ABBREVIATIONS

@	AT
A	AMP
ABS	ACRYLONITRILE BUTADIENE STYRENE PLASTIC
ABV	ABOVE
AC	AIR CONDITIONING
AD	ACCESS DOOR
ADA	AMERICANS WITH DISABILITIES ACT
AF	AIR FILTER
AFF	ABOVE FINISHED FLOOR
AFM	AIR FLOW MEASURING STATION
AHU	AIR HANDLING UNIT
AL	ACOUSTICAL LINER
AMB	AMBIENT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
APPROX	APPROXIMATELY
AS	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASSY	ASSEMBLY
ATC	AUTOMATIC TEMPERATURE CONTROL
ATT	ACOUSTICAL ATTENUATOR
AV	AUTOMATIC VENT
BDD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOT	BOTTOM
BTUH	BTU PER HOUR
C	CENTERLINE
CA	COMPRESSED AIR
CAP	CAPACITY
CD	CONDENSATE DRAIN
CF	CEILING FAN
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CLG	CEILING
CO	CLEAN OUT, CARBON MONOXIDE
COL	COLUMN
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUATION
CONV	CONVECTOR
CP	CONTROL PANEL, CONDENSATE PUMP
CPT	CONDENSATE PUMP TRAP
CSA	CANADIAN STANDARDS ASSOCIATION
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONTROL VALVE
Cv	CONTROL VALVE RATING
CVT	CONSTANT VOLUME AIR TERMINAL
CW	COLD WATER
CWR	COLD WATER RETURN
CWS	COLD WATER SUPPLY
D	DRAIN
dB	DECIBELS
DB	DRY BULB
DC	DRY COOLER
DDC	DIRECT DIGITAL CONTROL
ø, DIA	DIAMETER
DIFF	DIFFERENTIAL, DIFFUSER
DISCH	DISCHARGE
DN	DOWN
DOM	DOMESTIC
DP	DIFFERENTIAL PRESSURE
DWG	DRAWING
DWGS	DRAWINGS
E	ELECTRICAL, EXHAUST
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
EDR	EQUIVALENT DIRECT RADIATION
EER	ENERGY EFFICIENT RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEC	ELECTRIC, ELECTRICAL
ELEV	ELEVATION
ENT	ENTERING
EPDM	ETHYLENE PROPYLENE DIENE MEMBRANE
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EVAP	EVAPORATOR
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EXIST	EXISTING
EXT	EXPANSION TANK
EXP	EXPANSION
F	FAN, DEGREES FAHRENHEIT
FA	FRESH AIR
FAI	FRESH AIR INTAKE
FBG	FURNISHED BY GOVERNMENT
FC	FLEX CONNECTION
FCO	FLOOR CLEANOUT
FD	FIRE DAMPER, FLOOR DRAIN
FF	FINISH FLOOR
FIX	FIXTURE
FLA	FULL LOAD AMPS
FLR	FLOOR
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FS	FLOAT SWITCH
FTR	FIN TUBE RADIATION
FZ	FREEZESTAT
G	GAS
GA	GAUGE
GAL	GALLONS
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GP	GENERAL PURPOSE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GR	GLYCOL RETURN
GRH	GRAVITY RELIEF HOOD
GS	GLYCOL SUPPLY
GV	GATE VALVE
GSM	GALVANIZED SHEET METAL
GYP	GYPSUM WALLBOARD
HC	HEATING COIL
HOA	HANDS-OFF-AUTOMATIC
HOR	HORIZONTAL
HP	HORSEPOWER, HIGH PRESSURE
HPC	HIGH PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM (16 PSI TO 150 PSI)
HR	HOUR
HT	HEIGHT
HUMID	HUMIDIFIER, HUMIDITY
HV	HEATING AND VENTILATING UNIT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HW	HOT WATER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ
IBR	HYDRONICS INSTITUTE
ID	INSIDE DIAMETER
IN	INCHES
INDIR	INDIRECT WASTE
KW	KILOWATT
L	LENGTH, LOUVER
LAT	LEAVING AIR TEMPERATURE
LD	LIQUEFIED PETROLEUM
LDB	LEAVING DRY BULB
LF	LINEAR FEET
LG	LONG
LOC	LOCATION, LOCATED
LP	LIQUEFIED PROPANE
LPC	LOW PRESSURE CONDENSATE
LPS	LOW PRESSURE STEAM (15 PSI OR LESS)
LRA	LOCKED ROTOR AMPS
LVG	LEAVING
LWB	LEAVING WET BULB
LWT	LEAVING WATER TEMPERATURE
M	MECHANICAL
MANUF	MANUFACTURER
MAX	MAXIMUM
MAX PD	MAXIMUM PRESSURE DROP
MBH	1000 BTU PER HOUR
MBU	1000 BTU
MCA	MAXIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MEZZ	MEZZANINE
MFG	MANUFACTURER
MIN	MINIMUM, MINUTES
mm	MILLIMETERS
MNTD	MOUNTED
MOCP	MAXIMUM OVERCURRENT PROTECTION
MUA	MAKE-UP AIR
MUW	MAKE-UP WATER
N/A	NOT APPLICABLE
NATL	NATURAL
NC	NORMALLY CLOSED, NOISE CRITERIA
NEC	NATIONAL ELECTRIC CODE
NG	NATURAL GAS
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN, NUMBER
NO2	NITROGEN DIOXIDE
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAI	OUTSIDE AIR INTAKE
OAT	OUTSIDE AIR TEMPERATURE
OBD	OPPOSED BLADE DAMPER
OD	OUTSIDE DIAMETER
OED	OPEN ENDED DUCT
OS&Y	OUTSIDE STEM AND YOKE
P	PUMP, PITCH
PC	PUMPED CONDENSATE
PD	PRESSURE DROP
PLMB	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
QTY	QUANTITY
R	RADIUS, RETURN
RA	RETURN AIR
RAD	RADIATOR
RAF, RF	RETURN AIR FAN
RAT	RETURN AIR TEMPERATURE
REL	RELIEF
REQD	REQUIRED
RET	RETURN
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RLA	RATED LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
S	SUPPLY DIFFUSER
SA	SUPPLY AIR
SCR	SCREEN
SD	SMOKE DAMPER
SF	SQUARE FOOT
SIM	SIMILAR
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
SOV	SHUT OFF VALVE
SP	STATIC PRESSURE
SPH	STATIC PRESSURE HIGH LIMIT
SPL	STATIC PRESSURE LOW LIMIT
SPS	STATIC PRESSURE SENSOR
SQ	SQUARE
SS	STAINLESS STEEL
STL	STEEL
SUP	SUPPLY
T	TEMPERATURE SENSOR, THERMOSTAT
TC	TOTAL COOLING
TEMP	TEMPERATURE
THK	THICK, THICKNESS
TG	TRANSFER GRILLE
TRANS	TRANSITION
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UNO	UNLESS NOTED OTHERWISE
V	VENT
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT THROUGH ROOF
W	WIDTH, WATT
W/	WITH
WB	WET BULB
WC	WATER COLUMN
WCO	WALL CLEANOUT
WF	WALL FAN
WG	WATER GAUGE
WH	WATER HEATER
WMS	WIRE MESH SCREEN
WPD	WATER PRESSURE DROP

