CEILING SUPPLY DIFFUSERS	PIPING AND FITTINGS	AIR DISTRIBUTION	APPLICABLE CODES	HVAC NOTES	GENERAL NOTES	
SYMBOL CFM NECK SIZE MINIMUM - MAXIMUM 1/2 SPACING HARD CEILING LAY-IN CEILING 40-80 6"Ø 4' - 5' 12x12 24x24 85-180 8"Ø 4' - 8' 12x12 24x24	CONDENSATE DRAIN PIPING FROM COOLING COIL REFRIGERANT PIPING (ONE LINE REPRESENTS BOTH LIQUID AND GAS LINES) +9'-0" ELEVATION ABOVE FINISHED FLOOR (TO CENTERLINE OF PIPE) ECCENTRIC REDUCER CONCENTRIC REDUCER	RECTANGULAR SHEET METAL DUCT ROUND SHEET METAL DUCT DOUBLE WALL SHEET METAL DUCT	PERFORM WORK IN ACCORDANCE WITH THE FOLLOWING CODES AND ANY APPLICABLE STATUTES, ORDINANCES, CODES, AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. 1. ASHRAE a. STANDARD 15 SAFETY STANDARD FOR REFRIGERATION SYSTEMS - 2019 b. STANDARD 55 THERMAL ENVIRONMENTAL CONDITIONS FOR HUMAN OCCUPANCY - 2017 c. STANDARD 62.1 VENTILATION STANDARD FOR ACCEPTABLE INDOOR AIR QUALITY - 2019 d. STANDARD 90.1 ENERGY STANDARD FOR BUILDINGS EXCEPT LOW RISE RESIDENTIAL	 INSTALL DUCTWORK, PIPING, ETC. AS HIGH AS POSSIBLE ABOVE CEILING WHILE MAINTAINING ACCESSIBILITY FOR EQUIPMENT AND DEVICES AS APPROPRIATE. COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK AND PIPING INSTALLATIONS WITH ELECTRICAL TO PROVIDE THE REQUIRED CLEARANCES AROUND ALL ELECTRICAL PANELS, SWITCHGEAR, ETC. INSTALLATION OF EQUIPMENT, DUCTWORK AND PIPING SHALL PROVIDE CONVENIENT ACCESS FOR REMOVAL OF FILTERS AND FOR MAINTENANCE. DUCT SIZES GIVEN ARE SHEET METAL SIZES. COORDINATE EXACT LOCATIONS OF AIR DISTRIBUTION EQUIPMENT WITH THE CEILING AND THE LIGHTING 	 DRAWINGS ARE DIAGRAMMATIC, INDICATIVE OF WORK TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DIMENSIONS. FIELD VERIFY DIMENSIONS AND CONDITIONS. IF THE CONTRACTOR IS UNABLE TO INTERPRET THE CONTRACT DOCUMENTS, HE IS RESPONSIBLE TO REQUEST CLARIFICATION IN WRITING TO THE ARCHITECT. IF HE PROCEEDS WITH ANY WORK BEFORE OBTAINING CLARIFICATION, HE SHALL BE HELD RESPONSIBLE FOR DEFICIENCIES ASSOCIATED THEREWITH. BEFORE SUBMITTING FOR THE WORK, EACH BIDDER WILL BE RESPONSIBLE TO EXAMINE THE PREMISES AND SATISFY HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO 	2
185-340 10"Ø 8' - 10' 24x24 24x24 345-500 12"Ø 9' - 10' 24x24 24x24 505-600 14"Ø 10' - 12' 24x24 24x24	CAP CAP CAP CAP ELBOW TURNED UP ELBOW TURNED DOWN TEE, OUTLET UP	FLEXIBLE RUNOUT DUCT ROUND OR RECTANGULAR TAKE-OFF FITTING WITH BALANCING DAMPER - SEE DETAIL A/M5.1 SUPPLY AIR DUCTWORK SECTION	e. STANDARD 170 VENTILATION OF HEALTH CARE FACILITIES - 2017 2. ASME a. ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS - 2019 3. OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (OSHA).	LAYOUT. 6. THE RETURN AIR FROM INDIVIDUAL ROOMS IS THRU AN ABOVE-CEILING RETURN AIR PLENUM. 7. THE CEILING DIFFUSERS SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED. 8. PROVIDE NEW AIR FILTERS IN EACH UNIT REQUIRING FILTERS WHEN THE PROJECT IS READY FOR TEST AND BALANCE. DO NOT OPERATE UNITS WITHOUT FILTERS DURING CONSTRUCTION. REPLACE FILTERS DURING CONSTRUCTION ACCORDING TO FILTER MANUFACTURER'S RECOMMENDATIONS. SEAL ALL OPEN ENDS OF DUCT WORK DURING CONSTRUCTION.	 OPERATE AND COMPLETE THE WORK UNDER THIS CONTRACT. NO ALLOWANCE WILL SUBSEQUENTLY BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR OMISSION ON HIS PART. 4. THE CONTRACTOR SHALL PAY FOR INSPECTION PERMITS, CERTIFICATES, CONNECTION FEES, SYSTEM DEMAND CHARGES AND LICENSE FEES IN CONNECTION WITH HIS WORK. 5. CONSTRUCTION MANAGER/GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK OF SUBCONTRACTORS TO AVOID INTERFERENCES. 6. WORK SHALL COMPLY WITH APPLICABLE O.S.H.A. AND E.P.A. REGULATIONS AND GUIDELINES. 	ENGINEERING 114 EAST 5th AVENUE TALLAHASSEE, FL 32303 PHONE 850.224.7922
CEILING RETURN OR EXHAUST REGISTERS & GRILLES	TEE, OUTLET DOWN NEW PIPE	RETURN AIR DUCTWORK SECTION EXHAUST AIR DUCTWORK SECTION	4. NATIONAL FIRE CODES a. NFPA 1 FIRE CODE - 2021 (FLORIDA EDITION) b. NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEM - 2019 c. NFPA 25 STANDARD FOR THE INSPECTION, TESTING AND MAINTENANCE OF WATER-	 WHEREVER THE DEPTH OF THE TRUNK DUCT IS LESS THAN THE ROUND RUNOUT DUCT DIAMETER, PROVIDE TRANSITION FITTING OF EQUIVALENT AREA TO THE RUNOUT DUCT. WHERE ROUND DUCT IS INDICATED ON PLANS, USE SPIRAL WOUND DUCTWORK. "SNAPLOCK" DUCTWORK IS NOT ACCEPTABLE. PROVIDE 3 DIAMETERS OF STRAIGHT DUCT AT INLET TO AIR TERMINAL UNITS. DUCT SIZE SHALL BE SAME 	 ERECT AND MAINTAIN REASONABLE PRECAUTIONS FOR SAFETY AND HEALTH INCLUDING POSTING DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS INCLUDING PROMULGATING SAFETY REGULATIONS. PROVIDE SAFETY PRECAUTIONS AND BARRICADES FOR PEDESTRIANS AT CONSTRUCTION VEHICLE ACCESS AND EGRESS LOCATIONS. COORDINATE AND SEQUENCE DEMOLITION, CLEANING AND CONSTRUCTION WORK. SUBMIT A COMPLETELY 	www.H2Engineering.com H2E PROJECT No. 24179 THIS DOCUMENT IS THE PROPERTY OF H2Engineering AND IS PREPARED AS AN INSTRUMENT OF SERVICE. ITS
SYMBOL CFM GRILLE SIZE RUNOUT DUCT (NOTE 2) 0-95 8x8 (NOTE 1) 6x6 100-195 10x10 (NOTE 1) 8x8		AIR BALANCING DAMPER (MANUAL) CONTROL DAMPER (MOTORIZED)	BASED FIRE PROTECTION SYSTEMS - 2020 d. NFPA 70 NATIONAL ELECTRICAL CODE - 2020 e. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE - 2019 f. NFPA 90A STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS - 2021	AS BOX INLET. IF INLET DUCT LENGTH EXCEEDS 5 FEET, INCREASE INLET DUCT SIZE BY 4" UP TO 3 FEET FROM BOX INLET. 12. PROVIDE FLEXIBLE DUCT CONNECTIONS AT EACH EQUIPMENT CONNECTION. 13. OUTSIDE AIR INTAKES SHALL NOT BE LOCATED ANY CLOSER THAN 10 FEET FROM ANY EXHAUST OUTLET	DETAILED CONSTRUCTION SCHEDULE PRIOR TO PRE-CONSTRUCTION CONFERENCE. 9. THE CONTRACTOR SHALL STRICTLY BE HELD TO THE PROJECT SCHEDULE. HE SHALL PROVIDE SUFFICIENT MANPOWER AND EQUIPMENT TO FULLY MOBILIZE, PROCEED WITH AND COMPLETE THE WORK. 10. THE CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE OWNER FOR ON-SITE STORAGE OF CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE DEPOTE OF THE PROJECTION AND SECURITY OF	USE, REUSE OR REPRODUCTION, EXCEPT BY WRITTEN AGREEMENT WITH H2Engineering, IS PROHIBITED. Florida Registry #2485 Robert D. Richards, P.E. #90648
200-295 12x12 (NOTE 1) 10x8 OR 300-595 18x18 (NOTE 1) 12x12	MISCELLANEOUS POINT INDICATED CONNECT TO CIVIL	BDD BACKDRAFT DAMPER BACKDRAFT DAMPER	g. NFPA 90B STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS - 2021 h. NFPA 91 STANDARD FOR THE INSTALLATION OF BLOWER AND EXHAUST SYSTEMS - 2020 i. NFPA 101 LIFE SAFETY CODE - 2021 (FLORIDA EDITION)	OR PLUMBING VENT TERMINAL. 14. PROVIDE FIRE DAMPER AT EVERY DUCT PENETRATION OF FIRE RATED CONSTRUCTION, WHETHER SHOWN ON THE DRAWINGS OR NOT. 15. INSTALL DUCT MOUNTED SMOKE DETECTOR (FURNISHED BY DIV. 29) IN SUPPLY TRUNK DUCT BEFORE	CONSTRUCTION MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SECURITY OF EQUIPMENT AND MATERIALS. 11. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK ENVIRONMENT AT ALL TIMES AND SHALL CLEAN CONSTRUCTION SITE OF DEBRIS AT COMPLETION OF THE JOB AND BEFORE FINAL PAYMENT IS MADE.	
600-695 22x22 (NOTE 1) 12x12 700-795 24x24 (NOTE 1) 14x12	— - — 1 HOUR FIRE RATED WALL 2 HOUR FIRE RATED WALL	FIRE DAMPER - SEE DETAIL A/M5.2 DUCTWORK FLEXIBLE CONNECTION	5. FLORIDA BUILDING CODE, 2023 8TH EDITION a. BUILDING CODE	ANY TAKE-OFFS FOR AIR HANDLING UNITS WITH SUPPLY AIR CAPACITY GREATER THAN 2000 CFM AND WHERE INDICATED ON PLANS. 16. WHERE FIRE DAMPERS ARE REQUIRED, PROVIDE DUCT ACCESS DOORS TO ALLOW RE-LINKING OF DAMPER FUSIBLE LINKS. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE	 THE CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS TO THE ARCHITECT AT COMPLETION OF CONSTRUCTION. CONTRACTOR'S USE OF AN APPROVAL STAMP ON DOCUMENTS SUBMITTED AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND SIMILAR SUBMITTALS CERTIFIES THAT THE CONTRACTOR HAS COMPLIED 	
800-1500 48x24 (NOTE 1) 18x14 NOTES: 1. USE 22x22 GRILLE SIZE FOR ALL LAY-IN CEILING APPLICATIONS. USE SIZE INDICATED FOR HARD CEILING		DUCTWORK ACCESS PANEL	b. ENERGY CONSERVATION CODE c. MECHANICAL CODE d. PLUMBING CODE e. ACCESSIBILITY CODE	LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL. 17. WHERE DUCT MOUNTED SMOKE DETECTORS ARE REQUIRED, PROVIDE DUCT ACCESS DOORS TO ALLOW VIEWING AND SERVICING. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL.	WITH THE CONTRACT DOCUMENT REQUIREMENTS RELATED TO "SHOP DRAWINGS, PRODUCT DATA AND SAMPLES". 14. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE ARCHITECT/ ENGINEER'S APPROVAL OF SHOP DRAWINGS,	
APPLICATIONS. 2. WHERE DUCT CONNECTION IS SHOWN, RUNOUT DUCT SHALL BE SIZE SHOWN IN SCHEDULE U.N.O. 3. USE 18x18 GRILLE SIZE AND 12x12 RUNOUT DUCT FOR HARD CEILING APPLICATIONS WHERE SIZE OR AIRFLOW IS NOT INDICATED.	VALVES HOLDON, OF BALL VALVE (WITH QUARTER TURN HANDLE)	DUCT ELBOW WITH SINGLE THICKNESS TURNING VANES	6. FLORIDA STATUTES a. CHAPTER 471 ENGINEERING b. CHAPTER 533.80 BUILDING CONSTRUCTION STANDARDS; FLORIDA BUILDING CODE -	18. WHERE SMOKE DAMPERS OR COMBINATION FIRE/SMOKE DAMPERS ARE REQUIRED, PROVIDE DUCT ACCESS DOORS TO ALLOW RE-LINKING OF DAMPER FUSIBLE LINKS AND TO ALLOW VIEWING AND REMOVAL OF SMOKE DETECTORS. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL.	PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT/ENGINEER IN WRITING OF SUCH DEVIATION AT THE TIME OF SUBMITTAL AND THE ARCHITECT/ENGINEER HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP	
4. USE 12x12 RUN OUT DUCT FOR LAY-IN CEILING APPLICATIONS WHERE AIRFLOW IS NOT INDICATED. SIDEWALL REGISTERS AND GRILLES		SIDEWALL REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) SQUARE CEILING SA DIFFUSER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES	ENFORCEMENT 7. FLORIDA ADMINISTRATIVE CODE a. CHAPTER 9B-7 FLORIDA BUILDING COMMISSION HANDICAPPED ACCESSIBILITY STANDARDS	19. IT IS RECOMMENDED THAT DUCTWORK BE FABRICATED FROM FIELD MEASUREMENTS TAKEN AS THE BUILDING STRUCTURE AND SPACE COMPETING SYSTEMS ARE PROGRESSIVELY INSTALLED. THE DUCTWORK AS SHOWN ON THE CONSTRUCTION DOCUMENTS IS DIAGRAMMATIC AND DOES NOT NECESSARILY INCLUDE ALL MODIFICATIONS REQUIRED TO AVOID THESE INTERFERENCES. BEFORE	DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS BY THE ARCHITECT/ENGINEER'S APPROVAL THEREOF. 15. PRIOR TO INSTALLATION, COORDINATE AND ADJUST THE FINAL LOCATION OF WALL MOUNTED DEVICES AND EQUIPMENT WITH ALL CASEWORK, SHELVING, MARKER BOARDS, BULLETIN BOARDS OR OTHER WALL	
SUPPLY AIR RETURN AIR OR EXHAUST AIR	MILAGORLIMENTO AND CONTINOLO	UNLESS NOTED OTHERWISE) SHADED REGION INDICATED SECTORIZING BAFFLE(S) SEE DETAIL B/M5.1 RECTANGULAR CEILING RA REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) WHERE CFM IS NOT INDICATED, PROVIDE	c. CHAPTER 61G15-34 RESPONSIBILITY RULES OF PROFESSIONAL ENGINEERS CONCERNING THE DESIGN OF MECHANICAL SYSTEMS d. CHAPTER 69A-3 FIRE PREVENTION - GENERAL PROVISIONS	FABRICATING ANY DUCTWORK, CHECK THE PHYSICAL CONDITIONS AT THE JOB SITE AND MAKE CHANGES IN CROSS SECTIONS, ROUTING, OFFSETS AND SIMILAR ITEMS WHETHER SPECIFICALLY INDICATED OR NOT. VERIFY THAT SUFFICIENT CLEARANCES ARE AVAILABLE FOR INSTALLING DUCTWORK, PIPING, LIGHT FIXTURES. CEILING SYSTEMS AND TO PROVIDE EQUIPMENT SERVICE. COSTS REQUIRED TO CHANGE	MOUNTED FURNISHINGS. 16. SUPPORTS AND HANGERS SHALL PRESENT A NEAT, ORDERLY APPEARANCE. 17. ROOF MOUNTED EQUIPMENT SHALL BE SECURED TO STRUCTURE TO RESIST A 130 MPH WIND LOAD. 18. CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL FIRE, SMOKE, AND ACOUSTICAL WALL ASSEMBLIES.	
CFM REGISTER SIZE RUNOUT DUCT REGISTER SIZE RUNOUT DUCT	THERMOSTAT/TEMPERATURE SENSOR HUMIDITY SENSOR	STANDARD SIZE FOR CEILING TYPÉ INDICATED IN SCHEDULE SEE DETAIL C/M5.1 RECTANGULAR CEILING EA REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) - SEE DETAIL C/M5.1	e. CHAPTER 69A-47 UNIFORM FIRE SAFETY STANDARDS FOR ELEVATORS f. CHAPTER 69A-60 THE FLORIDA FIRE PREVENTION CODE RESOLVE, IN WRITING, ANY CODE VIOLATION DISCOVERED IN CONTRACT DOCUMENTS WITH THE ENGINEER	DUCTWORK TO FIT THE SPACE AVAILABLE AND AVOID INTERFERENCES CAUSED BY SPACE COMPETING SYSTEMS SHALL BE BORNE BY THE CONTRACTOR. NO ADDITIONAL REMUNERATION WILL BE PAID BY THE OWNER. 20. APPLY EXTERNAL INSULATION TO SINGLE WALL SUPPLY DUCTS. RETURN DUCTS AND OUTSIDE AIR DUCTS.	 BEAM AND FLOOR PENETRATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. BEAM SLEEVES AND BEAM REINFORCING APPROVED BY STRUCTURAL ENGINEER SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. CONTRACTOR SHALL FURNISH U.L. APPROVED DRAWINGS FOR EACH TYPE OF FIRE RATED ASSEMBLY 	
0-95 8x6 8x6 8x6 8x6 100-195 10x6 10x6 10x6 10x6	CO2 CARBON DIOXIDE SENSOR SP) STATIC PRESSURE SENSOR	ACCESS PANEL IN INACCESSIBLE CEILING (24x24, UNO)	PRIOR TO BIDDING. AFTER AWARD OF THE CONTRACT, MAKE ANY CORRECTION OR ADDITITION NECESSARY FOR COMPLIANCE WITH APPLICABLE CODES AT NO ADDITIONAL COST TO OWNER. THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR,	PER SPECIFICATIONS. DOUBLE WALL DUCTS AND DUCTS INDICATED ON PLANS TO HAVE INTERNAL DUCT LINER SHALL NOT RECEIVE EXTERNAL INSULATION. 21. PROVIDE VOLUME CONTROL DAMPERS IN SIDE TAKE-OFF FITTINGS TO SUPPLY AIR DIFFUSERS AND EXHAUST AIR AND RETURN AIR GRILLES AND AT EACH DUCT BRANCH SERVING TWO OR MORE AIR	PENETRATION BY DUCTS, PIPES OR CONDUITS. THESE DRAWINGS SHALL BE DISPLAYED ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION. SEE SPECIFICATIONS. 21. CONTRACTOR SHALL GUARANTEE THE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE IN ADDITION TO THE WARRANTIES PROVIDED BY	
200-295 12x6 12x6 18x6 300-395 16x6 16x6 24x6 24x6	DP DIFFERENTIAL PRESSURE SENSOR	DUCT MOUNTED SMOKE DETECTOR (PROVIDED AND INSTALLED BY FIRE ALARM CONTRACTOR)	MATERIALS, SERVICES, APPARATUS, AND DRAWINGS REQUIRED TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, AND REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND THE APPLICABLE CODES, THE	TERMINALS, WHETHER SHOWN ON THE DRAWINGS OR NOT. 22. MINIMUM PIPE SIZE FOR COOLING COIL CONDENSATE SHALL BE 3/4". REFER TO SCHEDULE FOR RUNOUT PIPE SIZE TO INDIVIDUAL EQUIPMENT.	MATERIAL SUPPLIERS AND MANUFACTURERS. 22. EXIT WAYS SHALL BE KEPT CLEAR. IF AN EXIT MUST BE TEMPORARILY BLOCKED, PROVIDE THE REQUIRED BARRICADE AND DIRECTIONAL SIGNS FOR TEMPORARY EXITING AND SAFETY.	
400-495 18x8 18x8 30x8 30x8 500-595 18x10 18x10 30x10 30x10	AIRFLOW MONITORING STATION	DOOR UNDERCUT (3/4", UNO)	CODES SHALL GOVERN, EXCEPT WHERE THE REQUIREMENTS OF THE CONTRACT DOCUMENTS ARE MORE STRINGENT.	 23. SECTIONS OF PIPE STORED ON SITE OR PLACED IN TRENCHES SHALL HAVE EACH OPEN END COVERED AT ALL TIMES EXCEPT WHILE MAKING CONNECTIONS. IF DEBRIS IS FOUND INSIDE PIPE, IT SHALL BE COMPLETELY REMOVED PRIOR TO ASSEMBLY. 24. PROVIDE ACCESS PANEL AT EACH LOCATION WHERE A VALVE, DAMPER OR OTHER DEVICE REQUIRING 		FLORIDA SHERIFFS YOUTH
300-333 10x10 10x10 30x10		LENGTH OF DIFFUSER (FEET) NUMBER OF SLOTS	COMMISSIONING NOTES	SERVICE IS LOCATED ABOVE AN INACCESSIBLE CEILING OR INSIDE A WALL. ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL. COORDINATE ACCESS PANEL LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. 25. COORDINATE LOUVER AND DEVICE LOCATIONS WITH WALL STRUCTURAL REINFORCEMENT. SEE		LEARNING
		SLOT WIDTH (2 = 1/2", 3 = 3/4", 4 = 1", 6 = 1 1/2") 4-4-4-12 ——INLET SIZE (INCHES) AIR FLOW (CFM)	THE BUILDING MECHANICAL SYSTEMS SHALL BE COMMISSIONED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE – ENERGY CONSERVATION, SECTION C408 "SYSTEMS COMMISSIONING".	 STRUCTURAL DRAWINGS FOR LOCATION OF LINTELS, BOND BEAMS AND REINFORCING. 26. COORDINATE ALL DUCT TEST WITNESSING WITH LOCAL MECHANICAL INSPECTOR. 27. PRIOR TO FINAL INSPECTION, PROVIDE CERTIFIED TEST & BALANCE REPORT AND OPERATIONS & MAINTENANCE MANUALS TO THE OWNER. 		CENTER AND
		SA SLOT DIFFUSER WITH PLENUM / BOOT (FLOW DIRECTION INDICATED) - SEE DETAIL D/M5.2	2. THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER SHALL BE RESPONSIBLE FOR PROVIDING THE SERVICES OF AN APPROVED COMMISSIONING PROVIDER FROM ONE OF THE FOLLOWING PROVIDERS: Output Description:	28. PROVIDE DUCT ACCESS DOOR AT EACH FLOW MEASURING STATION. 29. DUCT CONSTRUCTION, INCLUDING SHEET METAL THICKNESSES, SEAM AND JOINT CONSTRUCTION, REINFORCEMENTS, AND HANGERS AND SUPPORTS, SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE DUCT."	BOD BOTTOM OF DUCT N.C. NORMALLY CLOSED BOP BOTTOM OF PIPE N.O. NORMALLY OPEN BS BRANCH SELECTOR OA OUTSIDE AIR BTUH BRITISH THERMAL UNITS PER HOUR RA RETURN AIR	BLACKBURN-HUNT BUILDING
		LINEAR BAR RAG, SIZE AND AIR FLOW (CFM)	1. H2ENGINEERING 2. MOSES ENGINEERING 3. MITCHELL GULLEDGE ENGINEERING	DELEGATED DESIGN CALCULATION REQUIREMENTS	C CONDENSATE RAG RETURN AIR GRILLE CFM CUBIC FEET PER MINUTE REF REFRIGERANT CU CONDENSING UNIT RPM REVOLUTIONS PER MINUTE	MAHAN DRIVE
		├	3. MECHANICAL SYSTEM TESTING SHALL ENSURE THAT COMPONENTS, EQUIPMENT, SYSTEMS, AND SYSTEM-TO-SYSTEM INTERFACING RELATIONSHIPS ARE CALIBRATED, ADJUSTED, AND OPERATE IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS. TESTING SHALL INCLUDE ALL MODES AND SEQUENCES OF OPERATION, INCLUDING UNDER FULL-	THESE MECHANICAL SYSTEM ENGINEERING DOCUMENTS REPRESENT THE DESIGN INTENT FOR SUPPORTING AND SECURING THE MECHANICAL EQUIPMENT BASED ON DESIGN CRITERIA BELOW. THE DELEGATED ENGINEER IS RESPONSIBLE FOR PROVIDING A COMPLETE DESIGN. APPROVED BY THE	DN DOWN SA SUPPLY AIR DSSI DUCTLESS SPLIT SYSTEM INDOOR UNIT SMS SHEET METAL SIZE DSSO DUCTLESS SPLIT SYSTEM OUTDOOR UNIT SP STATIC PRESSURE EA EXHAUST AIR SQ FT SQUARE FEET	TALLAHASSEE, FL.
			LOAD, PART-LOAD, AND EMERGENCY CONDITIONS. 4. A COMMISSIONING PLAN SHALL BE DEVELOPED BY THE COMMISSIONING PROVIDER AND SHALL INCLUDE THE FOLLOWING ITEMS: (1) A NARRATIVE DESCRIPTION OF THE ACTIVITIES THAT WILL BE ACCOMPLISHED DURING EACH PHASE OF COMMISSIONING, INCLUDING THE PERSONNEL INTENDED	AUTHORITY HAVING JURISDICTION, TO SUPPORT AND SECURE THE MECHANICAL EQUIPMENT WITHOUT OBSTRUCTING REQUIRED SERVICE CLEARANCES. 2. DESIGN CRITERIA:	EAG EXHAUST AIR GRILLE TAG TRANSFER AIR GRILLE EF EXHAUST FAN TAS TRANSFER AIR SLEEVE F FEET TOD TOP OF DUCT °Fdb DEGREES FAHRENHEIT DRY BULB TYP TYPICAL	
			TO ACCOMPLISH EACH OF THE ACTIVITIES; (2) A LISTING OF THE SPECIFIC EQUIPMENT, APPLIANCES, OR SYSTEMS TO BE TESTED AND A DESCRIPTION OF THE TESTS TO BE PERFORMED; (3) FUNCTIONS TO BE TESTED, INCLUDING BUT NOT LIMITED TO, CALIBRATIONS AND CONTROLS; (4) CONDITIONS UNDER WHICH THE TEST WILL BE PERFORMED, INCLUDING BUT NOT LIMITED TO.	WIND SPEED: 130 MPH. RISK CATEGORY: III. WEIGHT: PER APPROVED SUBMITTALS AND SHOP DRAWINGS. DEFLECTION LIMITS: PER MANUFACTURER'S REQUIREMENTS IN APPROVED SUBMITTALS AND SHOP	°Fwb DEGREES FAHRENHEIT WET BULB UC DOOR UNDERCUT (3/4", UNO) FD FIRE DAMPER UNO UNLESS NOTED OTHERWISE FPM FEET PER MINUTE V VALVE FSD COMBINATION FIRE/SMOKE DAMPER VFD VARIABLE FREQUENCY DRIVE	CRA ARCHITECTS
			AFFIRMING WINTER AND SUMMER DESIGN CONDITIONS AND FULL OUTSIDE AIR CONDITIONS; (5) MEASURABLE CRITERIA FOR PERFORMANCE. 5. PRIOR TO PASSING THE FINAL INSPECTIONS, THE COMMISSIONING PROVIDER SHALL PROVIDE EVIDENCE OF SYSTEMS COMMISSIONING AND COMPLETION. A COMPLETED PRELIMINARY REPORT	DRAWINGS. 3. DELEGATED ENGINEER SHALL PROVIDE SIGNED AND SEALED DATA TO THE ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION INCLUDING THE FOLLOWING AS APPLICABLE. BUT NOT LIMITED TO:	HOAS HIGH PERCENTAGE OUTSIDE AIR SYSTEM WG WATER GAUGE	
			THE COMMISSIONING TEST PROCEDURES AND RESULTS SHALL BE PROVIDED TO THE OWNER, CERTIFIED BY THE COMMISSIONING PROVIDER. THE REPORT SHALL BE IDENTIFIED AS "PRELIMINARY COMMISSIONING REPORT" AND SHALL IDENTIFY: (1) ITEMIZATION OF DEFICIENCIES FOUND DURING TESTING THAT HAVE NOT BEEN CORRECTED AT THE TIME OF THE REPORT	 DETAIL FABRICATION AND ASSEMBLY OF SUPPORT STRUCTURE, DESIGN CALCULATIONS FOR STATIC AND DYNAMIC LOADING DUE TO EQUIPMENT WEIGHT AND OPERATION AND WIND FORCES REQUIRED TO SELECT WIND RESTRAINT, 	M0.1 GENERAL NOTES, LEGENDS & SCHEDULES M1.1 YOUTH LEARNING CENTER - 1ST FLOOR PLAN	Clemons, Rutherford, & Associates, Inc.
			PREPARATION; (2) DEFERRED TESTS THAT CANNOT BE PERFORMED DUE TO CLIMATIC CONDITIONS; AND (3) CLIMATIC CONDITIONS REQUIRED FOR PERFORMANCE OF DEFERRED TESTS. THE PRELIMINARY COMMISSIONING REPORT SHALL BE MADE AVAILABLE TO THE CODE OFFICIAL AT THEIR REQUIEST	3.). SECUREMENT DETAILS WITH ANCHORAGES AND ATTACHMENTS TO STRUCTURE AND TO SUPPORTED EQUIPMENT.	M1.1 YOUTH LEARNING CENTER - 1ST FLOOR PLAN M1.2 YOUTH LEARNING CENTER - 2ND FLOOR PLAN M1.3 YOUTH LEARNING CENTER - 1ST FLOOR PLAN M1.4 YOUTH LEARNING CENTER - 2ND FLOOR PLAN	Architects Planners
			6. WITHIN 90 DAYS OF CERTIFICATE OF OCCUPANCY, PROVIDE THE FINAL COMMISSIONING REPORT TO OWNER. THE REPORT SHALL BE IDENTIFIED AS "FINAL COMMISSIONING REPORT" AND SHALL INCLUDE (1) RESULTS OF FUNCTIONAL PERFORMANCE TESTS; (2) DISPOSITION OF DEFICIENCIES FOUND DURING TESTING, INCLUDING DETAILS OF CORRECTIVE MEASURES USED OR PROPOSED:		M1.8 YOUTH LEARNING CENTER - ROOF PLAN M4.1 SCHEDULES M4.2 SCHEDULES	Interior Designers Construction Managers 2027 Thomasville Road
			(3) FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING THE COMMISSIONING PROCESS, INCLUDING MEASURED CRITERIA FOR TEST ACCEPTANCE, PROVIDED HEREIN FOR REPEATABILITY. EXCEPTION: DEFERRED TESTS WHICH CANNOT BE PERFORMED AT THE TIME OF		M5.1 DETAILS M5.2 DETAILS	Tallahassee, Florida 32308 phone 850-385-6153
			REPORT PREPARATION FOR CLIMATIC CONDITIONS. 7. HVAC, CONTROLS AND TAB CONTRACTORS SHALL ASSIST WITH COMMISSIONING EFFORTS INCLUDING (NOT LIMITED TO) PERFORMING PRE-TESTING OF FUNCTIONAL PERFORMANCE TEST (TEST CRITERIA PROVIDED BY COMMISSIONING AUTHORITY) PRIOR TO COMMISSIONING AUTHORITY			fax 850-386-8420 cra@clemons-rutherford.com
			PERFORMING FUNCTION PERFORMANCE TEST VERIFICATION WITH AFOREMENTIONED CONTRACTORS.			The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner
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APPLICABLE CODES

