State of Utah

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THE FOLLOWING STATEWIDE CODES HAVE BEEN ADOPTED BY THE STATE LEGISLATURE AND SIGNED INTO LAW BY THE GOVERNOR. THE FOLLOWING CODES BECOME EFFECTIVE JULY 1, 2013.

- **2012 edition of the International Building Code (IBC), to include Appendix J, Issued by the International Code Council.**
- **2011 edition of the National Electrical Code (NEC), issued by the National Fire Protection Association.**
- **2012 edition of the International Plumbing Code (IPC), issued by the International Code Council.**
- **2012 edition of the International Mechanical Code (IMC), issued by the International code Council.**
- **2012 edition of the International Residential Code (IRC), Issued by the International Code Council.**
- **2009 edition of the International Energy Conservation Code (IECC), issued by the International Code Council.**
- **2012 edition of the International Fuel Gas Code (IFGC), issued by the International Code Council.**

THE FOLLOWING ARE THE STATE AMENDMENTS TO THE CODES:

15A-3-102. Amendments to Chapters 1 through 3 of IBC.

(1) IBC, Section 106, is deleted.

(2) (a) In IBC, Section 110, a new section is added as follows: "110.3.5, Weather-resistant exterior wall envelope. An inspection shall be made of the weather-resistant exterior wall envelope as required by Section 1403.2, and flashing as required by Section 1405.4 to prevent water from entering the weather-resistive barrier."

(b) The remaining sections of IBC, Section 110, are renumbered as follows: 110.3.6, Lath or gypsum board inspection; 110.3.7, Fire- and smoke-resistant penetrations; 110.3.8, Energy efficiency inspections;

110.3.9, Other inspections; 110.3.10, Special inspections; and 110.3.11, Final inspection.

(3) IBC, Section 115.1, is deleted and replaced with the following: "115.1 Authority. Whenever the building official finds any work regulated by this code being performed in a manner either contrary to the provisions of this code or other pertinent laws or ordinances or is dangerous or unsafe, the building official is authorized to stop work."

(4) In IBC, Section 202, the following definition is added for Ambulatory Surgical Center: "AMBULATORY SURGICAL CENTER. A building or portion of a building licensed by the Utah Department of Health where procedures are performed that may render patients incapable of self preservation where care is less than 24 hours. See Utah Administrative Code R432-13."

(5) In IBC, Section 202, the definition for Foster Care Facilities is modified by changing the word "Foster" to "Child."

(6) In IBC, Section 202, the definition for "[F]Record Drawings" is modified by deleting the words "a fire alarm system" and replacing them with "any fire protection system".

(7) In IBC, Section 202, the following definition is added for Residential Treatment/Support Assisted Living Facility: "RESIDENTIAL TREATMENT/SUPPORT ASSISTED LIVING FACILITY. See Section 308.1.2."

(8) In IBC, Section 202, the following definition is added for Type I Assisted Living Facility: "TYPE I ASSISTED LIVING FACILITY. See Section 308.1.2."

(9) In IBC, Section 202, the following definition is added for Type II Assisted Living Facility: "TYPE II ASSISTED LIVING FACILITY. See Section 308.1.2."

(10) In the list in IBC, Section 304.1, the following words are added after the words "Ambulatory care facilities": "where four or more care recipients are rendered incapable of self preservation."

(11) In IBC, Section 305.2, the words "child care centers," are inserted after the word "supervision," and the following sentence is added at the end of the paragraph: "See Section 425 for special requirements for Day Care."

(12) In IBC, Section 305.2.2 and 305.2.3, the word "five" is deleted and replaced with the word "four" in both places.

(13) A new IBC Section 305.2.4 is added as follows: "305.2.4 Child Day Care -- Residential Certificate or a Family License. Areas used for child day care purposes with a Residential Certificate R430-50 or a Family License, as defined in Utah Administrative Code, R430-90, Licensed Family Child Care, may be located in a Group R-2 or R-3 occupancy as provided in Section 310.5 or shall comply with the International Residential Code in accordance with Section R101.2."

(14) A new IBC Section 305.2.5 is added as follows: "305.2.5 Child Care Centers. Areas used for Hourly Child Care Centers, as defined in Utah Administrative Code, R430-60, Child Care Center as defined in Utah Administrative Code, R430-100, or Out of School Time Programs, as defined in Utah Administrative Code, R430-70, may be classified as accessory occupancies."

(15) A new IBC Section 308.2.1 is added as follows: "308.2.1 Assisted living facilities and related occupancies. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

TYPE I ASSISTED LIVING FACILITY. A residential facility licensed by the Utah Department of Health that provides a protected living arrangement for ambulatory, non-restrained persons who are capable of achieving mobility sufficient to exit the facility without the assistance of another person.

Occupancies. Limited capacity, type I assisted living facilities with two to five residents shall be classified as R-3 occupancies. Small, type I assisted living facilities with six to sixteen residents shall be classified as R-4 occupancies. Large, type I assisted living facilities with over sixteen residents shall be classified as I-1 occupancies.

TYPE II ASSISTED LIVING FACILITY. A residential facility licensed by the Utah Department of Health that provides an array of coordinated supportive personal and health care services to residents who meet the definition of semi-independent.

