

Revisions

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NO. 1	ADDENDUM 1
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Sheet Information	
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Title	
MECHANICAL COVER SHEET	
Sheet	
M00-01	

MECHANICAL DEMOLITION NOTES

- ALL PIPING IN WALLS AND FLOORS NOT TO BE REUSED WILL BE PLUGGED OR CAPPED AND CUTTING AND PATCHING WILL BE PERFORMED TO RESTORE SURFACE TO ORIGINAL CONDITION BY HIS CONTRACTOR.
- AFTER REMOVING PIPE THROUGH THE FLOOR SLABS, PACK OPENING WITH APPROVED FIRE-RATED PACKING.
- THE CONTRACTOR SHALL INCLUDE IN HIS PRICE ALL COSTS ASSOCIATED WITH REMOVALS AND RELOCATIONS OF HVAC WORK AS DESCRIBED ON THE DRAWINGS AND IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR ADDITIONAL WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED EXCEPT IN CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE OWNER/ENGINEER.
- THE CONTRACTOR SHALL PERFORM DEMOLITION AND REMOVAL WORK WITH MINIMUM INTERFERENCE WITH FUNCTIONING HVAC SYSTEMS. ALL AFFECTED SYSTEMS SHALL BE RECONNECTED AND RESTORED.
- DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
- THE CONTRACTOR SHALL REMOVE ALL DUCT & PIPING SUPPORTS, ETC. FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING PIPING THAT IS TO REMAIN, THE CONTRACTOR SHALL INSTALL AND PROVIDE BYPASS CONNECTIONS NECESSARY.
- ALL PIPING WHICH BECOMES EXPOSED DURING THE ALTERATION WORK SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.
- PORTIONS OF PIPING & DUCTWORK TO BE REMOVED OR ABANDONED AS A RESULT OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ACTIVE, SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED.
- THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS.
- ALL EXISTING MATERIAL AND EQUIPMENT IN USABLE CONDITION, WHICH IS TO BE REMOVED UNDER THIS CONTRACT, SHALL REMAIN THE PROPERTY OF THE OWNER OR SHALL BE DISPOSED OF BY THE HVAC CONTRACTOR, AS DIRECTED BY THE OWNER.
- ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVER TIME, IF REQUIRED, TO ASSURE THAT SYSTEMS WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO THE EXISTING SYSTEMS.
- THE SHUTDOWN OF EXISTING BUILDING HVAC SERVICES SHALL BE COORDINATED WITH THE OWNER. MAKE ARRANGEMENTS AT LEAST 5 BUSINESS DAYS PRIOR TO A SHUTDOWN.
- CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE & LOCAL REQUIREMENTS REGARDING DISPOSAL OF REFRIGERANTS.

