FILE NAME: J:\- CHURCHES\2370 - Our Lady Of Fatima Lacombe\Drawings\Current Drawings\M101.dwg PLOT DATE & TIME: Monday, August 10, 2020 8:22:20 AM

## AIR HANDLER / HEAT PUMP

| TAG | TRANE MODEL NO. | NOMINAL TONS | TOTAL CFM | OA CFM | COOLING TMBH | COOLING SMBH | Motor HP | ESP (" WC) | HEAT KW | POWER VAC | POWER PH | POWER MCA | HEAT PUMP TAG | TRANE MODEL NO. | POWER VAC | POWER PH | POWER MCA | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AHU-A | TWE09043A | 7.5 | 2750 | 690 | 88.7 | 55.4 | 1-1/2 | 0.4 | 9.96 | 230 | 3 | 37 | CU-A | TWA09043A | 230 | 3 | 34 | 1, 2, 3, 4 |
| AHU-B | TEM6A0B30 | 2.5 | 1010 | 130 | 30.5 | 23.6 | 1/3 | 0.4 | 3.84 | 230 | 1 | 24 | CU-B | 4TWR40301 | 230 | 1 | 15 | 1, 2, 3, 4 |

NOTES:
1 Provide inlet filter box, single point power connection, expansion valve, crankcase heat, time delay relay, condensate overflow switch & programmable 7/24 thermostat with lockable cover.
2 Cooling capacities to be rated in accordance with AHRI standard 210/290 for ASHRAE standard design weather conditions in New Orleans, LA.
3 Install units in accordance with manufacturer's recommendations.
4 Provide new filters after commissioning and final acceptance.

## DIFFUSER SCHEDULE

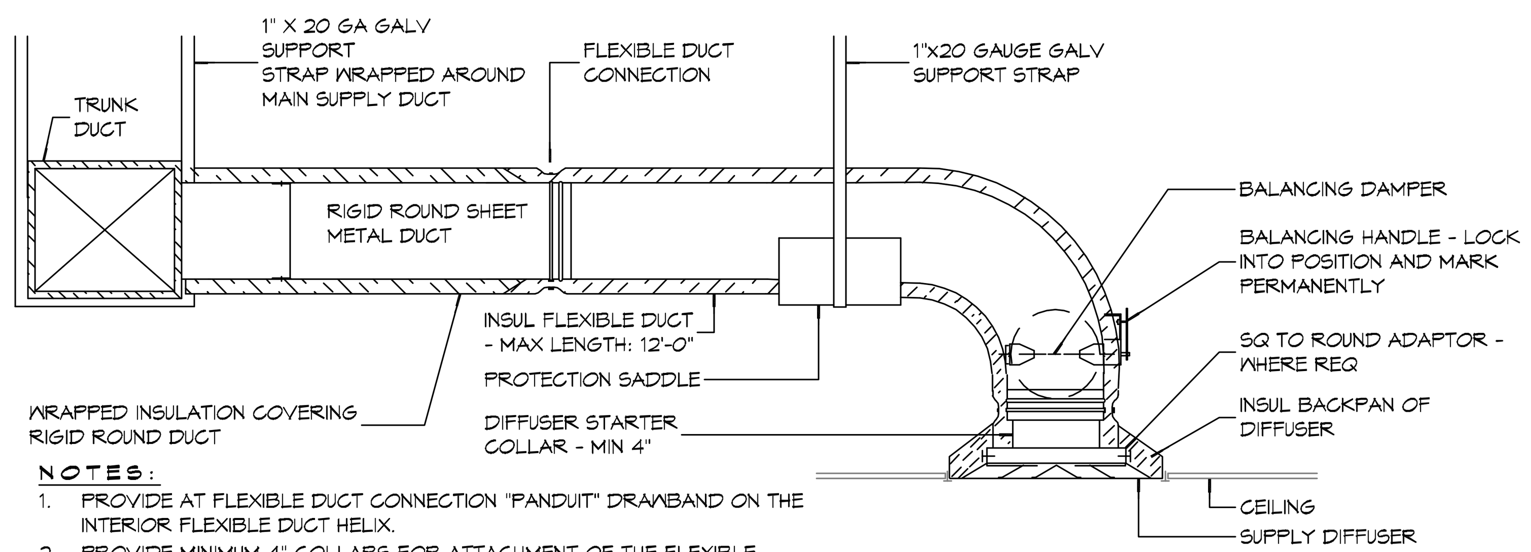
| TAG | SERVICE | NECK SIZE | DESCRIPTION |
|---|---|---|---|
| A | Supply Air | Ref. Plan | 24"x 24" fixed pattern plaque, Titus "OMNI" w/ damper |
| B | Supply Air | Ref. Plan | 12"x 12" fixed pattern plaque, Titus "OMNI" w/ damper |
| C | Return Air | Ref. Plan | 24" X 24" perforated return, Titus"PAR" w/ damper |
| D | Return Air | Ref. Plan | 12" X 12" perforated return, Titus"PAR" w/ damper |

