MECHANICAL LEGEND

(NOT ALL SYMBOLS LISTED BELOW ARE BEING USED IN THIS SET OF MECHANICAL DRAWINGS)

SYMBOL DOUBLE	SYMBOL SINGLE	ABBR	DESCRIPTION
HVAC:			
			RETURN DUCT UP
			SUPPLY DUCT UP
			EXHAUST DUCT UP
			SUPPLY DUCT DOWN
			RETURN DUCT DOWN
			EXHAUST DUCT DOWN
			ROUND DUCT DOWN
			ROUND DUCT UP
			DUCT DROP
			TRANSITION-RECT. TO RECT. OR ROUND TO ROUND
			TRANSITION-RECT. TO ROUND
			VANED ELBOW
			CAPPED DUCTWORK
			EXISTING DUCTWORK NO CHANGE
			EXISTING DUCTWORK TO BE REMOVED
(1L)	(1L)		DUCT W/ INTERNAL LINING 1L= 1" THICK 2L= 2" THICK
		FD	FIRE DAMPER
		FSD	FIRE SMOKE DAMPER, CONTROLLED BY DUCT SMOKE DETECTOR
FSD (C)	FSD (C)		FIRE SMOKE DAMPER, CONTROLLED BY CORRIDOR AREA SMOKE DETECTOR
		MD	MOTORIZED DAMPER
		MVD	MANUAL VOLUME DAMPER W/ LOCKING QUADRANT
		BD	BACKDRAFT DAMPER
			CONICAL TAP
			CONICAL SPIN-IN FITTING W/ MANUAL VOLUME DAMPER
			SUPPLY DIFFUSER-4-WAY THROW
			SUPPLY DIFFUSER-3-WAY THROW
			SUPPLY DIFFUSER-2-WAY THROW
			SUPPLY DIFFUSER-1-WAY THROW
			SUPPLY SLOT DIFFUSER
		RA	RETURN AIR GRILLE
			LOW PRESSURE FLEXIBLE DUCT
		AP	CEILING ACCESS PANEL
			HUMIDIFIER
			FLEXIBLE DUCT CONNECTION

SYMBOL	ABBR	DESCRIPTION
PIPING:		
	(E)	EXISTING PIPING
		EXISTING PIPING TO BE REMOVED
—A—	A	CONTROL AIR (PNEUMATIC)
—BD—	BD	BOILER BLOW DOWN
—BF—	BF	BOILER FEED
—BO—	BO	BLOW OFF
—CF—	CF	CHEMICAL FEEDER
—PCS—	PCS	PROCESS COOLING WATER SUPPLY
—PCR—	PCR	PROCESS COOLING WATER RETURN
	HWS	HEATING WATER SUPPLY
	HWR	HEATING WATER RETURN
—HTWS—	HTWS	HIGH TEMP. HOT WATER SUPPLY
—HTWR—	HTWR	HIGH TEMP. HOT WATER RETURN
	CHWS	CHILLED WATER SUPPLY
	CHWR	CHILLED WATER RETURN
	CWS	CONDENSER WATER SUPPLY
	CWR	CONDENSER WATER RETURN
	LPS	LOW PRESSURE STEAM SUPPLY
	MPS	MEDIUM PRESSURE STEAM SUPPLY
	HPS	HIGH PRESSURE STEAM SUPPLY
	LPCR	LOW PRESSURE STEAM CONDENSATE RETURN
	MPR	MEDIUM PRESSURE STEAM CONDENSATE RETURN
	HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
	PR	PUMPED CONDENSATE RETURN
—F—	FS	FUEL OIL SUPPLY
—F—	FR	FUEL OIL RETURN
—RHG—	RHG	REFRIGERANT HOT GAS
—DR—	DR	EQUIP. DRAIN
—D—	D	INDIRECT DRAIN
—V—	V	VENT
—IW—	IW	INDUSTRIAL WATER
—SCW—	SCW	SOFT COLD WATER
FITTINGS:		
	P & T	PRESSURE/ TEMPERATURE PORT TAPS
	CR	CONCENTRIC REDUCER
	ER	ECCENTRIC REDUCER
EJ	EJ	EXPANSION JOINT
	U	UNION
		THERMOMETER W/THERMOWELL
	AV	AIR VENT
	FC	FLEXIBLE PIPE CONNECTOR
FS	FS	FLOW SWITCH
PS	PS	PRESSURE SWITCH
	PG	PRESSURE GAUGE W/GAUGE COCK
		ELBOW UP
		ELBOW DOWN
		TEE UP
		TEE DOWN
		PIPE CAP OR PLUG

