



GENERAL MECHANICAL NOTES

- CONTROLS**
- TEMPERATURE AND HUMIDITY SENSORS AND CONTROLS SHALL BE MOUNTED 05'-8" A.F.F. IF MOUNTED ABOVE GONDOLA, MOUNT 10' ABOVE TOP OF GONDOLA. VERIFY MOUNTING HEIGHTS, LOCATIONS, AND CONTROL SETTINGS WITH PROPER SESCO & OWNER'S REPRESENTATIVE.
 - ALL HVAC CONTROL WIRING AND TERMINATIONS SHALL BE FURNISHED & INSTALLED BY THE M.C. REFER TO CONTROL DRAWINGS FOR WIRING REQUIREMENTS. CONTROL WIRING SHALL BE ROUTED TO THE ECP (REFER TO PLANS OR CONTACT SESCO FOR CLARIFICATION OR COORDINATION). THE E.C. SHALL INSTALL ENVIRONMENTAL CONTROL PANEL (ECP) AND PROVIDE CONDUIT SYSTEM FOR ALL HVAC CONTROLS & SENSORS. COORDINATE ALL CONTROL WORK WITH THE OWNER'S REPRESENTATIVE. ECP SHALL BE PURCHASED FROM SESCO (PHONE: 1-336-996-2220) BY M.C. AND INSTALLED BY E.C.
 - ALL SENSOR CABLES SHALL BE SHIELDED (#22 AWG OR LARGER). THE CONTROL WIRING SHALL BE STRANDED (#16 AWG). DO NOT MIX SENSOR WIRING & 120V WIRING IN THE SAME CONDUIT.
- DUCTWORK**
- DUCT SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS WITH MODIFICATIONS AS NOTED BELOW OR IN SPECIFICATIONS. ALL DUCTWORK SHALL BE CONSTRUCTED TO A 2" PRESSURE CLASS.
 - ALL DUCT SIZES SHOWN ARE "INSIDE-CLEAR" DIMENSIONS.
 - ALL DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE, TIGHT TO STEEL, UNLESS NOTED OTHERWISE. COORDINATE ROUTING TO AVOID CONFLICTS WITH OTHER TRADES.
 - ALL SALES AREA DUCTWORK SHALL BE ROUTED EXPOSED AND FABRICATED WITH PAINT GRIP FINISH. ALL EXPOSED DUCT SHALL BE FABRICATED AND INSTALLED IN A NEAT (FINISHED) WORKMANLIKE MANNER AND SHALL BE CLEANED AND PREPARED FOR PAINTING.
 - ALL DUCTWORK WITH A WIDTH DIMENSION OF 46" OR LARGER SHALL BE SUPPORTED WITH TRAPEZOID TYPE HANGERS PER SMACNA STANDARDS. SUPPORTS SHALL BE ATTACHED TO DUCTWORK PRIOR TO APPLICATION OF EXTERNAL INSULATION (AS APPLICABLE). INSULATION SHALL BE APPLIED TO COMPLETELY COVER DUCTWORK AND SUPPORTS.
 - FOR TRANSVERSE JOINTS 1/2" WIDE AND LARGER, PROPRIETARY DUCT CONNECTORS SHALL BE DUCT MATE OR WARD AND INSTALLED IN COMPLETE ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. DUCT SEALANT TO BE DUCT MATE 440 CASSETT TYPE OR EQUAL. ALL DUCTWORK SHALL BE CONSTRUCTED TO A 2" PRESSURE CLASS.
 - ALL LONGITUDINAL SEAMS & NON-GASKETED TRANSVERSE JOINTS SHALL BE EXTERNALLY SEALED WITH HIGH PRESSURE DUCT SEALER BY UNITED WCGILL OR EQUAL. SEALER SHALL BE APPLIED BY M.C. AND APPROVED BY OWNER'S REPRESENTATIVE BEFORE DUCT INSULATION IS INSTALLED (CONCEALED AREAS AND STOCK ROOM). SEALING SHALL ACHIEVE CLASS A.
 - ALL CONCEALED DUCTWORK (ABOVE CEILINGS) AND ALL BACKROOM DUCTWORK SHALL BE EXTERNALLY WRAPPED WITH 2" THICK, 3/4 PCT FIBROUS GLASS FLEXIBLE DUCT INSULATION HAVING A FLAME RESISTANT FOIL, GLASS FIBER SCRM, AND FIRE RETARDANT KRAFT VAPOR BARRIER, COMMERCIAL QUALITY.
 - ROUND TAKE-OFFS FROM RECTANGULAR DUCT CONNECTING TO DIFFUSERS SHALL BE TYPE "STOD" FITTING. ROUND TAKE-OFFS FROM ROUND/DOWL DUCT CONNECTING TO DIFFUSERS SHALL BE FACTORY FABRICATED OR FIELD INSTALLED COMBINATION TAPS WITH 45 DEG. ENTRY, SIZE AS INDICATED ON DRAWINGS. FLEXIBLE DUCTS MAY BE USED AT THE END OF RUN-OUTS IN LENGTHS NOT TO EXCEED 4'-0". REFER TO MECHANICAL DETAILS. INSTALL PER SMACNA STANDARDS (SEE SPEC).
