

## Mechanical Addendum M-01

Project Name: RCMP Heating and Controls Upgrade	
Client: RCMP "K" Division	
Project No.: 26877.00	Date: June 12, 2013
Distribution: Ron SETO NWT Project Management Office ron.seto@rcmp-grc.gc.ca	

This addendum forms part of the Contract Documents and is to be read, interpreted, and coordinated with all other parts. The cost of all work contained herein is to be included in the Contract Sum. The specifications and drawings are complementary. Items listed under the specification in this addendum and having influence on the drawings are so deemed to alter the drawings. Items listed under the drawings in this addendum and having influence on the specification are so deemed to alter the specification

---

### 1. Response to Questions

1. Are the reheat coils in the basement or on the main floor?

There are 3 reheat coils in the basement and 2 in the main floor.

2. Are there any pictures of leak on the day tank? Is it on a threaded joint or valve?

The leak on the day tank is on the threaded joint. See photo- 1

3. What size is the compressor? What are the dimensions? What is the approx. weight? Is there any other access to the basement other than the stairwell?

The width of the compressor 559mm and the door frame is 915; model and other specification of the compressor are not available. The only access to the basement is the stairwell.

4. What model is the existing boiler? Are there weights or dimensions available?

The existing boilers are American standard PF-504 W with dimensions 1778x1118x1664 mm and a weight of 1053 Kg.

5. I will assume that the mount of piping needed for supply and return hydronic heating is 60 meter of pipe, since that is listed on the amount of insulation with asbestos there is.

All piping with asbestos-containing insulation will be removed in mechanical room. Approximate length of piping is 60m of pipe 65mm and smaller diameter and including

approximately 20 elbows as specified in the summary section of asbestos removal specification.

6. Can you provide drawings showing a plan view of the basement with piping layouts showing where pipe connections are made from existing to new piping?

All piping in the mechanical room will be removed; the connection points will be at the points where pipes are leaving the mechanical room. Refer Q#5.

7. Can you provide drawings showing a dimension with a scale as well?

The mechanical drawings are scaled 1:50. See MSK-1 shows the basement floor with dimensions and scaled 1:75.

8. Specification for Zone Valves (2 way for control of water, voltage, current, feedback,)

2 way low voltage hydronic control valves c/w electric actuator, 24 VDC, 5 VA, 60Hz, De-energized position normally closed and maximum timing 7 seconds to open and 6 seconds to close. Manufacturer is Honeywell Model V8043C or equivalent.

- a. How Many?

Refer to drawings M-5 Keynote 12 and M-7 keynotes 2&3, total 12 valves are required as following:

- 5 the baseboard radiation in the main floor.
- 1 for the cabinet unit heater to be replaced in the main floor
- 2 for the reheat coils in the main floor.
- 3 for the reheat coils in the basement.
- 2 for the heating coils of the air systems F-1.01 and F-3.01

- b. Do they wish to connect zone valves to fan controls?

It's not required to connect zone valves to fans control panel.

9. Is there a specification for the 2-way valves that are needed?

Refer to Q#8.

10. Specification for Existing Automatic Air Vent (Control is 2 way? Open or Closed? AC/DC Voltage, current, make, model, stroke length required?)

The automatic air vent does not require electrical connection; an automatic air vent is to be installed on the supply heating pipe running in the garage area next to the existing unit heater. Automatic air vent with dezincification resistant copper alloy body and EPDM valve head Spirax-Sarco model AE30 or equivalent.

11. Voltages, phases, FLA and HP ratings for all fans?  
Are not available, and will be not needed in the scope of work of this job can be confirmed on the site.

12. Are panel fan push buttons illuminated (push to test?)  
Fan push buttons to be provided on the control panel.

13. Type of Enclosure Stainless or NEMA 12  
Stainless steel enclosure is to be used.

14. Is the Control Panel controlling and monitoring the boiler?

The new control panel will be provided to control the air system (fans) not for the heating system (boilers). The boilers will be supplied and installed completely with their control panels.

15. Are there any alarm conditions that must be considered (fan, pump, low oil, etc.), If so how should they be annunciated?

No alarms to be considered.

16. Tank-1 and Tank-2 referred to in Drawing M-2 are not shown on any plan views in the mechanical room, where are they located?

They are hanging in the roof in front of boilers.

17. There are no specifications for the Electric actuators; will you be providing this information?

Refer to Q#8 for zone valves electric actuators. Dampers actuators to be BELIMO or equivalent operates in response to a 2 to 10VDC, a 2-10 VDC feedback signal for position indication and provides 95° of rotation.

18. There is a discrepancy on Drawing M-3. It shows Boiler 2 return line is going through the pump (P-8). Is the supply and return lines mixed up? Is this a mistake on the WEC drawing?

The supply and return lines are mixed up, P-8 should be installed on the supply line.

19. On Drawing M-3, all controls around the boiler have no definitions for the acronyms, is there a list for these acronyms?

- LWCO: Low water Cut-off control.
- OC: Operating Control
- AHL: Auxiliary High Limit
- HS: Emergency off Switch to shut off burner.

20. On Drawing M-3, the connection point from the 65mm GLYS line to the 25mm T-1 line, the symbol is not listed. Is there a specific meaning to that symbol?

This symbol represents the Air vent.

21. On Drawing M-3, Item 5 says to replace the pump and reuse the pressure gauges. Are all the valves to be replaced with new valves or reuse the existing ones along with the piping near the pumps?

All the valves along with the piping near the pumps to remain.

22. On drawing M-4, what size is the fuel supply and return piping that must be replaced?

Both supply and return have 50mm (2in) diameter at the portion to be replaced.

23. The control valves that are to be replaced from pneumatic to Electric. Could you give the sizes needed, pressures and flow rates?

Refer to Q#8

24. The Gate and Globe valve symbols referred to on page 1 of the drawing are the same. Which is the valve being used for the hydronic and fuel system?

See Symbols on attached drawing MSK-1 and provide valves accordingly

25. What size is the fuel piping that is to be replaced going through the building wall?

Refer Q# 22

26. What is the size of the Mechanical Room?

See attached MSK-1

27. The balance valves that are in the spec have no information. Are there certain balance valves that are accepted?

Refer to Q#8

28. At this time I am not sure of the delivery dates for the equipment necessary to complete this job. Let's say the Boilers take 12 weeks for delivery. This would put the delivery of the equipment mid to end of September. At that time it is getting pretty cold in Fort Simpson. Who would be responsible for the temporary heat at that time?

It's the contractor responsibility to provide temporary heat as required until the new heating system is fully installed and operational.

Prepared by,

Williams Engineering Canada Inc.

**Muath Abualqumssan**  
**Mechanical**

T 867.873.2395 F 867.873.2547  
E [mabualqumssan@williamsengineering.com](mailto:mabualqumssan@williamsengineering.com)

End of Addendum No. M-01  
Attached: MSK-1



**Photo-1:** Oil Leak Location at the Day Tank