

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

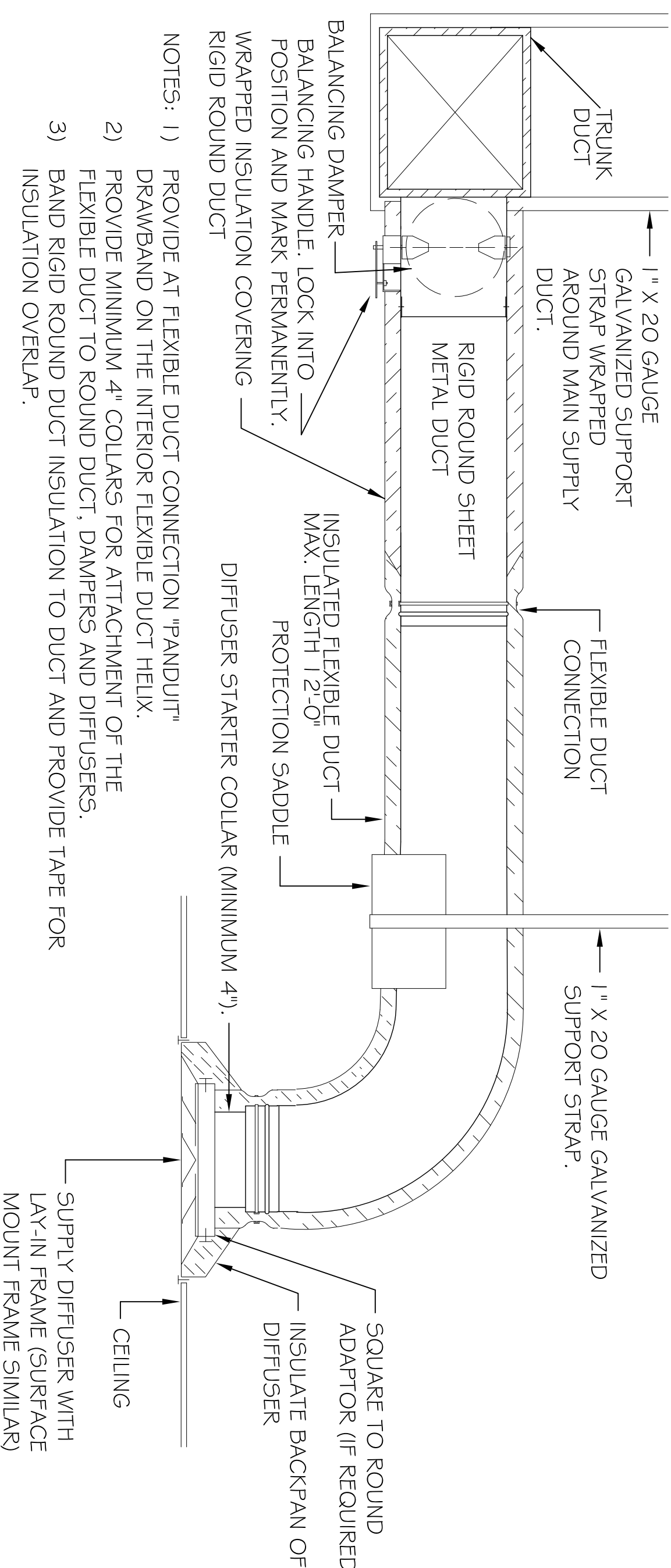
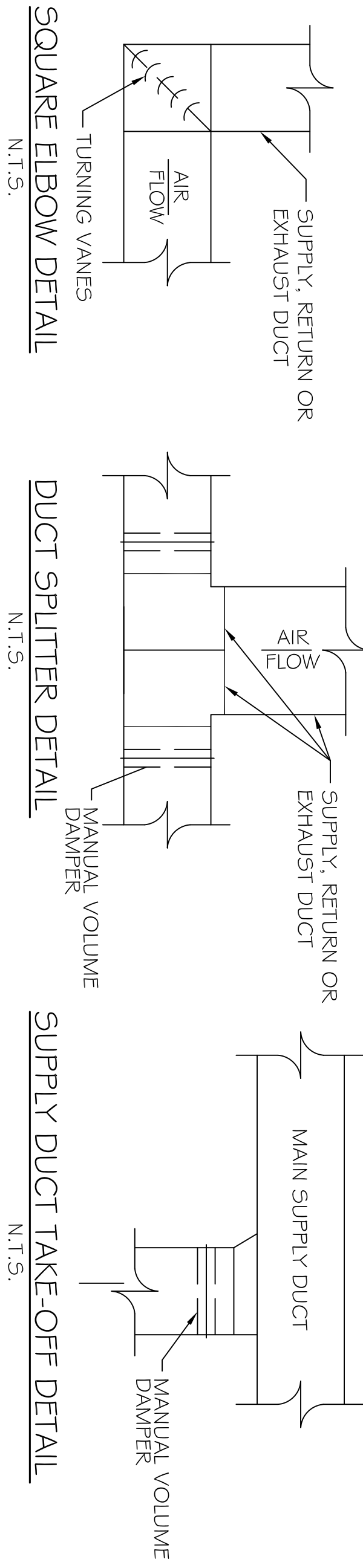
EXHAUST FAN SCHEDULE				
FAN NO.	CFM	VOLTAGE	TYPE	MANF.
FF-1	100	120V	VENT ONLY	LENNOX
NOTE: PROVIDE BACKDRIFT PROTECTION FOR ALL EXHAUST FANS				