 - FLEXIBLE DUCT SHALL BE PVC OR VINYL COATED FLEXIBLE HELICAL WIRE WITH 1-1/2" INSULATION PER SPECIFICATIONS. INSTALL PER SMACNA STANDARDS. FLEXIBLE DUCT SHALL BE RATED FOR 2" PRESSURE CLASS.
 - RETURN AIR PLENUMS SHALL BE THE DIMENSIONS OF THE RETURN AIR OPENING OF THE UNIT. PLENUM DEPTH SHALL BE AS REQUIRED TO CONNECT RETURN DUCT TO PLENUM.
 - PROVIDE ALL 90° SQUARE ELBOWS WITH DOUBLE RADIUS TURNING VANES.
- MECHANICAL NOTES**
- HVAC EQUIPMENT AND CONTROLS SHALL BE PURCHASED FROM SESCO DBA MONAMARA & CO., (336) 996-2220. OWNER PURCHASED/FURNISHED EQUIPMENT SHALL BE AS NOTED ON THE EQUIPMENT SCHEDULES (IF APPLICABLE). CONTRACTOR SHALL INSTALL OWNER FURNISHED EQUIPMENT.
 - THE WORK REQUIRED INCLUDES ALL LABOR, MATERIALS, EQUIPMENT, APPURTENANCES, SERVICES AND SUPERVISION REQUIRED TO PROVIDE A COMPLETE, FULLY FUNCTIONAL HVAC SYSTEM AS SHOWN ON THE DRAWINGS AND THE SPECIFICATIONS.
 - M.C. QUALIFICATIONS: OWNER ASSUMES AND REQUIRES THAT THE M.C. HAS HAD SUFFICIENT GENERAL KNOWLEDGE AND EXPERIENCE TO ANTICIPATE THE NEEDS FOR A CONSTRUCTION PROJECT OF THIS NATURE. THE M.C. SHALL FURNISH EVERYTHING NEEDED OR REQUIRED TO COMPLETE THE CONSTRUCTION IN ACCORDANCE WITH REASONABLE INTERPRETATION OF THE INTENT OF THE DRAWINGS, SPECIFICATIONS AND ANY MINOR ITEMS REQUIRED BY CODE, LAW, OR REGULATIONS WHETHER OR NOT SPECIFIED OR SPECIFICALLY SHOWN. THIS IS NOT INTENDED TO COVER ANY MAJOR ITEMS OF EQUIPMENT OR LABOR NOT SHOWN OR SPECIFIED AND INTENDED. THIS IS INTENDED TO COVER AND WILL BE INTERPRETED TO COVER THE CONTRACTOR'S FULL RESPONSIBILITY FOR PROVIDING ALL MISCELLANEOUS LABOR, PARTS, ACCESSORIES, DEVICES AND APPURTENANCES WHICH ARE REQUIRED OR APPLICABLE AND CONSIDERED REQUIRED IN KEEPING WITH GOOD PRACTICE FOR FIRST-CLASS WORKMANSHIP AND A SYSTEM WHICH IS COMPLETE AND OPERABLE IN EVERY RESPECT.
 - WORKMANSHIP: SKILLED AND EXPERIENCED WORKMEN IN ACCORDANCE WITH THE BEST-ACCEPTED PRACTICES OF THE INDUSTRY SHALL MAKE THE ENTIRE INSTALLATION. WHERE CODES ARE NOT SPECIFIC AS TO WORKMANSHIP, THE OWNER SHALL RESERVE THE RIGHT IN DETERMINING IF THE WORKMANSHIP IS ACCEPTABLE OR NOT.
 - M.C. SHALL RECEIVE AND PROTECT ALL HVAC EQUIPMENT AND CONTROLS UNTIL OWNER ACCEPTANCE AT PROJECT COMPLETION.
 - EQUIPMENT START-UP SHALL BE BY THE M.C. A FACTORY-AUTHORIZED OR QUALIFIED TECHNICIAN SHALL START-UP THE EQUIPMENT.
 - COORDINATE ALL DIFFUSER AND GRILLE LOCATIONS & ELEVATIONS WITH ARCHITECTURAL PLANS.
 - COLD-AIR DIFFUSERS AND DE-STRATIFICATION FANS SHALL BE CENTERED IN THE AISLE BETWEEN OPEN MEDIUM TEMP. AND/OR FROZEN LOW TEMP. CASES OR AS INDICATED ON THE DRAWINGS. COORDINATE WITH ARCHITECT & G.C. CONTACT SESCO FOR COORDINATION AND CLARIFICATION REGARDING ANY CHANGES.
 - REVIEW THE CONTRACT DOCUMENTS OF ALL TRADES AND COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS & INTERFERENCES. REFER TO ARCH. DWGS. FOR BLDG. CONSTRUCTION DETAILS.
 - SESCO SHALL FURNISH ROOF CURBS FOR HVAC ROOFTOP UNITS & FANS. G.C. SHALL INSTALL ALL ROOF CURBS AND REQUIRED FLASHING AS REQUIRED FOR WATER-TIGHT INSTALLATION.
