



**CENTRAL REGION
STANLEY KNOWLES BUILDING
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**File: 8020-R18/11-18
Project: RTHC00305
Assign: MTHC01343
kevin.h.serle@rcmp-grc.gc.ca**

September 9, 2013

RCMP Major Capital Projects
P.O Box 6500
Regina, SK

Attention: Mr Kevin Serle

Dear Sir:

**RE: PRE-RENOVATION INSPECTION, RCMP FORENSIC LAB BUILDING,
REGINA, SASKATCHEWAN**

A site visit was made on August 21, 2013 at your request to review the existing building and identify any building and fire code concerns with respect to future renovations to an office occupancy.

This review is based on the 2010 editions of the National Building Code (NBC) and the National Fire Code (NFC) as well as applicable Treasury Board and Fire Commissioner of Canada Guidelines. Copies of Treasury Board and Fire Commissioner of Canada Guidelines are available by contacting us at michael.wagemakers@labour-travail.gc.ca

At this time we have the following comments:

1. The original building was designed as a two storey F-2 (Laboratory Occupancy), sprinklered, two street access, non-combustible construction with an interconnected floor space. The interconnected floor space meets NBC 1990 Section 3.2.8 and the building construction meets NBC 1990 Article 3.2.2.52 with 1 hour rated floors. Exit stairs are separated with 1 hour fire separations (NBC 1990 Article 3.4.4.1) and the basement Mechanical Room 001 is separated with a 1 hour rated fire separation meeting NBC 1990, Article 3.5.2.1. The existing Garage 142 is separated from the remainder of the building with a 1 ½ hour fire rated separation as per NBC 1990 Article 3.3.5.7. The Garage/Exam Room 146 (including Rooms; 150, 152, 147, 148, 149 and 153) are separated from the remainder of the building with a 1 ½ hour rated fire separation as per NBC 1990 Article 3.3.5.7.

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2. The future use of the building as an office (D) occupancy is acceptable as the requirements for a two storey D occupancy are equal or less than that of the existing F-2 occupancy.
3. The existing Garages may continue to be used as storage garages but would have to be upgraded to 2 hour rated fire separations if their use would change to include repair activities as per NBC 2010 Article 3.3.5.5.
4. Existing Chemical and Gas Storage rooms 140, 137, and 135 are all separated with fire rated separations and can continue to be used for their original function. Subsequent use for general storage or exhibit storage would be acceptable.
5. Note that rooms used for file storage with mobile shelving shall meet the Fire Commissioner of Canada, Mobile Shelving Guideline and be provided with smoke detectors and spacers in the shelving units to allow for a 100 mm space between parks units. Larger Rooms will also require a sprinkler density upgrade to ordinary hazard from the existing light hazard depending on the area of mobile shelving.
6. We recommend that audibility testing be done throughout the building in all rooms as part of the next annual fire alarm inspection to ensure adequate fire alarm audibility as per NBC 2010 Article 3.2.4.19. This building has had minor renovations throughout the years and there may be areas which have weak fire alarm audibility.
7. Repair the latch Mechanism for the basement exit door from Stair 138 as per NFC 2010 Article 2.7.2.1.
8. Provide smart smoke detectors (combination smoke detector and rate of rise heat detector) at the top of each stair leading from the basement Mechanical Room 001 as per NBC 2010 Article 3.2.4.12 and NFC 2010 Article 2.1.3.1. The building code requires a smoke detector which can be provided for these areas however we feel that a smart smoke detector would be more appropriate as the exit and egress stairs are open to the Mechanical Room and standard smoke detectors could provide false alarms due to the dusty environment.
9. Repair fire stop sealing of service penetrations between the crawlspace and Mechanical Room 001, Electrical Room 004, Telecom Room 003 and UPS Room 006 as per NFC 2010 Article 2.2.1.2. Use re-penetrable fire stop systems for communication cables rather than fixed fire stop systems to allow for future cable installation and removal.

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10. The Elevator machine Room 002 is required to be separated from the remainder of the building with a 1 hour rated fire separation as per NFC 2010 Article 2.2.1.1 and NBC 2010 Article 3.5.3.3. The existing wall and ceiling construction can be used to provide the required fire rating however the door would have to be changed to a 45 minute fire rated door, frame and door closer and all service penetrations would require fire stop sealing. Duct penetrations, if any, of the walls or ceiling will require fire dampers.

11. Storage Room 238 was originally designed with a 2 hour rated fire separation however the door to this room does not have the required 1 ½ hour fire resistance rating. This room can remain as is if it is used for general storage only and will not contain hazardous or important (such as important files or evidence) materials.

12. Identification Lab 210/210A is currently not separated from the remainder of the building with a rated fire separation. This is acceptable provide the lab does not use flammable or combustible chemicals or gasses as per NFC 2010 Section 5.5. Small amounts of chemicals are permitted without a fire rated separation provided they fall within the quantities of NFC 2010 Subsection 4.2.6.

Please advise us of your proposed actions regarding the above noted comments within the next 30 days. Should you have any questions or concerns, contact this office at (204) 984-3682 or Labour Program's toll free number at 1-800-641-4049.

Sincerely,



M. Wagemakers, P. Eng.
Fire Protection Engineering Services

CC: kenneth.lemieux@rcmp-grc.gc.ca

MW/ec