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LEGEND		
SINGLE LINE	DOUBLE LINE	DESCRIPTION
		FIRST DIMENSION DENOTES VIEW SHOWN; RECTANGULAR OR OVAL
		RISE OR DROP IN DIRECTION OF ARROW, RECTANGULAR DUCT
		TRANSITION, 10' MIN. LENGTH, 15' MAX. EACH SIDE, ROUND OR RECTANGULAR
		ACOUSTICAL LINED DUCT, LIMIT AS SHOWN, DIMENSIONS ARE NET INSIDE
		RECTANGULAR TO ROUND TRANSITION
		90° ELL W/TURNING VANES
		45° HEEL TAKE-OFF FITTING, RECTANGULAR DUCT
		CONICAL OR FLARED SPIN-IN OR CONICAL TAP ON RECTANGULAR DUCT
		18 INCH ROUND DUCT
		RISE OR DROP IN DIRECTION OF ARROW, ROUND DUCT
		ROUND DUCT ELBOW; R/D=1.5MIN.
		90° STRAIGHT TEE FITTING
		90° CONICAL TEE FITTING
		45° LATERAL FITTING
		45° CONICAL LATERAL FITTING
		DIVIDED FLOW FITTING
		Y - FITTING
		SUPPLY DUCT TURNING TOWARD
		SUPPLY DUCT TURNING AWAY
		RETURN DUCT TURNING TOWARD
		RETURN DUCT TURNING AWAY
		EXHAUST DUCT TURNING TOWARD
		EXHAUST DUCT TURNING AWAY
		ROUND DUCT TURNING TOWARD
		ROUND DUCT TURNING AWAY
		OVAL DUCT TURNING TOWARD
		OVAL DUCT TURNING AWAY
		BALANCE DAMPER OR VOLUME DAMPER
		FIRE DAMPER (FD), FIRE SMOKE DAMPER (FSD), BLAST GATE (BG), VOLUME DAMPER (VD), BALANCE DAMPER (BD)
		A10x8-150 SUPPLY REGISTER, TAG "A", 150 CFM, SIZE 10'x8"
		B10x8-150 RETURN OR EXHAUST REGISTER, TAG "B", 150 CFM, SIZE 10'x8"
		AB-150 CEILING SUPPLY DIFFUSER, TAG "A", 150 CFM, 8' NECK SIZE
		B CEILING RETURN REGISTER, TAG "B", SEE SCHEDULE FOR SIZE
		C CEILING EXHAUST REGISTER, TAG "C", SEE SCHEDULE FOR SIZE
		BALANCE DAMPER
		SECTION A / SHEET M1
		UNIT TYPE, FLOOR, AH UNIT NO.
		EQUIP. MARK NO. M1 / SEE EQUIP. SCHEDULE
		REVISION
		SHEET NOTE
		THERMOSTAT

