

AN ORDINANCE TO AMEND CHAPTER 15.12 OF THE RAPID CITY MUNICIPAL CODE TO ADOPT THE 2018 INTERNATIONAL BUILDING CODE

WHEREAS, in Chapter 15.12 of the Rapid City Municipal Code, the City of Rapid City has adopted the 2012 edition of the International Building Code; and

WHEREAS, the City wishes to amend R.C.M.C. Chapter 15.12 to adopt the 2018 edition of the International Building Code; and

WHEREAS, the City wishes to retain some of the different or additional requirements it had adopted with regard to the 2012 edition of the International Building Code and apply them to the 2018 edition of the International Building Code.

NOW THEREFORE, BE IT ORDAINED by the City of Rapid City, that Chapter 15.12 of the Rapid City Municipal Code is hereby amended to read in its entirety as follows:

CHAPTER 15.12: INTERNATIONAL BUILDING CODE

Section

- 15.12.010 Adoption of 2012~~8~~ International Building Code.
- 15.12.020 IBC Chapter 1–Deleted in part and replaced in part.
- 15.12.030 IBC Chapter 1, Section 101.1 Title–Amended.
- 15.12.03~~4~~0 IBC Chapter 1, Section 101.4.1 Gas–Amended.
- 15.12.04~~5~~0 IBC Chapter 1, Section 101.4.2 Mechanical–Amended.
- 15.12.05~~6~~0 IBC Chapter 1, Section 101.4.3 Plumbing–Amended.
- ~~15.12.060 IBC Chapter 1, Section 101.4.6 Energy Deleted.~~
- 15.12.070 IBC Chapter 1, Section 101.4.7 Existing Buildings–Amended.
- 15.12.07~~8~~0 IBC Chapter 1, Section 101.4.~~7~~8 Electrical–Added.
- 15.12.08~~9~~0 IBC Chapter 1, Section 106.1 Live loads posted–Amended.
- 15.12.09~~1~~00 IBC Chapter 1, Section 108.3 Temporary power–Amended.
- ~~15.12.100 IBC Chapter 1, Section 110.3 Required Inspections–Amended.~~
- 15.12.110 IBC Chapter 2, Section 202 Definitions–Amended.
- 15.12.120 IBC Chapter 3, Section 312 Utility and Miscellaneous Group U–Amended.
- 15.12.130 IBC Chapter 4, Section 402.6.4 Plastic signs–Deleted.
- 15.12.140 IBC Chapter 4, Section 403.1 Applicability–Amended.
- 15.12.150 IBC Chapter 4, Section [F] 404.3 Automatic sprinkler protection–Amended.
- ~~15.12.160 IBC Chapter 4, Section 412.4.1 Exterior walls Deleted.~~
- ~~15.12.170 IBC Chapter 5, Section 504.2 Automatic sprinkler system increase–Amended.~~
- 15.12.18~~6~~0 IBC Chapter 9, Section [F] 903.2 Where required–Amended.
- 15.12.19~~7~~0 IBC Chapter 10, Table 1004.1.2 Maximum floor area allowances per occupant–Amended.
- ~~15.12.200 IBC Chapter 11, Section 1101.2 Design–Amended.~~
- 15.12.21~~8~~0 IBC Chapter 11, Section 1104.4 Multilevel buildings and facilities–Amended.
- ~~15.12.220 IBC Chapter 14, Section 1404.2.1 Weather resistive sheathing papers–Added.~~

~~15.12.23190~~ IBC Chapter 14, Section 1405.11.46.15 Grounding—~~Amended~~Added.
~~15.12.24200~~ IBC Chapter 15, Section [P] 1503.42.1 Roof drainage—Amended.
~~15.12.250~~ IBC Chapter 15, Section 1507.5.4 Ice barrier—Amended.
~~15.12.260~~ IBC Chapter 15, Section 1507.6.4 Ice barrier—Amended.
~~15.12.270~~ IBC Chapter 15, Section 1507.7.4 Ice barrier—Amended.
~~15.12.280~~ IBC Chapter 15, Section 1507.8.4 Ice barrier—Amended.
~~15.12.290~~ IBC Chapter 15, Section 1507.9.4 Ice barrier—Amended.
~~15.12.30210~~ IBC Chapter 16, Section 1603.1 Construction documents—Amended.
~~15.12.31220~~ IBC Chapter 16, Section 1604.1 General—Amended.
~~15.12.3230~~ IBC Chapter 16, Section 1608 Snow loads—Amended.
~~15.12.33240~~ IBC Chapter 16, Section 1612 Flood loads—Amended.
~~15.12.340~~ IBC Chapter 17, Section 1702 Definitions—Amended.
~~15.12.3250~~ IBC Chapter 17, Section 1704.2 Special inspections—Amended.
~~15.12.360~~ IBC Chapter 17, Section 17172 Prefabrication—Added.
~~15.12.37260~~ IBC Chapter 18, Section 1804.4.5 Grading and fill in flood hazard areas—Amended.
~~15.12.38270~~ IBC Chapter 18, Section 1808.6.1.1 Frost protection—Added.
~~15.12.39280~~ IBC Chapter 27, Section 2701.1 Scope—Amended.
~~15.12.40290~~ IBC Chapter 29, Section 2901.1 Scope—Amended.
~~15.12.410~~ IBC Chapter 29, Section [P] 2902.1 Table, Minimum number of required plumbing fixtures—Amended.
~~15.12.420~~ IBC Chapter 30, Section 3002.7 Common enclosure with stairway—Amended.
~~15.12.4300~~ IBC Chapter 31, Section 3109 Swimming pool enclosures and safety devices—Deleted.
~~15.12.44310~~ IBC Chapter 32, Section 3202.1.4 Space below sidewalk – Added.
~~15.12.45320~~ IBC Chapter 32, Section 3202.5 Projection into alleys – Added.
~~15.12.46330~~ IBC Chapter 32, Section 3202.6 Public right-of-way—Structures prohibited—Exceptions—Added.
~~15.12.47340~~ IBC Chapter 33, Section 3308 Temporary use of streets, alleys, and public property—Deleted.
~~15.12.480~~ IBC Chapter 34, Section 3412.2 Applicability—Amended.
~~15.12.49350~~ IBC Appendix I, Section I105.2 Footings—Amended.
~~15.12.50360~~ IBC Appendix J, Section J101.2 Flood hazard areas—Amended.
~~15.12.51370~~ IBC Appendix J, Section J103.1 Permits required—Amended.
~~15.12.52380~~ IBC Appendix J, Section J103.2 Exemptions—Amended.
~~15.12.5390~~ IBC Appendix J, Section J104.2 Site plan requirements—Amended.
~~15.12.5400~~ IBC Appendix J, Section J104.3 Geotechnical report—Amended.
~~15.12.55410~~ IBC Appendix J, Section J107.2 Surface preparation—Amended.
~~15.12.56420~~ IBC Appendix J, Section J109.1 General—Amended.
~~15.12.57430~~ IBC Appendix J, Section J110 Erosion control—Amended.
~~15.12.58440~~ Appendix A, Table 100-B Climactic and geographic design criteria—Adopted.

15.12.010 Adoption of 2012~~8~~ International Building Code.

There is adopted by the City that certain code, recommended by the International Code Council, known as the International Building Code, 2012~~8~~ edition, specifically Chapters 1-27,

29-35, and Appendices B, C, I and J thereof. The code is adopted for all occupancies except 1- and 2-family dwellings. A copy of the same is on file in the office of the City Building Official.

15.12.020 IBC Chapter 1–Deleted in part and replaced in part.

The following sections of IBC Chapter 1 are hereby deleted and replaced with comparable provisions found in Chapter 15.04 Administration of the Rapid City Municipal Code.

Section 103 Department of Building Safety
Section 104 Duties and Powers of Building Official
Section 105 Permits
Section 107 Submittal Documents
Section 109 Fees
<u>Section 110 Inspections</u>
Section 111 Certificate of Occupancy
Section 113 Board of Appeals
Section 114 Violations
Section 115 Stop Work Order

Any reference in the entirety of the International Building Code to the above sections is hereby deleted and replaced with comparable provisions found in Chapter 15.04 Administration of the Rapid City Municipal Code.

15.12.030 IBC Chapter 1, Section 101.1 Title–Amended.

IBC Chapter 1, Section 101.1 Title, is hereby amended to read in its entirety as follows:

101.1 Title. These regulations shall be known as the Building Code of the City of Rapid City, hereinafter referred to as “this code.”