MECHANICAL GENERAL NOTES

- GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL HVAC/MECHANICAL DRAWINGS.
 - ALL WORK IS NEW UNLESS OTHERWISE NOTED.
 - DRAWINGS ARE DIAGRAMMATIC. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD. RELOCATE EXISTING WORK THAT INTERFERES WITH WORK OF THIS CONTRACT.
 - COORDINATE THIS WORK WITH THAT OF OTHER TRADES.
 - DIMENSIONS SHOWN ON PLAN ARE HORIZONTAL. DIMENSIONS SHOWN IN ELEVATION ARE VERTICAL EXCEPT IN WAY OF STRUCTURAL STEEL. DIMENSIONS ARE MEASURED PERPENDICULAR TO FLANGE.
 - NEITHER ACCURACY NOR COMPLETION OF SERVICES AND UTILITY LOCATIONS SHOWN ON DRAWINGS IS GUARANTEED. DETERMINE EXACT LOCATIONS OF EXISTING SERVICES AND UTILITIES IN FIELD, WHETHER OR NOT SHOWN ON DRAWINGS. EXERCISE CAUTION AND IDENTIFY LOCATIONS OF UNMARKED UTILITY LINES AS NECESSARY TO PERFORM WORK OF THIS SECTION.
 - MANUFACTURER'S MODEL NUMBERS ARE SPECIFIED SOLELY TO ESTABLISH STANDARDS OF QUALITY FOR PERFORMANCE AND MATERIALS.
 - PRODUCT INSTALLATION SHALL ADHERE TO MANUFACTURERS RECOMMENDATIONS.
 - PROVIDE ACCESS PANELS FOR EQUIPMENT THAT REQUIRES PERIODIC SERVICE.
 - PROVIDE HANGERS, INSERTS, ANCHORS, SUPPLEMENTAL STEEL & SUPPORTS AS REQUIRED TO SUPPORT DUCTWORK, PIPING AND EQUIPMENT FROM STRUCTURE.
 - SCHEDULE WORK OF THIS SECTION TO AVOID INTERFERING WITH EXISTING OPERATIONS IN THE FACILITY.
 - COORDINATE ROOF PENETRATIONS WITH WORK OF OTHER SECTIONS AND WITH FLASHING REQUIREMENTS. MECHANICAL CONTRACTOR TO NOTIFY OWNER PRIOR TO STARTING WORK TO VERIFY COMPLIANCE WITH BOND AND WARRANTY OF EXISTING ROOF.
 - RUN DUCTS AND PIPING CONCEALED, UNLESS OTHERWISE SPECIFIED AND CLEAR OF CEILING INSERTS.
 - INSTALL THERMOSTATS 4" ABOVE FINISHED FLOOR OR AS DIRECTED OTHERWISE BY ARCHITECT.
 - STRUCTURAL WELDING SHALL BE CONTINUOUS 1/4" FILLET UNLESS REQUIRED OTHERWISE.
- AIR SYSTEMS**
- AIR SYSTEMS REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF AIR DEVICES.
 - INTERNAL AIRFLOW DIMENSIONS ARE SHOWN FOR DUCTS. INCREASE DUCT SIZE AS NECESSARY TO MAINTAIN FREE FLOW AREA INDICATED.
 - USE FLAT TRANSVERSE SEAM FOR DUCTWORK WHERE SPACE AVAILABLE DICTATES.
 - DIFFUSER SIZES SHOWN ARE NECK SIZES. REGISTERS AND GRILLE SIZES ARE NOMINAL.
 - PROVIDE VOLUME DAMPERS OR OTHER APPROVED BALANCING DEVICES AT DUCT BRANCHES AND RUN OUTS, AND AT REGISTER GRILLE AND DIFFUSER NECKS IN SUPPLY, RETURN AND EXHAUST DUCTWORK WHETHER SHOWN OR NOT.
 - PROVIDE 3" CLEARANCE IN FRONT OF ALL ELECTRIC CONTROL PANELS PER N.E.C. AND MFG. REQUIREMENTS.
 - PROVIDE DUCT TRANSITIONS FROM VAV BOX INLET/OUTLET DUCT WORK AT SIZES INDICATED TO VAV BOX INLET/OUTLET UNIT CONNECTIONS.
 - VAV DUCT INLET SIZE SHALL BE AS SCHEDULED OR AS INDICATED ON THE FLOOR PLANS. PROVIDE TRANSITION FROM DUCT SIZE INDICATED ON THE FLOOR PLANS TO SCHEDULED SIZE MINIMUM 2'-0" FROM VAV BOX INLETS.
- PIPING SYSTEMS**
- PITCH PIPING 1" IN 20' IN DIRECTION OF FLOW.
 - PROVIDE TRAPS IN CONDENSATE LINES THAT EXTEND OVER 2'.