HVAC NOTES

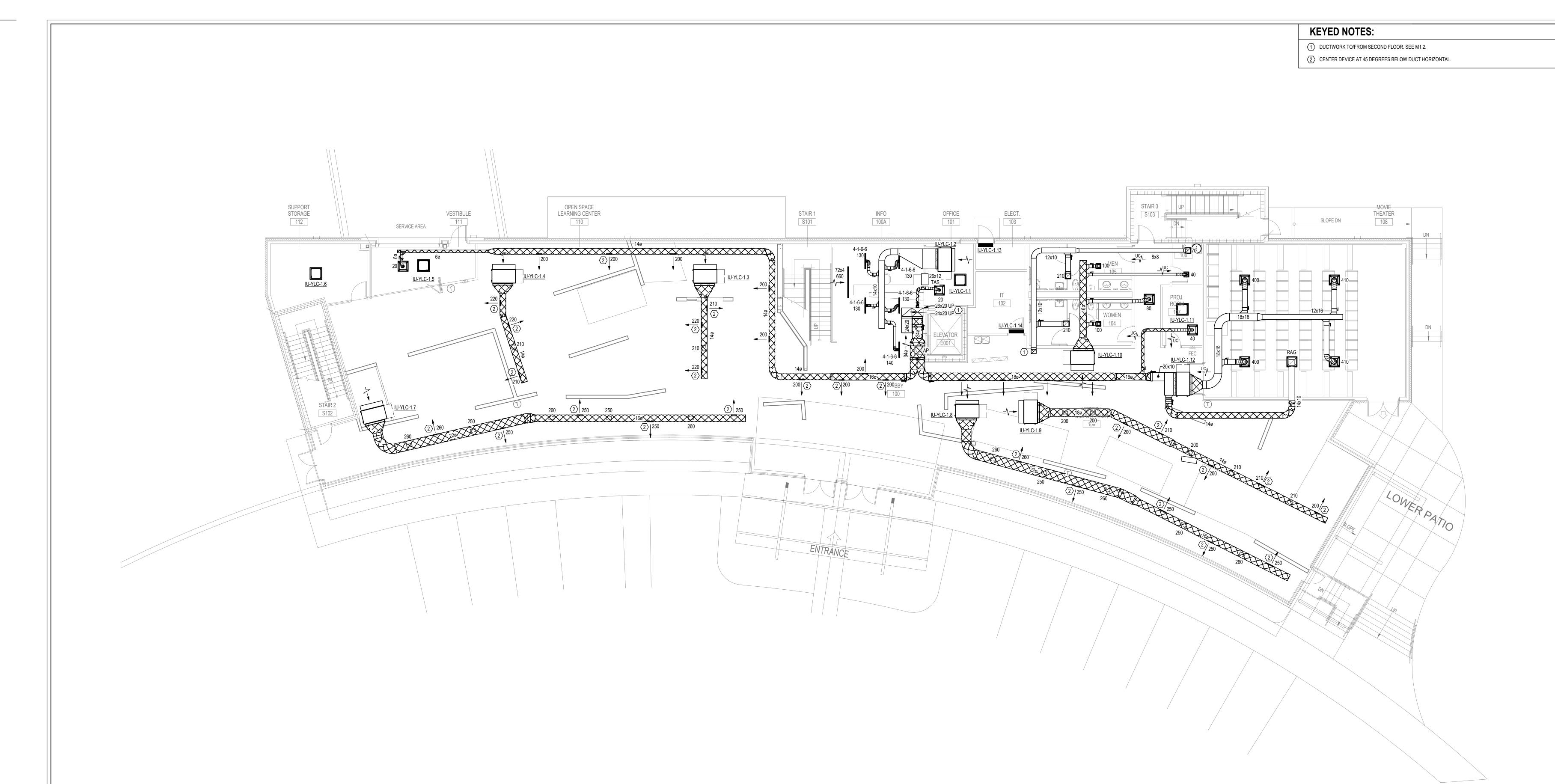
CEILING SUPPLY DIFFUSERS

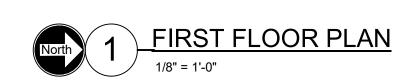
PIPING AND FITTINGS

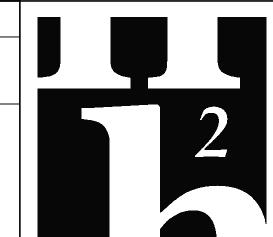
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GENERAL NOTES

M0.1







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Florida Registry #2485
Robert D. Richards, P.E. #90648

FLORIDA SHERIFFS YOUTH LEARNING CENTER AND BLACKBURN-HUNT BUILDING

MAHAN DRIVE TALLAHASSEE, FL.



Clemons, Rutherford, & Associates, Inc.

Architects

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Planners
Interior Designers
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cra@clemons-rutherford.com

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Submittal								
Phase	Date	Drw	Chk					
DESIGN DEVELOPMENT	02-28-25	MAW	RDR					
50% CD	04-15-25	MAW	RDR					
100% CD	07-18-25	MAW	RDR					

Revision

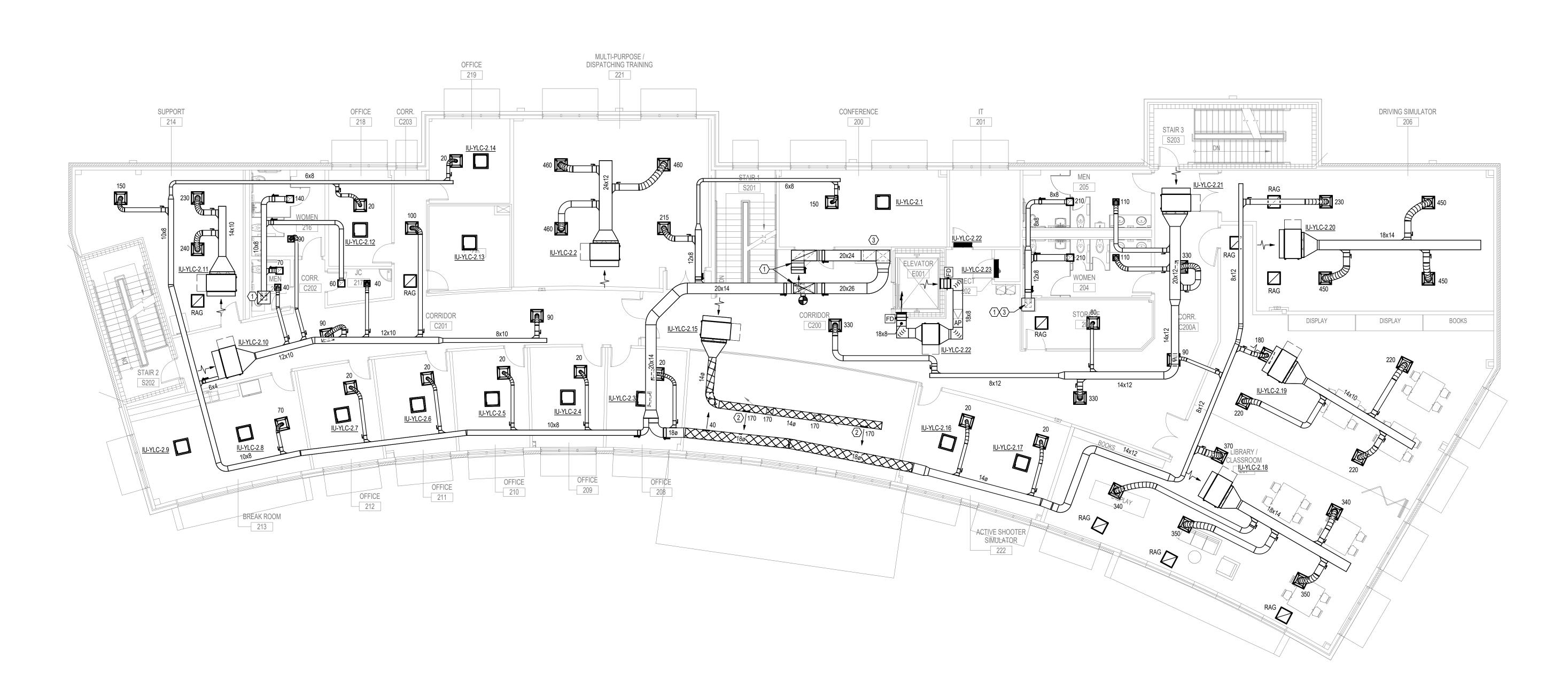
Description

CRA Project #______**24029**

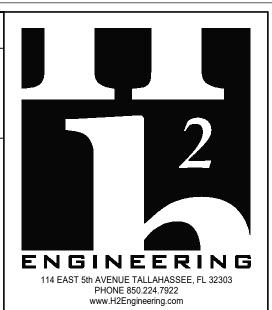
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YOUTH LEARNING CENTER - 1ST FLOOR PLAN

- ① DUCTWORK TO/FROM ROOF. SEE 1/M1.8.
- (2) CENTER DEVICE AT 45 DEGREES BELOW DUCT HORIZONTAL.
- 3 DUCTWORK TO/FROM FIRST FLOOR. SEE M1.1.







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100% CD	07-18-25	MAW	RDR							

Revision
Description

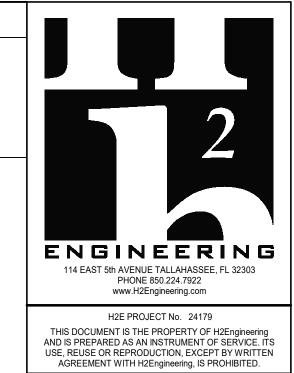
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CRA Project # **24029**

YOUTH LEARNING CENTER - 2ND FLOOR PLAN



- ROUTE CONDENSATE PIPING DOWN TO FLOOR SINK IN THIS VICINITY. SEE PLUMBING DRAWINGS.
- (2) REFRIGERANT PIPING FROM ABOVE. SEE M1.4 FOR CONTINUATION.
- ROUTE CONDENSATE PIPING DOWN INSIDE WALL TO 12" AFF AND TO BUILDING EXTERIOR AS INDICATED.
- (4) CONDENSATE FROM ABOVE. SEE M1.4 FOR CONTINUATION.