15.12.0340 IBC Chapter 1, Section 101.4.1 Gas–Amended.

IBC Chapter 1, Section 101.4.1 Gas, is hereby amended to read in its entirety as follows:

101.4.1 Gas. The provisions of the Rapid City Gas Code shall apply to the installation of gas piping from the point of delivery, gas appliances and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

15.12.0450 IBC Chapter 1, Section 101.4.2 Mechanical–Amended.

IBC Chapter 1, Section 101.4.2 Mechanical, is hereby amended to read in its entirety as follows:

101.4.2 Mechanical. The provisions of the current mechanical code adopted by the City of Rapid City shall apply to the installation, alterations, repairs and replacement of mechanical systems, including equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

15.12.0560 IBC Chapter 1, Section 101.4.3 Plumbing–Amended.

IBC Chapter 1, Section 101.4.3 Plumbing, is hereby amended to read in its entirety as follows:

101.4.3 Plumbing. The provisions of the current plumbing code adopted by the South Dakota State Plumbing Commission and the City of Rapid City with revisions, shall apply to the installation, alteration, repair and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system.

~~15.12.060 IBC Chapter 1, Section 101.4.6 Energy Deleted.~~

~~—IBC Chapter 1, Section 101.4.6 Energy, is hereby deleted in its entirety.~~

15.12.070 IBC Chapter 1, Section 101.4.7 Existing Buildings–Amended.

IBC Chapter 1, Section 101.4.7 Existing Buildings, is hereby amended to read in its entirety as follows:

101.4.7 Existing buildings. The provisions of the International Existing Building Code may apply to matters governing the repair, alteration, change of occupancy, additions to existing buildings.

15.12.0780 IBC Chapter 1, Section 101.4.78 Electrical–Added.

IBC Chapter 1, Section 101.4.78 Electrical, is hereby added to read in its entirety as follows:

101.4.78 Electrical. The provisions of the current electrical code adopted by the City of Rapid City shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

15.12.0890 IBC Chapter 1, Section 106.1 Live loads posted–Amended.

IBC Chapter 1, Section 106.1 Live loads posted, is hereby amended to read in its entirety as follows:

106.1 Live loads posted. Where the live loads for which each floor or portion thereof of a commercial or industrial building is or has been designed to exceed 100 psf, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

15.12.09100 IBC Chapter 1, Section 108.3 Temporary power—Amended.

IBC Chapter 1, Section 108.3 Temporary Power, is hereby amended to read in its entirety as follows:

108.3 Temporary power. The building official is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in the current electrical code adopted by the City of Rapid City.

~~**15.12.100 IBC Chapter 1, Section 110.3 Required Inspections—Amended.**~~

~~—IBC Chapter 1, Section 110.3 Required inspections, is hereby amended to read in its entirety as follows:~~

~~—**110.3 Inspections.** The Building Official, upon notification, may make the inspections set forth in Section 110.3.1 through 110.3.10.~~

15.12.110 IBC Chapter 2, Section 202 Definitions—Amended.

All definitions will remain the same as in Section 202 except for those specifically changed as follows:

TOWNHOUSE. A single-family dwelling unit constructed in a group of two or more attached units in which each unit extends from foundation to roof and with open space on at least two sides.

STRUCTURAL OBSERVATION. The visual observation of the structural system by a registered design professional for general conformance to the reviewed construction documents at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspection required by Rapid City Municipal Code Chapter 15.04, Section 1704 or other sections of this code.

15.12.120 IBC Chapter 3, Section 312 Utility and Miscellaneous Group U—Amended.

IBC Chapter 3, Section 312 Utility and Miscellaneous Group U, is hereby amended to read in its entirety as follows:

**SECTION 312
UTILITY AND MISCELLANEOUS GROUP U**

312.1 General. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

Agricultural buildings

Aircraft hangars, accessory to a one- or two-family residence (see Section 412.54)

Barns

Camping Cabins

Carports

Fences more than 6 feet (1829 mm) high

Grain silos, accessory to a residential occupancy

~~Greenhouses~~

Livestock shelters

Private garages

Retaining walls

Sheds

Stables

Tanks

Towers

~~Camping Cabins~~

312.21.1 Camping Cabins. Camping cabins must have an egress window or door in each sleeping area, a smoke detector in each sleeping area, interior and exterior light, interior and exterior plug-ins, the unit number on each cabin, rodent protection, a fire extinguisher in each unit, and accessible units shall be provided as per Table 1107.6.1.1.

15.12.130 IBC Chapter 4, Section 402.6.4 Plastic signs–Deleted.

IBC Chapter 4, Section 402.6.4 Plastic signs, is hereby deleted in its entirety.

15.12.140 IBC Chapter 4, Section 403.1 Applicability–Amended.

IBC Chapter 4, Section 403.1 Applicability, is hereby amended to read in its entirety as follows:

403.1 Applicability. High-rise buildings shall comply with Sections 403.2 through 403.6. The provisions of this section shall apply to buildings having occupied floors located more than 75 feet above the lowest level of fire department vehicle access.

Exception: The provisions of Section 403.2 through 403.6 shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.3.

2. Open parking garages in accordance with Section 406.5.
3. Buildings with a Group A-5 occupancy in accordance with Section 303.5.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with a Group H-1, H-2 or H-3 occupancy in accordance with Section 415.

15.12.150 IBC Chapter 4, Section [F] 404.3 Automatic sprinkler protection—Amended.

IBC Chapter 4, Section [F] 404.3, Automatic sprinkler protection, is hereby amended to read in its entirety as follows:

[F] 404.3 Automatic sprinkler protection. An approved automatic sprinkler system shall be installed throughout the entire building.

Exception: That area of a building adjacent to or above the atrium need not be sprinklered provided that portion of the building is separated from the atrium portion by not less than 2-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

~~**15.12.160 IBC Chapter 4, Section 412.4.1 Exterior walls Deleted.**~~

~~—IBC Chapter 4, Section 412.4.1 Exterior walls, is hereby deleted in its entirety.~~

~~**15.12.170 IBC Chapter 5, Section 504.2 Automatic sprinkler system increase Amended.**~~

~~—IBC Chapter 5, Section 504.2, Automatic sprinkler system increase, is hereby amended to read in its entirety as follows:~~

~~—**504.2 Automatic sprinkler system increase.** Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the building area increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum building height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18288 mm) or four stories, respectively.~~

~~—**Exceptions:** The use of an automatic sprinkler system to increase building heights shall not be permitted for the following conditions:~~

- ~~—1. Fire areas classified as a Group I-2 occupancy of Type IIB, III, IV or V construction.~~
- ~~—2. Fire areas classified as a Group H-1, H-2, H-3 or H-5 occupancy.~~

~~3. Fire resistance rating substitution in accordance with Table 601, Note d.~~

15.12.1860 IBC Chapter 9, Section [F] 903.2 Where required—Amended.

IBC Chapter 9, Section [F] 903.2 Where required, is hereby amended to read in its entirety as follows:

[F] 903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.12.

[F] 903.2.1 Group A. An automatic sprinkler system shall be provided throughout buildings and portions thereof used as Group A occupancies as provided in this section.

[F] 903.2.1.1 Group A-1. An automatic sprinkler system shall be provided throughout stories containing Group A-1 occupancies and throughout all stories from the Group A-1 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 8,000 square feet (743 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multitheater complex.

[F] 903.2.1.2 Group A-2. An automatic sprinkler system shall be provided throughout stories containing Group A-2 occupancies and throughout all stories from the Group A-2 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 3,000 square feet (279 m²).
2. The fire area has an occupant load of 100 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

[F] 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 8,000 square feet (743 m²).

2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

[F] 903.2.1.4 Group A-4. An automatic sprinkler system shall be provided throughout stories containing Group A-4 occupancies and throughout all stories from the Group A-4 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 8,000 square feet (743 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

[F] 903.2.1.5 Group A-5. An automatic sprinkler system shall be provided for all enclosed Group A-5 accessory use areas in excess of 1,000 square feet (93 m²).

[F] 903.2.1.5.1 Spaces under grandstands or bleachers. Enclosed spaces under grandstands or bleachers shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 where either of the following exist:

1. The enclosed area is 1,000 square feet (93 m²) or less and is not constructed in accordance with Section 1029.1.1.1.
2. The enclosed area exceeds 1,000 square feet (93 m²).

[F] 903.2.1.6 Assembly occupancies on roofs. Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the level of exit discharge shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

Exception: Open parking garages of Type I or Type II construction.

903.2.1.7 Multiple fire areas. An automatic sprinkler system shall be provided where multiple fire areas of Group A-1, A-2, A-3, or A-4 occupancies share exit or exit access components and the combined occupant load of these fire areas is 300 or more.

