

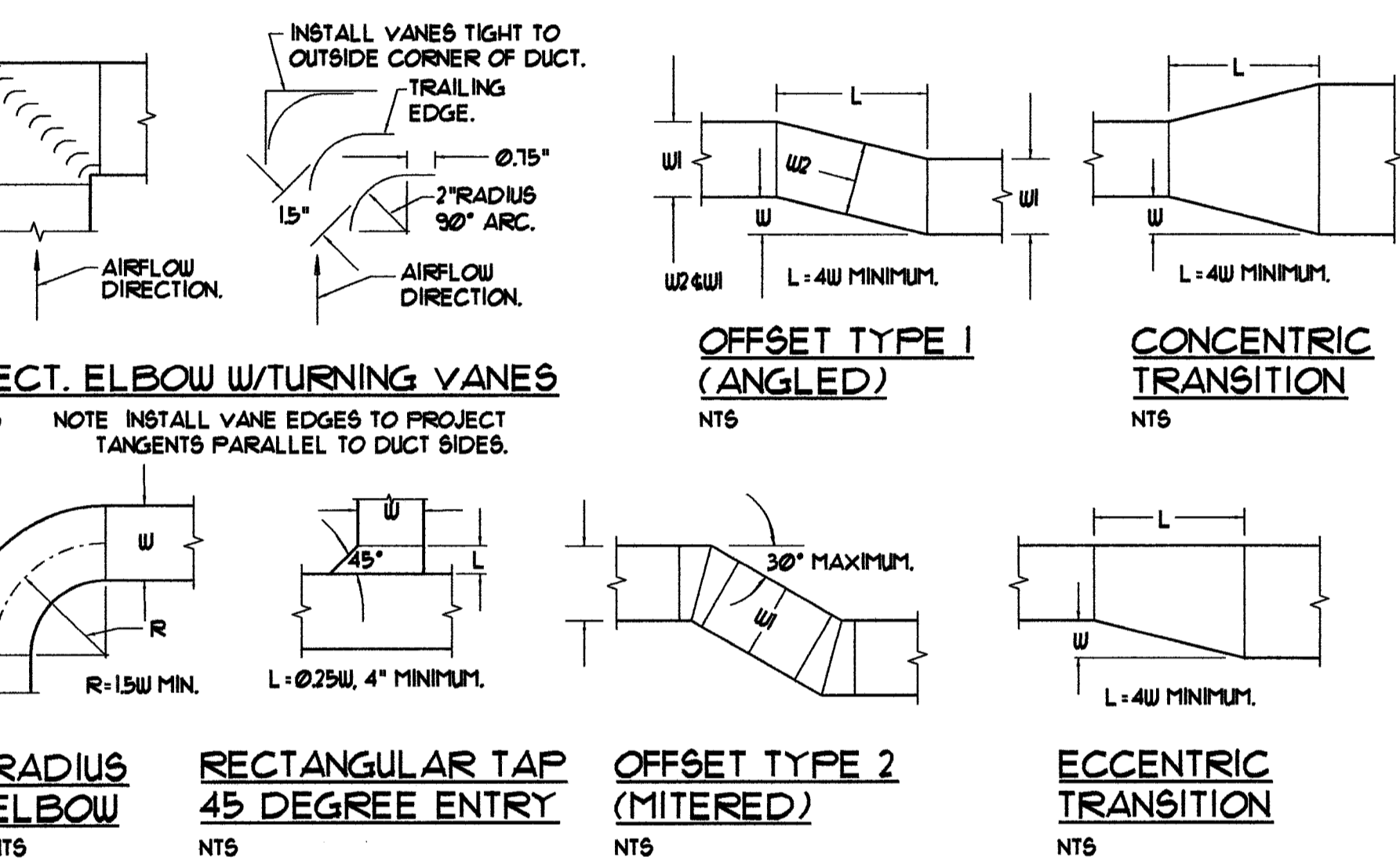
FAN PERFORMANCE SCHEDULE

TAG	AIRFLOW (CFM)	T.S.P (INWG)	NOISE (SONES)	RPM	DRIVE	ELECTRICAL REQUIREMENTS				BASIS OF DESIGN - GREENHECK			
						HP	BHP	WATTS	AMPS	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
EF-1						NOT USED							
EF-2	1000	0.25	14.8	1583	DIRECT	1/2	-	-	-	120/1/60	WELDING AREA EXHAUST	DOWNBLAST	G-123-VG
EF-3	1000	0.5	19.4	2601	BELT	3/4	-	-	-	200/3/60	PAINT BENCH EXHAUST	UPBLAST	TCBRU-1-09