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Submi	ttal		
Phase	Date	Drw	Chk
GN DEVELOPMENT	02-28-25	MAW	RDR
CD	04-15-25	MAW	RDR
CD	07-18-25	MAW	RDR

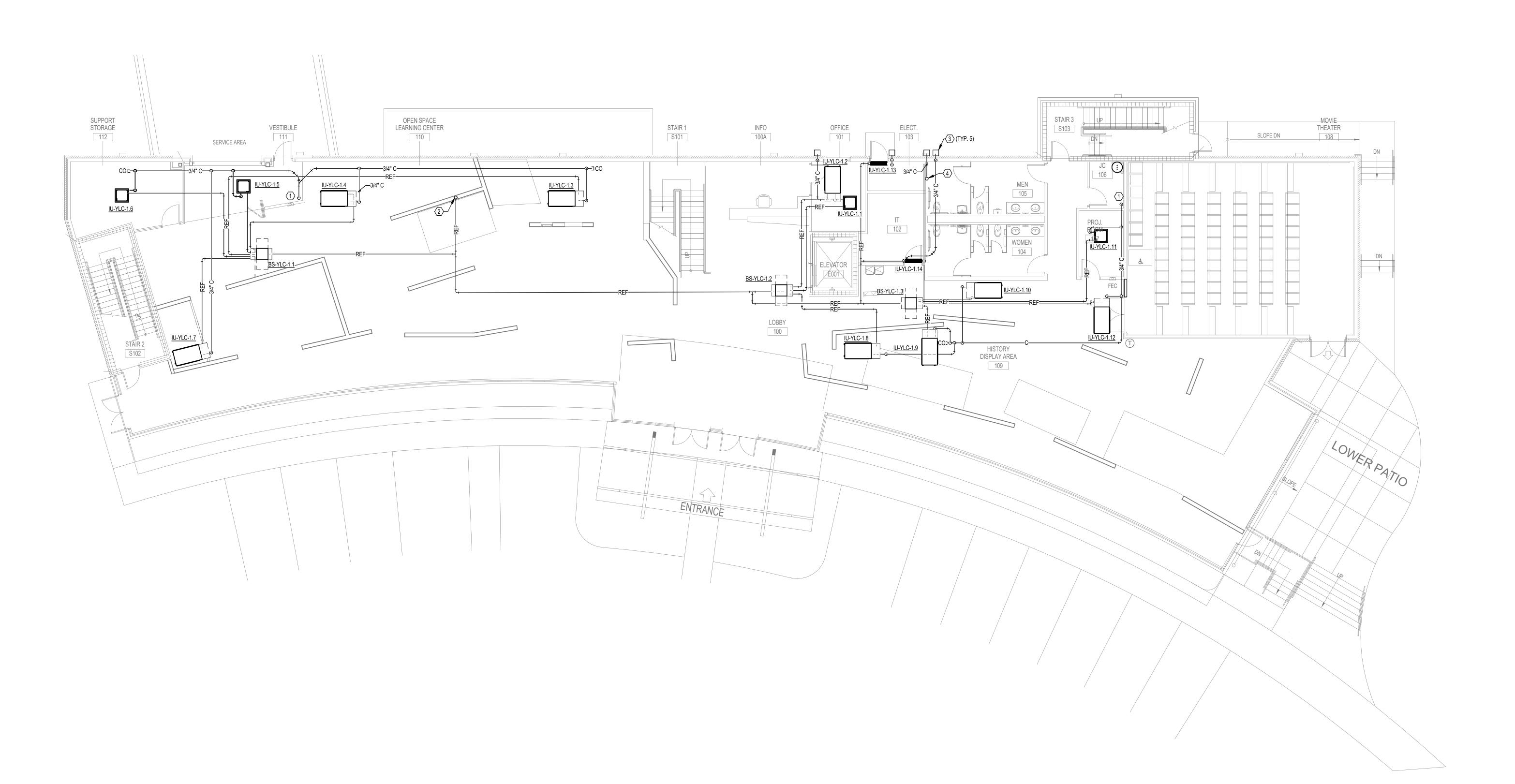
Revision

Description

CRA Project #______**24029**

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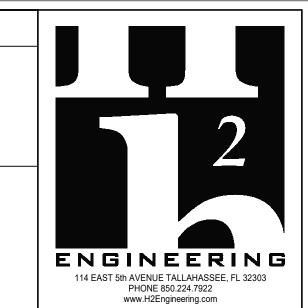
YOUTH LEARNING
CENTER - 1ST FLOOR
PLAN
M1.3





KEYED NOTES:

- (1) ROUTE CONDENSATE PIPING DOWN TO FLOOR SINK IN THIS VICINITY. SEE PLUMBING DRAWINGS.
- REFRIGERANT PIPING FROM ABOVE. SEE M1.8 FOR CONTINUATION.
 REFRIGERANT PIPING TO BELOW. SEE M1.3 FOR CONTINUATION.
- REFRIGERANT PIPING TO BELOW. SEE M1.3 FOR CONTINUAT
- (4) CONDENSATE PIPING TO BELOW. SEE M1.3 FOR CONTINUATION.



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FLORIDA
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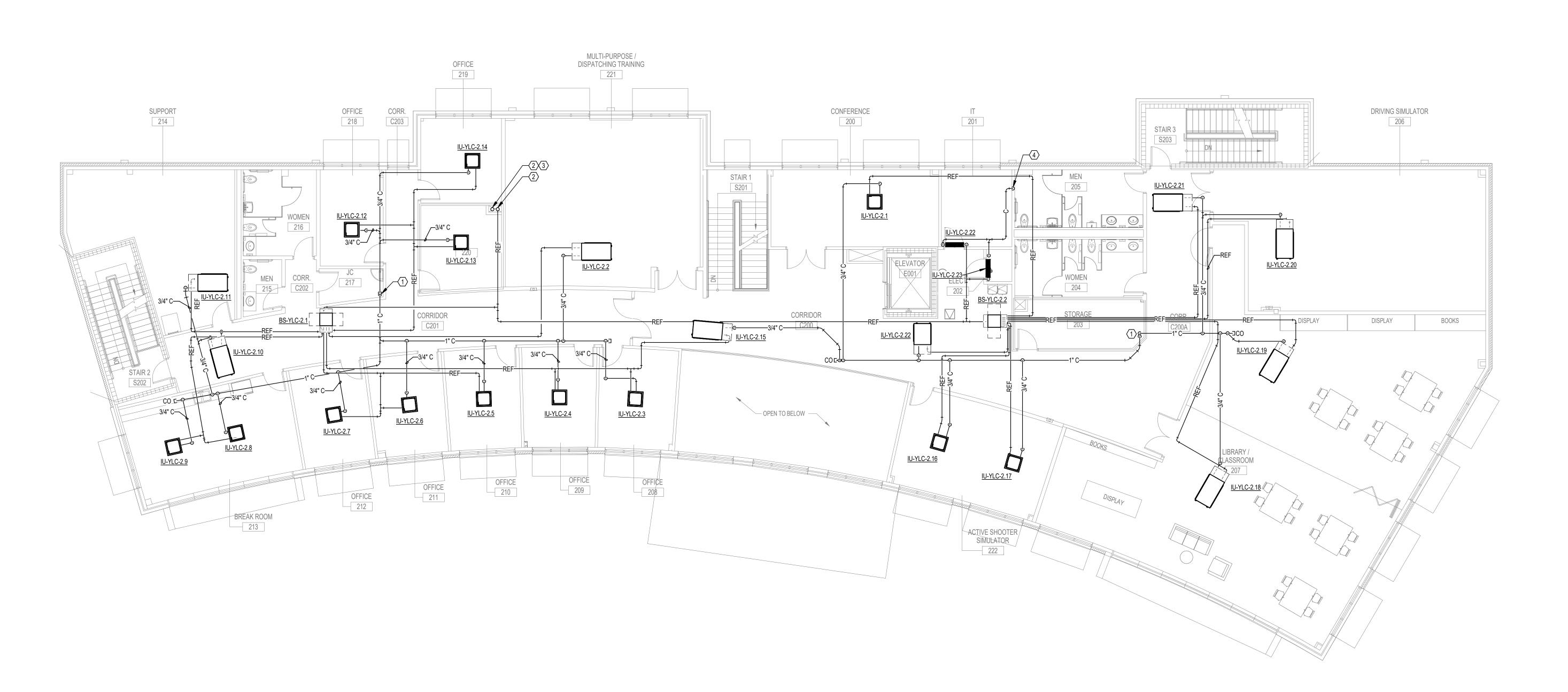
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Date	Drw	Chk							
02-28-25	MAW	RDR							
04-15-25	MAW	RDR							
07-18-25	MAW	RDR							
	Date 02-28-25 04-15-25	Date Drw 02-28-25 MAW 04-15-25 MAW 07-18-25 MAW							

Revision

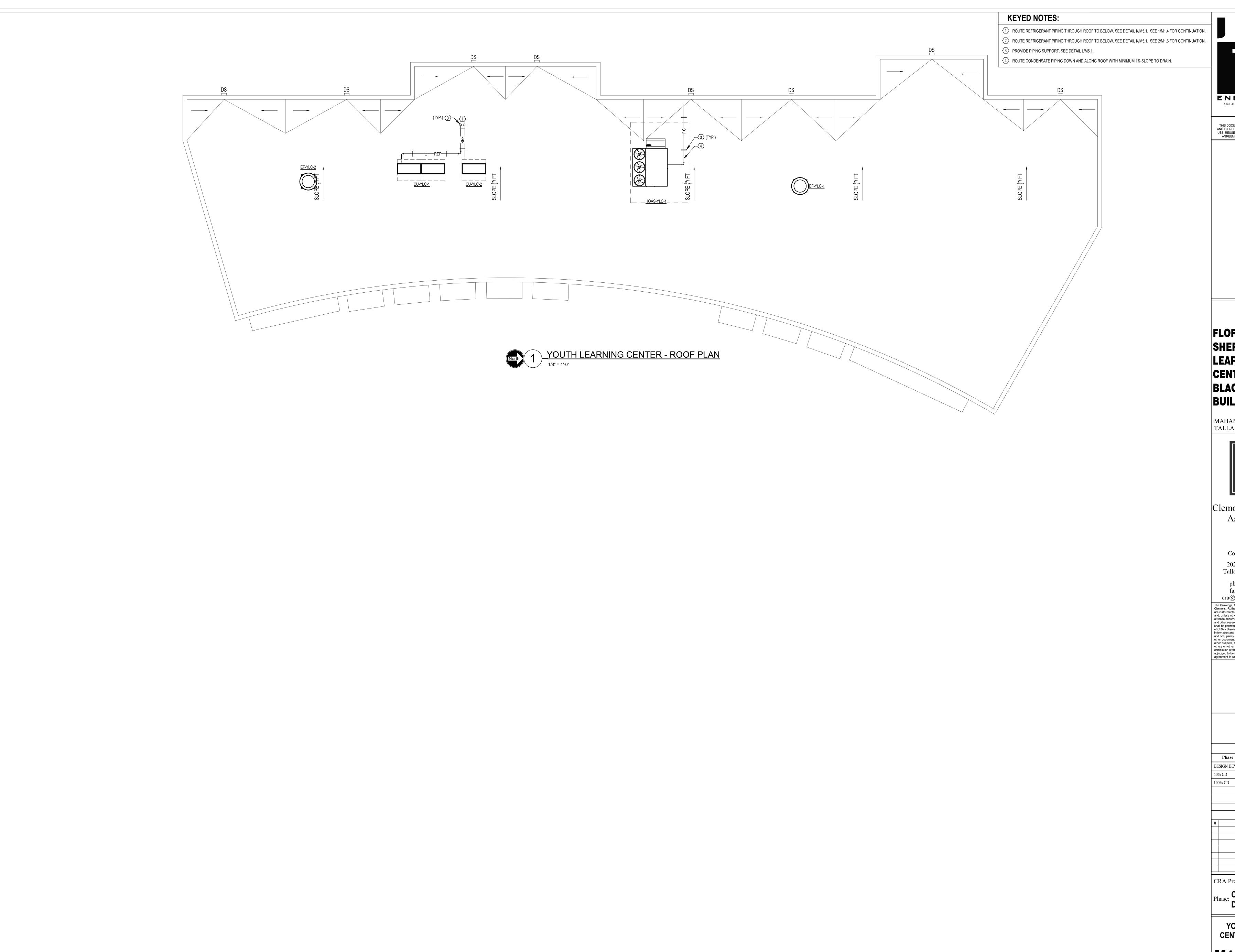
Description

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YOUTH LEARNING
CENTER - 2ND FLOOR
PLAN
M1.4







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0% CD	04-15-25	MAW	RDR				
00% CD	07-18-25	MAW	RDR				

Revision

Description

CRA Project # **24029**

hase: CONSTRUCTION DOCUMENTS

YOUTH LEARNING CENTER - ROOF PLAN

YPE			A2	A5	A6	D1	D3	D5	D6	D7	D9	D10	E1	E2	H5
ESCRIPTION			2x2 CEILING CASSETTE	2x2 CEILING CASSETTE	2x2 CEILING CASSETTE	DUCTED CONCEALED ABOVE CEILING	WALL MOUNTED								
	TOTAL COOLING CAPACITY (NOTE 1)	BTUH	7,500	15,000	18,000	7,200	12,000	18,000	24,000	30,000	48,000	57,000	72,000	96,000	24,000
	SENSIBLE COOLING CAPACITY (NOTE 1)	BTUH	5,500	10,800	13,000	6,100	9,700	13,800	16,800	22,400	34,800	41,800	56,900	71,100	18,000
	HEATING CAPACITY (NOTE 2)	BTUH	8,500	17,000	20,000	8,500	13,500	20,000	27,000	34,000	54,000	60,000	81,000	108,000	26,500
	AIR FLOW RATE (HIGH / LOW)	CFM	307 / 229	405 / 282	511 / 353	317 / 229	450 / 388	635 / 529	688 / 565	1,094 / 812	1,377 / 988	1,624 / 1,130	2,047 / 1,764	2,541 / 2,188	635 / 470
	EXTERNAL STATIC PRESSURE (HIGH / LOW)	IN. WG	N/A	N/A	N/A	0.40 / 0.12	0.40 / 0.12	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.95 / 0.38	0.95 / 0.44	N/A
	SOUND PRESSURE LEVEL (HIGH / LOW)	dBA	32 / 26	37 / 28	43 / 33	31 / 29	37 / 35	39 / 37	40 / 38	41 / 39	42 / 40	45 / 43	49 / 46	49 / 46	47 / 41
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1
	MINIMUM CIRCUIT AMPACITY	AMPS	0.3	0.4	0.6	0.6	1.4	1.6	1.8	2.8	3.4	3.4	9.5	10.7	0.6
	MAXIMUM OVERLOAD PROTECTION	AMPS	15	15	15	15	15	15	15	15	15	15	15	15	15
	CONDENSATE DRAIN SIZE	IN.	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1	1	3/4
	OUTSIDE AIR INTAKE SIZE	IN.	4	4	4	N/A	N/A								
	WEIGHT	LBS.	35	37	41	55	62	80	80	102	102	104	302	302	31
	FAN DRIVE		DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
IANUFACTUR	ER		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
ODEL NUMB	ER		FXZQ07	FXZQ15	FXZQ18	FXMQ07	FXMQ12	FXMQ18	FXMQ24	FXMQ30	FXMQ48	FXMQ54	FXMQ72	FXMQ96	FXAQ24
ETAIL REFER	RENCE		G/M5.1	G/M5.1	G/M5.1	F/M5.1	H/M5.1								

COOLING CAPACITY RATED @ 95°F AMBIENT, 80°Fdb / 67°Fwb ENTERING AIR TEMPERATURE.

HEATING CAPACITY RATED @ 47°Fdb / 43°Fwb AMBIENT, 70°Fdb ENTERING AIR

DESIGNATION	SCHEDULED	DESCRIPTION	COMBINATION RATIO	ADJUSTED CAPACITY
	TYPE		(%)	(BTUH)
CU-YLC-1	I	HEAT RECOVERY	130%	260,520
CU-YLC-2	Н	HEAT RECOVERY	130%	237,160

ADJUSTED CAPACITY @ INDOOR DESIGN TEMPERATURE & COMBINATION RATIO.

REFRIGERANT PIPING SHALL BE SIZED BY MANUFACTURER. COAT ENTIRE CONDENSING UNIT WITH CORROSION INHIBITOR.

OUTDOOR	CONDITIONS - DESIGN DAY (TALLAHASSEE, FLORIDA)						
	COOLING (0.4% ANNUAL)	°Fdb	-	°Fwb	96.2	-	76.2
	HEATING (99.6% ANNUAL)		°Fdb			26.5	
	ENTHALPY (0.4% ANNUAL)	°Fdb	-	°Fwb	89.0	-	79.9
	DEHUMIDIFICATION (0.4% ANNUAL)	°Fdb	-	°Fwb	82.9	-	79.2
	EVAPORATION (0.4% ANNUAL)	°Fdb	-	°Fwb	88.8	-	80.0
	HUMIDIFICATION (99% ANNUAL)	(GR/L	В		13.0	
INDOOR C	ONDITIONS - SUMMER	,			ı		
	OFFICE AREAS (EXCEPT AS NOTED BELOW)	°Fdb	-	%RH	74	-	55
	CLASSROOMS	°Fdb	-	%RH	74	-	50
	MUSEUMS / ARCHIVES	°Fdb	-	%RH	70	-	50
	TELECOMMUNICATION ROOMS	°Fdb	-	%RH	78	-	55
	MECHANICAL / ELECTRICAL ROOMS / SERVICE AREAS	°Fdb	-	%RH	80	-	50
	ELEVATOR MACHINE ROOMS	°Fdb	-	%RH	80	-	50
INDOOR C	ONDITIONS - WINTER						
	OFFICE AREAS (EXCEPT AS NOTED BELOW)	°Fdb	-	%RH	70	-	30
	CLASSROOMS	°Fdb	-	%RH	70	-	30
	MUSEUMS / ARCHIVES	°Fdb	-	%RH	68	-	45
	TELECOMMUNICATION ROOMS	°Fdb	-	%RH	65	-	30
	MECHANICAL / ELECTRICAL ROOMS / SERVICE AREAS	°Fdb	-	%RH	70	-	30

ELEVATOR MACHINE ROOMS

°Fdb - %RH 70 - 30

TYPE			Н	I
DESCRIPTION			HEAT RECOVERY	HEAT RECOVERY
PERFORMANCE				
	NOMINAL CAPACITY	TONS	20	22
	COOLING CAPACITY (NOTE 1)	BTUH	240,000	264,000
	HEATING CAPACITY (NOTE 2)	BTUH	270,000	297,000
	EER (NOTE 3)	BTU / W-HR	11.65	10.80
	IEER (NOTE 3)	BTU / W-HR	21.10	19.80
	SIMULATANEOUS COOLING & HEATING EFFICIENCY (NOTE 3)	BTU / W-HR	23.70	22.15
	COEFFICIENT OF PERFORMANCE (NOTE 3)	BTU / W-HR	3.54	3.41
	SOUND PRESSURE LEVEL	dBA	68	69
UNIT DATA		1		1
	COMBINATION		(2) 10-TON	(1) 10-TON (1) 12-TON
	COMPRESSOR QUANTITY (INVERTER)	#	1+1	1+1
	MAXIMUM NUMBER OF INDOOR UNITS	#	41	45
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 3	208 / 3
	MINIMUM CIRCUIT AMPACITY	AMPS	43.0 + 43.0	43.0 + 58.3
	MAXIMUM OVERLOAD PROTECTION	AMPS	50 + 50	50 + 70
	WEIGHT	LBS.	793	793
	REFRIGERANT TYPE		R410A	R410A
MANUFACTUREF		,	DAIKIN	DAIKIN
MODEL NUMBER			REYQ240XATJA	REYQ264XATJA
DETAIL REFEREN	NCE		J/M5.1	J/M5.1

VENTILATION RATE

COOLING CAPACITY RATED @ 95°F AMBIENT, 80°Fdb / 67°Fwb ENTERING AIR TEMPERATURE.

EFFICIENCY RATINGS BASED ON MIX OF DUCTED AND NON-DUCTED INDOOR UNITS.

HEATING CAPACITY RATED @ 47°Fdb / 43°Fwb AMBIENT, 70°Fdb ENTERING AIR TEMPERATURE.

		EXHAUST AIR	OUTSII	DE AIR
TYPE OF SP	PACE	CFM / FT ₂	CFM / PERSON	CFM / FT ₂
	BREAK ROOMS		5	0.06
	CLASSROOMS (AGE 9 PLUS)		10	0.12
	CONFERENCE / MEETING		5	0.06
	CORRIDORS		0	0.06
	JANITOR / TRASH	1	0	0.00
	LIBRARIES		5	0.12
	LOBBIES		5	0.06
	MAIN ENTRY LOBBIES		5	0.06
	MUSEUMS / GALLERIES		7.5	0.06
	MUSIC/ THEATER/DANCE		10	0.06
	OFFICE SPACE		5	0.06
	STORAGE ROOMS		0	0.12
	TOILET (PUBLIC)	50/70	0	0.00

VENTILATION RATES FOR SPACES WITH INTERMITTENT OCCUPANCY (PEAK OCCUPANCY LESS THAN THREE HOURS) HAVE BEEN REDUCED ON AVERAGE OCCUPANCY DURING THE OCCUPIED PERIOD, BUT NOT LESS THAN HALF OF THAT REQUIRED DURING PEAK OCCUPANCY.