Semi-Independent. A person who is:

A. Physically disabled but able to direct his or her own care; or

B. Cognitively impaired or physically disabled but able to evacuate from the facility with the physical assistance of one person.

Occupancies. Limited capacity, type II assisted living facilities with two to five residents shall be classified as R-4 occupancies. Small, type II assisted living facilities with six to sixteen residents shall be classified as I-1 occupancies. Large, type II assisted living facilities with over sixteen residents shall be classified as I-2 occupancies.

RESIDENTIAL TREATMENT/SUPPORT ASSISTED LIVING FACILITY. A residential treatment/support assisted living facility which creates a group living environment for four or more residents licensed by the Utah Department of Human Services, and provides a protected living arrangement for ambulatory, non-restrained persons who are capable of achieving mobility sufficient to exit the facility without the physical assistance of another person."

(16) In IBC, Section 308.3, the words "(see Section 308.2.1)" are added after the words "assisted living facilities".

(17) In IBC, Section 308.3.1, all of the words after the first International Residential Code are deleted.

(18) In IBC, Section 308.4, the following changes are made:

(a) The words "five persons" are deleted and replaced with the words "three persons."

(b) The words "foster care facilities" are deleted and replaced with "child care facilities."

(c) The words "(both intermediate care facilities and skilled nursing facilities)" are added after "nursing homes."

(d) The words "Ambulatory Surgical Centers with five or more operating rooms" are added to the list.

(19) In IBC, Section 308.4.1, the word "five" is deleted and replaced with the word "three" in both places.

(20) In IBC, Section 308.6, the word "five" is deleted and replaced with the word "four".

(21) In IBC, Section 308.6.1, the following changes are made:

(a) The word "five" is deleted and replaced with the word "four".

(b) The words "2 ½ years or less of age" are deleted and replaced with "under the age of two".

(c) The following sentence is added at the end: "See Section 425 for special requirements for Day Care."

(22) In IBC, Sections 308.6.3 and 308.6.4, the word "five" is deleted and replaced with the word "four" in both places and the following sentence is added at the end: "See Section 425 for special requirements for Day Care."

(23) In IBC, Section 310.5, the words "and single family dwellings complying with the IRC" are added after "Residential occupancies".

(24) In IBC, Section 310.5.1, the words "other than Child Care" are inserted after the word "dwelling" in the first sentence and the following sentence is added at the end: "See Section 425 for special requirements for Child Day Care."

(25) A new IBC Section 310.5.2 is added as follows: "310.5.2 Child Care. Areas used for child care purposes may be located in a residential dwelling unit under all of the following conditions and Section 425:
1. Compliance with Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board.
2. Use is approved by the Utah Department of Health, as enacted under the authority of the Utah Code, Title 26, Chapter 39, Utah Child Care Licensing Act, and in any of the following categories:
a. Utah Administrative Code, R430-50, Residential Certificate Child Care.
b. Utah Administrative Code, R430-90, Licensed Family Child Care.
3. Compliance with all zoning regulations of the local regulator."

(26) In IBC, Section 310.6, the words "(see Section 308.2.1)" are added after "assisted living facilities".

Amended by Chapter 297, 2013 General Session

Section 103
Amendments to Chapters 4 through 6 of IBC.

15A-3-103. Amendments to Chapters 4 through 6 of IBC.

(1) IBC Section 403.5.5 is deleted.

(2) IBC Section (F)406.5.8 is deleted and replaced with the following: "(F)406.5.8 Standpipe system. An open parking garage shall be equipped with an approved Class I manual standpipe system when fire department access is not provided for firefighting operations to within 150 feet of all portions of the open parking garage as measured from the approved fire department vehicle access.
Exception: Open parking garages equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a standpipe system is not required by Section 905.3.1."

(3) A new IBC Section (F)406.5.8.1 is added as follows: "(F)406.5.8.1 Installation requirements. Class I manual standpipe shall be designed and installed in accordance with Section 905 and NFPA 14. Class I manual standpipe shall be accessible throughout the parking garage such that all portions of the parking structure are protected within 150 feet of a hose connection."

(4) In IBC, Section 422.2, a new paragraph is added as follows: "422.2 Separations: Ambulatory care facilities licensed by the Utah Department of Health shall be separated from adjacent tenants with a fire barrier having a minimum one hour fire-resistance rating. Any level below the level of exit discharge shall be separated from the level of exit discharge by a horizontal assembly having a minimum one hour fire-resistance rating.
Exception: A fire barrier is not required to separate the level of exit discharge when:
1. Such levels are under the control of the Ambulatory Care Facility.
2. Any hazardous spaces are separated by horizontal assembly having a minimum one hour fire-resistance rating."