MECHANICAL SYMBOLS

- C5 / M101 — DETAIL NUMBER; DRAWING WHERE DETAIL IS DRAWN
- D1 — DETAIL NUMBER
- B / 1 — SYMBOL PER ABBREVIATION LIST; EQUIPMENT SEQUENCE NUMBER
- S-1 / 100 — DIFFUSER, REGISTER OR GRILLE SEQUENCE NUMBER; CFM
- FR-1 / 2.2 / 5 LF — FINTUBE DESIGNATION; MBH; LENGTH OF ACTIVE FIN TUBE
- # — EXIST HOT WATER FIN TUBE UNIT TAG
- 2.2 — GPM
- 22 — KEY NOTE (NUMBER)
- A — REVISION (LETTER)
- RETURN OR EXHAUST GRILLE, REGISTER
- SUPPLY DIFFUSER, REGISTER, GRILLE
- AD — ACCESS DOOR
- FINTUBE RADIATION AND ENCLOSURE
- UNIT HEATER
- TERMINAL UNIT, VARIABLE VOLUME WITH HOT WATER COIL
- TERMINAL UNIT, VARIABLE VOLUME
- PROPELLER FAN
- CENTRIFUGAL FAN
- CO/NO2 — COMBINATION CARBON MONOXIDE / NITROGEN DIOXIDE SENSOR
- INLINE FAN
- DIRECTION OF AIR FLOW; DIRECTION OF AIR FLOW EXHAUST
- DOOR UNDERCUT
- DOOR LOUVER
- VOLUME DAMPER
- SD — SMOKE DAMPER
- FD — FIRE DAMPER
- M — MOTORIZED DAMPER, PARALLEL BLADE
- M — MOTORIZED DAMPER, OPPOSED BLADE
- T — THERMOSTAT OR THERMISTOR
- H — HUMIDISTAT
- S — SWITCH
- SMOKE DETECTOR
- CONNECT TO EXISTING
- SQUARE ELBOW WITH TURNING VANES
- FLEXIBLE DUCT
- FLEXIBLE CONNECTOR
- ROOF VENTILATOR, EXHAUST
- STARTER/DISCONNECT
- PUMP
- CEILING SUPPLY DIFFUSER W/ THROW DIRECTION SHOWN BY ARROWS (FOR 4-WAY THROW ARROWS NOT SHOWN)
- CEILING PADDLE FAN
- WALL MOUNTED OSCILLATING FAN