AIR DEVICE PERFORMANCE SCHEDULE

TAG	PANEL SIZE (IN)	NECK SIZE (IN)	AIRFLOW (CFM)	SPL0.66 (INWG)	THROW (L)	Nc	BASIS OF DESIGN - METALAIR		
							DUCT CONN (IN)	PATTERN	MODEL
A	24x24	6x6	100	0.05	-	25	SEE DWGS	SEE DWGS	5000D
B	24x24	12x12	350	0.05	-	25	SEE DWGS	SEE DWGS	5000D
C	24x24	10"x	350	0.05	-	25	SEE DWGS	SEE DWGS	M5E-HC
AA	-	8x8	100	0.05	-	25	SEE DWGS	1/2", 45°	RHD
BB	-	12x12	400	0.05	-	25	SEE DWGS	1/2", 45°	RHD
CC	-	22x22	1050	0.05	-	25	SEE DWGS	1/2", 45°	RHD
DD	-	18x12	900	0.05	-	25	SEE DWGS	1/2", 45°	RHD

1 - SET MINIMUM TO 50% OF MAXIMUM, CONTROL FROM T'STAT ON WALL



LOW PRESSURE DUCT CONSTRUCTION DETAILS - TYPICAL

NTS

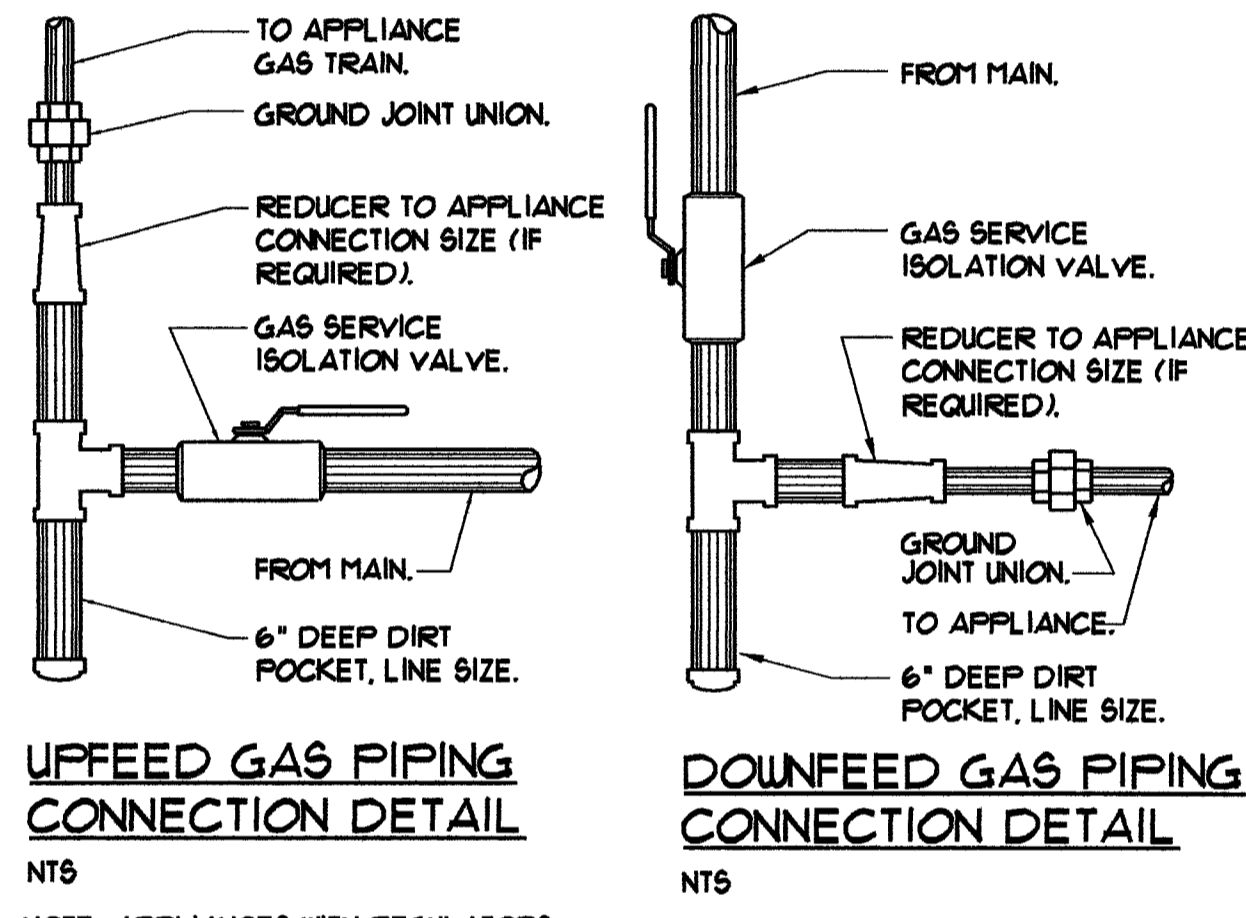
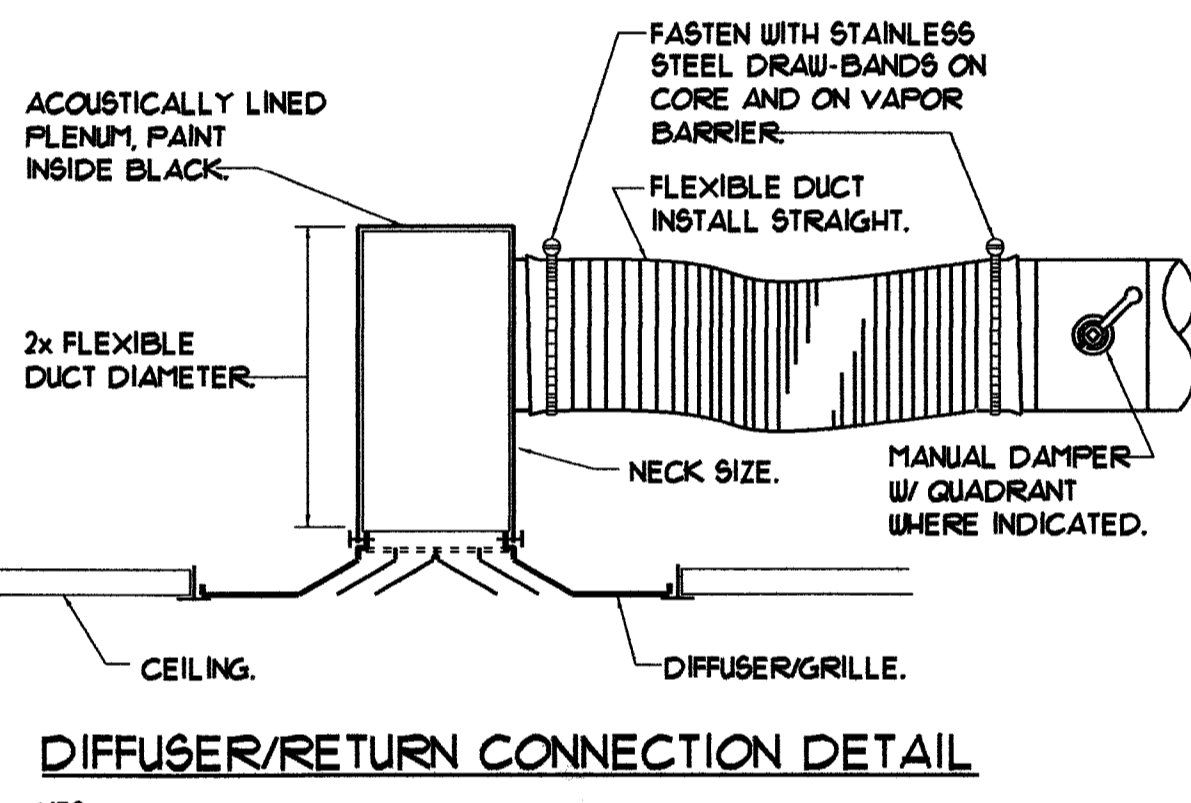
PACKAGED ROOFTOP UNIT PERFORMANCE SCHEDULE