NOTES

1. NEW DUCTWORK IS HEAVY LINE WEIGHT AND/OR SHADED.

SYMBOL	ABBR	DESCRIPTION
VALVES:		
	GV	GATE VALVE
	OS&Y	OUTSIDE STEM AND YOKE
	DV	DRAIN VALVE W/ HOSE END CONN.
		BALL VALVE W/ HOSE CONNECTION
	CV	CHECK VALVE WITH INDICATION OF FLOW DIRECTION
	PRV	PRESSURE REDUCING VALVE
S	SV	SOLENOID VALVE
FC	FCV	AUTO FLOW CONTROL VALVE W/ TEST PORTS
	CS,BV	CIRCUIT SETTER OR BALANCING VALVE
	GLV	GLOBE VALVE (STRAIGHT PATTERN)
	GLV	GLOBE VALVE (ANGLE PATTERN)
	BFV	BUTTERFLY VALVE
	BV	BALL VALVE
	TCV	AUTOMATIC TEMP. CONTROL VALVE, 2-WAY
	TCV	AUTOMATIC TEMP. CONTROL VALVE, 3-WAY
	PV	PLUG VALVE
TPR	TPR	TEMPERATURE/ PRESSURE RELIEF VALVE
		VALVE IN RISER
	STR	STRAINER W/ BLOW-OFF & CAPPED HOSE-END CONNECTION
		STEAM TRAP
SYMBOLS:		
E M		SECTION NO. / SECTION VIEW SHEET NO.
F M1		DETAIL DESIGNATION
F-1		EQUIPMENT DESIGNATION
H		SHEET KEY NOTES
	POC	POINT OF CONN. (CONN. NEW TO EXISTING)
	POD	POINT OF DISCONNECTION
DR A 250 CFM (X)		AIR DEVICE CALL OUT, TYP. OF (X) DEVICES.
TYPE FENCES	BB	BASEBOARD CALL OUT
(E)	(E) T	EXIST. THERMOSTAT
T	T	NEW THERMOSTAT
TS		SPACE TEMPERATURE SENSOR
H		SPACE HUMIDISTAT
HS		SPACE HUMIDITY SENSOR
PS		SPACE PRESSURE SENSOR
CD		CARBON DIOXIDE SENSOR
CM		CARBON MONOXIDE SENSOR
S		DUCT MOUNTED SMOKE DETECTOR
		ARROW INDICATES DIRECTION OF FLOW
UP		RISE IN DIRECTION OF AIRFLOW
DN		DROP IN DIRECTION OF AIRFLOW
	WL	EXTERIOR WALL LOUVER (UNDER ARCH. SECTION)

SYMBOL	ABBR	DESCRIPTION
SYMBOLS:		
UC	UC	UNDERCUT DOOR (UNDER ARCH. SECTION)
D/L	D/L	DOOR LOUVER (UNDER ARCH. SECTION)
L/D	L/D	LOUVER DOOR FULL HEIGHT. (UNDER ARCH. SECTION)
		RETURN/ EXHAUST AIR FLOW SYMBOL
		SUPPLY AIR FLOW SYMBOL
ABBREVIATIONS:		
(R)	(R)	REMOVE OR RELOCATE
(E)	(E)	EXISTING (PARENTHESIS AROUND ITEM INDICATES IT IS EXISTING)
(N)	(N)	NEW
	DN	DOWN
	AFF	ABOVE FIN. FLOOR
	AFG	ABOVE FIN. GRADE
	TOD	TOP OF DUCT (AFF)
	BOD	BOT. OF DUCT (AFF
	TOP	TOP OF PIPE (AFF)
	NTS	NOT TO SCALE
	AF	AFTER FILTER
	AFF	ABOVE FINISHED FLOOR
	AH	AIR HANDLING UNIT
	AL	ALUMINUM
	AMB.	AMBIENT
	AP	ACCESS PANEL
	B	BOILER
	BHP	BRAKE HORSE POWER
	BTUH	BRITISH THERMAL UNIT PER HOUR
	CAV	CONSTANT AIR VOLUME
	CC	COOLING COIL
	CFH	CUBIC FEET PER HOUR
	CFM	CUBIC FEET PER MINUTE
	CH	CHILLER
	COP	COEFFICIENT OF PERFORMANCE
	CRU	CONDENSATE RETURN UNIT
	CV	CONSTANT VOLUME
	dB	DECIBEL
	DB	DRY-BULB
	DDC	DIRECT DIGITAL CONTROL
	DEFL	DEFLECTION
	DIA	DIAMETER
	DN	DOWN
	DP	DISCHARGE PLENUM
	DWG	DRAWING
	EA	EXHAUST AIR
	EDR	EFFECTIVE DIRECT RADIATION
	EER	ENERGY EFFICIENT RATIO
	EF	EXHAUST FAN
	EFF	EFFICIENCY
	ENT	ENTERING
	ESP	EXTERNAL STATIC PRESSURE
	°F	DEGREE FAHRENHEIT
	FC	FAN COIL UNIT
	F.G.	FIBERGLASS
	FF	FINAL FILTER
	FLA	FULL LOAD AMP.
	FPI	FINS PER INCH
	FPM	FEET PER MINUTE
	FRIC.	FRICTION
	FT	FLASH TANK
	FS	FLOOR SINK
	FT. W.C.	FEET WATER COLUMN