PIPING SYMBOLS

- AFS — AIR FLOW SWITCH
- S — AIR SEPARATOR
- AUTOMATIC AIR VENT WITH ISOLATION VALVE
- BALL VALVE
- BALL VALVE IN VERTICAL
- BOILER DRAIN VALVE W/ HOSE BIB
- B — BUCKET TRAP
- BUTTERFLY VALVE
- CHECK VALVE
- TRIPLE DUTY VALVE
- COCK
- COMBINATION FLOW MEASURING/ BALANCING VALVE (CIRCUIT SETTER)
- DIRECTION OF FLOW OF PIPE
- DIRT LEG
- ES — END SWITCH
- FLEXIBLE PIPE CONNECTION
- FS — FLOW SWITCH, FREEZESTAT
- FLOAT AND THERMOSTATIC TRAP
- FUSOMATIC VALVE
- GATE VALVE
- THREE WAY VALVE
- GLOBE VALVE
- HOSE BIBB
- MANUAL AIR VENT
- M — METER
- NONELECTRIC ZONE VALVE
- OS&Y VALVE
- OS&Y VALVE IN VERTICAL (PLAN)
- ("PETE'S PLUG")
- PIPE DROP
- PIPE END CAP
- PIPE GUIDE
- DN — PIPE PITCH DOWN IN DIRECTION OF FLOW
- UP — PIPE PITCH UP IN DIRECTION OF FLOW
- PIPE RISE
- PIPE TEE FROM BOTTOM
- PIPE TEE FROM TOP
- PIPE UP TO FINTUBE RADIATION ON FLOOR ABOVE
- PLUG VALVE
- PRESSURE GAUGE W/BALL VALVE (GATE VALVE AND SIPHON FOR STEAM)
- PRESSURE REDUCING VALVE
- PRESSURE REGULATING VALVE
- PS — PRESSURE SWITCH
- REDUCED PRESSURE BACKFLOW PREVENTER
- REDUCER (CONCENTRIC)
- REDUCER (ECCENTRIC-FOB OR FOT)
- SAFETY RELIEF VALVE
- SOLENOID VALVE
- STEAM MONITOR
- STRAINER W/BALL DRAIN VALVE, HOSE BIB AND CAP (GATE VALVE FOR STEAM)
- STRAINER W/ BLOW OFF
- TS — TEMPERATURE SENSOR
- THERMOMETER TEMPERATURE/PRESSURE WELL
- THERMOSTATIC TRAP
- THREE-WAY AUTOMATIC CONTROL VALVE (ELECTRIC OR DDC)
- THREE-WAY AUTOMATIC CONTROL VALVE (PNEUMATIC)
- TWO-WAY AUTOMATIC CONTROL VALVE (ELECTRIC OR DDC)
- TWO-WAY AUTOMATIC CONTROL VALVE (PNEUMATIC)
- UNION AS DICTATED BY PIPE SIZE
- FLANGE AS DICTATED BY PIPE SIZE
- VIBRATION ISOLATOR