TAG	NOMINAL COOLING (TONS)	TOTAL COOLING (MBH)	SENSIBLE COOLING (MBH)	EDB/ EWB (°F)	TOTAL AIRFLOW (CFM)	E.S.P (INWG)	SUPPLY FAN RPM	MINIMUM O.A. (CFM)	FUEL INPUT (MBH)	HEATING OUTPUT (MBH)	EER (BTU/WATT)	WEIGHT (LBS)	TYPE OF REFRIGERANT	ELECTRICAL REQUIREMENTS				BASIS OF DESIGN - DAIKIN		
														HP	MCA	MOCP	V/PH/Hz	SERVICE	MODEL	
HVAC-1	1.5	86.6	68.1	16.6/16.3	3000	0.15	180	300	150.0	1215	11.2	1400	R-410a	NAT GAS	2.0	18.5	20.0	460/3/60	SECOND FLR OFFICES	YSC032

PROVIDE ALL UNITS WITH DUAL ENTHALPY ECONOMIZER

GAS UNIT HEATER PERFORMANCE SCHEDULE

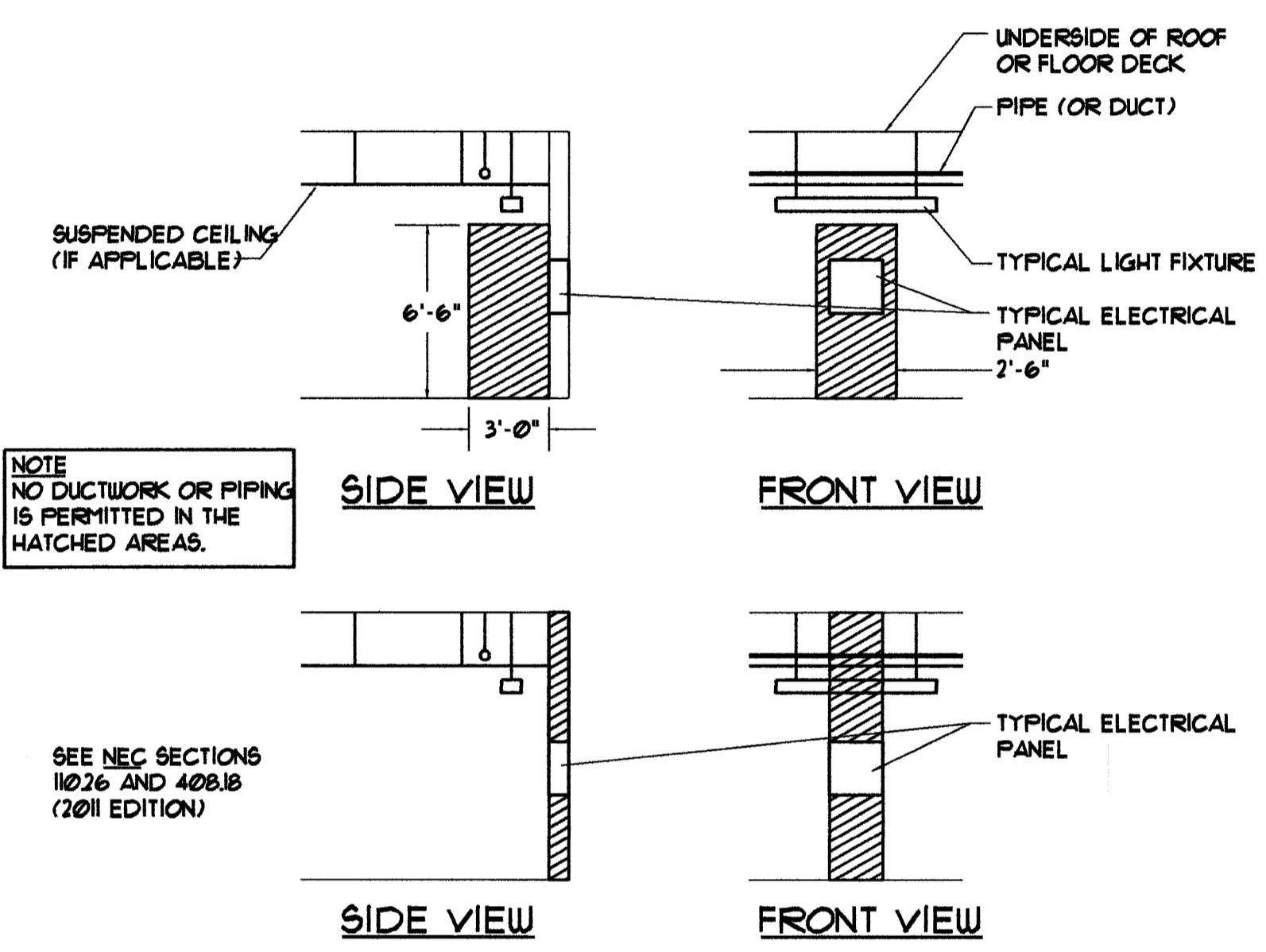
TAG	INPUT (MBH)	OUTPUT (MBH)	THERMAL EFF. %	AIRFLOW (CFM)	FUEL	ELECTRICAL REQUIREMENTS				BASIS OF DESIGN - REZTOR		
						HP	FLA	MOCP	V/PH/Hz	SERVICE	ARRANGEMENT	MODEL
UH-1	60.0	49.0	82.0	769	NAT GAS	1/6	3.3	15.0	115/1/60	FUTURE OFFICES	HORIZONTAL	UDAS-60



