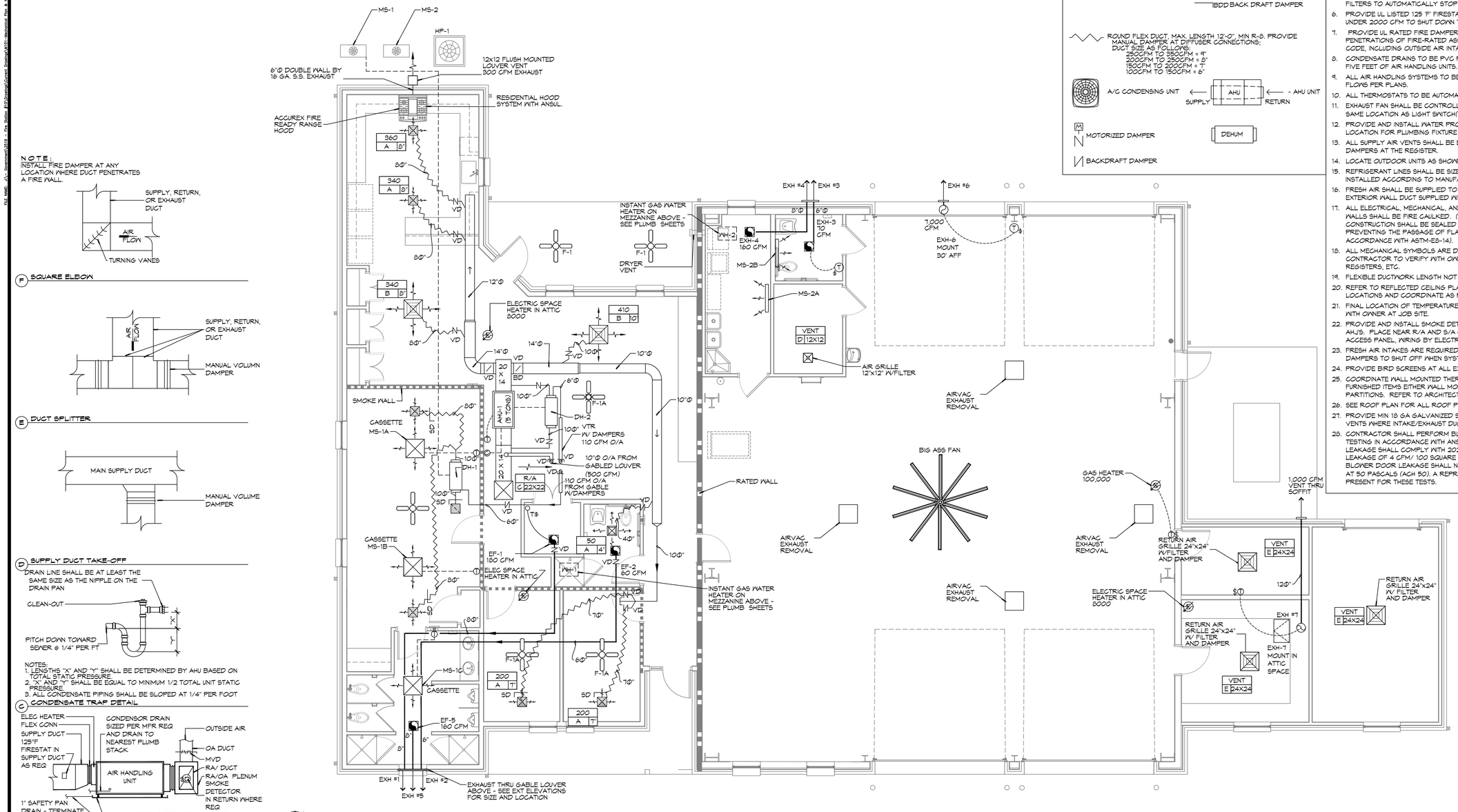


1 MECHANICAL FLOOR PLAN
SCALE: 3/16" = 1'-0"

NOTE:
INSTALL FIRE DAMPER AT ANY LOCATION WHERE DUCT PENETRATES A FIRE WALL.