GENERAL NOTES

1. GENERAL NOTES, SYMBOLS LIST AND DETAILS ARE APPLICABLE TO DRAWINGS MARKED M#.
2. DRAWINGS ARE DIAGRAMMATIC. DETERMINE LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
3. COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
4. REMOVALS SHALL BE COORDINATED BY THE CONTRACTOR TO MAINTAIN THE INTEGRITY OF THE BUILDING.
5. DUCTWORK SHALL BE GALVANIZED STEEL, CONSTRUCTED AND INSTALLED ACCORDING TO LATEST SMACNA STANDARDS FOR SPECIFIED STATIC PRESSURE RATING.
6. INSTALL THERMOSTATS 4'-6" ABOVE FINISHED FLOOR OR AS DIRECTED OTHERWISE BY THE CONTRACTING OFFICER.
7. WORK SHALL BE COORDINATED WITH TRADES INVOLVED. OFFSETS IN PIPING AND DUCTS (INCLUDING DIVIDED DUCTS) AND TRANSITIONS AROUND OBSTRUCTIONS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.
8. VERIFY EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. VERIFY AND PROVIDE DUCT TRANSITIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE DIMENSIONS BEFORE FABRICATION.
9. ACCESS PANELS SHALL BE PROVIDED, WHERE REQUIRED, TO SERVICE HEATERS, VALVES AND CONCEALED MECHANICAL EQUIPMENT. PROVIDE ACCESS PANELS UP STREAM OF ELBOWS WITH TURNING VANES.
10. INSTALL EQUIPMENT, PIPING AND DUCTWORK AS REQUIRED TO PROVIDE A VIBRATION-FREE INSTALLATION AND TO FACILITATE EQUIPMENT ACCESS AS REQUIRED BY EQUIPMENT MANUFACTURER.
11. SMOKE DETECTORS SHALL BE FURNISHED AND WIRED TO THE FIRE ALARM SYSTEM UNDER THE ELECTRICAL SECTION. UNDER THE MECHANICAL SECTION, THIS CONTRACTOR SHALL MOUNT THE DETECTORS IN DUCTWORK, WHERE REQUIRED BY CODE, AND SHALL WIRE THE DETECTORS TO THE FAN STARTERS FOR SHUTDOWN.
12. CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC AND SPECIFICATIONS.
13. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF AIR DEVICES WHERE APPLICABLE.
14. INTERNAL AIR FLOW DIMENSIONS ARE SHOWN FOR DUCTS.
15. DIFFUSER SIZES SHOWN ARE NECK SIZES. REGISTER AND GRILLE SIZES ARE NOMINAL.
16. PRESSURE DROP THROUGH COIL CONTROL VALVES SHALL NOT EXCEED 3 PSIG UNLESS OTHERWISE NOTED ON DRAWINGS.
17. PROVIDE FLEXIBLE DUCT CONNECTIONS ON DUCTS CONNECTING TO FANS, AND TO AIR HANDLING UNITS WHICH ARE NOT INTERNALLY ISOLATED. DUCTS TO BE GROUNDED ACROSS FLEXIBLE CONNECTION WITH FLEXIBLE COPPER GROUNDING STRAPS.
18. THE INSIDE OF DUCTWORK VISIBLE THROUGH A GRILLE OR DIFFUSER SHALL BE PAINTED FLAT BLACK.
19. INSULATE PIPING AS SPECIFIED. PERFORM TESTS SPECIFIED BEFORE INSULATING.
20. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING.
21. PROVIDE BALANCING COCKS AT SYSTEM LOOP RETURNS AND AT RETURN RISERS. PROVIDE SHUT-OFF VALVES AT SYSTEM LOOP SUPPLIES AND SUPPLY RISERS.
22. PROVIDE VENTS AT HIGH POINTS IN PIPING SYSTEMS AND DRAIN VALVES AT LOW POINTS.
23. PROVIDE AT LEAST THREE ELBOW SWINGS FOR PIPE TAKE-OFFS.
24. PROVIDE GAUGE FITTINGS AND THERMOMETER WELLS AT HOT WATER SUPPLY AND RETURN BRANCHES AND HEATING COIL INLETS AND OUTLETS.
25. RUN PIPING LEVEL.

DUCTWORK SYMBOLS

- BULLHEAD TEE
- TAKE-OFF — SUPPLY; EXHAUST/RETURN
- SPLIT TAKE-OFF W/ BRANCH DAMPERS SUPPLY
- BULLHEAD SPLIT
- RADIUS ELBOW
- SQUARE ELBOW W/TURNING VANES
- OFFSET
- CEILING DIFFUSER OR GRILLE W/ FLEXIBLE DUCT
- RETURN/EXHAUST DUCT UP
- RETURN/EXHAUST DUCT DOWN
- RISE(R) OR DROP(D)
- SUPPLY DUCT UP
- SUPPLY DUCT DOWN

MECHANICAL LINETYPE LEGEND

- ITEMS TO BE REMOVED
- EXIST ITEMS TO REMAIN
- ITEMS TO BE PROVIDED
- HIDDEN ITEMS
- CONTROL WIRING

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STATE OF MAINE — JACQUELYN R. MERRILL — No. 12013 — LICENSED — PROFESSIONAL ENGINEER