PLUMBING FIXTURE CONNECTION SCHEDULE

TAG	DESCRIPTION	SAN	VENT	CW	HW
P-4	ADA SINGLE BOUL 66 SINK	1-1/2"	1-1/2"	1/2"	1/2"
P-4A	DOUBLE BOUL 66 SINK	1-1/2"	1-1/2"	1/2"	1/2"

MINIMUM SIZE OF BELOW SLAB SANITARY 4 VENT PIPING SHALL BE 2".



MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND

NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET. SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
CA	COMPRESSED AIR PIPING (CA)	BACKFLOW PREVENTER (BFP)	BACKFLOW PREVENTER (BFP)	①-5	PRESSURE GAGE WITH GAGE COCK	AAV	AUTOMATIC AIR VENT	EDB	ENTERING DRY BULB	I-B-R	INSTITUTE OF BOILER AND RADIATOR MANUFACTURERS	RLA	RUNNING LOAD AMPS
C	CONDENSATE DRAIN PIPING (C)	CHECK VALVE	CHECK VALVE	②	THERMOMETER IN WELL	AD	ACCESS DOOR	EDC	ELECTRIC DUCT COIL TAG	IN	INCHES	RPM	REVOLUTIONS PER MINUTE
CTR	COOLING TOWER RETURN PIPING (CTR)	BALANCING VALVE (ADJUSTABLE)	BALANCING VALVE (ADJUSTABLE)	③	WATER FLOW SWITCH	AF	ABOVE FINISHED FLOOR	EER	ENERGY EFFICIENCY RATIO	L	LOUVER TAG	RPS	REVOLUTIONS PER SECOND
CTS	COOLING TOWER SUPPLY PIPING (CTS)	AUTOMATIC FLOW CONTROL VALVE	AUTOMATIC FLOW CONTROL VALVE	④	PRESSURE SWITCH OR SENSOR	AHJ	AIR HANDLING UNIT TAG	EF	EXHAUST FAN TAG	LAT	LEAVING AIR TEMPERATURE	RPZ	REDUCED PRESSURE ZONE
CWR	CHILLED WATER RETURN PIPING (CWR)	RELIEF VALVE (RV)	RELIEF VALVE (RV)	⑤	EMERSION TEMPERATURE SENSOR	AMS	AIRFLOW MONITORING STATION	EFF	EFFICIENCY	LB	POUNDS	RTU	ROOM TEMPERATURE SENSOR
CWS	CHILLED WATER SUPPLY PIPING (CWS)	BALL VALVE	BALL VALVE	⑥	DUCT MOUNTED SMOKE DETECTOR	AMPS	AMPERES	ESP	EXTERNAL STATIC PRESSURE	LB/R	POUNDS PER SQUARE FOOT	RV	RELIEF VALVE
FOR	FUEL OIL RETURN PIPING (FOR)	BALL VALVE	BALL VALVE	⑦	ROOM TEMPERATURE SENSOR	AP	ACCESS PANEL	ET	EXPANSION TANK TAG	LUB/R	LOOP WATER SUPPLY/RETURN	RUL	RAINWATER LEADER
FOS	FUEL OIL SUPPLY PIPING (FOS)	3/4" BALL VALVE WITH 3/4" HOSE END	3/4" BALL VALVE WITH 3/4" HOSE END	⑧	THERMOSTAT OR SENSOR ON WALL	APD	AIR PRESSURE DROP	EWB	ENTERING WET BULB	LRA	LOCKED ROTOR AMPS	SA	SUPPLY AIR
