

TAG	TYPE OF SERVICE	FACE SIZE	NECK SIZE	RUNOUT SIZE	# OF SLOTS	SLOT WIDTH	MAX ROOM NO.	MAX SF (IN UG)	INTEGRAL DAMPER	BASE OF DESIGN	NECK SIZE SCHEDULE					NOTES	
											6"	8"	10"	12"	14"		16"
A	SA	24"x24"	3	1	---	---	30	0.10	N	TITUS: TM8-AA	0 - 120...	125 - 220...	225 - 350...	355 - 450...	455 - 550...	555 + CFM	2, 4, 5
B	SA	24"x24"	3	1	---	---	30	0.10	N	TITUS: TM8A-AA	0 - 120...	125 - 220...	225 - 350...	355 - 450...	455 - 550...	555 + CFM	2, 4, 5
C	RA/EA	48"x24"	44"x22"	---	---	---	30	0.10	N	TITUS: 350FS	---	---	---	---	---	---	2, 4, 5
D	RA/EA	24"x24"	22"x22"	---	---	---	30	0.10	N	TITUS: 350FL	---	---	---	---	---	---	2, 4, 5
X	---	---	---	---	---	---	---	---	---	EXISTING	---	---	---	---	---	---	4

NOTES:
1: RUNOUT SIZE SHALL BE EQUAL TO NECK SIZE UNLESS NOTED OTHERWISE IN DRAWINGS.
2: FINISH FOR ALL DEVICES SHALL BE NO. 26 WHITE, UNLESS OTHERWISE INDICATED ON ARCHITECTURAL DRAWINGS.
3: SEE NECK SIZE SCHEDULE.
4: CONTRACTOR SHALL BALANCE DIFFUSER/GRILLE TO AIRFLOW LISTED ON PLANS.
5: SEE ARCHITECTURAL PLANS FOR CEILING TYPE.