MECHANICAL DRAWING LIST

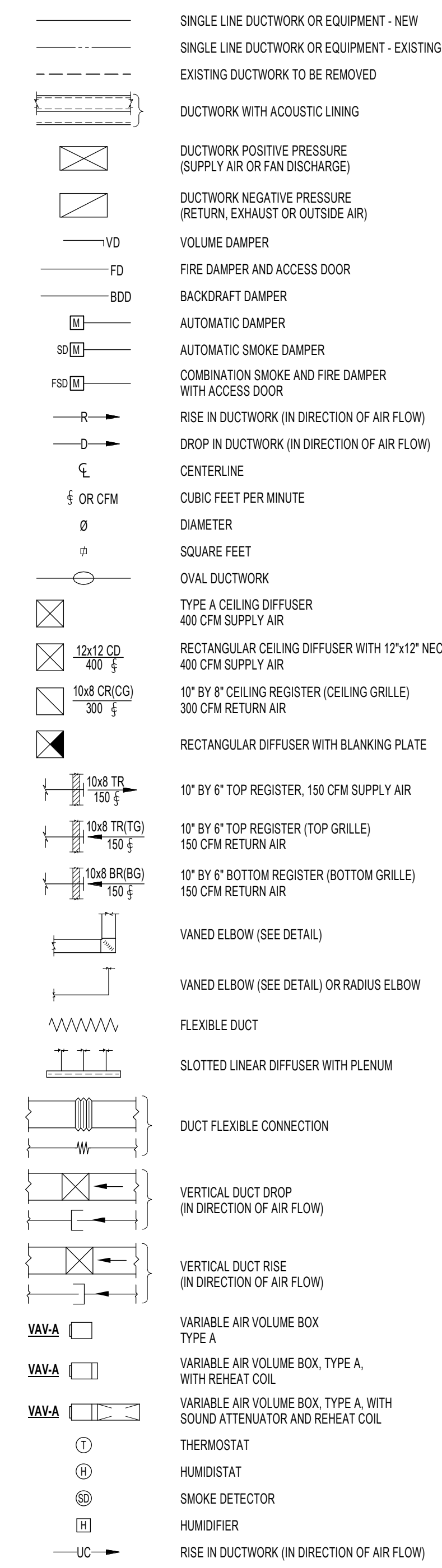
DRAWING No.	DRAWING TITLE
M00-01	MECHANICAL COVER SHEET
M01-08	MECHANICAL BASEMENT DUCTWORK DEMOLITION PLAN
M02-08	MECHANICAL BASEMENT PIPING DEMOLITION PLAN
M03-08	MECHANICAL BASEMENT DUCTWORK PLAN
M04-08	MECHANICAL BASEMENT PIPING PLAN
M04-02	MECHANICAL LEVEL 2 PIPING PLAN
M05-00	MECHANICAL DETAILS
M06-00	MECHANICAL SCHEDULES

