Install new 24x24 egg crate return
Connect to existing flex duct

Existing steam coil to be removed
Install duct spool piece and insulate

Connect to supply drop

Provide new supply and return drops
From new 4 ton RTU curb

demo existing duct system
replace with all new

ceiling to be removed
suspend diffusers reset in new grid

Relocated existing diffuser

GENERAL NOTES

1	ALL WORK SHALL BE IN ACCORDANCE WITH THE MAINE UNIFB2:B16ORM BUILDING AND ENERGY CODE (MUBEC) IN EFFECT AS OF MARCH 1, 2017 INCLUDING, BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE - 2009, ASHRAE ENERGY STANDARD 90.1-2007, ASHRAE VENTILATION STANDARD 62.1-2007, MAINE FUEL & BOILER CODES, NFPA 54-2012, 90A-2012, 211-2013, THE NATIONAL ELECTRICAL CODE AND ALL APPLICABLE STATE AND LOCAL CODES.
2	REMOVE ALL DISCONTINUED EQUIPMENT FROM THE SITE AND DISPOSE OF PROPERLY. RETURN EQUIPMENT NOTED TO OWNER.
3	CONFIRM ALL EQUIPMENT SIZES AND REQUIRED CLEARANCES BEFORE ORDER OR FABRICATION.
4	MAINTAIN PROPER CLEARANCES TO ALL ELECTRICAL PANELS AND PROPER SERVICE CLEARANCE TO ALL EQUIPMENT.
5	VENTILATION RATES ARE BASED ON ASHRAE 62.1-2007 FOR OFFICE SPACES, BREAKROOM AND CORRIDORS. TOILET EXHAUST VENTILATION IS NOT INCLUDED.
6	ALL SYSTEMS SHALL RUN WHENEVER THE ASSOCIATED PORTION OF THE BUILDING IS OCCUPIED. SYSTEMS SHALL CYCLE AT NIGHT WITH OUTSIDE AIR DAMPER CLOSED TO MAINTAIN HEATING/COOLING UNOCCUPIED TEMPERATURES.
7	TEST AND BALANCE COMPLETED AIR SYSTEMS.
8	PAINT ALL NEW GAS PIPING YELLOW. PROVIDE ANSI A13.1 PIPE LABELS.
9	INSTALL GAS PIPING PER NFPA-54.
10	INSTALL ROOFTOP UNITS OR MODIFY PLUMBING VENTS OR EXHAUST DISCHARGES TO OBTAIN A MINIMUM OF 10 FEET BETWEEN AIR INTAKE AND VENT/EXHAUST. AIR INTAKE MAY BE 3 FEET FROM PLUMBING VENTS IF VENT TERMINATION IS AT LEAST 3 FEET ABOVE THE INTAKE (PER ASHRAE 62.1).
11	PROVIDE MERV 8 FILTERS FOR ROOFTOP UNITS.
12	UNIT OUTSIDE AIR DAMPERS SHALL BE LOW LEAKAGE TYPE.
13	CONSTRUCT GALVANIZED METAL DUCTWORK IN ACCORDANCE WITH SMACNA DUCT STANDARDS. SEAL DUCTS TO ASHRAE LEVEL "C".
14	INSULATE SUPPLY AIR DUCTS WITH R-6 DUCT WRAP. RETURN DUCTS DO NOT NEED INSULATION. BASED ON ASHRAE 90.1-2007 FOR CEILING SPACE WITH ALL BUILDING INSULATION ABOVE AND NONE BELOW.
15	EXTEND FLEX DUCT TO MINIMIZE INTERNAL FOLDS. HANG WITH EXTENDED BANDS RATHER THAN WIRES TO REDUCE CRIMPING. USE MINIMUM PRACTICAL LENGTHS.
16	PROVIDE DUCT DAMPERS AT ALL ROUND DUCT TAKEOFFS TO ALLOW BALANCING.
17	NEW SUPPLY DIFFUSERS SHALL BE SQUARE FACE, ROUND NECK WITH HORIZONTAL AIRFLOW, PRICE SCD31 OR EQUAL. RETURN GRILLES SHALL BE LAY-IN TYPE, 45 DEGREE FIXED SINGLE FACE BARS, PRICE MODEL 630 OR EQUAL.

UNIT	MAKE	MODEL	TONS	HEAT BTU	VOLT	PHASE	MIN SEER	CFM	MIN OA	
RTU3	YORK	ZF090N12D2B1AAA1A1	7-1/2	120,000	230	3PH	13	3000	210	ECONOMIZER/ HIGH STATIC DRIVE
RTU4	YORK	ZE048H72B2C1AAA1A	4	72,000	230	3PH	13	1600	160	ECONOMIZER
RTU5	YORK	ZE036H05B2C1AAA1A	3	50,000	230	3PH	13	1200	80	ECONOMIZER
RTU6	YORK	ZE060H10B2C1AAA1A	5	100,000	230	3PH	13	2000	160	ECONOMIZER
RTU8	YORK	ZE048H72B2C1AAA1A	4	72,000	230	3PH	13	1600	160	ECONOMIZER
RTU10	YORK	ZE048H72B2C1AAA1A	4	72,000	230	3PH	13	1600	192	ECONOMIZER

CALL NORTH

EXISTING BUILDING AND MECHANICAL SYSTEM INFORMATION HAS BEEN DEVELOPED FROM SITE SURVEYS AND EXISTING PLANS. THE ACCURACY OF THIS INFORMATION IS LIMITED BUT IS SUFFICIENT TO SHOW THE MECHANICAL SYSTEMS FOR CONSTRUCTION. THE DESIGN TEAM ASSUMES NO LIABILITY FOR THE USE OF THESE DRAWINGS OR ELECTRONIC CAD FILES BY OTHERS FOR ANY PURPOSE, PRESENT OR FUTURE, OTHER THAN THE SPECIFIC INTENT STATED ABOVE.

Scale $\frac{1}{8}$"=1'

STATE OF MAINE
RUSSELL A. MARTIN
No. 4130
PROFESSIONAL ENGINEER
LICENSED

GAMMON'S
REFRIGERATION & AIR CONDITIONING SPECIALISTS

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190 Lancaster St
Portland Me
3rd floor renovation

Date	Revision
3-15-2017	Permit

DUCT PLAN

M2