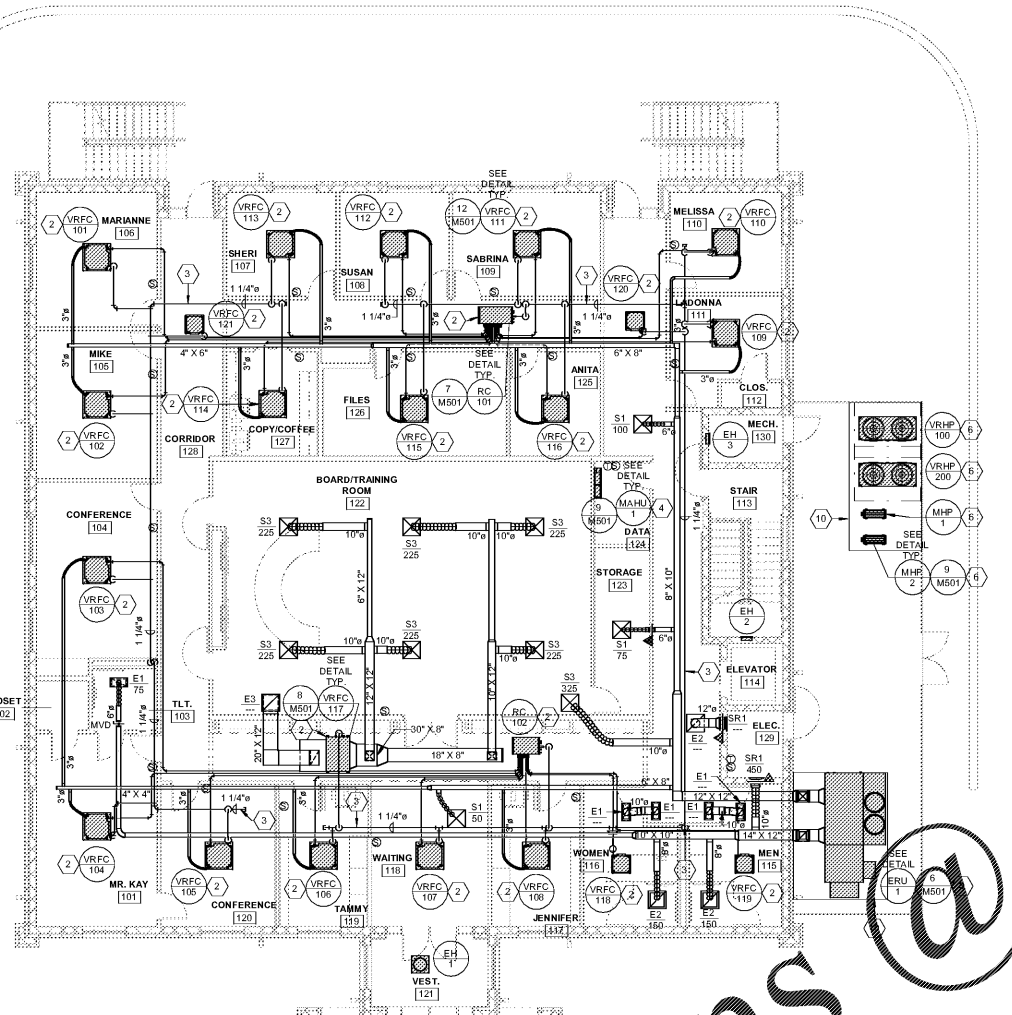


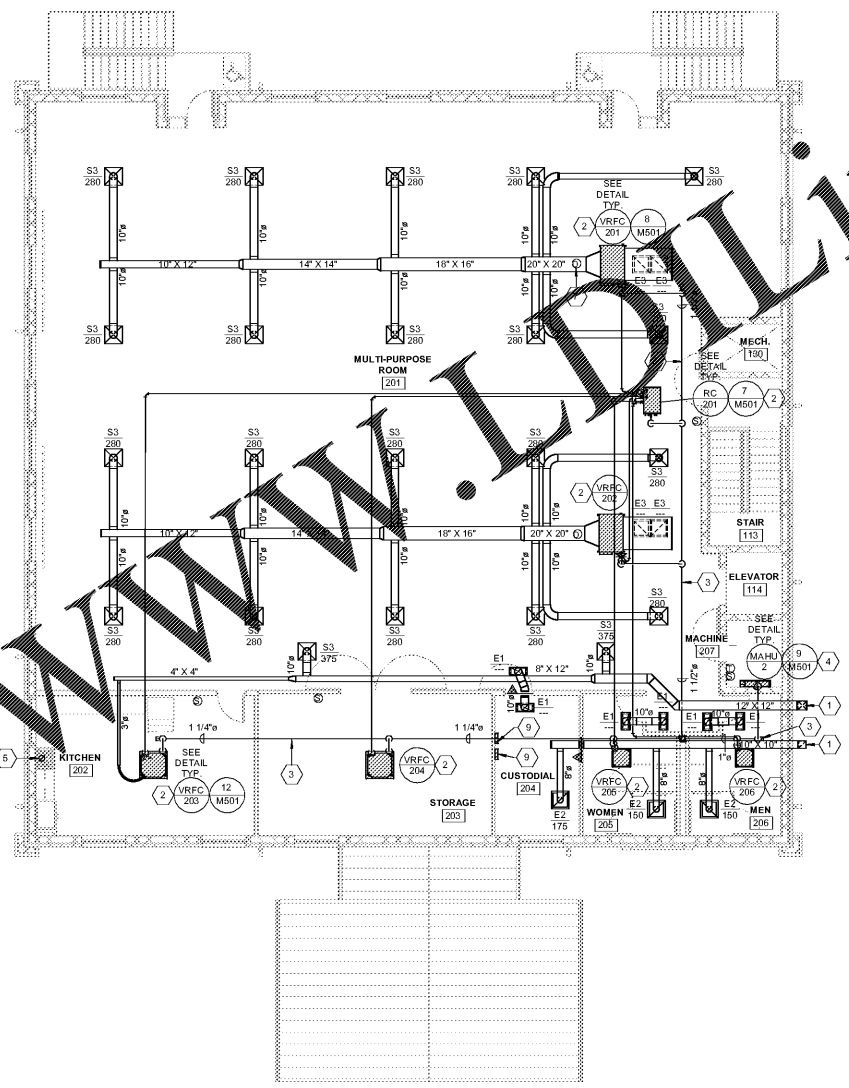
**GENERAL CONSTRUCTION NOTES:**  
 THESE DRAWINGS ARE SCHEMATIC IN NATURE AND NOT INTENDED TO SHOW ALL POSSIBLE CONDITIONS. THE CONTRACTOR SHALL COORDINATE WITH THE RESPECTIVE DISCIPLINES TO VERIFY ALL DIMENSIONS AND METHODS OF CONSTRUCTION.  
 ALL DUCTWORK SHALL BE FABRICATED AND ERECTED PER SMACNA STANDARDS. SEE SPECIFICATION FOR PRESSURE CLASS. ALL DUCT SIZES SHOWN ARE NET FREE AREA. WHERE INTERNAL LINER IS INDICATED THE DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR THE LINER.  
 ALL SQUARE TO ROUND DUCT TRANSITIONS SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS.  
 PORTIONS OF DUCTWORK VISIBLE THROUGH GRILLES AND REGISTERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.  
 REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES. IF A DEVICE IS NOT SHOWN ON THE REFLECTED CEILING PLAN, A SHOP DRAWING SHALL BE SUBMITTED FOR ARCHITECTS/ENGINEERS APPROVAL.  
 THE CONTRACTOR SHALL COORDINATE ALL FLOOR AND SLAB PENETRATIONS WITH THE ARCHITECT. TRANSITION ALL DUCTWORK ON THE BOTTOM AND SIDES UNLESS OTHERWISE INDICATED. MAINTAIN DUCTWORK HIGH AS POSSIBLE.  
