

NEW HVAC - PART ROOF PLAN  
1:100

**DRAWING NOTES**

1. PROVIDE NEW ROOF CURB. FOOTPRINT OF NEW UNIT TO MATCH EXISTING. REFER TO STRUCTURAL FOR COORDINATION.
2. INSTALL THERMOSTAT IN SECOND FLOOR CORRIDOR. CONFIRM WITH CONTRACT ADMINISTRATOR ON LOCATION.
3. RECONNECT GAS LINE.
4. SERVICE PLATFORM TO BE REPLACED IN KIND. PROVIDE SEALED SHOP DRAWINGS TO CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION.

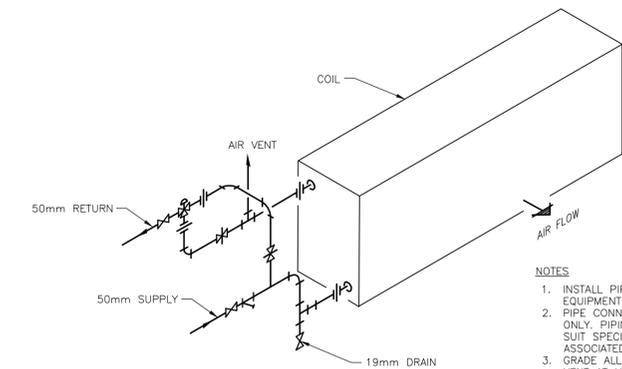
**GENERAL NOTES**

1. REPAIR ROOF FROM AREAS AFFECTED BY DEMOLITION. REPLACE IN KIND.
2. PROVIDE 18mm CONDENSATE DRAIN FOR AHU M639 DOWN THROUGH NEW OPENING AS INDICATED ON S-03. COORDINATE OPENING WITH STRUCTURAL. RUN IN CEILING SPACE AND DOWN TO NEAREST DRAIN IN ACID DIGESTION ROOM.
3. PROVIDE TRANSITIONS AS REQUIRED FOR DUCT RECONNECTIONS.
4. REFER TO P-1 AND P-2 FOR FURTHER DETAILS.

**AIR HANDLING UNIT SCHEDULE**

TAG	AHU-M639	AHU-M651
<b>SUPPLY FAN</b>		
AIR FLOW RATE (CFM / L/s)	15,850 / 7,481	11,078 / 5,229
E.S.P. (in.WC / Pa)	1.0 / 249	2.0 / 498
MOTOR TYPE	TEFC	TEFC
MOTOR SIZE (hp / kW)	20 / 14.9	10 / 7.5
VOLTAGE/PHASE	600 / 3	600 / 3
<b>RETURN FAN</b>		
AIR FLOW RATE (CFM / L/s)	10,025 / 4,732	
E.S.P. (in.WC / Pa)		0.25 / 62
MOTOR TYPE		TEFC
MOTOR SIZE (hp)		7.5 / 5.6
VOLTAGE/PHASE		600 / 3
<b>HEATING SECTION</b>		
HEAT CAPACITY INPUT (MBH / kW)	1600 / 468.9	
HEAT CAPACITY OUTPUT (MBH / kW)	1440 / 422.0	143.2 / 42.0
FLUID		50% PROP. GLY.
EGT (F / °C)		180.0 / 82.2
LGT (F / °C)		160.0 / 71.1
EAT (F / °C)	-31.0 / -35.0	56.0 / 13.3
LAT (F / °C)	53.0 / 11.7	75.0 / 23.9
FLOW RATE (GPM / L/S)		27.9 / 1.76
FLUID PRESSURE DROP (FT / M)		1.7 / 0.5
<b>COOLING SECTION</b>		
COOLING COIL NET CAPACITY (MBH / kW)	815.1 / 238.9	240 / 70.3
AIR EDWT (F / °C)	87.0 / 30.6	75.7 / 24.3
AIR EWBT (F / °C)	73.0 / 22.8	63.3 / 17.4
AIR LDWT (F / °C)	58.5 / 14.7	56.4 / 13.6
AIR LWBT (F / °C)	58.1 / 14.5	55.9 / 13.3
REFRIGERANT:	R-410A	R-410A
EER	9.7	11.0
VOLTAGE/PHASE:	600 / 3	600 / 3

- NOTES:
1. AHU-M639 TO MATCH EXISTING ROOF CURB FOOTPRINT.
  2. PROVIDE SCHNEIDER VT 8600 CONTROLLER C/W LOCKABLE COVER FOR AHU-M651.

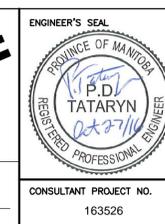
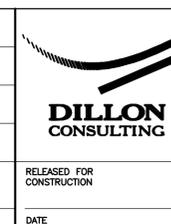


TYPICAL PIPING ARRANGEMENT AT COIL SECTION  
NO SCALE

- NOTES:
1. INSTALL PIPING CLEAR OF EQUIPMENT ACCESS DOORS.
  2. PIPE CONNECTIONS ARE SCHEMATIC ONLY. PIPING IS CONNECTED TO SUIT SPECIFIED COIL AND ASSOCIATED CONTROL VALVE.
  3. GRADE ALL COILS TO DRAIN AND VENT AT HIGH POINT.



B.M. ELEV.					
DESIGNED BY	PDT				
DRAWN BY	JV				
CHECKED BY	NDC				
APPROVED BY					
HOR. SCALE	NONE				
VERTICAL					
NO.	REVISIONS	DATE	BY	DATE	
1	Issued for Addendum No. 1	16/11/16	PDT		
0	Issued for Tender	16/10/27	PDT		



**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT  
NEWPC MAIN BUILDING - HVAC REPLACEMENT

NEW HVAC - PART ROOF PLAN

CITY DRAWING NUMBER: 1-0101M-M0015-001  
SHEET 6 OF 21

M-2