Mechanical Design Summary

Project description/name and address: _____

General information:

1. This document **must** be completed and attached to the application submission. When necessary, additional analyses shall be provided and included with the submission.
2. All references refer to the Manitoba Building Code (MBC).
3. Indicate all items that are not applicable.

If a previous Mechanical Design Summary - Shell only has been submitted, confirm that the design criteria has been maintained.	☐ Yes

Heating, Ventilating and Air-Conditioning (MBC Part 6)

Design professionals to initial their items of responsibility

Note: Mechanical systems, such as commercial cooking operations and manufacturing processes, are permitted to be excluded from the full or partial plan submission. However, separate permits are required for those mechanical systems.

MBC Section 6.3 Design and installation

MBC Subsection 6.3.1 Ventilation ASHRAE 62 ☐ Other (specify): _____

a. Use(s): _____

b. Rate(s): _____

c. Occupant Load(s): _____

d. Ventilation capacity required = _____

e. Ventilation capacity provided = _____

Mechanical HVAC design for MBC Part 5 – Environmental separation

a. Operating temperature: _____

b. Operating relative humidity range Summer: _____ Winter: _____

c. Operating static pressure: _____

d. Specified leakage rate for building: _____

Other space ventilation

a. Storage garage - 6.3.1.3	☐ Yes	☐ N/A
b. Indoor air contaminant exhaust - 6.3.1.5	☐ Yes	☐ N/A
c. Dust collection system – 6.9.1.2	☐ Yes	☐ N/A
d. Welding and cutting operations (NFPA 51) – 6.9.1.2	☐ Yes	☐ N/A
e. Crawl space/attic or roof spaces - 6.3.1.2	☐ Yes	☐ N/A

f. Other conditions/features (specify): _____

MBC Subsection 6.3.2 Air duct systems		
a. Fire dampers (see Article 3.1.8.10) - 6.9.2.1	☐ Yes	☐ N/A
b. Smoke detector control (see Article 3.2.4.13) - 6.9.2.2	☐ Yes	☐ N/A
c. Exhaust ducts and outlets - 6.9.2.3	☐ Yes	☐ N/A
d. Interconnection of systems - 6.3.2.7	☐ Yes	☐ N/A
e. Make-up air - 6.3.2.8	☐ Yes	☐ N/A
MBC Subsection 3.1.8 Smoke or Combination Smoke/Fire Dampers (MBC 3.1.8.7. and 3.1.8.11.)		
a. Smoke or combination smoke/fire dampers	☐ Yes	☐ N/A
b. Locations of dampers required in item (a.) have been coordinated with the Electrical Engineer.	☐ Yes	
c. Smoke or combination smoke/fire dampers shown	☐ on electrical drawings	☐ on mechanical drawings
d. Smoke detector required/provided	☐ Yes	☐ N/A
MBC Subsection 6.9.3 Carbon monoxide alarms		
Note: The building does not contain a fuel-burning appliance, storage garage or other sources of carbon monoxide	☐ (check)	
a. Carbon monoxide alarms - 6.9.3.1	☐ Yes	
b. Carbon monoxide alarms – (NFPA 720) 6.9.3.2.	☐ Yes	
c. Carbon monoxide alarms shown	☐ on electrical drawings	☐ on mechanical drawings
d. Carbon monoxide alarm locations required by 6.9.3.1 or 6.9.3.2 have been coordinated with the electrical engineer	☐ Yes	
MBC Subsection 3.3.6 /MFC dangerous goods	Check if not applicable ☐	
a. Dangerous Goods - 3.3.6.2	☐ Yes	☐ N/A
b. Compressed flammable, toxic and oxidizing gases – 3.3.6.3	☐ Yes	☐ N/A
c. Flammable and Combustible Liquids – 3.3.6.4 (Refer to 4.1.2.1 in National Fire Code for classification)	☐ Yes	☐ N/A
d. Other hazardous processes and operations	☐ Yes	☐ N/A
Mechanical systems requiring a separate trade permit	☐ Yes	☐ N/A
a. _____		
b. _____		
c. _____		
Integration of fire protection and life safety systems (CAN/ULC-S1001) Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems		
a. Building subject to CAN/ULC-S1001 standard (3.2.9.1)	☐ Yes	☐ N/A

Other Systems

Design professionals to initial their items of responsibility

1. Repair garage/spray booths	Check if not applicable ☐	
a. Auto-body repair shop - 6.3.1.5	☐ Yes	☐ N/A
b. Service/repair garage (NFPA 30A) - 6.9.1.2	☐ Yes	☐ N/A
c. Spray booth (NFPA 33) - 6.3.1.5 and 6.9.1.2	☐ Yes	☐ N/A
2. Cooking equipment check	Check if not applicable ☐	
a. Ventilation of cooking equipment (NFPA 96) – 6.3.1.6	☐ Yes	☐ N/A
b. Fire protection of cooking equipment (ANSI/CAN//UL/ULC 300 or ULC/ORD-C1254.6) - 6.9.1.3	☐ Yes	☐ N/A

Fire Suppression Systems

Design professionals to initial their items of responsibility

Notes:

- Sprinkler system and/or standpipe drawings, including hydraulic calculations to be submitted under separate M2 permit ☐ (check)
- For M2 permit, Required Professional Design Certificate to be submitted with drawings, sealed signed and dated

1. Sprinkler systems	Check if not applicable ☐		
a. Sprinkler Systems (3.2.5.12) – NFPA (check applicable standard)	☐13 ☐13R ☐13D		
b. NFPA Hazard occupancy (check type):			
☐ Light ☐ Ordinary (group1) ☐ Ordinary (group2) ☐ Extra (group1) ☐ Extra (group2)			
c. Type of system (check type): ☐ Wet ☐ Dry ☐ Other (specify) _____			
d. Building (for additions – existing building and addition) to be fully sprinklered	☐ Yes		
2. Standpipe systems check	Check if not applicable ☐		
a. Standpipe and hose system (3.2.5.8 to 3.2.5.11) - NFPA 14	☐ Yes	☐ N/A	
3. Other fire suppression features			
a. Fire pump (see 3.2.5.18) - NFPA 20	☐ Yes	☐ N/A	
b. Individual rooms or areas required to be sprinklered or Alternative Solutions using sprinklering	☐ Yes	☐ No	

_____

Affix seal with signature and date