, MAINTAIN THE OUTSIDE AIR DAMPER CLOSED, AND MODULATE THE HEATING COIL VALVE OR COOLING COIL VALVE(S) TO ATTAIN THE REQUIRED OCCUPIED SPACE TEMPERATURE. WHEN THE SCHEDULED "OCCUPIED" TIME OCCURS, THE AHU SHALL REVERT TO THE NORMAL AHU SEQUENCE OF OPERATION INDICATED.

3. MORNING WARM-UP CYCLE:

WHEN THE AHU IS STARTED, IF THE SPACE TEMPERATURE IS LESS THAN 65°F, THE EMCS SHALL ACTIVATE THE MORNING WARM-UP CYCLE AS FOLLOWS: THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED, THE RETURN AIR DAMPER(S) WILL OPEN TO ALLOW FULL SCHEDULED R.A. FLOW (COORDINATE W/T&B CONTRACTOR), THE RE-HEAT COIL VALVE SHALL MODULATE OPEN, THE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE RAISED TO THE SCHEDULED VALUE (ADJUSTABLE), AND THE VSD WILL MODULATE TO A MINIMUM POSITION.

WHEN THE SPACE TEMPERATURE RISES TO THE OCCUPIED TEMPERATURE SETPOINT, THE EMCS SHALL REVERT TO NORMAL AHU SEQUENCE OF OPERATION AS INDICATED. DURING THIS MODE, THE COOLING COIL VALVE(S) SHALL BE CLOSED.

4. MORNING COOL-DOWN CYCLE:

WHEN THE AHU IS STARTED, IF THE SPACE TEMPERATURE IS MORE THAN 82°F, THE EMCS SHALL ACTIVATE THE MORNING COOL-DOWN CYCLE AS FOLLOWS: THE OUTSIDE AIR DAMPER SHALL REMAIN CLOSED, THE RETURN AIR DAMPERS WILL OPEN TO ALLOW FULL SCHEDULED R.A. FLOW (COORDINATE W/T&B CONTRACTOR), THE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE LOWERED TO THE SCHEDULED VALUE (ADJUSTABLE), AND THE VSD WILL BE MODULATED FOR FULL RA FLOW. WHEN THE SPACE TEMPERATURE LOWERS TO 76°F (ADJ.), THE EMCS SHALL REVERT TO THE NORMAL AHU SEQUENCE OF OPERATION AS INDICATED. DURING THIS MODE, THE HEATING COIL VALVE(S) SHALL BE CLOSED.

5. SUPPLY AIR TEMPERATURE RESET WITH HUMIDITY OVERRIDE

IN THE COOLING MODE, THE SUPPLY AIR TEMPERATURE SETPOINT SHALL BE ADJUSTED BASED ON A LINEAR RESET SCHEDULE. THE EMCS SHALL MONITOR THE SPACE TEMPERATURE SENSOR(S). WHENEVER ALL SPACE TEMPERATURE SENSOR(S) ARE AT OR BELOW THE SPACE TEMPERATURE SETPOINT(S), AND THE FAN SPEED IS AT A MINIMUM, THE SUPPLY AIR TEMPERATURE SHALL BE RESET UP ONE DEGREE FOR EACH DEGREE THAT THE SPACE TEMPERATURE IS BELOW SETPOINT. USER DEFINED LIMITS ON RESET VARIANCE IS REQUIRED.

THE SUPPLY AIR TEMPERATURE RESET ALGORITHM SHALL BE INTERRUPTED IF THE HUMIDITY IN THE SPACE (OR RETURN AIR DUCT) REACHES AN UPPER ADJUSTABLE LIMIT. IF THE HUMIDITY EXCEEDS THE UPPER ALLOWABLE LIMIT, THE EMCS SHALL ADJUST THE SUPPLY AIR TEMPERATURE LEAVING THE COOLING COIL DOWNWARD AND STAGE THE SPLIT COOLING COILS UNTIL THE SPACE HUMIDITY LEVEL FALLS BELOW THE UPPER LIMIT. THE EMCS SHALL CYCLE THE BOILER(S) ON, AND MODULATE THE AHU RE-HEAT COIL VALVE TO MAINTAIN SPACE TEMPERATURE SETPOINT. IF THE HUMIDITY DROPS FURTHER IN THE SPACE, THE SUPPLY AIR TEMPERATURE RESET SEQUENCE OF OPERATION SHALL BE REACTIVATED.

6. UNOCCUPIED / OCCUPIED:

THE EMCS SHALL MAINTAIN AN "UNOCCUPIED" SPACE TEMPERATURE SETPOINT. REFER TO "SPECIFIC SEQUENCE OF OPERATON", BELOW. IF THE ACTUAL SPACE TEMPERATURE EXCEEDS THE UNOCCUPIED SPACE TEMPERATURE SETPOINT, THE EMCS SHALL CYCLE THE UNIT ON TO MAINTAIN THE UNOCCUPIED SPACE TEMPERATURE SETPOINT.

7. SPACE TEMPERATURE CONTROL:

THE CONTROL SYSTEM SHALL MAINTAIN SPACE TEMPERATURE SETPOINTS AS INDICATED IN THE "SPECIFIC SEQUENCE OF OPERATION" BELOW.

SPECIFIC SEQUENCE OF OPERATION:

A. AHU (TYPICAL):

1. SPACE TEMPERATURE SETPOINTS:
   MAXIMUM SPACE TEMPERATURE (SUMMER MODE) = 75.0°F (ADJ)
   MINIMUM SPACE TEMPERATURE (WINTER MODE) = 70.0°F (ADJ)

   UNOCCUPIED SPACE TEMPERATURE (SUMMER MODE) = 82.0°F (ADJ)
   UNOCCUPIED SPACE TEMPERATURE (WINTER MODE) = 60.0°F (ADJ)
2. HOURS OF OPERATION:
   HOUR OF OPERATION = COORDINATE WITH OWNER FOR DAILY AND WEEKLY HOURS OF OPERATION REQUIRED.
3. VENTILATION CONTROL / EQUIPMENT INTERLOCK:
   IN OCCUPIED MODE, SUPPLY AND EXHAUST FANS SHALL OPERATE IN CONJUNCTION W/THIER ASSOCIATED AHU'S;

AHU	Associated Exhaust Fans	Dehumidifier Units
AHU-K1-2	EF-K1-2	DH-KB1-2
AHU-K5-1	EF-KR-4	DH-KB5-1

WHEN THE SYSTEM IS OPERATING IN UNOCCUPIED MODE, THE EF'S SHALL REMAIN OFF UNTIL THE SYSTEM IS CALLED TO RUN IN OCCUPIED MODE. OA DAMPERS SHALL REMAIN CLOSED.

B. AHU-K1-2 AND AHU-K5-1 VENTILATION AIR FLOW CONTROL:

SEQUENCE A. – UNOCCUPIED MODE:
WHEN THE SYSTEM IS OPERATING IN THE UNOCCUPIED MODE, THE OA DAMPER(S) SHALL REMAIN CLOSED, AND THE ASSOCIATED EF'S SHALL REMAIN OFF UNTIL THE SYSTEM IS CALLED TO RUN IN THE OCCUPIED MODE, OR THE CO2 RISES ABOVE SETPOINT. IF EITHER OF THESE OCCUR, THE SYSTEM SHALL OPERATE UNDER THE SEQUENCES BELOW.

SEQUENCE B. – OCCUPIED MODE; LOW CO2:
WHEN THE SYSTEM IS OPERATING IN THE OCCUPIED MODE, AND THE SPACE CO2 IS AT OR BELOW 800PPM (ADJ.) THE AHU SHALL MODULATE THE OA DAMPER (IN CLOJUNCTION WITH THE RA DAMPER(S) TO MAINTAIN MINIMUM BUILDING COMPONENT OA FLOW AS FOLLOWS: AHU-K1-2 = 215 CFM OA; AHU-K5-1 = 1100 CFM OA.

UNDER THIS MODE, THE ASSOCIATED EF SHALL BE CALLED TO RUN AT LOW SPEED. T&B ASSOCIATED EF TO LOW SPEED CONDITION AS FOLLOWS: EF-K1-2 = 215 CFM EA; EF-K5-1 = 1100 CFM EA.

SEQUENCE C. – OCCUPIED MODE; HIGH CO2:
WHEN THE SYSTEM IS OPERATING IN THE OCCUPIED MODE, AND THE SPACE CO2 RISES ABOVE 800PPM (ADJ.), THE AHU SHALL MODULATE THE OA DAMPER (IN CONJUNCTION WITH THE RA DAMPER(S) TO MAINTAIN FULL SCHEDULED OA FLOW AS FOLLOWS: AHU-K1-2 = 705 CFM OA; AHU-K5-1 = 3575 CFM OA.

UNDER THIS MODE, THE ASSOCIATED EF SHALL BE CALLED TO RUN AS SCHEDULED. EF-K1-2 = 605 CFM OA; AHU-K5-1 = 3375 CFM OA.

EXHAUST FAN EF-K1-2

WHEN AHU-K1-2 IS CALLED TO RUN IN A MODE THAT REQUIRES OA, EF-K1-2 SHALL CYCLE ON-LINE AND RUN AT LOW OR SCHEDULED SPEED (REFER TO VENTILATION SEQUENCES ABOVE). WHEN AHU-K1-2 IS OFF OR IS OPERATING IN A MODE THAT DOES NOT REQUIRE OA, EF-K1-2 SHALL BE OFF.

REFER TO VENTILATION CONTROL TABLE AND VENTILATION SEQUIENCES.

IF THE FAN FAILS TO OPERATE, AN ALARM SIGNAL WILL BE SENT TO THE BUILDING EMCS AND TO OPCON.

EXHAUST FAN EF-KR-4

WHEN AHU-K5-1 IS RUNNING IN A MODE THAT REQUIRES OA, EF-KR-4 MOTORIZED DAMPER SHALL OPEN, EF-KR-4 SHALL CYCLE ON-LINE, AND RUN AT LOW OR SCHEDULED SPEED (REFER TO VENTILATION SEQUENCES ABOVE). THE EMCS SHALL MONITOR EXHAUST AIR FLOW.

REFER TO VENTALITION CONTROL TABLE AND VENTILATION SEQUENCES. REFER TO EF SCHEMATIC.

IF THE FAN FAILS TO OPERATE, AN ALARM SIGNAL WILL BE SENT TO THE BUILDING EMCS AND TO OPCON.

NOTE: PRIOR TO CALLING FOR SUBSTANTIAL COMPLETION, EMCS CONTRACTOR SHALL INCLUDE "10 DAY OPERATIONAL TREND LOG". LOG SHALL SHOW EMCS FUNCTIONED PROPERLY, MAINTAINED SETPOINTS, ETC. DURING THE 10 DAY TEST.

TYPICAL FCU

EACH FCU SHALL BE CONTROLLED BY A STAND-ALONE DDC CONTROLLER. THE EMCS SHALL START/STOP THE FCU THROUGH THE AUTOMATIC CIRCUIT OF THE FCU STARTER. THE EMCS SHALL START/STOP THE FCU BASED ON TIME SCHEDULES, COMMANDS GENERATED BY THE DDC CONTROLLER, THE EMCS OR BY REMOTE COMMANDS FROM OPCON. FCU POSITIVE RUN STATUS SHALL BE REPORTED TO THE EMCS VIA CURRENT SENSOR RELAYS OR DIFFERENTIAL PRESSURE SWITCH AS SHOWN. WHEN THE FCU IS "OFF", THE EMCS SHALL POSITION THE FCU CONTROL VALVES TO THE STATIC OR DEFAULT SETTING.