MECHANICAL ABBREVIATIONS

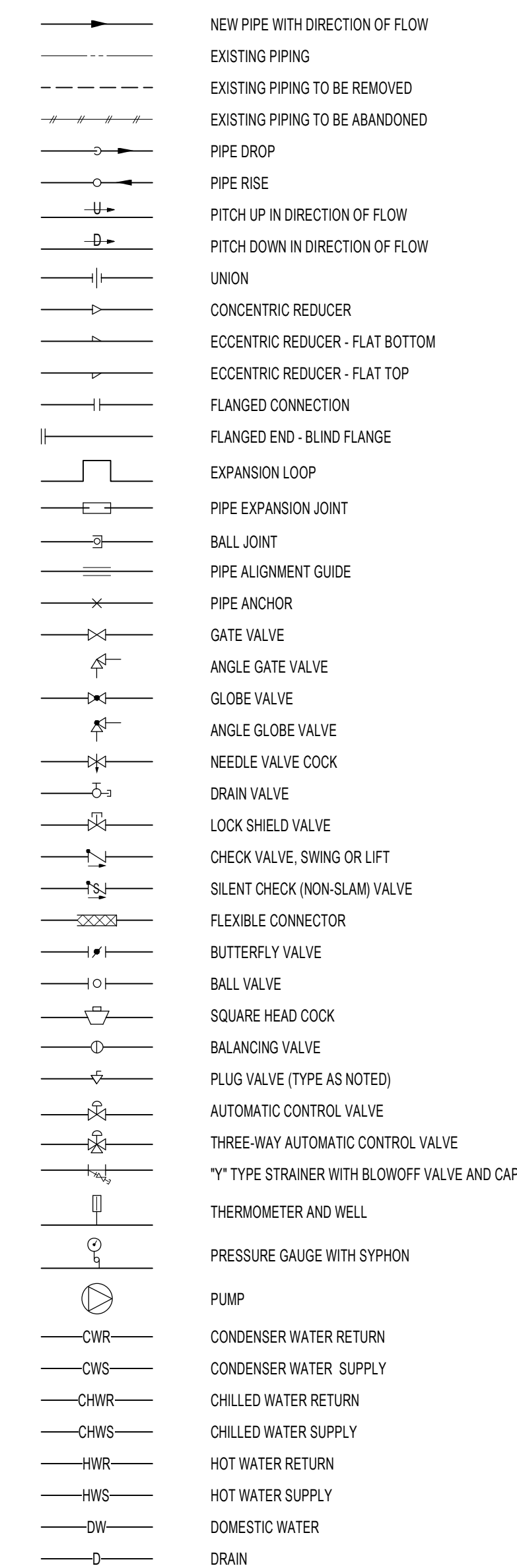
A	AMPERES	HR	HOURLY
AAV	AUTOMATIC AIR VENT	HRC	HEAT RECOVERY COIL
AC	AIR CONDITIONING	HT	HEIGHT
ACCU	AIR COOLED CONDENSING UNIT	HTWP	HIGH TEMPERATURE WATER PUMP
ACS	AUTOMATIC CONTROL SYSTEM	HV	HEATING AND VENTILATING
ACU	AIR CONDITIONING UNIT	HWP	HOT WATER PUMP
AD	ACCESS DOOR	HXP	HEAT EXCHANGER
AF	AFTER FILTER	HZ	FREQUENCY
AFW	AIR FLOW DOUBLE WIDTH	IN	INCH OR INCHES
AF	ABOVE FINISHED FLOOR	IPS	IRON PIPE SIZE
AFMS	AIR FLOW MONITORING STATION	KW	KILOWATT
AFSW	AIR FOIL SINGLE WIDTH	KX	KITCHEN RANGE HOOD EXHAUST
AHJ	AIR HANDLING UNIT	L	LENGTH
AL	ALUMINUM	LAT	LEAVING AIR TEMPERATURE
AMCS	AUTOMATED MONITORING AND CONTROL SYSTEM	LBS	POUNDS
AP	ACCESS PANEL	LCP	LOCAL CONTROL PANEL
BAD	BOTTOM ANGULAR DISCHARGE	LD	LINEAR DIFFUSER
BD	BLOW DOWN	LD	LEAVING DRY BULB TEMPERATURE
BF	BOOSTER FAN	LF	LINEAR FEET
BFP	BOTTOM GRILLE	LR	LINEAR RETURN
BG	BOILER FEED PUMP	LRA	LOCKED ROTOR AMPS
BHD	BOTTOM HORIZONTAL DISCHARGE	LV	LOW VELOCITY
BHP	BRAKE HORSEPOWER	LWB	LEAVING WET BULB TEMPERATURE
BIDW	BACKWARD INCLINE DOUBLE WIDTH	LWT	LEAVING WATER TEMPERATURE
BISW	BACKWARD INCLINE SINGLE WIDTH	MAV	MANUAL AIR VENT
BMS	BUILDING MANAGEMENT SYSTEM	MAX	MAXIMUM
BR	BOTTOM REGISTER	MB	MIXING BOX
BT	BOTTOM THROAT	MBH	THOUSAND BTU PER HOUR
BTU	BRITISH THERMAL UNIT	MCC	MOTOR CONTROL CENTER
BTUH	BTU PER HOUR	MER	MECHANICAL EQUIPMENT ROOM
C	CONVERTOR	MHP	MOTOR HORSEPOWER
CAC	CONTROL AIR COMPRESSOR	MN	MINIMUM
CC	COOLING COIL	MM	MILLIMETER
CCP	CENTRAL CONTROL PANEL	MOT	MOTOR
CCW	COUNTER CLOCKWISE	MOV	MOTOR OPERATED VALVE
CD	CEILING DIFFUSER	MX	MECHANICAL ROOM EXHAUST
CFCC	CAP FOR FUTURE CONNECTION	N.O.	NORMALLY OPEN