1. Coordinate with architect for color and finish

## Exhaust Fan Schedule

| Tag | Service | Fan Airflow (CFM) | Fan TSP (" wc) | Fan Watts | Fan AMPS | Power Volts | Power Phase | Power Hz | Make / Model | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | Restroom Exhaust | 60 | 0.1 | N/A | 1 | 120 | 1 | 60 | Broan 673 | 1 |
| EF-2 | Restroom Exhaust | 80 | 0.1 | 43 | N/A | 120 | 1 | 60 | Broan A80 | 1 |

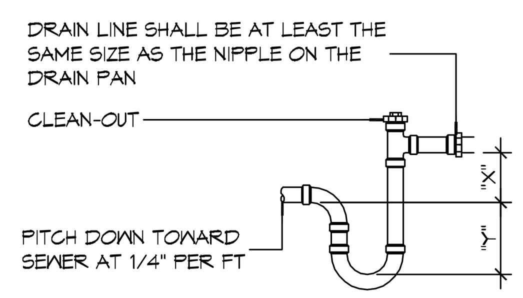
1. Provide dedicated wall switch



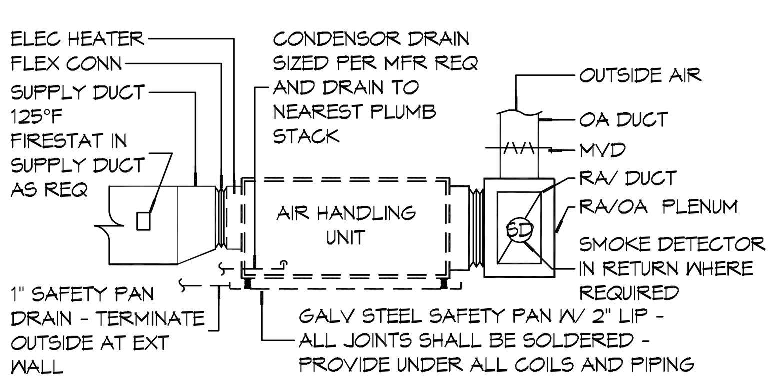

NOTES:
1. PROVIDE AT FLEXIBLE DUCT CONNECTION "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX.
2. PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
3. BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

21 DETAIL
SCALE: NTS
TYPICAL NON-RATED SUPPLY AIR REGISTER

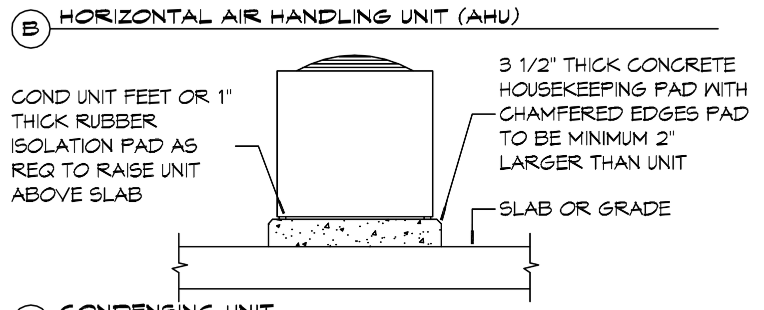
NOTES:
1. LENGTHS "X" AND "Y" SHALL BE DETERMINED BY AHU BASED ON TOTAL STATIC PRESSURE.
2. "X" AND "Y" SHALL BE EQUAL TO MINIMUM 1/2 TOTAL UNIT STATIC PRESSURE.
3. ALL CONDENSATE PIPING SHALL BE SLOPED AT 1/4" PER FOOT




