

HVAC GENERAL NOTES	
1. HVAC DRAWINGS ARE DIAGRAMMATICAL IN NATURE AND REPRESENT EXISTING CONDITIONS BASED ON DRAWINGS AND SITE OBSERVATIONS. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL ACTUAL CONDITIONS INCLUDING, DUCTWORK AND PIPING LOCATIONS AND SIZES.	REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
2. DUE TO DRAWINGS BEING DIAGRAMMATICAL IN NATURE RISERS AND DROPS ARE NOT SHOWN - CONTRACTOR SHALL INCLUDE THESE IN THE BID - WHERE POSSIBLE ALL RISERS AND DROPS SHALL BE CONSTRUCTED USING 45 DEGREE OR LONG RADIUS ELBOWS.	32. THE PLUMBING CONTRACTOR SHALL RUN ALL CONDENSATE DRAINS PER PLUMBING SPECIFICATIONS. (SEE PLUMBING SHEETS)
3. PROVIDE AND INSTALL NECESSARY DUCTWORK TRANSITIONS AND PIPING INCREASERS/REDUCERS AS REQUIRED FOR EQUIPMENT CONNECTIONS. CONSULT MANUFACTURER'S DATA FOR ACTUAL DUCTWORK AND PIPING CONNECTIONS SIZES, INCLUDING, BUT NOT LIMITED TO THOSE SHOWN.	33. COMBUSTIBLE PIPING IS NOT PERMITTED IN RETURN AIR PLENUMS OR CEILING SPACES USED FOR RETURN AIR.
4. 4. AIR CONDITIONING CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS, MATERIALS, ELEVATIONS AND COUNTS AS SHOWN AND/OR NOTED ON THE DRAWINGS AND INCLUDE IN THE BID ANY AND ALL FABRICATION REQUIRED PRIOR TO INSTALLATION. THE CONTRACTOR SHALL VERIFY SIZE, ELEVATION, AND PRESENT STATE OF ALL EXISTING UTILITIES.	34. THE AIR CONDITIONING CONTRACTOR SHALL USE RADIUS TURNS WITH A 1.5 CENTERLINE TO WIDTH RATIO (1.5 R/W), VANED ELBOWS, SPLITTER DAMPERS WHERE INDICATED, VOLUME CONTROLS IN ALL BRANCH LINES AND SUPPLY AND RETURN AIR DEVICES (UNLESS OTHERWISE NOTED IN AIR DEVICE SCHEDULE).
5. THE ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY AND ALL EXISTING FIELD CONDITIONS WHICH DEVIATE FROM WHAT WAS SHOWN ON THE PLANS. CONTRACTOR IS RESPONSIBLE TO PROVIDE PRICING FOR A COMPLETE INSTALLATION INCLUDING ANY COSTS ASSOCIATED WITH FIELD CONDITIONS AT THE TIME OF BIDDING.	35. THE AIR CONDITIONING CONTRACTOR SHALL SEAL ALL DUCTS IN AN APPROVED MANNER TO INSURE AGAINST LEAKAGE.
6. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR FOR THE ADVANCED ORDERING OF LONG LEAD ITEMS SO THAT DELIVERY WILL NOT INTERFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME.	36. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID ANY CONFLICTS IN LOCATIONS FOR DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC., IN ORDER TO NOT INTERFERE WITH THE PROGRESS OF CONSTRUCTION.
7. IT SHALL BE THE RESPONSIBILITY OF THE AIR CONDITIONING CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS, AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK SHOWN AND/OR NOTED ON THE DRAWINGS.	37. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE FLEXIBLE DUCT CONNECTIONS TO ALL FANS, A/C UNITS, OR MECHANICAL EQUIPMENT, EXCEPT FOR EXHAUST HOODS.
8. ALL DIMENSIONS ARE IN PHYSICAL UNITS OF INCHES UNLESS OTHERWISE NOTED.	38. UNLESS NOTED AS EXISTING TO BE REUSED (E) OR RELOCATED (RE), ALL EQUIPMENT, PIPING, DUCTS, REGISTERS, ETC., SHALL BE NEW.
9. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER IF DUCT SIZE CHANGES ARE REQUIRED BECAUSE OF EXISTING CONDITIONS.	39. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR UNDERWRITERS LABEL (UL) WHERE APPLICABLE.
10. CONTRACTOR SHALL PAY FOR ALL PERMITS, FEES, INSPECTIONS, TESTS, AND ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.	40. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE ALL CONTACTORS, STARTERS, VFDs, RELAYS, AND THERMOSTATS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SWITCHES, DISCONNECTS, POWER WIRING AND CONTROL WIRING, UNLESS NOTED OTHERWISE. VFDs SHALL HAVE A MAINTENANCE BYPASS.
11. AFTER BID SELECTION AND PRIOR TO COMMENCEMENT OF WORK, THE AIR CONDITIONING CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL DUCT WORK, EXHAUST FANS, AIR DEVICES, AND EQUIPMENT AS STATED ON SCHEDULES AND OR NOTES. AHRI CERTIFICATES FOR ALL EQUIPMENT SHALL BE INCLUDED IN THE SUBMITTAL PACKAGE. IF THE CONTRACTOR PROPOSES TO USE ANY ARTICLE, DEVICE, PRODUCT, OR MATERIAL WHICH IS NOT AS SPECIFIED, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVE TO THE ENGINEER THAT THE PROPOSED SUBSTITUTION IS EQUAL AND WILL FIT ALLOCATED SPACE.	41. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE 1" THICK MERV 13 (THROW-AWAY TYPE) FILTERS WITH EACH A/C UNIT (UON).
12. LOCATION OF AIR CONDITIONING DUCTS AND AIR DEVICES MAY CHANGE. VERIFY EXACT LOCATION WITH ARCHITECT/ENGINEER PRIOR TO INSTALLATION. DRAWINGS ARE DIAGRAMMATIC, DO NOT SCALE FOR THE EXACT LOCATION OF DUCTS, DIFFUSERS, GRILLES, REGISTERS, PIPING, EQUIPMENT, ETC. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF AIR DEVICES.	42. ALL PENETRATIONS OF FIRE-RATED WALLS, FLOORS OR CEILINGS SHALL BE FIREPROOFED BY A SEALING METHOD AND RATING AS SPECIFIED ON THE DRAWINGS OR AS REQUIRED BY THE LOCAL OR STATE CODES.
13. PROVIDE MANUAL VOLUME DAMPERS AT ALL LOW PRESSURE BRANCH DUCTS TO INDIVIDUAL DIFFUSERS AND GRILLES AND TO ALL LOW PRESSURE BRANCH DUCTS TO REHEAT COILS. PROVIDE DAMPERS AS CLOSE AS POSSIBLE TO BRANCH CONNECTION TO MAIN. SEE DIFFUSER AND GRILLE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.	43. AIR HANDLING DEVICES IN EXCESS OF 2000 CFM WILL HAVE A DUCT SMOKE DETECTOR TO STOP THE FAN AND ACTIVATE A HORN AND STROBE LIGHT. ALL EQUIPMENT SHALL BE INTERLOCKED AS REQUIRED BY LOCAL CODES OR FIRE SAFETY OFFICIALS.
14. NO PIPING, DUCTWORK, OR CONDUIT SHALL BE INSTALLED UNTIL IT IS COORDINATED WITH ALL OTHER TRADES AFFECTED. PROVIDE ALL OFFSETS REQUIRED TO AVOID INTERFERENCE WITH OTHER TRADES; EXISTING CONDITIONS AND WITH THE STRUCTURE, INCLUDING, BUT NOT LIMITED TO THOSE SHOWN.	44. ALL WORK SHALL COMPLY WITH BASE BUILDING LIFE SAFETY/SMOKE CONTROL SYSTEM REQUIREMENTS. PROVIDE ALL NECESSARY WIRING, CONTACTORS, RELAYS, ETC., AS REQUIRED FOR INTERFACE WITH BASE BUILDING SYSTEM.