(5) A new IBC Section 425, Day Care, is added as follows:
"425.1 Detailed Requirements. In addition to the occupancy and construction requirements in this code, the additional provisions of this section shall apply to all Day Care in accordance with Utah Administrative Code R710-8 Day Care Rules.
425.2 Definitions.
425.2.1 Authority Having Jurisdiction (AHJ): State Fire Marshal, his duly authorized deputies, or the local fire enforcement authority code official.
425.2.2 Day Care Facility: Any building or structure occupied by clients of any age who receive custodial care for less than 24 hours by individuals other than parents, guardians, relatives by blood, marriage or adoption.
425.2.3 Day Care Center: Providing care for five or more clients in a place other than the home of the person cared for. This would also include Child Care Centers, Out of School Time or Hourly Child Care Centers licensed by the Department of Health.
425.2.4 Family Day Care: Providing care for clients listed in the following two groups:
425.2.4.1 Type 1: Services provided for five to eight clients in a home. This would also include a home that is certified by the Department of Health as Residential Certificate Child Care or licensed as Family Child Care.
425.2.4.2 Type 2: Services provided for nine to sixteen clients in a home with sufficient staffing. This would also include a home that is licensed by the Department of Health as Family Child Care.
425.2.5 R710-8: Utah Administrative Code, R710-8, Day Care Rules, as enacted under the authority of the Utah Fire Prevention Board.
425.3. Family Day Care.
425.3.1 Family Day Care units shall have on each floor occupied by clients, two separate means of egress, arranged so that if one is blocked the other will be available.

425.3.2 Family Day Care units that are located in the basement or on the second story shall be provided with two means of egress, one of which shall discharge directly to the outside.
425.3.2.1 Residential Certificate Child Care and Licensed Family Child Care with five to eight clients in a home, located on the ground level or in a basement, may use an emergency escape or rescue window as allowed in IFC, Chapter 10, Section 1029.
425.3.3 Family Day Care units shall not be located above the second story.
425.3.4 In Family Day Care units, clients under the age of two shall not be located above or below the first story.
425.3.4.1 Clients under the age of two may be housed above or below the first story where there is at least one exit that leads directly to the outside and complies with IFC, Section 1009 or Section 1010 or Section 1026.
425.3.5 Family Day Care units located in split entry/split level type homes in which stairs to the lower level and upper level are equal or nearly equal, may have clients housed on both levels when approved by the AHJ.
425.3.6 Family Day Care units shall have a portable fire extinguisher on each level occupied by clients, which shall have a classification of not less than 2A:10BC, and shall be serviced in accordance with NFPA, Standard 10, Standard for Portable Fire Extinguishers.
425.3.7 Family Day Care units shall have single station smoke detectors in good operating condition on each level occupied by clients. Battery operated smoke detectors shall be permitted if the facility demonstrates testing, maintenance, and battery replacement to insure continued operation of the smoke detectors.
425.3.8 Rooms in Family Day Care units that are provided for clients to sleep or nap, shall have at least one window or door approved for emergency escape.
425.3.9 Fire drills shall be conducted in Family Day Care units quarterly and shall include the complete evacuation from the building of all clients and staff. At least annually, in Type I Family Day Care units, the fire drill shall include the actual evacuation using the escape or rescue window, if one is used as a substitute for one of the required means of egress.
425.4 Day Care Centers.
425.4.1 Day Care Centers shall comply with either I-4 requirements or E requirements of the IBC, whichever is applicable for the type of Day Care Center.
425.4.2 Emergency Evacuation Drills shall be completed as required in IFC, Chapter 4, Section 405.
425.4.3 Location at grade. Group E child day care centers shall be located at the level of exit discharge.
425.4.3.1 Child day care spaces for children over the age of 24 months may be located on the second floor of buildings equipped with automatic fire protection throughout and an automatic fire alarm system.
425.4.4 Egress. All Group E child day care spaces with an occupant load of more than 10 shall have a second means of egress. If the second means of egress is not an exit door leading directly to the exterior, the room shall have an emergency escape and rescue window complying with Section 1029.
425.4.5 All Group E Child Day Care Centers shall comply with Utah Administrative Code, R430-100 Child Care Centers, R430-60 Hourly Child Care Centers, and R430-70 Out of School Time.
425.5 Requirements for all Day Care.
425.5.1 Heating equipment in spaces occupied by children shall be provided with partitions, screens, or other means to protect children from hot surfaces and open flames.
425.5.2 A fire escape plan shall be completed and posted in a conspicuous place. All staff shall be trained on the fire escape plan and procedure."

(6) In IBC, Section 504.2, a new section is added as follows: "504.2.1 Notwithstanding the exceptions to Section 504.2, Group I-2 Assisted Living Facilities shall be allowed to be two stories of Type V-A construction when all of the following apply:

1. All secured units are located at the level of exit discharge in compliance with Section 1008.1.9.3 as amended;
2. The total combined area of both stories shall not exceed the total allowable area for a one-story building; and
3. All other provisions that apply in Section 407 have been provided."

Section 104
Amendments to Chapters 7 through 9 of IBC.

15A-3-104. Amendments to Chapters 7 through 9 of IBC.

