

EXHAUST FAN SCHEDULE									
TAG	MANUFACTURER & MODEL	TYPE	CFM EXHAUST	ESP	ELECTRIC		REMARKS	CONTROL	
					POWER	HP			
EF-1	GREENHECK S2-30-610-B10	SIDEMALL - DIRECT DRIVE	8,600	0.25"	115/60/1	1.0	WITH FACTORY WALL COLLAR, OSHA GUARD, MOTORIZED DAMPER & 45 DEGREE WEATHER HOOD	ENERGIZED BY CO, NO2 PROVIDE WITH FACTORY MAGNETIC STARTER (AUTO / HAND / OFF)	
EF-2	GREENHECK S2-30-610-B10	SIDEMALL - DIRECT DRIVE	8,600	0.25"	115/60/1	1.0	WITH FACTORY WALL COLLAR, OSHA GUARD, MOTORIZED DAMPER & 45 DEGREE WEATHER HOOD	ENERGIZED BY CO, NO2 PROVIDE WITH FACTORY MAGNETIC STARTER (AUTO / HAND / OFF)	
EF-3	GREENHECK S1-16-428-B6	SIDEMALL - DIRECT DRIVE	1,964	0.15"	115/60/1	1/8	WITH GRAVITY SHUTTER AND WALL COLLAR	ON WITH DISCONNECT SWITCH 24/7/365 - PROVIDE FACTORY DISCONNECT SWITCH	
EF-4	GREENHECK S2-24-604-A10	SIDEMALL - DIRECT DRIVE	5,500	0.25"	115/60/1	1.0	WITH FACTORY WALL COLLAR, OSHA GUARD, MOTORIZED DAMPER & 45 DEGREE WEATHER HOOD	ENERGIZED BY CO, NO2 PROVIDE WITH FACTORY MAGNETIC STARTER (AUTO / HAND / OFF)	
EF-5	GREENHECK S1-14-440-C8	SIDEMALL - DIRECT DRIVE	600	0.15"	115/60/1	1/8	WITH GRAVITY SHUTTER AND WALL COLLAR	ON WITH DISCONNECT SWITCH 24/7/365 - PROVIDE FACTORY DISCONNECT SWITCH	

DESTRATIFICATION FAN SCHEDULE							
TAG	MANUFACTURER & MODEL	TYPE	CFM	ELECTRIC		REMARKS	CONTROL
				POWER	AMP		
DF-1	LEADING EDGE 6000-1	INDUSTRIAL CEILING FAN	46,000	115/60/1	3	60" DIAMETER - 3 BLADES	PROVIDE 12008 SPEED CONTROLLER FOR 3 FANS @ 3 AMP
DF-2	LEADING EDGE 6000-1	INDUSTRIAL CEILING FAN	46,000	115/60/1	3	60" DIAMETER - 3 BLADES	
DF-3	LEADING EDGE 6000-1	INDUSTRIAL CEILING FAN	46,000	115/60/1	3	60" DIAMETER - 3 BLADES	
DF-4	LEADING EDGE 6000-1	INDUSTRIAL CEILING FAN	46,000	115/60/1	3	60" DIAMETER - 3 BLADES	PROVIDE 12003 SPEED CONTROLLER FOR 1 FAN @ 3 AMP

GAS UNIT HEATER SCHEDULE									
TAG	MANUFACTURER & MODEL	BTUH INPUT	BTUH OUTPUT	FUEL	MOTOR HP	FLA	POWER	WEIGHT	REMARKS
UH-2	TRANE GAFD015AD	150,000	120,000	LP GAS	1/4	4.0	115/60/1	256 LBS	SEPARATED COMBUSTION, VERTICAL LOUVERS, INTERMITTENT PILOT, ALUMINIZED STEEL HEAT EXCHANGER
UH-3	TRANE GAFD012AD	125,000	100,000	LP GAS	1/2	2.8	115/60/1	228 LBS	SEPARATED COMBUSTION, VERTICAL LOUVERS, INTERMITTENT PILOT, ALUMINIZED STEEL HEAT EXCHANGER
UH-4	TRANE GAFD015AD	150,000	120,000	LP GAS	1/4	4.0	115/60/1	256 LBS	SEPARATED COMBUSTION, VERTICAL LOUVERS, INTERMITTENT PILOT, ALUMINIZED STEEL HEAT EXCHANGER
UH-5	TRANE GAFD010AD	100,000	80,000	LP GAS	1/2	2.6	115/60/1	200 LBS	SEPARATED COMBUSTION, VERTICAL LOUVERS, INTERMITTENT PILOT, ALUMINIZED STEEL HEAT EXCHANGER
UH-6	TRANE GAFD012AD	125,000	100,000	LP GAS	1/2	2.8	115/60/1	228 LBS	SEPARATED COMBUSTION, VERTICAL LOUVERS, INTERMITTENT PILOT, ALUMINIZED STEEL HEAT EXCHANGER