 - REFRIGERANT PIPING AND INSULATION SHALL BE PROVIDED PER SPECIFICATIONS AND MANUFACTURERS RECOMMENDATIONS.
 - REFER TO OWNER'S SPECIFICATIONS & DOCUMENTS FOR ADDITIONAL MECHANICAL REQUIREMENTS (AS APPLICABLE).
 - MECHANICAL CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
 - MAINTAIN A MIN. OF 10'-0" CLEARANCE FROM HVAC FRESH AIR INTAKES AND BY BUILDING VENTS OR EXHAUST.
 - M.C. SHALL VERIFY THAT ALL ROOF-MOUNTED HVAC EQUIPMENT LOCATION MEETS ALL STATE/LOCAL SETBACK REQUIREMENTS BEFORE SETTING EQUIPMENT.
 - ROOFTOP UNITS SHALL HAVE PVC CONDENSATE DRAIN LINES PIPED TO THE GUTTERS. AVOID CONFLICTS WITH OTHER ROOF-MOUNTED ITEMS. COORDINATE PIPE ROUTING WITH OWNER'S REPRESENTATIVE.
 - ALL EQUIPMENT SHALL BE INSTALLED SO AS TO MAINTAIN UNOBSTRUCTED SERVICE CLEARANCES, I.A.W. THE MANUFACTURER'S RECOMMENDATIONS, AS WELL AS FULL SWING OF ACCESS DOORS. COORDINATE LOCATION OF EQUIPMENT WITH THE G.C. ALL TRADES TO AVOID BRANCHING SERVICE CLEARANCES.
 - AIR FLOW MEASURING STATION TUBING CONNECTIONS SHALL BE ON TOP OR SIDES OF DUCT AND NOT BOTTOM. COORDINATE LOCATION OF METER WITH PROPER SESCO & OWNER'S REPRESENTATIVE.
 - ALL HVAC EQUIPMENT SUPPORTS, DUCTWORK, DUCTWORK SUPPORTS, AND HANGERS SHALL BE FREE OF RUST AND SHALL BE PRIMED TO RECEIVE FINISH DRY FOG APPLICATION (WHEN OPEN CEILING INSTALLATION).
 - THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO INCLUDE EVERY DETAIL OF CONSTRUCTION OR MATERIALS. PERFORM A DETAILED SURVEY OF THE EXISTING FIELD CONDITIONS. ACTUAL FIELD MEASUREMENTS SHALL BE SHOWN ON THE JOB SITE IN LEU OF SCALING THE DRAWINGS. LOCATIONS SHOWN FOR EQUIPMENT, DUCTWORK AND SERVICES ARE DIAGRAMMATIC AND APPROXIMATE. ADJUSTMENTS IN THESE LOCATIONS SHALL BE MADE BY THE CONTRACTOR. FULLY COORDINATE WITH THE G.C. REGARDING ALL TRADES.
 - ALL ROOFING WORK SHALL BE BY AN OWNER APPROVED ROOFING CONTRACTOR AND SHALL BE THE RESPONSIBILITY OF THE G.C.. COORDINATE ALL ROOFING WORK REQUIRED WITH THE G.C..
 - DUCT, PIPE, AND EQUIPMENT LOCATED OUTDOORS SHALL BE INSULATED I.A.W. THE ENERGY CODE OR ASHRAE STD. 90.1 (LATEST), WHICHEVER IS MOST STRINGENT REGARDING INSULATION VALUE AND WEATHERPROOF JACKETING.
 - M.C. SHALL BE RESPONSIBLE FOR PROVIDING ALL MATERIALS AND LABOR FOR TEST & DRIVE CHANGES, AS NECESSARY, TO PROVIDE SCHEDULED AIRFLOW OF UNITS AND AIR HANDLERS. COORDINATE REQUIREMENTS WITH TAB CONTRACTOR.
 - THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIAL AND WORKMANSHIP INSTALLED BY HIM UNDER THIS SECTION OF THE SPECIFICATIONS AND TO CORRECT ANY DEFICIENCIES ADJUDGED BY THE OWNER THIS GUARANTEE SHALL EXTEND FOR A PERIOD OF 12 MONTHS FROM THE DATE OF THE FINAL PROJECT ACCEPTANCE BY THE OWNER, AGAINST ANY DEFECTS IN THE MECHANICAL SYSTEM FAILURE. ALL EQUIPMENT MANUFACTURERS' WARRANTIES WHICH EXTEND BEYOND THE FIRST TWELVE (12) MONTHS SHALL BE TRANSFERRED TO THE OWNER. HOWEVER, IT SHALL BE UNDERSTOOD BY ALL PARTIES CONCERNED THAT THE MANUFACTURER'S WARRANTIES PERTAIN ONLY TO FURNISHING OF MATERIAL BY THE MANUFACTURER AND SHALL NOT INCLUDE WARRANTY LABOR COSTS, UNLESS OTHERWISE DESCRIBED BY THE MANUFACTURER.