(1) IBC, Section (F)901.8, is deleted and replaced with the following: "(F)901.8 Pump and riser room size. Fire pump and automatic sprinkler system riser rooms shall be designed with adequate space for all installed equipment necessary for the installation and to provide sufficient working space around the stationary equipment. Clearances around equipment shall be in accordance with manufacturer requirements and not less than the following minimum elements:
901.8.1 A minimum clear and unobstructed distance of 12-inches shall be provided from the installed equipment to the elements of permanent construction.
901.8.2 A minimum clear and unobstructed distance of 12-inches shall be provided between all other installed equipment and appliances.
901.8.3 A clear and unobstructed width of 36-inches shall be provided in front of all installed equipment and appliances, to allow for inspection, service, repair or replacement without removing such elements of permanent construction or disabling the function of a required fire-resistance-rated assembly.
901.8.4 Automatic sprinkler system riser rooms shall be provided with a clear and unobstructed passageway to the riser room of not less than 36-inches, and openings into the room shall be clear and unobstructed, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 34-inches and a clear height of the door opening shall not be less than 80-inches.
901.8.5 Fire pump rooms shall be provided with a clear and unobstructed passageway to the fire pump room of not less than 72-inches, and openings into the room shall be clear, unobstructed and large enough to allow for the removal of the largest piece of equipment, with doors swinging in the outward direction from the room and the opening providing a clear width of not less than 68-inches and a clear height of the door opening shall not be less than 80-inches."

(2) In IBC, Section (F)903.2.2, the words "the entire floor" are deleted and replaced with "a building" and the last paragraph is deleted.

(3) IBC, Section (F)903.2.4, condition 2, is deleted and replaced with the following: "2. A Group F-1 fire area is located more than three stories above the lowest level of fire department vehicle access."

(4) IBC, Section (F)903.2.7, condition 2, is deleted and replaced with the following: "2. A Group M fire area is located more than three stories above the lowest level of fire department vehicle access."

(5) IBC, Sections (F)903.2.8, (F)903.2.8.1, and (F)903.2.8.2, are deleted and replaced with the following: "(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.
Exceptions:
1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) constructed in accordance with the International Residential Code For One- and Two-Family Dwellings.
2. Group R-4 fire areas not more than 4,500 gross square feet and not containing more

than 16 residents, provided the building is equipped throughout with an approved fire alarm system that is interconnected and receives its primary power from the building wiring and a commercial power system."

(6) IBC, Section (F)903.2.9, condition 2, is deleted and replaced with the following: "2. A Group S-1 fire area is located more than three stories above the lowest level of fire department vehicle access."

(7) IBC, Section (F)904.11, is deleted and replaced with the following: "(F)904.11 Commercial cooking systems. The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions.

Exception: Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and listed, labeled, and installed in accordance with Section 304.1 of the International Mechanical Code."

(8) IBC, Sections (F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1, are deleted.

(9) IBC, Section (F)907.2.3 Group E:

(a) The first sentence is deleted and rewritten as follows: "A manual fire alarm system that initiates the occupant notification system in accordance with Section (F)907.5 and installed in accordance with Section (F)907.6 shall be installed in Group E occupancies."

(b) In Exception number 3, starting on line five, the words "emergency voice/alarm communication system" are deleted and replaced with "occupant notification system".

(10) In IBC, Section (F)908.7, the first sentence is deleted and replaced as follows: "Groups R-1, R-2, R-3, R-4, I-1, and I-4 occupancies"; the exceptions are deleted and the following sentence is added after the first sentence: "A minimum of one carbon monoxide alarm shall be installed on each habitable level."

(11) In IBC, Section (F)908.7, the following new subsections are added: "(F)908.7.1 Interconnection. Where more than one carbon monoxide alarm is required to be installed within Group R or I-1 occupancies, the carbon monoxide alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

(F)908.7.2 Power source. In new construction, required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Carbon monoxide alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Carbon monoxide alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Carbon monoxide alarms are not required to be equipped with battery backup where they are connected to an emergency electrical system."

(12) IBC, Section (F)908.7.1, is renumbered to 908.7.3.

Section 105
Amendments to Chapters 10 through 12 of IBC.

15A-3-105. Amendments to Chapters 10 through 12 of IBC.

(1) In IBC, Section 1008.1.9.6, the words "Group I-1 and" are added in the title and in the first sentence before the words "Group I-2" and a new number 8 is added as follows: "8. The secure area or unit with special egress locks shall be located at the level of exit discharge in Type V construction."

(2) In IBC, Section 1008.1.9.7, a new number 7 is added as follows: "7. The secure area or unit with delayed egress locks shall be located at the level of exit discharge in Type V construction."

(3) In IBC, Section 1009.7.2, exception 5 is deleted and replaced with the following: "5. In Group R-3 occupancies, within dwelling units in Group R-2 occupancies, and in Group U occupancies that are accessory to a Group R-3 occupancy, or accessory to individual dwelling units in Group R-2 occupancies, the maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). The minimum winder tread depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 10 inches (254 mm)."

(4) In IBC, Section 1009.15, a new exception 6 is added as follows: "6. In occupancies in Group R-3, as applicable in Section 101.2 and in occupancies in Group U, which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, handrails shall be provided on at least one side of stairways consisting of four or more risers."

(5) In IBC, Section 1011.5, the words ", including when the building may not be fully occupied." are added at the end of the sentence.

(6) IBC, Section 1024, is deleted.

(7) In IBC, Section 1028.12, exception 2 is deleted.

(8) In IBC, Section 1109.8, the following words "shall be capable of operation without a key and" are inserted in the second sentence between the words "lift" and "shall".

(9) In IBC, Section 1208.4, subparagraph 1 is deleted and replaced with the following: "1. The unit shall have a living room of not less than 165 square feet (15.3 m2) of floor area. An additional 100 square feet (9.3 m2) of floor area shall be provided for each occupant of such unit in excess of two."