SHEETMETAL NOTES
<ol style="list-style-type: none"> <li>All ductwork to be fabricated and installed per SMACNA Low Pressure Ductwork Standards.</li> <li>Ductwork is shown diagrammatically and does not indicate all the offsets, rises and drops that will be required.</li> <li>Exhaust fans and fan accessories are based on Greenheck - other manufactures will be considered.</li> <li>Exterior wall louvers to be by Ruskin or Greenheck. 6" thickness with blind screen.</li> <li>MotORIZED Dampers shall be Ruskin or Greenheck. 16 ga. galvanized frame with neoprene blade edge seals for tight closure.</li> <li>Seal all connections between dampers and louvers watertight.</li> <li>Provide flashing and seal interface between building exterior wall and the louvers and exhaust hoods fans.</li> <li>Start, test and warranty (1-year) all fans and operable dampers.</li> </ol>

UNIT HEATER VENTING
<ol style="list-style-type: none"> <li>Unit heaters are to be vented per manufactures recommendation.</li> <li>Both the vent and combustion air material shall be Type "B" UL listed vent pipe.</li> <li>Flash the vent and combustion air pipes to the roof with a "Dectite" brand metal roof flashing.</li> </ol>

CONTROL NOTES
<ol style="list-style-type: none"> <li>It will be the Mechanical Contractor's responsibility to provide and install all controls and all control wiring. The Mechanical contractor can subcontract this work to a company specializing in controls, or the contractor can do this work if it's employees are trained on the specific control systems being provided.</li> <li>All control wiring that is run in concealed spaces to be plenum rated.</li> <li>All control wiring that is run exposed shall be Electrical Metallic Conduit (EMT), provided and installed by the mechanical contractor or his subcontractor.</li> <li>Carbon Monoxide and Nitrogen Dioxide System. <ol style="list-style-type: none"> <li>Supply and install Carbon Monoxide and Nitrogen Dioxide system consisting of Two Control Panels, Four CO Sensors and Four NO2 Sensors.</li> <li>System shall consist of TWO Macurco DPV-120 Control Panel (or equal by Kate) <ol style="list-style-type: none"> <li>Externally visible LCD display.</li> <li>Lockable NEMA 1 Enclosure.</li> <li>Fail Safe operation can be ignored.</li> </ol> </li> <li>Provide and install four CM-6 CO &amp; NO2 sensors <ol style="list-style-type: none"> <li>Output; Fan Relay, Alarm Relay and 4-20mA current loop.</li> <li>Factory calibrated.</li> <li>Sequence of Operation <ol style="list-style-type: none"> <li>Upon detection of 25 ppm CO and/or 1 ppm NO2 in the Large Bay Activate EF-1&amp;2 and associated motorized dampers. Also open the two louver dampers in the Large Bay.</li> <li>Upon detection of 25 ppm CO and/or 1 ppm NO2 in the Small Bay Activate EF-4 and associated motorized damper. Also open the louver damper in the Small Bay.</li> <li>EF-3&amp;5 are to run continuously 24/7.</li> <li>Provide and install a heating thermostat for UH-1,2,3,4,5&amp;6. Thermostat to provide a low setpoint of 40 deg. F.</li> </ol> </li> </ol> </li> </ol> </li> </ol>

GENERAL NOTES
<ol style="list-style-type: none"> <li>All systems are to be to meet the following Codes and Standards. <ol style="list-style-type: none"> <li>ASHRAE 90.1 2007 - Energy Standard for Commercial Buildings.</li> <li>ASHRAE 60.1 2007 - Standard for Indoor Air Quality in Commercial Buildings.</li> <li>2009 IECC - International Energy Conservation Code.</li> <li>NFPA - National Fire Protection Association Standards.</li> </ol> </li> <li>Do not cut any structural members with pre-approval of structural engineer.</li> </ol>

GAS PIPING NOTES
<ol style="list-style-type: none"> <li>All gas piping to be Schedule 40 Black Iron.</li> <li>All gas piping is to be painted YELLOW with Rustoleum Brand paint.</li> <li>All gas piping to be marked every 20' with a stenciled "LP GAS PIPING" or a Seton Brand pipe label.</li> <li>At the unit heaters provide the following. <ol style="list-style-type: none"> <li>Drip leg with Tee.</li> <li>Gas rated shut off valve.</li> <li>Union or UL listed flexible pipe connection.</li> </ol> </li> </ol>



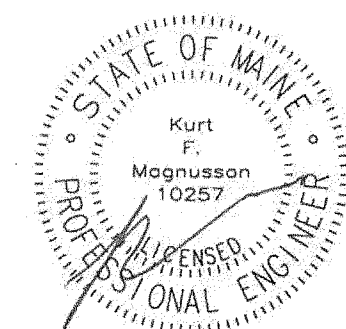
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PORTLAND PUBLIC WORKS  
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Truck Bay Enclosure Project

109 District Road  
Portland, Maine

HEATING & VENTILATION SCHEDULES & NOTES

Scale: As Noted

M1.3

JUNE 17, 2016