MECHANICAL SYMBOLS LEGEND

	DUCT ELBOW WITH TURNING VANES
	ACCESS DOOR - BOTTOM/SIDE
	DUCTWORK (EXISTING) - SIZE AS SHOWN
	DUCTWORK - SIZE AS SHOWN
	OVAL DUCT (MAJOR AXIS x MINOR AXIS)
	MOTOR-OPERATED DAMPER
	MANUAL BALANCING DAMPER - WITH LOCKING QUADRANT
	FIRE DAMPERS - HORIZONTAL DUCT/VERTICAL DAMPER
	FIRE DAMPERS - VERTICAL DUCT/HORIZONTAL DAMPER
	HEAT STOP/RADIATION DAMPER FOR FIRE-RATED CEILING
	SUPPLY DIFFUSER
	RETURN DIFFUSER
	EXHAUST DIFFUSER
	EXISTING AIR DEVICE SYMBOL: (S) SUPPLY, (R) RETURN, (E) EXHAUST
	SUPPLY AIR DEVICE SYMBOL
	RETURN/EXHAUST AIR DEVICE SYMBOL: (R) RETURN, (E) EXHAUST
	HOOD REMOTE PULL STATION
	TEMPERATURE/RELATIVE HUMIDITY SENSOR
	AIR PRESSURE SWITCH
	DISCHARGE AIR SENSOR
	SMOKE DETECTOR
	TEMPERATURE SENSOR
	THERMOSTAT
	UNDERCUT DOOR (3/4" UNLESS NOTED OTHERWISE)
	POINT OF CONNECTION BETWEEN NEW & EXISTING
	POINT OF DISCONNECTION BETWEEN ITEM TO BE DEMOLISHED & EXISTING TO REMAIN

