GENERAL HVAC NOTES

- 1. ALL MECHANICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE 2020 MECHANICAL CODE, FIRE CODE, PLUMBING CODE, FUEL GAS CODE, BUILDING CODE, AND ENERGY CONSERVATION CONSTRUCTION CODE OF NEW YORK STATE, ALL LOCAL CODES AND GENERALLY ACCEPTED STANDARDS.
- 2. MECHANICAL CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, PIPING, VALVES, ACCESS DOORS, HANGERS, FITTINGS AND MISCELLANEOUS COMPONENTS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER THE MECHANICAL SYSTEMS COMPLETE, OPERABLE, AND IN ACCORDANCE WITH APPLICABLE CODES AND GENERALLY ACCEPTED INDUSTRY STANDARDS.
- 3. MECHANICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL EQUIPMENT TO OWNER'S REPRESENTATIVE FOR APPROVAL. DEMONSTRATE NEW MECHANICAL SYSTEMS TO OWNER'S REPRESENTATIVES AND REVIEW MAINTENANCE PROCEDURES.
- 4. MECHANICAL CONTRACTOR SHALL SEAL AROUND ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS AND CEILINGS WITH HILTI INTUMESCENT FIRE STOP MATERIALS TO MAINTAIN FIRE AND SMOKE RATINGS. DUCTS PENETRATING FIRE RATED WALLS, FLOORS AND CEILINGS SHALL BE INSTALLED WITH FIRE DAMPER AND ACCESS DOORS WHETHER SPECIFICALLY SHOWN ON THE DRAWINGS OR NOT.
- 5. MECHANICAL CONTRACTOR SHALL NOT DRILL OR CUT ANY STRUCTURAL MEMBERS WITHOUT PERMISSION OF ARCHITECT.
- 6. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS.
- 7. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL CONTROL WIRING (120V AND 24V) FOR SYSTEMS SHOWN ON MECHANICAL DRAWINGS AND DESCRIBED IN MECHANICAL SPECIFICATIONS, INCLUDING ALL RELAYS, TRANSFORMERS, CONDUIT, JUNCTION BOXES, CONDUCTORS, THERMOSTATS, APPURTENANCES AND ALL NECESSARY EQUIPMENT TO MAKE SYSTEMS COMPLETE
- 8. MECHANICAL CONTRACTOR SHALL PAY FOR ALL PERMITS AND INSPECTION FEES REQUIRED BY LOCAL AUTHORITY HAVING
- 9. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CUTTING, PATCHING, AND PAINTING ASSOCIATED WITH PLUMBING WORK WITH THE GENERAL CONTRACTOR, WHO SHALL PERFORM THE WORK.
- 10. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH SHEET METAL AND AIR CONDITIONING MECHANICAL CONTRACTORS NATIONAL ASSOCIATION (SMACNA) DUCT STANDARDS. PROVIDE RADIUS TURNS OR TURNING VANES ON ALL CHANGES IN DIRECTION IN ACCORDANCE WITH SMACNA STANDARDS.
- 11. ALL CONTROL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (N.E.C.) AND ALL LOCAL CODES. ALL CONDUCTORS SHALL BE COPPER WITH THHN INSULATION IN EMT CONDUIT. 120V/1 - MINIMUM CONDUCTOR SIZE #12. 24V -MINIMUM CONDUCTOR SIZE #18. MINIMUM CONDUIT SIZE SHALL BE 3/4". CONDUIT INSTALLED OUTDOORS SHALL BE GALVANIZED.
- 12. ALL DUCTWORK SHALL BE FABRICATED WITH MINIMUM 26 GAGE GALVANIZED STEEL INCLUDING ROUND DUCTS. 13. FINAL LOCATIONS OF ALL THERMOSTATS AND SENSORS SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION, COORDINATE IN FIELD. THERMOSTATS AND SENSORS SHALL BE LOCATED 4'-0" ABOVE FINISHED FLOOR.
- 14. MECHANICAL CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR ALL VALVES AND DUCT ACCESSORIES CONCEALED IN WALLS/CEILINGS. ACCESS DOORS SHALL HAVE APPROPRIATE FIRE RATING TO MAINTAIN INTEGRITY OF WALL/CEILING. ACCESS DOORS TO BE INSTALLED BY GENERAL CONTRACTOR.
- 15. MECHANICAL CONTRACTOR SHALL COORDINATE FINAL LOCATIONS OF ALL PIPING IN FINISHED AREAS WITH GENERAL CONTRACTOR TO ENSURE CONCEALMENT OF ALL PIPING IN WALLS, FLOORS AND CEILINGS.