A. SUPPLY AIR FAN
THE FCU WILL BE STARTED/STOPPED BASED ON AN OCCUPIED/UNOCCUPIED SCHEDULE. IF THE FAN FAILS TO OPERATE, AN ALARM SIGNAL WILL BE SENT TO THE BUILDING EMCS AND TO OPCON.

B. COOLING COIL
WHEN THE FCU IS RUNNING, THE COOLING COIL VALVE SHALL MODULATE TO MAINTAIN A MAXIMUM SPACE TEMPERATURE SETPOINT. THE COOLING COIL VALVE SHALL SHUT WHENEVER THE ACTUAL SPACE TEMPERATURE IS BELOW THE MAXIMUM SPACE TEMPERATURE SETPOINT. WHEN THE FCU IS OFF, THE COOLING COIL VALVE SHALL SHUT.

THE EMCS SHALL MAINTAIN AN "UNOCCUPIED" MAXIMUM SPACE TEMPERATURE SETPOINT.

C. FILTER
FILTERS SHALL BE MONITORED BY THE EMCS VIA DIFFERENTIAL PRESSURE SENSORS. EACH FILTER SHALL HAVE A SOFTWARE ADJUSTABLE SETPOINT. WHENEVER THE DIFFERENTIAL PRESSURE RISES ABOVE THE SETPOINT, THE DDC SHALL SEND AN ALARM MESSAGE TO THE BUILDING EMCS AND TO OPCON.

VARIABLE AIR VOLUME BOXES:

EACH VARIABLE AIR VOLUME (VAV) BOX WILL BE CONTROLLED BY A STAND-ALONE DDC CONTROLLER. THE EMCS SHALL MONITOR THE SPACE TEMPERATURE, SPACE RELATIVE HUMIDITY, DISCHARGE TEMPERATURE, AND THE VAV AIR FLOW.

THE EMCS SHALL POSITION THE VAV DAMPER TO MAINTAIN A CONSTANT SPACE TEMPERATURE SETPOINT. ON A DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE VAV DAMPER WILL BE MODULATED TOWARD THE CLOSED POSITION. ON A FURTHER DROP IN SPACE TEMPERATURE, THE VAV DAMPER WILL GO TO THE MINIMUM POSITION. IF SPACE TEMPERATURE CONTINUES TO DROP, THE HOT WATER VALVE SHALL MODULATE OPEN TO MAINTAIN SPACE TEMPERATURE SETPOINT. THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE ABOVE SETPOINT.

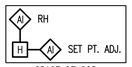
CONSTANT VOLUME BOXES:

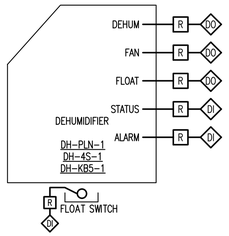
EACH CONSTANT VOLUME (CV) BOX WILL BE CONTROLLED BY A STAND-ALONE DDC CONTROLLER. THE EMCS SHALL MONITOR THE SPACE TEMPERATURE, SPACE RELATIVE HUMIDITY, DISCHARGE TEMPERATURE, AND CV AIR FLOW.

THE EMCS SHALL POSITION THE CV BOX DAMPER TO MAINTAIN A CONSTANT AIR FLOW SETPOINT. ON A DROP IN SPACE TEMPERATURE BELOW SETPOINT, THE HOT WATER VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT (IF HEATING SYSTEM IS ENABLED). IF HEAT SYSTEM IS NOT ENABLED AND TEMPERATURE DROPS BELOW MINIMUM SPACE TEMPERATURE SETPOINT FOR A SPECIFIED TIME, AN ALARM MESSAGE SHALL BE SENT TO THE USER TO ENABLE BOILERS.

EMCS GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE ALL CONTROLS INTERFACE WORK OF HVAC EQUIPMENT WITH EQUIPMENT MANUFACTURERS SO TO ENSURE:
   A. WARRANTIES WILL REMAIN VALID
   B. INTERFACE METHOD IS APPROPRIATE FOR PROPER OPERATION OF EQUIPMENT
   C. PROPER EMCS PERFORMANCE
2. CONTRACTOR SHALL PROVIDE POWER (AND CONTROL POWER) TO ALL CONTROL PANELS, CONTROL DEVICES, ACTUATORS, AND ACCESSORIES AS REQUIRED. COORDINATE WITH OWNER FOR ELECTRICAL SERVICE CONNECTION FOR NEW CONTROLS
3. LOCATION OF EMCS CONTROL PANELS SHALL BE COORDINATED WITH OWNER
4. MOUNT ZONE SENSORS OPERABLE CONTROLS 48" ABOVE FINISHED FLOOR, PER ADA REQUIREMENTS.
5. EMCS CONTRACTOR SHALL PROVIDE NEW OR UPDATE THE EXISTING EMCS, GRAPHICS, SEQUENCES, ETC. FOR ALL NEW WORK AND MODIFIED EXISTING WORK ASSOCIATED WITH THIS PROJECT. PROVIDE NEW OR UPDATE EXISTING GRAPHICS/WORKSTATIONS WITH ALL CHANGES TO FLOOR PLANS, ROOM NUMBERS, THERMOSTAT LOCATIONS, VAV BOX LOCATIONS, AHU LOCATIONS, OR ANY OTHER MODIFICATIONS. COORDINATE WITH OWNER FOR FINAL VAV BOX AND AHU TAG NUMBERS.
6. ABOVE CEILINGS ARE RETURN AIR PLENUMS. ALL WIRING SHALL BE PLENUM RATED OR CONTAINED WITHIN CONDUIT. ROUTE WIRING BY FOLLOWING BUILDING LINES AND SUPPORT IN A NEAT WORKMAN LIKE MANNER.
7. CONTROLS SHALL FULLY INTEGRATE/INTERFACE WITH VSD CONTROLLERS. PROVIDE ALL REQUIRED COMMUNICATIONS, HARDWARE, FIRMWARE, AND SOFTWARE TO INTERFACE VSD'S WITH LOCAL EMCS CONTROLLERS AND ON/OFF-SITE WORKSTATION(S). ALL VSD DATA, CONTROL, AND ADJUSTABILITY AVAILABLE AT LOCAL CONTROL PANELS SHALL BE ACCESSIBLE TO REMOTE EMCS WORKSTATION(S).
8. ALL CONTROL VALVES AND DAMPERS SHALL INCLUDE 'ANALOG INPUT' FOR REPORTING POSITION STATUS.
9. ALL CONTROLS ASSOCIATED WITH HVAC EQUIPMENT SHALL REMAIN OPERATIONAL THROUGH LOSS OF NORMAL POWER. PROVIDE ALL REQUIRED BATTERY BACKUP, NON-VOLATILE MEMORY, PROGRAM PROTECTION, AND AUTO RESTORATION AS REQUIRED FOR A FULLY OPERATIONAL CONTROL SYSTEM. PROVIDE FOR AUTO RESTART OF EQUIPMENT WHEN POWER IS RESTORED.
10. ALL CONTROLS WIRING, POWER WIRING, AND CONDUIT SHALL BE CONCEALED (EXCEPT IN MER'S)
11. COORDINATE CLOSELY WITH T&B, MECHANICAL, OPCON, AND CX SUBCONTRACTORS TO FULLY ACCOMPLISH EMCS SCOPE OF WORK.
12. CONTRACT WITH BUILDING FIRE ALARM SYSTEM CONTRACTOR TO COMPLETE ALL FIRE ALARM INTERLOCK/INTERFACE WORK REQUIRED BY THIS PROJECT. MAINTAIN FIRE SYSTEM WARRANTY.
13. COORDINATE WITH DMS FOR EQUIPMENT I.P. ADDRESSES.
14. COORDINATE WITH DMS FOR STANDARD GRAPHIC LAYOUTS. NEW GRAPHICS SHALL HAVE CONSISTENT DMS PRESENTATION 'LOOK'.
15. PRIOR TO CALLING FOR SUBSTANTIAL COMPLETION EMCS CONTRACTOR SHALL INCLUDE "10-DAY OPERATIONAL TREND LOG". LOG SHALL SHOW EMCS FUNCTIONED PROPERLY, MAINTAINED SETPOINTS, ETC. DURING THE 10-DAY TEST.
16. CONTROL SYSTEMS AND CONTROL DEVICES IN AREAS OF THE BUILDING(S) THAT ARE NOT WITHIN THE SCOPE OF THE PROJECT SHALL REMAIN OPERATIONAL. CONTRACTOR SH



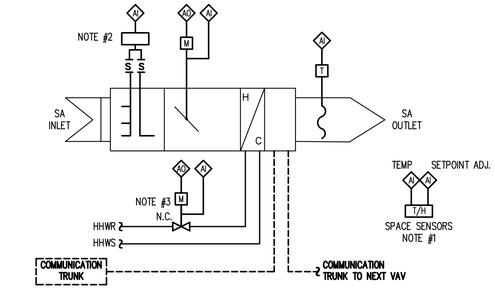


SEQUENCE OF OPERATION

THE EMCS SHALL CONTINUOUSLY MONITOR SPACE RELATIVE HUMIDITY. IF THE SPACE RH RISES ABOVE SET POINT (60% RH USER ADJUSTABLE), THE EMCS SHALL START THE ASSOCIATED AHU FAN(S) (IF NOT ALREADY OPERATIONAL) AND START THE DEHUMIDIFIER. THE DEHUMIDIFIER SHALL CONTINUE TO OPERATE UNTIL THE SPACE RH DROPS BELOW SET POINT (INCLUDING DEAD BANDS TO AVOID CYCLING). IF THE DEHUMIDIFIER FAILS TO START, AN ALARM SIGNAL SHALL BE SENT TO THE EMCS TO ALERT OPERATOR. PROVIDE DRAIN PAN FLOAT SWITCH. DEHUMIDIFIER SHALL SHUT-DOWN ON FLOAT SWITCH ACTIVATION & ALARM OPERATOR.

