

GENERAL H.V.A.C. NOTES

- COORDINATE GRILLE LOCATIONS WITH LIGHT FIXTURES, SPRINKLER HEADS AND CEILING GRID.
- INDICATED DUCT SIZES ARE NET FREE AREA.
- ADJUST ALL AIR QUANTITIES AS SHOWN ON THE PLANS AFTER COMPLETION OF THE JOB.
- INSULATE THE SUPPLY GRILLE TOPS, RETURN AIR GRILLE FLENNIS, AND EXHAUST AIR FLENNIS WITH 2 IN. 3/4 LB DENSITY FOIL BACKED INSULATION.
- EXTERNALLY INSULATE ALL ABOVE GRADE ROUND SUPPLY, RETURN, AND EXHAUST DUCT INTERNALLY INSULATE ALL RECTANGULAR SUPPLY, RETURN, AND EXHAUST DUCT PER ARKANSAS MECHANICAL CODE.
- MECHANICAL CONTRACTOR SHALL COORDINATE ALL DUCTWORK WITH FIELD CONDITIONS AND PROVIDE ALL OFFSETS, BENDS, TRANSITIONS, AND SPECIAL FITTINGS FOR A COMPLETE INSTALLATION OF THE SYSTEMS.
- INTERIOR OF ALL DUCT FLENNIS VISIBLE THROUGH GRILLE SHALL BE PAINTED MATTE BLACK PRIOR TO INSTALLATION.
- THE MECHANICAL CONTRACTOR SHALL PROVIDE VIBRATION ISOLATION FOR ALL MOTORIZED EQUIPMENT. OBJECTIONABLE NOISE AND VIBRATION SHALL BE COMPLETELY ELIMINATED.
- PAINT ALL SUPPLY AND RETURN AIR GRILLES TO ARCHITECT SPECIFICATIONS UNLESS OTHERWISE SPECIFIED.
- MAINTAIN 10 FT. MINIMUM CLEARANCE BETWEEN FRESH AIR INTAKES AND ALL EXHAUST OUTLETS, GAS FLUES, AND PLUMBING VENTS.
- INSTALL VOLUME CONTROL DAMPERS IN SUPPLY, RETURN, EXHAUST, AND FRESH AIR BRANCH DUCT RUNS WHERE INDICATED.
- RECIRCULATING AIR SYSTEMS WITH A FAN CAPACITY OF 2000 OR MORE NOMINAL CFM SHALL AUTOMATICALLY SHUT DOWN BY MEANS OF AN APPROVED SMOKE DETECTOR PLACED IN THE RETURN AIR STREAM PRIOR TO ANY EXHAUSTING FROM THE BUILDING OR MIXING WITH FRESH AIR MAKEUP.

EXCEPTIONS:

A. WHEN APPROVED SMOKE DAMPERS ARE INSTALLED TO ISOLATE THE FAN UNIT FROM THE REMAINDER OF THE SYSTEM UPON ACTIVATION OF PROPERLY ARRANGED AND APPROVED SMOKE SENSORS PER NFPA 72.

B. WHEN AUTOMATIC BY-PASS DAMPERS ARE ARRANGED AT THE FAN UNIT TO EXHAUST THE AIR TO THE OUTSIDE OF THE BUILDING UPON ACTIVATION FROM AN APPROVED SMOKE SENSOR SYSTEM.

RECIRCULATING AIR SYSTEMS WITH A FAN CAPACITY LESS THAN 2000 NOMINAL CFM, BUT SERVING AN AREA USED FOR EGRESS, SHALL HAVE AUTOMATIC SHUTDOWN.

ALL CONTROLS SHALL BE LISTED. UPON ACTIVATION OF THE SAFETY CONTROL, THE SYSTEM SHALL NOT RESTART UNTIL THE SAFETY CONTROL IS MANUALLY RESET.

13. ALL MECHANICAL INSTALLATIONS SHALL CONFORM TO THE LATEST ACCEPTABLE ARKANSAS MECHANICAL CODE AND ALL APPLICABLE LOCAL CODES AND ORDINANCES. IF A CONFLICT ARISES BETWEEN APPLICABLE CODES THE MOST STRINGENT SHALL GOVERN.

14. SEAL ALL DUCT SEAMS WITH HARDCAST IRON GRIP 601 SEALANT SYSTEM OR AN APPROVED EQUAL. DUCT TAPE, WHETHER LISTED OR NOT, WILL NOT BE ACCEPTED.

15. FABRICATE AND INSTALL ALL GALVANIZED DUCT SYSTEMS TO SMACNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION, AND ARKANSAS MECHANICAL CODE.

16. SUPPLY AIR SYSTEMS AND RETURN AIR SYSTEMS INSTALLED IN AN ATTIC, VENTILATED CRAWL SPACE OR OTHER NON-CONDITIONED AREA SHALL BE INSULATED.