G	GAS PIPING (G)	GATE VALVE	GATE VALVE	⑨	TSTAT OR SENSOR W/ TAMPERPROOF GUARD	AS	AIR SEPARATOR TAG	EWB	ELECTRIC WATER HEATER TAG	LWCO	LOW WATER CUTOFF	SAN	SANITARY (DRAIN & WASTE)
HUR	HOT WATER RETURN PIPING (HUR)	PRESSURE REDUCING VALVE	PRESSURE REDUCING VALVE	⑩	MANUAL AIR VENT	ATC	AUTOMATIC TEMPERATURE CONTROL	EUT	ENTERING WATER TEMPERATURE	LWT	LEAVING WATER TEMPERATURE	SD	SMOKE DAMPER
HWS	HOT WATER SUPPLY PIPING (HWS)	FUSIBLE VALVE	FUSIBLE VALVE	⑪	NOTE TAG (NUMBER)	BD	BYPASS DAMPER TAG	EXG	EXISTING	MAX	MAXIMUM	SEER	SEASONAL ENERGY EFFICIENCY RATIO
RL	REFRIGERANT LIQUID PIPING (RL)	STRAINER W/BLOWDOWN BALL VALVE	STRAINER W/BLOWDOWN BALL VALVE	⑫	AIR DEVICE TAG (LETTER) WITH CFM	BFP	BACKFLOW PREVENTER TAG	EXH	EXHAUST	MBH	THOUSANDS OF BTU PER HOUR	SF	SUPPLY FAN
RG	REFRIGERANT GAS PIPING (RG)	2-WAY CONTROL VALVE	2-WAY CONTROL VALVE	⑬	ROOM NUMBER	BHP	BRAKE HORSEPOWER	FC	FLEXIBLE CONNECTION	MCA	MINIMUM CIRCUIT AMPACITY	SP	STATIC PRESSURE
-----	SANITARY PIPING BELOW FLOOR (SAN)	SOLENOID VALVE	SOLENOID VALVE	⑭	TURNING VANES	BTUH	BRITISH THERMAL UNITS PER HOUR	FCO	FLOOR CLEANOUT	MIN	MINIMUM	SGFT	SQUARE FEET
-----	SANITARY PIPING ABOVE FLOOR (SAN)	3-WAY CONTROL VALVE	3-WAY CONTROL VALVE	⑮	DUCT W/MANUAL DAMPER	CC	COOLING COIL TAG	FD	FIRE DAMPER	NC	NOISE CRITERION	ΔT	TEMPERATURE DIFFERENTIAL
-----	SANITARY VENT PIPING	3-WAY CONTROL VALVE (TOP VIEW)	3-WAY CONTROL VALVE (TOP VIEW)	⑯	DUCT W/FLEXIBLE CONNECTION (FC)	CFM	CUBIC FEET PER MINUTE	FD	FLOOR DRAIN TAG	NIC	NOT IN CONTRACT	TEMP	TEMPERATURE
-----	RAINWATER LEADER ABOVE SLAB (RUL)	4-WAY CONTROL VALVE (TOP VIEW)	4-WAY CONTROL VALVE (TOP VIEW)	⑰	CLEANOUT	CO	CLEANOUT	FLA	FULL LOAD AMPS	NTS	NOT TO SCALE	TEMP	TEMPERATURE CONTROL PANEL
-----	COLD WATER PIPING (CW)	2 BUTTERFLY VALVES W/SINGLE ACTUATOR	2 BUTTERFLY VALVES W/SINGLE ACTUATOR	⑱	DUCT W/ACOUSTIC LINING	CP	CIRCULATING PUMP TAG	FFHB	FROST PROOF HOSE BIBB	OA	OUTSIDE AIR	THV	THERMOSTATIC MIXING VALVE TAG
-----	HOT WATER PIPING (HW)	BUTTERFLY VALVE W/ACTUATOR	BUTTERFLY VALVE W/ACTUATOR	⑲	DUCT W/SQUARE-TO-ROUND TRANSITION	Cv	VALVE COEFFICIENT	FFM	FEET PER MINUTE	OSD	OPPOSED BLADE DAMPER	TSP	TOTAL STATIC PRESSURE