TYPICAL DEHUMIDIFIER UNIT

NO SCALE

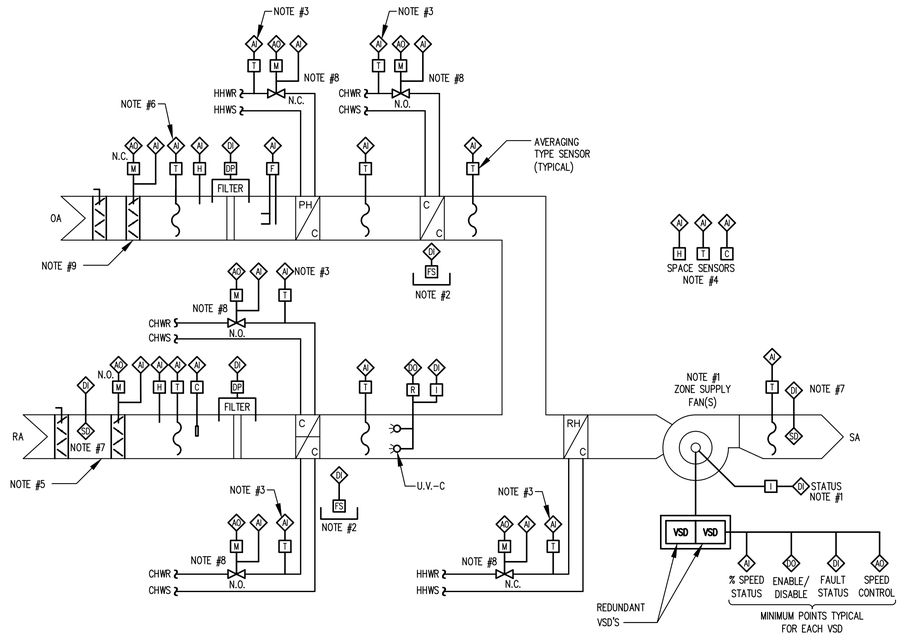


NOT TO SCALE

VARIABLE/CONSTANT AIR VOLUME TERMINAL - HOT WATER

NOTES:

1. COMBINATION TEMPERATURE/HUMIDITY SPACE SENSOR. SEE FLOOR PLAN FOR LOCATION.
2. PRESSURE DIFFERENTIAL INPUT TO EMCS. EMCS SHALL CONVERT TO AIR FLOW.
3. PROVIDE 2-WAY BELIMO PICCV VALVE. REFER TO DETAILS. SIZE VALVES 20% LARGER THAN SCHEDULED FLOW.



AHU CONTROL SCHEMATIC AHU-K1-2 & AHU-K5-1

NOT TO SCALE

NOTES:

1. TYPICAL OF TWO FOR AHU-K5-1.
2. PROVIDE FLOAT SWITCH IN PRIMARY DRAIN PAN. AHU SHALL SHUT DOWN ON FLOAT SWITCH ACTIVATION. (TYP. FOR OA C.C. AND RA C.C.)
3. RETURN WATER TEMPERATURE SENSOR. (DISPLAY ON GRAPHIC)
4. REFER TO FLOOR PLANS FOR LOCATIONS.
5. AHU MANUFACTURER PROVIDED RETURN AIR DAMPER INTEGRAL TO AHU RA MIXING BOX.
6. FREEZE STAT.
7. SMOKE DETECTORS TO BE INSTALLED AND CONNECTED TO FIRE ALARM SYSTEM. COORDINATE WITH ELECTRICAL AND FIRE ALARM CONTRACTOR. REFER TO FLOOR PLANS FOR SMOKE DETECTOR LOCATIONS.
8. PROVIDE 2-WAY BELIMO PICCV VALVE. REFER TO DETAILS. SIZE VALVES 20% LARGER THAN SCHEDULED FLOW
9. ULTRA LOW LEAKAGE OA DAMPER. TAMCO 1500W OR EQUAL; CLASS 1A LEAKAGE RATING.

CONTROL SYMBOL LEGEND

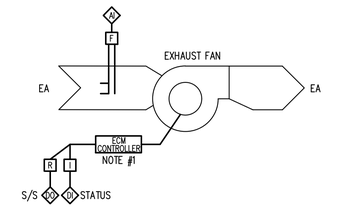
I	CURRENT SENSOR	AO	ANALOG OUTPUT
F	FLOW METER	AI	ANALOG INPUT
T	TEMPERATURE SENSOR	SD	SMOKE DETECTOR
H	RELATIVE HUMIDITY SENSOR	MS	MOISTURE SENSOR
C	CARBON DIOXIDE SENSOR	N.C.	NORMALLY CLOSED
M	MOTOR ACTUATOR	N.O.	NORMALLY OPEN
R	RELAY OR CONTACTOR	H.C.	HEATING COIL
DP	DIFFERENTIAL PRESSURE SENSOR	C.C.	COOLING COIL
SP	STATIC PRESSURE SENSOR	D.X.C.	DIRECT EXPANSION COIL
HSP	HIGH PRESSURE SWITCH	S/S	START/STOP
FS	FLOAT SWITCH	D.D.C.	DIRECT DIGITAL CONTROLS
DO	DIGITAL OUTPUT	EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
DI	DIGITAL INPUT	TRF	TRANSFORMER

EMCS DEMOLITION NOTE

1. SALVAGE DEMOLISHED SIEMENS SPACE TEMPERATURE SENSORS AND CONTROLLERS. SEPARATE BY TYPE AND STORE IN DMS DESIGNATED LOCATION.

2. TRANSITION FROM EXISTING SIEMENS CONTROLS TO NEW TRIDIUM CONTROLS SHALL BE FULLY COORDINATED W/OWNER, CM, ENGINEER, & COMMISSIONING AGENT PRIOR TO BEGINNING WORK. EXISTING SYSTEM MUST STAY OPERATIONAL. UNTIL THE NEW SYSTEM IS OPERATIONAL. THE PROJECT WILL BE PERFORMED IN PHASES OVER MULTIPLE SESSIONS; AS SUCH, WORK IN CURRENT PHASE MUST BE COMPLETE & OPERATIONAL PRIOR TO FUTURE PHASES WORK SCOPE BEING IMPLEMENTED. COORDINATE W/OWNER & PUT SYSTEMS IN MODES OF OPERATION (E.G. "DAY MODE" FOR TERMINAL BOXES) AS REQUIRED FOR CONTROL CONTINUITY. ENSURE WORK SCOPE DOES NOT IMPACT FUTURE WORK SCOPE (E.G. REMOVING DIFFERENTIAL PRESSURE SENSOR(S) WHICH CONTROL CENTRAL PLANT SECONDARY PUMP VSD'S OR DIFFERENTIAL PRESSURE SENSORS WHICH CONTROL AHU VSD'S, ETC.).

NOTE: CONTROL SYSTEMS AND CONTROL DEVICES IN AREAS OF THE BUILDING THAT ARE NOT WITHIN THE SCOPE OF THIS PROJECT SHALL REMAIN OPERATIONAL. CONTRACTOR SHALL MAKE PROVISIONS AS REQUIRED TO MAINTAIN FUNCTION AND CONTINUITY OF CONTROL SYSTEMS NOT WITHIN THE PROJECT SCOPE.

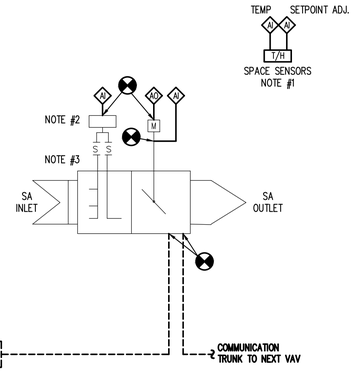


VARIABLE SPEED EXHAUST FAN (TYPICAL)

NOT TO SCALE (TYP FOR EF-K1-2)

NOTES:

1. PROVIDE CONTROLS INTERFACE FOR VARIABLE SPEED ECM MOTOR CONTROLLER.

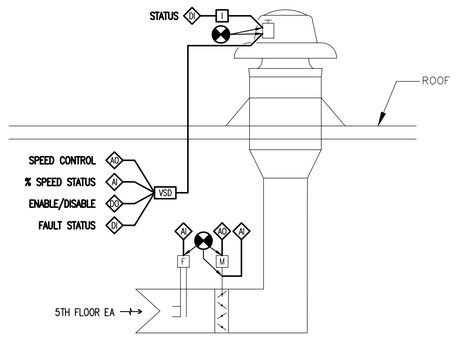


EXISTING VARIABLE AIR VOLUME TERMINAL - COOLING ONLY

NOT TO SCALE (TYP FOR 4TH FLOOR MEETING ROOM VK5.1-4-1 AND VK5.1-4-2)

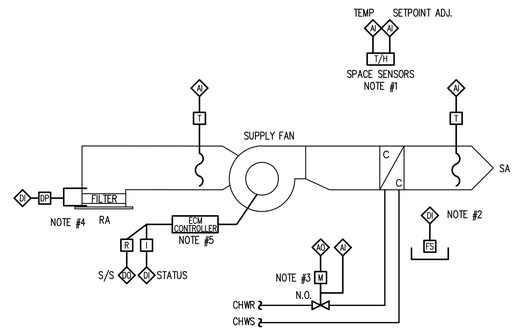
NOTES:

1. COMBINATION TEMPERATURE/HUMIDITY SPACE SENSOR. SEE FLOOR PLAN FOR LOCATION.
2. PRESSURE DIFFERENTIAL INPUT TO EMCS. EMCS SHALL CONVERT TO AIR FLOW.
3. REMOVE EXISTING AIR FLOW TUBES AND REPLACE WITH NEW.



EF-KR-4 CONTROL SCHEMATIC

NOT TO SCALE



FCU-K3-2, K4-5, & K5-2 CONTROL SCHEMATIC

NOT TO SCALE

NOTES:

1. COMBINATION TEMPERATURE/HUMIDITY SPACE SENSOR. SEE FLOOR PLAN FOR LOCATION.
2. PROVIDE FLOAT SWITCH IN PRIMARY DRAIN PAN. FCU SHALL SHUT DOWN ON FLOAT SWITCH ACTIVATION.
3. PROVIDE 2-WAY BELIMO PICCV VALVE. REFER TO DETAILS. SIZE VALVES 20% LARGER THAN SCHEDULED FLOW.
4. FILTER RETURN GRILLE.
5. PROVIDE CONTROLS INTERFACE FOR VARIABLE SPEED ECM MOTOR CONTROLLER.

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

CONTROL SCHEMATICS

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE SPECIFIC PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M502

NOTE:
PRIOR TO BID, EMCS CONTRACTOR SHALL VISIT THE SITE AND INCLUDE ALL COSTS TO ROUTE COMMUNICATION CONDUIT TO ALL EQUIPMENT AND DEVICES INDICATED IN THESE CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO UP AND DOWN CHASES, THROUGH FLOORS, MULTIPLE LEVELS, BETWEEN BUILDINGS, ETC. TO ALL EXISTING AND NEW EQUIPMENT WITHIN WORK AREAS, ROUTING IN BUILDING. ROUTING TO SPACE SENSORS, DIFFERENTIAL PRESSURE SENSORS, ETC. ALL EXPOSED COMMUNICATION CONDUIT MUST BE APPROVED PRIOR TO BID AND OWNER WILL REQUIRE PAINTING. INCLUDE ALL COSTS FOR CONNECTION TO DMS ON-SITE AND OFF-SITE WORKSTATIONS, OPCON, ETC. ANY QUESTIONS SHALL BE REFERRED TO ENGINEER AND OWNER PRIOR TO BID. AT CONCLUSION OF PROJECT ALL EQUIPMENT SHALL BE FULLY OPERATIONAL AND CONTROLLED.

SPECIAL NOTE TO ELECTRONICS & CONTROLS VENDORS/CONTRACTORS:
DO NOT PRE-PROGRAM DEVICE, COMMUNICATION OR DATA IP'S UNTIL DMS-IT HAS PROVIDED CORRECT, APPROVED IP ADDRESSES. DMS-IT HAS A VERY HIGH SECURITY EXPECTATION WHEN SETTING-UP NEW DEVICES.
VENDORS/CONTRACTORS SHOULD NEVER ASSUME OR PRE-PROGRAM AN ASSUMED SET OF IP ADDRESSES INTO NEW DEVICES. REQUESTS FOR IP ADDRESSES SHALL BE MADE BY THE VENDOR/CONTRACTOR TO THE DMS PROJECT MANAGER WHO WILL FORWARD THE REQUEST TO DMS-IT. DMS-IT WILL HAND-DELIVER THE IP ADDRESSES TO THE VENDOR/CONTRACTOR AT THE PROJECT SITE.