- 16. MECHANICAL CONTRACTOR SHALL PROVIDE ALL AIR BALANCING FOR ALL NEW MECHANICAL SYSTEMS. PROVIDE ALL NECESSARY MOTOR, DRIVE, BELT CHANGES AND ETC. SEE SPECIFICATIONS FOR BALANCE PROCEDURES AND ADDITIONAL REQUIREMENTS. CONTRACTOR SHALL COMFORT BALANCE ALL MECHANICAL SYSTEMS TO THE SATISFACTION OF ENGINEER/ARCHITECT.
- 17. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUPPLEMENTAL STRUCTURAL STEEL SUPPORT ASSOCIATED WITH NEW MECHANICAL EQUIPMENT HUNG OR SUPPORTED FROM OR ON THE BUILDING STRUCTURE. MECHANICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO STEEL FABRICATION AND INSTALLATION OF
- 18. MECHANICAL CONTRACTOR SHALL SUBMIT PIPING AND DUCTWORK FULLY COORDINATED SHOP DRAWINGS FOR OWNER'S REPRESENTATIVE REVIEW.
- 19. MECHANICAL CONTRACTOR SHALL INCLUDE IN BID ALL MATERIALS, RIGGING AND LABOR REQUIRED FOR THE COMPLETE AND PROPER INSTALLATION OF THE MECHANICAL SYSTEM.
- 20. MECHANICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BEGINNING WORK, AND COORDINATE WORK WITH ALL OTHER TRADES.
- 21. PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES.
- 22. PROVIDE VOLUME DAMPERS ON ALL EXHAUST, SUPPLY AND RETURN BRANCH DUCTWORK, WHETHER SPECIFICALLY INDICATED ON DRAWINGS OR NOT.
- 23. PROVIDE 1" ACOUSTIC LINING IN DUCTWORK A MINIMUM OF 25'-0" FROM INLET AND OUTLET OF ALL FANS. THE FIRST FIGURE OF DUCT SIZE INDICATE DIMENSION OF FACE SHOWN OR INDICATED. DUCT DIMENSIONS SHOWN ON DRAWINGS REFER TO INSIDE CLEAR DIMENSIONS. WHERE DUCTWORK IS LINED, THE CONTRACTOR SHALL INCREASE THE SIZE OF DUCT TO COMPENSATE FOR LINING.
- 24. ALL MOTOR STARTERS AND DISCONNECT SWITCHES FOR MECHANICAL EQUIPMENT SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR, UNLESS OTHERWISE NOTED. DISCONNECT SWITCHES FURNISHED BY THE MECHANICAL CONTRACTOR FOR MECHANICAL EQUIPMENT SHALL BE HEAVY DUTY TYPE AND SHALL BE NEMA 3R WHEN
- 25. MECHANICAL CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIAL INSTALLED UNDER THIS CONTRACT FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER AND AGREES TO REPLACE DEFECTIVE WORK (INCLUDING ALL REQUIRED LABOR AND MATERIAL) AT NO ADDITIONAL COST TO OWNER DURING THE GUARANTEE PERIOD.
- 26. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING START—UP OF ALL NEW EQUIPMENT, CONTROLS, AND ETC. TO ENSURE CORRECT OPERATION OF INSTALLED DEVICES.
- 27. MECHANICAL CONTRACTOR SHALL PROVIDE OWNER WITH CATALOG DATA, OPERATING INSTRUCTIONS, MAINTENANCE INSTRUCTIONS, AND RECORD (AS-BUILT) DRAWINGS OF ALL COMPLETED WORK. MECHANICAL CONTRACTOR SHALL ENGAGE A FACTORY AUTHORIZED REPRESENTATIVE TO PERFORM START-UP PROCEDURES.
- 28. ALL PIPING SHALL BE TESTED AS HEREINAFTER SPECIFIED. TESTS SHALL BE MADE AFTER ERECTION AND BEFORE COVERING IS APPLIED OR PIPING PAINTED OR CONCEALED AND AS SECTIONS OF MAINS AND GROUPS OR RISERS ARE COMPLETED. WHERE CONTROLS AND ACCESSORIES ARE NOT DESIGNED TO WITHSTAND PIPE TEST PRESSURES, THEY SHALL BE PROPERLY PROTECTED
- AGAINST DAMAGE DURING SUCH TESTS. A. REFRIGERANT PIPING — TESTS SHALL INCLUDE BOTH HIGH AND LOW PRESSURE SIDES OF EACH SYSTEM AT NOT LESS THAN THE LOWER OF THE DESIGN PRESSURE OR THE SETTING OF THE PRESSURE RELIEF DEVICES. DESIGN PRESSURES FOR TESTING SHALL BE THOSE LISTED ON THE CONDENSING UNITS, COMPRESSORS OR COMPRESSOR UNIT NAMEPLATE, AS REQUIRED BY ASHRAE 15-1994. TESTS SHALL BE PERFORMED WITH AN INERT DRIED GAS. PROVIDE CERTIFICATE OF TEST INDICATING NAME OF REFRIGERANT AND FIELD TEST PRESSURE.
- 29. MECHANICAL CONTRACTOR SHALL TRAIN STAFF ON USE OF MECHANICAL SYSTEMS. THE MECHANICAL CONTRACTOR SHALL ENGAGE A FACTORY AUTHORIZED REPRESENTATIVE TO PERFORM THE TRAINING.