HVAC UNIT SCHEDULE					
NO.	TOTAL BTU	CFM	O.A.	HEAT ELEC.	COMMENTS
1	24,000	900	35	8 KW	200V, 1Ø, 15 SHEER

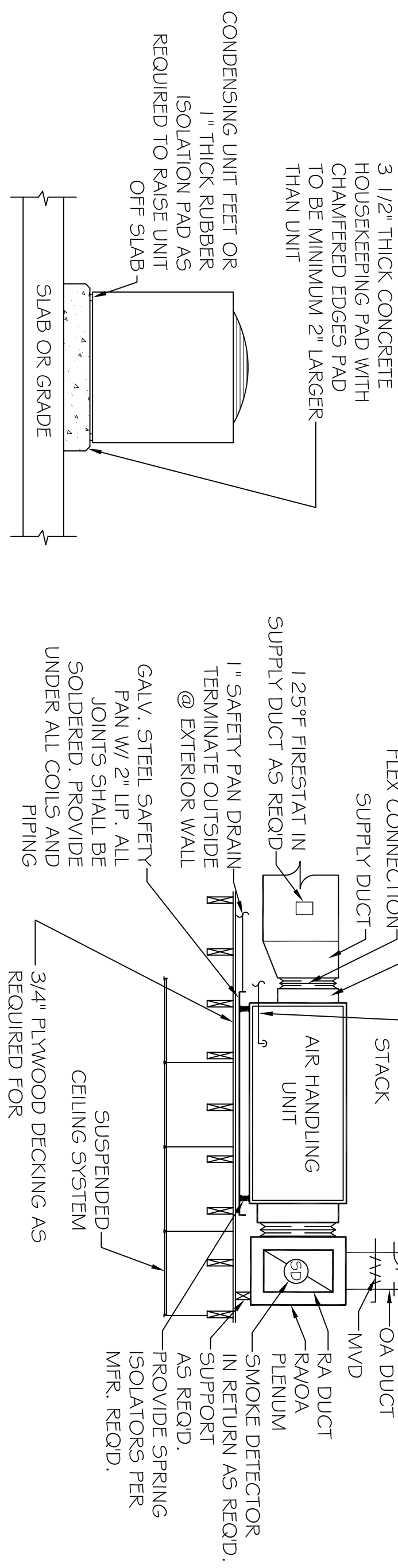
FRESH AIR REQUIREMENTS						
FHS INC 2006 TABLE 403.3						
ROOM NAME	SF	OCC	CFM/1000 SF	CFM/ OCC	CFM/ SF	TOTAL O.A.
AHU #1	411	5	5	0.06		35
OFFICE SPACE						

**LEGEND**

- ☒ INDICATES NEW CEILING DIFFUSER - CFM AS NOTED - 12x12 UNLESS OTHERWISE NOTED
- ☑ INDICATES NEW 24x24 RETURN AIR CEILING RETURN AIR, 5x25 INDICATED ARE SHEET METAL DIMENSIONS
- ☑ INDICATES NEW SHEET METAL DUCTWORK FOR SUPPLY AIR, 5x25 INDICATED ARE SHEET METAL DIMENSIONS
- ☑ INDICATES NEW SHEET METAL DUCTWORK FOR RETURN AIR, SIZES INDICATED ARE SHEET METAL DIMENSIONS
- ☑ MIN. R-6 PROVIDE MAIN DAMPER AT DIFFUSER CONNECTIONS, SIZE AS INDICATED OR: 201-300 CFM, USE #9/ 301-400 CFM, USE #9/2
- ☑ MECHANICAL EXHAUST VENT
- ☑ MECHANICAL EXHAUST VENT
- ☑ DIGITAL THERMOSTAT
- ☑ CONDENSOR UNIT



DIFFUSER CONNECTION DETAIL - FLEX DUCT  
N.T.S.