[F] 903.2.2 Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation.

2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest level of exit discharge, the level of exit discharge, and all floors below the level of exit discharge.

Exception: Floors classified as an open parking garage are not required to be sprinklered.

[F] 903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.

2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area.

3. The Group E fire area has an occupant load of 300 or more.

[F] 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 8,000 square feet (743 m²).

2. A Group F-1 fire area is located more than three stories above grade plane.

3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 16,000 square feet (1,486 m²).

4. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

[F] 903.2.4.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain woodworking operations in excess of 2,500 square feet (232 m²) in an area that generate finely divided combustible waste or use finely divided combustible materials.

[F] 903.2.5 Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.3.

[F] 903.2.5.1 General. An automatic sprinkler system shall be installed in Group H occupancies.

[F] 903.2.5.2 Group H-5 occupancies. An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall be not less than that required by this code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

[F] 903.2.5.3 Pyroxylin plastics. An automatic sprinkler system shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45kg).

**[F] TABLE 903.2.5.2
GROUP H-5 SPRINKLER DESIGN CRITERIA**

<u>LOCATION</u>	<u>OCCUPANCY HAZARD CLASSIFICATION</u>
<u>Fabrication areas</u>	<u>Ordinary Hazard Group 2</u>
<u>Service corridors</u>	<u>Ordinary Hazard Group 2</u>
<u>Storage rooms without dispensing</u>	<u>Ordinary Hazard Group 2</u>
<u>Storage rooms with dispensing</u>	<u>Extra Hazard Group 2</u>
<u>Corridors</u>	<u>Ordinary Hazard Group 2</u>

[F] 903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

1. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group I-1, Condition 1 facilities.
2. An automatic sprinkler system is not required where Group I-4 day care facilities are at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.
3. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge, and all floors below the level of exit discharge other than areas classified as an open parking garage.

[F] 903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 8,000 square feet (743 m²).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 16,000 square feet (1,486 m²).
4. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).

[F] 903.2.7.1 High-piled storage. An automatic sprinkler system shall be provided in accordance with the International Fire Code in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

[F] 903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

[F] 903.2.8.1 Group R-3. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 occupancies.

[F] 903.2.8.2 Group R-4, Condition 1. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-4 Condition 1 occupancies.

[F] 903.2.8.3 Group R-4, Condition 2. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4, Condition 2 occupancies.

[F] 903.2.8.4 Care facilities. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with five or fewer individuals in a single-family dwelling.

[F] 903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 8,000 square feet (743 m²).
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 16,000 square feet (1,486 m²).
4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).
5. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

[F] 903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m²).
2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 8,000 square feet (743 m²).
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).

[F] 903.2.9.2 Bulk storage of tires. Buildings and structures where the area for the storage of tires exceeds 20,000 cubic feet (566 m³) shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

[F] 903.2.10 Group S-2 enclosed parking garages. An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.6 where either of the following conditions exists:

1. Where the fire area of the enclosed parking garage exceeds 8,000 square feet (743 m²).
 2. Where the enclosed parking garage is located beneath other groups.
- Exception:** Enclosed parking garages located beneath Group R-3 occupancies.

[F] 903.2.10.1 Commercial parking garages. An automatic sprinkler system shall be provided throughout buildings used for storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).

[F] 903.2.11 Specific building areas and hazards. In all occupancies other than Group U, an automatic sprinkler system shall be installed for building design or hazards in the locations set forth in Sections 903.2.11.1 through 903.2.11.6.

[F] 903.2.11.1 Stories without openings. An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m²) and where the story does not comply with the following criteria for exterior wall openings:

1. Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1011 or an outside ramp complying with Section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be

distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).

2. Openings entirely above the adjoining ground level totaling not less than 20 square feet (1.86 m²) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

[F] 903.2.11.1.1 Opening dimensions and access. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Access to such openings shall be provided for the fire department from the exterior and shall not be obstructed in a manner such that fire fighting or rescue cannot be accomplished from the exterior.

[F] 903.2.11.1.2 Openings on one side only. Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22 860 mm) from such openings, the story shall be equipped throughout with an approved automatic sprinkler system, or openings shall be provided on not fewer than two sides of the story.

[F] 903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet (22 860 mm) from openings required by Section 903.2.11.1, or where walls, partitions or other obstructions are installed that restrict the application of water from hose streams, the basement shall be equipped throughout with an approved automatic sprinkler system.

[F] 903.2.11.2 Rubbish and linen chutes. An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors, beginning with the second level below the last intake and ending with the floor above the discharge. Access to sprinklers in chutes shall be provided for servicing.

[F] 903.2.11.3 Buildings 55 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories with an occupant load of 30 or more located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exceptions:

1. Open parking structures.

2. Occupancies in Group F-2.

[F] 903.2.11.4 Ducts conveying hazardous exhausts. Where required by the International Mechanical Cod, automatic sprinklers shall be provided in ducts conveying hazardous exhaust or flammable or combustible materials.

Exception: Ducts where the larges cross-sectional diameter of the duct is less than 10 inches (254 mm).

[F] 903.2.11.5 Commercial cooking operations. An automatic sprinkler system shall be installed in commercial kitchen exhaust hood and duct systems where an automatic sprinkler system is used to comply with Section 904.

[F] 903.2.11.6 Other required suppression systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 require the installation of fire suppression system for certain buildings and areas.

[F] 903.2.12 During construction. Automatic sprinkler systems required during construction, alteration and demolition operations shall be provided in accordance with Chapter 33 of the International Fire Code.

15.12.1970 IBC Chapter 10, Table 1004.1-25 Maximum floor area allowances per occupant–Amended.

IBC Chapter 10, Table 1004.1-25 Maximum floor area allowances per occupant, is hereby amended to read in its entirety as follows:

**TABLE 1004.1-25
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

<i>FUNCTION OF SPACE</i>	<i>FLOOR AREA IN SQ. FT. PER OCCUPANT</i>
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangers	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (video lottery, keno, slots, etc.)	15 net
<u>Exhibit gallery and museum</u>	<u>30 net</u>
Assembly with fixed seats	See Section 1004.4-6
Assembly without fixed seats	
Concentrated (chairs only – not fixed)	7 net
Standing space	5 net

Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas <u>Concentrated business use areas</u>	1050 gross See section 1004.8
Courtrooms – other than fixed seating areas	40 net
Daycare	35 net
Dormitories	50 gross
Educational Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
<u>Group H-5</u> Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library Reading rooms Stack area	50 net
Locker rooms	50 gross
Mall buildings – covered and open	See Section 4-02.8.2
Mercantile Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross
Jails	1.05 per bed
All others	100 gross

~~15.12.200 IBC Chapter 11, Section 1101.2 Design Amended.~~

~~IBC Chapter 11, Section 1101.2 Design, is hereby amended to read in its entirety as follows:~~

~~—1101.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1. The scoping provision of ANSI shall be per section 1103.~~

15.12.2180 IBC Chapter 11, Section 1104.4 Multilevel buildings and facilities—Amended.

IBC Chapter 11, Section 1104.4 Multilevel buildings and facilities, is hereby amended to read in its entirety as follows:

1104.4 Multilevel buildings and facilities. At least one accessible route shall connect each accessible level, including mezzanines, in multilevel buildings and facilities.

Exceptions:

1. An accessible route from an accessible level is not required in facilities that are less than three stories in height or have less than 3,000 square feet (278.7 m²) per story. This exception shall not apply to:

1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces;

1.2. Levels containing offices of health care providers (Group B or I); or

1.3. Passenger transportation facilities and airports (Group A-3 or B).

2. Levels that do not contain accessible elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.

3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.

4. Where a two-story building or facility has one story with an occupant load of five or fewer persons that does not contain public use space, that story shall not be required to be connected by an accessible route to the story above or below.

5. Vertical access to elevated employee work stations within a courtroom is not required at the time of initial construction, provided a ramp, lift or elevator complying with ICC A117.1 can be installed without requiring reconfiguration or extension of the courtroom or extension of the electrical system.

~~15.12.220 IBC Chapter 14, Section 1404.2.1 Weather resistive sheathing papers—Added.~~

~~—IBC Chapter 14, Section 1404.2.1, Weather resistive heathing papers, is hereby added to read as follows:~~

~~—1404.2.1 Weather resistive sheathing papers.~~ House wraps or weather resistive sheathing papers consisting of spun bonded olefin sheets of high density polyethylene fibers are required to be installed as per the manufacturer's instruction/recommendations.