Section 107
Amendments to Chapter 16 of IBC.

15A-3-107. Amendments to Chapter 16 of IBC.

(1) In IBC, Table 1604.5, Risk Category III, in the sentence that begins "Group I-2," a new footnote c is added as follows: "c. Type II Assisted Living Facilities that are I-2 occupancy classifications in accordance with Section 308 shall be Risk Category II in this table."

(2) In IBC, Section 1605.2, in the portion of the definition for the value of f2, the words "and 0.2 for other roof configurations" are deleted and replaced with the following: "f2 = 0.20 + .025(A-5) for other configurations where roof snow load exceeds 30 psf;
f2 = 0 for roof snow loads of 30 psf (1.44kN/m2) or less.
Where A = Elevation above sea level at the location of the structure (ft./1,000)."

(3) In IBC, Sections 1605.3.1 and 1605.3.2, exception 2 in each section is deleted and replaced with the following: "2. Flat roof snow loads of 30 pounds per square foot (1.44 kNm2) or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 pounds per square foot (1.44 kNm2), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads. Ws as calculated below, shall be combined with seismic loads.

Ws = (0.20 + 0.025(A-5))Pf is greater than or equal to 0.20 Pf.
Where:
Ws = Weight of snow to be included in seismic calculations
A = Elevation above sea level at the location of the structure (ft./1,000)
Pf = Design roof snow load, psf.
For the purpose of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor, I, used in calculating Pf may be considered 1.0 for use in the formula for Ws".

(4) IBC, Section 1608.1, is deleted and replaced with the following: "1608.1 General. Except as modified in Sections 1608.1.1, 1608.1.2, and 1608.1.3, 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."

(5) A new IBC, Section 1608.1.1, is added as follows: "1608.1.1 Section 7.4.5 of Chapter 7 of ASCE 7 referenced in Section 1608.1 of the IBC is deleted and replaced with the following: Section 7.4.5 Ice Dams and Icicles Along Eaves. Where ground snow loads exceed 75 psf, eaves shall be capable of sustaining a uniformly distributed load of 2pf on all overhanging portions. No other loads except dead loads shall be present on the roof when this uniformly distributed load is applied. All building exits under down-slope eaves shall be protected from sliding snow and ice."

(6) In IBC, Section 1608.1.2, a new section is added as follows: "1608.1.2 Utah Snow Loads. The snow loads specified in Table 1608.1.2(b) shall be used for the jurisdictions identified in that table. Otherwise, the ground snow load, Pg, to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula: Pg = (Po2 + S2(A-Ao)2)0.5 for A greater than Ao, and Pg = Po for A less than or equal to Ao.
WHERE:
Pg = Ground snow load at a given elevation (psf);
Po = Base ground snow load (psf) from Table No. 1608.1.2(a);
S = Change in ground snow load with elevation (psf/100 ft.) From Table No. 1608.1.2(a);
A = Elevation above sea level at the site (ft./1,000);
Ao = Base ground snow elevation from Table 1608.1.2(a) (ft./1,000).
The building official may round the roof snow load to the nearest 5 psf. The ground snow load, Pg, may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments.
Where the minimum roof live load in accordance with Section 1607.11 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf."

(7) IBC, Table 1608.1.2(a) and Table 1608.1.2(b), are added as follows:

"TABLE NO. 1608.1.2(a)

STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

COUNTY	Po	S	Ao
Beaver			

43
63
6.2

Box Elder
43
63
5.2

Cache
50
63
4.5

Carbon
43
63
5.2

Daggett
43
63
6.5

Davis
43
63
4.5

Duchesne
43
63
6.5

Emery
43
63
6.0

Garfield
43
63
6.0

Grand
36
63
6.5

Iron
43
63
5.8

Juab
43
63
5.2

Kane
36
63
5.7

Millard
43
63
5.3

Morgan
57
63
4.5

Piute
43
63
6.2

Rich
57
63
4.1

Salt Lake
43
63

4.5

San Juan
43
63
6.5

Sanpete
43
63
5.2

Sevier
43
63
6.0

Summit
86
63
5.0

Tooele
43
63
4.5

Uintah
43
63
7.0

Utah
43
63
4.5

Wasatch
86
63
5.0

Washington

29
63
6.0

Wayne
36
63
6.5

Weber
43
63
4.5

TABLE NO. 1608.1.2(B)

REQUIRED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS1,2

The following jurisdictions require design snow load values that differ from the Equation in the Utah Snow Load Study.

County
City
Elevation
Ground Snow Load (psf)
Roof Snow Load (psf) 6

Carbon
Price3
All other county locations5
5550
--
43
--
30
--

Davis
Fruit Heights3
4500 - 4850
57
40

Emery
Green River3
4070
36
25

Garfield

Panguitch3
6600
43
30

Rich
Woodruff3
Laketown4
Garden City5
Randolph4
6315
6000
--
6300
57
57
--
57
40
40
--
40

San Juan
Monticello3
6820
50
35

Summit
Coalville3
Kamas4
5600
6500
86
114
60
80

Tooele
Tooele3
5100
43
30

Utah
Orem3
Pleasant Grove4
Provo5
4650
5000
--

43
43
--
30
30
--

Wasatch
Heber5
--
--
--

Washington
Leeds3
Santa Clara3
St. George3
All other county locations5
3460
2850
2750
--
29
21
21
--
20
15
15
--

Wayne
Loa3
7080
43
30

1The IBC requires a minimum live load - See 1607.11.2.