ABBREVIATIONS

AC-	AIR CURTAIN UNIT
AF+	ABOVE FINISHED FLOOR
AHU-	AIR HANDLING UNIT
CL	CENTER LINE
C.C.	CONTROLS CONTRACTOR
CFM	CUBIC FEET PER MINUTE
CL	COLUMN LINE
CU-	CONDENSING UNIT
D	DROP
DN	DOWN
DS-	DE-STRATIFICATION FAN
E.C.	ELECTRICAL CONTRACTOR
EDH+	ELECTRIC DUCT HEATER
ED-	EXHAUST FAN
EQ	EQUAL
DOAS-	DEDICATED OUTDOOR AIR SYSTEM
ECP	ELECTRONIC CONTROL PANEL
EF-	EXHAUST FAN
ES+	EXTERNAL STATIC PRESSURE
ETR	EXISTING TO REMAIN
EUH+	ELECTRIC UNIT HEATER
G.C.	GENERAL CONTRACTOR
GDH+	GAS DUCT HEATER
GUH+	GAS UNIT HEATER
I.A.W.	IN ACCORDANCE WITH
M.C.	MECHANICAL CONTRACTOR
MDD	MOTOR OPERATED DAMPER
MUA-	MAKE-UP AIR
NIS	NOT TO SCALE
OA	OUTSIDE AIR
R	RISE
RA	RETURN AIR
R.C.	REFRIGERATION CONTRACTOR
RTU-	ROOFTOP UNIT
SA	SUPPLY AIR
STOD	SIDE TAKEOFF (50°) W/MANUAL DAMPER
SF-	SUPPLY FAN
SP	STATIC PRESSURE
TAB	TESTING, ADJUSTING, & BALANCING
TF-	TRANSFER FAN
TYP	TYPICAL
UH-	UNIT HEATER
UN	UNLESS NOTED OTHERWISE
WH	WALL HEIGHT

DEMOLITION NOTES

- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WITH DEMOLITION WORK. DIFFUSERS, GRILLES, DAMPERS, DUCT HEATERS, FANS, ETC. SHALL BE SALVAGED AS INDICATED ON PLAN FROM AREAS SCHEDULED FOR DEMOLITION.
- SALVAGED EQUIPMENT MAY BE RE-USED OR RELOCATED WHEN INDICATED. UNUSED ITEMS SHALL BE RETURNED TO OWNER.
- ALL EXISTING MECHANICAL EQUIPMENT SHALL REMAIN UNLESS NOTED OTHERWISE.

NOTE

INSUFFICIENT CLEARANCES OR OBSTRUCTIONS WHICH CONFLICT WITH THE WORK SHOWN ON THE DRAWINGS SHALL BE CONVEYED TO THE "ARCHITECT OF RECORD" FOR COORDINATION.
ANY PROPOSED CHANGES OR MODIFICATIONS TO THE WORK SHOWN ON THE DRAWINGS AS REQUIRED BY EXISTING CONDITIONS SHALL BE SUBMITTED TO OWNER FOR APPROVAL BY THE "ENGINEER OF RECORD" PRIOR TO SUBMITTING PLANS FOR PERMITTING.