NOTE:

EQUIPMENT TAGS FOR EXISTING TO REMAIN AND/OR FUTURE EQUIPMENT SCOPE IS REPRESENTED WITH UPDATED NOMENCLATURE TO MATCH "PHASE 3 HVAC MODERNIZATION" PROJECT. REFER TO EQUIPMENT SCHEDULES FOR CORRELATING EXISTING EQUIPMENT TAG.

LINE TYPE LEGEND

- EXISTING TO REMAIN
- NEW TO BE PROVIDED
- FUTURE PH3 HVAC MODERNIZATION SCOPE

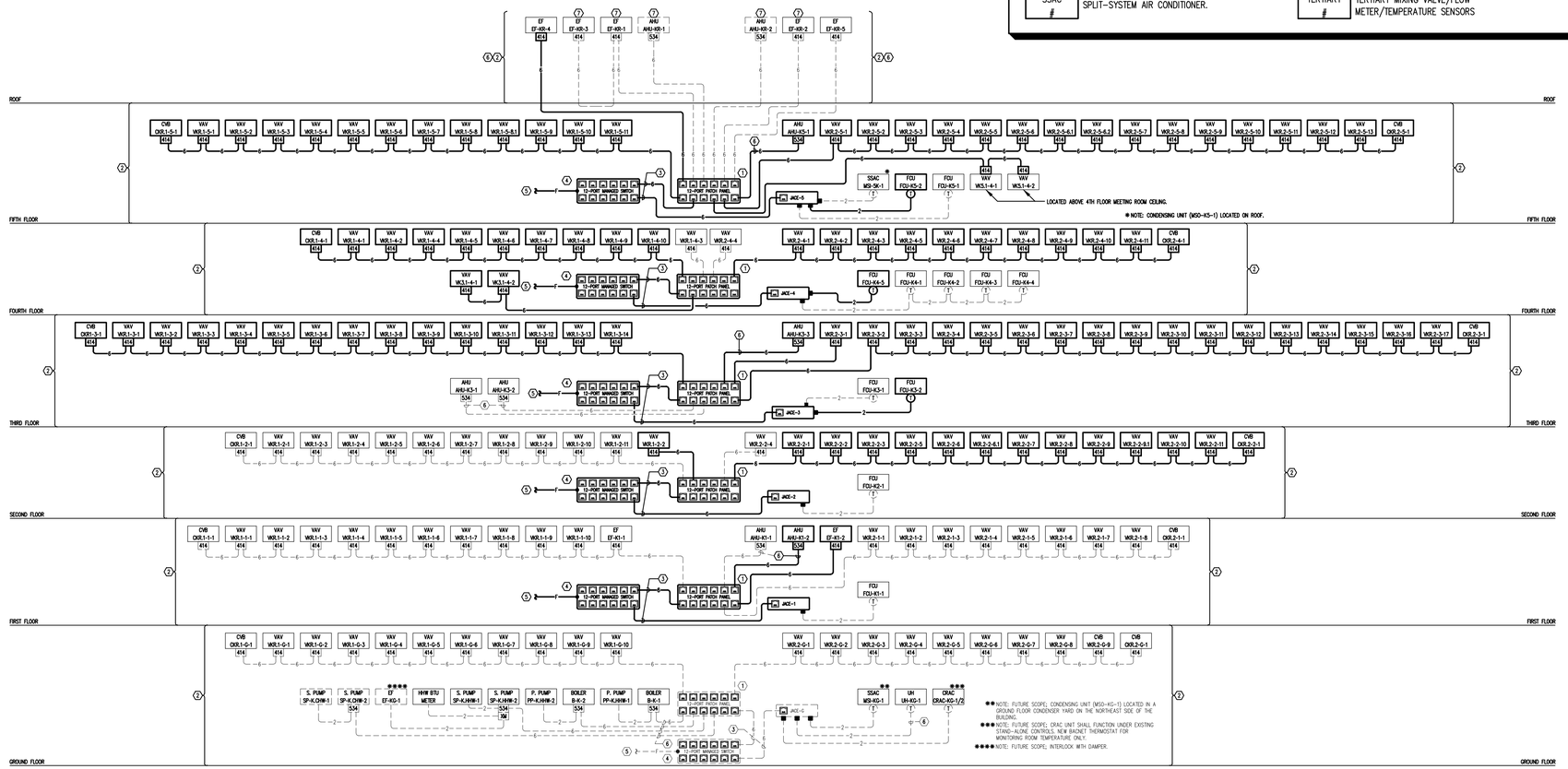
WORK NOTES

1. DMS-HVAC CONTROLS DISTRIBUTION STATION(S) (CDS) SHALL BE LOCATED ON FLOORS INDICATED. CONTROLS CONTRACTOR SHALL ASSEMBLE CDS AS INDICATED IN DETAIL DRAWINGS. CDS SHALL BE INSTALLED IN KNOTT BUILDING WEST COMM ROOMS ADJACENT TO DMS-IT CABINETS AS SHOWN ON THE FLOOR PLAN DRAWINGS.
2. CONTROLS CONTRACTOR SHALL PROVIDE CONTROLS CONNECTIONS TO ALL DEVICES SHOWN ON THE MECHANICAL FLOOR-PLANS. THE DEVICE TYPES AND NUMBER OF DEVICES SHOWN MAY VARY FROM FLOOR PLANS. CONTRACTOR SHALL VERIFY. CABLE MAY CONNECT TO DEVICES AS ENCOUNTERED ALONG THEIR ROUTE THROUGH THE SPACE AND NEED NOT BE IN ORDER SHOWN.
3. PROVIDE CAT6 PATCH CABLES IN CONDUIT AS REQUIRED TO EXTEND DEVICE CONNECTIONS TO DMS-IT CABINET AND PATCH INTO THE RUCKUS SWITCH INSIDE THE DMS-IT CABINET. REFER TO DETAIL DRAWINGS.
4. CONTROLS CONTRACTOR SHALL PROVIDE NEW DMS-IT CABINET IN KNOTT BUILDING WEST COMM ROOMS ADJACENT TO DMS-HVAC CDS. CABINET SHALL INCLUDE RUCKUS SWITCH, UPS AND POWER RECEPTACLE AS INDICATED IN DETAILED DRAWINGS.
5. CONTROLS CONTRACTOR SHALL PROVIDE 1" CONDUIT WITH 2-COUNT, SINGLE MODE FIBER OPTIC CABLE AND CONNECTORS TO MATCH EQUIPMENT TO CONNECT RUCKUS SWITCH IN DMS-IT CABINET TO NETWORK FIBER IN WCH. REFER TO DETAIL DRAWINGS.
6. WHERE EXPOSED TO OUTDOOR CONDITIONS OR IN MECHANICAL ROOMS, CABLES SHALL BE INSTALLED IN CONDUIT. REFER TO DIVISION 26 SPECIFICATIONS.
7. PROVIDE TEMPORARY CONTROLS INTERFACE BETWEEN EXISTING EQUIPMENT ON EXISTING SIEMENS CONTROL SYSTEM (INCLUDING ALL ASSOCIATED EXISTING SIEMENS SENSORS, CONTROL DEVICES, ETC.) AND NEW TRIDIUM SYSTEM. PROVIDE ALL REQUIRED HARDWARE, SOFTWARE, WIRING, CONDUIT, AND PROGRAMMING FOR TEMPORARY INTEGRATION OF EXISTING EQUIPMENT. (TEMPORARY WORK IS TO BE REMOVED AND REPLACED WITH PERMANENT UNDER SEPARATE "PHASE 3 HVAC MODERNIZATION" PROJECT SCOPE.)

CONTROLS RISER DIAGRAM SYMBOL LEGEND

- —6— CONTROLS CONTRACTOR SHALL PROVIDE PLENUM-RATED, CAT 6, 4-PAIR, UTP CABLE/PATCH WITH RJ45 CONNECTORS. SHALL BE INSTALLED FREE-WIRED IN ABOVE-CEILING SPACES. IN COMM/DATA ROOMS CONVERT FROM FREE-WIRED TO CABLE-TRAY OR INNER DUCT. CABLING IN EXTERIOR OR MECHANICAL ROOM LOCATIONS SHALL BE PROVIDED IN CONDUIT. REFER TO DIVISION 26 SPECIFICATIONS.
- —2— CONTROLS CONTRACTOR SHALL PROVIDE PLENUM-RATED, 18 GAUGE, 2-CONDUCTOR CABLE WITH RS485 CONNECTORS. SHALL BE INSTALLED FREE-WIRED IN ABOVE-CEILING SPACES. IN COMM/DATA ROOMS CONVERT FROM FREE-WIRED TO CABLE-TRAY OR INNER DUCT. CABLING IN EXTERIOR OR MECHANICAL ROOM LOCATIONS SHALL BE PROVIDED IN CONDUIT. REFER TO DIVISION 26 SPECIFICATIONS.
- —F— CONTROLS CONTRACTOR SHALL PROVIDE 1" CONDUIT WITH 2-COUNT, SINGLE-MODE FIBER OPTIC CABLE (OR PRE-MANUFACTURERS DUPLEX PATCH CABLES) WITH CONNECTORS TO MATCH EQUIPMENT IN LOCATION INDICATED.
- XM — CONTROLS CONTRACTOR SHALL PROVIDE EXPANSION MODULE(S) AND FIELD/MANUFACTURER WIRING AS REQUIRED WHERE NUMBER OF CONTROL POINTS EXCEED CAPABILITIES OF JENESYS EDGE 414 534, OR JENESYS PC9000 CONTROL MODULES.
- 414 — CONTROLS CONTRACTOR SHALL PROVIDE JENESYS EDGE 414 CONTROL MODULE AND FIELD/MANUFACTURER WIRING AS REQUIRED FOR MONITORING/CONTROL OF DEVICE INDICATED PER CONTROL/SEQUENCE INSTRUCTIONS.
- 534 — CONTROLS CONTRACTOR SHALL PROVIDE JENESYS EDGE 534 CONTROL MODULE AND FIELD/MANUFACTURER WIRING AS REQUIRED FOR MONITORING/CONTROL OF DEVICE INDICATED PER CONTROL/SEQUENCE INSTRUCTIONS.
- (T) — CONTROLS CONTRACTOR SHALL PROVIDE BAC-NET THERMOSTAT AND FIELD WIRING/CONNECTIONS AS REQUIRED FOR MONITORING OF DEVICE INDICATED PER CONTROL/SEQUENCE INSTRUCTIONS.
- JACE — CONTROLS CONTRACTOR SHALL PROVIDE JENESYS EDGE PC9000 WITH CABLE CONNECTION INDICATED. PROVIDE EXPANSION MODULES AS REQUIRED FOR INSTALLATION. REFER TO CABINET DETAILS.
- 12-PORT MANAGED SWITCH — CONTROLS CONTRACTOR SHALL PROVIDE A RUCKUS ICX 7150-C12P 12-PORT MANAGED SWITCH INSTALLED IN DMS-IT CABINET AS INDICATED IN DETAILS.
- 12-PORT PATCH PANEL — CONTROLS CONTRACTOR SHALL PROVIDE A 12-PORT CAT6-RATED RJ45 PATCH PANEL INSTALLED IN DMS-HVAC CDS AS INDICATED IN DETAILS. CAT-6 FIELD CABLES SHALL BE PUNCHED DOWN ON BACK OF PANEL. FRONT OF PANEL SHALL BE USED FOR PATCHING. IF GREATER THAN 80% OF PATCH PANEL PORTS ARE USED, CONTRACTOR SHALL PROVIDE ADDITIONAL 12 PORT PATCH PANEL IN DMS-HVAC ENCLOSURE.