2 VENTILATION RATES CALCULATED PER REQUIREMENTS OF FBC, MECHANICAL 2023.

3 EXHAUST IS PER WATER CLOSET AND/OR URINAL. HIGHER RATE USED.

VRF - INDOOR UNIT DESIGNATIONS

DESIGNATION	DESCRIPTION	SCHEDULED	OUTSIDE AIR QUANTITY	EXTERNAL STATIC PRESSURE	SYSTEM COM	NNECTED TO	NOTES	
		TYPE	(CFM)	(INCH WG)	BRANCH SELECTOR	CONDENSING UNIT	STANDARD	SPEC
IU-YLC-1.1	2x2 CEILING CASSETTE	A1	20	0.10	BS-YLC-1.2	CU-YLC-1	1, 2, 3, 4, 5, 6, 7	
IU-YLC-1.2	DUCTED CONCEALED ABOVE CEILING	D6	350	0.10	BS-YLC-1.2	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.3	DUCTED CONCEALED ABOVE CEILING	D7	270	0.10	BS-YLC-1.1	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.4	DUCTED CONCEALED ABOVE CEILING	D7	265	0.10	BS-YLC-1.1	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.5	2x2 CEILING CASSETTE	A1	20	0.10	BS-YLC-1.1	CU-YLC-1	1, 2, 3, 4, 5, 6, 7	
IU-YLC-1.6	2x2 CEILING CASSETTE	A1	0	0.10	BS-YLC-1.1	CU-YLC-1	1, 2, 3, 4, 5, 6, 7	
IU-YLC-1.7	DUCTED CONCEALED ABOVE CEILING	E2	55	0.10	BS-YLC-1.1	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.8	DUCTED CONCEALED ABOVE CEILING	E2	55	0.10	BS-YLC-1.2	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.9	DUCTED CONCEALED ABOVE CEILING	E1	1,550	0.10	BS-YLC-1.3	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.10	DUCTED CONCEALED ABOVE CEILING	D1	40	0.10	BS-YLC-1.3	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.11	2x2 CEILING CASSETTE	A1	40	0.10	BS-YLC-1.3	CU-YLC-1	1, 2, 3, 4, 5, 6, 7	
IU-YLC-1.12	DUCTED CONCEALED ABOVE CEILING	D10	1,000	0.10	BS-YLC-1.3	CU-YLC-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-1.13	WALL MOUNTED	H5	0	0.10	BS-YLC-1.3	CU-YLC-1	1, 2, 3	
IU-YLC-1.14	WALL MOUNTED	H5	0	0.10	BS-YLC-1.3	CU-YLC-1	1, 2, 3	
IU-YLC-2.1	2x2 CEILING CASSETTE	A6	150	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.2	DUCTED CONCEALED ABOVE CEILING	D9	215	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.3	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.4	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.5	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.6	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.7	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.8	2x2 CEILING CASSETTE	A5	35	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.9	2x2 CEILING CASSETTE	A5	35	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.10	DUCTED CONCEALED ABOVE CEILING	D3	60	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.11	DUCTED CONCEALED ABOVE CEILING	D5	150	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.12	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.13	2x2 CEILING CASSETTE	A1	0	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.14	2x2 CEILING CASSETTE	A1	20	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.15	DUCTED CONCEALED ABOVE CEILING	D6	40	0.10	BS-YLC-2.1	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.16	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.17	2x2 CEILING CASSETTE	A2	20	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 6, 7	
IU-YLC-2.18	DUCTED CONCEALED ABOVE CEILING	D9	310	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.19	DUCTED CONCEALED ABOVE CEILING	D6	240	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.20	DUCTED CONCEALED ABOVE CEILING	D9	230	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.21	DUCTED CONCEALED ABOVE CEILING	D9	90	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-YLC-2.22	WALL MOUNTED	H5	0	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3	
IU-YLC-2.23	WALL MOUNTED	H5	0	0.10	BS-YLC-2.2	CU-YLC-2	1, 2, 3	

REFRIGERANT PIPING SHALL BE SIZED BY MANUFACTURER.

PROVIDE SIMPLIFIED WIRED REMOTE CONTROL. PROVIDE 1" PLEATED FILTER (SEE SPECIFICATIONS).

PROVIDE UNIT INTEGRAL CONDENSATE PUMP WITH OVERFLOW SAFETY SHUTOFF.

PROVIDE CHECK VALVE AT UNIT CONDENSATE OUTLET.

PROVIDE DECORATION PANEL. PROVIDE FILTER CHAMBER.

PROVIDE FRESH AIR INTAKE KIT.

PROVIDE AIR SUCTION FLANGE FOR REAR RETURN. SET FAN SPEED TO ACHIEVE AIRFLOW (AS INDICATED ON PLANS).

PROVIDE 120-VOLT CONDENSATE PUMP (SAUERMANN SI-30 OR APPROVED EQUAL). PROVIDE NAVIGATION REMOTE CONTROLLER (WHERE EQUIPPED WITH ZONE DAMPERS).

PROVIDE INDIVIDUAL THERMOSTATS FOR EACH ZONE (WHERE EQUIPPED WITH ZONE DAMPERS). SET MINIMUM DAMPER POSITION TO 20% FOR EACH DAMPER (WHERE EQUIPPED WITH ZONE DAMPERS).

VARIABLE REFRIGERANT FLOW - BRANCH SELECTOR TYPES

TYPE			C1	C2
	DESCRIPTION		MULTI PORT	MULTI PORT
	SERIES		FLEX	FLEX
	MAXIMUM CAPACITY OF CONNECTED INDOOR UNITS	BTUH	144,000	216,000
	NUMBER OF PORTS	#	4	6
	MAXIMUM NUMBER OF CONNECTED UNITS PER PORT	#	5	5
	COOLING INPUT POWER	W	43	64
	HEATING INPUT POWER	W	43	64
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 1	208 / 1
	MINIMUM CIRCUIT AMPACITY	AMPS	0.4	0.6
	MAXIMUM OVERLOAD PROTECTION	AMPS	15	15
	WEIGHT	LBS.	49	73
MANUFAC	TURER	,	DAIKIN	DAIKIN
MODEL NU	JMBER		BSF4Q54TVJ	BSF6Q54TVJ
DETAIL RE	FERENCE		C/M5.2	C/M5.2

DESIGNATION	SCHEDULED TYPE	DESCRIPTION	SERIES
BS-YLC-1.1	C1	MULTI PORT	FLEX
BS-YLC-1.2	C1	MULTI PORT	FLEX
BS-YLC-1.3	C2	MULTI PORT	FLEX
BS-YLC-2.1	C2	MULTI PORT	FLEX

MULTI PORT

REFRIGERANT PIPING SHALL BE SIZED BY MANUFACTURER.

VRF - BRANCH SELECTORS

C2

CONSTRUCTION DOCUMENTS SHEET TITLE
SCHEDULES

100% CD

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Florida Registry #2485 Robert D. Richards, P.E. #90648

FLORIDA

LEARNING

BUILDING

MAHAN DRIVE TALLAHASSEE, FL.

CENTER AND

SHERIFFS YOUTH

BLACKBURN-HUNT

Clemons, Rutherford, &

Associates, Inc.

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Planners

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Submittal

DESIGN DEVELOPMENT | 02-28-25 | MAW | RDR |

Revision

Description

CRA Project #______**24029**

Date Drw Chk

04-15-25 MAW RDR

07-18-25 MAW RDR

Construction Managers

M4.1

DESIGNATION	ON		EF-YLC-1	EF-YLC-2
	SERVICE		CLASS 1 OR 2 EXHAUST	CLASS 1 OR 2 EXHAUST
	MOUNTING METHOD		ROOF	ROOF
	FAN TYPE		CENTRIFUGAL UPBLAST	CENTRIFUGAL UPBLAST
	AIR FLOW	CFM	270	890
	STATIC PRESSURE	IN.	0.4	0.4
	AIRSTREAM TEMPERATURE	DEG F	70	70
	FAN SPEED	RPM	1,300	795
	FAN DRIVE		DIRECT	DIRECT
	MOTOR SPEED	RPM	1,550	1,050
	MOTOR POWER	HP or W	1/8 HP	1/3 HP
	MOTOR BRAKE HORSEPOWER	ВНР	N/A	N/A
	ELECTRONICALLY COMMUTATED MOTOR		YES	YES
	ELECTRICAL CHARACTERISTICS	V / PH	120 / 1	120 / 1
	WEIGHT	LBS.	23	56
	NOISE LEVEL (RADIATED)	SONES or LwA	5.4 SONES	4.6 SONE
	STANDARD NOTES		1, 2, 3, 4, 7, 9	1, 2, 3, 4, 7, 9
	SPECIAL NOTES			
MANUFACT	URER		COOK	COOK
MODEL NUN	MBER		90R15DH	165RH10D
DETAIL REF	ERENCE		D/M5.1	D/M5.1

NOTES: (SEE SEQUENCES OF OPERATION ON SHEET MC2.1 FOR FAN CONTROLS) PROVIDE PRE-WIRED DISCONNECT SWITCH, FACTORY MOUNTED.

PROVIDE SOLID STATE SPEED CONTROLLER, FACTORY MOUNTED.

PROVIDE BIRD SCREEN.

PROVIDE BACKDRAFT DAMPER, GRAVITY OPERATED. PROVIDE PRE-FABRICATED INSULATED ROOF CURB, 12-INCH HIGH WITH DAMPER TRAY, SLOPED TO MATCH ROOF SLOPE.

PROVIDE TIE-DOWN EYELETS.

BUILDING AIR BALANCE - YOUTH LEARNING CENTER (NORMAL)

OUTSIDE AIR SOURCE	CFM	EXHAUST SOURCE	CFM
HOAS-YLC-1	3,970	EF-YLC-1	270
		EF-YLC-2	890
		HOAS-YLC-1 (RELIEF)	2,050
TOTAL	3,970	TOTAL	3,210
BUILDING PRESSURIZATION (+)			760

BUILDING AIR BALANCE - YOUTH LEARNING CENTER (ECONOMIZER)

OUTSIDE AIR SOURCE	CFM	EXHAUST SOURCE	CFM
HOAS-YLC-1	5,520	EF-YLC-1	270
		EF-YLC-2	890
		HOAS-YLC-1 (RELIEF)	3,600
TOTAL	5,520	TOTAL	4,760
BUILDING PRESSURIZATION		(+)	760

MAKE	UP AIR UNIT - PACKAGED		
DESIGNATION	ON		HOAS-
AIR FLOW F	RATES		
	TOTAL SUPPLY AIR	CFM	5,5
	OUTSIDE AIR	CFM	3,9
	RELIEF AIR (NORMAL / ECONOMIZER)	CFM	2050 /
	MINIMUM SUPPLY FAN SPEED SETTING	%	10
	MINIMUM EXHAUST FAN SPEED SETTING	%	60
FILTER SEC	CTION		
	DAMPERS		NO
	FILTER ORIENTATION		FL
	TYPE OF FILTER		2" THICK
COOLING D	PATA		
	TOTAL COOLING CAPACITY	MBTUH	340
	SENSIBLE COOLING CAPACITY	MBTUH	203
	AIR ENTERING COOLING COIL	°Fdb - °Fwb	90.2 -
	AIR LEAVING COOLING COIL	°Fdb - °Fwb	55.1 -
	EER / IEER	BTU / W-HR	10.6
	CONDENSATE DRAIN SIZE	IN.	1

			i
	AIR ENTERING HOT GAS REHEAT COIL	°F	55.1
	AIR LEAVING HOT GAS REHEAT COIL	°F	75
HEATING DATA - EI	ECTRIC		
	HEATING CAPACITY - # OF STAGES	kW - #	60 – SCR
	AIR ENTERING HEATING COIL	°F	38.7
	AIR LEAVING HEATING COIL	°F	72.9
SUPPLY FAN SECT	ION		

HEATING CAPACITY

SUPPLY FAN SECTION					
FAN TYPE			PL	ENUM	1
DRIVE TYPE			DI	IRECT	
FAN QUANTITY		#		1	
EXTERNAL STATIC PRESSURE		IN. WG		1.5	
MAXIMUM TOTAL STATIC PRESSURE (INCL	UDING DIRTY FILTER)	IN. WG		3.11	
DIRTY FILTER ALLOWANCE		IN. WG		0.93	
FAN MOTOR HORSEPOWER (PER FAN)		HP - BHP	7 1/2	_	4.02
FAN MOTOR HORSEPOWER (UNIT TOTAL)		HP - BHP	7 1/2	_	4.02
VARIABLE FREQUENCY DRIVE			1 PE	ER UN	IT

EXHAUST FA	N SECTION		
	FAN TYPE		PLENUM
	DRIVE TYPE		DIRECT
	FAN QUANTITY	#	1
	EXTERNAL STATIC PRESSURE	IN. WG	1
	MAXIMUM TOTAL STATIC PRESSURE (INCLUDING DIRTY FILTER)	IN. WG	1
	DIRTY FILTER ALLOWANCE	IN. WG	0
	FAN MOTOR HORSEPOWER (PER FAN)	HP - BHP	2 – 0
	FAN MOTOR HORSEPOWER (UNIT TOTAL)	HP - BHP	2 – 0
	VARIABLE FREQUENCY DRIVE		1 PER FAN
UNIT DATA			
	COMPRESSOR QUANTITY	#-#	2
	WEIGHT	LBS	3,186

T DATA			
	COMPRESSOR QUANTITY	# - #	2
	WEIGHT	LBS	3,186
	REFRIGERANT TYPE		R-454B
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 3
	MCA / MOCP	AMPS	206 / 225
NUFACTURER			AAON
DEL NUMBER		RN	IA-030-C-A-8-GAB0B-A04N0

MODEL NUMBER RI	VA-030-C-A-8-GAB0B-A04N	10
DETAIL REFERENCE	E,N/M5.1	

PROVIDE ONE (1) MODULATING COMPRESSOR. NOT USED. PROVIDE SUPPLY AIR TEMPERATURE AND DEWPOINT CONTROL.

PROVIDE SUPPLY AIR TEMPERATURE SENSOR. PROVIDE OUTSIDE AIR TEMPERATURE AND HUMIDITY SENSORS. PROVIDE SUCTION PRESSURE TRANSDUCER.

PROVIDE RETURN AIR TEMPERATURE AND HUMIDITY SENSORS. PROVIDE TERMINAL BLOCK WITH 2 DIGITAL RELAY OUTPUTS. COAT ALL COILS WITH CORROSION INHIBITOR.

NOT USED. PROVIDE EBTRON GOLD SERIES AIRFLOW MEASURING STATION. PROVIDE CONVENIENCE ELECTRICAL OUTLET. PROVIDE ROOF CURB WITH THROUGH THE CURB UTILITIES.

14 NOT USED. PROVIDE DISCONNECT SWITCH. **FLORIDA SHERIFFS YOUTH LEARNING**

114 EAST 5th AVENUE TALLAHASSEE, FL 32303 PHONE 850.224.7922 www.H2Engineering.com

H2E PROJECT No. 24179

Florida Registry #2485 Robert D. Richards, P.E. #90648

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BUILDING MAHAN DRIVE

TALLAHASSEE, FL.

CENTER AND



BLACKBURN-HUNT

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Architects **Planners Interior Designers** Construction Managers 2027 Thomasville Road Tallahassee, Florida 32308 phone 850-385-6153 fax 850-386-8420

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Submittal						
Phase Date Drw Chk						
DESIGN DEVELOPMENT	02-28-25	MAW	RDR			
50% CD	04-15-25	MAW	RDR			
100% CD	07-18-25	MAW	RDR			

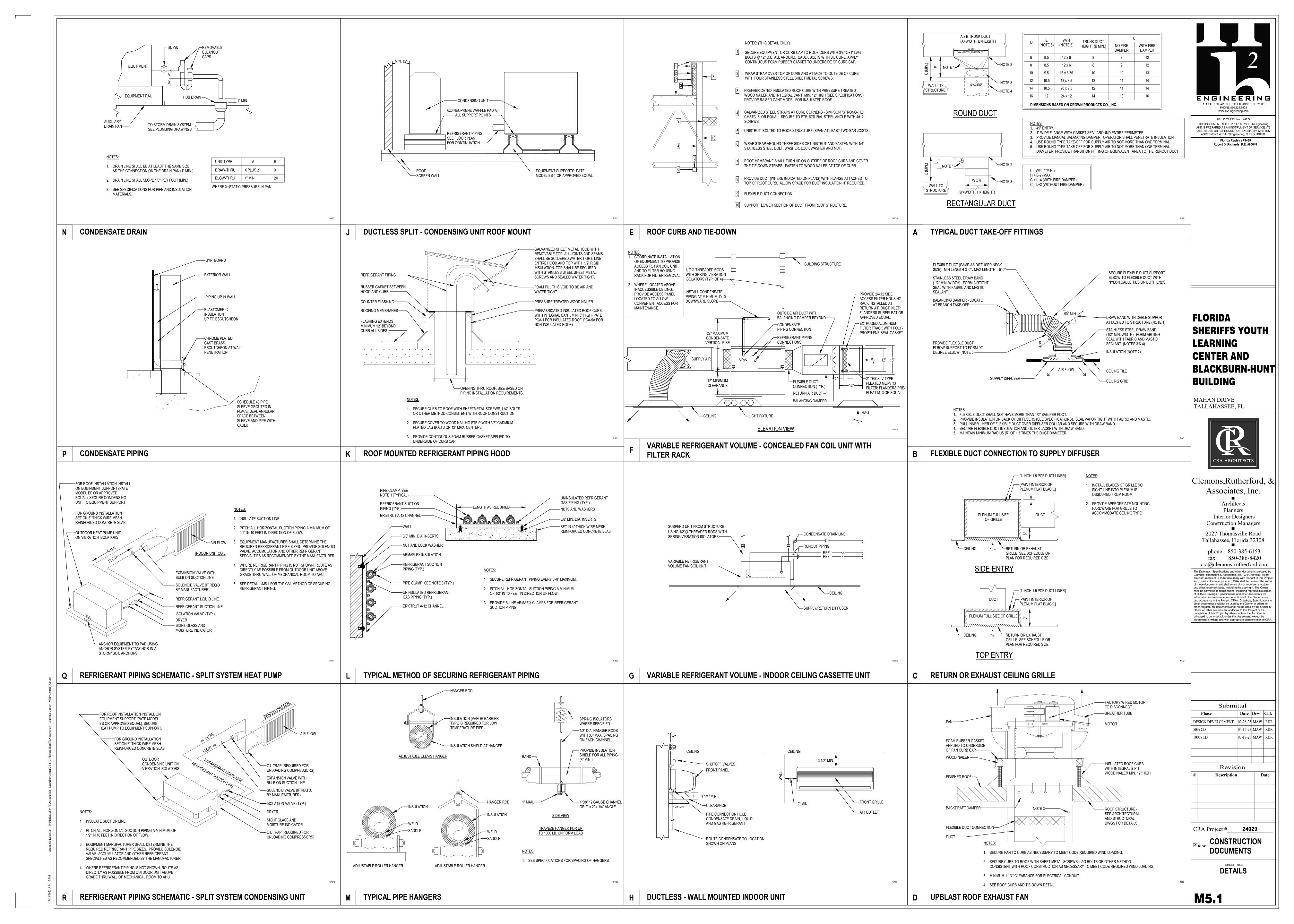
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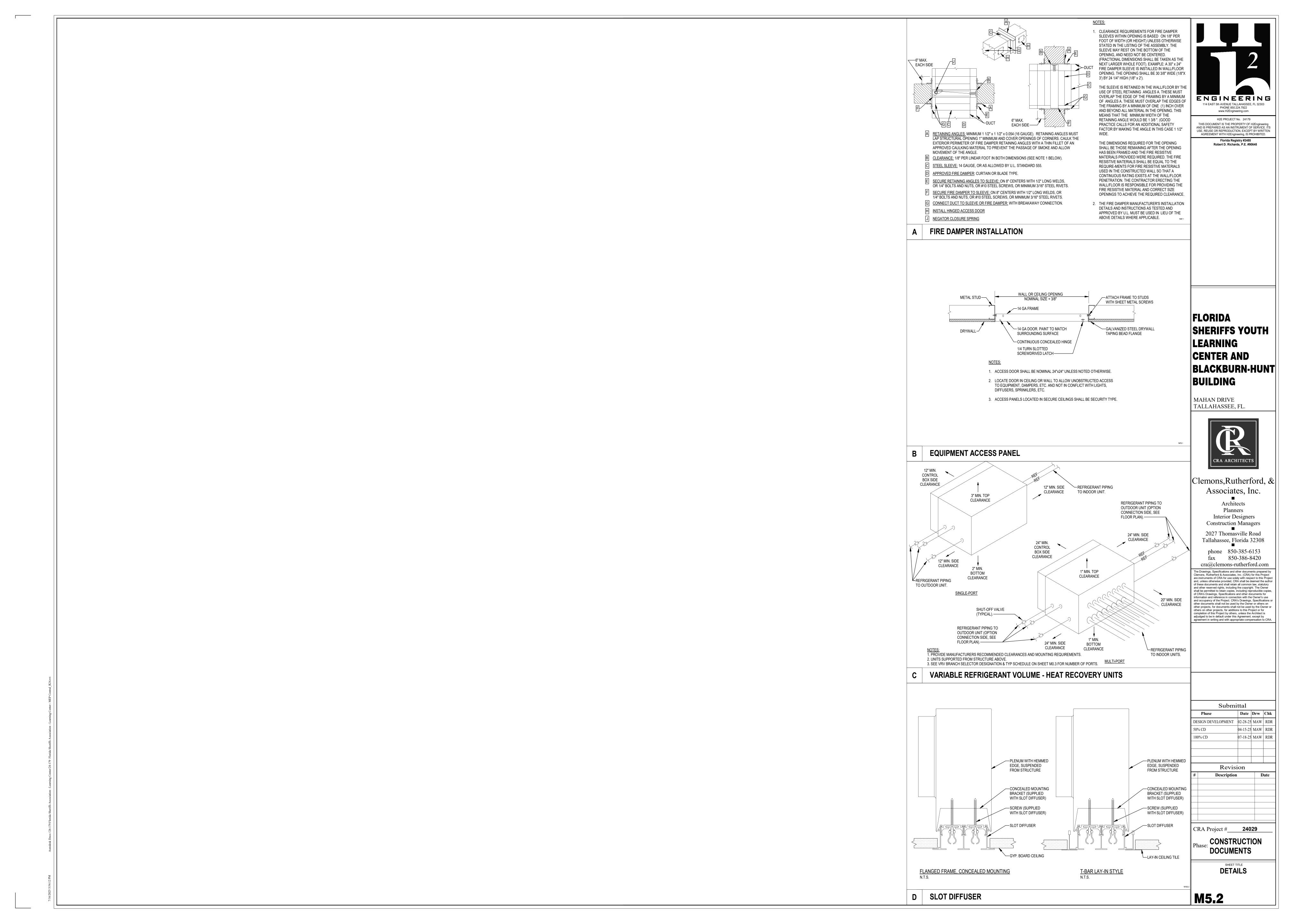
CRA Project #______**24029**