2This table is informational only in that actual site elevations may vary. Table is only valid if site elevation is within 100 feet of the listed elevation. Otherwise, contact the local Building Official.

3Values adopted from Table VII of the Utah Snow Load Study.

4Values based on site-specific study. Contact local Building Official for additional information.

5Contact local Building Official.

6Based on Ce =1.0, Ct =1.0 and Is =1.0"

(8) A new IBC, Section 1608.1.3, is added as follows: "1608.1.3 Thermal Factor. The

value for the thermal factor, Ct, used in calculation of Pf shall be determined from Table 7.3 in ASCE 7.
Exception: Except for unheated structures, the value of Ct need not exceed 1.0 when ground snow load, Pg is calculated using Section 1608.1.2 as amended."

(9) IBC, Section 1608.2, is deleted and replaced with the following: "1608.2 Ground Snow Loads. The ground snow loads to be used in determining the design snow loads for roofs in states other than Utah are given in 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."

(10) A new IBC, Section 1613.1.1, is added as follows: "1613.1.1 ASCE 12.7.2 and 12.14.8.1 of Chapter 12 of ASCE 7 referenced in Section 1613.1, Definition of W, Item 4 is deleted and replaced with the following:
4. Where the flat roof snow load, Pf, exceeds 30 psf, the snow load included in seismic design shall be calculated, in accordance with the following formula: Ws = (0.20 + 0.025(A-5))Pf is greater than or equal to 0.20 Pf.
WHERE:
Ws = Weight of snow to be included in seismic calculations
A = Elevation above sea level at the location of the structure (ft./1,000)
Pf = Design roof snow load, psf.
For the purposes of this section, snow load shall be assumed uniform on the roof footprint without including the effects of drift or sliding. The Importance Factor, I, used in calculating Pf may be considered 1.0 for use in the formula for Ws."

(11) A new IBC, Section 1613.5, is added as follows: " 1613.5 ASCE 7, Section 13.5.6.2.2 paragraph (e) is modified to read as follows: (e) Penetrations shall have a sleeve or adapter through the ceiling tile to allow for free movement of at least 1 inch (25 mm) in all horizontal directions.
Exceptions:
1. Where rigid braces are used to limit lateral deflections.
2. At fire sprinkler heads in frangible surfaces per NFPA 13."

Section 108
Amendments to Chapters 17 through 19 of IBC.

15A-3-108. Amendments to Chapters 17 through 19 of IBC.

(1) A new IBC, Section 1807.1.6.4, is added as follows: "1807.1.6.4 Empirical concrete foundation design. Group R, Division 3 Occupancies three stories or less in height, and Group U Occupancies, which are constructed in accordance with Section 2308, or with other methods employing repetitive wood-frame construction or repetitive cold-formed steel structural member construction, shall be permitted to have concrete foundations constructed in accordance with Table 1807.1.6.4."

(2) A new IBC, Table 1807.1.6.4 is added as follows:

"TABLE 1807.1.6.4

EMPIRICAL FOUNDATION WALLS (1,7,8)

Max. Height

Top Edge Support
Min.
Thickness
Vertical Steel (2)
Horizontal Steel (3)
Steel at
Openings (4)
Max. Lintel Length
Min. Lintel Length

2'(610 mm)
None
6"
(5)
2- #4 Bars
2- #4 Bars above
1- #4 Bar each side
1- #4 Bar below
2'(610 mm)
2" for each foot of opening width;
min. 6"

3'(914 mm)
None
6"
#4@32"
3- #4 Bars
2- #4 Bars above
1- #4 Bar each side
1- #4 Bar below
2'(610 mm)
2" for each foot of opening width;
min. 6"

4'(1,219 mm)
None
6"
#4@32"
4- #4 Bars
2- #4 Bars above
1- #4 Bar each side
1- #4 Bar below
3'(914 mm)
2" for each foot of opening width;
min. 6"

6'(1,829 mm)
Floor or roof Diaphragm (6)
8"
#4@24"
5- #4 Bars
2- #4 Bars above

1- #4 Bar each side
1- #4 Bar below
6'(1,829 mm)
2" for each foot of opening width;
min. 6"

8'(2,438 mm)
Floor or roof Diaphragm (6)
8"
#4@24"
6- #4 Bars
2- #4 Bars above
1- #4 Bar each side
1- #4 Bar below
6'(1,829 mm)
2" for each foot of opening width;
min. 6"

9'(2,743 mm)
Floor or roof Diaphragm (6)
8"
#4@16"
7- #4 Bars
2- #4 Bars above
1- #4 Bar each side
1- #4 Bar below
6'(1,829 mm)
2" for each foot of opening width;
min. 6"

Over 9'(2,743 mm), Engineering required for each column

Footnotes:

(1) Based on 3,000 psi (20.6 Mpa) concrete and 60,000 psi (414 Mpa) reinforcing steel.