MINIMUM HANGER SIZES FOR ROUND DUCT

PLUS ONE Ib/sf OF INSULATION WEIGHT. IF HEAVIER DUCTS ARE TO BE

INSTALLED, ADJUST HANGER SIZES TO BE WITHIN THEIR LOAD LIMITS.

DIAMETER

ROD

1/4"

3/8"

TWO 3/8"

STRAP

1" X 22 ga.

1" X 22 ga.

1" X 22 ga.

1" X 20 ga.

TWO 1" X 20 ga.

- 30. ALL MECHANICAL SYSTEMS INDICATED ON DRAWINGS SHALL BE COMMISSIONED. MECHANICAL CONTRACTOR SHALL PROVIDE ALL SERVICES REQUIRED BY THE OWNER'S COMMISSIONING AGENT AS REQUIRED.
- 31. INSTALL ALL STEAM SUPPLY, RETURN AND PUMP DISCHARGE PIPING TO PERMIT COMPLETE DRAINAGE.
- PITCH HORIZONTAL STEAM MAINS, RETURN MAINS, AND BRANCHES DOWNWARD, 1/2" PER 10 FEET IN DIRECTION OF FLOW.

SPACING

DIAMETER

37" - 50"

51" - 60"

• PITCH STEAM RUNOUTS UPWARD, $\frac{3}{16}$ " PER FOOT IN DIRECTION OF FLOW. PITCH RETURN BRANCHES AND RUNOUTS DOWNWARD, ¼" PER 10 FEET IN DIRECTION OF FLOW.