CONSTRUCTION DOCUMENTS

SCHEDULES

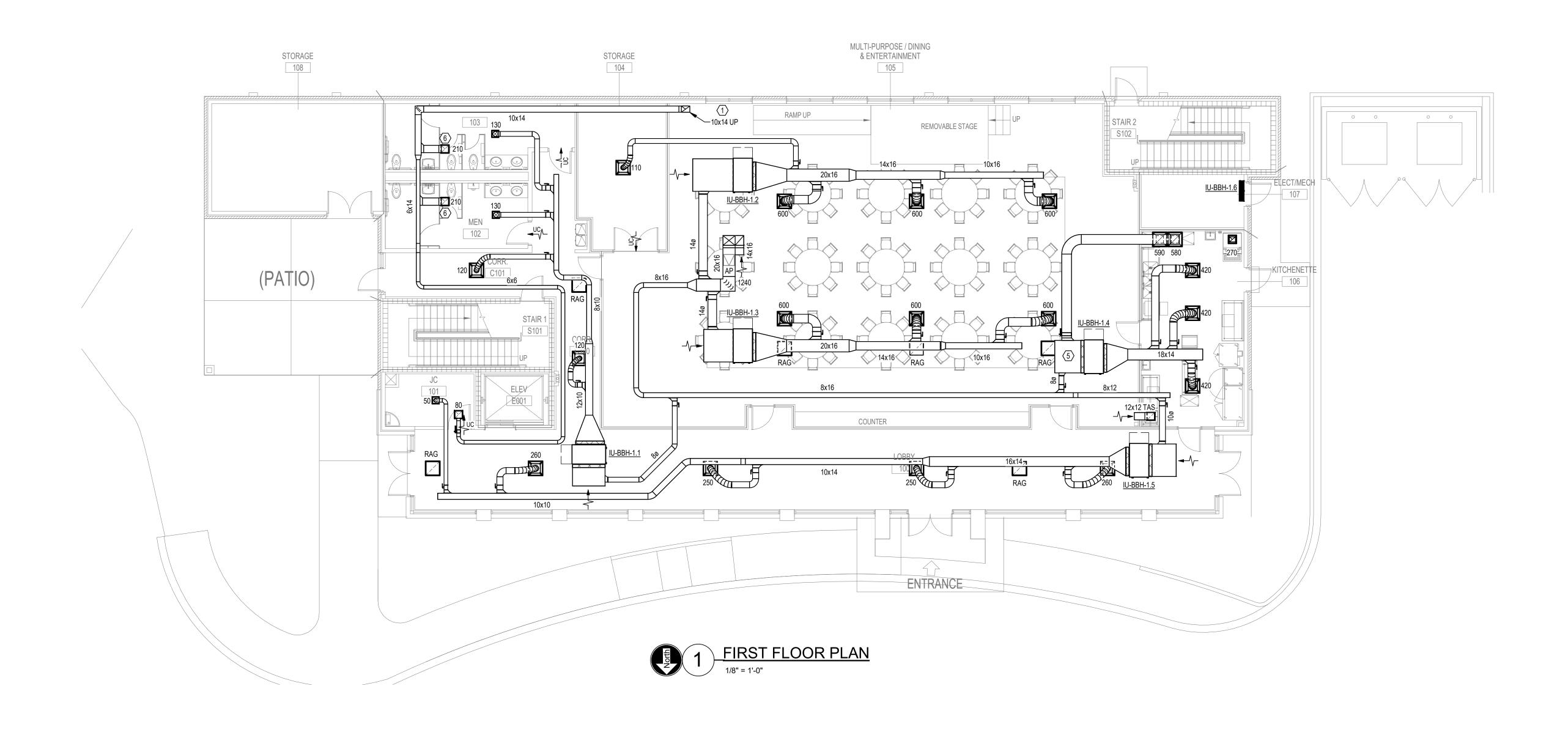
M4.2

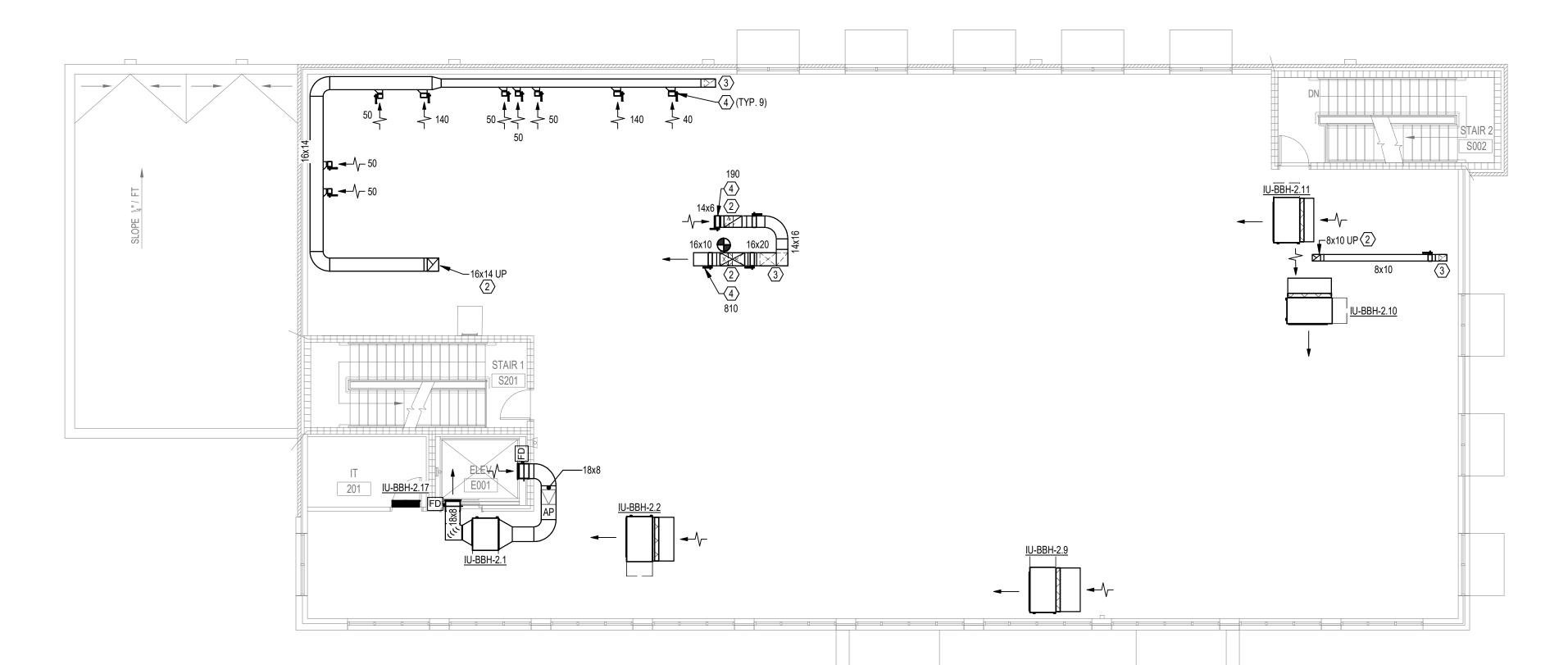




CEILING SUPPLY DIFFUSERS	PIPING AND FITTINGS	AIR DISTRIBUTION	APPLICABLE CODES	HVAC NOTES	GENERAL NOTES	
FACE DIMENSION	CONDENSATE DRAIN PIPING FROM COOLING COIL	RECTANGULAR SHEET METAL DUCT	PERFORM WORK IN ACCORDANCE WITH THE FOLLOWING CODES AND ANY APPLICABLE STATUTES,	INSTALL DUCTWORK, PIPING, ETC. AS HIGH AS POSSIBLE ABOVE CEILING WHILE MAINTAINING	DRAWINGS ARE DIAGRAMMATIC, INDICATIVE OF WORK TO BE FURNISHED AND INSTALLED UNDER THIS	
SYMBOL CFM NECK SIZE MINIMUM - MAXIMUM 1/2 SPACING HARD CEILING LAY-IN CEILING 40-80 6"Ø 4' - 5' 12x12 24x24	REFRIGERANT PIPING (ONE LINE REPRESENTS BOTH LIQUID AND GAS LINES) +9'-0" ELEVATION ABOVE FINISHED FLOOR (TO CENTERLINE OF PIPE)	ROUND SHEET METAL DUCT	ORDINANCES, CODES, AND REGULATIONS OF GOVERNMENTAL AUTHORITIES HAVING JURISDICTION. 1. <u>ASHRAE</u> a. STANDARD 15 SAFETY STANDARD FOR REFRIGERATION SYSTEMS - 2019	ACCESSIBILITY FOR EQUIPMENT AND DEVICES AS APPROPRIATE. 2. COORDINATE LOCATION OF ALL EQUIPMENT, DUCTWORK AND PIPING INSTALLATIONS WITH ELECTRICAL TO PROVIDE THE REQUIRED CLEARANCES AROUND ALL ELECTRICAL PANELS, SWITCHGEAR, ETC.	CONTRACT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DIMENSIONS. 2. FIELD VERIFY DIMENSIONS AND CONDITIONS. IF THE CONTRACTOR IS UNABLE TO INTERPRET THE CONTRACT DOCUMENTS, HE IS RESPONSIBLE TO REQUEST CLARIFICATION IN WRITING TO THE ARCHITECT.	
85-180 8"Ø 4' - 8' 12x12 24x24	ECCENTRIC REDUCER CONCENTRIC REDUCER	DOUBLE WALL SHEET METAL DUCT	b. STANDARD 55 THERMAL ENVIRONMENTAL CONDITIONS FOR HUMAN OCCUPANCY - 2017 c. STANDARD 62.1 VENTILATION STANDARD FOR ACCEPTABLE INDOOR AIR QUALITY - 2019	 INSTALLATION OF EQUIPMENT, DUCTWORK AND PIPING SHALL PROVIDE CONVENIENT ACCESS FOR REMOVAL OF FILTERS AND FOR MAINTENANCE. DUCT SIZES GIVEN ARE SHEET METAL SIZES. 	IF HE PROCEEDS WITH ANY WORK BEFORE OBTAINING CLARIFICATION, HE SHALL BE HELD RESPONSIBLE FOR DEFICIENCIES ASSOCIATED THEREWITH. 3. BEFORE SUBMITTING FOR THE WORK, EACH BIDDER WILL BE RESPONSIBLE TO EXAMINE THE PREMISES	
185-340	CAP CAP	FLEXIBLE RUNOUT DUCT	d. STANDARD 90.1 ENERGY STANDARD FOR BUILDINGS EXCEPT LOW RISE RESIDENTIAL BUILDINGS - 2019 e. STANDARD 170 VENTILATION OF HEALTH CARE FACILITIES - 2017	 COORDINATE EXACT LOCATIONS OF AIR DISTRIBUTION EQUIPMENT WITH THE CEILING AND THE LIGHTING LAYOUT. THE RETURN AIR FROM INDIVIDUAL ROOMS IS THRU AN ABOVE-CEILING RETURN AIR PLENUM. 	AND SATISFY HIMSELF AS TO THE EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE AND COMPLETE THE WORK UNDER THIS CONTRACT. NO ALLOWANCE WILL SUBSEQUENTLY BE MADE IN THIS CONNECTION ON BEHALF OF THE CONTRACTOR FOR ANY ERROR OR OMISSION ON HIS PART.	
505-600 14"Ø 10' - 12' 24x24 24x24	—	ROUND OR RECTANGULAR TAKE-OFF FITTING WITH BALANCING DAMPER - SEE DETAIL A/M5.1	ASME a. ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS - 2019	 THE CEILING DIFFUSERS SHALL BE 4-WAY THROW UNLESS OTHERWISE NOTED. PROVIDE NEW AIR FILTERS IN EACH UNIT REQUIRING FILTERS WHEN THE PROJECT IS READY FOR TEST AND BALANCE. DO NOT OPERATE UNITS WITHOUT FILTERS DURING CONSTRUCTION. REPLACE FILTERS 	 4. THE CONTRACTOR SHALL PAY FOR INSPECTION PERMITS, CERTIFICATES, CONNECTION FEES, SYSTEM DEMAND CHARGES AND LICENSE FEES IN CONNECTION WITH HIS WORK. 5. CONSTRUCTION MANAGER/GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK OF SUBCONTRACTORS TO AVOID INTERFERENCES. 	
1. RUNOUT DUCTS TO DIFFUSERS SHALL BE THE SAME SIZE AS THE INDICATED NECK SIZE.	——————————————————————————————————————	SUPPLY AIR DUCTWORK SECTION	3. OCCUPATIONAL SAFETY AND HEALTH REGULATIONS (OSHA).	DURING CONSTRUCTION ACCORDING TO FILTER MANUFACTURER'S RECOMMENDATIONS. SEAL ALL OPEN ENDS OF DUCT WORK DURING CONSTRUCTION. 9. WHEREVER THE DEPTH OF THE TRUNK DUCT IS LESS THAN THE ROUND RUNOUT DUCT DIAMETER,	6. WORK SHALL COMPLY WITH APPLICABLE O.S.H.A. AND E.P.A. REGULATIONS AND GUIDELINES. 114 EAST 5th AVENUE TALL. PHONE 850.22 PHONE 850.22 PHONE 850.22	AHASSEE, FL 32303 4.7922
CEILING RETURN OR EXHAUST REGISTERS & GRILLES	TEE, OUTLET DOWN NEW PIPE	RETURN AIR DUCTWORK SECTION EXHAUST AIR DUCTWORK SECTION	4. NATIONAL FIRE CODES a. NFPA 1 FIRE CODE - 2021 (FLORIDA EDITION) b. NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEM - 2019 c. NFPA 25 STANDARD FOR THE INSPECTION, TESTING AND MAINTENANCE OF WATER-	PROVIDE TRANSITION FITTING OF EQUIVALENT AREA TO THE RUNOUT DUCT. 10. WHERE ROUND DUCT IS INDICATED ON PLANS, USE SPIRAL WOUND DUCTWORK. "SNAPLOCK" DUCTWORK IS NOT ACCEPTABLE.	DANGER SIGNS AND OTHER WARNINGS AGAINST HAZARDS INCLUDING PROMULGATING SAFETY REGULATIONS. PROVIDE SAFETY PRECAUTIONS AND BARRICADES FOR PEDESTRIANS AT CONSTRUCTION VEHICLE ACCESS AND EGRESS LOCATIONS. 8. COORDINATE AND SEQUENCE DEMOLITION. CLEANING AND CONSTRUCTION WORK, SUBMIT A COMPLETELY AND IS PREPARED AS AN INSTRU	ERTY OF H2Engineering
SYMBOL CFM GRILLE SIZE RUNOUT DUCT (NOTE 2) 0-95 8x8 (NOTE 1) 6x6		AIR BALANCING DAMPER (MANUAL)	d. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE - 2019	11. PROVIDE 3 DIAMETERS OF STRAIGHT DUCT AT INLET TO AIR TERMINAL UNITS. DUCT SIZE SHALL BE SAME AS BOX INLET. IF INLET DUCT LENGTH EXCEEDS 5 FEET, INCREASE INLET DUCT SIZE BY 4" UP TO 3 FEET FROM BOX INLET.	DETAILED CONSTRUCTION SCHEDULE PRIOR TO PRE-CONSTRUCTION CONFERENCE. 9. THE CONTRACTOR SHALL STRICTLY BE HELD TO THE PROJECT SCHEDULE. HE SHALL PROVIDE SUFFICIENT USE, REUSE OR REPRODUCTION AGREEMENT WITH H2Engined	N, EXCEPT BY WRITTEN bring, IS PROHIBITED.
100-195 10x10 (NOTE 1) 8x8	MISCELLANEOUS	CONTROL DAMPER (MOTORIZED)	f. NFPA 90A STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS - 2021 g. NFPA 90B STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR	12. PROVIDE FLEXIBLE DUCT CONNECTIONS AT EACH EQUIPMENT CONNECTION.13. OUTSIDE AIR INTAKES SHALL NOT BE LOCATED ANY CLOSER THAN 10 FEET FROM ANY EXHAUST OUTLET OR PLUMBING VENT TERMINAL.	MANPOWER AND EQUIPMENT TO FULLY MOBILIZE, PROCEED WITH AND COMPLETE THE WORK. 10. THE CONTRACTOR SHALL BE RESTRICTED TO AREAS SPECIFIED BY THE OWNER FOR ON-SITE STORAGE OF CONSTRUCTION MATERIALS. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SECURITY OF EQUIPMENT AND MATERIALS.	
OR 200-295 12x12 (NOTE 1) 10x8 18x18 (NOTE 1) 12x12	POINT INDICATED CONNECT TO CIVIL	BDD BACKDRAFT DAMPER	g. NFPA 90B STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND AIR CONDITIONING SYSTEMS - 2021 h. NFPA 91 STANDARD FOR THE INSTALLATION OF BLOWER AND EXHAUST SYSTEMS - 2020 i. NFPA 101 LIFE SAFETY CODE - 2021 (FLORIDA EDITION)	14. PROVIDE FIRE DAMPER AT EVERY DUCT PENETRATION OF FIRE RATED CONSTRUCTION, WHETHER SHOWN ON THE DRAWINGS OR NOT.15. INSTALL DUCT MOUNTED SMOKE DETECTOR (FURNISHED BY DIV. 29) IN SUPPLY TRUNK DUCT BEFORE	11. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK ENVIRONMENT AT ALL TIMES AND SHALL CLEAN CONSTRUCTION SITE OF DEBRIS AT COMPLETION OF THE JOB AND BEFORE FINAL PAYMENT IS MADE.	
600-695 22x22 (NOTE 1) 12x12 700-795 24x24 (NOTE 1) 14x12	— - — 1 HOUR FIRE RATED WALL 2 HOUR FIRE RATED WALL	FIRE DAMPER - SEE DETAIL A/M5.2	5. FLORIDA BUILDING CODE, 2023 8TH EDITION a. BUILDING CODE	ANY TAKE-OFFS FOR AIR HANDLING UNITS WITH SUPPLY AIR CAPACITY GREATER THAN 2000 CFM AND WHERE INDICATED ON PLANS. 16. WHERE FIRE DAMPERS ARE REQUIRED, PROVIDE DUCT ACCESS DOORS TO ALLOW RE-LINKING OF	 12. THE CONTRACTOR SHALL FURNISH "AS-BUILT" DRAWINGS TO THE ARCHITECT AT COMPLETION OF CONSTRUCTION. 13. CONTRACTOR'S USE OF AN APPROVAL STAMP ON DOCUMENTS SUBMITTED AS SHOP DRAWINGS, PRODUCT DATA. SAMPLES AND SIMILAR SUBMITTALS CERTIFIES THAT THE CONTRACTOR HAS COMPLIED 	
800-1500 48x24 (NOTE 1) 18x14		DUCTWORK FLEXIBLE CONNECTION	b. ENERGY CONSERVATION CODE c. MECHANICAL CODE d. PLUMBING CODE	DAMPER FUSIBLE LINKS. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL. 17. WHERE DUCT MOUNTED SMOKE DETECTORS ARE REQUIRED, PROVIDE DUCT ACCESS DOORS TO ALLOW	WITH THE CONTRACT DOCUMENT REQUIREMENTS RELATED TO "SHOP DRAWINGS, PRODUCT DATA AND SAMPLES". 14. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR DEVIATIONS FROM REQUIREMENTS	
NOTES: 1. USE 22x22 GRILLE SIZE FOR ALL LAY-IN CEILING APPLICATIONS. USE SIZE INDICATED FOR HARD CEILING APPLICATIONS.	VALVES	DUCTWORK ACCESS PANEL	e. ACCESSIBILITY CODE 6. FLORIDA STATUTES	VIEWING AND SERVICING. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL. 18. WHERE SMOKE DAMPERS OR COMBINATION FIRE/SMOKE DAMPERS ARE REQUIRED, PROVIDE DUCT	OF THE CONTRACT DOCUMENTS BY THE ARCHITECT/ ENGINEER'S APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNLESS THE CONTRACTOR HAS SPECIFICALLY INFORMED THE ARCHITECT/ENGINEER IN WRITING OF SUCH DEVIATION AT THE TIME OF SUBMITTAL AND	
 WHERE DUCT CONNECTION IS SHOWN, RUNOUT DUCT SHALL BE SIZE SHOWN IN SCHEDULE U.N.O. USE 18x18 GRILLE SIZE AND 12x12 RUNOUT DUCT FOR HARD CEILING APPLICATIONS WHERE SIZE OR AIRFLOW IS NOT INDICATED. 	Holden Handle Ball Valve (WITH QUARTER TURN HANDLE)	DUCT ELBOW WITH SINGLE THICKNESS TURNING VANES SIDEWALL REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE	a. CHAPTER 471 ENGINEERING b. CHAPTER 533.80 BUILDING CONSTRUCTION STANDARDS; FLORIDA BUILDING CODE - ENFORCEMENT	ACCESS DOORS TO ALLOW RE-LINKING OF DAMPER FUSIBLE LINKS AND TO ALLOW VIEWING AND REMOVAL OF SMOKE DETECTORS. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR UL LABEL.	THE ARCHITECT/ENGINEER HAS GIVEN WRITTEN APPROVAL TO THE SPECIFIC DEVIATION. THE CONTRACTOR SHALL NOT BE RELIEVED OF RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS BY THE ARCHITECT/ENGINEER'S	
4. USE 12x12 RUN OUT DUCT FOR LAY-IN CEILING APPLICATIONS WHERE AIRFLOW IS NOT INDICATED.		SIDEWALL REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) SQUARE CEILING SA DIFFUSER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES	7. FLORIDA ADMINISTRATIVE CODE a. CHAPTER 9B-7 FLORIDA BUILDING COMMISSION HANDICAPPED ACCESSIBILITY STANDARDS	19. IT IS RECOMMENDED THAT DUCTWORK BE FABRICATED FROM FIELD MEASUREMENTS TAKEN AS THE BUILDING STRUCTURE AND SPACE COMPETING SYSTEMS ARE PROGRESSIVELY INSTALLED. THE DUCTWORK AS SHOWN ON THE CONSTRUCTION DOCUMENTS IS DIAGRAMMATIC AND DOES NOT	APPROVAL THEREOF. 15. PRIOR TO INSTALLATION, COORDINATE AND ADJUST THE FINAL LOCATION OF WALL MOUNTED DEVICES AND EQUIPMENT WITH ALL CASEWORK, SHELVING, MARKER BOARDS, BULLETIN BOARDS OR OTHER WALL	