15.12.23190 IBC Chapter 14, Section ~~1405.11.4~~ 1406.15 Grounding—Amended~~Added~~.

IBC Chapter 14, Section ~~1405.11.4~~ 1406.15 Grounding, is hereby ~~amended~~added to read in its entirety as follows:

~~1405.11.4~~1406.15 Grounding. Grounding of metal veneers on buildings shall comply with the current electrical code adopted by the City of Rapid City.

15.12.24200 IBC Chapter 15, Section [P]~~1503.4~~ 1502.1 Roof drainage—Amended.

IBC Chapter 15, Section [P]~~1503.4~~ 1502.1 Roof drainage, is hereby amended to read in its entirety as follows:

[P] ~~1503.4~~1502.1 Roof drainage. Design and installation of roof drainage systems shall comply with the current plumbing code adopted by the South Dakota State Plumbing Commission and the City of Rapid City with revisions.

~~15.12.250 IBC Chapter 15, Section 1507.5.4 Ice barrier—Amended.~~

~~—IBC Chapter 15, Section 1507.5.4, Ice barrier, is hereby amended to read in its entirety as follows:~~

~~—**1507.5.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.~~

~~—**Exception:** Detached accessory structures that contain no conditioned floor area.~~

~~—If the ice shield is not inspected, the contractor shall provide an affidavit that the ice shield materials were installed properly.~~

~~15.12.260 IBC Chapter 15, Section 1507.6.4 Ice barrier—Amended.~~

~~—IBC Chapter 15, Section 1507.6.4 Ice barrier, is hereby amended to read in its entirety as follows:~~

~~—**1507.6.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of~~

normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

— ~~**Exception:** Detached accessory structures that contain no conditioned floor area.~~

— ~~If the ice shield is not inspected, the contractor shall provide an affidavit that the ice shield materials were installed properly.~~

15.12.270 IBC Chapter 15, Section 1507.7.4 Ice barrier Amended.

— ~~IBC Chapter 15, Section 1507.7.4 Ice barrier, is hereby amended to read in its entirety as follows:~~

— ~~**1507.7.4 Ice barrier.** In areas where the average daily temperature in January is 25°F (4°C) or less or where there is a possibility of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.~~

— ~~**Exception:** Detached accessory structures that contain no conditioned floor area.~~

— ~~If the ice shield is not inspected, the contractor shall provide an affidavit that the ice shield materials were installed properly.~~

15.12.280 IBC Chapter 15, Section 1507.8.4 Ice barrier Amended.

— ~~IBC Chapter 15, Section 1507.8.4 Ice barrier, is hereby amended to read in its entirety as follows:~~

— ~~**1507.8.4 Ice barrier.** In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.~~

— ~~**Exception:** Detached accessory structures that contain no conditioned floor area.~~

— ~~If the ice shield is not inspected, the contractor shall provide an affidavit that the ice shield materials were installed properly.~~

15.12.290 IBC Chapter 15, Section 1507.9.4 Ice barrier Amended.

— ~~IBC Chapter 15, Section 1507.9.4 Ice barrier, is hereby amended to read in its entirety as follows:~~

~~—1507.9.4 Ice barrier. In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer-modified bitumen sheet shall be used in lieu of normal underlayment and extend from the lowest edges of all roof surfaces to a point at least 24 inches (610 mm) inside the exterior wall line of the building.~~

~~—Exception: Detached accessory structures that contain no conditioned floor area.~~

~~—If the ice shield is not inspected, the contractor shall provide an affidavit that the ice shield materials were installed properly.~~

15.12.30210 IBC Chapter 16, Section 1603.1 Construction documents—Amended.

IBC Chapter 16, Section 1603.1 Construction documents, is hereby amended to read in its entirety as follows:

1603.1 General. Construction documents shall show the size, section and relative locations of structural members with floor levels, column centers and offsets dimensioned. The design loads and other information pertinent to the structural design required by Sections 1603.1.1 through 1603.1.9 shall be indicated on the construction documents.

Engineer design data shall be provided for roof areas where drifting occurs. The design data shall be shown on the plans.

Exception: Construction documents for buildings constructed in accordance with the conventional light-frame construction provisions of Section 2308 shall indicate the following structural design information:

1. Floor and roof live loads.
2. Ground snow load, P_g .
3. Ultimate design wind speed, V_{ult} , (3-second gust), miles per hour (mph) (km/hr) and nominal design wind speed, V_{asd} , as determined in accordance with Section 1609.3.1 and wind exposure.
4. Seismic design category and site class.
5. Flood design data, if located in flood hazard areas established in Section 1612.3.
6. Design load-bearing values of soils.

1603.1.1 Floor live load. The uniformly distributed, concentrated and impact floor live load used in the design shall be indicated for floor areas. Use of live load reduction in accordance with Section 1607.11 shall be indicated for each type of live load used in the design.

1603.1.2 Roof live load. The roof live load used in the design shall be indicated for roof areas (Section 1607.13).

1603.1.3 Roof snow load data. The ground snow load P_g , shall be indicated. In areas where the ground snow load, P_g , exceeds 10 pounds per square foot (psf) (0.479 kN/m²), the following additional information shall also be provided, regardless of whether snow loads govern the design of the roof:

1. Flat-roof snow load, P_f .
2. Snow exposure factor, C_e .
3. Snow load importance factor, I_s .
4. Thermal factor, C_t .
5. Slope factor(s), C_s .
6. Drift surcharge load(s), P_d , where the sum of P_d and P_f exceeds 20 psf (0.96 kN/m²).
7. Width of snow drift(s), w .

1603.1.4 Wind design data. The following information related to wind loads shall be shown, regardless of whether wind loads govern the design of the lateral force-resisting system of the structure:

1. Basic wind design wind speed, V , miles per hour and allowable stress design wind speed, V_{asd} , as determined in accordance with Section 1609.3.1.
2. Risk category.
3. Wind exposure. Applicable wind direction if more than one wind exposure is utilized.
4. Applicable internal pressure coefficient.
5. Design wind pressures to be used for exterior component and cladding materials not specifically designed by the registered design professional responsible for the design of the structure, psf (kN/m²).

1603.1.5 Earthquake design data. The following information related to seismic loads shall be shown, regardless of whether seismic loads govern the design of the lateral force-resisting system of the structure:

1. Risk category.
2. Seismic importance factor, I_e .

3. Mapped spectral response acceleration parameters, S_S and S_I .
4. Site class.
5. Design spectral response acceleration parameters, S_{DS} and S_{DI} .
6. Seismic design category.
7. Basic seismic force-resisting system(s).
8. Design base shear(s).
9. Seismic response coefficient(s), CS .
10. Response modification coefficient(s), R .
11. Analysis procedure used.

1603.1.6 Geotechnical information. The design loadbearing values of soils shall be shown on the construction documents.

1603.1.7 Flood design data. For buildings located in whole or in part in flood hazard areas as established in Section 1612.3, the documentation pertaining to design, if required in Section 1612.4, shall be included and the following information, referenced to the datum on the community's Flood Insurance Rate Map (FIRM), shall be shown, regardless of whether flood loads govern the design of the building:

1. Flood design class assigned according to ASCE 24.
2. In flood hazard areas other than coastal high hazard areas or coastal A zones, the elevation of the proposed lowest floor, including the basement.
3. In flood hazard areas other than coastal high hazard areas or coastal A zones, the elevation to which any nonresidential building will be dry floodproofed.
4. In coastal high hazard areas and coastal A zones, the proposed elevation of the bottom of the lowest horizontal structural member of the lowest floor, including the basement.

1603.1.8 Special loads. Special loads that are applicable to the design of the building, structure or portions thereof, including but not limited to the loads of machinery or equipment, and that are greater than specified floor and roof loads shall be specified by their descriptions and locations.

1603.1.8.1 Photovoltaic panel systems. The dead load of rooftop-mounted photovoltaic panel systems, including rack support systems, shall be indicated on the construction documents.

1603.1.9 Roof rain load data. Rain intensity, i (in/hr) (cm/hr), shall be shown regardless of whether rain loads govern the design.

15.12.31220 IBC Chapter 16, Section 1604.1 General—Amended.

IBC Chapter 16, Section 1604.1 General, is hereby amended to read in its entirety as follows:

1604.1 General. Building, structures, and parts thereof shall be designed and constructed in accordance with strength design, load and resistance factor design, allowable stress design, empirical design, or conventional construction methods, as permitted by applicable material chapters and Table 100-B, Climatic and Geographic Design Criteria.

15.12.3230 IBC Chapter 16, Section 1608 Snow loads—Amended.

IBC Chapter 16, Section 1608 Snow loads, is hereby amended to read in its entirety as follows:

**SECTION 1608
SNOW LOADS**

1608.1 General. Design snow loads shall be determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less than that determined by Section 1607.