CFM	CUBIC FEET PER MINUTE	NC	NORMALLY CLOSED
CFP	CHEMICAL FEED PUMP	NIC	NOT IN CONTRACT
CG	CEILING GRILLE	NO	NUMBER
CH	CHILLER	NFSH	NET POSITIVE SUCTION HEAD NOT TO SCALE
CHWP	CHILLED WATER PUMP	P	PUMP
CLG	CEILING	PCC	PRE-COOLING COIL
CO	CLEAN-OUT DOOR	PD	PRESSURE DROP
COMP	COMPRESSOR	PF	PRE-FILTER
COND	CONDENSATE	PHC	PREHEAT COIL
COV	CHAIR OPERATED VALVE	PRV	PRESSURE REDUCING VALVE
CP	CONDENSATE PUMP	PSIA	POUNDS PER SQUARE INCH ABSOLUTE
CPA	CONTROL POINT ADJUSTMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
CPU	CONDENSATE PUMP UNIT	(RE)	RELOCATED EXISTING
CR	CEILING REGISTER	(RRO)	EXISTING TO BE REMOVED AND RETURN TO OWNER
CT	COOLING TOWER	R	RISE
CU FT	CUBIC FEET	RA	RETURN AIR
CU IN	CUBIC INCHES	RAD	RADIATION
CUH	CABINET UNIT HEATER	RCC	RECOILING COIL
CV	CONSTANT VOLUME	REFR	REFRIGERANT
OW	CLOCKWISE	RF	RETURN FAN
CWP	CONDENSER WATER PUMP	RH	RELATIVE HUMIDITY
°C	DEGREES CENTIGRADE (CELSIUS)	RHC	REHEAT COIL
D	DROP	RHW	REHEAT WATER PUMP
DB	DRY BULB	RLA	RUNNING LOAD AMPS
DBD	DOWN BLAST DISCHARGE	RM	ROOM
DF	DUCT FURNACE UNIT	ROT	ROTATION
DFWP	DEARATOR FEED WATER PUMP	RPM	REVOLUTIONS PER MINUTE
DG	DIESEL GENERATOR	SA	SUPPLY AIR
DHW	DOMESTIC HOTER WATER	SAU	SOUND ATTENUATION UNIT
DMR	DAMPER	SCWHP	SECONDARY CHILLED WATER PUMP
DN	DOWN	SD	SMOKE DETECTOR
DOP	DIESEL OIL PUMP	SF	SUPPLY FAN
DWG	DRAWING	SHWP	SECONDARY HOT WATER PUMP
DX	DIRECT EXPANSION	SID	STRIPLINE DIFFUSER
Ø/DIAM	DIAMETER	SMKCTL	SMOKE CONTROL OPERATION
(E)	EXISTING TO REMAIN	SP	STATIC PRESSURE
(ER)	EXISTING TO BE REMOVED	SPEC	SPECIFICATION
(ERR)	EXISTING TO BE REMOVED & RELOCATED	SQ.FT.	SQUARE FEET
EA	EACH	SS	STAINLESS STEEL
EAT	ENTERING AIR TEMPERATURE	SX	SMOKE EXHAUST