17. DO NOT SCALE DIRECTLY FROM THE HVAC DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONAL INFORMATION.

18. MAXIMUM LENGTH OF FLEX DUCT IS 5 FT. UNLESS NOTED OTHERWISE.

19. ALL METAL DUCTWORK SHALL BE 26 GA. OR THICKER METAL.

20. INSTALL DOUBLE WALL TURNING VANES AT ALL 90° ELBOWS AND TEES.

21. ALL FRESH AIR AND COMBUSTION AIR INTAKE LOUVERS, GOOSENECKS AND ROOF CAPS SHALL INCLUDE STAINLESS STEEL GALVANIZED OR ALUMINUM INSECT SCREEN. SCREEN SHALL BE REMOVABLE FOR CLEANING.

22. ALL EXHAUST FANS AND EXHAUST LOUVERS SHALL INCLUDE GRAVITY OR POWERED BACK DRAFT DAMPERS AND BIRD SCREENS AT THE EXTERIOR OUTLET. REFER TO DRAWINGS AND DETAILS FOR EXACT CONFIGURATION.

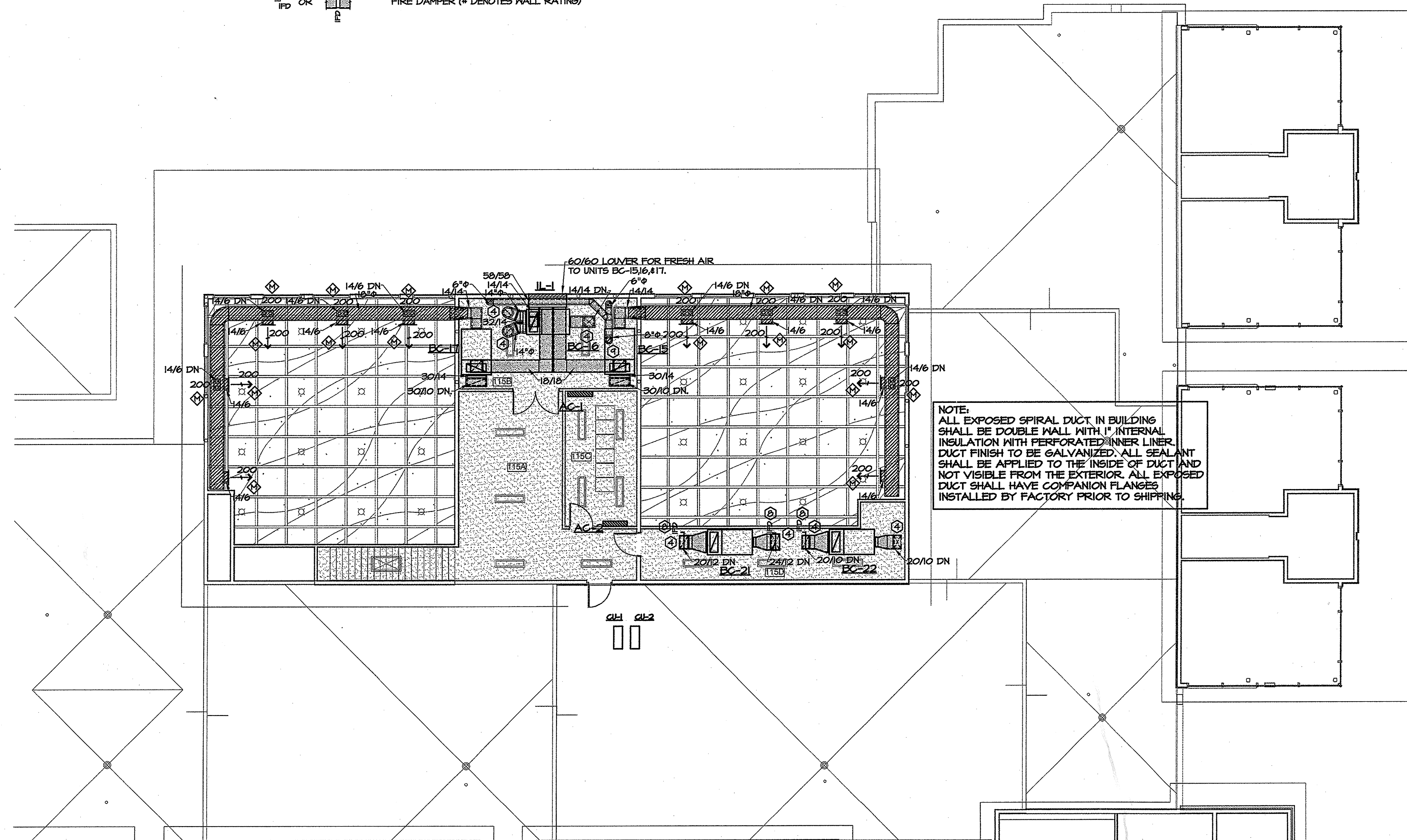
23. MECHANICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT, FANS AND APPLIANCES A MINIMUM OF 10 FEET FROM A ROOF EDGE OR OPEN SIDE WHERE SUCH EDGE OR OPEN SIDE IS GREATER THAN 30 INCHES ABOVE A FLOOR, ROOF OR GRADE BELOW. GUARD RAILS A MINIMUM OF 42 INCHES ABOVE THE ELEVATED SURFACE SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR AND EXTENDED A MINIMUM OF 30 INCHES BEYOND EACH END OF SUCH EQUIPMENT, FAN OR APPLIANCE. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 21 INCH DIAMETER SPHERE AND COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE LATEST ACCEPTED INTERNATIONAL BUILDING CODE.