Inspection Division Date: 11/15/17

REV.	DESCRIPTION	DATE

ISSUE STATUS:
ISSUED FOR CONSTRUCTION 9-7-17

PROJECT:
LOWELL STREET RENOVATIONS
PORTLAND, ME

SHEET TITLE:
HVAC SYMBOLS, LEGEND & GENERAL NOTES

DATE:	PROJECT#	
09-7-17	17109	
DRAWN: MAC	CHECKED: JRM	SCALE: NOT TO SCALE

SHEET #
M-001

EXHAUST FAN SCHEDULE (EF)

TAG	DESCRIPTION	SERVES	AIRFLOW	ESP	FAN SPEED	MOTOR		ELECTICAL				WEIGHT	MANUF.	MODEL	NOTES
			CFM	IN WC	RPM	HP	BHP	V	PH	HZ	AMPS	LBS			
EF-1	INLINE EXHAUST FAN	LAB 450	250	0.5"	2,020	74 W	60.9 W	120	1	60		12	FANTECH	FG-6M-EC	ALL

NOTES:

1. REFER TO WALL CAP SCHEDULE, BACKDRAFT DAMPER PROVIDED WITH WALL CAP.
2. PROVIDE WITH FAN MOUNTED SPEED SWITCH FOR BALANCING. FANTECH MTP OR SIMILAR.
3. DISCONNECT PROVIDED & INSTALLED BY EC
4. EQUIPMENT IS ENERGY STAR RATED
5. EQUIPMENT IS UL-705 LISTED
6. PROVIDE THERMOSTATIC CONTROL OF FAN AS SHOWN ON PLANS.

HUMIDIFIER SCHEDULE (HUM)

Tag	DESCRIPTION	CAPACITY	AIRFLOW	DISPERSION							ELECTRIC				MANUF & MODEL	NOTES
				EAT		DUCT			TYPE	MAT.	VOLTAGE	PH	HZ	AMPS		
		LBS/HR	CFM	DB	RH	WIDTH	HEIGHT	VEL.								
HUM-1	ELECTRIC STEAM HUMIDIFICATION SYSTEM W/ DUCT COIL	12	500	70	40.0%	12	10	500	1.5" SINGLE TUBE	304 SS	208	3	60	25	DRI-STEEM VAPORMIST VM-4	ALL

NOTES:
1. PROVIDE AIRFLOW PROVING SWITCH, DUCT HIGH LIMIT HUMIDISTAT, CONTROLS
2. PROVIDE WITH VAPOR-LOGIC CONTROL MOUNTED ON UNIT. MODULATING CAPACITY CONTROL.

GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG	DESCRIPTION	AIRFLOW	NECK	FACE SIZE	NC	SP	THROW (FT)	MATRL	VOL DAMP	MOUNTING	AIR PATTERN	MODEL	NOTES
		CFM	INCHES	INCHES		W.G.	@ 22-1/2						
CD-6	SUPPLY - CEILING	70	6"	24"X24"	< 20	0.01	1-2-4	STEEL	NO	LAY-IN	4 - WAY	PRICE SCD	1
CD-8	SUPPLY - CEILING	180	8"	24"X24"	< 20	0.016	2-3-6	STEEL	NO	LAY-IN	4 - WAY	PRICE SCD	1
RG-10	RETURN - CEILING	280	10"	12"X12"	< 20	0.011	-	ALUM	NO	LAY-IN	45 DEG	PRICE 630	1
RG-10B	RETURN - FILTERED	400	10"	12"X12"	< 20	0.011	-	ALUM	NO	SURFACE	45 DEG	PRICE 630	1
EG-6	EXHAUST - CEILING	100	6"	12"X12"	< 20	0.01	-	ALUM	NO	LAY-IN	45 DEG	PRICE 630	1
EG-6B	EXHAUST - SIDEWALL	250	6"	14"X6"	25	0.085	-	ALUM	NO	SURFACE	45 DEG	PRICE 630	1
T-1	TRANSFER - CEILING	NA	8"	12"x12"	-	-	-	ALUM	NO	LAY-IN	45 DEG	PRICE 630	1

NOTES:
1. CORRDINATE FINISH WITH ARCHITECTURAL

FAN FILTER UNIT

TAG	DESCRIPTION	SERVES	CFM	POWER	V/PH	WEIGHT	MANUF.	MODEL	NOTES
FFU-1	24"X24" FAN FILTER UNIT	MINOR PROCEDUE 443	250	1/3 HP	115/1	54	TITUS	FFDER	ALL
FFU-2	24"X24" FAN FILTER UNIT	MINOR PROCEDUE 443	250	1/3 HP	115/1	54	TITUS	FFDER	ALL