VAV #	VARIABLE-AIR-VOLUME DEVICE.	PLANT #	CHILLER/BOILER PLANT CONTROL ENCLOSURE.	CVB #	CONSTANT VOLUME BOX.
EF #	EXHAUST FAN.	BOILER #	BOILER.	SF #	SUPPLY FAN.
AHU #	AIR-HANDLING UNIT.	P. PUMP #	PRIMARY PUMP.	FCU #	FAN COIL UNIT.
CRAC #	COMPUTER ROOM AIR CONDITIONER.	S. PUMP #	SECONDARY PUMP.	UH #	UNIT HEATER.
SSAC #	SPLIT-SYSTEM AIR CONDITIONER.	TERTIARY #	TERTIARY MIXING VALVE/FLOW METER/TEMPERATURE SENSORS		



CONTROLS RISER DIAGRAM

NOT TO SCALE

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850)-422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/26	100% PERMIT DOCUMENTS

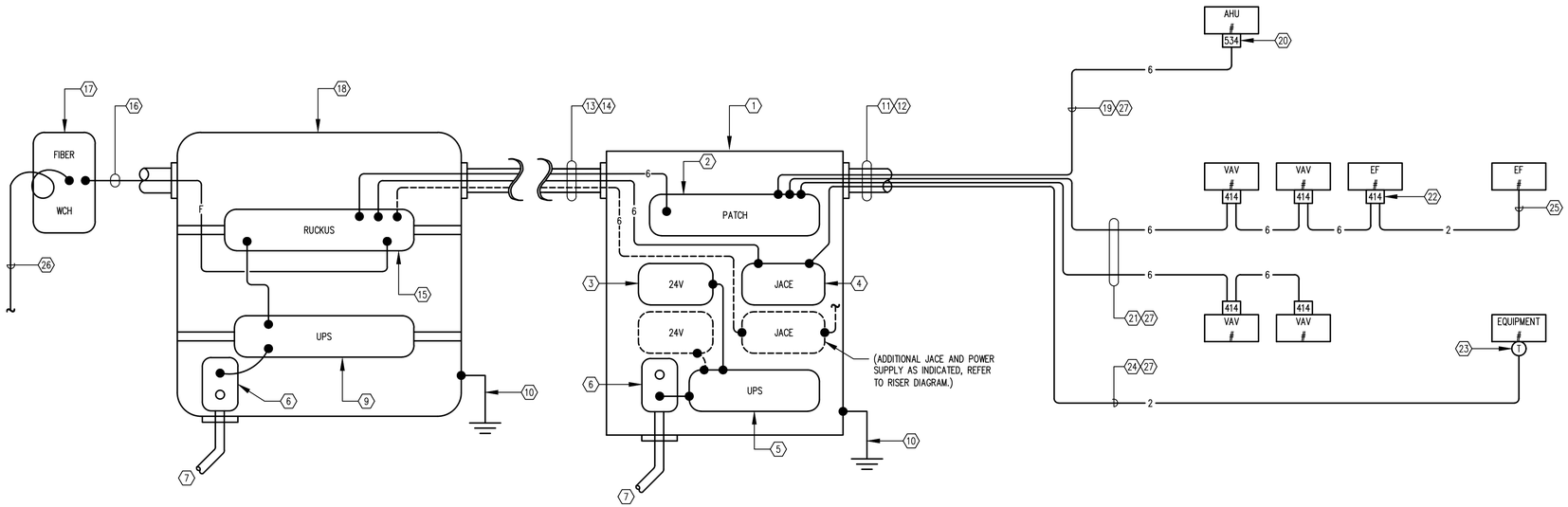
#	DATE	REVISION TITLE

CONTROLS RISER DIAGRAM

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT FOR WHICH THEY WERE PREPARED WITHOUT PRIOR WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC., IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M503



DETAIL - TYPICAL HVAC CONTROLS DISTRIBUTION STATION & CONNECTIONS

NOT TO SCALE

WORKNOTES:

1. PROVIDE NEW WALL-MOUNTED NEMA 1 ENCLOSURE FOR HVAC CONTROLS DISTRIBUTION STATION (CDS). ENCLOSURE SHALL BE 24"H x 20"W x 8"D STEEL, PAINTED GRAY, WITH LOCKABLE HINGED COVER, WITH INTERIOR PANEL FOR MOUNTING DEVICES, WITH LABEL ON FRONT INDICATING "HVAC CONTROLS". PROVIDE MEANS OF SECURELY MOUNTING ON WALL IN APPROXIMATE LOCATION INDICATED ON FLOOR PLANS.
2. PROVIDE 12-PORT, CAT 6 RATED, RJ45, SURFACE-MOUNTED PATCH PANEL WITH FIELD CABLES PUNCHED DOWN ON BACK-SIDE AND CAT 6 PATCH CABLES PROVIDED FOR EACH FIELD CABLE TO BE PATCHED TO ADJACENT SWITCH AS INDICATED. MANAGE CABLES IN AN ORGANIZED MANNER.
3. PROVIDE JENESYS EDGE 24V AC/DC POWER SUPPLY MODULE (NPB-PWR) AND SURFACE-MOUNTING KIT. CONNECT VIA 120V CORD/PLUG TO ADJACENT UPS AS INDICATED. (PROVIDE MULTIPLE POWER SUPPLIES TO MATCH NUMBER OF JACE DEVICES.)
4. PROVIDE JENESYS EDGE PC9000 JACE(S) (OR EDGE 534, AS INDICATED) AND SURFACE-MOUNTING KIT. PROVIDE DC POWER CONNECTION TO POWER SUPPLY. LAND FIELD CABLE(S) AS INDICATED. PROVIDE CAT 6 PATCH TO EXTEND AND CONNECT TO SWITCH AS INDICATED.
5. PROVIDE 650 W 120V LINE CONDITIONING UNINTERRUPTIBLE POWER SUPPLY (UPS) WITH (8) 5-15P OUTLETS EQUAL TO TRIPP-LITE# SMART 1050 SLTAA. APPROXIMATE DIMENSIONS 6"W x 10"H x 13"D. PROVIDE MEANS OF SECURLEY MOUNTING INSIDE ENCLOSURE.
6. PROVIDE 120V DUPLEX POWER RECEPTACLE MOUNTED INSIDE ENCLOSURE AS INDICATED.
7. COORDINATE WITH ELECTRICAL FOR POWER. REFER TO ELECTRICAL DRAWINGS.
8. NOT USED.
9. PROVIDE 1500VA, 900W UNINTERRUPTIBLE POWER SUPPLY (UPS) EQUAL TO (CYBER POWER SMART POWER APP LCD#OR1500LCDRMIU). PROVIDE RACK-MOUNTING KIT. UPS WILL BE DMS-IT OWNED AND MAINTAINED.
10. PROVIDE GROUND CONNECTION OF ENCLOSURE TO ADJACENT GROUND BUS AND BUILDING STEEL.
11. HVAC CONTROLS FIELD WIRING (PLENUM-RATED CAT6 AND RS485) SHALL ENTER HVAC ENCLOSURE AND MAKE CONNECTION TO DEVICE INDICATED.
12. CONDUIT FROM HVAC ENCLOSURE SHALL EXTEND TO ABOVE-CEILING SPACE OR THROUGH ADJACENT WALL AS REQUIRED. PROVIDE FIRE CAULK AS REQUIRED TO MAINTAIN FIRE/SMOKE RATINGS.
13. PROVIDE SURFACE-MOUNTED 1 1/4" CONDUIT AND PATCH CABLES (CAT 6) AS REQUIRED TO EXTEND DEVICE CONNECTIONS WHERE IT AND HVAC ENCLOSURES ARE WITHIN 12-FEET OF ONE ANOTHER IN ORDER TO PATCH INTO THE REMOTE (INSIDE IT ENCLOSURE) RUCKUS MANAGED SWITCH.
14. PROVIDE SURFACE-MOUNTED 1 1/4" CONDUIT WITH FIELD FABRICATED CAT6 CABLE/PATCH AS REQUIRED TO EXTEND PATCH CONNECTIONS WHERE IT AND HVAC ENCLOSURES ARE SEPARATED BY MORE THAN 12-FEET IN ORDER TO PATCH INTO THE REMOTE (INSIDE IT ENCLOSURE) RUCKUS MANAGED SWITCH.
15. PROVIDE NEW 12-PORT MANAGED SWITCH, RUCKUS ICX-7150-C12P. PROVIDE RACK-MOUNT KIT. SWITCH WILL BE DMS-IT OWNED & MAINTAINED.
16. PROVIDE LC DUPLEX FIBER OPTIC CABLE(S) PATCH TO DMS-IT NETWORK.
17. PROVIDE WALL MOUNTED CONNECTOR HOUSING (WCH) FOR TERMINATION OF FIBER-OPTIC CABLE (CORNING # WCH-06P) WITH ONE 12-COUNT CLOSET CONNECTOR HOUSING PANEL FOR LC DUPLEX TERMINATIONS FOR TERMINATING ALL SINGLE-MODE FIBER IN THE CABLE SHOWN. PROVIDE A PERMANENT LABEL ON EACH FIBER-OPTIC CABLE INDICATING IT'S SOURCE.
18. CONTROLS CONTRACTOR SHALL PROVIDE WALL-MOUNTED DATA RACK ENCLOSURE. PROVIDE DUAL-HINGE CABINET 24"H x 24"W x 22"D WITH LOCKABLE DOOR. SIMILAR TO TRIPP-LITE SWING-WALL-MOUNTED SMART ENCLOSURE #SRW12US. PROVIDE ENGRAVED PHENOLIC LABEL ON FRONT DOOR INDICATING "DMS-IT".
19. PROVIDE PLENUM-RATED CAT6 4-PAIR, UTP CABLE FREE-WIRED THRU CONCEALED AND ABOVE-CEILING SPACE WITH RJ45 CONNECTORS AS REQUIRED FOR TYPICAL SINGLE-EQUIPMENT CONNECTIONS INDICATED. TERMINATE ON BACK OF 12-PORT PATCH PANEL.
20. PROVIDE JENESYS EDGE 534 CONTROL MODULE AND RELATED CONNECTIONS FOR MONITOR AND CONTROL OF TYPICAL NEW OR EXISTING AIR HANDLER UNIT, ETC. AS INDICATED.
21. PROVIDE PLENUM-RATED CAT6 4-PAIR, UTP CABLE FREE-WIRED THRU CONCEALED AND ABOVE-CEILING SPACE. USE RJ45 CONNECTORS AS REQUIRED FOR TYPICAL MULTIPLE-EQUIPMENT CONNECTIONS AS REQUIRED. TERMINATE FIELD CONDUCTORS ON BACK OF 12-PORT PATCH PANEL.
22. PROVIDE JENESYS EDGE 414 CONTROL MODULE AND RELATED CONNECTIONS FOR MONITOR & CONTROL OF TYPICAL NEW OR EXISTING HVAC COMPONENTS. REFER TO CONTROL/SEQUENCE INSTRUCTIONS. (TYP)
23. PROVIDE BACNET THERMOSTAT AND RELATED CONNECTIONS FOR MONITORING OF TYPICAL EQUIPMENT AS INDICATED. REFER TO CONTROL RISER AND CONTROL/SEQUENCE INSTRUCTIONS.
24. PROVIDE PLENUM-RATED 2-CONDUCTOR #18 CU CABLE AND RS485 CONNECTORS FOR MONITORING BACNET T-STAT, TYPICAL.
25. PROVIDE PLENUM-RATED 4-CONDUCTOR #18 CU CABLE WITH RS485 CONNECTORS TO CONNECT ADDITIONAL EXHAUST FANS ON THE SAME FLOOR (IF FAN CONTROLLER DOES NOT REQUIRE 414 CONTROL MODULE).
26. PROVIDE 12-COUNT CORNING SINGLE-MODE FIBER OPTIC CABLE BETWEEN WCH DISTRIBUTION STATION TO WCH LOCATED IN MAIN CAPITOL LOWER LEVEL MECHANICAL ROOM "LL-11". PROVIDE PERMANENT LABEL ON CABLE AS ENTERS WCH TO INDICATE SOURCE OF FIBER. REFER TO FIBER OPTIC RISER DETAIL.
27. WHERE EXPOSED IN MECHANICAL/ELECTRICAL ROOMS OR OUTDOOR LOCATIONS, CABLING SHALL BE INSTALLED IN CONDUIT. REFER TO DIVISION 26 SPECIFICATIONS.