CONDENSING UNIT MOUNTING DETAIL  
N.T.S.

- MECHANICAL NOTES**
1. CONCEALED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, 1" THICK, MIN R-8, INSTALLED PER SMACNA STANDARDS.
  2. EXPOSED DUCTWORK TO BE GALVANIZED SHEET METAL LINED WITH FIBROUS GLASS DUCT LINER, 1" THICK, 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 U.L. LISTED 125°F FRESH AIR IN RETURN AIR OF EACH SYSTEM UNDER 2000 CFM TO SHUT DOWN THE FAN IN THE EVENT OF FIRE.
  7. PROVIDE U.L. RATED FIRE DAMPERS WHERE REQUIRED AT ALL DUCT PENETRATIONS OF FIRE-RATED ASSEMBLIES AND WHERE REQUIRED BY CODE, INCLUDING OUTSIDE AIR INTAKES.
  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 EQUAL TO BROAN MODEL NO. 100 CF. OR EQUAL. FAN SHALL BE CONTROLLED BY A SWITCH ON THE WALL IN THE SAME LOCATION AS LIGHT SWITCHES). PROVIDE BACK DRAFT DAMPER.
  12. PROVIDE AND INSTALL WATER PROOF GRILLE VENT IN PROPER ROOF LOCATION FOR PLUMBING FIXTURE EXHAUST.
  13. LOCATE OUTDOOR UNITS AS SHOWN ON ARCH. DWGS.
  14. ALL SUPPLY AIR VENTS SHALL BE EQUIPPED WITH AIR CONTROL DAMPERS.
  15. REFRIGERANT LINES SHALL BE SIZED BY UNIT MANUFACTURER AND INSTALLED ACCORDING TO MANUFACTURERS' INSTRUCTIONS.
  16. FRESH AIR SHALL BE SUPPLIED TO EACH AIR HANDLER THROUGH EXTERIOR WALL DUCT SUPPLIED WITH A CONTROL DAMPER.
  17. INSTALL FIRE DAMPER WHERE 5 A & 4 R A. DUCTS PENETRATE FIRE RATED SYSTEMS.
  18. ALL ELECTRICAL, MECHANICAL, AND PLUMBING PENETRATING FIRE WALLS SHALL BE FIRE CALKED. 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).
  19. ALL MECHANICAL SYMBOLS ARE DRAWN DIAGNOSTICALLY. CONTRACTOR TO VERIFY WITH OWNER LOCATIONS OF VENTS, DAMPERS, REGISTERS, ETC.
  20. FLEXIBLE DUCTWORK LENGTH NOT TO EXCEED 15'-0".
  21. REFER TO REFLECTED CEILING PLAN FOR FINAL GRILLE AND DIFFUSER LOCATIONS AND COORDINATE AS REQUIRED.
  22. FINAL LOCATION OF TEMPERATURE CONTROLS TO BE COORDINATED WITH OWNER AT JOB SITE.
  23. PROVIDE AND INSTALL SMOKE DETECTORS AS APPROVED BY LOCAL AHJ'S. PLACE NEAR RA AND S/A OPENINGS OF AHU AND PROVIDE, WITH ACCESS PANEL, WIRING BY ELECTRICAL CONTRACTOR.
  24. FRESH AIR INTAKES ARE REQUIRED TO HAVE MOTORIZED OR GRAVITY DAMPERS TO SHUT OFF WHEN SYSTEM IS NOT RUNNING. ALL THERMOSTATS MUST BE PROGRAMMABLE. SEE SECTIONS 502.4.4 OR 503.2.4.3 OF THE 2006 INTERNATIONAL ENERGY CODE.

**MECHANICAL PLAN**

SHEET No: 03 OF 05

**M-1**

**U.S. FISH & WILDLIFE SERVICE  
NEW EQUIPMENT STORAGE BLDG.**  
UPPER OJUCHITA NATIONAL WILDLIFE REFUGE  
BASTROP, LA

JOB No: 2151 DATE: 10/02/12

DRAWN BY: BSN CHECKED BY: BSN

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