20 DETAIL
SCALE: NTS
CONDENSATE TRAP



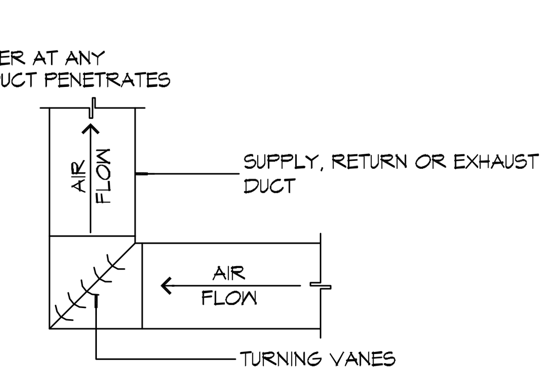

(B) HORIZONTAL AIR HANDLING UNIT (AHU)



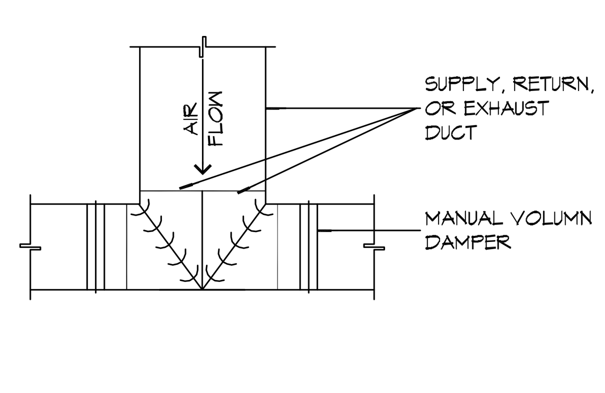

(A) CONDENSING UNIT

19 DETAILS
SCALE: NTS
A/C EQUIPMENT

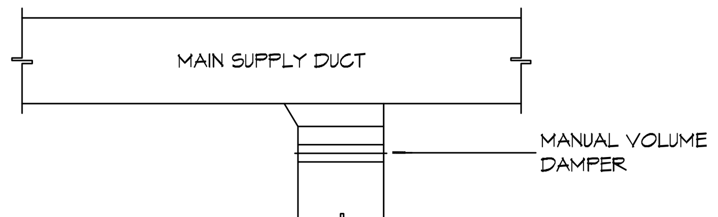
NOTE:
INSTALL FIRE DAMPER AT ANY LOCATION WHERE DUCT PENETRATES A FIRE WALL.