DESIGN CRITERIA

PROJECT LOCATION:
SKYLINE COLLEGE
SAN MATEO, CA

CALIFORNIA CLIMATE ZONE: 3

OUTDOOR DESIGN CONDITIONS (ASHRAE CLIMATIC DATA):
SUMMER 84°F DB/65°F WB, 70°F DESIGN WB
WINTER 31°F DB

INDOOR DESIGN CONDITIONS: COOLING (SUMMER) HEATING (WINTER)
ALL AREAS N/A - VENTILATION 72°F

LEGEND	
SYMBOL	DESCRIPTION
	POINT OF CONNECTION
	MOTOR OPERATOR
	EXISTING TO BE REMOVED
	PUMP
	BALL VALVE
	BALANCE VALVE/CIRCUIT SETTER
	BUTTERFLY VALVE
	CHECK VALVE - SWING TYPE
	CHECK VALVE - NON SLAM TYPE
	CONTROL VALVE (2-WAY), ELECT., PNEU.
	CONTROL VALVE (3-WAY), ELECT., PNEU.
	TRIPLE DUTY VALVE
	GLOBE VALVE
	GATE VALVE
	PRESSURE REDUCING VALVE
	PRESSURE RELIEF VALVE
	MANUAL AIR VENT, W/3/8" COCK W/DISCHARGE TO DRAIN
	FLOW CONTROL VALVE - AUTOMATIC
	LOCKSHIELD GATE VALVE
	FLOW METER
	ANGLE VALVE
	DIAPHRAGM VALVE
	COCK VALVE
	PLUG VALVE
	STRAINER
	QUICK DISCONNECT
	SUCTION DIFFUSER
	BASKET STRAINER
	FLEXIBLE PIPE CONNECTION
	AUTOMATIC AIR VENT
	HOSE BIBB
	STRAINER W/ BLOW-OFF VALVE
	CONCENTRIC PIPE REDUCER
	ECCENTRIC PIPE REDUCER/TOP FLAT
	ECCENTRIC PIPE REDUCER/BOTTOM FLAT
	FILTER
	PRESSURE GAUGE
	THERMOMETER
	FLOW SWITCH
	THERMOMETER SENSOR WELL
	UNION
	FLANGE
	ARCH
	AUXILIARY CONTACT
	ACID WASTE DRAIN
	ACID WASTE VENT
	BACKDRAFT DAMPER
	BALANCE DAMPER
	BOTTOM FLAT
	BACK FLOW PREVENTER
	BELOW FINISHED FLOOR
	BLAST GATE
	BRAKE HORSEPOWER
	BREAK (OPEN) CONTACT
	BUILDING
	BOTTOM OF DUCT
	BOTTOM OF PIPE
	BY-PASS TIMER
	BRITISH THERMAL UNITS PER HOUR
	BALANCE VALVE
	COMMON
	COMPRESSED AIR
	CELL DIFFUSER
	CONDENSATE DRAIN LINE
	COOLING COIL
	CLEAN DRY AIR
	CAP FOR FUTURE
	CUBIC FEET OF AIR PER MINUTE
	CHILLED WATER RETURN
	CHILLED WATER SUPPLY
	DDC CONTACT INPUT
	CHECK VALVE
	CENTERLINE
	CEILING
	DDC CONTACT OUTPUT
	CONCRETE
	CONNECT, CONNECTION
	CONTRACTOR
	CONNECT TO EXISTING
	CITY WATER (DOMESTIC)
	CONDENSER WATER RETURN
	CONDENSER WATER SUPPLY
	DIRECT ACTING, DAMPER ACTUATOR
	DRY BULB TEMPERATURE
	DIRECT DIGITAL CONTROL
	DRINKING FOUNTAIN
	DIGITAL INPUT
	DEIONIZED WATER RETURN
	DEIONIZED WATER SUPPLY
	DOOR LOUVER
	DOWN
	DIGITAL OUTPUT
	DIFFERENTIAL PRESSURE
	DIFFERENTIAL PRESSURE SWITCH
	DIFFERENTIAL PRESSURE TRANSMITTER
	DISCONNECT SWITCH
	DRAWING
	EXISTING
	EXHAUST AIR OR EACH
	EXHAUST AIR DAMPER
	ENTERING AIR TEMPERATURE
	EXHAUST FAN EFFICIENCY
	EXHAUST GRILLE
	EMERGENCY POWER
	EQUAL
	EXHAUST REGISTER
	EMERGENCY SHOWER
	EMERGENCY SHOWER & EYE WASH
	EVAPORATOR
	EMERGENCY EYE WASH
	EVAPORATIVE WATER COOLER
	ENTERING WATER TEMPERATURE
	EXHAUST
	FUTURE
	FAN COIL UNIT
	FLOW CONTROL VALVE
	FIRE DAMPER
	FINISHED FLOOR
	FLANGE

LEGEND	
SYMBOL	DESCRIPTION
	LINE CONTINUED
	LINE DOWN
	LINE UP
	LINE RISE OR DROP
	LINE BRANCH OFF FROM TOP
	LINE BRANCH OFF FROM BOTTOM
	LINE BRANCH OFF FROM SIDE
	SLOPE DOWN (DIRECTION OF ARROW)
	DIRECTION OF FLOW
	CHILLED WATER SUPPLY
	CHILLED WATER RETURN
	CONDENSER WATER SUPPLY
	CONDENSER WATER RETURN
	CONDENSATE DRAIN
	HOT WATER SUPPLY
	HOT WATER RETURN
	PRIMARY CHILLED WATER SUPPLY
	PRIMARY CHILLED WATER RETURN
	PROCESS COOLING WATER SUPPLY
	PROCESS COOLING WATER RETURN
	RETURN AIR
	REFRIGERANT LIQUID
	REFRIGERANT SUCTION
	SUPPLY AIR
	SECONDARY CHILLED WATER SUPPLY
	SECONDARY CHILLED WATER RETURN