SIDEWALL REGISTERS AND GRILLES SUPPLY AIR RETURN AIR OR EXHAUST AIR	MEASUREMENTS AND CONTROLS	UNLESS NOTED OTHERWISE) SHADED REGION INDICATED SECTORIZING BAFFLE(S) SEE DETAIL B/M5.1 RECTANGULAR CEILING RA REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR	b. CHAPTER 61C-5 FLORIDA ELEVATOR SAFETY CODE c. CHAPTER 61G15-34 RESPONSIBILITY RULES OF PROFESSIONAL ENGINEERS CONCERNING THE DESIGN OF MECHANICAL SYSTEMS	NECESSARILY INCLUDE ALL MODIFICATIONS REQUIRED TO AVOID THESE INTERFERENCES. BEFORE FABRICATING ANY DUCTWORK, CHECK THE PHYSICAL CONDITIONS AT THE JOB SITE AND MAKE CHANGES IN CROSS SECTIONS, ROUTING, OFFSETS AND SIMILAR ITEMS WHETHER SPECIFICALLY INDICATED OR	MOUNTED FURNISHINGS. 16. SUPPORTS AND HANGERS SHALL PRESENT A NEAT, ORDERLY APPEARANCE. 17. ROOF MOUNTED EQUIPMENT SHALL BE SECURED TO STRUCTURE TO RESIST A 130 MPH WIND LOAD.	
CFM REGISTER SIZE RUNOUT DUCT REGISTER SIZE RUNOUT DUCT	THERMOSTAT/TEMPERATURE SENSOR	SIZES UNLESS NOTED OTHERWISE) WHERE CFM IS NOT INDICATED, PROVIDE STANDARD SIZE FOR CEILING TYPE INDICATED IN SCHEDULE SEE DETAIL C/M5.1	d. CHAPTER 69A-3 FIRE PREVENTION - GENERAL PROVISIONS e. CHAPTER 69A-47 UNIFORM FIRE SAFETY STANDARDS FOR ELEVATORS f. CHAPTER 69A-60 THE FLORIDA FIRE PREVENTION CODE	NOT. VERIFY THAT SUFFICIENT CLEARANCES ARE AVAILABLE FOR INSTALLING DUCTWORK, PIPING, LIGHT FIXTURES, CEILING SYSTEMS AND TO PROVIDE EQUIPMENT SERVICE. COSTS REQUIRED TO CHANGE DUCTWORK TO FIT THE SPACE AVAILABLE AND AVOID INTERFERENCES CAUSED BY SPACE COMPETING	 17. ROOF MOONTED EQUIPMENT SHALL BE SECORED TO STRUCTURE TO RESIST A 130 MFH WIND LOAD. 18. CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL FIRE, SMOKE, AND ACOUSTICAL WALL ASSEMBLIES. 19. BEAM AND FLOOR PENETRATIONS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. BEAM SLEEVES AND BEAM REINFORCING APPROVED BY STRUCTURAL ENGINEER SHALL BE FURNISHED AND INSTALLED BY 	
	HUMIDITY SENSOR	CFM RECTANGULAR CEILING EA REGISTER AND AIR FLOW (CFM)(SEE SCHEDULE FOR SIZES UNLESS NOTED OTHERWISE) - SEE DETAIL C/M5.1	RESOLVE, IN WRITING, ANY CODE VIOLATION DISCOVERED IN CONTRACT DOCUMENTS WITH THE ENGINEER PRIOR TO BIDDING. AFTER AWARD OF THE CONTRACT, MAKE ANY CORRECTION OR ADDITITION NECESSARY	SYSTEMS SHALL BE BORNE BY THE CONTRACTOR. NO ADDITIONAL REMUNERATION WILL BE PAID BY THE OWNER. 20. APPLY EXTERNAL INSULATION TO SINGLE WALL SUPPLY DUCTS, RETURN DUCTS AND OUTSIDE AIR DUCTS	THIS CONTRACTOR. 20. CONTRACTOR SHALL FURNISH U.L. APPROVED DRAWINGS FOR EACH TYPE OF FIRE RATED ASSEMBLY	
0-95 8x6 8x6 8x6 8x6 100-195 10x6 10x6 10x6 10x6	CO2 CARBON DIOXIDE SENSOR	ACCESS PANEL IN INACCESSIBLE CEILING (24x24, UNO)	FOR COMPLIANCE WITH APPLICABLE CODES AT NO ADDITIONAL COST TO OWNER. THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST TO THE OWNER, ANY LABOR.	PER SPECIFICATIONS. DOUBLE WALL DUCTS AND DUCTS INDICATED ON PLANS TO HAVE INTERNAL DUCT LINER SHALL NOT RECEIVE EXTERNAL INSULATION. 21. PROVIDE VOLUME CONTROL DAMPERS IN SIDE TAKE-OFF FITTINGS TO SUPPLY AIR DIFFUSERS AND	PENETRATION BY DUCTS, PIPES OR CONDUITS. THESE DRAWINGS SHALL BE DISPLAYED ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION. SEE SPECIFICATIONS. 21. CONTRACTOR SHALL GUARANTEE THE WORK AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF	
200-295 12x6 12x6 18x6 18x6	STATIC PRESSURE SENSOR DIFFERENTIAL PRESSURE SENSOR	NEW DUCT	MATERIALS, SERVICES, APPARATUS, AND DRAWINGS REQUIRED TO COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, AND REGULATIONS.	EXHAUST AIR AND RETURN AIR GRILLES AND AT EACH DUCT BRANCH SERVING TWO OR MORE AIR TERMINALS, WHETHER SHOWN ON THE DRAWINGS OR NOT. 22. MINIMUM PIPE SIZE FOR COOLING COIL CONDENSATE SHALL BE 3/4". REFER TO SCHEDULE FOR RUNOUT	FINAL ACCEPTANCE. THIS GUARANTEE SHALL BE IN ADDITION TO THE WARRANTIES PROVIDED BY MATERIAL SUPPLIERS AND MANUFACTURERS. 22. EXIT WAYS SHALL BE KEPT CLEAR. IF AN EXIT MUST BE TEMPORARILY BLOCKED, PROVIDE THE REQUIRED	
300-395 16x6 16x6 24x6 24x6 400-495 18x8 18x8 30x8 30x8	AIRFLOW MONITORING STATION	DUCT MOUNTED SMOKE DETECTOR (PROVIDED AND INSTALLED BY FIRE ALARM CONTRACTOR)	WHERE THERE IS CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND THE APPLICABLE CODES, THE CODES SHALL GOVERN, EXCEPT WHERE THE REQUIREMENTS OF THE CONTRACT DOCUMENTS ARE MORE	PIPE SIZE TO INDIVIDUAL EQUIPMENT. 23. SECTIONS OF PIPE STORED ON SITE OR PLACED IN TRENCHES SHALL HAVE EACH OPEN END COVERED AT ALL TIMES EXCEPT WHILE MAKING CONNECTIONS. IF DEBRIS IS FOUND INSIDE PIPE, IT SHALL BE	BARRICADE AND DIRECTIONAL SIGNS FOR TEMPORARY EXITING AND SAFETY. FLORIDA	
500-595 18x10 18x10 30x10 30x10		DOOR UNDERCUT (3/4", UNO)	STRINGENT.	COMPLETELY REMOVED PRIOR TO ASSEMBLY. 24. PROVIDE ACCESS PANEL AT EACH LOCATION WHERE A VALVE, DAMPER OR OTHER DEVICE REQUIRING SERVICE IS LOCATED ABOVE AN INACCESSIBLE CEILING OR INSIDE A WALL. ACCESS PANELS IN RATED	ABBREVIATIONS SHERIFFS	/OUTH
	<u>-</u>		COMMISSIONING NOTES	CONSTRUCTION SHALL BEAR UL LABEL. COORDINATE ACCESS PANEL LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. 25. COORDINATE LOUVER AND DEVICE LOCATIONS WITH WALL STRUCTURAL REINFORCEMENT. SEE	AFF ABOVE FINISHED FLOOR HP HORSEPOWER IN INCHES LEARNING	
			THE BUILDING MECHANICAL SYSTEMS ARE EXEMPT FROM COMMISSIONING REQUIREMENTS IN	STRUCTURAL DRAWINGS FOR LOCATION OF LINTELS, BOND BEAMS AND REINFORCING. 26. COORDINATE ALL DUCT TEST WITNESSING WITH LOCAL MECHANICAL INSPECTOR. 27. PRIOR TO FINAL INSPECTION, PROVIDE CERTIFIED TEST & BALANCE REPORT AND OPERATIONS &	AHU AIR HANDLING UNIT IU INDOOR UNIT BD BALANCING DAMPER MCA MINIMUM CIRCUIT AMPACITY BDD BACKDRAFT DAMPER MOCP MAXIMUM OVERLOAD PROTECTION CENTER AI	ID
			ACCORDANCE WITH THE FLORIDA BUILDING CODE – ENERGY CONSERVATION, SECTION C408 "SYSTEMS COMMISSIONING". THE TOTAL MECHANICAL EQUIPMENT CAPACITY IS LESS THAN 480 MBH COOLING CAPACITY AND 600 MBH HEATING CAPACITY.	MAINTENANCE MANUALS TO THE OWNER. 28. PROVIDE DUCT ACCESS DOOR AT EACH FLOW MEASURING STATION. 29. DUCT CONSTRUCTION, INCLUDING SHEET METAL THICKNESSES, SEAM AND JOINT CONSTRUCTION,	BHP BRAKE HORSEPOWER N/A NOT APPLICABLE BOD BOTTOM OF DUCT N.C. NORMALLY CLOSED BLACKBUR	N-HUNT
			WIDTH COOLING CALACITY AND 000 WIDTH LATING CALACITY.	REINFORCEMENTS, AND HANGERS AND SUPPORTS, SHALL COMPLY WITH SMACNA'S "HVAC DUCT" CONSTRUCTION STANDARDS - METAL AND FLEXIBLE DUCT."	BOP BOTTOM OF PIPE N.O. NORMALLY OPEN BS BRANCH SELECTOR OA OUTSIDE AIR BTUH BRITISH THERMAL UNITS PER HOUR RA RETURN AIR BOOK BETTOM OF PIPE N.O. NORMALLY OPEN OA OUTSIDE AIR OA RETURN AIR	
				DELEGATED DESIGN CALCULATION REQUIREMENTS	C CONDENSATE RAG RETURN AIR GRILLE CFM CUBIC FEET PER MINUTE REF REFRIGERANT CU CONDENSING UNIT RPM REVOLUTIONS PER MINUTE MAHAN DRIVE	
				THESE MECHANICAL SYSTEM ENGINEERING DOCUMENTS REPRESENT THE DESIGN INTENT FOR	DG DOOR GRILLE (24"x16", UNO) RTU ROOF TOP UNIT SA SUPPLY AIR DSSI DUCTLESS SPLIT SYSTEM INDOOR UNIT SMS SHEET METAL SIZE DOOR DIVIDING ON THE OVERTICAL PROPERTY OF THE OWNER OWNER OF THE OWNER OWNER OF THE OWNER	<u>L.</u>
				SUPPORTING AND SECURING THE MECHANICAL EQUIPMENT BASED ON DESIGN CRITERIA BELOW. THE DELEGATED ENGINEER IS RESPONSIBLE FOR PROVIDING A COMPLETE DESIGN. APPROVED BY THE AUTHORITY HAVING JURISDICTION, TO SUPPORT AND SECURE THE MECHANICAL EQUIPMENT WITHOUT	DSSO DUCTLESS SPLIT SYSTEM OUTDOOR UNIT SP STATIC PRESSURE EA EXHAUST AIR SQ FT SQUARE FEET EAG EXHAUST AIR GRILLE TAG TRANSFER AIR GRILLE TAG TRANSFER AIR GRILLE	
				OBSTRUCTING REQUIRED SERVICE CLEARANCES. 2. DESIGN CRITERIA: THE PROPERTY OF	EF EXHAUST FAN TAS TRANSFER AIR SLEEVE F FEET TOD TOP OF DUCT °Fdb DEGREES FAHRENHEIT DRY BULB TYP TYPICAL	
				WIND SPEED: 130 MPH. RISK CATEGORY: III. WEIGHT: PER APPROVED SUBMITTALS AND SHOP DRAWINGS.	°Fwb DEGREES FAHRENHEIT WET BULB UC DOOR UNDERCUT (3/4", UNO) FD FIRE DAMPER UNO UNLESS NOTED OTHERWISE FPM FEET PER MINUTE V VALVE	
				DEFLECTION LIMITS: PER MANUFACTURER'S REQUIREMENTS IN APPROVED SUBMITTALS AND SHOP DRAWINGS.	FSD COMBINATION FIRE/SMOKE DAMPER VFD VARIABLE FREQUENCY DRIVE HOAS HIGH PERCENTAGE OUTSIDE AIR SYSTEM WG WATER GAUGE CRA ARCHI CR	ECTS
				 DELEGATED ENGINEER SHALL PROVIDE SIGNED AND SEALED DATA TO THE ENGINEER OF RECORD AND AUTHORITY HAVING JURISDICTION INCLUDING THE FOLLOWING AS APPLICABLE, BUT NOT LIMITED TO: DETAIL FABRICATION AND ASSEMBLY OF SUPPORT STRUCTURE, DESIGN CALCULATIONS FOR STATIC AND DYNAMIC LOADING DUE TO EQUIPMENT WEIGHT AND 	DRAWING INDEX Clemons, Rutl	ierford, &
				OPERATION AND WIND FORCES REQUIRED TO SELECT WIND RESTRAINT, 3.). SECUREMENT DETAILS WITH ANCHORAGES AND ATTACHMENTS TO STRUCTURE AND TO SUPPORTED	M0.1 GENERAL NOTES, LEGENDS & SCHEDULES M1.5 BLACKBURN-HUNT BUILDING	
				EQUIPMENT.	M1.6 BLACKBURN-HUNT BUILDING - PIPING M1.7A BLACKBURN-HUNT BUILDING - 2ND FLOOR PLAN - ADD ALTERNATE M1.8 BLACKBURN-HUNT BUILDING - ROOF PLAN Litturian Da	rs
					M4.1 SCHEDULES M4.2 SCHEDULES M5.1 DETAILS Interior De Construction I	
					M5.2 DETAILS Tallahassee, Flo	I 1
					phone 850-1 fax 850-1	385-6153 386-8420
					cra@clemons-ru The Drawings, Specifications and oth	therford.com
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					and occupancy of the Project. CRA's other documents shall not be used by other projects, for documents shall nothers on other projects, for additions	the Owner or others on of the used by the Owner or to this Project or for
					completion of this Project by others, used adjudged to be in default under this A agreement in writing and with appropriate to the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of this Project by others, used in the completion of the completion	greement, except by
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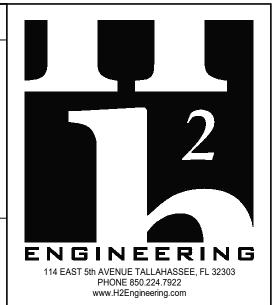


KEYED NOTES:

1 DUCTWORK TO/FROM SECOND FLOOR. SEE 2/M1.5.

3 DUCTWORK FROM FIRST FLOOR. SEE 1/M1.5.

- 2 DUCTWORK TO/FROM ROOF. SEE 2/M1.8.
- 4 BALANCE TO INDICATED CFM.
- 5 PROVIDE FULLY ENCLOSED RETURN PLENUM. CONNECT DUCTWORK TO PLENUM AS INDICATED.
- 6 PROVIDE AIR DEVICE WITH OPPOSED BLADE DAMPER.



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Florida Registry #2485
Robert D. Richards, P.E. #90648

FLORIDA SHERIFFS YOUTH LEARNING CENTER AND BLACKBURN-HUNT BUILDING

MAHAN DRIVE TALLAHASSEE, FL.



Clemons, Rutherford, & Associates, Inc.

Architects
Planners
Interior Designers
Construction Managers

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phone 850-385-6153 fax 850-386-8420 cra@clemons-rutherford.com

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Submittal								
Phase	Date	Drw	Chk					
DESIGN DEVELOPMENT	02-28-25	MAW	RDR					
50% CD	04-15-25	MAW	RDR					
100% CD	07-18-25	MAW	RDR					