(2) To be placed in the center of the wall, and extended from the footing to within three inches (76 mm) of the top of the wall; dowels of #4 bars to match vertical steel placement shall be provided in the footing, extending 24 inches (610 mm) into the foundation wall.

(3) One bar shall be located in the top four inches (102 mm), one bar in the bottom four inches (102 mm) and the other bars equally spaced between. Such bar placement satisfies the requirements of Section 1805.9. Corner reinforcing shall be provided so as to lap 24 inches (610 mm).

(4) Bars shall be placed within two inches (51 mm) of the openings and extend 24 inches (610 mm) beyond the edge of the opening; vertical bars may terminate three inches (76 mm) from the top of the concrete.

(5) Dowels of #4 bar at 32 inches on center shall be provided in the footing, extending 18 inches (457 mm) into the foundation wall.

(6) Diaphragm shall conform to the requirements of Section 2308.

(7) Footing shall be a minimum of nine inches thick by 20 inches wide.

(8) Soil backfill shall be soil classification types GW, GP, SW, or SP, per Table 1610.1. Soil shall not be submerged or saturated in groundwater."

(3) In IBC, Section 1904.2, a new exception 1 is added as follows and the current exception is modified to be number 2.

Exceptions:

"1. In ACI Table 4.3.1, for Exposure Class F1, change Maximum w/cm from 0.45 to 0.5 and Minimum f'c from 4,500 psi to 3,000 psi."

(4) A new IBC, Section 1905.1.11, is added as follows: "1905.1.11 ACI 318, Table 4.2.1." Modify ACI 318, Table 4.2.1 to read as follows: In the portion of the table designated as "Conditions", the Exposure categories and classes are deleted and replaced with the following:

"F0: Concrete elements not exposed to freezing and thawing cycles to include footing and foundation elements that are completely buried in soil.
F1: Concrete elements exposed to freezing and thawing cycles and are not likely to be saturated or exposed to deicing chemicals.
F2: Concrete elements exposed to freezing and thawing cycles and are likely to be saturated, but not exposed to deicing chemicals.
F3: Concrete elements exposed to freezing and thawing cycles and are likely to be saturated and exposed to deicing chemicals."

Section 110
Amendments to Chapters 23 through 25 of IBC.

15A-3-110. Amendments to Chapters 23 through 25 of IBC.

(1) A new IBC, Section 2306.1.5, is added as follows: "2306.1.5 Load duration factors. The allowable stress increase of 1.15 for snow load, shown in Table 2.3.2, Frequently Used Load Duration Factors, Cd, of the National Design Specifications, shall not be utilized at elevations above 5,000 feet (1,524 M)."

(2) In IBC, Section 2308.6, a new exception is added as follows: "Exception: Where foundation plates or sills are bolted or anchored to the foundation with not less than 1/2 inch (12.7 mm) diameter steel bolts or approved anchors, embedded at least 7 inches (178 mm) into concrete or masonry and spaced not more than 32 inches (816 mm) apart, there shall be a minimum of two bolts or anchor straps per piece located not less than 4 inches (102 mm) from each end of each piece. A properly sized nut and washer shall be tightened on each bolt to the plate."

(3) IBC, Section 2506.2.1, is deleted and replaced with the following: "2506.2.1 Other materials. Metal suspension systems for acoustical and lay-in panel ceilings shall conform with ASTM C635 listed in Chapter 35 and Section 13.5.6 of ASCE 7, as amended in Section 1613.8, for installation in high seismic areas."

Section 112
Amendments to Chapters 29 through 31 of IBC.

15A-3-112. Amendments to Chapters 29 through 31 of IBC.

(1) In IBC [P] Table 2902.1 the following changes are made:

(a) The title for [P] Table 2902.1 is deleted and replaced with the following: "[P] Table 2902.1, Minimum Number of Required Plumbing Facilities a, h".

(b) In the row for "E" occupancy in the field for "OTHER" a new footnote i is

added.

(c) In the row for "I-4" occupancy in the field for "OTHER" a new footnote i is added.

(d) A new footnote h is added as follows: "FOOTNOTE: h. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms."

(e) A new footnote i is added to the table as follows: "FOOTNOTE i: Non-residential child care facilities shall comply with additional sink requirements of Utah Administrative Code R430-100-4."

(2) In IBC, Section 3006.5, a new exception is added as follows: "Exception: Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less."

Section 113
Amendments to Chapters 32 through 35 of IBC.

15A-3-113. Amendments to Chapters 32 through 35 of IBC.

(1) A new section IBC, Section 3401.7, is added as follows: " 3401.7 Parapet bracing, wall anchors, and other appendages. Until June 30, 2014, a building constructed before 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when the building is undergoing structural alterations, which may include structural sheathing replacement of 10% or greater, or other structural repairs. Reroofing or water membrane replacement may not be considered a structural alteration or repair for purposes of this section. Beginning July 1, 2014, a building constructed before 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when the building is undergoing a total reroofing. Parapet bracing, wall anchors, and appendages required by this section shall be evaluated in accordance with 75% of the seismic forces as specified in Section 1613. When allowed by the local building official, alternate methods of equivalent strength as referenced in an approved code under Utah Code, Subsection 15A-1-204(6)(a), will be considered when accompanied by engineer-sealed drawings, details, and calculations. When found to be deficient because of design or deteriorated condition, the engineer's recommendations to anchor, brace, reinforce, or remove the deficient feature shall be implemented.
Exceptions:
1. Group R-3 and U occupancies.
2. Unreinforced masonry parapets need not be braced according to the above stated provisions provided that the maximum height of an unreinforced masonry parapet above the level of the diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times the thickness of the parapet wall. The parapet height may be a maximum of two and one-half times its thickness in other than Seismic Design Categories D, E, or F."