MECHANICAL GENERAL NOTES

- WORK SHALL COMPLY WITH LOCAL BUILDING CODES, LAWS, REGULATIONS, ORDINANCES, SMACNA STANDARDS, AND ASHRAE GUIDELINES.
- THE WORK SHALL CONSIST OF ALL LABOR AND MATERIAL TO COMPLETELY INSTALL WORKS AS SHOWN ON THESE DRAWINGS. COORDINATE LOCATION OF PIPE ROUTING, DUCTWORK AND DIFFUSERS WITH LIGHT FIXTURES WITH ELECTRICAL CONTRACTOR. RELOCATE PIPING FOR DUCTWORK, IF NECESSARY, AS DIRECTED BY THE ARCHITECT/ENGINEER.
- WORK ASSOCIATED WITH THE SCOPE OF THIS PROJECT INCLUDING EQUIPMENT ACCESSORIES, DEVICES, SYSTEMS, ETC. SHALL BE COVERED BY A ONE YEAR GUARANTEE WHICH SHALL START AT THE TIME OF FINAL ACCEPTANCE BY THE OWNER. ANY DEFECTS IN PRODUCTS, INSTALLATION, WORKMANSHIP SHALL BE CORRECTED AT NO ADDITIONAL CHARGE AND SHALL INCLUDE ANY NECESSARY REPAIRS TO WALLS, FLOORS, MILLWORK, ETC. WHICH SHALL BE REPAIRED BACK TO NEW AND FINISHED CONDITION. THE CONTRACTOR SHALL KEEP A RECORD OF THE CHANGES WHICH ARE IN CONFLICT WITH THESE DRAWINGS AND SPECIFICATIONS. AT THE COMPLETION OF THIS WORK THE CONTRACTOR SHALL SUBMIT "AS BUILT" PRINTS TO THE OWNER.
- THE DRAWINGS ARE DIAGNOSTIC AND DO NOT NECESSARILY SHOW THE EXACT ROUTING OR DETAILED FITTINGS. WORK SHALL BE INSTALLED AS A COMPLETE SYSTEM WITH NECESSARY COMPONENTS, FITTINGS, STRAPS, ETC. DAMPERS AND VALVES SHALL BE INSTALLED SO THAT THEY ARE ACCESSIBLE.
- REFER TO THE CONTRACT DRAWING SET AND SPECIFICATIONS FOR GUIDANCE ON DIMENSIONS, CEILING HEIGHTS, DOOR SWINGS, ROOM FINISHES, STRUCTURAL DETAILS, LOCATIONS OF DUCTWORK, PIPING AND STRUCTURAL MEMBERS. COORDINATE & INSTALL THE MECHANICAL SYSTEMS SO AS NOT TO INTERFERE WITH THE INSTALLATION OR FUNCTION OF ANY OTHER DISCIPLINE WORK. DUCT AND PIPING MUST BE CONCEALED ABOVE THE CEILING OR IN THE WALLS UNLESS OTHERWISE NOTED.
- COORDINATE DIFFUSER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN TO VERIFY FRAME TYPES BASED ON CEILING TYPE.
- COORDINATE VALVE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLAN TO INSURE NONE ARE INSTALLED OVER GYPSUM BOARD CEILING. IF SUCH ACCOMMODATION CANNOT BE MADE, PROVIDE ACCESS PANEL. PANEL LOCATIONS SHALL BE APPROVED BY ARCHITECT PRIOR TO PANEL AND VALVE INSTALLATION.
- THE CONTRACTOR SHALL INSTALL WORK IN A NEAT AND WORKMANLIKE MANNER AND ACCORDING TO GENERALLY ACCEPTED PRACTICES OF FIRST CLASS WORKMANSHIP.
- THERMOSTATS SHALL BE LOCATED IN EACH ZONE AS INDICATED ON PLAN. THE EXACT LOCATION AND HEIGHT SHALL BE AS DIRECTED BY THE ARCHITECT.
- INSTALL EQUIPMENT, DIFFUSERS, DUCTWORK, PIPING, INSULATION, AND FIXTURES AS RECOMMENDED BY THE MANUFACTURER'S INSTALLATION GUIDELINES AND LITERATURE.
- DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
- PROVIDE TURNING VANES IN RECTANGULAR DUCT SLEEVES.
- CONTRACTOR SHALL PROVIDE (3) SETS OF FILTERS FOR EACH FAN COIL ONE DURING CONSTRUCTION AND ONE SET AT COMPLETION OF CONSTRUCTION. FILTERS SHALL BE PLEATED, MINIMUM 90% EFFICIENT (MERV RATING OF 7). PIPING, DUCTWORK, INSULATION, CONSTRUCTION STANDARDS, ETC. MUST BE EQUAL TO OR GREATER THAN EXISTING AS-BUILDING STANDARDS. THE USE OF RIGID FIBER DUCT BOARD AND PVC IS NOT PERMITTED.
- RENOVATION WORK NOTES BELOW:
- ATTENTION IS DRAWN TO THE FACT THAT THIS IS AN EXISTING FACILITY AND NOT ALL EXISTING DUCT, PIPING, AND EQUIPMENT SHOWN ON THESE DRAWINGS WAS FIELD VERIFIED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND VERIFY EXISTING CONDITIONS, DEMOLITION, AND NEW WORK PRIOR TO EQUIPMENT AND MATERIAL PURCHASE AND/OR FABRICATION.
- DIMENSIONS OF EXISTING CONSTRUCTION ARE APPROXIMATE. THE CONTRACTOR SHALL MAKE NECESSARY FIELD MEASUREMENTS OF EXISTING STRUCTURES AND EQUIPMENT TO VERIFY DIMENSIONS SHOWN ON THESE DRAWINGS. PROVIDE PROPER DIMENSIONS NOT SHOWN PRIOR TO EQUIPMENT FABRICATION. COSTS FOR MODIFICATIONS OF NEW CONSTRUCTION DUE TO LACK OF CORROBORATION OF DIMENSIONS BY FIELD MEASUREMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NEW EQUIPMENT SHALL BE OF THE SAME MANUFACTURER AND MODEL AS THE EXISTING EQUIPMENT. IF MODEL NUMBERS ARE OBSOLETE, PROVIDE EQUIVALENT REPLACEMENT BY SAME MANUFACTURER.
- EXISTING EQUIPMENT AND MATERIALS SHOWN OR INTENDED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE. ITEMS REMOVED SHALL BE PROPERLY DISPOSED OF AND CONTRACTOR SHALL CAPTURE REFRIGERANT FROM APPLICABLE EQUIPMENT.