 COORDINATE VOLTAGE AND PHASE OF EACH PIECE OF MECHANICAL EQUIPMENT WITH DIVISION 26 CONTRACTOR PRIOR TO SUBMITTING AND/OR PURCHASING THE EQUIPMENT. NO ALLOWANCES WILL BE MADE FOR EQUIPMENT DELIVERED TO THE SITE WITH THE WRONG ELECTRICAL CHARACTERISTICS.  
 ALL REFRIGERANT PIPING SHALL BE SIZED BY THE EQUIPMENT MANUFACTURER BASED ON LENGTH OF RUN AND AMOUNT OF CHARGE REQUIRED TO PROVIDE CAPACITIES SCHEDULED.  
 AT ALL DUCT MOUNTED ELECTRIC RESISTANT AND/OR FUEL BURNING HEATERS WHERE INTERNAL DUCT LINER IS SHOWN, THE LINER SHALL BE INTERRUPTED FOR A MINIMUM OF 6 INCHES UPSTREAM AND 6 INCHES DOWNSTREAM OF THE DEVICES. WHERE DUCT LINER HAS BEEN INTERRUPTED, WRAP WITH BLANKET TYPE JOINT INSULATION IN CONFORMANCE WITH SPECIFICATION SECTION 230713.  
 SEAL ALL DUCT PENETRATIONS OF SMOKE RESISTIVE ASSEMBLIES.  
 LOCATE ALL THERMISTATS, INTERVAL TIMERS, NIGHT SETBACKS, WALL SWITCHES, SENSORS, AND ANY OTHER MECHANICAL CONTROL DEVICES SUCH THAT THEY DO NOT INTERFERE WITH CHALKBOARDS, TACKBOARDS, TEACHER'S CABINETS, DOORSWINGS, MILLWORK, ETC.