1608.2 Ground snow loads. The ground snow loads to be used in determining the design snow loads for roofs shall be determined in accordance with ASCE 7 or Figure 1608.2 for the contiguous United States and Table 1608.2 for Alaska. Site-specific case studies shall be made in areas designated “CS” in Figure 1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2 and for all sites within the CS areas shall be approved.

Ground snow load determination for such sites shall be based on an extreme value statistical analysis of data available in the vicinity of the site using a value with a 2-percent annual probability of being exceeded (50-year mean recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as approved by the building official.

See Climatic Table 100-B and Section 1603.1 for additional design requirements.

1608.3 Ponding instability. Susceptible bays of roofs shall be evaluated for ponding instability in accordance with ~~Section 7.44~~ Chapters 7 and 8 of ASCE 7.

15.12.33240 IBC Chapter 16, Section 1612 Flood loads—Amended.

IBC Chapter 16, Section 1612 Flood loads, is hereby amended to read in its entirety as follows:

**SECTION 1612
FLOOD LOADS**

1612.1 ~~All~~General. See Chapter 15.32, Flood Area Construction Regulations, of the Rapid City Municipal Code.

~~15.12.340 IBC Chapter 17, Section 1702 Definitions Amended.~~

~~IBC Chapter 17, Section 1702 Definitions, is hereby amended to read in its entirety as follows:~~

**SECTION 1702
DEFINITIONS**

~~1702.1 General.~~ The following terms are defined in Chapter 2:

~~APPROVED AGENCY.~~

~~APPROVED FABRICATOR.~~

~~CERTIFICATE OF COMPLIANCE.~~

~~DESIGNATED SEISMIC SYSTEM.~~

~~FABRICATED ITEM.~~

~~INSPECTION CERTIFICATE.~~

~~INTUMESCENT FIRE RESISTANT COATINGS.~~

~~MAIN WIND FORCE RESISTING SYSTEM.~~

~~MASTIC FIRE RESISTANT COATINGS.~~

~~SPECIAL INSPECTION.~~

~~SPECIAL INSPECTION, CONTINUOUS.~~

~~SPECIAL INSPECTION, PERIODIC.~~

~~SPRAYED FIRE RESISTANT MATERIALS.~~

~~—~~

~~STRUCTURAL OBSERVATION.~~

~~The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein:~~

~~—**LABEL.** An identification applied on a product by the manufacturer that contains the name of the manufacturer, the function and performance characteristics of the product or material, and the name and identification of an approved agency and that indicates that the representative sample of the product or material has been tested and evaluated by an approved agency (see Section 1703.5 and **INSPECTION CERTIFICATE, MANUFACTURER'S DESIGNATION and MARK**).~~

~~—**MANUFACTURER'S DESIGNATION.** An identification applied on a product by the manufacturer indicating that a product or material complies with a specified standard or set of rules (see also **INSPECTION CERTIFICATE, LABEL and MARK**).~~

~~—**MARK.** An identification applied on a product by the manufacturer indicating the name of the manufacturer and the function of a product or material (see also **INSPECTION CERTIFICATE, LABEL and MANUFACTURER'S DESIGNATION**).~~

15.12.3250 IBC Chapter 17, Section 1704.2, Special inspections –Amended.

IBC Chapter 17, Section 1704.2, Special inspections, is hereby amended to read in its entirety as follows:

1704.2 Special inspections. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more special inspectors to provide inspections during construction on the types of work listed under Section 1705. These inspections are in addition to the inspections specified in Section 140 Rapid City Municipal Code Chapter 15.04.

Exceptions:

1. Special inspections are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official and by the recommendation of the design professional.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.
3. Unless otherwise required by the building official, special inspections are not required for occupancies in Group R-3 as applicable in Section 101.2 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
4. Special inspections are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.

1704.2.1 Special inspector qualifications. Prior to the start of the construction, the approved agencies shall provide written documentation to the building official demonstrating the

competence and relevant experience or training of the special inspectors who will perform the special inspections and tests during construction. Experience or training shall be considered to be relevant where the documented experience or training is related in complexity to the same type of special inspection or testing activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code.

The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency and their personnel are permitted to act as special inspectors for the work designed by them, provided they qualify as special inspectors.

1704.2.2 Access for special inspection. The construction or work for which special inspection or testing is required shall remain accessible and exposed for special inspection or testing purposes until completion of the required special inspections or tests.

1704.2.3 Statement of special inspections. The applicant shall submit a statement of special inspections in accordance with Section 107.1 as a condition for permit issuance. This statement shall be in accordance with Section 1704.3.

Exception: A statement of special inspections is not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.1.2 or conventional light-frame construction provisions of Section 2308.

1704.2.4 Report requirement. Approved agencies shall keep records of special inspections and tests. The approved agency shall submit reports of special inspections and tests to the building official and to the registered design professional in responsible charge. Reports shall indicate that work inspected or tested was or was not completed in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of work. A final report documenting required special inspections and tests, and correction of any discrepancies noted in the inspections or tests shall be submitted at a point in time agreed upon prior to the start of work by the owner or the owner's authorized agent to the building official.

1704.2.5 Special inspection of fabricated items. Where fabrication of structural, load-bearing or lateral load resisting members or assemblies is being conducted on the premises of a fabricator's shop, special inspections of the fabricated items shall be performed during fabrication, except where the fabricator has been approved to perform work without special inspections in accordance with Section 1704.2.5.1.

1704.2.5.1 Fabricator approval. Special inspections during fabrication are not required where the work is done on the premises of a fabricator approved to perform such work without special inspection. Approval shall be based on review of the fabricator's written fabrication procedures and quality control manuals that provide a basis for control of materials and

workmanship, with periodic auditing of fabrication and quality control practices by an approved agency or the building official. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the owner or the owner's authorized agent for submittal to the building official as specified in Section 1704.5 stating that the work was performed in accordance with the approved construction documents.

~~15.12.360 IBC Chapter 17, Section 1712 Prefabrication Added.~~

~~—IBC Chapter 17, Section 1712 Prefabrication, is hereby added to read in its entirety as follows:~~

**~~SECTION 1712
PREFABRICATION~~**

~~—1712.1 General.~~

~~—1712.1.1 Purpose. The purpose of this section is to regulate materials and establish methods of safe construction where any structure or portion thereof is wholly or partially prefabricated.~~

~~—1712.1.2 Scope. Unless otherwise specifically stated in this section, all prefabricated construction and materials used therein shall conform to all the requirements of this code.~~

~~—1712.1.3 Definitions.~~

~~—**PREFABRICATED ASSEMBLY.** A structural unit, the integral parts of which have been built or assembled prior to incorporation in the building.~~

~~—**PREFABRICATED STRUCTURES.** The parts of which are fabricated and assembled in a central assembly point where on-site building, electrical, plumbing, and mechanical rough-in inspections occur at the assembly location.~~

~~—1712.2 Tests of materials. Every approval of a material not specifically mentioned in this code shall incorporate as a proviso the kind and number of nationally recognized tests to be made during prefabrication.~~

~~—1712.3 Tests of assemblies. The building official may require special tests to be made on assemblies to determine their durability and weather resistance.~~

~~—1712.4 Connections. Every device used to connect prefabricated assemblies shall be designed as required by this code and shall be capable of developing the strength of the members connected, except in the case of members forming part of a structural frame as specified in Chapter 16. Connections shall be capable of withstanding uplift forces as specified in this code and in Chapter 16.~~

~~—1712.5 Pipes and conduits. In structural design, due allowances shall be made for any material to be removed for the installations of pipes, conduit, and other equipment.~~

—~~1712.6 Permits, materials, plans, fees, certificate, and inspections.~~

—~~1712.6.1 Materials.~~ Materials and the assembly thereof shall be inspected to determine compliance with this code. Every material shall be graded, marked, or labeled as required elsewhere in this code.

—~~1712.6.2 Plans.~~ One complete set of plans and specifications shall be submitted to the building inspection division of planning and building services for approval prior to issuing a building permit for a prefabricated structure. Plans shall be of sufficient detail and clarity to indicate compliance with all applicable codes (electrical, plumbing, building, mechanical, and zoning).

—~~1712.6.3 Permits and fees.~~ Permit fees shall be as follows:

- ~~1.~~ The fee for a building permit shall be set by resolution of the Common Council.
- ~~2.~~ Electrical, plumbing, and mechanical permits and fees shall conform to the respective permit requirements and fee schedules.