FIRE PROTECTION NOTES

- CONTRACTOR SHALL PROVIDE SPRINKLER DRAINAGE IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES, AND IN ACCORDANCE WITH NFPA. CONTRACTOR SHALL PROVIDE GUARANTEE COVERING ALL WORK AND MATERIALS FOR ONE YEAR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FLOW TEST DATA AND PREPARING HYDRAULIC CALCULATIONS IF REQUIRED BY AUTHORITY HAVING JURISDICTION.
- CONTRACTOR TO CONFIRM STRUCTURAL AND SUPPLY HYDRAULIC INFORMATION PRIOR TO SYSTEM MODIFICATION AND INSTALLATION.
- CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF HEADS TO INSURE WORK WILL NOT CONFLICT WITH CEILING GRID AND LIGHTS. COORDINATE WITH OTHER TRADES.
- BLOCK SPRINKLER HEADS TO COORDINATE WITH LIGHTS, GRILLES, & DIFFUSERS WITHIN THE REQUIREMENTS OF NFPA 13.
- DESIGNED FLOW TEST DATA SHALL COMPLY WITH NFPA 13.

LEGEND - HVAC		
ABBR	SYMBOL	DESCRIPTION
ACC		AIR COOLED CONDENSER
A/C		ABOVE CEILING
AD		ACCESS DOOR
ADJ		ADJUSTABLE
AFF		ABOVE FINISHED FLOOR
AHU		AIR HANDLING UNIT
AUTO		AUTOMATIC
BAL		BALANCING
BDD		BACKDRAFT DAMPER
B'FLY		BUTTERFLY
B/F		BELOW FLOOR
B/G		BELOW GRADE
BHP		BRAKE HORSEPOWER
<input checked="" type="checkbox"/> TYPE-CRM		CEILING SUPPLY AIR DIFFUSER
<input checked="" type="checkbox"/> TYPE		CEILING RETURN AIR REGISTER / GRILLE OR EXHAUST REGISTER / GRILLE
CFM		CUBIC FEET PER MINUTE
CON		CONCENTRIC
		CONNECT TO EXISTING
CRAC		COMPUTER ROOM UNIT (INDOOR)
CU		CONDENSING UNIT
DB		DECIBELS
		DIRECTION OF AIRFLOW
DB		DRY BULB
DN		DOWN
DR		DRAIN
DBS		DUCTLESS SPLIT SYSTEM
DUG		DUCTWORK
		DUCT SPLIT TRANSITION - SINGLE TO DUCTWORK
		DUCTWORK - SPLITTING OR DIFFER TO RETURN
		DUCT - SUPPLY ON OUTSIDE AIR UP
		DUCT - RETURN ON OUTSIDE AIR UP
		DUCT - SUPPLY ON OUTSIDE AIR DOWN
		DUCT - RETURN ON OUTSIDE AIR DOWN
		DUCT TRANSITION - SQUARE TO ROUND (OR OVAL)
		DUCT MOUNTED SMOKE DETECTOR (WIRED BY DIV. 16)
E		EACH
EAT		ENTERING AIR TEMPERATURE
ECC		ECCENTRIC
ECH		ELECTRIC CEILING HEATER
EDH		ELECTRIC DUCT HEATER
EF		EXHAUST FAN
EFF		EFFICIENCY
ESP		EXTERNAL STATIC PRESSURE
ET		EXPANSION TANK
EUH		ELECTRIC UNIT HEATER
EWH		ELECTRIC WALL HEATER
EUT		ENTERING WATER TEMPERATURE
EA		EXHAUST AIR
F		FAHRENHEIT
FCU		FAN COIL UNIT
FD		FIRE DAMPER
FLR		FLOOR
F.O.		FLAT OVAL DUCT
FDB		FLAT ON BOTTOM
FOT		FLAT ON TOP
FFM		FEET PER MINUTE
FFS		FEET PER SECOND
FSDD		FIRE AND SMOKE DAMPER
FT		FEET
GA		GAUGE
GPM		GALLONS PER MINUTE
HP		HEAT PUMP