1"	6	8	4	1/4"	3/8"	BAND	10	15		
11/4"	6	9	4	1/4"	3/8"	CLEVIS	10	15		
1½"	6	9	4	1/4"	3/8"	CLEVIS	10	15		
2"	10	10	4	1/4"	3/8"	CLEVIS	10	15		
2½"	10	12	4	3/8"	1/2"	CLEVIS	10	15		
3"	10	12	4	3/8"	1/2"	CLEVIS	10	15		
4"		12	4	1/2"	5/8"	CLEVIS OR ROLLER		15	15 15 15 15 15 15 15 15 15 15 PE RUNS.	
6"		12			3/4"	CLEVIS OR ROLLER		15		
NOTES:										
1. INSTA	ALL HANGER	OR SUPPOR	RT CLOSE TO	THE POINT	OF CHANGE	OF DIREC	TION IN ALL	PIPE RUNS		
2. INSTA	ALL ADDITION	AL HANGERS	ON SUPPO	RTS AT CON	ICENTRATED	LOADS.				
3. SUPF	PORT ALL BE	RANCH PIPIN	G OVER 5'-	O" IN LENGT	Ή.					
	4. USE ROLLER TYPE HANGERS (MSS TYPE 41) WHERE PIPING IS SUBJECT TO MOVEMENT CAUSED BY EXPANSION AND CONTRACTION.									
	5. HANGERS AND ANCHORS SHALL BE ATTACHED TO THE BUILDING CONSTRUCTION IN AN APPROVED MANNER.									
	6. PIPING SHALL BE SUPPORTED AT DISTANCES NOT EXCEEDING THE SPACING SPECIFIED IN SCHEDULE IN ACCORDANCE WITH MSS SP-69.									

PIPE HANGER SCHEDULE

SINGLE STEEL ROD

TUBING

HANGER SIZE (INCHES) | HANGER

PIPING

TYPE

STEEL

BAND

BAND

TUBE

10

10

MAXIMUM HORIZONTAL

SPACING (FEET)

STEEL

PIPE

4

8

8

SIZE

(INCHES)

COPPER

TUBE

MAXIMUM VERTICAL

SPACING (FEET)

STEEL

PIPE

15

15

PIPE

10

10

10

10

10

10

MINIMUM HANGER SIZES FOR RECTANGULAR DUCT										
MINIMUM HALF OF	174117741		PAIR 8Ft SP/		PAIR 5Ft SPA		PAIF 4Ft SPA			
DUCT PERIMETER	STRAP	ROD	STRAP	ROD	STRAP	STRAP ROD		ROD		
P/2 = 30"	1" x 22ga	1/4"	1" x 22ga	1/4"	1" x 22ga	1/4"	1" x 22ga	1/4"		
P/2 = 72"	1" x 18ga	3∕ ₈ "	1" x 20ga	1/4"	1" x 22ga	1/4"	1" x 22ga	1/4"		
P/2 = 96"	1" x 16ga	3/8"	1" x 18ga	3/8"	1" x 20ga	3 _{/8} "	1" x 22ga	3/8"		
P/2 = 120"	1½" x 16ga	1/2"	1" x 16ga	3∕8"	1" x 18ga	¾"	1" x 20ga	3∕8"		
P/2 = 168"	1½" x 16ga	1/2"	1" x 16ga ½"		1" x 16ga	³ / ₈ "	1" x 18ga	3/8"		
P/2 = 192"	_	_	1" x 16ga	1/2"	1" x 16ga	3∕8"	1" x 18ga	¾"		
				,	SINGLE HANG	ER MAXIMU	M ALLOWABLE	LOAD		
WHEN STRAPS FASTENERS:	ARE LAP JO	INED USE TH	ESE MINIMUM		STRAP ROD (Dia.)					
1" x 18, 20,	22aa - C	N ¼" BOIT		1"	1" x 22ga — 260Lbs.					
1" X 16ga	•	- TWO ¼"	Dia.	1"	x 20ga - 32	¾" − 68	¾" − 680Lbs.			
1" X 16ga	_	- TWO ¾"	Dia.	1"	1" x 18ga − 420Lbs. ½" − 1250Lbs.					