EDB	ENTERING DRY BULB TEMPERATURE	T	THROAT
EDH	ELECTRIC DUCT HEATER	TAD	TOP ANGULAR DISCHARGE
EDR	EQUIVALENT DIRECT RADIATION	TDH	TOTAL DYNAMIC HEAD
EF	EXHAUST FAN	TEMP	TEMPERATURE
EL	ELEVATION	TF	TERMINAL FILTER
ELEV	ELECTRIC	THG	TOP GRILLE
ELEV	ELEVATOR	THD	TOP HORIZONTAL DISCHARGE
EQ	EQUAL	TR	TOP REGISTER
ET	EXPANSION TANK	TRD	TRANSFER DUCT
EUH	ELECTRIC UNIT HEATER	TRF	TRANSFER FAN
EWB	ENTERING WET BULB	TRG	TRANSFER GRILLE
EWI	ENTERING WET TEMPERATURE	TS	TIP SPEED
EXH	EXHAUST	TT	TOP THROAT
EXIST	EXISTING	TV	TURNING VANES
EXP	EXPANSION	TX	TOILET EXHAUST
F	FILTER	TYP	TYPICAL
F&T	FLOAT AND THERMOSTATIC	USD	UPBLAST DISCHARGE
FA	FREE AREA (SQ.FT.)	UH	UNIT HEATER
FC	FLEXIBLE CONNECTION	UN	UNLESS OTHERWISE NOTED
FCW	FORWARD CURVED DOUBLE WIDTH	V	VOLTS
FCSW	FORWARD CURVED SINGLE WIDTH	VA	VENTILATION AIR
FCU	FAN COIL UNIT	VAC	VACUUM
FD	FIRE DAMPER	VAV	VARIABLE AIR VOLUME UNIT
FF	FINAL FILTER	VF	VENTILATION FAN
FG	FINISHED GRADE	VFD	VARIABLE FREQUENCY DRIVE
FIN.FL	FINISHED FLOOR	VIV	VARIABLE INLET VANES
FLA	FULL LOAD AMPERES	VP	VACUUM PUMP
FOP	FUEL OIL PUMP	W	WIDTH
FOT	FUEL OIL TANK	W	WITH
FPI	FINS PER INCH	WO	WITHOUT
FPM	FEET PER MINUTE	WB	WET BULB
FPS	FEET PER SECOND	WC	WATER COLUMN
FR	FLOOR REGISTER	WG	WATER GAUGE
FT	FEET	WMS	WIRE MESH SCREEN
FTR	FINED TUBE RADIATION	WP	WORKING PRESSURE
FV	FACE VELOCITY	WSP	WORKING STEAM PRESSURE
FX	FUME HOOD EXHAUST		
°F	DEGREES FAHRENHEIT		
G	GAUGE		
GAL	GALLON		
GPH	GALLONS PER HOUR		
GPM	GALLONS PER MINUTE		
GX	GENERAL EXHAUST		
H	HUMIDIFIER		
HALX	HALON EXHAUST		
HC	HEATING COIL		
HD	HEAD		

MECHANICAL SYMBOL LIST

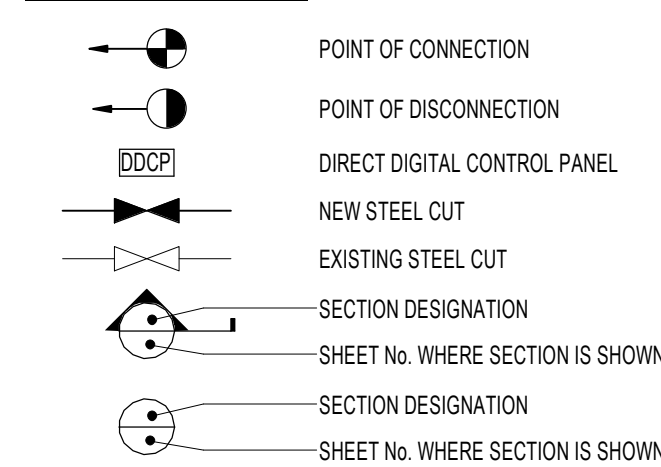
HVAC DUCTWORK



HVAC PIPING



HVAC GENERAL



HVAC EQUIPMENT DESIGNATIONS

