

DUCT CONSTRUCTION SCHEDULE				
RECTANGULAR DUCT CONSTRUCTION MINIMUM METAL GAUGES				
MAXIMUM SIDE	GALVANIZED STEEL	PERIMETER HALF	HANGER STRAP	
THROUGH 12"	26 GAUGE	P/2 = 30"	1"x22 GAUGE	
13" THROUGH 30"	24 GAUGE	P/2 = 72"	1"x18 GAUGE	
31" THROUGH 54"	22 GAUGE	P/2 = 96"	1"x16 GAUGE	
ROUND DUCT CONSTRUCTION MINIMUM METAL GAUGES				
DIAMETER	LOGGIONAL SEAM	SPIRAL SEAM	FITTINGS	HANGER STRAP
THROUGH 12"	26 GAUGE	28 GAUGE	26 GAUGE	1"x22 GAUGE
13" THROUGH 30"	24 GAUGE	26 GAUGE	24 GAUGE	1"x18 GAUGE
31" THROUGH 54"	22 GAUGE	24 GAUGE	22 GAUGE	1"x16 GAUGE
DUCT HANGER CONSTRUCTION AND SPACING REQUIREMENTS				
MAX. 36"		OVER 36"		
HANGER STRAPS FASTEN TO STRUCTURE MAXIMUM 10' CENTERS				
RECTANGULAR DUCTWORK				
CONCEALED DUCTWORK SHALL BE INSULATED WITH 3.0 LB/CU FT DENSITY, 1" THICK DUCT LINER EQUAL TO OWENS CORNING AEROFLEX PLUS TYPE 300 ACOUSTICAL DUCT LINER (R=4.2). ALL DUCT JOINTS AND SEAMS SHALL BE SEALED WITH A WATER-BASED BRUSH ON TYPE DUCT SEALER EQUAL TO UNITED MCGILL DUCT SEALER.				
EXPOSED EXPOSED RECTANGULAR DUCTWORK SHALL BE THE PRE-FABRICATED TYPE WITH BOLTED FLANGES. RECTANGULAR DUCT SHALL BE "DUCTIMATE" OR EQUAL. SUPPLY DUCTWORK SHALL BE INSULATED WITH 2.0 LB/CU FT DENSITY, 1/2" THICK DUCT LINER (R=1.9) EQUAL TO OWENS CORNING AEROFLEX PLUS TYPE 200 ACOUSTICAL DUCT LINER.				
NOTE: INSTALL TURNING VANES IN ALL ELBOWS GREATER THAN 45°. ALL BRANCH DUCTS SHALL HAVE A 45° ENTRY AT THE MAIN TRUNK DUCT. EXPOSED RETURN AIR DUCTWORK DOES NOT REQUIRE INSULATION.				
ROUND DUCTWORK				
CONCEALED CONCEALED DUCTWORK SHALL BE SNAPLOCK PIPE. INSULATE DUCTWORK WITH 0.75 LB/CU FT DENSITY, 1.5" THICK DUCT WRAP EQUAL TO OWENS CORNING FIBERGLASS ALL SERVICE DUCT WRAP (R=4.2).				
FLEXIBLE FLEXIBLE DUCTWORK SHALL BE UL LISTED CLASS 1 PRE-INSULATED FLEX DUCT. FLEXIBLE DUCT SHALL NOT EXCEED 4'-0" IN LENGTH.				
SPECIAL DUCTWORK				
GREASE EXHAUST DUCTWORK CONCEALED GREASE EXHAUST DUCTWORK FROM TYPE 1 KITCHEN HOODS SHALL BE 16 GA. MILD STEEL. EXPOSED GREASE EXHAUST DUCTWORK FROM TYPE 1 KITCHEN HOODS SHALL BE 18 GA. STAINLESS STEEL. ALL JOINTS AND SEAMS SHALL BE WELDED LIQUID TIGHT. PROVIDE A CLEANOUT EVERY 20'-0" FOR HORIZONTAL DUCTWORK AND AT EVERY ELBOW. HORIZONTAL DUCTWORK SHALL HAVE A 2% SLOPE TOWARDS THE HOOD. ALL ELBOWS SHALL BE THE RADIUS TYPE. WHERE THE CLEARANCE TO COMBUSTIBLES IS LESS THAN 18", THE DUCTWORK SHALL BE WRAPPED WITH DUCT WRAP EQUAL TO PASCOS 2 HR WRAP. THE ENTIRE INSTALLATION SHALL CONFORM TO NFPA 96.				
GENERAL REQUIREMENTS				
1. UNLESS STATED OTHERWISE ON THE PLANS ALL DUCTWORK AND DUCT HANGERS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS. DUCT DIMENSIONS SHOWN ON THE PLANS ARE THE FINISHED INTERNAL DIMENSIONS. UNLESS SPECIFIED OTHERWISE, ALL DUCT SHALL BE GALVANIZED STEEL.				
2. EXHAUST DUCTWORK DOES NOT REQUIRE INSULATION UNLESS OTHERWISE NOTED.				