—~~1712.6.4 Certificate.~~ A certificate of approval shall be furnished with every prefabricated assembly and prefabricated structure, except where the assembly is readily accessible to inspection at the site. The certificate of approval shall certify that the assembly in question has been inspected and meets all the requirements of this code. When mechanical equipment is installed so that it cannot be inspected at the site, the certificate of approval shall certify that such equipment complies with the laws applying thereto.

—~~1712.6.5 Certifying agency.~~ To be acceptable under this code, every certificate of approval shall be made by the approved agency.

—~~1712.6.6 Field erection.~~ The building official shall inspect placement of prefabricated assemblies at the building site to determine compliance with this code. Installation and finishing work at the building site must be performed by locally licensed contractors where required. Final inspections are to be made after the installation and finishing work has been completed and the building is ready for occupancy.

—~~1712.6.7 Continuous inspection.~~ If continuous inspection is required for certain materials where construction takes place on the site, it shall also be required where the same materials are used in prefabricated construction.

—~~Exception:~~ Continuous inspection will not be required during prefabrication if the approved agency certifies to the construction and furnishes evidence of compliance.

—~~1712.6.8 Moving permits.~~ A moving permit shall be obtained for each prefabricated structure being moved within the city in accordance with Section 3408 Moved Buildings.

**15.12.37260 IBC Chapter 18, Section 1804.4.5 Grading and fill in flood hazard areas—
Amended.**

IBC Chapter 18, Section 1804.4-5 Grading and fill in flood hazard areas, is hereby amended to read in its entirety as follows:

1804.4-5 Grading and fill in flood hazard areas. See Chapter 15.32, Flood Area Construction Regulations, of the Rapid City Municipal Code.

15.12.38270 IBC Chapter 18, Section 1808.6.1.1 Frost protection—Added.

IBC Chapter 18, Section 1808.6.1.1, Frost protection, is hereby added to read in its entirety as follows:

1808.6.1.1 Frost protection. Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extending below the frost line of the locality;
2. Constructing in accordance with ASCE-32; or
3. Erecting on solid rock.

Exception: Free-standing buildings meeting all of the following conditions shall not be required to be protected:

1. Classified in Importance Category I, in accordance with Section 1604.5;
2. Area of 1,000 square feet or less with a maximum truss span of 24 feet; and
3. Eave height of 10 feet (3048 mm) or less.

Footings shall not bear on frozen soil unless such frozen condition is of a permanent character.

15.12.39280 IBC Chapter 27, Section 2701.1 Scope—Amended.

IBC Chapter 27, Section 2701.1 Scope, is hereby amended to read in its entirety as follows:

2701.1 Scope. This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the current electrical code adopted by the City of Rapid City.

15.12.40290 IBC Chapter 29, Section 2901.1 Scope—Amended.

IBC Chapter 29, Section 2901.1 Scope, is hereby amended to read in its entirety as follows:

2901.1 Scope. This chapter governs the plumbing components, equipment and systems used in buildings and structures covered by this code. Plumbing components, equipment and systems shall be designed and constructed in accordance with the provisions of the current plumbing code adopted by the City of Rapid City. Toilet and bathing rooms shall be constructed in accordance with Section 124009.

15.12.410 IBC Chapter 29, Section [P] 2902.1 Table, Minimum number of required plumbing fixtures – Amended.

—IBC Chapter 29, Section [P] 2902.1 Table, Minimum number of required plumbing fixtures, is hereby amended to read as follows:

**SECTION 2902
MINIMUM PLUMBING FACILITIES
Uniform Plumbing Code
Table 4-1
Minimum Plumbing Facilities¹**

Each building shall be provided with sanitary facilities, including provisions for persons with disabilities as prescribed by the Department Having Jurisdiction. Table 4-1 applies to new buildings, additions to a building, and changes of occupancy or type in an existing building resulting in increased occupant load. Exception: New cafeterias used only by employees.

The total occupant load shall be determined in accordance with the Building Code. The type of building or occupancy shall be determined based on the actual use of the various spaces within the building. Building categories not shown in Table 4-1 shall be considered separately by the Authority Having Jurisdiction. The minimum number of fixtures shall be calculated at 50 percent male and 50 percent female based on the total occupant load.

Once the occupant load and uses are determined, the requirements of section 412.0 and Table 4-1 shall be applied to determine the minimum number of plumbing fixtures required.

Type of Building ² or Occupancy	Water Closets ¹⁴ (Fixtures per Person)		Urinals ^{5, 10} (Fixtures per Person)	Lavatories (Fixtures per Person)		Bathtubs or Showers (Fixtures per Person)	Drinking ^{3, 13, 17} Fountains (Fixtures per Person)
	Male	Female	Male	Male	Female		
Assembly places— theatres, auditoriums, convention halls, etc. for permanent employee use	1-15	1-15	0-19	Male per 40	Female 1 per 40		
	16-35	3-16	1-10-50				
	3-36	3-33					
	36-55	4-36					
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.				
Assembly places— theatres, auditoriums, convention halls,	1-100	3-150	1-100	1-200	Female 1-1-200		1-1-150 2-151-400 3-401-750
	101-200	4-51-100	2-101-200	2-201-400			

etc. for public use	3: 201-400	8: 101-200 11: 201-400	3: 201-400 4: 401-600	3: 401-750	2: 201-400 3: 401-750		
	Over 400, add one fixture for each additional 500 males and 1 for each additional 125 females.		Over 600, add 1 fixture for each additional 300 males.	Over 750, add one fixture for each additional 500 persons.			Over 750, add one fixture for each additional 500 persons.
Dormitories ⁹ - School or labor ¹⁶	Male 1 per 10	Female 1 per 8	Male 1 per 25	Male 1 per 12	Female 1 per 12	1 per 8	
	Add 1 fixture for each additional 25 males (over 10) and 1 for each additional 20 females (over 8).		Over 150, add 1 fixture for each additional 50 males.	Over 12, add one fixture for each additional 20 males and 1 for each 15 additional females.		For females, add 1 bathtub per 30. Over 150, add 1 bathtub per 20.	
Dormitories for staff use ¹⁶	1: 1-15 3: 16-35 5: 36-55	1: 1-5 3: 16-35 4: 36-55	Male 1 per 50	Male per 40	Female 1 per 40	1 per 8	
	Over 55, add 1 fixture for each additional 40 persons.						
Dwellings ⁴ - Single dwelling - Multiple dwelling or apartment house ¹	1 per dwelling or apartment			1 per dwelling or apartment unit		1 per dwelling or apartment unit	
Hospital waiting rooms	1 per room			1 per room			1 per 150 ¹²

Type of Building ² or Occupancy	Water Closets ¹⁴ (<i>Fixtures per Person</i>)	Urinals ^{5,10} (<i>Fixtures per Person</i>)	Lavatories (<i>Fixtures per Person</i>)	Bathubs or Showers (<i>Fixtures per Person</i>)	Drinking ^{3,13} ¹⁷ Fountains (<i>Fixtures per Person</i>)
Hospitals for employee use		Male 1: 1-15 Female 1: 1-5	Male 0: 1-0	Male per 40 Female	

	2: 16-35 3: 36-55	3: 16-35 4: 36-55	1: 10-50 -		1 per 40		
	Over 55, 1 additional fixture for each additional 40 persons.		Add one fixture for each additional 50 males.				
Hospitals Individual room Ward room	1 per room 1 per 8 patients				1 per room 1 per 10 patients	1 per room 1 per 20 patients	1 per 150 ¹²
Industrial ⁶ warehouses, workshops, foundries, and similar establishments for employee use	Male 1: 1-10 2: 11-25 3: 26-50 4: 51-100 5: 76-100	Female 1: 1-10 2: 11-25 3: 26-50 4: 51-75 5: 76-100			Up to 100, 1 per 10 persons over 100, 1 per 15 persons ^{7,8}	1 shower for each 15 persons exposed to excessive heat or to skin contamination with poisonous, infectious or irritating material	1 per 150 ¹²
	Over 100, add 1 fixture for each additional 30 persons.						
Institutional other than hospitals or penal institutions (on each occupied floor)	Male per 25	Female 1 per 20	Male 0: 1-9 1: 10-50 Add one fixture for each additional 50 males.	Male 1-10	Female 1 per 10	1 per 8	1 per 150 ¹²
Institutional other than hospitals or penal institutions (on each occupied floor) for employee use	Male 1: 1-15 2: 16-35 3: 36-55	Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50	Male 1-40	Female 1 per 40	1 per 8	1 per 150 ¹²
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.				
Office or public buildings	Male 1: 1-100 2: 101-200 3: 201-400	Female 3: 1-50 4: 51-100 8: 101-200	Male 1: 1-100 2: 101-200 3: 201-400	Male 1-200 2: 201-400 3: 401-750	Female 1: 1-200 2: 201-400 3: 401-750		1 per 150 ¹²

		11: 201- 400	4: 401- 600				
		Over 400, add one fixture for each additional 500 males and 1 for each additional 150 females.	Over 600, add 1 fixture for each additional 300 males			Over 750, add one fixture for each additional 500 persons	
Office or public buildings for employee use	Male 1: 1-15 2: 16-35 3: 36-55	Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50	Male per 40	Female 1 per 40		
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.				
Penal institutions for employee use	Male 1: 1-15 2: 16-35 3: 36-55	Female 1: 1-15 3: 16-35 4: 36-55	Male 0: 1-9 1: 10-50	Male + per 40	Female 1 per 40		1 per 150 ¹²
	Over 55, add 1 fixture for each additional 40 persons.		Add one fixture for each additional 50 males.				