AIR CURTAIN (FLY FAN) SCHEDULE

MARK	MANUFACTURER/MODEL NO.	SERVICE	MOUNTING HEIGHT	MAX. FPM NOZZLE	AIR VOLUME (SCFM)	ELECTRICAL DATA			NOTES
						HP	VOLTS/PH	AMPS	
AC-5	BERNER / ALCOB-1048A	LTG	7'-8"	2,800	1,381	1 @ 1/5	120/1	3.4	1, 2

- NOTES:
1. MOUNTING HEIGHT IS UNIT NOZZLE DISCHARGE HEIGHT AND IS ESTIMATED FOR THE DOOR HEIGHT, COORDINATE IN THE FIELD.
2. AIR CURTAIN SHALL BE PROVIDED WITH FACTORY MOUNTED INELLSWITCH CONTROLLER.
3. MAGNETIC DOOR SWITCH.

FAN SCHEDULE

MARK	MANUFACTURER/MODEL NO.	SERVICE	LOCATION	TYPE	AIRFLOW (CFM)	E.S.P. (IN WG)	NOMINAL RPM	DRIVE	ELECTRICAL DATA		NOTES
									HP	WATTS	
TF-1	COOK / SOUND-EC 100SQN7DCC	BKERY AROMA FAN	ABV CLG	INLINE	500	0.375	1356	DIRECT	1/4	-	1, 2

- NOTE:
1. PROVIDE STANDARD DISCONNECT SWITCH, FAN MOUNTED SPEED CONTROLLER, INLET & OUTLET FLEX CONNECTIONS, AND VIBRATION ISOLATOR KIT.
2. CONTROL FAN WITH AREA LIGHTING CIRCUIT.

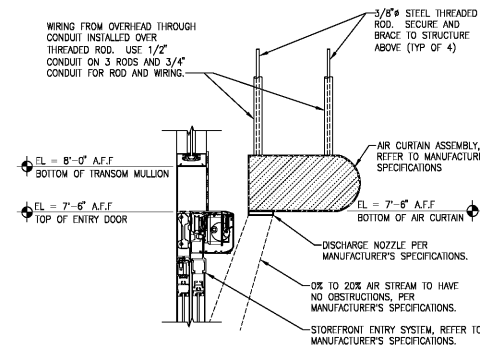
AIR-DISTRIBUTION SCHEDULE

MARK	MANUFACTURER/MODEL NO.	MATERIAL	FRAME	TYPE	PANEL SIZE	GRID SIZE	NOTES
S	EXISTING SUPPLY	---	---	---	---	---	1
S1	METALAIR / 5500CAD-2 15x15 01 TR, APD	ALUM.	SURFACE	SUPPLY; COLD ASILE DIFF.	15x15x12"	24x24	2, 3
R	EXISTING RETURN	---	---	---	---	---	1
R1	METALAIR / CCI-1	ALUM.	LAY-IN	RETURN; 1" x 1" SED CORE FILTER	24x24	12x12	2, 3

- NOTES:
1. EXISTING TO REMAIN. CLEAN AND RE-BALANCE TO INDICATED CFM.
2. COLOR OF DEVICES SHALL BE OFF-WHITE UNLESS NOTED OTHERWISE.
3. PROVIDE SQUARE TO ROUND ADAPTER.

ALL HVAC EQUIPMENT AND CONTROLS SHALL BE PURCHASED FROM SESCO DBA MONAMARA & CO. (336)-996-2220. REFER TO SCHEDULE FOR OWNER FURNISHED EQUIPMENT.

UNAUTHORIZED USE OF SECO DESIGN BY THIRD PARTIES IS PROHIBITED.
(U.S. PATENT # 6,785,035)



1 FRONT ENTRANCE AIR CURTAIN DETAIL
MOO1 NOT TO SCALE

MECHANICAL DRAWING SCHEDULE

MOO1	GENERAL MECHANICAL NOTES, LEGENDS, ABBREVIATIONS & DETAILS
M101	MECHANICAL RENOVATION PLAN

NO.	DATE	BY	REVISIONS
1	07/17/20	MS	ISSUE PLAN APPROVED FOR BIDDING/CONSTRUCTION

INTERIOR RENOVATION FOR
STORE # 182 AT
WALKERTOWN COMMONS
SHOPPING CENTER
5180 Reidsville Road
Walkertown, North Carolina 27081