Revision

Description

CRA Project # 24029

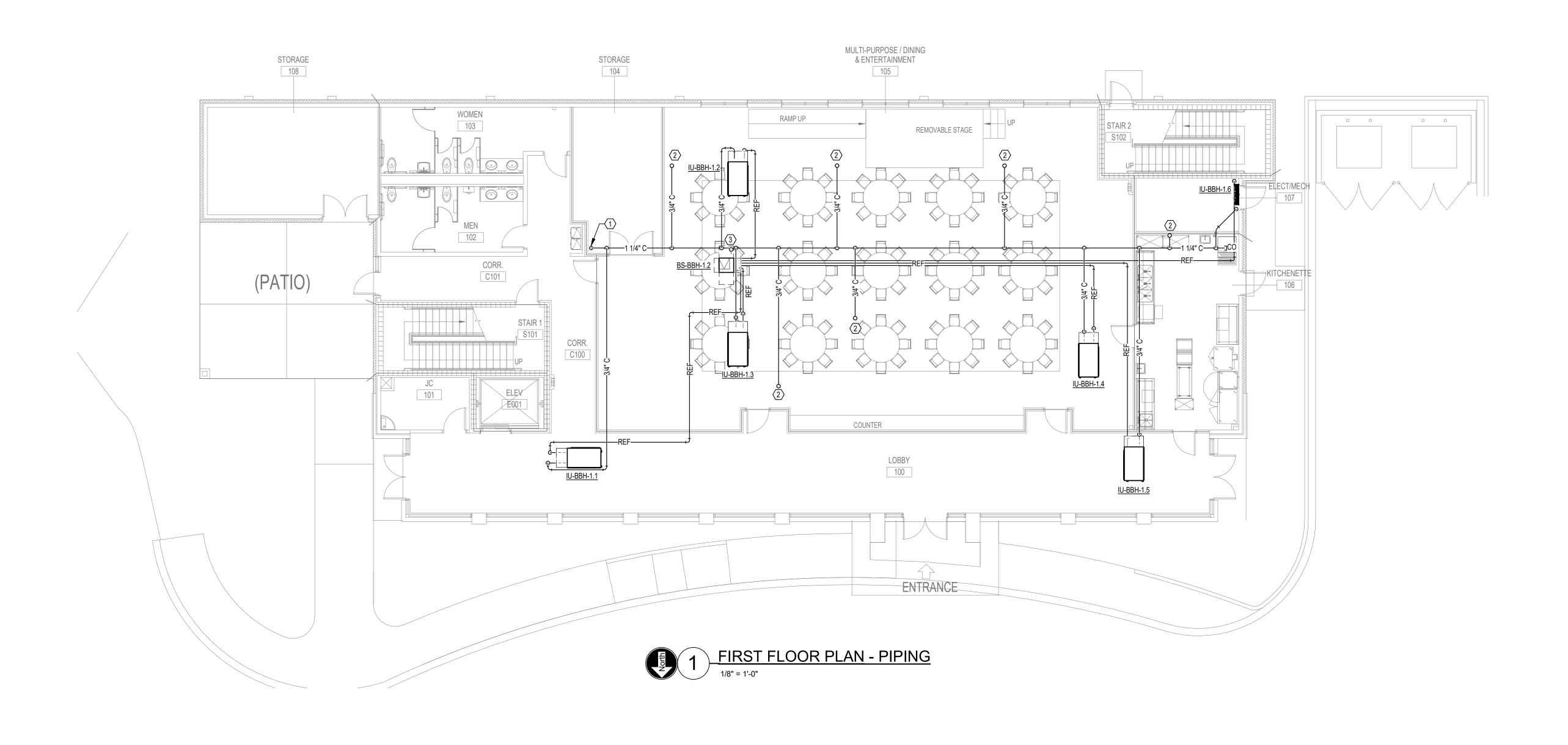
Phase: CONSTRUCTION

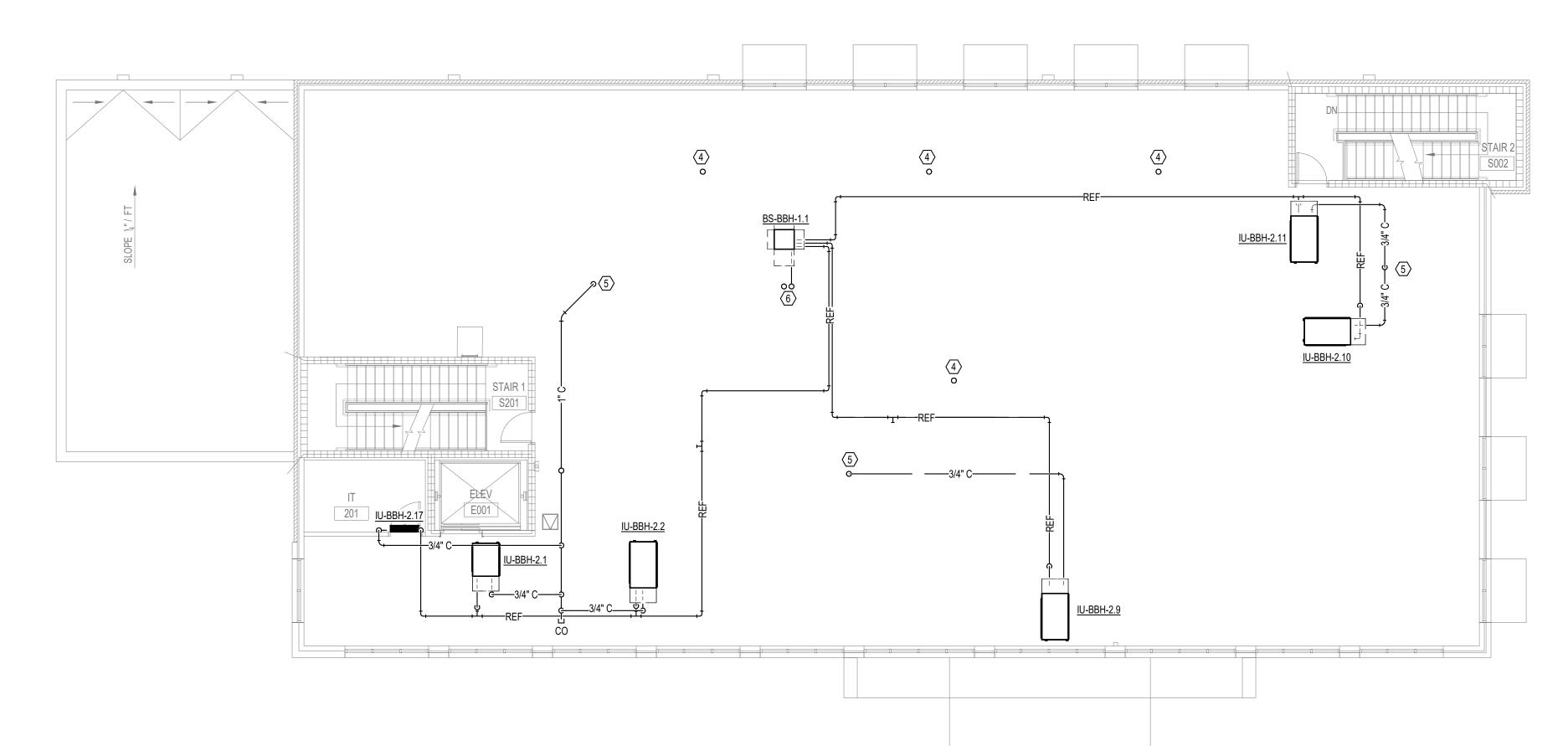
DOCUMENTS

SHEET TITLE

BLACKBURN-HUNT

BUILDING





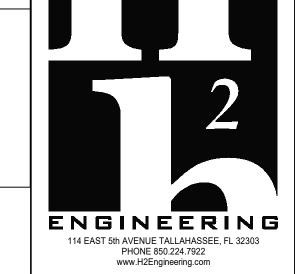


KEYED NOTES:

- 1) ROUTE CONDENSATE PIPING DOWN TO FLOOR SINK IN THIS VICINITY. SEE PLUMBING DRAWINGS.
- (2) CONDENSATE PIPING FROM ABOVE. SEE 2/M1.6.
- REFRIGERANT PIPING TO/FROM FLOOR ABOVE. SEE 2/M1.6 FOR CONTINUATION.

(6) REFRIGERANT PIPING TO/FROM ROOF. SEE M1.8 FOR CONTINUATION.

- STUB UP 3/4" CONDENSATE PIPING TO 6" AFF. CAP PIPING FOR FUTURE.
- 5 CONDENSATE PIPING TO BELOW. SEE 1/M1.6.



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SubmittalPhaseDateDrwChkDESIGN DEVELOPMENT02-28-25MAWRDR50% CD04-15-25MAWRDR100% CD07-18-25MAWRDR

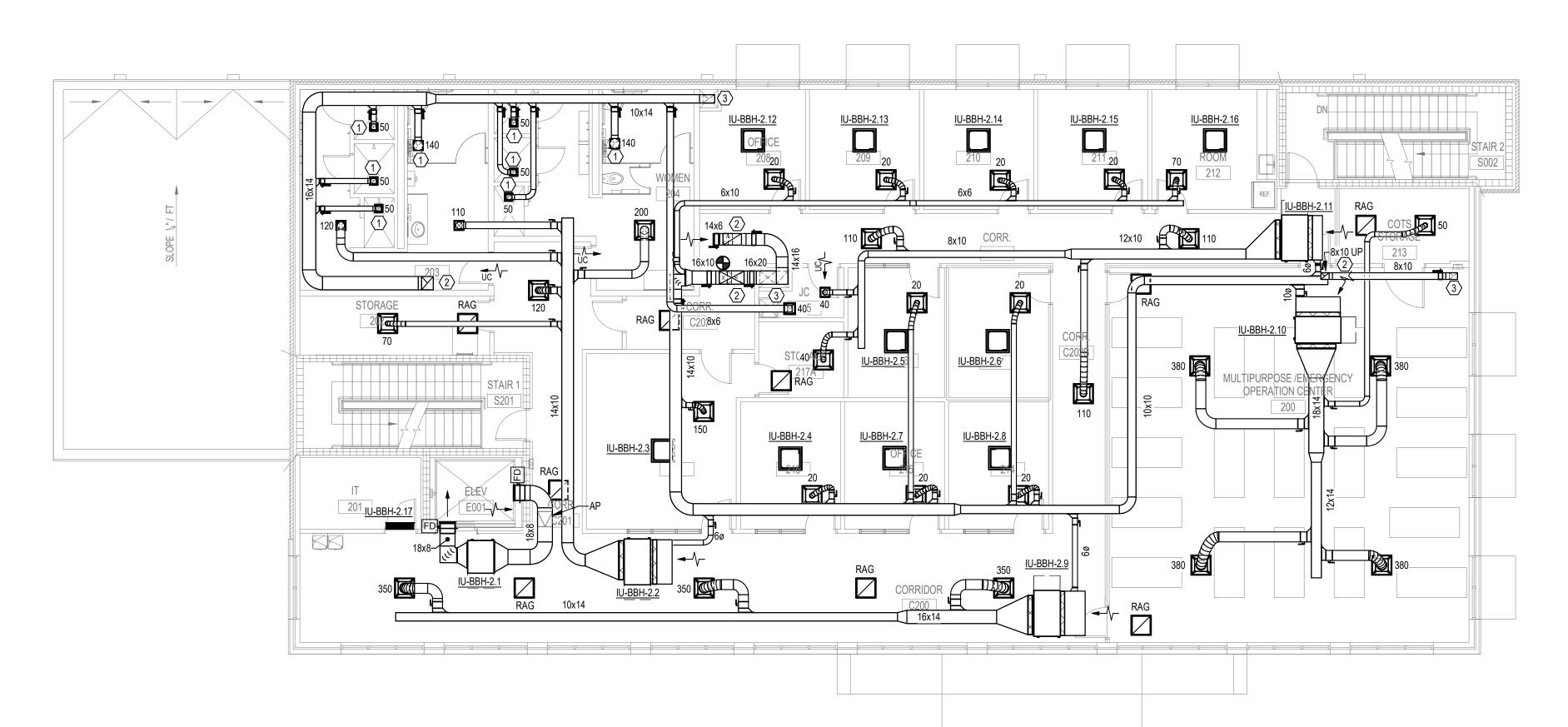
Revision

Description

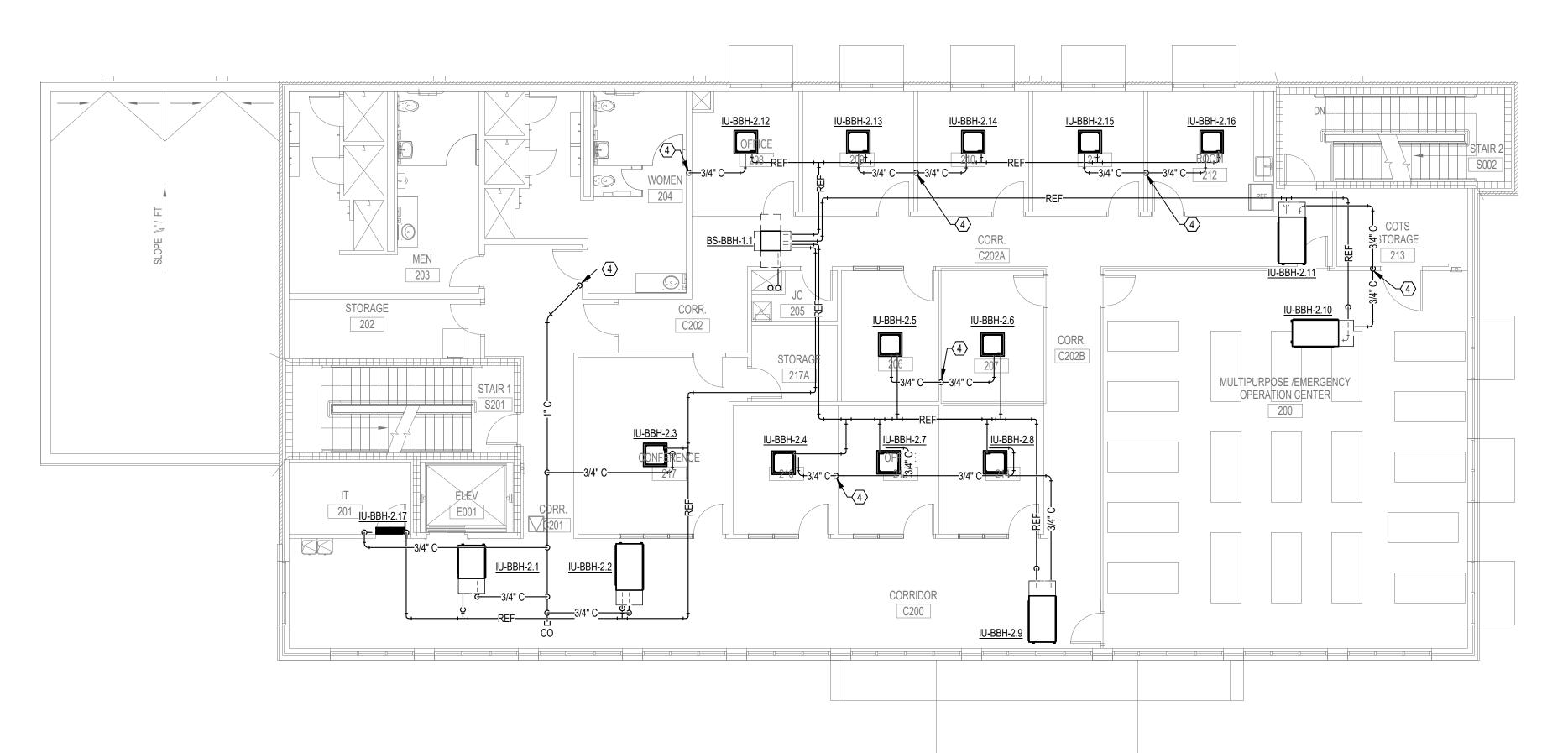
CRA Project # **24029**

hase: CONSTRUCTION DOCUMENTS

SHEET TITLE
BLACKBURN-HUNT
BUILDING - PIPING







SECOND FLOOR PLAN - ADD ALTERNATE - PIPING

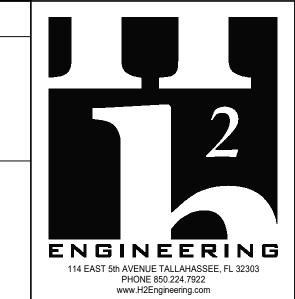
1/8" = 1'-0"

KEYED NOTES:

- 1 PROVIDE AIR DEVICE WITH OPPOSED BLADE DAMPER.
- 2 DUCTWORK TO/FROM SECOND FLOOR. SEE 2/M1.8 FOR CONTINUATION.

3 DUCTWORK TO/FROM FIRST FLOOR. SEE 1/M1.5 FOR CONTINUATION.

ROUTE CONDENSATE PIPING TO FLOOR BELOW. SEE 1/M1.6 FOR CONTINUATION.



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02-28-25	MAW	RDR						
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07-18-25	MAW	RDR						
()2-28-25)4-15-25	Date Drw)2-28-25 MAW)4-15-25 MAW)7-18-25 MAW						

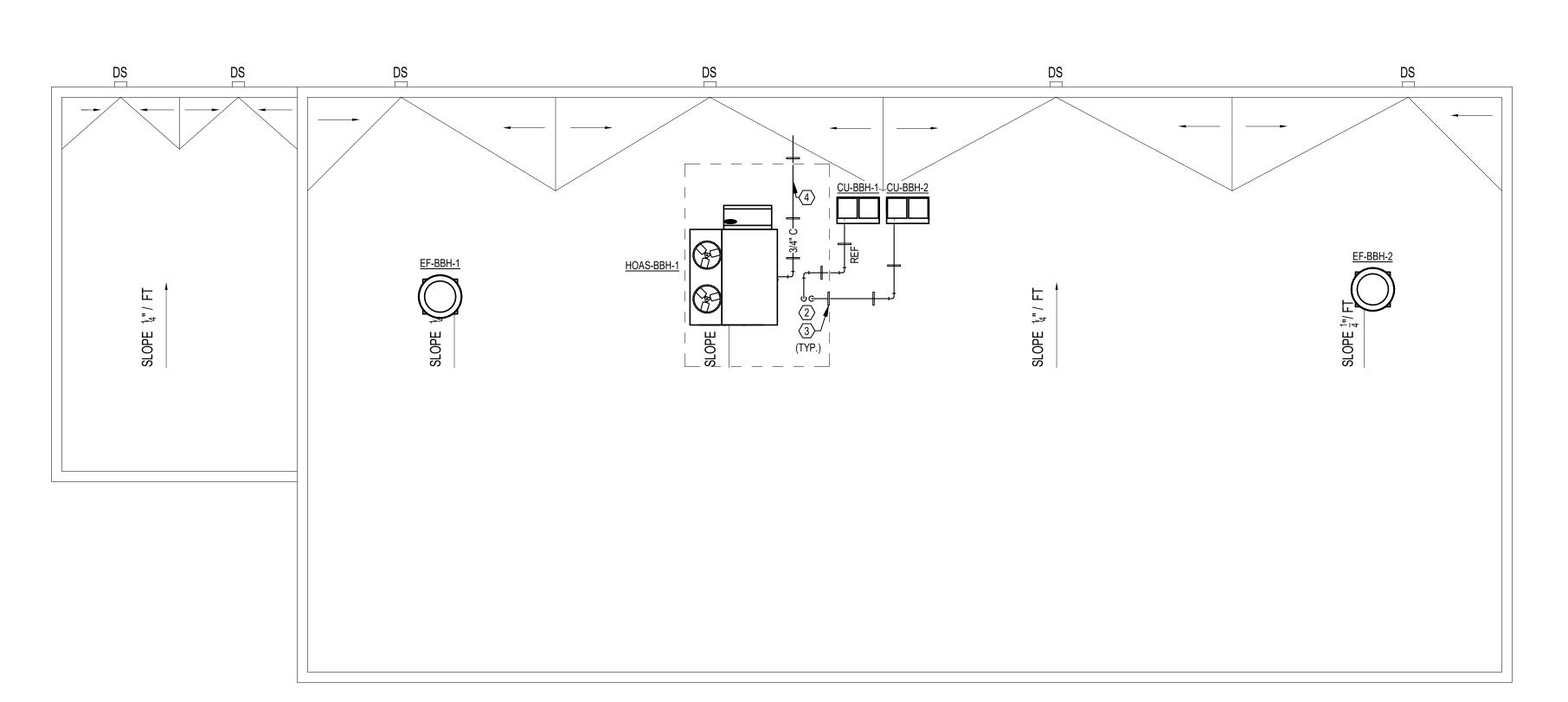
Revision

Description

CRA Project # **24029**

Phase: CONSTRUCTION DOCUMENTS

BLACKBURN-HUNT
BUILDING - 2ND FLOOR
PLAN - ADD ALTERNATE
M1.7A

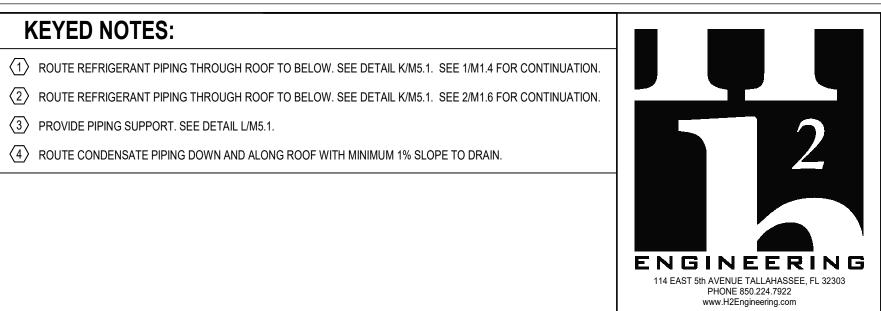


BLACKBURN-HUNT BUILDING - ROOF PLAN

1/8" = 1'-0"

KEYED NOTES:

- 1 ROUTE REFRIGERANT PIPING THROUGH ROOF TO BELOW. SEE DETAIL K/M5.1. SEE 1/M1.4 FOR CONTINUATION.
- 3 PROVIDE PIPING SUPPORT. SEE DETAIL L/M5.1.
- 4 ROUTE CONDENSATE PIPING DOWN AND ALONG ROOF WITH MINIMUM 1% SLOPE TO DRAIN.



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FLORIDA SHERIFFS YOUTH LEARNING **CENTER AND** BLACKBURN-HUNT BUILDING

MAHAN DRIVE TALLAHASSEE, FL.



Clemons, Rutherford, & Associates, Inc.

Architects Planners Interior Designers Construction Managers 2027 Thomasville Road Tallahassee, Florida 32308 phone 850-385-6153

fax 850-386-8420 cra@clemons-rutherford.com The Drawings, Specifications and other documents prepared by Clemons, Rutherford & Associates, Inc. (CRA) for this Project are instruments of CRA for use solely with respect to this Project and, unless otherwise provided, CRA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of CRA's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. CRA's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, for documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to CRA.

Submittal								
Phase	Date	Drw	Chk					
DESIGN DEVELOPMENT	02-28-25	MAW	RD					
50% CD	04-15-25	MAW	RD					
100% CD	07-18-25	MAW	RDI					

Revision Description

CRA Project # **24029**

CONSTRUCTION DOCUMENTS

BLACKBURN-HUNT
BUILDING - ROOF PLAN

VARIA	ABLE REFRIGERANT FLOW - IN	DOOR UNIT	TYPES													
TYPE			A1	A3	A5	A6	D3	D4	D5	D6	D7	D8	D9	D10	E1	H5
DESCRIPTION	ON		2x2 CEILING CASSETTE	2x2 CEILING CASSETTE	2x2 CEILING CASSETTE	2x2 CEILING CASSETTE	DUCTED CONCEALED ABOVE CEILING	DUCTED CONCEALED ABOVE CEILING	DUCTED CONCEALED ABOVE CEILING	WALL MOUNTED						
	TOTAL COOLING CAPACITY (NOTE 1)	BTUH	5,800	9,500	15,000	18,000	12,000	14,200	18,000	24,000	30,000	36,000	48,000	57,000	72,000	24,000
	SENSIBLE COOLING CAPACITY (NOTE 1)	BTUH	4,700	6,600	10,800	13,000	9,700	10,400	13,800	16,800	22,400	25,700	34,800	41,800	56,900	18,000
	HEATING CAPACITY (NOTE 2)	BTUH	6,500	10,500	17,000	20,000	13,500	17,000	20,000	27,000	34,000	40,000	54,000	60,000	81,000	26,500
	AIR FLOW RATE (HIGH / LOW)	CFM	300 / 229	317 / 229	405 / 282	511 / 353	450 / 388	560 / 500	635 / 529	688 / 565	1,094 / 812	1,130 / 812	1,377 / 988	1,624 / 1,130	2,047 / 1,764	635 / 470
	EXTERNAL STATIC PRESSURE (HIGH / LOW)	IN. WG	N/A	N/A	N/A	N/A	0.40 / 0.12	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.80 / 0.20	0.95 / 0.38	N/A
	SOUND PRESSURE LEVEL (HIGH / LOW)	dBA	32 / 26	33 / 26	37 / 28	43 / 33	37 / 35	38 / 37	39 / 37	40 / 38	41 / 39	41 / 39	42 / 40	45 / 43	49 / 46	47 / 41
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1	208 / 1
	MINIMUM CIRCUIT AMPACITY	AMPS	0.3	0.3	0.4	0.6	1.4	1.5	1.6	1.8	2.8	2.9	3.4	3.4	9.5	0.6
	MAXIMUM OVERLOAD PROTECTION	AMPS	15	15	15	15	15	15	15	15	15	15	15	15	15	15
	CONDENSATE DRAIN SIZE	IN.	1	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1	3/4
	OUTSIDE AIR INTAKE SIZE	IN.	4	4	4	4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	WEIGHT	LBS.	35	37	37	41	62	80	80	80	102	102	102	104	302	31
	FAN DRIVE		DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT	DIRECT
MANUFACT	URER		DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN	DAIKIN
MODEL NUI	MBER		FXZQ05	FXZQ09	FXZQ15	FXZQ18	FXMQ12	FXMQ15	FXMQ18	FXMQ24	FXMQ30	FXMQ36	FXMQ48	FXMQ54	FXMQ72	FXAQ24
DETAIL REF	FERENCE		G/M5.1	G/M5.1	G/M5.1	G/M5.1	F/M5.1	F/M5.1	F/M5.1	F/M5.1	F/M5.1	F/M5.1	F/M5.1	F/M5.1	F/M5.1	H/M5.1
NOTES:			1	1	1	1	1	1	1	1	1	1	1	1	1 L	

NOTES:

COOLING CAPACITY RATED @ 95°F AMBIENT, 80°Fdb / 67°Fwb ENTERING AIR TEMPERATURE. HEATING CAPACITY RATED @ 47°Fdb / 43°Fwb AMBIENT, 70°Fdb ENTERING AIR TEMPERATURE.

