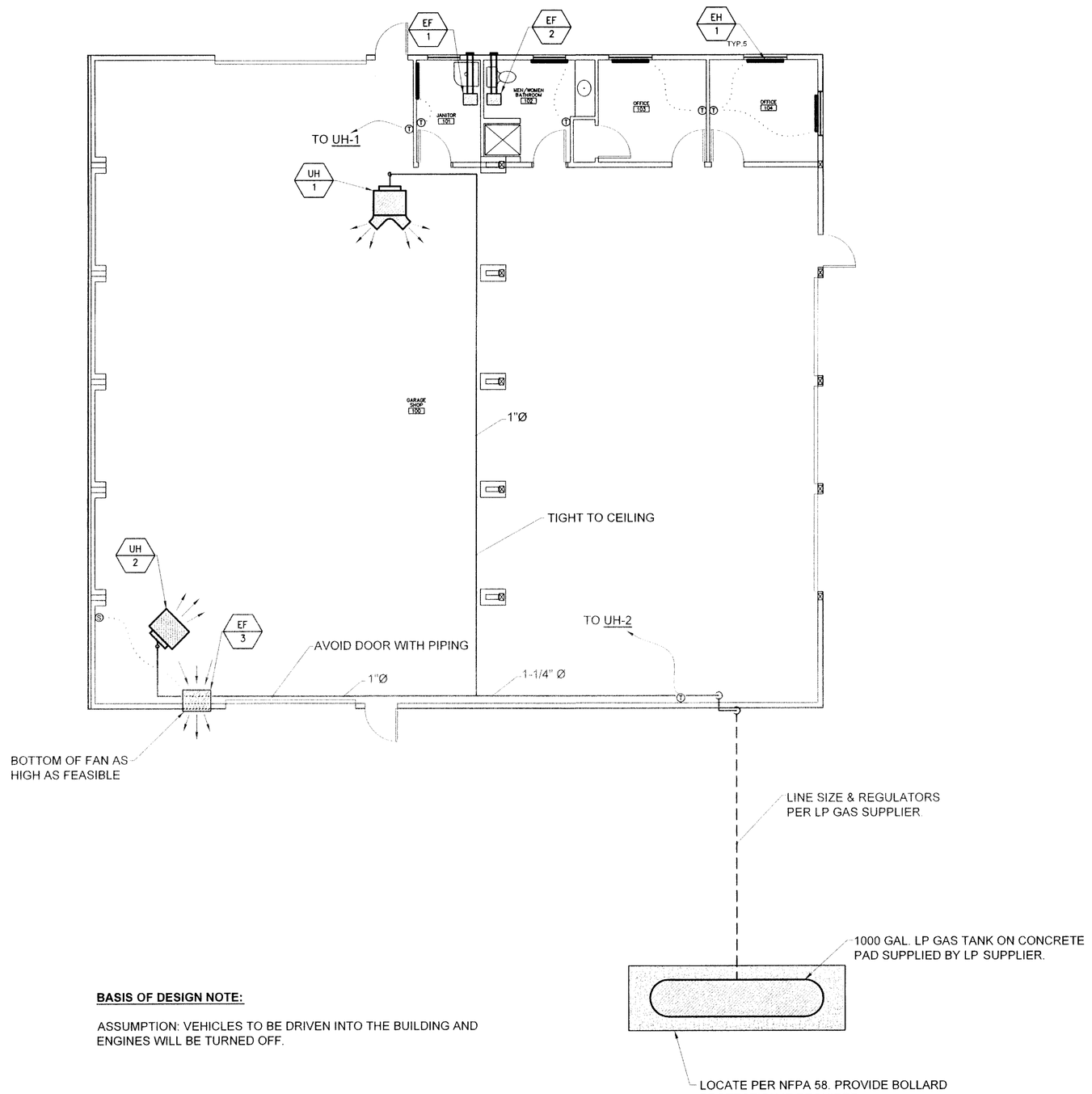

BASIS OF DESIGN NOTE:

ASSUMPTION: VEHICLES TO BE DRIVEN INTO THE BUILDING AND ENGINES WILL BE TURNED OFF.