-----	RECIRCULATED HOT WATER PIPING (RHW)	TRIPLE-DUTY VALVE	TRIPLE-DUTY VALVE	⑳	FLEXIBLE DUCT	CW	COLD WATER	FSO	COMBINATION FIRE & SMOKE DAMPER	OD	OUTSIDE DIAMETER	TYP	TYPICAL
---	PIPE CAP	UNION	UNION	㉑	MOTOR OPERATED DAMPER	DB	DRY BULB	FT	FEET	OED	OPEN ENDED DUCT	UH	UNIT HEATER TAG
→	DIRECTION OF FLUID FLOW	PIPE FLANGE	PIPE FLANGE	㉒	AIRFLOW OUT	dB RE	DECIBELS RELATIVE TO	GA	GAGE	OPD	OVERCURRENT PROTECTIVE DEVICE	VB	VACUUM BREAKER
↘	ELBOW UP	PUMP WITH FLANGES	PUMP WITH FLANGES	㉓	AIRFLOW IN	DC	DOUBLE CHECK	GAL	GALLONS	P	PLUMBING FIXTURE TAG	VFD	VARIABLE FREQUENCY INVERTER DRIVE
↙	ELBOW DOWN	BASE MOUNTED PUMP	BASE MOUNTED PUMP	㉔	DIAMETER OR FLAT OVAL	DCA	DOUBLE CHECK ATMOSPHERIC	GPH	GALLONS PER HOUR	PENETN	PENETRATION	VTR	VENT THRU ROOF
+	PIPE TEE UP	CARTRIDGE TYPE INLINE PUMP	CARTRIDGE TYPE INLINE PUMP	㉕	FIRE DAMPER	DEG F	DEGREES FAHRENHEIT	GPM	GALLONS PER MINUTE	FF	PADDLE FAN TAG	V/PH/Hz	VOLTS/PHASES/HERTZ
+	PIPE TEE DOWN	VERTICAL INLINE PUMP	VERTICAL INLINE PUMP	㉖	ROUND OR FLAT OVAL DUCT DOWN	DIA	DIAMETER	HC	HEATING COIL TAG	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	WB	WET BULB
+	PIPE REDUCER	FLEXIBLE PIPE CONNECTION (FC)	FLEXIBLE PIPE CONNECTION (FC)	㉗	ROUND OR FLAT OVAL DUCT UP	DIW	DOWN IN WALL	HP	HORSEPOWER	PSIG	POUNDS PER SQUARE INCH GAGE	WCO	WALL CLEANOUT
+	PIPE WITH GUIDE	RETURN GRILLE	RETURN GRILLE	㉘	SUPPLY DIFFUSER	DN	DOWN	HRV	HEAT RECOVERY VENTILATOR TAG	PVC	POLYVINYL CHLORIDE (PIPE)	WG	WATER GAGE
+	PIPE WITH ANCHOR	STEAM TRAP	STEAM TRAP	㉙	WATER HAMMER ARRESTOR	EA	EXHAUST AIR	HU	HOT WATER	RA	RETURN AIR	WPD	WATER PRESSURE DROP
+	BUTTERFLY VALVE					EAT	ENTERING AIR TEMPERATURE	HU/R	HOT WATER SUPPLY AND RETURN	RD	ROOF DRAIN	WBA	WIRE SIZING AMPS
+	OS & Y GATE VALVE									RDE	RECOMMENDED DUAL ELEMENT FUSE AMPS	WTD	WATER TEMPERATURE DROP
										RHW	RECIRCULATED HOT WATER	W	WITH

REVISIONS

NO.	DATE	DESCRIPTION
1	06/03/2015	ISSUED FOR CONSTRUCTION