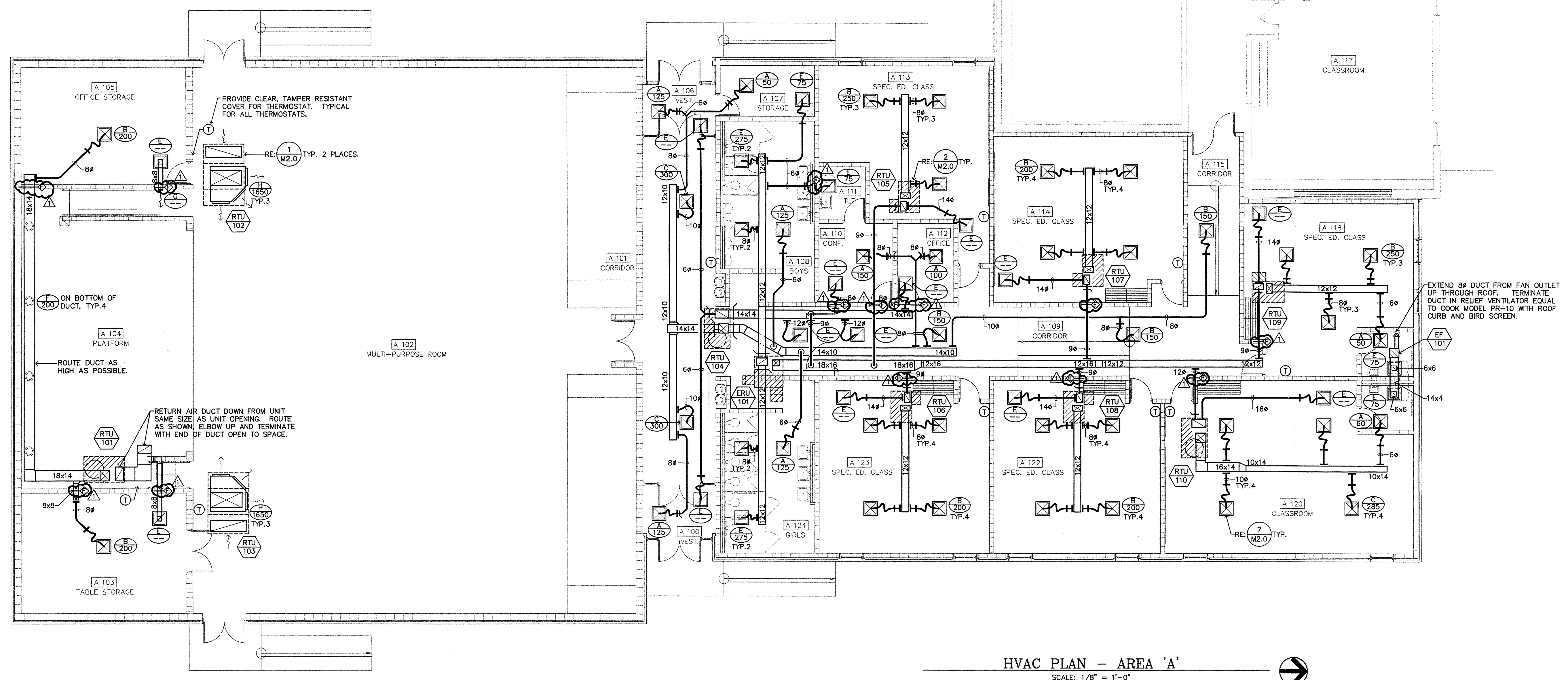
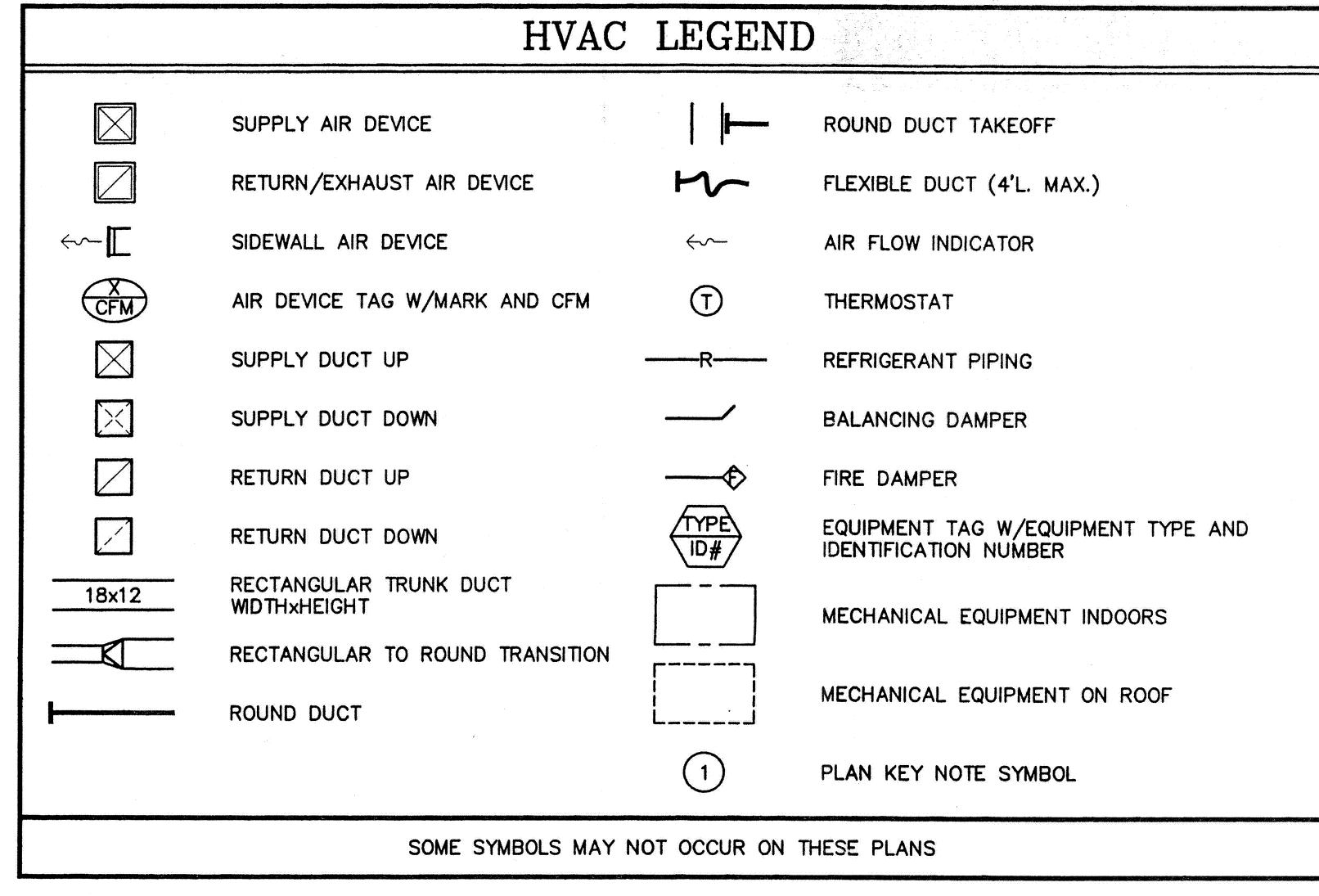
- ### GENERAL HVAC NOTES
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE 2003 EDITION OF THE INTERNATIONAL MECHANICAL CODE.
 - DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL PLANS OR FIELD MEASUREMENTS FOR DIMENSIONS.
 - ALL ROOF AND WALL PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. PROVIDE ALL REQUIRED SLEEVES, FLASHINGS, CURBS, REINFORCING ANGLES, SUPPORTING FRAMES, ETC. UNLESS THEY ARE SPECIFICALLY CALLED OUT TO BE FURNISHED BY OTHERS.
 - THE CONTRACTOR SHALL COOPERATE AND COORDINATE HIS WORK WITH THE WORK OF OTHER SUBCONTRACTORS OF THE PROJECT. COORDINATION DOES NOT MEAN "I WAS HERE FIRST".
 - THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL DEVICES REQUIRED TO ACHIEVE THE SEQUENCE OF OPERATIONS. SEE SPECIFICATIONS FOR CONTROL SYSTEM DEVICE REQUIREMENTS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING A COMPLETE AND FUNCTIONAL SYSTEM IN ACCORDANCE WITH THE INTENT OF THE PLANS, WHETHER OR NOT EVERY ELEMENT THEREOF IS SPECIFICALLY CALLED OUT.
 - THE CONTRACTOR SHALL SCHEDULE AND EXECUTE ALL WORK WITH REGARD TO THE OWNER'S USE OF THE BUILDING DURING PERIOD OF CONSTRUCTION. VERIFY ALL POSSIBLE SCHEDULING CONFLICTS WITH THE OWNER'S REPRESENTATIVE.
 - THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE COMPLETE SET OF PLANS FOR WORK PERTAINING TO HIS DISCIPLINE.
 - THE ELECTRICAL SYSTEM DESIGN IS BASED IN PART ON THE SPECIFIED HVAC EQUIPMENT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE ELECTRICAL REQUIREMENTS OF THE HVAC EQUIPMENT BEING FURNISHED. ANY CHANGES TO THE ELECTRICAL SYSTEM DUE TO HVAC EQUIPMENT OTHER THAN THE SPECIFIED EQUIPMENT BEING FURNISHED SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