(C) SQUARE ELBOW

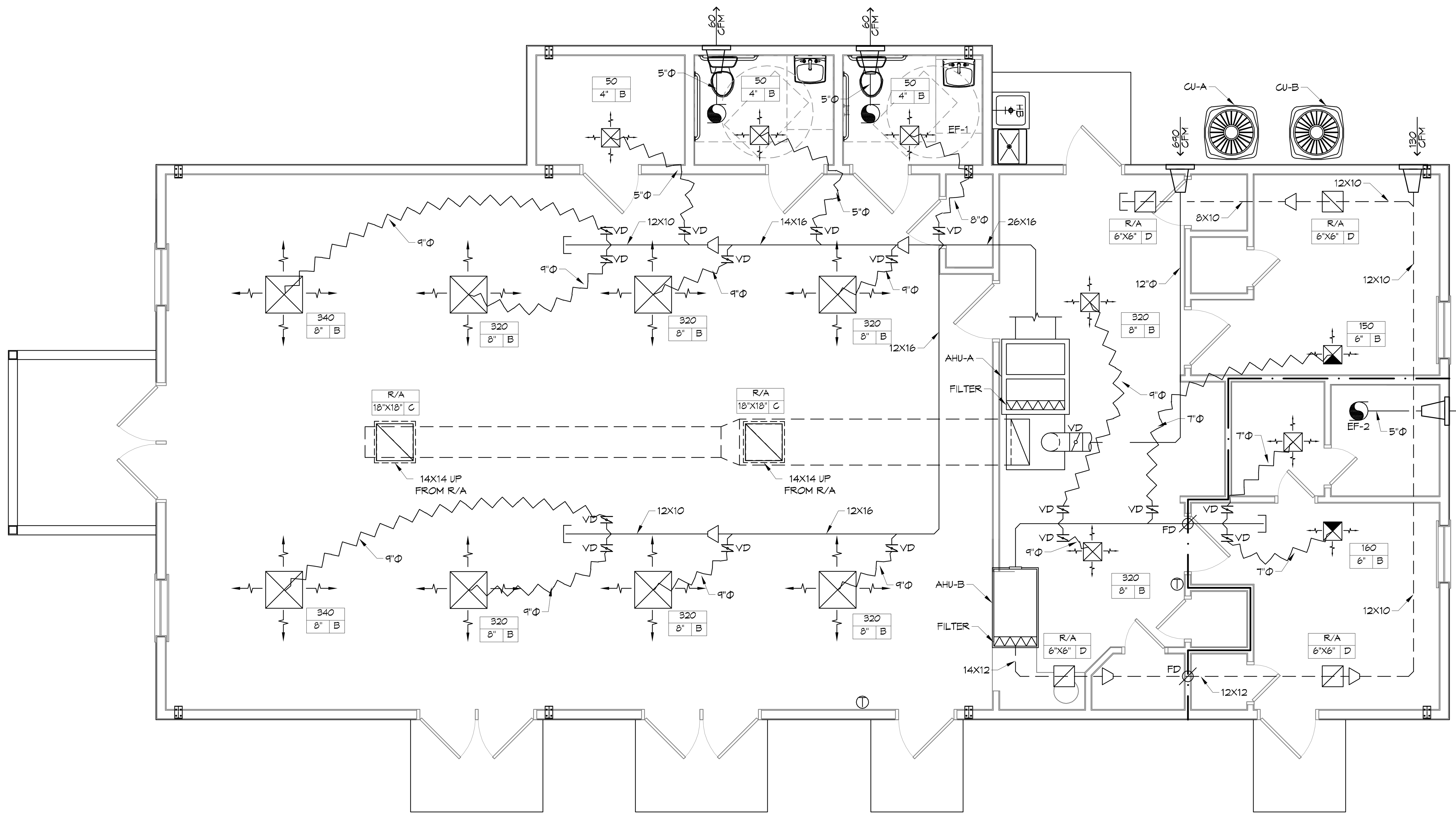



(B) DUCT SPLITTER




(A) SUPPLY DUCT TAKE-OFF

18 DETAILS
SCALE: NTS
TYPICAL DUCT CONNECTIONS




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

## 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-6. 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-E8-14).
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 AHJ'S. 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.

## LEGEND

- SUPPLY AIR GRILLE
- THREE-WAY SUPPLY AIR GRILLE
- RETURN AIR GRILLE
- EXHAUST FAN ONLY
- SUPPLY AIR DUCT
- RETURN AIR DUCT
- ROUND FLEX DUCT, MAX. LENGTH 12'-0", MIN R-6. PROVIDE MANUAL DAMPER AT DIFFUSER CONNECTIONS; DUCT SIZE AS FOLLOWS:
  - 250 CFM TO 350 CFM = 9"
  - 200 CFM TO 250 CFM = 8"
  - 150 CFM TO 200 CFM = 7"
  - 100 CFM TO 150 CFM = 6"
  - LESS THAN 100 CFM = 5"
- -A/C CONDENSING UNIT
- OUTSIDE AIR INTAKE DUCT W/ VOLUME DAMPER AND MOTORIZED OR GRAVITY DAMPER TO SHUT OFF WHEN SYSTEM IS NOT RUNNING
- T THERMOSTAT
- VARIABLE DAMPER
- Ø - FIRE DAMPER AT ALL FIRE WALLS
- AHU - AHU UNIT; S/A (SUPPLY); R/A (RETURN)

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REVISIONS

| # | DESCRIPTION | DATE |
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OUR LADY OF FATIMA
MULTI PURPOSE BUILDING
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JOB No: 2370 DATE: 07-15-2020
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SHEET TITLE:
MECHANICAL FLOOR PLAN, DETAILS, AND SCHEDULES

DRAWING NUMBER:
M101