NOTES:
1. PROVIDE WITH HEPA FILTER
2. PROVIDE WITH DIRTY FILTER INDICATOR LIGHTS

VAV DAMPER SCHEDULE

TAG	RTU #	ZONE SERVED	INLET SIZE	COOLING CFM		APD IN WG	HEATING CFM	HEATING COIL						MANUF	MODEL NO	UNIT HAND	NOTES
				MAX	MIN			COIL MBH	EAT DEF F	LAT DEG F	ELECTRIC HEAT KW	# OF STAGES	VOLTAGE/ PH				
VAV-1	1	MINOR PROCEDURE ROOM 443	8"	500	105	0.036	250	10.24	55	92.77	3.0	2	208/1	TRANE	VCEF08	LEFT	ALL
VAV-2	1	LAB ROOM 450, EXAM 3 ROOM 453	6"	250	60	0.047	170	6.83	55	92.03	2.0	2	208/1	TRANE	VCEF06	RIGHT	ALL
VAV-3	1	SOILED PROCESSING ROOM 442, TECH OOM 441, TESTING ROOM 444	5"	130	60	0.01	85	3.41	55	92.03	1.0	1	208/1	TRANE	VCEF05	RIGHT	ALL
VAV-4	1	EXAM 4 ROOM 449, EXAM 5 ROOM 448	6"	320	60	0.085	170	6.8.	55	92.03	2.0	2	208/1	TRANE	VCEF06	LEFT	ALL
BD-1	1	BYPASS DAMPER	10"	500	-	-	-	-	-	-	-	-	-	-	VADB10	-	ALL

NOTES:
1. PROVIDE CONTROLS TO COMMUNICATE WITH TRANE TRACER CONCEIRGE SYSTEM
2. PROVIDE WITH FOIL FACED 1" INSULATION
3. PROVIDE WITH DUCT TEMP SENSOR & ACTUATOR
4. PROVIDE WITH DISCONNECT SWITCH

ROOFTOP UNIT SCHEDULE (RTU)

TAG	DESCRIPTION	NOM. SIZE	DESIGN PERFORMANCE				VENT.	HEATING PERFORMANCE					COOLING PERFORMANCE								ELECTRICAL DATA					WEIGHT	MANUFACTURER & MODEL	NOTES
			AIRFLOW	FAN SPEED	FAN POWER	ESP	MINIMUM	TYPE	INPUT	OUTPUT	EAT (F)	LAT (F)	TOTAL CAP.	SENSIBLE CAP.	EFFICIENCY EER @ OPP.	REFRIGERANT		EAT (F)		LEV. AIR TEMP	VOLTS	PH	HZ	MCA	MOP			
											DB	DB				TYPE	CHARGE	DB	WB									
		TONS	CFM	RPM	BHP	IN WC	CFM		MBH	MBH	°F DB	°F DB	MBH	MBH			LBS	°F DB	°F WB	°F DB				AMPS	AMPS	LBS		
RTU-1	MINOR PROCEDURE 443	3.0	1,200	978	0.54	0.95	240	GAS - LP	60	48	65.0	102.3	36.87	26.32	12.7	R-410A	6.6	80	67	60.02	208	3	60	19.6	30	767	TRANE YHC036E3RLA	ALL

1. PROVIDE WITH COMPARATIVE ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF
2. PROVIDE WITH HINGED PANELS AND 2" MERV 8 FILTERS
3. PROVIDE WITH UNPOWERED CONVENIENCE OUTLET AND THRU BASE ELECTRICAL W/ CIRCUIT BREAKER
4. PROVIDE WITH DEHUMIDIFICATION - HOT GAS REHEAT AND WALL MOUNTED SENSOR
5. PROVIDE WITH ROOF CURB

ALL: MINIMUM LP GAS INLET PRESSURE: 11.0" MAXIMUM LP GAS INLET PRESSURE 14.0"

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STATE OF MAINE
JACOB R. MARTIN
No. 12013
LICENSED
PROFESSIONAL ENGINEER

REV.	DESCRIPTION	DATE

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PORTLAND, ME

SHEET TITLE:
HVAC SCHEDULES

DATE:	PROJECT#
09-7-17	17109

DRAWN:	CHECKED:	SCALE:
MAC	JRM	NOT TO SCALE

SHEET #
M-601