NOTE:
PRIOR TO BID, EMCS CONTRACTOR SHALL VISIT THE SITE AND INCLUDE ALL COSTS TO ROUTE COMMUNICATION CONDUIT TO ALL EQUIPMENT AND DEVICES INDICATED IN THESE CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO UP AND DOWN CHASES, THROUGH FLOORS, MULTIPLE LEVELS, BETWEEN BUILDINGS, ETC. TO ALL EXISTING AND NEW EQUIPMENT WITHIN WORK AREAS, ROUTING IN BUILDING. ROUTING TO SPACE SENSORS, DIFFERENTIAL PRESSURE SENSORS, ETC. ALL EXPOSED COMMUNICATION CONDUIT MUST BE APPROVED PRIOR TO BID AND OWNER WILL REQUIRE PAINTING. INCLUDE ALL COSTS FOR CONNECTION TO DMS ON-SITE AND OFF-SITE WORKSTATIONS, OPCON, ETC. ANY QUESTIONS SHALL BE REFERRED TO ENGINEER AND OWNER PRIOR TO BID. AT CONCLUSION OF PROJECT ALL EQUIPMENT SHALL BE FULLY OPERATIONAL AND CONTROLLED.

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797
CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

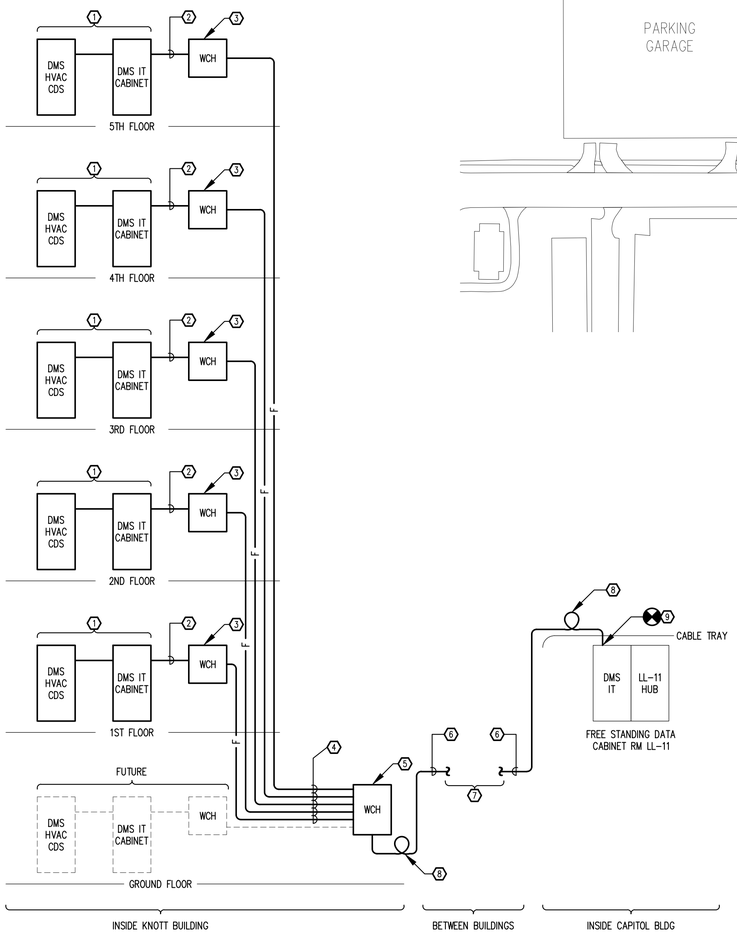
#	DATE	REVISION TITLE

CONTROLS DETAILS

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

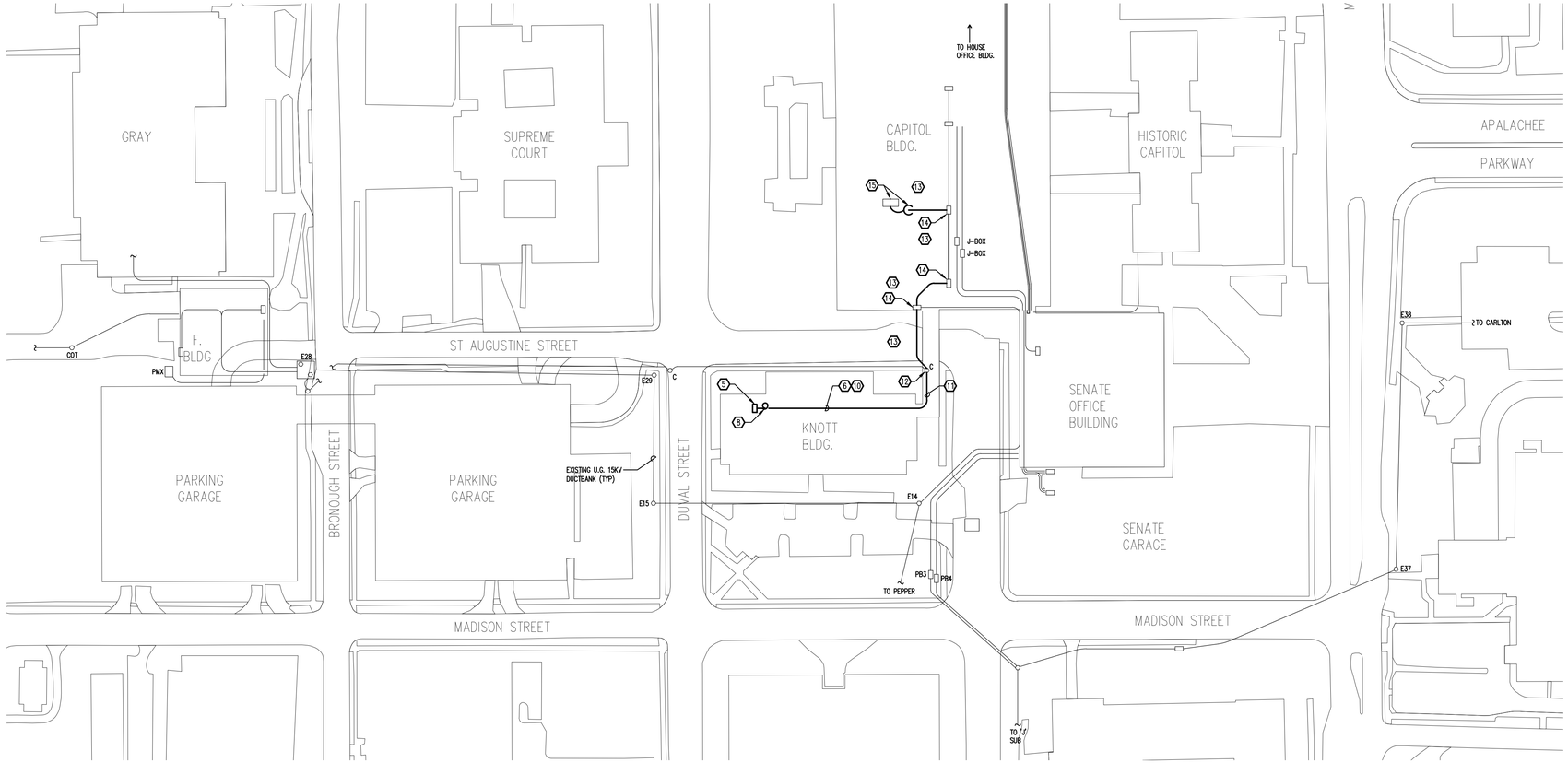
REVIEWED BY: CHA DRAWN BY: RDA

M504



FIBER OPTIC CONTROLS RISER EXTENSION TO KNOTT BUILDING

NOT TO SCALE



NOTE:

DISTANCES SHOWN ON THIS PLAN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY BEFORE PURCHASE OF MATERIALS.

LINE TYPE LEGEND

- EXISTING TO REMAIN
- NEW TO BE PROVIDED
- FUTURE PH3 HVAC MODERNIZATION SCOPE

NOTE:
PRIOR TO BID, EMCS CONTRACTOR SHALL VISIT THE SITE AND INCLUDE ALL COSTS TO ROUTE COMMUNICATION CONDUIT TO ALL EQUIPMENT AND DEVICES INDICATED IN THESE CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO UP AND DOWN CHASES, THROUGH FLOORS, MULTIPLE LEVELS, BETWEEN BUILDINGS, ETC. TO ALL EXISTING AND NEW EQUIPMENT WITHIN WORK AREAS, ROUTING IN BUILDING. ROUTING TO SPACE SENSORS, DIFFERENTIAL PRESSURE SENSORS, ETC. ALL EXPOSED COMMUNICATION CONDUIT MUST BE APPROVED PRIOR TO BID AND OWNER WILL REQUIRE PAINTING. INCLUDE ALL COSTS FOR CONNECTION TO DMS ON-SITE AND OFF-SITE WORKSTATIONS, OPCON, ETC. ANY QUESTIONS SHALL BE REFERRED TO ENGINEER AND OWNER PRIOR TO BID. AT CONCLUSION OF PROJECT ALL EQUIPMENT SHALL BE FULLY OPERATIONAL AND CONTROLLED.