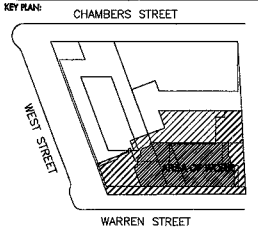
SYMBOL	ABBR	DESCRIPTION
ABBREVIATIONS:		
	GAL	GALLON
	GPH	GALLONS PER HOUR
	GPM	GALLONS PER MINUTE
	GV	GRAVITY VENTILATOR, GATE VALVE
	HC	HEATING COIL
	HP	HORSEPOWER
	HU	HUMIDIFIER SECTION
	HZ	HERTZ
	IN. W.C.	INCH WATER COLUMN
	ISOL.	ISOLATOR
	KW	KILOWATTS
	LBS	POUNDS
	LBS/HR	POUNDS PER HOUR
	LVG.	LEAVING
	MA	MAKE-UP AIR
	MAX.	MAXIMUM
	MCA	MINIMUM CIRCUIT AMP
	MBH	THOUSAND BTUH
	MCA	MIN. CIRCUIT AMPS.
	MCC	MOTOR CONTROL CENTER
	MIN.	MINIMUM
	MOCP	MAX. OVER CURRENT PROTECTION
	MTL	METAL
	MUA	MAKE-UP AIR UNIT
	NC	NOISE CRITERIA
	OA	OUTSIDE AIR
	O.C.	ON CENTER
	OPNG	OPENING
	P	PUMP
	P.D.	PRESSURE DROP/ DIFFERENTIAL
	PF	PRE-FILTER
	PRESS	PRESSURE
	PSIG	POUNDS PER SQUARE INCH GAUGE
	PWL	SOUND POWER LEVEL
	QTY.	QUANTITY
	RA	RETURN AIR
	REF	REFERENCE
	RF	RETURN FAN
	RH	RELATIVE HUMIDITY
	RLA	RUNNING LOAD AMP
	RPM	REVOLUTION PER MINUTE
	ROD	REQUIRED
	SA	SUPPLY AIR
	SCFM	STANDARD AIR CUBIC FEET PER MINUTE
	SF	SUPPLY FAN
	SHT	SHEET
	SPECS	SPECIFICATIONS
	S.P.	STATIC PRESSURE
	SQ.	SQUARE
	SS	STAINLESS STEEL
	ST	SOUND TRAP
	TG	TRANSFER GRILLE
	TSP	TOTAL STAIC PRESSURE
	TYP	TYPICAL
	UH	UNIT HEATER
	UON	UNLESS OTHERWISE NOTED
	UTR	UP THROUGH ROOF
	VAV	VARIABLE AIR VOLUME
	VEL.	VELOCITY
	VSD	VARIABLE SPEED DRIVE
	VTR	VENT THROUGH ROOF
	WB	WET-BULB
	WF	WATER FILTRATION
	WMS	WIRE MESH SCREEN
	W/	WITH
	W/O	WITHOUT

KEY NOTES:

GENERAL NOTES:

1. CONTRACTOR SHALL REFER TO EXISTING CONDITION (BASE BUILDING) DRAWINGS FOR LOCATION OF EXISTING UTILITY ROOMS, PIPING, CONDUIT, AND FOR ADDITIONAL INFORMATION.

KEY PLAN:



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ISSUES / REVISIONS:

NO.	DATE	ISSUE / REVISION	BY	CH
1	12.19.05	ISSUED FOR CLIENT REVIEW	GO	--
2	12.23.05	ISSUED FOR PRELIMINARY PRICING	GO	LK
3	02.22.06	ISSUED FOR PRELIMINARY PRICING	GO	LK
4	07.07.06	ISSUED FOR BID		
5	05.11.07	ISSUED FOR BID/CONSTRUCTION		

PLAN NORTH:

DRAWING SCALE: AS NOTED

0 2 4 8 12 20
IN FEET

PROJECT NUMBER:

02-2167-0100

SEAL:

RECEIVED
MAY 18 2007

DRAWING TITLE:

MECHANICAL SYMBOL LIST

BP MECHANICAL CORP

DRAWING NUMBER:

M-101