KEYED NOTES

- LOCATE THERMOSTAT AS INDICATED WITH THE CENTER OF THE THERMOSTAT AT 48 IN. ABOVE FINISHED FLOOR. SEAL ALL THERMOSTAT CONDUITS AT TOP AND BOTTOM OF CONDUIT. PROVIDE INSULATED BACKING FOR MOUNTING THERMOSTATS.
- MAINTAIN 10 FT. CLEARANCE BETWEEN ALL EXHAUST OR ROOF VENT OPENINGS AND ANY FRESH AIR INTAKE. IF 10 FT. CLEARANCE CANNOT BE MAINTAINED, EXHAUST OR ROOF VENT SHALL BE RAISED TO AT LEAST 24 INCHES ABOVE HIGHEST FRESH AIR INTAKE WITHIN 10 FT. OF INTAKE PER LATEST ACCEPTED ARKANSAS MECHANICAL CODE.
- SUPPLY OR RETURN DUCT UP TO SECOND FLOOR. REFER TO 1M2.1 FOR CONTINUATION.
- SUPPLY OR RETURN DUCT DOWN TO FIRST FLOOR. REFER TO 1M2.2 FOR CONTINUATION.
- 4" DRYER VENT UP TO GOOSENECK ON ROOF. PROVIDE WITH BACKDRAFT DAMPER.
- ROUTE 10" RETURN DUCT UP TO GRILLE 'O' LOCATED IN GAP ABOVE.
- COVER DUCT DROP OPENING WITH PAINTED 3/4" EXPANDED METAL.
- PROVIDE 1 HOUR RATED FIRE DAMPER THROUGH FLOOR ASSEMBLY.
- ROUTE EXHAUST DUCT UP TO CURB AND CAP ON ROOF.

MECHANICAL LEGEND

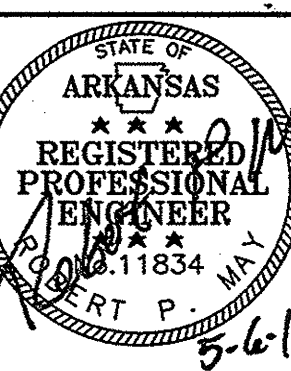
	SUPPLY DUCT SECTION		SUPPLY, RETURN, OR EXHAUST DUCT
	EXHAUST DUCT SECTION		MEDIUM PRESSURE DOUBLE WALL SPIRAL WITH PERFORATED INNER LINER
	CEILING SUPPLY AIR GRILLE		VOLUME DAMPER
	CEILING RETURN AIR GRILLE		SEE KEYED NOTES
	EXHAUST GRILLE		SMOKE DETECTOR
	① THERMOSTAT SENSOR -MNT. AT 48" AFF (NUMBER DENOTES BLOWER COIL UNIT)		FIRE DAMPER (# DENOTES WALL RATING)
	② CO2 SENSOR -MNT. AT 48" AFF		



① HVAC SECOND FLOOR PLAN
1/8"=1'-0"

NOTE:
REFER TO SHEET M2.1 FOR GENERAL NOTES & LEGEND
REFER TO SHEETS M3.1 THROUGH M3.3 FOR HVAC DETAILS
REFER TO SHEET M3.1 FOR HVAC SCHEDULES

HSA Engineering
479 / 452 / 8922 office
5701 Euper Lane, Ste A
Fort Smith, AR 72903
HSAConsultants.com



2377 N. Green Acres Road
Fayetteville, Arkansas 72703
479.452.7232 FAX 479.452.7199
www.millerboskuslock.com
www.millerboskuslock.com
Architects, P.A.

Miller
Boskus
Lock

University of Arkansas
JEAN TYSON CHILD DEVELOPMENT STUDY CENTER
Fayetteville, Arkansas

REVISIONS

MBL JOB NO.

070045

ISSUE DATE

05/06/2011

SHEET
CONTENTS
NOTES & LEGEND
SECOND FLOOR
HVAC PLAN

SHEET
M2.1

THESE DRAWINGS AND SPECIFICATIONS ARE THE EXCLUSIVE PROPERTY OF MILLER BOSKUS LOCK ARCHITECTS. NO REPRODUCTION IS PERMITTED WITHOUT WRITTEN CONSENT.