15. SCHEDULE NEW CONSTRUCTION WORK WITH THE OWNER WELL IN ADVANCE. CONSTRUCTION WORK AND DEMOLITION SHALL BE PERFORMED OR REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.	45. THE AIR CONDITIONING CONTRACTOR SHALL KEEP ALL AREAS IN WHICH WORK IS BEING PERFORMED, FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY.
16. ALL FINISHES AND SURFACES TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION WORK SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.	46. THE AIR CONDITIONING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF AS BUILT DRAWINGS TO THE ENGINEER UPON COMPLETION OF INSTALLATION. IF FIELD CHANGES ARE MADE WHICH DEVIATE FROM ENGINEERING DRAWINGS TO THE EXTENT THAT THE BUILDING DEPARTMENT REQUIRES THESE CHANGES BE INCORPORATED PRIOR TO INSPECTION, THE CONTRACTOR SHALL PROVIDE SKETCHES TO THE ENGINEER FOR INCORPORATION INTO THE BUILDING PLANS. ENGINEERING EXPENSES THAT ARE INCURRED DUE TO REVISIONS OR SUBSTITUTIONS REQUESTED BY THE CONTRACTOR SHALL BE PAID FOR BY THAT CONTRACTOR.
17. DO NOT BLOCK TUBE PULL OR SERVICE SPACE ON EQUIPMENT WITH PIPING, DUCTWORK, ETC. (FLANGED OR REMOVABLE SECTIONS MAY BE USED IN SOME INSTANCES WHERE TIGHT CLEARANCES EXISTS).	47. AIR CONDITIONING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP TO BE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, AND ALL GUARANTEES AND WARRANTIES SHALL BE DELIVERED TO THE OWNER. COMPRESSORS SHALL HAVE EXTENDED FIVE YEAR WARRANTIES.
18. IF NO SIZE IS SHOWN FOR DUCT SERVING DIFFUSER OR GRILLES, USE SIZE SHOWN ON DIFFUSER AND GRILLE SCHEDULE.	48. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF ALL EQUIPMENT WITH THE OWNER'S REPRESENTATIVE AND THE ACTUAL EQUIPMENT BEING FURNISHED.
19. DUCTWORK ROUTED PARALLEL TO A WALL, RATED OR CORRIDOR SHALL BE INSTALLED WITH MINIMUM 6" CLEARANCE TO ALLOW FOR INSPECTION OF WALL PENETRATIONS. CONTRACTOR SHALL PROVIDE 12" CLEARANCE WHERE POSSIBLE, COORDINATE.	49. PRESENT AIR CONDITIONING EQUIPMENT WHERE INDICATED ON THE DRAWINGS IS FOR INFORMATION ONLY AND THE CONTRACTOR SHALL INCLUDE THE INSTALLATION OF CONDUIT AND WIRE AS REQUIRED. THE INSTALLATION OF NEW EQUIPMENT THAT INTERFERES WITH EXISTING SHALL BE REMOVED, RELOCATED, OR RE-ROUTED TO PERMIT COMPLETION OF SUCH WORK.
20. REFER TO DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS.	50. SALVAGED MATERIALS, EQUIPMENT, AND DIFFUSERS SHALL BE DELIVERED TO THE OWNER AT HIS PROPERTY AND STORED WITHIN THE BUILDING WHERE DIRECTED. ANY REMOVED MATERIALS OR EQUIPMENT WHICH THE OWNER DOES NOT WISH TO KEEP SHALL BE DISPOSED OF BY THE CONTRACTOR, WITHOUT ADDITIONAL COST TO THE OWNER.
21. CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF EQUIPMENT AND ITEMS TO BE REMOVED TO THE OWNER. ALL ITEMS THAT THE OWNER WISHES TO RETAIN SHALL BE TURNED OVER TO OWNER AND THE REMAINDER SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A PROPER MANNER BY CONTRACTOR.	51. THE AIR CONDITIONING CONTRACTOR SHALL DETERMINE THE EXTENT TO WHICH EXISTING DUCTWORK AND PIPING WILL HAVE TO BE RE-ROUTED, RELOCATED, OR RECONNECTED, AND THE AMOUNT OF ADDITIONAL WORK WHICH MAY BE REQUIRED DUE TO THE PHYSICAL CONDITIONS OF THE DUCTWORK & PIPING SHALL BE PERFORMED UNDER THIS CONTRACT WITHOUT ADDITIONAL CHARGES TO THE OWNER.
22. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL WORK NECESSARY TO PREPARE THE STRUCTURE FOR THE INSTALLATION AND/OR DEMOLITION WORK OF THE MECHANICAL SYSTEMS. ALL HOLES, OPENINGS AND ANY DAMAGED MATERIALS OR SURFACES SHALL BE REPAIRED AND FINISHED TO MATCH EXISTING.	52. INTERRUPTION OF EXISTING FACILITIES OR SERVICES SHALL BE KEPT TO A MINIMUM AND THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND LABOR REQUIRED WHENEVER TEMPORARY CONDITIONS ARE NECESSARY TO MAINTAIN CONTINUITY OF SERVICE. INTERRUPTION OF SERVICES, THE INSTALLATION OF TEMPORARY FACILITIES, AND THE WORK OF MAKING FINAL CONNECTIONS TO NEW WORK SHALL BE DONE ONLY AT SUCH TIMES AS PERMITTED AND SCHEDULED BY THE OWNER WITHOUT ADDITIONAL COST. THE AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE THE SERVICE INTERRUPTIONS WITH THE OWNER & GENERAL CONTRACTOR.
23. ALL DEMOLITION WORK SHALL COMPLY WITH NFPA 24.1 AND THE REQUIREMENTS OF THE OWNER.	53. ALL ROOF MOUNTED EQUIPMENT SHALL BE HVHZ WIND-LOAD RATED WITH SIGNED AND SEALED DOCUMENTS / DRAWINGS FROM AN INDEPENDENT LICENCED FLORIDA PROFESSIONAL ENGINEER.
24. PROVIDE TEMPORARY FILTERS ON ALL RETURN AIR GRILLES AND TRANSFER OPENINGS IN THE WORK AREA.	54. ALL ROOF MOUNTED EQUIPMENT SHALL BE MOUNTED ON CURBS OR STANDS. CURBS AND STANDS SHALL BE FLORIDA PRODUCT APPROVED OR MIAMI DADE PRODUCT APPROVED AND HAVE CURRENT NOTICE OF ACCEPTANCE (NOA). CURBS AND STANDS SHALL BE ATTACHED TO THE ROOF STRUCTURE AND THE EQUIPMENT SHALL BE ATTACHED TO THE CURB OR STAND IN ACCORDANCE WITH THE NOA DOCUMENTS.
25. EXISTING SYSTEMS SHOWN ON THE DRAWINGS ARE BASED ON AVAILABLE RECORD DRAWINGS. THIS INFORMATION IS ONLY PARTIALLY VERIFIED. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY AND INVESTIGATE ALL CONDITIONS THAT AFFECTS THE WORK PRIOR TO SUBMITTING THE BID.	55. IF ANY CONFLICTS OR DISCREPANCIES APPEAR IN THESE DOCUMENTS, THE MORE STRINGENT OF THE REQUIREMENTS ARE TO BE TAKEN.
26. INSTALL AHU CONTROL PANELS TO PROVIDE FOR 3'-0" MIN. CLEARANCE IN FRONT OF PANEL.	
27. UNLESS OTHERWISE NOTED ON PLANS, LOW RETURN AIR GRILLES AND LOW EXHAUST GRILLES SHALL BE 6" TO 8" A.F.F. TO BOTTOM OF GRILLE.	
28. ALL DIFFUSERS IN SAME SPACE SHALL HAVE THE SAME FULL FACE SIZE USING LARGEST SIZE REQUIRED FROM DIFFUSER AND GRILLE SCHEDULE.	
29. PROVIDE CLEAR ACCESS TO FIRE DAMPERS, SMOKE DAMPERS, AND VALVES.	
30. ALL WORK SHALL BE PERFORMED BY A LICENSED AIR CONDITIONING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES AND ORDINANCES.	
31. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE	