DESIGNATION	SCHEDULED	DESCRIPTION	COMBINATION RATIO	ADJUSTED CAPACI
220.0	TYPE		(%)	(BTUH)
CU-BBH-1	D	HEAT RECOVERY	130%	142,320
CU-BBH-2	В	HEAT RECOVERY	130%	94,752

COAT ENTIRE CONDENSING UNIT WITH CORROSION INHIBITOR.

OUTDOOF	R CONDITIONS - DESIGN DAY (TALLAHASSEE, FLORIDA)		
	COOLING (0.4% ANNUAL)	°Fdb - °Fwb	96.2 - 76.2
	HEATING (99.6% ANNUAL)	°Fdb	26.5
	ENTHALPY (0.4% ANNUAL)	°Fdb - °Fwb	89.0 - 79.9
	DEHUMIDIFICATION (0.4% ANNUAL)	°Fdb - °Fwb	82.9 - 79.2
	EVAPORATION (0.4% ANNUAL)	°Fdb - °Fwb	88.8 - 80.0
	HUMIDIFICATION (99% ANNUAL)	GR / LB	13.0
INDOOR (CONDITIONS - SUMMER		
	OFFICE AREAS (EXCEPT AS NOTED BELOW)	°Fdb - %RH	74 - 55
	CLASSROOMS	°Fdb - %RH	74 - 50
	MUSEUMS / ARCHIVES	°Fdb - %RH	70 - 50
	TELECOMMUNICATION ROOMS	°Fdb - %RH	78 - 55
	MECHANICAL / ELECTRICAL ROOMS / SERVICE AREAS	°Fdb - %RH	80 - 50
	ELEVATOR MACHINE ROOMS	°Fdb - %RH	80 - 50
INDOOR O	CONDITIONS - WINTER		
	OFFICE AREAS (EXCEPT AS NOTED BELOW)	°Fdb - %RH	70 - 30
	CLASSROOMS	°Fdb - %RH	70 - 30
	MUSEUMS / ARCHIVES	°Fdb - %RH	68 - 45
	TELECOMMUNICATION ROOMS	°Fdb - %RH	65 - 30
	MECHANICAL / ELECTRICAL ROOMS / SERVICE AREAS	°Fdb - %RH	70 - 30
	ELEVATOR MACHINE ROOMS	°Fdb - %RH	70 - 30

TYPE			В	D
DESCRIPTION			HEAT RECOVERY	HEAT RECOVERY
PERFORMANCE				I
	NOMINAL CAPACITY	TONS	8	12
	COOLING CAPACITY (NOTE 1)	BTUH	96,000	144,000
	HEATING CAPACITY (NOTE 2)	BTUH	108,000	162,000
	EER (NOTE 3)	BTU / W-HR	13.55	11.75
	IEER (NOTE 3)	BTU / W-HR	24.85	22.55
	SIMULATANEOUS COOLING & HEATING EFFICIENCY (NOTE 3)	BTU / W-HR	23.75	23.75
	COEFFICIENT OF PERFORMANCE (NOTE 3)	BTU / W-HR	3.90	3.59
	SOUND PRESSURE LEVEL	dBA	65	66
JNIT DATA				
	COMBINATION		N/A	N/A
	COMPRESSOR QUANTITY (INVERTER)	#	1	1
	MAXIMUM NUMBER OF INDOOR UNITS	#	16	25
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 3	208 / 3
	MINIMUM CIRCUIT AMPACITY	AMPS	38.1	58.3
	MAXIMUM OVERLOAD PROTECTION	AMPS	45	70
	WEIGHT	LBS.	727	793
	REFRIGERANT TYPE		R410A	R410A
MANUFACTURER			DAIKIN	DAIKIN
MODEL NUMBER			REYQ96XATJA	REYQ144XATJA
DETAIL REFEREN	CE		J/M5.1	J/M5.1
NOTES:			1	1
1	COOLING CAPACITY RATED @ 95°F AMBIENT, 80°Fdb / 67°Fwb ENTERING AIR TEMP			
2	HEATING CAPACITY RATED @ 47°Fdb / 43°Fwb AMBIENT, 70°Fdb ENTERING AIR TEI	VIPERATURE.		

		EXHAUST AIR	OUTSID)E AIR
TYPE OF SPA	ACE	CFM / FT ₂	CFM / PERSON	CFM / FT ₂
	BREAK ROOMS		5	0.06
	CLASSROOMS (AGE 9 PLUS)		10	0.12
	CONFERENCE / MEETING		5	0.06
	CORRIDORS		0	0.06
	JANITOR / TRASH	1	0	0.00
	KITCHEN (COOKING)	0.7	7.5	0.12
	LOBBIES		5	0.06
	MAIN ENTRY LOBBIES		5	0.06
	MULTI-PURPOSE ASSEMBLY		5	0.06
	MULTI-USE ASSEMBLY		7.5	0.06
	OFFICE SPACE		5	0.06
	STORAGE ROOMS		0	0.12
	TOILET (PUBLIC)	50/70	0	0.00
<u>IOTES:</u> 1	VENTILATION RATES FOR SPACES WITH INTERMITTENT OF ON AVERAGE OCCUPANCY DURING THE OCCUPIED PERIOR	CCUPANCY (PEAK OCCUPANCY LESS THA D, BUT NOT LESS THAN HALF OF THAT RE	N THREE HOURS) HAV EQUIRED DURING PEAL	/E BEEN REDU K OCCUPANCY
2	VENTILATION RATES CALCULATED PER REQUIREMENTS OF	F FBC. MFCHANICAL 2023		

3 EXHAUST IS PER WATER CLOSET AND/OR URINAL. HIGHER RATE USED.

VRF - INDOOR UNIT DESIGNATIONS

DESIGNATION	DESCRIPTION	SCHEDULED	OUTSIDE AIR QUANTITY	EXTERNAL STATIC PRESSURE	SYSTEM CONNECTED TO		NOTE	:S
		TYPE	(CFM)	(INCH WG)	BRANCH SELECTOR	CONDENSING UNIT	STANDARD	SPECIAL
IU-BBH-1.1	DUCTED CONCEALED ABOVE CEILING	D4	30	0.10	BS-BBH-1.1	CU-BBH-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-1.2	DUCTED CONCEALED ABOVE CEILING	E1	850	0.10	BS-BBH-1.1	CU-BBH-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-1.3	DUCTED CONCEALED ABOVE CEILING	E1	850	0.10	BS-BBH-1.1	CU-BBH-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-1.4	DUCTED CONCEALED ABOVE CEILING	D9	90	0.10	BS-BBH-1.1	CU-BBH-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-1.5	DUCTED CONCEALED ABOVE CEILING	D8	200	0.10	BS-BBH-1.1	CU-BBH-1	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-1.6	WALL MOUNTED	H5	0	0.10	BS-BBH-1.1	CU-BBH-1	1, 2, 3	
IU-BBH-2.1	DUCTED CONCEALED ABOVE CEILING	D6	0	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-2.2	DUCTED CONCEALED ABOVE CEILING	D5	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-2.3	2x2 CEILING CASSETTE	A3	150	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.4	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.5	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.6	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.7	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.8	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.9	DUCTED CONCEALED ABOVE CEILING	D7	60	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-2.10	DUCTED CONCEALED ABOVE CEILING	D10	300	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-2.11	DUCTED CONCEALED ABOVE CEILING	D3	50	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 7, 9, 10, 11, 12, 13, 14	
IU-BBH-2.12	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.13	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.14	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.15	2x2 CEILING CASSETTE	A1	20	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.16	2x2 CEILING CASSETTE	A5	70	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3, 4, 5, 6, 7	
IU-BBH-2.17	WALL MOUNTED	H5	0	0.10	BS-BBH-1.2	CU-BBH-2	1, 2, 3	

NOTES: (SEE SEQUENCES OF OPERATION ON SHEET MC2.1 FOR CONTROLS)

REFRIGERANT PIPING SHALL BE SIZED BY MANUFACTURER.

PROVIDE SIMPLIFIED WIRED REMOTE CONTROL.

PROVIDE 1" PLEATED FILTER (SEE SPECIFICATIONS).

PROVIDE UNIT INTEGRAL CONDENSATE PUMP WITH OVERFLOW SAFETY SHUTOFF.
PROVIDE CHECK VALVE AT UNIT CONDENSATE OUTLET.

PROVIDE DECORATION PANEL. PROVIDE FILTER CHAMBER.

8 PROVIDE FRESH AIR INTAKE KIT.

PROVIDE AIR SUCTION FLANGE FOR REAR RETURN.

SET FAN SPEED TO ACHIEVE AIRFLOW (AS INDICATED ON PLANS).
PROVIDE 120-VOLT CONDENSATE PUMP (SAUERMANN SI-30 OR APPROVED EQUAL).

12 PROVIDE NAVIGATION REMOTE CONTROLLER (WHERE EQUIPPED WITH ZONE DAMPERS).

PROVIDE INDIVIDUAL THERMOSTATS FOR EACH ZONE (WHERE EQUIPPED WITH ZONE DAMPERS).

SET MINIMUM DAMPER POSITION TO 20% FOR EACH DAMPER (WHERE EQUIPPED WITH ZONE DAMPERS).

VARIABLE REFRIGERANT FLOW - BRANCH SELECTOR TYPES

TYPE			C2	C3
	DESCRIPTION		MULTI PORT	MULTI PORT
	SERIES		FLEX	FLEX
	MAXIMUM CAPACITY OF CONNECTED INDOOR UNITS	BTUH	216,000	290,000
	NUMBER OF PORTS	#	6	8
	MAXIMUM NUMBER OF CONNECTED UNITS PER PORT	#	5 64 64 208 / 1 0.6	5
	COOLING INPUT POWER	W		86
	HEATING INPUT POWER	W		86
	ELECTRICAL CHARACTERISTICS	V / PH		208 / 1
	MINIMUM CIRCUIT AMPACITY	AMPS		0.8
	MAXIMUM OVERLOAD PROTECTION	AMPS		15
	WEIGHT	LBS.	73	81
MANUFACTU	URER		DAIKIN	DAIKIN
MODEL NUMBER				BSF8Q54TVJ
DETAIL REF	FERENCE		C/M5.2	C/M5.2

VRF - BRANCH SELECTORS

DESIGNATION	SCHEDULED TYPE	DESCRIPTION	SERIES			
BS-BBH-1.1	C3	MULTI PORT	FLEX			
BS-BBH-1.2	C2	MULTI PORT	FLEX			
NOTES:						
1 REFRIGERANT PIPING SHALL BE SIZED BY MANUFACTURER.						



ENGINEERING

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Robert D. Richards, P.E. #90648

H2E PROJECT No. 24179

FLORIDA
SHERIFFS YOUTH
LEARNING
CENTER AND
BLACKBURN-HUNT
BUILDING

MAHAN DRIVE TALLAHASSEE, FL.



Clemons, Rutherford, &
Associates, Inc.

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Submittal

 Phase
 Date
 Drw
 Chk

 DESIGN DEVELOPMENT
 02-28-25
 MAW
 RDR

 50% CD
 04-15-25
 MAW
 RDR

 100% CD
 07-18-25
 MAW
 RDR

Revision

Description

CRA Project #_____**24029**

se: CONSTRUCTION DOCUMENTS

SHEET TITLE
SCHEDULES

R// 4

M Autodesk Docs://24-179 Florida Sheriffs Association - Learning Center/24-179 Florida Sheriffs /

FANS						
DESIGNATION		EF-E	BH-1	EF-E	BBH-2	
SERVICE			1 OR 2 AUST	CLASS 1 OR 2 EXHAUST		
MOUNTING METHOD		RC	OOF	RC	OOF	
FAN TYPE			IFUGAL LAST		RIFUGAL SLAST	
AIR FLOW	CFM	1,	130	2	70	
STATIC PRESSURE	IN.	C	.4	C).4	
AIRSTREAM TEMPERATURE	DEG F	7	70	70		
FAN SPEED	RPM	7	701 DIRECT 1,725		1,300 DIRECT	
FAN DRIVE		DIR				
MOTOR SPEED	RPM	1,			550	
MOTOR POWER	HP or W	1/8	HP	1/8	HP	
MOTOR BRAKE HORSEPOWER	BHP	N	//A	N	I/A	
ELECTRONICALLY COMMUTATED MOTOR		Υ	ES	YES 120 / 1		
ELECTRICAL CHARACTERISTICS	V / PH	120	0/1			
WEIGHT	LBS.	2	23	2	23	
NOISE LEVEL (RADIATED)	SONES or LwA	4.7	SONES	5.4	SONES	
STANDARD NOTES		1, 2, 3	, 4, 7, 9	1, 2, 3	, 4, 7, 9	
SPECIAL NOTES						
MANUFACTURER		CC	OOK	CC	OOK	
MODEL NUMBER		180R	H17D	90R	15DH	
DETAIL REFERENCE		D/M5.1		D/M5.1		

NOTES: (SEE SEQUENCES OF OPERATION ON SHEET MC2.1 FOR FAN CONTROLS)

PROVIDE PRE-WIRED DISCONNECT SWITCH, FACTORY MOUNTED. PROVIDE SOLID STATE SPEED CONTROLLER, FACTORY MOUNTED.

PROVIDE BACKDRAFT DAMPER, GRAVITY OPERATED.

PROVIDE PRE-FABRICATED INSULATED ROOF CURB, 12-INCH HIGH WITH DAMPER TRAY, SLOPED TO MATCH ROOF SLOPE.

9 PROVIDE TIE-DOWN EYELETS.

NATIDAL	\/CNITH	ATION RATE
NAIURAL	VENIII	AIIUN KAIF
	V - 14 1 1 -	

		FLOOR AREA	OPENABLE AREA	
TYPE OF SPACE		FT ₂	MINIMUM (FT2) ACTUAL (FT	
	STORAGE ROOMS	341	14	46
NOTES:				
1	NATURAL VENTILATION CALCULATED PER REQUIREMENTS OF FLORIDA BUILDING CODE - MECHANICAL 2023, BASED ON MINIMUM OPENABLE AREA TO THE OUTDOORS OF 4% OF THE FLOOR AREA OR UNOBSTRUCTED AREA OF 8% TO ADJOINING SPACES.			

BUILDING AIR BALANCE - BLACKBURN-HUNT (NORMAL)			
OUTSIDE AIR SOURCE CFM EXHAUST SOURCE CFM			
HOAS-BBH-1	1,850	EF-BBH-1	1,130
		EF-BBH-2	270
TOTAL	1,850	TOTAL	1,400
BUILDING PRESSURIZATION (+)			450

BUILDING AIR BALANCE - I	BLACKBURN-	HUNT (ECONO	OMIZER)
OUTSIDE AIR SOURCE	CFM	EXHAUST SOURCE	CFM

OUTSIDE AIR SOURCE	CFM	EXHAUST SOURCE	CFM	
HOAS-BBH-1	2,830	EF-BBH-1	1,130	
		EF-BBH-2	270	
		HOAS-BBH-1 RELIEF	980	
TOTAL	2,830	TOTAL	2,380	
BUILDING PRESSURIZATION		(+)	450	

VIAKE	EUP AIR UNIT - PACKAGED		
ESIGNAT	ION		HOAS-BBH-1
IR FLOW	RATES		
	TOTAL SUPPLY AIR	CFM	2,830
	OUTSIDE AIR	CFM	1,850
	RELIEF AIR (NORMAL / ECONOMIZER)	CFM	0 / 980
	MINIMUM SUPPLY FAN SPEED SETTING	%	100
	MINIMUM EXHAUST FAN SPEED SETTING	%	0
FILTER SE	CTION		
	DAMPERS		NONE
	FILTER ORIENTATION		FLAT
	TYPE OF FILTER		2" THICK PLEATED
COOLING [DATA	'	
	TOTAL COOLING CAPACITY	MBTUH	205.1
	SENSIBLE COOLING CAPACITY	MBTUH	117.9
	AIR ENTERING COOLING COIL	°Fdb - °Fwb	88.9 – 73.3
	AIR LEAVING COOLING COIL	°Fdb - °Fwb	49.3 – 49.3
	EER / IEER	BTU / W-HR	12.1 / 16.0
	CONDENSATE DRAIN SIZE	IN.	1
HOT GAS F	REHEAT DATA		
	TYPE		MODULATING
	HEATING CAPACITY	MBTUH	76.2
	AIR ENTERING HOT GAS REHEAT COIL	°F	49.3
	AIR LEAVING HOT GAS REHEAT COIL	°F	75
HEATING D	DATA - ELECTRIC		
	HEATING CAPACITY - # OF STAGES	kW - #	30 – SCR
	AIR ENTERING HEATING COIL	°F	41.6
	AIR LEAVING HEATING COIL	°F	74.8
SUPPLY FA	AN SECTION		
	FAN TYPE		PLENUM
	DRIVE TYPE		DIRECT
	FAN QUANTITY	#	1
	EXTERNAL STATIC PRESSURE	IN. WG	1.5
	MAXIMUM TOTAL STATIC PRESSURE (INCLUDING DIRTY FILTER)	IN. WG	2.7
	DIRTY FILTER ALLOWANCE	IN. WG	0.93
	FAN MOTOR HORSEPOWER (PER FAN)	HP - BHP	5 – 2.17
	FAN MOTOR HORSEPOWER (UNIT TOTAL)	HP - BHP	5 - 2.17
	VARIABLE FREQUENCY DRIVE		1 PER UNIT
EXHAUST F	FAN SECTION		
	FAN TYPE		PLENUM
	DRIVE TYPE		DIRECT
	FAN QUANTITY	#	1
	EXTERNAL STATIC PRESSURE	IN. WG	1
		IN. WG	
	MAXIMUM TOTAL STATIC PRESSURE (INCLUDING DIRTY FILTER)	IN. WG	1

	VARIABLE FREQUENCY DRIVE		1 PER UNIT
FAN SEC	CTION		
	FAN TYPE		PLENUM
	DRIVE TYPE		DIRECT
	FAN QUANTITY	#	1
	EXTERNAL STATIC PRESSURE	IN. WG	1
	MAXIMUM TOTAL STATIC PRESSURE (INCLUDING DIRTY FILTER)	IN. WG	1
	DIRTY FILTER ALLOWANCE	IN. WG	0
	FAN MOTOR HORSEPOWER (PER FAN)	HP - BHP	1 – 0.13
	FAN MOTOR HORSEPOWER (UNIT TOTAL)	HP - BHP	1 – 0.13
	VARIABLE FREQUENCY DRIVE		1 PER FAN

IIT DATA				
	COMPRESSOR QUANTITY	# - #	2	
	WEIGHT	LBS	3,067	
	REFRIGERANT TYPE		R-454B	
	ELECTRICAL CHARACTERISTICS	V / PH	208 / 3	
	MCA / MOCP	AMPS	129 / 150	0
ANUFACTURER			AAON	
DDEL NUMBER		RN	NA-018-C-A-8-GAB0C-	-A02N

PROVIDE ONE (1) MODULATING COMPRESSOR.

DETAIL REFERENCE

NOT USED.

PROVIDE SUPPLY AIR TEMPERATURE AND DEWPOINT CONTROL. PROVIDE SUPPLY AIR TEMPERATURE SENSOR.

PROVIDE OUTSIDE AIR TEMPERATURE AND HUMIDITY SENSORS. PROVIDE SUCTION PRESSURE TRANSDUCER.

PROVIDE RETURN AIR TEMPERATURE AND HUMIDITY SENSORS. PROVIDE TERMINAL BLOCK WITH 2 DIGITAL RELAY OUTPUTS.

COAT ALL COILS WITH CORROSION INHIBITOR. 10 NOT USED.

PROVIDE EBTRON GOLD SERIES AIRFLOW MEASURING STATION. PROVIDE CONVENIENCE ELECTRICAL OUTLET.

PROVIDE ROOF CURB WITH THROUGH THE CURB UTILITIES.

NOT USED. PROVIDE DISCONNECT SWITCH.

FLORIDA SHERIFFS YOUTH LEARNING CENTER AND BLACKBURN-HUNT

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H2E PROJECT No. 24179

Florida Registry #2485 Robert D. Richards, P.E. #90648

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MAHAN DRIVE TALLAHASSEE, FL.



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Submittal Date Drw Chk DESIGN DEVELOPMENT | 02-28-25 | MAW | RDR | 04-15-25 MAW RDR 100% CD 07-18-25 MAW RDR

Revision

Description

CRA Project # **24029 CONSTRUCTION**

DOCUMENTS

SHEET TITLE
SCHEDULES

M4.2