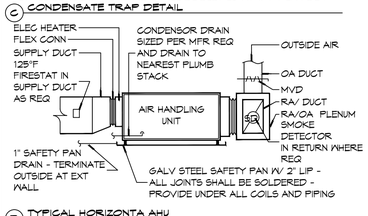
F SQUARE ELBOW

E DUCT SPLITTER

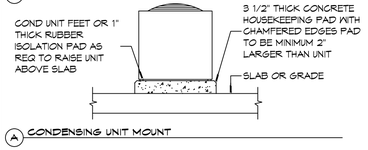
D SUPPLY DUCT TAKE-OFF

NOTES:
1. LENGTHS "X" AND "Y" SHALL BE DETERMINED BY AHU BASED ON TOTAL STATIC PRESSURE
2. "X" AND "Y" SHALL BE EQUAL TO MINIMUM 1/2 TOTAL UNIT STATIC PRESSURE.
3. ALL CONDENSATE PIPING SHALL BE SLOPED AT 1/4" PER FOOT

C CONDENSATE TRAP DETAIL



B TYPICAL HORIZONTA AHU



A CONDENSING UNIT MOUNT

2 DETAILS
SCALE: NTS

DRAWN DIAGRAMMATICALLY FOR CLARITY. FIELD VERIFY PLACEMENT OF ALL EQUIPMENT PRIOR TO FABRICATION.

THIS WORK SHALL MEET ALL HVAC CODES

1. 2021 EDITION OF THE IMC
2. 2021 IECC ENERGY CODE

BLOWER DOOR TEST AND DUCK LEAK TEST SHALL BE PERFORMED BY THE CONTRACTOR. A REPRESENTATIVE FROM THE FD1 SHALL BE PRESENT FOR THESE TEST.

LEGEND

- ELECTRIC SPACE HEATER - SEE HEATER SCHEDULE
- GAS SPACE HEATER - SEE HEATER SCHEDULE
- SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- EXHAUST FAN/LIGHT - SEE SCHEDULE FOR HEATER OPTION
- EXHAUST FAN ONLY
- OUTSIDE AIR INTAKE DUCT W/ VOLUME DAMPER AND MOTORIZED OR GRAVITY DAMPER TO SHUT OFF WHEN SYSTEM IS NOT RUNNING
- THERMOSTAT
- LINE VOLTAGE THERMOSTAT (PROVIDED BY MC)
- FD FIRE DAMPER
- SD SMOKE DAMPER
- VD SMOKE DAMPER
- SFD SMOKE & FIRE DAMPER
- BDD BACK DRAFT DAMPER
- ROUND FLEX DUCT, MAX. LENGTH 12'-0", MIN R-8. PROVIDE MANUAL DAMPER AT DIFFUSER CONNECTIONS; DUCT SIZE AS FOLLOWS: 250CFM TO 350CFM = 8" 200CFM TO 250CFM = 8" 150CFM TO 200CFM = 7" 100CFM TO 150CFM = 6"
- A/C CONDENSING UNIT
- AHU (SUPPLY / RETURN) - AHU UNIT
- MOTORIZED DAMPER
- DEHUM
- BACKDRAFT DAMPER