FIRE STOPPING

PIPING AND CONDUIT PENETRATIONS THROUGH FIRE-RESISTANT-RATED WALLS, PARTITIONS, FLOORS OR CEILINGS SHALL BE FIRESTOPPED USING A UL APPROVED METHOD TO MAINTAIN THE ENCLOSURE FIRE RESISTANCE RATING. REFER TO THE ARCHITECTURAL PLANS FOR IDENTIFICATION OF RATED ASSEMBLIES.

FIRE DAMPERS

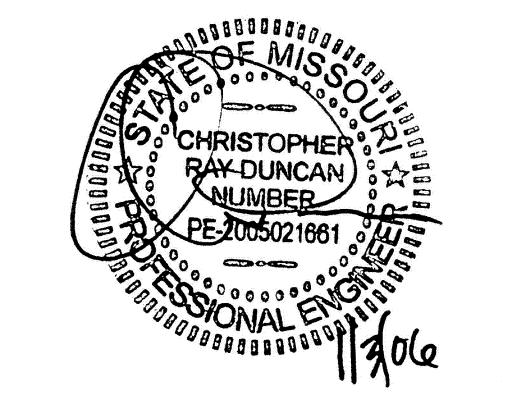
DUCTWORK PENETRATIONS THROUGH FIRE-RESISTANT-RATED WALLS, PARTITIONS, FLOORS, CEILINGS AND ROOFS SHALL BE PROVIDED WITH A UL 555 FIRE DAMPER CLASSIFIED FOR THE ENCLOSURE FIRE RESISTANCE RATING. DUE TO THE NATURE OF THESE PLANS (TWO DIMENSIONAL ONLY), ALL FIRE DAMPERS MAY NOT BE SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO THOROUGHLY REVIEW THE ARCHITECTURAL PLANS FOR THE EXACT ARRANGEMENT OF FIRE RATED ENCLOSURES AND PROVIDE A FIRE DAMPER WHERE A DUCT PENETRATES EACH ENCLOSURE.



HVAC PLAN - AREA 'A'
 SCALE: 1/8" = 1'-0"



LAROSE & SCHOBER
 3015 S. FORT AVE. SUITE D
 SPRINGFIELD, MO 65807
 PHONE: 417.881.1596
 FAX: 417.881.8390
 LAROSE-SCHOBER.COM



ADDITION AND ALTERATIONS TO EXISTING EUGENE FIELDS ELEMENTARY SCHOOL

MEXICO 59 SCHOOLS

AUDRIAN COUNTY MISSOURI

COPYRIGHT 2004 SAM WINN AND ASSOCIATES ARCHITECTS, P.C.

SAW
 Sam A. Winn & Associates
 ARCHITECTS, P.C.
 A.I.A.
 1643 SOUTH ENTERPRISE
 SPRINGFIELD, MO 65804
 (417) 882-7821
 FAX (417) 882-1876

AREA 'A' HVAC PLAN

Comm. No. #0533
 Date: 10-31-2005

M1-0