Type of Building ² or Occupancy	Water Closets ¹⁴ (Fixtures per Person)	Urinals ^{5,10} (Fixtures per Person)	Lavatories (Fixtures per Person)	Bathubs or Showers (Fixtures per Person)	Drinking ^{3,13,17} Fountains (Fixtures per Person)
Penal institutions for prison use - Cell - Exercise room	- 1 per cell - 1 per exercise room	- Male - 1 per exercise room	- Male - 1 per exercise room	- 1 per cell - 1 per exercise room	- 1 per cell block floor 1 per exercise room
Public or professional offices ¹⁵	Same as Office or Public Buildings for employee use ¹⁵	Same as Office or Public Buildings for employee use ¹⁵	Same as Office or Public Buildings for employee use ¹⁵	Same as Office or Public Buildings for employee use ¹⁵	Same as Office or Public Buildings for employee use ¹⁵
	Male	Female	Male	Male	Female

Restaurants, pubs and lounges ^{11,15}	1: 1-50 2: 51-150 3: 151-300	1: 1-50 2: 51-150 4: 151-300	1: 1-150	1: 1-150 2: 151-200 3: 201-400	1: 1-150 2: 151-200 3: 201-400	
	Over 300, add 1 fixture for each additional 500 males and one for each 150 females		Over 150, add 1 fixture for each additional 150 males.	Over 400, add 1 fixture for each additional 400 persons.		
Retail or Wholesale Stores	Male 1: 1-100 2: 101-200 3: 201-400 -	Female 1: 1-25 2: 26-100 4: 101-200 6: 201-300 8: 301-400	Male 0: 0-25 1: 26-100 2: 101-200 3: 201-400 4: 401-600 -	1 per 2 water closets		0: 1-30 ¹⁷ 2: 31-150 One additional drinking fountain for each 150 persons thereafter
	Over 400, add one fixture for each additional 500 males and one for each 150 females		Over 600, add one fixture for each additional 300 males			
Schools for staff use All school	Male 1: 1-15 2: 16-35 3: 36-55	Female 1: 1-15 2: 16-35 3: 36-55	Male 1 per 50	Male 1 per 40	Female 1 per 40	
	Over 55, add 1 fixture for each additional 40 persons					
Schools for student use Nursery	Male 1: 1-20 2: 21-50	Female 1: 1-20 2: 21-50		Male 1: 1-25 2: 26-50	Female 1: 1-25 2: 26-50	1 per 150 ¹²
	Over 50, add 1 fixture for each additional persons			Over 50, add 1 fixture for each additional 50 persons		
Elementary	Male 1 per 30	Female 1 per 25	Male 1 per 75	Male 1 per 35	Female 1 per 35	1 per 150 ¹²
Secondary	Male 1 per 40	Female 1 per 30	Male 1 per 35	Male 1 per 40	Female 1 per 40	1 per 150 ¹²
Others (colleges, universities, adult centers, etc.)	Male 1 per 40	Female 1 per 30	Male 1 per 35	Male 1 per 40	Female 1 per 40	1 per 150 ¹²

Worship places educational and activities Unit	Male per 150—	Female 1 per 75	Male 1 per 150	1 per 2 water closets	1 per 150 ¹²
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Type of Building ² or Occupancy	Water Closets ¹⁴ (Fixtures per Person)	Urinals ^{5, 10} (Fixtures per Person)	Lavatories (Fixtures per Person)	Bathtubs or Showers (Fixtures per Person)	Drinking ^{3, 13, 17} Fountains (Fixtures per Person)
Worship places principal assembly place	Male per 150—	Female 1 per 75	Male 1 per 150	1 per 2 water closets	1 per 150 ¹²
1—The figures shown are based upon one (1) fixture being the minimum required for the number of persons indicated or any fraction thereof.					
2—Building categories not shown on this table shall be considered separately by the Authority Having Jurisdiction.					
3—Drinking fountains shall not be installed in toilet rooms.					
4—Laundry trays. One (1) laundry tray or one (1) automatic washer standpipe for each dwelling unit or one (1) laundry tray or one (1) automatic washer standpipe, or combination thereof, for each twelve (12) apartments. Kitchen sinks, one (1) for each dwelling or apartment unit.					
5—For each urinal added in excess of the minimum required, one water closet shall be permitted to be deducted. The number of water closets shall not be reduced to less than two thirds (2/3) of the minimum requirement.					
6—As required by PSAI Z4.1, <i>Sanitation in Places of Employment</i> .					
7—Where there is exposure to skin contamination with poisonous, infectious, or irritating materials, provide one (1) lavatory for each five (5) persons.					
8—Twenty four (24) lineal inches (610 mm) of wash sink or eighteen (18) inches (457 mm) of a circular basin, when provided with water outlets for such space, shall be considered equivalent to one (1) lavatory.					
9—Laundry trays, one (1) for each fifty (50) persons. Service sinks, one (1) for each one hundred (100) persons. Service sinks are required in all occupancies listed in Table 4-1 with the exception of dwellings.					
10—General. In applying this schedule of facilities, consideration shall be given to the accessibility of the fixtures. Conformity purely on a numerical basis may not result in an installation suited to the needs of the individual establishment. For example, schools should be provided with toilet facilities on each floor having classrooms.					
a.—Surrounding materials, wall, and floor space to a point two (2) feet (610 mm) in front of urinal lip and four (4) feet (1,219 mm) above the floor, and not less than two (2) feet (610 mm) to each side of the urinal shall be lined with non-absorbent materials.					
b.—Trough urinals shall be prohibited.					
11—A restaurant is defined as a business that sells food to be consumed on the premises.					
a.—The number of occupants for a drive-in restaurant shall be considered as equal to the number of parking stalls.					
b.—Hand-washing facilities shall be available in the kitchen for employees.					
12—Where food is consumed indoors, water stations shall be permitted to be substituted for drinking fountains. Offices, or public buildings for use by more than six (6) persons shall have one (1) drinking fountain for the first one hundred fifty (150) persons and one (1) additional fountain for each three hundred (300) persons thereafter.					
13—There shall be at least one (1) drinking fountain per occupied floor in schools, theatres auditoriums, dormitories, offices, or public buildings.					

14—The total number of water closets for females shall be equal to the total number of water closets and urinals required for males. This requirement shall not apply to Retail or Wholesale Stores.
15—For smaller type Public and Professional Offices such as banks, dental offices, law offices, real estate offices, architectural offices, engineering offices, and similar uses. A public area in these offices shall use the requirements for Retail or Wholesale Stores.
16—Recreation or community room in multiple dwellings or apartment buildings, regardless of their occupant load, shall be permitted to have separate single accommodation facilities in common use areas, within tracts or multi-family residential occupancies where the use of these areas is limited exclusively to owners, residents, and their guests. Examples are community recreation or multi-purpose areas in apartments, condos, townhouses, or tracts.
17—A drinking fountain shall not be required in occupancies of 30 or less. When a drinking fountain is not required, then footnotes 3, 12, and 13 are not applicable.

~~15.12.420 IBC Chapter 30, Section 3002.7 Common enclosure with stairway—Amended.~~

—~~IBC Chapter 30, Section 3002.7 Common enclosure with stairway, is hereby amended to read in its entirety as follows:~~

—~~**3002.7 Common enclosure with stairway.** Elevators shall not be in a common shaft enclosure with a stairway unless allowed as per Section 1022.~~

~~15.12.4300 IBC Chapter 31, Section 3109 Swimming pool enclosures and safety devices—Deleted.~~

IBC Chapter 31, Section 3109 Swimming pool enclosures and safety devices, is hereby deleted in its entirety.