DESIGN CONDITIONS	
COOLING - SUMMER DESIGN	
OUTDOOR DESIGN DB / CONCURRENT WB (ASHRAE 0.4)	93.9 °F / 74.8 °F
INDOOR DESIGN DB	75 °F / 55%
HEATING - WINTER DESIGN	
OUTDOOR DESIGN (ASHRAE 99.6)	25 °F
INDOOR DESIGN DB (OTHER)	68 °F

LEGEND - HVAC		
ABBR	SYMBOL	DESCRIPTION
HTG		HEATING
HX		HEAT EXCHANGER
HZ		HERTZ
		HUMIDISTAT
ID		INSIDE DIMENSION
IN		INCHES
KW		KILOWATTS
KVA		KILO VOLT AMPS
LAT		LEAVING AIR TEMPERATURE
LB		POUNDS
		LIMITS OF DEMOLITION
LSP		LOOP WATER PUMP
LUR		LOOP WATER RETURN
LWS		LOOP WATER SUPPLY
MAX		MAXIMUM
MD		MANUAL DAMPER
MRR		MANUAL REFRIGERANT
MIN		MINIMUM
MOR		MANUALLY OPERATED DAMPER
MV		MANUAL VOLUME DAMPER
NC		NORMALLY CLOSED
NO		NORMALLY OPENED
NOM		NOMINAL
OA		OUTSIDE AIR
OB		OPPOSED BLADE DAMPER
OD		OUTSIDE DIMENSION
PIU		POWERED INDUCTION UNIT
PRV		PRESSURE REDUCING VALVE
PSI		POUNDS PER SQUARE INCH
PTAC		PACKAGED TERMINAL AIR CONDITIONER
RA		RETURN AIR
RAG		RETURN AIR GRILLE
RAT		RETURN AIR TRANSFER
RED		REDUCER
RL		REFRIGERANT LIQUID
RS		REFRIGERANT SUCTION
		REFRIGERANT SUCTION AND DISCHARGE TUBING (ROOTED TOGETHER)
RTU		ROOFTOP UNIT
SA		SUPPLY AIR
SCU		SELF CONTAINED UNIT
SD		SMOKE DAMPER
SEV		SEVEN
SF		SQUARE FEET
SFP		SUPPLY FAN
SFP		STATIC PRESSURE
SFS		STATIC PRESSURE SENSOR
SO		SQUARE
SR		SUPPLY REGISTER
		SIDEWALL OR DUCT MOUNTED RETURN OR EXHAUST AIR REGISTER / GRILLE
TEMP		TEMPERATURE
		TEMPERATURE SENSOR
TG		TRANSFER GRILLE
TU		TERMINAL UNIT
		THERMOSTAT
TYP		TYPICAL
UNO		UNLESS NOTED OTHERWISE
VA		VALVE
VAV		VARIABLE AIR VOLUME
WB		WET BULB
WC		WATER COLUMN
WHP		WATER SOURCE HEAT PUMP
WT		WEIGHT

LEGEND - MECHANICAL/ELECTRICAL		
ABBR	SYMBOL	DESCRIPTION
A		AMPS
FLA		FULL LOAD AMPS
HZ		HERTZ
KVA		KILOVOLT AMPS
KW		KILOWATT
MCA		MINIMUM CIRCUIT AMPACITY
MOCP		MAXIMUM OVERCURRENT PROTECTION
PH		PHASE
V		VOLT/VOLTAGE
W		WATTS



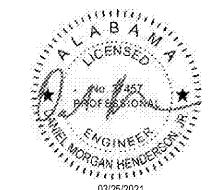
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SEALS & SIGNATURES:



REV	DESCRIPTION	DATE

101 N COLLEGE STREET

101 N. COLLEGE STREET
AUBURN, AL 36830



Project No.: SNA Project #: 2021-04
Client Project No.: 210000X

Drawing Title:
**GENERAL NOTES, LEGENDS,
AND SCHEDULES - HVAC**

Date: 03/25/2021 Phase:
Designed: Designer Drawing No.:
Drawn: Author
Checked: Checker

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