**HVAC LEGEND**

SYM.	DESCRIPTION	SYM.	DESCRIPTION
A/100	AIR DISTRIBUTION MARK / CFM	MAHU	MINI-SPLIT AIR HANDLING UNIT
AC	AIR CONDITIONER	MAU	MAKE-UP AIR UNIT
AD	ACCESS DOOR	MEP	MECHANICAL EQUIP. PAD - RE: ARCH.
AFF	ABOVE FINISHED FLOOR	MHP	MINI-SPLIT HEAT PUMP
AHP	AIR HANDLING HEAT PUMP UNIT	MOD	MOTOR OPERATED DAMPER
AHU	AIR HANDLING UNIT	MVD	MANUAL VOLUME DAMPER
B	BOILER	OA	OUTSIDE AIR
BMC	BUILDING MANAGEMENT CONTROLLER	P	PUMP
BPD	BYPASS DAMPER	PIU	POWERED INDUCTION UNIT
CFM	CUBIC FEET PER MINUTE	PMHP	PAD MOUNTED HEAT PUMP UNIT
CH	CHILLER	PMU	PAD MOUNTED UNIT
CR	CONDENSER WATER RETURN	RA	RETURN AIR
CD	CEILING DIFFUSER	RTHP	ROOFTOP HEAT PUMP UNIT
CS	CONDENSER WATER SUPPLY	RTU	ROOF TOP UNIT
CT	COOLING TOWER	SA	SUPPLY AIR
CU	CONDENSING UNIT	S.D.	SMOKE DAMPER
CWR	CHILLED WATER RETURN	S/IFD	COMBO SMOKE/FIRE DAMPER
CWS	CHILLED WATER SUPPLY	So.S	OUTDOOR AIR SENSOR - ENTHALPY
D	DRAIN	S.P.	STATIC PRESSURE
DCS	DUST COLLECTION SYSTEM	TWHP	THROUGH THE WALL HEAT PUMP UNIT
DF	DUCT FURNACE	VAV	VARIABLE AIR VALVE
DG	DOOR GRILLE	VRFC	VARIABLE REFRIGERANT FAN COIL
DN	DOWN	VVT	VARIABLE VOL. VARIABLE TEMP. VALVE
EDH	ELECTRIC DUCT HEATER	WHP	WALL HUNG HEAT PUMP UNIT
EF	EXHAUST FAN	W	WALL MOUNTED SMOKE DETECTOR
EH	ELECTRIC HEATER	W/INT	WALL MOUNTED SWITCH
ERV	ENERGY RECOVERY VENTILATOR	W	WALL MOUNTED SWITCH
EUH	ELECTRIC UNIT HEATER	W	WALL MOUNTED SWITCH
FD	FIRE DAMPER	W	WALL MOUNTED SWITCH
FLDG	FUSIBLE LINK DOOR GRILLE	W	WALL MOUNTED SWITCH
GF	GAS FURNACE UNIT	W	WALL MOUNTED SWITCH
GIH	GRAVITY INTAKE HOOD	W	WALL MOUNTED SWITCH
GRH	GRAVITY RELIEF HOOD	W	WALL MOUNTED SWITCH
GWU	GAS WALL HUNG UNIT	W	WALL MOUNTED SWITCH
GUH	GAS UNIT HEATER	W	WALL MOUNTED SWITCH
HP	HEAT PUMP	W	WALL MOUNTED SWITCH
HRF	HEAT RECOVERY FAN	W	WALL MOUNTED SWITCH
HVS	HOODED VENTILATION SYSTEM	W	WALL MOUNTED SWITCH
HWR	HEATING WATER RETURN	W	WALL MOUNTED SWITCH
HWS	HEATING WATER SUPPLY	W	WALL MOUNTED SWITCH
L	LOUVER	W	WALL MOUNTED SWITCH
L/D	COMBO LOUVER / DAMPER	W	WALL MOUNTED SWITCH