~~15.12.44310 IBC Chapter 32, Section 3202.1.4 Space below sidewalk—Added.~~

ICB Chapter 32, Section 3202.1.4 Space below sidewalk is hereby added to read in its entirety as follows:

3202.1.4 Space below sidewalk. The space adjoining a building below a sidewalk on public property may be used and occupied in connection with the building for any purpose not inconsistent with this code or other laws or ordinances regulating the use and occupancy of such spaces on condition that the right to so use and occupy may be revoked by the City at any time and that the owner of the building will construct the necessary walls and footings to separate such space from the building and pay all costs and expenses attendant therewith.

Footings located at least 8 feet (2438 mm) below grade may project not more than 12 inches (305 mm).

~~15.12.45320 IBC Chapter 32, Section 3202.5 Projection into alleys—Added.~~

IBC Chapter 32, Section 3202.5 Projection into alleys is hereby added to read in its entirety as follows:

3202.5 Projection into alleys. No part of any structure or any appendage thereto shall project into any alley.

Exceptions:

1. A curb or buffer block may project not more than 9 inches (229 mm) and not exceed a height of 9 inches (229 mm) above grade.

2. Footings located at least 8 feet (2438 mm) below grade may project not more than 12 inches (305 mm).

3. Unless the City Engineer and Building Official jointly approve an exception pursuant to section 12.04.160 of the Rapid City Municipal Code.

15.12.46330 IBC Chapter 32, Section 3202.6 Public right-of-way–Structures prohibited–Exceptions–Added.

IBC Chapter 32, Section 3202.6 Public right-of- way–Structures–Exceptions, is hereby added to read in its entirety as follows:

3202.6 Public rights-of-way–Structures prohibited–Exceptions. See section 12.20.0350 of the Rapid City Municipal Code.

15.12.47340 IBC Chapter 33, Section 3308 Temporary use of streets, alleys, and public property–Deleted.

IBC Chapter 33, Section 3308 Temporary use of streets, alleys, and public property, is hereby deleted in its entirety.

~~15.12.480 IBC Chapter 34, Section 3412.2 Applicability–Amended.~~

~~—IBC Chapter 34, Section 3412.2 Applicability, is hereby amended to read in its entirety as follows:~~

~~—**3412.2 Applicability.** Structures existing prior to the adoption of this code, in which there is work involving additions, alterations or changes of occupancy shall be made to comply with the requirements of this section or the provisions of Sections 3403 through 3409. The provisions in Sections 3412.2.1 through 3412.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U. These provisions shall not apply to buildings with occupancies in Group H or I.~~

15.12.49350 IBC Appendix I, Section I105.2 Footings–Amended.

IBC Appendix I, Section I105.2 Footings, is hereby amended to read in its entirety as follows:

I105.2 Footings. A patio cover shall be permitted to be supported on a concrete slab on grade without footings, provided the slab conforms to the provisions of Chapter 19 of this code, is not less than 3 1/2 inches (89 mm) thick and further provided that the columns do not support loads in excess of 750 pounds (3.36 kN) per column.

15.12.50360 IBC Appendix J, Section J101.2 Flood hazard areas—Amended.

IBC Appendix J, Section J101.2 Flood hazard areas, is hereby amended to read in its entirety as follows:

J101.2 Flood hazard areas. See Chapter 15.32, Flood Area Construction Regulations, of the Rapid City Municipal Code.

15.12.51370 IBC Appendix J, Section J103.1 Permits required—Amended.

IBC Appendix J, Section J103.1 Permits required, is hereby amended to read in its entirety as follows:

J103.1 Permits required. Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit therefore from the building official and paying the required grading permit fee and grading plan review fee as established by resolution of the Common Council. A grading permit does not include the construction of retaining walls or other structures.

15.12.52380 IBC Appendix J, Section J103.2 Exemptions—Amended.

IBC Appendix J, Section J103.2 Exemptions, is hereby amended to read in its entirety as follows:

J103.2 Exemptions. A grading permit shall not be required for the following:

1. Grading in an isolated, self-contained area, provided that the total amount of grading does not exceed ~~450~~ 500 cubic yards, that there is no danger to the public, and that such grading will not adversely affect adjoining properties.
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.

7. Exploratory excavations performed under the direction of a registered design professional.

Exemption from the permit requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

15.12.5390 IBC Appendix J, Section J104.2 Site plan requirements–Amended.

IBC Appendix J, Section J104.2 Site plan requirements, is hereby amended to read in its entirety as follows:

J104.2 Site plan requirements. In addition to the provisions of Section 107, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code. Site plans shall be prepared and stamped by a registered engineer, except that when the grading permit is for a recreational facility, a registered landscape architect may prepare the data required.

15.12.5400 IBC Appendix J, Section J104.3 Geotechnical report–Amended.

IBC Appendix J, Section J104.3 Geotechnical report, is hereby amended to read in its entirety as follows:

J104.3 Geotechnical report. A geotechnical report prepared by a registered engineer shall be provided. The report shall contain at least the following:

1. The nature and distribution of existing soils;
2. Conclusions and recommendations for grading procedures;
3. Soil design criteria for any structures or embankments required to accomplish the proposed grading; and
4. Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

Exception: A geotechnical report is not required where the building code official determines that the nature of the work applied for is such that a report is not necessary.

15.12.55410 IBC Appendix J, Section J107.2 Surface preparation–Amended.

IBC Appendix J, Section J107.2 Surface preparation, is hereby amended to read in its entirety as follows:

J107.2 Surface preparation. The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and scarifying the ground to a depth of at least 8 inches to provide a bond with the fill material.

15.12.56420 IBC Appendix J, Section J109.1 General—Amended.

IBC Appendix J, Section J109.1 General, is hereby amended to read in its entirety as follows:

J109.1 General. Unless otherwise recommended by a registered engineer, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

Exception: Drainage facilities and terracing need not be provided where the ground slope is not steeper than 3 horizontal to 1 vertical (33 percent).

15.12.57430 IBC Appendix J, Section J110 Erosion control—Amended.

IBC Appendix J, Section J110 Erosion control, is hereby amended to read in its entirety as follows:

**SECTION J110
EROSION CONTROL**

See Chapter 8.46, 8.48, and 8.50 of the Rapid City Municipal Code.

15.12.58440 Appendix A, Table 100-B Climactic and geographic design criteria—Adopted.

When a provision in this code refers to a climactic condition or general condition found below, the following table shall be used, to the extent that it applies:

APPENDIX A:

TABLE 100-B CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

<i>GROUNDSNOW LOAD</i>	<i>WIND SPEED (MPH)</i>	<i>SEISMIC DESIGN CATEGORY</i>	<i>SUBJECT TO DAMAGE FROM</i>			<i>WINTER DESIGN TEMP</i>	<i>ICE BARRIER UNDERLAY REQUIREMENT</i>	<i>FLOOD HAZARDS</i>	<i>AIR FREEZING INDEX</i>	<i>MEAN ANNUAL TEMP</i>
			<i>Weathering</i>	<i>Frost line depth</i>	<i>Termite</i>					
42-psf [†]	90	B	Moderate	42"	None to slight	-7	Yes	June 2013	1548	48°F

[†]The ground snow load for Rapid City shall be 42 psf and as per ASCE 705.

<u>Ground Snow Load</u>	<u>Wind Speed</u>	<u>Seismic Design Category</u>	<u>Subject to Damage From</u>			<u>Winter Design Temperature</u>	<u>Ice Barrier Underlayment Required</u>	<u>Flood Hazards</u>	<u>Air Freezing Index</u>	<u>Mean Annual Temp</u>
			<u>Weathering</u>	<u>Frost Line Depth</u>	<u>Termite</u>					
42 psf ¹	115 ²	footnote ³	Moderate	42"	None to slight	-7	yes	June 3, 2013 with revisions	1548	48°F

¹ The ground snow load for Rapid City shall be 42 psf and as per ASCE 710.
² Wind loads shall be in accordance with Chapters 26 to 30 of ASCE 7-10 and shall be based upon the Occupancy Category of the building under design. Buildings shall at a minimum be designed to Occupancy Category II having an ultimate wind speed velocity of 115 mph.
³ Seismic loads shall be in accordance with Section 1613 of IBC 2018 and ASCE 7-10. In the absence of specific site information, the building shall be designed in accordance with the following:
Short Period Acceleration (S_s) = 0.125 g
1-Second Period Acceleration (S₁) = 0.043 g
Site Class = D

CITY OF RAPID CITY

Mayor

ATTEST:

Finance Officer

(SEAL)

First Reading:
Second Reading:
Published:
Effective: