



HARRIMAN

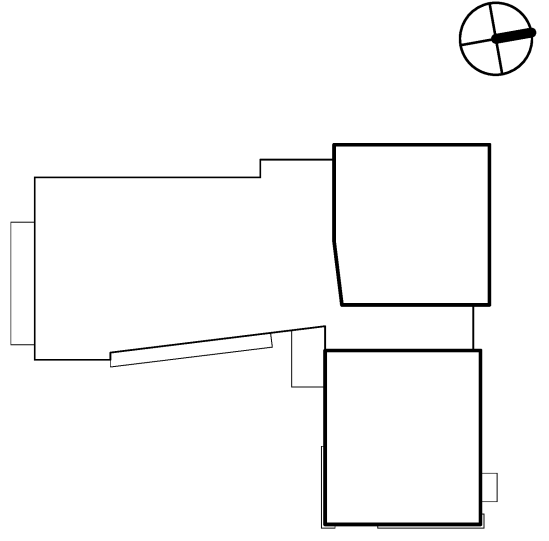
AUBURN PORTLAND MANCHESTER

JEWISH COMMUNITY ALLIANCE OF SOUTHERN MAINE

PORTLAND, ME

Harriman Project No. 15309

Key Plan Proj North



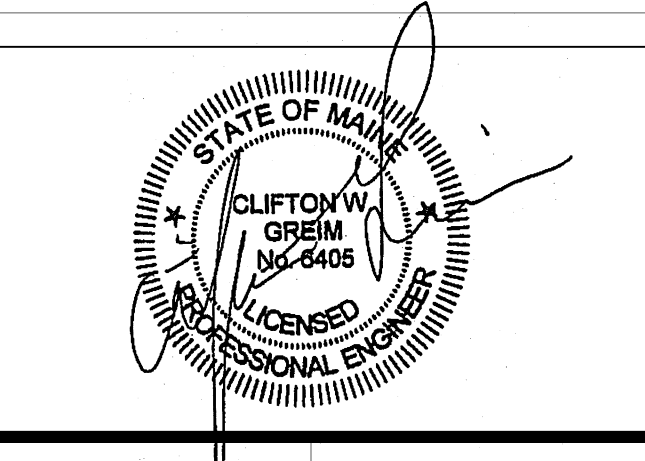
ABBREV	DESCRIPTION	ABBREV	DESCRIPTION
AAV	AUTOMATIC AIR VENT	LAT	LEAVING AIR TEMPERATURE
ACV	AUTOMATIC CONTROL VALVE	LPCR	LOW PRESSURE CONDENSATE RETURN
AD	ACCESS DOOR	LPS	LOW PRESSURE STEAM
AFF	ABOVE FINISHED FLOOR	LRA	LOCKED ROTOR AMPS
AFG	ABOVE FINISHED GRADE	LSGV	LOCK & SHIELD GATE VALVE
AHU	AIR HANDLING UNIT	LWT	LEAVING WATER TEMPERATURE
ALD	ACOUSTICAL LINED DUCT	MAX	MAXIMUM
AMS	AIRFLOW MEASURING STATION	MBSH	1000 BRITISH THERMAL UNITS
APD	AIR PRESSURE DROP	MCA	MINIMUM CIRCUIT AMPS
APPROX	APPROXIMATELY	MD	MOTORIZED DAMPER
ARC	AIR CURTAIN	MIN	MINIMUM
AS	AIR SEPARATOR	MOPD	MAXIMUM OVERCURRENT PROTECTIVE DEVICE
ATC	AUTOMATIC TEMPERATURE CONTROL	MPCR	MEDIUM PRESSURE CONDENSATE RETURN (16-30 PSIG)
AV	AIR VALVE	MPS	MEDIUM PRESSURE STEAM (16-30 PSIG)
B	BOILER	MUA	MAKE-UP AIR UNIT
BCP	BOILER CIRCULATING PUMP	NA	NOT APPLICABLE
BD	BAROMETRIC DAMPER	NC	NOISE CRITERIA
BDD	BACKDRAFT DAMPER	NIC	NOT IN CONTRACT
BHP	BRAKE HORSEPOWER	NO	NORMALLY OPEN
BOT	BOTTOM	NTS	NOT TO SCALE
BPD	BYPASS DAMPER	OA	OUTSIDE AIR
BSB	BRANCH SELECTOR BOX	OAHU	OUTDOOR AIR HANDLING UNIT
BTU	BRITISH THERMAL UNITS	OC	ON CENTER
C	CONVECTOR	OD	OPEN END DUCT
CBD	COUNTERBALANCED BACKDRAFT DAMPER	OS&Y	OUTSIDE SCREW & YOKE GATE VALVE
CC	COOLING COIL	OU	VRF OUTDOOR UNIT
CFD	CEILING FIRE DAMPER	PD	PRESSURE DROP
CFM	CUBIC FEET PER MINUTE	PRD	PRESSURE RELIEF DAMPER
CH	CHILLER	PRV	PRESSURE REDUCING VALVE
CHWC	CHILLED WATER COIL	PSF	POUNDS PER SQUARE FOOT
CO	CLEANOUT	PSI	POUNDS PER SQUARE INCH
COND	CONDENSER	RET	RETURN
CT	CONDENSATED RECEIVER	RF	RETURN AIR FAN
CTE	CONNECT TO EXISTING	RFM	RADIANT FLOOR MANIFOLD
CU	CONDENSING UNIT	RFP	RADIANT FLOOR PUMP
CUH	CABINET UNIT HEATER	RHC	REHEAT COIL
CV	CONSTANT VOLUME BOX	RL	REFRIGERANT LIQUID
CVU	CONVECTION UNIT	RLA	RATED LOAD AMPERES
CW	COLD WATER	RP	RADIANT PANEL
CWP	CHILLED WATER PUMP	RPM	REVOLUTIONS PER MINUTE
CWP	CONDENSER WATER PUMP	RS	REFRIGERANT SUCTION
DAC	DUCTLESS AC	RTU	ROOFTOP UNIT
DEG F	DEGREES FAHRENHEIT	SA	SOUND ATTENUATOR
DF	DUCT FURNACE	SD	SMOKE DAMPER
DHW	DOMESTIC HOT WATER	SDIFD	SMOKE AND FIRE COMBINATION DAMPER
DIA	DIAMETER	SF	SUPPLY FAN
DWP	DOMESTIC WATER PUMP	SG	SUPPLY GRILLE
EAH	EXHAUST AIR HOOD	SIP	SOURCE INJECTION PUMP
EAT	ENTERING AIR TEMPERATURE	SP	STATIC PRESSURE
EBH	ELECTRIC BASEBOARD HEATER	SP	SUMP PUMP
EF	EXHAUST FAN	SS	STAINLESS STEEL
EL	EXPANSION LOOP	TEMP	TEMPERATURE
ERV	ENERGY RECOVERY VENTILATOR	TF	TRANSFER FAN
ESP	EXTERNAL STATIC PRESSURE	TS	THERMOSTAT
ET	EXPANSION TANK	TT	THERMOSTATIC TRAP
EU	VRF INDOOR UNIT	TYP	TYPICAL
EUH	ELECTRIC UNIT HEATER	UH	UNIT HEATER
EUM	ELECTRIC UNIT HEATER	UV	UNIT VENTILATOR
EWT	ENTERING WATER TEMPERATURE	VAV	VARIABLE AIR VOLUME
EX	EXHAUST	VD	VOLUME DAMPER
EXG	EXISTING	VFD	VARIABLE FREQUENCY DRIVE
F&T	FLOAT & THERMOSTATIC TRAP	VRF	VARIABLE REFRIGERANT FLOW
FCU	FAN COIL UNIT	VV	VARIABLE AIR VOLUME BOX
FD	FIRE DAMPER	W	WITH
FH	FUME HOOD	WO	WITHOUT
FL	FINNED LENGTH OF RADIATION	WC	WATER COLUMN
FM	FLOW METER	WCP	WSPH CIRCULATING PUMP
FOP	FUEL OIL PUMP	WG	WATER GAUGE
FOR	FUEL OIL RETURN	WP	WELL PUMP
FOS	FUEL OIL SUPPLY	WPD	WATER PRESSURE DROP
FFF	FINS PER FOOT	WSHP	WATER SOURCE HEAT PUMP
FPI	FINS PER INCH	ZD	ZONE DAMPER
FPM	FEET PER MINUTE		
FPP	FREEZE PROTECTION PUMP		
FT	FEET		
FTR	FIN TUBE RADIATOR		
FTWG	FEET WATER GAUGE		
GAL	GALLONS		
GLYP	GLYCOL PUMP		
GPM	GALLONS PER MINUTE		
GUH	GAS UNIT HEATER		
H	HOOD		
HP	HORSEPOWER		
HPCR	HIGH PRESSURE CONDENSATE RETURN (OVER 30 PSIG)		
HPS	HIGH PRESSURE STEAM (OVER 30PSIG)		
HRC	HEAT RECOVERY COIL		
HRP	HEAT RECOVERY PUMP		
HRR	HEAT RECOVERY RETURN		
HRS	HEAT RECOVERY SUPPLY		
HUM	HUMIDIFIER		
HV	HEATING AND VENTILATING UNIT		
HWC	HOT WATER COIL		
HWP	HOT WATER PUMP		
HWR	HOT WATER RETURN		
HWS	HOT WATER SUPPLY		
HX	HEAT EXCHANGER		
IAH	INTAKE AIR HOOD		
IN	INCHES		
IRH	INFRARED HEATER		
L	LOUVER		

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING EQUIPMENT TO REMAIN		REDUCER - CONCENTRIC
	NEW EQUIPMENT		REDUCER - ECCENTRIC
	EXISTING SUPPLY PIPING TO REMAIN		RETURN AIR
	EXISTING RETURN PIPING TO REMAIN		RETURN AIR DUCT
	EXISTING DUCTWORK TO REMAIN		SECTION I.D. (SECTION A SHOWN ON DWG. M10.1)
	NEW DUCTWORK		SMOKE DAMPER
	NEW SUPPLY PIPING		DUCT MOUNTED SMOKE DETECTOR
	NEW RETURN PIPING		STRAINER
	ACOUSTICALLY LINED DUCT		SUPPLY AIR
	ACV 2 - WAY		SUPPLY AIR DUCT
	ACV 3 - WAY		SWITCH, OCCUPIED/UNOCCUPIED
	AIRFLOW MONITORING SYSTEM		SWITCH WITH PILOT LIGHT
	BALANCE VALVE		SWITCH, TIMER
	BACKDRAFT DAMPER		SWITCH, VARIABLE SPEED W/ OFF "POSITION"
	CAP - PIPE		TAKE - OFF FROM BOTTOM OF PIPE
	CHECK VALVE		TAKE - OFF FROM TOP OF PIPE
	COMBINATION BALANCING, FLOW MEASURING & TIGHT SHUT-OFF VALVE		TEMPERATURE SENSOR
	COUNTERBALANCED DAMPER		THERMOMETER
	DUCT DIAMETER		THERMOMETER WELL
	DUCT SECTION - SUPPLY		THERMOSTAT
	DUCT SECTION - RETURN/EXHAUST		THERMOSTAT COOLING
	DUCT TURNING VANES		THERMOSTAT HEATING
	FIRE DAMPER (1 1/2 HOUR RATED)		THERMOSTAT - NIGHT
	FIRE DAMPER (3 HOUR RATED)		THERMOSTAT - HEATING/COOLING
	FIRE DAMPER (3 HOUR RATED)		THERMOSTATIC TRAP
	FLEXIBLE DUCT		UNION
	FLOAT & THERMOSTATIC TRAP		VOLUME DAMPER
	ISOLATION VALVE		S (SUPPLY) R (RETURN)
	GLOBE VALVE		E (EXHAUST) T (TRANSFER)
	HUMIDISTAT		SUPPLY DIFFUSER (TYPE 2)
	HUMIDITY SENSOR		DIFFUSER DESCRIPTION (SEE REG., GRILLES & DIFF SCHEDULE)
	LOCKSHIELD GATE VALVE		QUANTITY
	LOUVER		QUANTITY
	MANUAL AIR VENT		QUANTITY
	MOTORIZED DAMPER		QUANTITY
	OS&Y GATE VALVE		QUANTITY
	PETCOCK FOR GAUGE CONNECTION		QUANTITY
	PIPE ANCHOR		QUANTITY
	PIPE GUIDE		QUANTITY
	PITCH DOWN		QUANTITY
	PLUG VALVE		QUANTITY
	PRESSURE GAUGE		QUANTITY
	PRESSURE REDUCING VALVE		QUANTITY
	PRESSURE RELIEF VALVE		QUANTITY
	PRESSURE RELIEF DAMPER		QUANTITY
	RADIATION I.D. (TYPE A, 10'-0" FINNED LENGTH, 10,000 BTU/HR) WITH DAMPER		QUANTITY
	RADIATION I.D. (TYPE A, 10'-0" FINNED LENGTH, 10,000 BTU/HR) WITHOUT DAMPER		QUANTITY

GENERAL NOTES

- VISIT THE BUILDING SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS, AND TO TAKE MEASUREMENTS AS NECESSARY FOR COMPLETION OF THE WORK ASSOCIATED WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.
- COORDINATE WORK OF MECHANICAL SUBCONTRACTOR WITH WORK OF OTHER TRADES.
- DUCTWORK, PIPING AND EQUIPMENT ARE INDICATED DIAGRAMMATICALLY. FIELD-VERIFY LOCATIONS.
- PRIOR TO FABRICATING DUCTWORK, COORDINATE WITH OTHER TRADES TO ENSURE THAT THE DUCTWORK CAN BE INSTALLED WITH THE INDICATED SIZES AND LOCATIONS FIELD-VERIFY EXISTING DUCT SIZES AND CONDITIONS. SUBMIT ANY DISCREPANCIES OR PROPOSED CHANGES.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR LOCATIONS OF CEILING DIFFUSERS AND REGISTERS. PROVIDE VOLUME DAMPERS SO THAT EVERY REGISTER, GRILLE AND DIFFUSER (SUPPLY, RETURN, AND EXHAUST) CAN BE INDIVIDUALLY BALANCED.
- VERIFY INSTALLATION OF EXISTING VOLUME DAMPERS AT EACH BRANCH IN EXISTING SUPPLY DUCT. PROVIDE ADDITIONAL VOLUME DAMPERS WHERE REQUIRED.
- LOCATE VOLUME DAMPERS AS FAR AWAY FROM REGISTERS, GRILLES AND DIFFUSERS AS POSSIBLE TO MINIMIZE NOISE. LOCATE TO BE UNOBSTRUCTED AND EASILY ACCESSIBLE FOR TESTING AND BALANCING LOCATE POSSIBLE. WHERE VOLUME DAMPERS MUST BE LOCATED ABOVE HARD CEILINGS SUCH AS GYPSUM WALL BOARD, PROVIDE ACCESS PANELS AS SPECIFIED, AND NOTIFY THE ARCHITECT OF SUCH LOCATIONS VERBALLY AND IN WRITING. OBTAIN PERMISSION FROM THE ARCHITECT BEFORE INSTALLING ACCESS PANELS.
- DUCT ELBOWS SHALL BE LONG-RADIUS TYPE (THROAT RADIUS EQUAL TO OR GREATER THAN DUCT WIDTH IN THE PLANE OF THE TURN) WHEREVER SPACE ALLOWS. IF SPACE IS NOT ADEQUATE, PROVIDE MITERED ELBOWS WITH TURNING VANES.
- PROVIDE 16 GAUGE SINGLE-THICKNESS TURNING VANES AT MITERED DUCT ELBOWS. VANE EDGES (LEADING AND TRAILING) SHALL BE TANGENTIAL TO AIRFLOW.
- FLEXIBLE DUCT LENGTHS SHALL NOT EXCEED 5'-0"
- PAINT DUCTWORK VISIBLE THRU CEILING OPENINGS, DUCT OPENINGS, AND REGISTERS, GRILLES, AND DIFFUSERS WITH BLACK PAINT IN ACCORDANCE WITH DIVISION 09 SECTION "PAINTING."
- MOUNT THERMOSTATS AND TEMPERATURE AND HUMIDITY SENSORS AT 48 INCHES AFF TO TOP OF ITEM. PROVIDE ELECTRICAL WALL BOX ATTACHED TO FRAMING.
- WHERE THERMOSTATS/TEMPERATURE SENSORS ARE LOCATED NEAR LIGHT SWITCHES, INSTALL SO THAT LIGHT SWITCHES ARE NEARER TO THE DOOR JAMBS. THE INTENT IS TO LOCATE THERMOSTATS/TEMPERATURE SENSORS SO THEY WILL NOT INTERFERE WITH ACCESSIBILITY OF LIGHT SWITCHES.
- PIPING INDICATED IN OUTSIDE WALLS SHALL BE RUN ON THE WARM SIDE OF BUILDING INSULATION AND VAPOR BARRIER. BUILDING INSULATION BEHIND SUCH PIPING SHALL BE CONTINUOUS, WITHOUT JOINTS OR GAPS.
- PIPING SHALL BE CONCEALED EXCEPT IN MECHANICAL ROOMS AND AS INDICATED. WHERE PIPES DROP IN BLOCK WALLS, PROVIDE 1/2" THICK INSULATION MINIMUM.
- SEAL DUCTWORK AND PIPING THRU MECHANICAL ROOM FLOORS AND PARTITIONS, AND THRU FIRE-RATED ASSEMBLIES, WITH FIRESTOP MATERIAL AS SPECIFIED.

Mark	Date	Description
	09-04-15	DESIGN DEVELOPMENT REVIEW
	03-25-16	CONSTRUCTION DOCUMENTS
3	07-22-16	CONFORMANCE SET



Drawing Scale	
1/8" = 1'-0"	

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LEGEND AND GENERAL NOTES

M00.1