WORK NOTES:

1. PROVIDE DMS-HVAC CONTROLS DISTRIBUTION STATION, DMS-IT CABINET AND CABLE CONNECTIONS AS INDICATED ON CONTROLS RISER DIAGRAM AND DETAIL DRAWINGS.
2. PROVIDE 2-COUNT, SINGLE-MODE FIBER OPTIC CABLE PATCH CONNECTION BETWEEN DMS-IT CABINET EQUIPMENT AND WALL-MOUNTED FIBER OPTIC CONNECTOR HOUSING.
3. PROVIDE WALL-MOUNTED CONNECTOR HOUSING (WCH) FOR TERMINATION OF FIBER OPTIC CABLES INDICATED. PROVIDE CLOSET CONNECTOR HOUSING PANELS AND LC DUPLEX TERMINATIONS FOR TERMINATING ALL CABLES SHOWN. PROVIDE A PERMANENT LABEL ON EACH FIBER OPTIC CABLE ENTERING THE WCH, INDICATING THE SOURCE OF EACH CABLE.
4. PROVIDE 12-COUNT, SINGLE-MODE FIBER OPTIC CABLE BETWEEN WCH AT EACH CONTROLS DISTRIBUTION STATION/IT CABINET AND THE IT NETWORK WCH ON THE GROUND FLOOR.
5. PROVIDE A WALL-MOUNTED CONNECTOR HOUSING (WCH) IN THE GROUND FLOOR LEVEL DATA ROOM TO SERVE AS A TERMINATION/PATCHING POINT BETWEEN RISER FIBER OPTIC CABLES AND NETWORK FIBER EXTENDING TO THE NETWORK HUB IN THE CAPITOL BUILDING. PROVIDE CLOSET CONNECTOR HOUSING PANELS AND LC DUPLEX TERMINATIONS FOR TERMINATING ALL CABLES SHOWN.
6. PROVIDE 96-CT, SINGLE-MODE FIBER OPTIC CABLE ROUTED THROUGH BUILDINGS AND EXISTING INFRASTRUCTURE TO CONNECT KNOTT DMS-IT RISER TO IT HUB IN ROOM LL-11 IN LOWER LEVEL OF CAPITOL BUILDING. REFER TO SITE PLAN DRAWING.
7. REFER TO CAPITOL CENTER COMMUNICATIONS SITE PLAN FOR ROUTING OF NEW FIBER OPTIC CABLE THROUGH EXISTING BUILDING AND INFRASTRUCTURE.
8. PROVIDE 50-FT SLACK COIL AT END OF ROUTE.
9. EXTEND FIBER INTO DMS-IT HUB (FREE-STANDING CABINET). TERMINATE FIBER OPTIC CABLE AS DIRECTED BY DMS-IT.
10. INSTALL FIBER OPTIC CABLE IN 1" INNER DUCT THROUGH ABOVE-CEILING SPACE TO SHARED CONDUIT AT EAST END OF BUILDING (GROUND FLOOR LEVEL).
11. EXTEND FIBER OPTIC CABLE IN EXISTING CONDUIT TO COMMUNICATION MANHOLE AT NORTH EAST CORNER OF BUILDING.
12. EXTEND FIBER OPTIC CABLE THROUGH EXISTING COMM MANHOLE. PROVIDE 50-FT SLACK COIL OF CABLE IN MANHOLE. PROVIDE PERMANENT LABEL ON CABLE AT EACH EXIT IDENTIFING SOURCE AND NEXT SERVICE POINT.
13. EXTEND FIBER OPTIC CABLE IN EXISTING CONDUIT BETWEEN COMM MANHOLE AND J-BOX ON WALL OF PARKING GARAGE.
14. EXTEND FIBER OPTIC CABLE THROUGH EXISTING J-BOX. PROVIDE PERMANENT LABEL AT EACH EXIT IDENTIFYING SOURCE AND NEXT SERVICE POINT.
15. EXTEND FIBER OPTIC CABLE THROUGH CONDUIT PENETRATING FLOOR ABOVE TO REACH ROOM LL-11 MECH/ELEC/COMM ROOM. EXTEND THROUGH EXISTING CONDUIT AND LADDER RACK TO DMS-IT CABINET SERVING AS NETWORK HUB. PROVIDE 50-FT SLACK COIL OF CABLE ON LADDER RACK. LABEL CABLE WITH SOURCE AND SERVICE POINT. TERMINATE FIBERS AS DIRECTED BY DMS-IT STAFF.

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

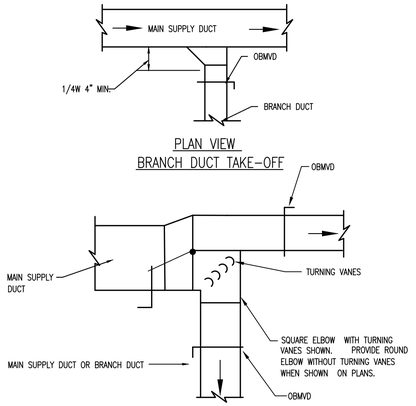
#	DATE	REVISION TITLE

DMS IT & HVAC CONTROLS FIBER OPTIC ADDITION

REVIEWED BY: CHA DRAWN BY: RDA

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND SPECIFICATIONS AND COPIES THEREOF FURNISHED BY DODSTONE ARCHITECTS ARE AND SHALL REMAIN THE PROPERTY OF DODSTONE ARCHITECTS, INC. THEY ARE NOT TO BE USED IN WHOLE OR IN PART FOR ANY PURPOSE OR PROJECT OTHER THAN THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED AND DEVELOPED AS AN UNPUBLISHED WORK OF DODSTONE ARCHITECTS, INC. PURSUANT TO STATE AND FEDERAL COPYRIGHT LAWS, REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE SPECIFIC PROJECT FOR WHICH THEY HAVE BEEN PREPARED OR ADAPTATION OF THESE DRAWINGS WITHOUT THE CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

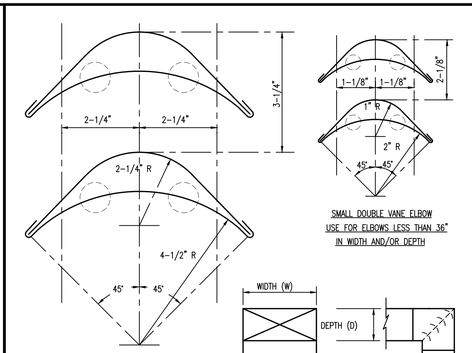
M505



THE BRANCH DUCT TAKE-OFF MAY BE USED FOR UP TO 15% OF THE MAIN DUCT CFM ANYTIME AND UP TO 40% WHEN THE MAIN DUCT VELOCITY IS 1000 FPM OR LESS. THE AIR SPLIT TYPE DUCT TAKE-OFF SHALL BE USED IN ALL OTHER CASES AND MAY BE USED AT ANYTIME.

SUPPLY DUCT TAKE-OFFS

NOT TO SCALE

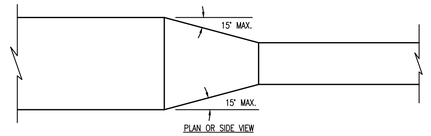


NOTES:

1. ALL SQUARE & RECTANGULAR ELBOWS SHALL HAVE ONE OF THE TWO TYPES OF TURNING VANES SHOWN ABOVE. SINGLE VANE ELBOWS WILL NOT BE PERMITTED.
2. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.
3. ALL SQUARE & RECTANGULAR ELBOWS SHOWN ON PLANS FOR EXHAUST OR RETURN DUCT MAY BE MADE RADIUS ELBOWS PROVIDED SPACE PERMITS RADIUS INSTALLATION.
4. ALL SQUARE & RECTANGULAR ELBOWS SHOWN ON PLANS FOR SUPPLY DUCT MAY BE MADE RADIUS ELBOWS PROVIDED SPACE PERMITS RADIUS INSTALL-ATION AND/OR THERE ISN'T AN OUTLET OR TAKE-OFF WITHIN 5D ON THE DOWNSTREAM SIDE OF THE ELBOW.

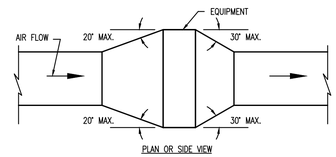
SQUARE & RECTANGULAR ELBOWS

NOT TO SCALE



DUCT TRANSITION

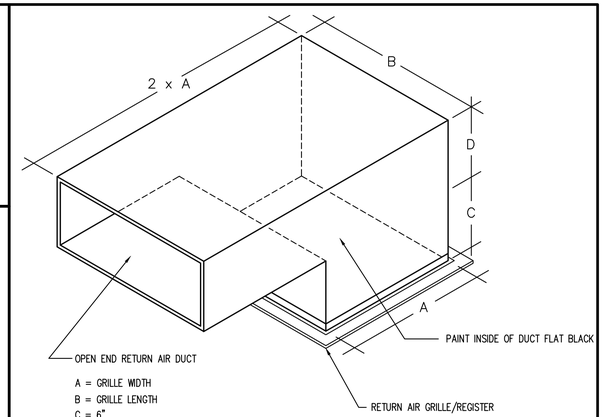
NOT TO SCALE



NOTE:
UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

DUCT TRANSFORMATION WITH EQUIPMENT IN DUCT

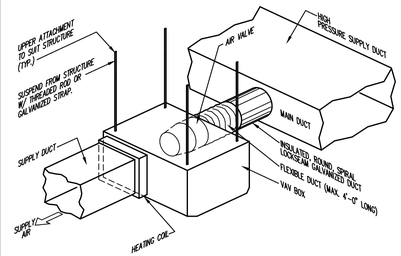
NOT TO SCALE



A = GRILLE WIDTH
B = GRILLE LENGTH
C = 6"
D = AS INDICATED ON FLOOR PLAN

RETURN AIR SOUNDTRAP DETAIL

NOT TO SCALE

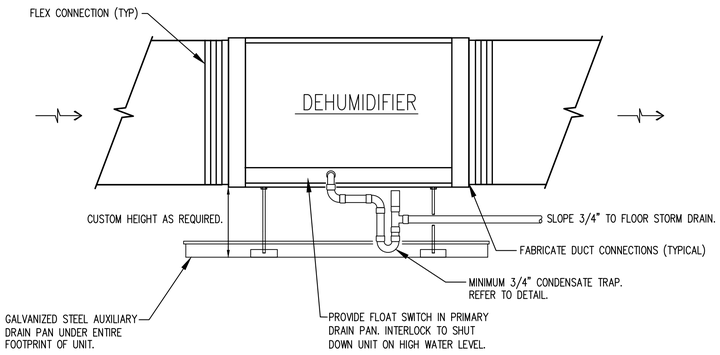


NOTES

1. FLEXIBLE CONNECTORS SHALL BE EXTENDED AND TAUT WITH NO BUNCHING.
2. WHERE TERMINAL BOX IS LOCATED MORE THAN 6'-0" FROM MAIN SUPPLY DUCT PROVIDE HIGH PRESSURE METAL ROUND DUCT TO EXTEND TO THE FLEXIBLE DUCT.
3. ROUND METAL OR FLEXIBLE DUCT CONNECTING TERMINAL BOXES TO HIGH PRESSURE SUPPLY DUCTWORK SHALL BE ONE SIZE LARGER THAN TERMINAL BOX INLET CONNECTION. TRANSITION TO BOX AS REQUIRED.
4. DDC ACTUATOR FURNISHED BY CONTROLS CONTRACTOR.