1. DIMENSIONS OTHER THAN GAUGE ARE IN INCHES.

REFRIGERANT

CONDENSATE

GLYCOL WATER

STEAM CONDENSATE

PLACE FASTENERS IN SERIES, NOT SIDE BY SIDE.

2. TABLES ALLOW FOR DUCT WEIGHT, 1 LB./SF. INSULATION WEIGHT AND NORMAL REINFORCEMENT AND TRAPEZE WEIGHT, BUT NO EXTERNAL LOADS.

1" x 16ga — 700Lbs.

1½" x 16ga — 1100Lbs.

- 3. STRAPS ARE GALVANIZED STEEL.
- 4. ALLOWABLE LOADS FOR P/2 ASSUME THAT DUCTS ARE 16 GA. MAXIMUM, EXCEPT WHEN MAXIMUM DUCT DIMENSION (W) IS OVER 60" THEN P/2 MAXIMUM IS 1.25 W.

HEATING AND COOLII CO	NG MINIMU DMMERCIA		JLATION	
(THI	CKNESS IN INCHE	ES)		
		NOMINAL PIPE DIA	METER	
FLUID	< 1-1/2"	1-1/2" < 4.0"	4.0" to 8.0"	≤ 8.0"
	, _	,=		= 3.6

1.0

1.0

1.5

3.0

3.0

%" − 2000Lbs.

 $\frac{3}{4}$ " - 3000Lbs.

PIPE COVERING SHALL BE FIBERGLASS PREFORMED PIPE AND PREMOLDED FITTING

1.0

1.0

1.5

2.5

1.0

1.0

1.5

2.5

2.5

1.0

1.0

1.5

3.0

3.0

- INSULATION WITH: FIRE RETARDANT VAPOR BARRIER JACKET, 0.23 K-FACTOR AT 75°F MEAN TEMPERATURE, FLAME SPREAD = 25, SMOKE DEVELOPED = 50. ALL INTERIOR AND EXTERIOR PIPING, FITTINGS, AND VALVES SHALL BE INSTALLED WITH 20 MIL THICK, WHITE PVC JACKETING. PVC JACKETING SHALL BE HIGH IMPACT RESISTANT,
- UV RESISTANT COMPLYING WITH ASTM D 1784, CLASS 16354-C. PROVIDE FACTORY FABRICATED FITTING AND VALVE COVERS WHERE AVAILABLE. REFRIGERANT AND CONDENSATE PIPE INSULATION SHALL BE FLEXIBLE ELASTOMERIC FOAM SIMILAR TO ARMAFLEX. EXTERIOR INSULATIONS TO BE COATED WITH ARMAFLEX WB OR BE INSTALLED WITH PVC JACKETING.