ABBREVIATIONS	
ABBREV	DESCRIPTION
AAD	AUTOMATIC AIR DAMPER
AAV	AUTOMATIC AIR VENT
AD	ACCESS DOOR (IN DUCT OR EQUIPMENT)
ADJ	ADJUSTABLE
AE	ACID EXHAUST
AF	ABOVE FINISHED FLOOR
AFM	AIR FLOW MONITOR
AFS	AUTOMATIC FIRE SPRINKLER
AFS	AIR FLOW SWITCH
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AL	ACOUSTICAL LINING
ALUM	ALUMINUM
AMB	AMBIENT
AO	ANALOG OUTPUT
AP	ACCESS PANEL (IN CEILING OR WALL)
ARCH	ARCH
AUX	AUXILIARY CONTACT
AW	ACID WASTE DRAIN
AWV	ACID WASTE VENT
BDD	BACKDRAFT DAMPER
BD	BALANCE DAMPER
BF	BOTTOM FLAT
BFP	BACK FLOW PREVENTER
BFF	BELOW FINISHED FLOOR
BG	BLAST GATE
BHP	BRAKE HORSEPOWER
BK	BREAK (OPEN) CONTACT
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BT	BY-PASS TIMER
BTUH	BRITISH THERMAL UNITS PER HOUR
BV	BALANCE VALVE
C	COMMON
CA	COMPRESSED AIR
CD	CELL DIFFUSER
CD	CONDENSATE DRAIN LINE
CC	COOLING COIL
CDA	CLEAN DRY AIR
CFF	CAP FOR FUTURE
CFM	CUBIC FEET OF AIR PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CI	DDC CONTACT INPUT
CKV	CHECK VALVE
CLG	CENTERLINE
CEILING	CEILING
CO	DDC CONTACT OUTPUT
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONTR	CONTRACTOR
CTE	CONNECT TO EXISTING
CW	CITY WATER (DOMESTIC)
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
DA	DIRECT ACTING, DAMPER ACTUATOR
DB	DRY BULB TEMPERATURE
DDC	DIRECT DIGITAL CONTROL
DF	DRINKING FOUNTAIN
DI	DIGITAL INPUT
DIR	DEIONIZED WATER RETURN
DIS	DEIONIZED WATER SUPPLY
DL	DOOR LOUVER
DN	DOWN
DO	DIGITAL OUTPUT
DP	DIFFERENTIAL PRESSURE
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DIFFERENTIAL PRESSURE TRANSMITTER
DS	DISCONNECT SWITCH
DWG	DRAWING
(E) OR EXIST	EXISTING
EA	EXHAUST AIR OR EACH
EAD	EXHAUST AIR DAMPER
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN EFFICIENCY
EG	EXHAUST GRILLE
EP	EMERGENCY POWER
EQ	EQUAL
ER	EXHAUST REGISTER
ES	EMERGENCY SHOWER
ESE	EMERGENCY SHOWER & EYE WASH
EVAP	EVAPORATOR
EW	EMERGENCY EYE WASH
EWC	EVAPORATIVE WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
(F)	FUTURE
FC	FAN COIL UNIT
FDV	FLOW CONTROL VALVE
FD	FIRE DAMPER
FF	FINISHED FLOOR
FLG	FLANGE

ABBREVIATIONS	
ABBREV	DESCRIPTION
FLR	FLOOR
FM	FLOW METER
FMS	FLOW MEASURING STATION (AIR OR WATER MONITOR)
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOW SWITCH, FLOOR SINK
FSD	FIRE SMOKE DAMPER
FV	FACE VELOCITY
G	NATURAL GAS
GA	GALLON
GALV	GALVANIZED
GE	GENERAL EXHAUST
GET	GENERAL EXHAUST FAN
GPM	GALLONS PER MINUTE
GSM	GALVANIZED SHEET METAL
GYP	GYP-SUM BOARD
H	HOSE BIBB
HC	HEATING COIL
HOA	HAND-OFF AUTOMATIC SWITCH
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HTG	HEATING
HWAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER (DOMESTIC)
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
ICW	INDUSTRIAL COLD WATER
IP	INTERFACE PANEL
KW, KWH	KILOWATT, KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE
LMT	LEAVING WATER TEMPERATURE
MA	MILLIAMPS
MAU	MAKE-UP AIR UNIT
MAY	MANUAL AIR VENT, W/3/8" COCK W/DISCHARGE TO DRAIN
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MD	MANUAL DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MK	MAKE (CLOSED) CONTACT
N	NEUTRAL
(N)	NEW
NC	NORMALLY CLOSED
NG	NATURAL GAS
NMCC	NOT IN MECHANICAL CONTRACT
NO	NORMALLY OPEN; NUMBER
NIPC	NOT IN PLUMBING CONTRACT
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OLS	MOTOR STARTER OVERLOADS
PCHR	PRIMARY CHILLED WATER RETURN
PCHS	PRIMARY CHILLED WATER SUPPLY
PCV	PRESSURE CONTROL VALVE
PCWR	PROCESS COOLING WATER RETURN
PCWS	PROCESS COOLING WATER SUPPLY
PD	PRESSURE DROP; PIT DRAIN
PF	PREFILTER, PERFORATED FACE
PG	PRESSURE GAUGE
PH	PREHEAT COIL
PI	DDC PNEUMATIC INPUT
PLBG	PLUMBING
PO	DDC PNEUMATIC OUTPUT
POC	POINT OF CONNECTION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
R	RADIANT
RA	RETURN AIR, REVERSE ACTING
RD	ROOF DRAIN
REF	REFERENCE
REQD	REQUIRED
RG	RETURN GRILLE
RH	REHEAT COIL; RELATIVE HUMIDITY
RL	