A1	MECHANICAL FLOOR PLAN
1/8" = 1' 0"	

GAS FIRED UNIT HEATER SCHEDULE

TAG	MFR. -MODEL	SIZE	TYPE	INPUT MBH	OUPUT MBH	GAS PRESSURE RANGE (MIN-MAX)	GAS CONN. SIZE	VENT DIAMETER (INCHES)	CFM	MOTOR HP	ELECT	NOTES
UH - 1	TRANE GPPD	035	LP GAS FIRED UH	350.0	280	11" WC	3/4"	10	5,000	(2) X 1/2	115/60/1	------
UH - 2	EXISTING RE-USE	------	LP GAS FIRED UH	250.0	201	------	------	------	------	------	------	------

FAN SCHEDULE

TAG	SERVES	MANUFACTURER-MODEL	TYPE	DRIVE	CFM	SP (IN. WC.)	POWER KW	MOTOR HP	VOLTS/ PH	MAX SONES	WEIGHT (LBS.)	NOTES
EF-1	RM 101	COOK-GC-124	CEILING EXHAUST FAN	DIRECT	75	0.25	60.5	---	115/1/60	1.9	13	
EF-2	RM 102	COOK-GC-124	CEILING EXHAUST FAN	DIRECT	75	0.25	60.5	---	115/1/60	1.9	13	
EF-3	RM 100 - GARAGE/SHOP	COOK-24SP10D	WALL EXHAUST FAN	DIRECT	6,400	0.05	0.592	0.75	115/1/61	17.3	142	

ELECTRIC CONVECTION HEATER SCHEDULE

TAG	MARKEL MODEL	VOLTS	PHASE	WATTS	AMPS	BTUH	LENGTH (IN.)	WEIGHT (LBS.)
EH-1	E2907 - 040C	120	1	750	4.2	2550	40	13

SPECIFICATIONS

GENERAL

1. PERFORM WORK IN ACCORDANCE WITH ALL LOCAL CODES, REGULATIONS, AND ORDINANCES.
2. OBTAIN NECESSARY PERMITS AND INSPECTIONS AND PAY ASSOCIATED FEES.
3. COORDINATE WORK WITH OTHER TRADES.
4. INSTALL, TEST, AND ADJUST ALL COMPONENTS IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS, ALL LOCAL CODES AND STANDARDS, AND OWNER REQUIREMENTS.
5. THE INTENTION OF THESE CONTRACT DOCUMENTS IS TO CALL FOR FINISHED WORK, FULLY TESTED AND READY FOR OPERATION. ANY COMPONENTS OR LABOR NOT MENTIONED IN THE CONTRACT DOCUMENTS BUT REQUIRED FOR FUNCTIONING SYSTEMS SHALL BE PROVIDED. SHOULD THERE APPEAR TO BE ANY DISCREPANCIES OR QUESTIONS OF INTENT, THE CONTRACTOR SHALL REFER THE MATTER TO THE ENGINEER FOR DECISION BEFORE START OF ANY RELATED WORK.
6. CONTRACTOR SHALL WARRANTEE WORKMANSHIP AND MATERIALS FOR A PERIOD OF NOT LESS THAT ONE-YEAR FROM THE DATE OF FINAL COMPLETION.
7. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF PIPING AND UNIT HEATERS WITH THE OWNER. DO NOT OBSTRUCT TRUCK OPERATIONS OR OVERHEAD DOORS.

GAS PIPING:

1. GAS PIPING AND MATERIALS SHALL BE PER NFPA-58.
2. PIPING SHALL BE PRESSURE TESTED PER CODE. SUPPORT PIPING IN ACCORDANCE WITH MSS STANDARD PRACTICE SP-69.
3. INSTALL PIPING AND EQUIPMENT TO ALLOW MAXIMUM POSSIBLE HEADROOM UNLESS SPECIFIC MOUNTING HEIGHTS ARE NOT INDICATED. INSTALL PIPING FREE OF SAGS AND BENDS. INSTALL EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS IN EXPOSED INTERIOR SPACES, UNLESS OTHERWISE INDICATED. INSTALL MECHANICAL EQUIPMENT TO FACILITATE SERVICE, MAINTENANCE, AND REPAIR OR REPLACEMENT OF COMPONENTS. CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM INTERFERENCE TO OTHER INSTALLATIONS.
4. CONNECT PIPING TO UNIT HEATER PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A LINE REGULATOR WITH A VENT-LIMITING DEVICE AT EACH APPLIANCE.
5. PROVIDE A DRIP LEG, SHUT OFF VALVE, REGULATOR AND UNION AT EACH UNIT HEATER, AND ALLOW 12" OF STRAIGHT PIPE UPSTREAM OF REGULATOR.