		2 IMBOL2 AND		7110140	
SYMBOL	ABBREVIATION	DESCRIPTION	SYMBOL	ABBREVIATION	DESCRIPTION
(CD) -	— DESIGNATION	OFILING DIFFLICED		МВН	1000 BRITISH THERMAL UNITS PER HOUR
CFM -	— AIRFLOW	CEILING DIFFUSER		MCA	MINIMUM CIRCUIT AMPACITY
RR	— DESIGNATION	DETURN /FYUNDET DEGISTER		MOCP	MAXIMUM OVERCURRENT PROTECTION
CFM -	— AIRFLOW	RETURN/EXHAUST REGISTER		NC	NOISE CRITERIA
	AC	AIR CONDITIONING UNIT		MIN.	MINIMUM
	BHP	BRAKE HORSE POWER		WB	WET BULB TEMPERATURE
	CFM	CUBIC FEET PER MINUTE		V	VOLT
	DB	DRY BULB TEMPERATURE		AHU	AIR HANDLING UNIT
	dBA	DECIBELS AMBIENT	RR/ER	RR/ER	RETURN/EXHAUST REGISTER
Ø	DIA	DIAMETER OR PHASE	⊠ CD	CD	CEILING DIFFUSER
	EAT	ENTERING AIR TEMPERATURE		-	SUPPLY/OUTSIDE AIR INTAKE DUCT UP
	EER	ENERGY EFFICIENT RATING	[]×<	-	SUPPLY/OUTSIDE AIR INTAKE DUCT DOWN
	HVAC	HEATING VENTILATING AND AIR CONDITIONING UNIT		-	RETURN/EXHAUST AIR DUCT UP
	ESP	EXTERNAL STATIC PRESSURE	[]	-	RETURN/EXHAUST AIR DUCT DOWN
	°F	FAHRENHEIT	6 x 8	-	DUCT SIZE
	FLA	FULL LOAD AMPS	Ş}	-	ACOUSTIC LINING
	FPM	FEET PER MINUTE	VD T	VD	VOLUME DAMPER
	HP	HORSE POWER	T	-	THERMOSTAT/TEMPERATURE SENSOR
	Hz	HERTZ		-	SQUARE VANED ELBOW
	IEER	INTEGRATED ENERGY EFFICIENT RATIO	FD-	FD	FIRE DAMPER WITH ACCESS DOOR
	LAT	LEAVING AIR TEMPERATURE		NEW	NEW WORK
	TSP	TOTAL STATIC PRESSURE		-	DUCT TRANSITION FROM RECTANGLE TO ROUND
	RPM	REVOLUTIONS PER MINUTE		-	FLEXIBLE DUCTWORK
	ACCU	AIR COOLED CONDENSING/ HEAT PUMP UNIT	_	SEER	SEASONAL ENERGY EFFICIENT RATING
	MAX.	MAXIMUM		А	AMPS
	BTUH	BRITISH THERMAL UNITS	_	DX	DIRECT EXPANSION
	GS&R	GLYCOL WATER SUPPLY & RETURN		LPS	LOW PRESSURE STEAM

SYMBOLS AND ABBREVIATIONS

MECHANICAL PIPING MATERIAL SCHEDULE											
SERVICE	SIZE (IN)	MATERIAL	TYPE/WEIGHT	STANDARD							
CONDENSATE DRAIN	ALL	PVC	SCHEDULE 40 DWV	ASTM D 2665							
REFRIGERANT	ALL	COPPER	HARD OR ANNEALED TYPE ACR	ASTM B 280							
STEAM	ALL	BLACK STEEL	SCHEDULE 40	ASTM A 53							
STEAM CONDENSATE & STEAM VENT	ALL	BLACK STEEL	SCHEDULE 80	ASTM A 53							
GLYCOL WATER	4" AND UP	BLACK STEEL	SCHED 40	ASTM A 53							
GLYCOL WATER	3" & DOWN	COPPER	HARD DRAWN TYPE L TUBING	ASTM B 88							

MECHANICAL PIPING FITTING SCHEDULE											
SERVICE SIZE (IN) MATERIAL TYPE/WEIGHT STANDARD											
CONDENSATE DRAIN	ALL	PVC	SCHEDULE 40 DWV SOLVENT CEMENT	ASTM D 3034 ASTM D 2855							
REFRIGERANT	ALL	COPPER	SILVER SOLDER 300 PSI	ANSI B 16.22							
STEAM	ALL	CARBON STEEL	STANDARD WEIGHT WELDING TYPE	ASME B 16.9							
STEAM CONDENSATE & STEAM VENT	ALL	CAST IRON	EXTRA HEAVY WEIGHT SCREWED ENDS	ASME B 16.4							
GLYCOL WATER	4" & UP	CARBON STEEL	BUTT WELDED OR FLANGED	ASME ASME B 16.9 234							
GLYCOL WATER	3" & DOWN	WROUGHT COPPER	SOLDER	ASME B 16.22							

SINGLE DUCT VAV BOX SCHEDULE														
TAG	AREA SERVED	MODEL	SIZE		DESIGN CFM CFM RANGE		ELECTRIC HEATING COIL							
		MODEL	UNIT	INLET	MAX.	MIN.	MIN.	MAX.	KW	EAT/LAT	MAX. COIL AIR PD.	VOLTS	PHASE	NUMBER OF STEPS
VAV-1	CONFERENCE ROOM 115	DESV	16	16	2400	1600	300	3000	N/A	N/A	N/A	N/A	N/A	N/A
VAV-2	REFER TO PLANS	DESV	08	08	675	350	90	900	N/A	N/A	N/A	N/A	N/A	N/A
VAV-3	REFER TO PLANS	DESV	08	08	600	300	90	900	N/A	N/A	N/A	N/A	N/A	N/A
VAV-4	REFER TO PLANS	DESV	06	06	300	150	45	500	N/A	N/A	N/A	N/A	N/A	N/A
VAV-5	TAPROOM 103	DESV	14	14	1700	1700	300	3000	N/A	N/A	N/A	N/A	N/A	N/A
VAV-6	TAPROOM 103	DESV	12	12	1100	1100	190	2000	N/A	N/A	N/A	N/A	N/A	N/A
VAV-7	LOBBY 102	DESV	14	14	1450	950	300	3000	13	55/98	0.38"	480	3	2
VAV-8	TAPROOM 103	DESV	14	14	1800	150	300	3000	N/A	N/A	N/A	N/A	N/A	N/A
VAV-9	MEN 127 & WOMEN 130	DESV	06	06	350	150	45	500	N/A	N/A	N/A	N/A	N/A	N/A

- VAV BOXES BASED ON TITUS.
- ALL VAV BOXES SHALL BE COMPLETE WITH FACTORY MOUNTED SHEET-METAL CONTROL ENCLOSURE, 24 VOLT CONTROL TRANSFORMER, DISCONNECT SWITCH, HANGER BRACKETS, AND FIBER-FREE CLOSED-CELL POLYMER FOAM INSULATION.
- AUTOMATIC TEMPERATURE CONTROLS CONTRACTOR SHALL FURNISH AND INSTALL ALL VAV BOX CONTROLS WITHIN FACTORY CONTROL ENCLOSURE. 4. CONTRACTOR SHALL VERIFY LEFT OR RIGHT HAND CONTROL ENCLOSURE MOUNTING AND PIPING CONNECTIONS PRIOR TO ORDERING.
- MAXIMUM ALLOWANCE STATIC PRESSURE DROP FOR BOX SHALL BE 0.5".
- MAXIMUM DISCHARGE NC<28 AND MAXIMUM RATED NC<30.
- VAV BOXES WITH ELECTRIC REHEAT COILS SHALL BE COMPLETE WITH: INTEGRAL CONTROL PANEL HOUSED IN NEMA 1 ENCLOSURE, PRIMARY AUTOMATIC RESET THERMAL CUT-OUT, SECONDARY MANUAL RESET THERMAL CUT-OUT, DIFFERENTIAL PRESSURE AIRFLOW SWITCH, LINE TERMINAL BLOCK, INTEGRAL DOOR INTERLOCK DISCONNECT SWITCH, AND MERCURY CONTACTORS.

S

Revisions:

DDITIONS TO THIS DOCUMENT

VIOLATION OF SECTION 7209

HE NEW YORK STATE EDUC AW. THESE DOCUMENTS REMA

IGINEER, AND MAY NOT BE

OF THE ENGINEER.

FOR ANY PURPOSE WHATSO

10/15/21

b No. 4.1552.01

ile No. 4155201 M70

I. STRAPS AND RODS ARE GALVANIZED STEEL 2. TABLE ALLOWS FOR CONVENTIONAL WALL THICKNESS, AND JOINT SYSTEMS

TWO 3/8" TWO 1" X 18 ga. TWO 1" X 16 ga. 61" - 84" TWO 3/8" ___