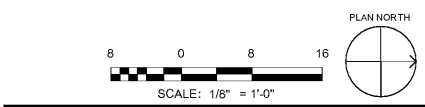
1 LEVEL 01 MECHANICAL HVAC PLAN  
1/8" = 1'-0"



2 LEVEL 02 MECHANICAL HVAC PLAN  
1/8" = 1'-0"

**KEYNOTE SCHEDULE**

KEYNOTE DESCRIPTION
1. RUN DUCT TIGHT TO EXTERIOR WALL FROM UNIT TO ABOVE FIRST AND SECOND FLOOR CEILING. SEAL PENETRATION THROUGH EXTERIOR WALL WATER-TIGHT. INSULATE DUCT WITH FLEX JACKET - RE: SPECS.
2. ROUTE UNIT CONDENSATE DRAIN LINE FULL SIZE OF UNIT CONNECTION TO COMMON DRAIN. MINIMUM CONDENSATE DRAIN LINE SIZE IS 3/4". TERMINATE COMMON DRAIN IN HUB DRAIN - RE: PLUMBING DRAWING FOR EXACT HUB DRAIN LOCATION.
3. CONDENSATE DRAIN LINE WITH MINIMUM 1% SLOPE ROUTED ABOVE CEILING. TERMINATE IN HUB DRAIN - RE: PLUMBING DRAWING FOR EXACT HUB DRAIN LOCATION.
4. INSTALL MINI-SPLIT ON WALL AS HIGH AS POSSIBLE BUT BELOW CEILING. INSTALL CONDENSATE LIFT PUMP (TYPE CLEAR/VUE MINI OR APPROVED ALTERNATE) AND ROUTE CONDENSATE DRAIN LINE UP THROUGH CEILING TO HUB DRAIN IN CHASE. ROUTE REFRIGERANT PIPING TO OUTDOOR UNIT IN MOST DIRECT WAY POSSIBLE. CONCEAL EXPOSED PUMP, PIPING AND CONDUIT.
5. RANGE HOOD EXHAUST DUCT: TRANSITION FROM COLLAR ON HOOD TO A 6" DIAMETER 24 GAUGE VENT PIPE. ROUTE UP THROUGH ROOF VIA CURB (PROVIDED UNDER DIVISION 07200) PROVIDE RAIN CAP WITH BIRD SCREEN. PROVIDE RESIDENTIAL FIRE SUPPRESSION SYSTEM.
6. NEATLY RACK AND ROUTE REFRIGERANT PIPING IN THE MOST DIRECT MANNER FROM OUTDOOR UNIT TO REFRIGERANT CONTROLLER. MAINTAIN SERVICE ACCESSIBILITY AND DOOR ACCESS. INSULATE PIPING AND COVER EXPOSED PIPING WITH ALUMINUM JACKET. PROVIDE PIPE SUPPORTS AT MINIMUM 3 FOOT INTERVALS.
7. DUCT MOUNTED SMOKE DETECTOR: SEE SPECIFICATION SECTION 230900 AND 230993.
8. EXTEND CONDENSATE LINE TO NEAREST STORM STRUCTURE.
9. CONTROL PANEL AND DDC CONTROL PANEL - RE: SCHEDULE AND SPECS.
10. MECHANICAL EQUIPMENT PAD - SEE ARCHITECTURAL DOCUMENTS. REQUIRED EVEN IF UNIT IS LOCATED IN EXTERIOR CONCRETE PAVING SO THAT UNIT CAN SIT LEVEL.



S&E PROJECT NUMBER	01-615-057	
BID PACKAGE / PHASING	BP-1	
ISSUED FOR CONSTRUCTION	10/15/2019	
REVISIONS		
R #	Doc #	Date

**Southern AE**  
 7951 Traxon Circle  
 Austell, Ga 30168  
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 architects & engineers

ADD ALTERNATE #1  
 BOARD OF EDUCATION OFFICE FOR:  
**HEARD COUNTY SCHOOLS**  
 4647 PEA RIDGE ROAD, FRANKLIN, GA 30217  
**HEARD COUNTY SCHOOL SYSTEM**  
 FRANKLIN, GEORGIA

MECHANICAL HVAC PLAN

DRAWING NUMBER **M101**

STATE OF GEORGIA REGISTERED PROFESSIONAL ENGINEER  
 CHELSEA WALDBY  
 LICENSE NO. 10000