OUTDOOR AIR CALCULATIONS												
SYSTEM	SPACE NAME	SPACE CATEGORY	SPACE TYPE	AREA (SQFT)	OCCUPANCY DENSITY PER 1000 SQFT	OCCUPANCY	VENTILATION RATE CFM/PERSON	VENTILATION RATE CFM/SQFT	MINIMUM OUTDOOR AIR REQUIRED (CFM)	OUTDOOR AIR PROVIDED BY EXISTING SYSTEM (CFM)	OUTDOOR AIR PROVIDED BY NEW ADJUSTED SYSTEM (CFM)	TOTAL OUTDOOR AIR PROVIDED (CFM)
(E) 1N-4 VAV	CLASSROOM 132	EDUCATION	LECTURE CLASSROOM	569	65	37	7.5	0.06	312	-	315	-
(E) 1N-3 VAV	CLASSROOM 133	EDUCATION	MULTI-USE ASSEMBLY	596	100	60	7.5	0.06	486	-	490	-
(E) 1N-3 VAV	CLASSROOM 133	EDUCATION	MULTI-USE ASSEMBLY	638	100	64	7.5	0.06	519	-	520	-
TOTALS				1,803					1,317	-	1,325	-

NOTES:

- OCCUPANT DENSITIES AND VENTILATION RATES BASED ON TABLE 403.3.1.1 OF THE 2023 FLORIDA MECHANICAL CODE. ACTUAL OCCUPANCY BASED ON INFORMATION PROVIDED BY OWNER AND/OR ARCHITECT.
- ALL DUCTWORK SHALL BE KEPT SEALED TO PREVENT CONTAMINATION BY DUST OR OTHER DEBRIS DURING CONSTRUCTION. SEAL THE END OF DUCTWORK WITH PLASTIC SHEETING AND DUCT TAPE. PROTECT ALL DUCTWORK STORED ON-SITE PRIOR TO FABRICATION AND INSTALLATION IN A SIMILAR FASHION.
- ALL EQUIPMENT SHALL BE SUPPLIED AND INSTALLED WITH PROVISIONS FOR IN-PLACE CLEANING AND MAINTENANCE TASKS IN ACCORDANCE WITH THE REQUIREMENTS OF ASHRAE STANDARD 62.1
- CHANGE IN SPACE USE, CONTAMINANTS, OR OPERATION MAY REQUIRE A RE-EVALUATION OF THE DESIGN AND IMPLEMENTATION OF NEEDED CHANGES.

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CLIENT

DATE 06/17/2026

Revision

PROJECT # 26009

MECHANICAL
NOTES, CALCS,
SCHEDULES,
AND DETAILS

M0.2

FIRE SAFETY FLORIDA STATUTES: TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES AND THE APPLICABLE FIRE SAFETY STANDARDS AS DETERMINED BY THE LOCAL AUTHORITY IN ACCORDANCE WITH F.B.C. 2023 SECTION 110.8.4.4 AND CHAPTER 633, FLORIDA STATUTES.

PRIOR TO SUBMITTING THE BID, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND INFORM THE ARCHITECT AND THE ENGINEER OF ANY DISCREPANCY BETWEEN THESE DOCUMENTS AND THE EXISTING CONDITIONS AND SHALL INCLUDE IN THE BID TO CORRECT THE SAME AS DIRECTED. THE ENGINEER AND THE ARCHITECT, ARE NOT RESPONSIBLE FOR ANY ADDITIONAL COSTS RESULTING FROM VERIFIABLE EXISTING CONDITIONS DISCOVERED AFTER CONTRACT HAS BEEN AWARDED. NO CHANGES SHALL BE MADE TO THESE PLANS WITHOUT PRIOR APPROVAL FROM THE ENGINEER OF RECORD. ALL CHANGES SHALL BE SUBMITTED FOR REVIEW PRIOR TO INSTALLATION. NOT FOR BID UNTIL PERMIT HAS BEEN ISSUED.

This item has been digitally signed and sealed on the date adjacent to the seal.

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PERMIT SET: 06/17/26



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