GENERAL HVAC NOTES

1. CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-6. INSTALLED PER SMACNA STANDARDS.
2. EXPOSED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, MIN R-8. INSTALLED PER SMACNA STANDARDS.
3. ROUND FLEXIBLE DUCT TO BE UL-181, CLASS 1, AIR DUCT MATERIALS.
4. DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. IN ALL SYSTEMS OVER 2000 CFM AND LESS THAN 15,000 CFM, SMOKE DETECTORS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 72E IN THE RETURN DUCT DOWNSTREAM OF THE AIR HANDLING UNIT AND ALL FILTERS TO AUTOMATICALLY STOP THE FAN.
6. PROVIDE UL LISTED 125 'F' FIRESTAT IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
7. PROVIDE UL RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES AND EXHAUST FANS.
8. CONDENSATE DRAINS TO BE PVC PIPE RUN TO PLUMBERS P-TRAP WITHIN FIVE FEET OF AIR HANDLING UNITS.
9. ALL AIR HANDLING SYSTEMS TO BE BALANCED TO ASSURE PROPER AIR FLOWS PER PLANS.
10. ALL THERMOSTATS TO BE AUTOMATIC CHANGEOVER WITH HEAT SWITCH.
11. EXHAUST FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL IN THE SAME LOCATION AS LIGHT SWITCH(S). PROVIDE BACK DRAFT DAMPER.
12. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
13. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS AT THE REGISTER.
14. LOCATE OUTDOOR UNITS AS SHOWN ON ARCHITECTURAL DRAWINGS.
15. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
16. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
17. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E2-14).
18. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGRAMMATICALLY, CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
19. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 12'-0".
20. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND COORDINATE AS REQUIRED.
21. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOB SITE.
22. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJS. PLACE NEAR R/A AND S/A OPENINGS OF AHU AND PROVIDE, WITH ACCESS PANEL, WIRING BY ELECTRICAL CONTRACTOR.
23. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED OR GRAVITY DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING.
24. PROVIDE BIRD SCREENS AT ALL EXTERIOR MECHANICAL PENETRATIONS.
25. COORDINATE WALL MOUNTED THERMOSTAT LOCATIONS WITH ALL OWNER FURNISHED ITEMS EITHER WALL MOUNTED OR FLOOR MOUNTED AGAINST PARTITIONS. REFER TO ARCHITECTURAL DRAWINGS.
26. SEE ROOF PLAN FOR ALL ROOF PENETRATIONS.
27. PROVIDE MIN 18 GA GALVANIZED SHEET METAL TO BLANK-OFF GABLE VENTS WHERE INTAKE/EXHAUST DUCTS OCCUR.
28. CONTRACTOR SHALL PERFORM BLOWER DOOR AND AIR DUCT LEAKAGE TESTING IN ACCORDANCE WITH ANSI/RESNET/ICC 380 - 2022. DUCT LEAKAGE SHALL COMPLY WITH 2021 IECC STANDARDS WITH A MAXIMUM LEAKAGE OF 4 CFM/ 100 SQUARE FOOT OF CONDITIONED AREA. BLOWER DOOR LEAKAGE SHALL NOT EXCEED 5 AIR CHANGES PER HOUR AT 50 PASCALS (ACH 50). A REPRESENTATIVE FROM FD-1 WILL BE PRESENT FOR THESE TESTS.

DAMMON ENGINEERING, INC.
LOUISIANA & MISSISSIPPI
www.dammonengineering.com
Info@dammonengineering.com
PH: 985.649.3832
Chief Engineer: Brian Mistich, PE
5101 Oakridge Trail
Slidell, LA 70458

#	DESCRIPTION	DATE
	REVISIONS	

SEAL:

STATE OF LOUISIANA
BRIAN A. MISTICH
License No. 30187
PROFESSIONAL ENGINEER

NEW FIRE STATION #10
ST. TAMMANY FIRE PROTECTION DISTRICT No. 1
2145 LAKESHORE VISTA BLVD
SLIDELL, LA 70461

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JOB No:	2515	DATE:	12-03-2025
DRAWN BY:	CKD	CHECKED BY:	BAM

SHEET TITLE:
HVAC FLOOR PLAN, DETAILS, AND SCHEDULES

DRAWING NUMBER:
M101

SHEET No: 33 of 37

F:\SMC - Government\2019 - Fire Station #10\Drawings\Current Drawings\M101-Mechanical Floor & Notes.dwg, DUCT DATE & TIME: Wednesday, December 3, 2025 11:51:03 AM