EXHAUST FANS

1. COOK OR APPROVED EQUAL.
2. CEILING (EF-2 & EF-2):
   a. PROVIDE VIBRATION HANGERS, FLEX CONNECTOR, BACKDRAFT DAMPER, AND WALL EXHAUST CAP.
   b. BATHROOM: ENERGIZED BY LIGHT SWITCH
   c. JANITORS: ENERGIZED BY LOCAL WALL SWITCH.
3. WALL PROPELLOR (EF-3):
   a. PROVIDE EXHAUST-PAC FAN OPTION COMPLETE WITH OSHA FAN INLET GUARD, WALL COLLAR, GRAVITY WALL SHUTTER, AND WEATHER HOODS
   b. ENERGIZED BY LOCAL WALL SWITCH.
4. ALL DUCTWORK SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. GALVANIZED STEEL DUCTWORK: ASTM A653 GALVANIZED STEEL SHEET, LOCK-FORMING QUALITY, G60 ZINC COATING.

GAS-FIRED UNIT HEATER:

1. EXISTING UNIT HEATER (UH-2): OBTAIN FROM HARDY POND; INSTALL PER MANUFACTURERS RECOMMMENDATIONS.
2. NEW UNIT HEATER (UH-1) TRANE, OR EQUAL; AS SCHEDULED.
3. PROVIDE "Y" SPLITTER DISCHARGE
4. PROVIDE VENTING THROUGH ROOF. VENTING SHALL BE B-VENT WITH UL-LISTED CAPS, SUPPORTS, AND ACCESSORIES AS PER UH MFRS RECOMMENDATIONS.
5. MINIMUM INLET PRESSURE: 11" WC.
6. PROVIDE 2-STAGE GAS VALVE AND THERMOSTAT.
7. PROVIDE OSHA FAN GUARD.
8. HANG FROM ALL-THREAD RODS
9. PROVIDE AN ENERGY-STAR PROGRAMABLE ELECTRONIC THERMOSTAT

ELECTRIC BASEBOARD HEATERS

1. POWDER COATED BRONZE FINISH, 22GA. STEEL FRONT WITH 20 GA. JUNCTION BOXES LOCATED ON EACH END OF THE HEATER - JUNCTION BOXES CONTAIN QUICK CONNECT CABLE CLAMPS AND 6" GROUND LEAD WIRES; STANDARD INLET AND OUTLET WIRE GUARDS; OVER-TEMPERATURE THERMAL LIMIT EXTENDS ENTIRE LENGTH OF HEATED AREA; A FULL LENGTH WIREWAY & COVER PROVIDED ALONG THE BACK OF THE HEATER; HEATER CAN BE MOUNTED TO THE WALL BY USING THE KEY HOLE KNOCKOUTS EVERY 4" AT THE BACK OF THE HEATER. PROVIDE WALL THERMOSTAT FOR EACH HEATER. HEIGHT: 6"; DEPTH: 2 1/2".

A2	MECHANICAL SCHEDULES, DETAILS, & SPECIFICATIONS
N/A	

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IAN A. MACDONALD No. 8866 STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER

REVISIONS

NUMBER	DATE	BY	DESCRIPTION

Date: 07/23/2007
Drawn By: PMB
Checked By: IAM
Project Mgr: WPF
Project No: 05090
Cad File: 05090M.DWG
Graphic Scale: 0 1"

MECHANICAL PLAN

HARDY POND BUILDING NO. 10
1039 RIVERSIDE STREET
PORTLAND, MAINE

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ISSUED FOR CONSTRUCTION ~23 JULY 2007

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