VAV BOX DETAIL

NOT TO SCALE

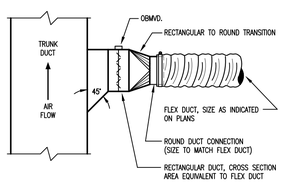


NOTES:

1. DHU SHALL BE MOUNTED ON NEOPRENE WAFFLE PADS (4 MIN.) TO MINIMIZE VIBRATION/NOISE.

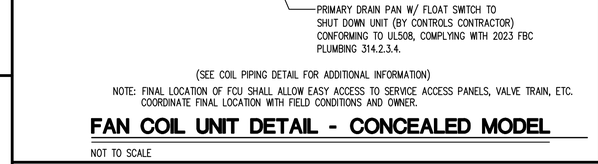
DEHUMIDIFIER UNIT - FLOOR MOUNTED DETAIL

NOT TO SCALE



TYPICAL SHALLOW SUPPLY TAKE-OFF

NOT TO SCALE

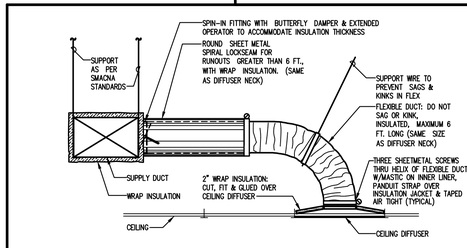


(SEE COIL PIPING DETAIL FOR ADDITIONAL INFORMATION)

NOTE: FINAL LOCATION OF FCU SHALL ALLOW EASY ACCESS TO SERVICE ACCESS PANELS, VALVE TRAIN, ETC. COORDINATE FINAL LOCATION WITH FIELD CONDITIONS AND OWNER.

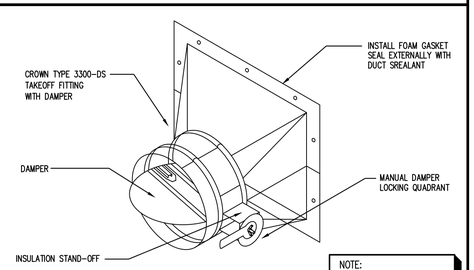
FAN COIL UNIT DETAIL - CONCEALED MODEL

NOT TO SCALE



CEILING DIFFUSER RUNOUT DETAIL

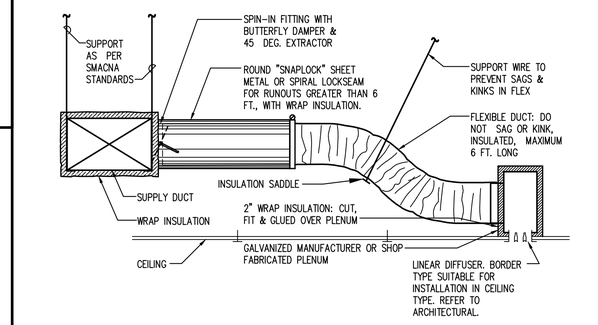
NOT TO SCALE



NOTE:
UPSTREAM OF VAV BOXES SHALL BE HIGH PRESSURE TYPE.

DUCT TAKE-OFF DETAILS

NOT TO SCALE



LINEAR DIFFUSER RUNOUT DETAIL

NOT TO SCALE

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797
CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850)-422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	6/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

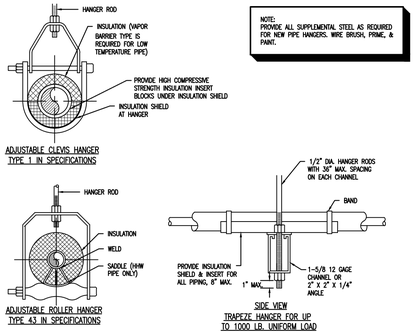
#	DATE	REVISION TITLE

MECHANICAL DETAILS

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS, INC. AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE PROJECT AND WITHOUT THE EXPRESS CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M601

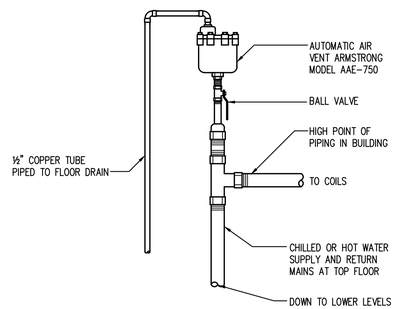


NOTE:
PROVIDE ALL SUPPLEMENTAL STEEL AS REQUIRED FOR NEW PIPE HANGERS. WIRE BRUSH, PRIME, & PAINT.

MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET																	
NOM. SIZE	THRU 3/4"	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
PIPE	7 FT	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32
TUBING	5 FT	6	7	8	8	9	10	12	13	14	16	—	—	—	—	—	—	—
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.																		

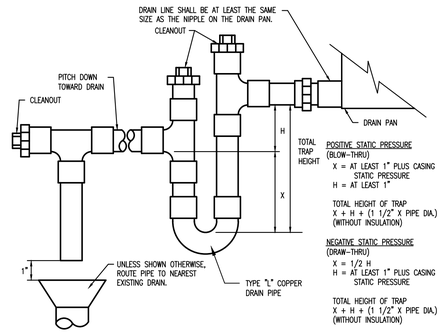
TYPICAL PIPE HANGERS

NOT TO SCALE



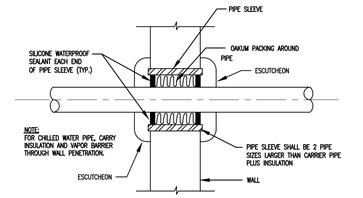
AUTOMATIC AIR VENT DETAIL

NOT TO SCALE



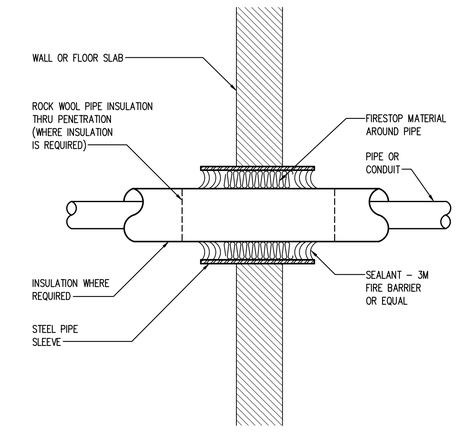
AIR HANDLING UNIT DRAIN TRAP DETAIL

NOT TO SCALE



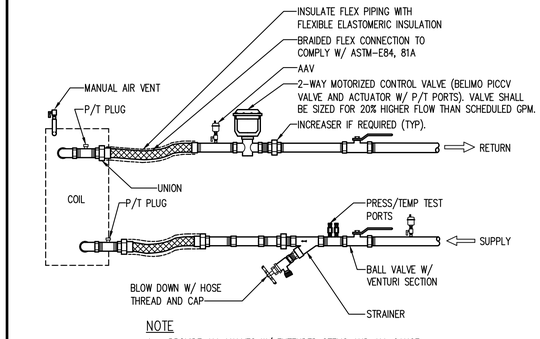
PIPES PIERCING WALLS DETAIL

NO SCALE (SIMILAR FOR HARD CEILING PENETRATIONS)



FIRE RATED WALL PENETRATION DETAIL

NOT TO SCALE

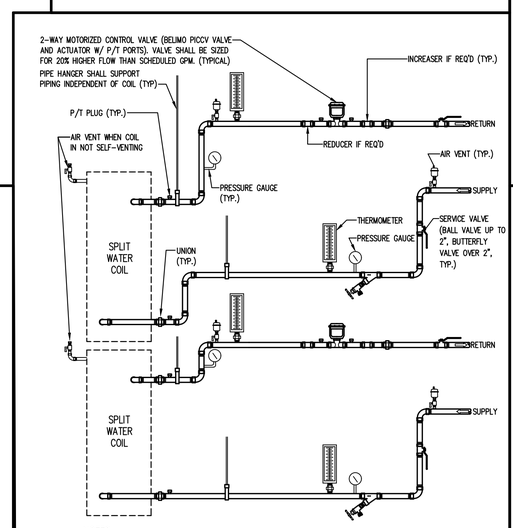


NOTE

1. PROVIDE ALL VALVES W/ EXTENDED STEMS AND ALL GAUGE PORTS W/ EXTENSIONS TO PROTRUDE BEYOND INSULATION.

2-WAY FCU COOLING COIL PIPING DETAIL

NOT TO SCALE

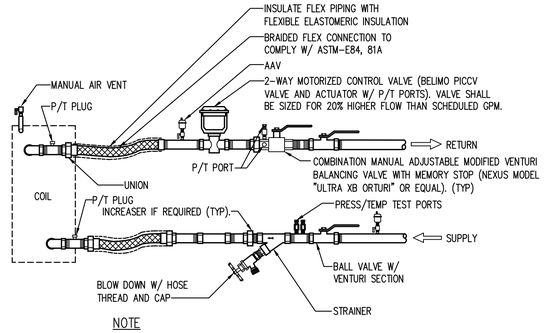


NOTES

1. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS. NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES OR EQUIPMENT.
2. THE WATER FLOW MEASURING DEVICE MAY BE INSTALLED IN THE SUPPLY PIPING IF THE REQUIRED MINIMUM UPSTREAM AND DOWNSTREAM DIMENSIONS CANNOT BE OBTAINED IN THE RETURN PIPE.
3. PROVIDE ALL VALVES WITH EXTENDED STEMS AND ALL GAUGE PORTS WITH EXTENSIONS TO PROTRUDE BEYOND INSULATION.

AIR HANDLING UNIT SPLIT COIL PIPING DETAIL WITH 2-WAY CONTROL VALVE

NOT TO SCALE



NOTE

1. PROVIDE ALL VALVES W/ EXTENDED STEMS AND ALL GAUGE PORTS W/ EXTENSIONS TO PROTRUDE BEYOND INSULATION.

2-WAY VAV BOX HEATING COIL PIPING DETAIL

(SIMILAR FOR FCU CHILLED WATER COIL PIPING.)

NOT TO SCALE

Dodstone Architects
3011-1 Powell Road
Tallahassee, FL 32308
850.656.7326
CRAIG ALLEN
P.E. #45797

CONSULTANT:
MECHANICAL/ELECTRICAL/PLUMBING
PINNACLE ENGINEERING GROUP, P.A.
2032 THOMASVILLE ROAD, SUITE C
TALLAHASSEE, FLORIDA 32308
(850) 422-1763 PHONE
ENGINEERING BUSINESS NO. 9793
PEG #225-110

THE FLORIDA SENATE

KNOTT BUILDING INTERIOR RENOVATIONS

PROJECT NUMBER: 2025-0332

#	DATE	SUBMISSION TITLE
01	8/12/25	SCHEMATIC DESIGN
02	10/09/25	100% CONSTRUCTION DOCUMENTS
03	10/31/25	100% PERMIT DOCUMENTS

#	DATE	REVISION TITLE

MECHANICAL DETAILS

AS INSTRUMENTS OF SERVICE, THESE DRAWINGS AND THE DESIGN ARE THE PROPERTY OF DODSTONE ARCHITECTS AND ARE PROTECTED BY STATE AND FEDERAL COPYRIGHT LAWS. REPRODUCTION OR USE OF THESE DRAWINGS OTHER THAN FOR THE SPECIFIC PROJECT INTENDED WITHOUT WRITTEN CONSENT FROM DODSTONE ARCHITECTS, INC. IS PROHIBITED.
©2025 DODSTONE ARCHITECTS

REVIEWED BY: CHA DRAWN BY: RDA

M602