(2) IBC, Section 3408.4, is deleted and replaced with the following: "3408.4 Seismic. When a change in occupancy results in a structure being reclassified to a higher Risk Category (as defined in Table 1604.5), or when such change of occupancy results in a design occupant load increase of 100% or more, the structure shall conform to the seismic requirements for a new structure.
Exceptions:
1. Specific seismic detailing requirements of this code or ASCE 7 for a new structure shall not be required to be met where it can be shown that the level of performance and seismic safety is equivalent to that of a new structure. A demonstration of equivalence analysis shall consider the regularity, overstrength, redundancy, and ductility of the structure. Alternatively, the building official may allow the structure to be upgraded in accordance

with referenced sections as found in an approved code under Utah Code, Subsection 15A-1-204(6)(a).
2. When a change of use results in a structure being reclassified from Risk Category I or II to Risk Category III and the structure is located in a seismic map area where SDS is less than 0.33, compliance with the seismic requirements of this code and ASCE 7 are not required.
3. Where design occupant load increase is less than 25 occupants and the Risk Category does not change."

(3) In IBC, Chapter 35, the referenced standard ICCA117.1-09, Section 606.2, Exception 1 is modified to include the following sentence at the end of the exception:

"The minimum clear floor space shall be centered on the sink assembly."

(4) The following referenced standard is added under UL in IBC, Chapter 35:

"Number
Title
Referenced in code section number

2034-2008
Standard of Single- and Multiple-station Carbon Monoxide Alarms
907.9"

Section 202
Amendments to Chapters 1 through 5 of IRC.

15A-3-202. Amendments to Chapters 1 through 5 of IRC.

(1) In IRC, Section R102, a new Section R102.7.2 is added as follows: "R102.7.2 Physical change for bedroom window egress in legal nonconforming rental housing use. A structure classified as a legal nonconforming rental housing use, whose egress bedroom window is smaller than required by this code, is not required to undergo a physical change to conform to this code if the change would compromise the structural integrity of the building or could not be completed in accordance with other applicable requirements of this code, including setback and window well requirements."

(2) In IRC, Section 109:

(a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant exterior wall envelope inspections. An inspection shall be made of the weather-resistant exterior wall envelope as required by Section R703.1 and flashings as required by Section R703.8 to prevent water from entering the weather-resistive barrier."

(b) The remaining sections are renumbered as follows: R109.1.6 Other inspections; R109.1.6.1 Fire- and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection; and R109.1.7 Final inspection.

(3) IRC, Section R114.1, is deleted and replaced with the following: "R114.1 Notice to owner. Upon notice from the building official that work on any building or structure is being prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent or to the person doing the work; and shall state the conditions under which work will be permitted to resume."

(4) In IRC, Section R202, the following definition is added: "CERTIFIED BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection 19-4-104(4)."

(5) In IRC, Section R202, the definition for "CONDITIONED SPACE" is modified by deleting the words at the end of the sentence "being heated or cooled by any equipment or appliance" and replacing them with the following: "enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
1. Openings directly into an adjacent conditioned space.
2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
3. Un-insulated duct, piping or other heat or cooling source within the space."

(6) In IRC, Section R202, the definition of "Cross Connection" is deleted and replaced with the following: "CROSS CONNECTION. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas, or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow, Water Distribution")."

(7) In IRC, Section 202, in the definition for gray water a comma is inserted after the word "washers"; the word "and" is deleted; and the following is added to the end: "and clear water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without objectionable odors; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."

(8) In IRC, Section R202, the definition of "Potable Water" is deleted and replaced with the following: "POTABLE WATER. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19, Chapters 4, Safe Drinking Water Act, and 5, Water Quality Act, and the regulations of the public health authority having jurisdiction."

(9) IRC, Figure R301.2(5), is deleted and replaced with Table R301.2(5a) and Table R301.2(5b) as follows:

"TABLE NO. R301.2(5a)

STATE OF UTAH - REGIONAL SNOW LOAD FACTORS

COUNTY	Po	S	Ao
Beaver	43	63	6.2
Box Elder	43	63	5.2
Cache			

50
63
4.5

Carbon
43
63
5.2

Daggett
43
63
6.5

Davis
43
63
4.5

Duchesne
43
63
6.5

Emery
43
63
6.0

Garfield
43
63
6.0

Grand
36
63
6.5

Iron
43
63
5.8

Juab
43
63
5.2

Kane
36
63
5.7

Millard
43
63
5.3

Morgan
57
63
4.5

Piute
43
63
6.2

Rich
57
63
4.1

Salt Lake
43
63
4.5

San Juan
43
63
6.5

Sanpete
43
63

5.2

Sevier
43
63
6.0

Summit
86
63
5.0

Tooele
43
63
4.5

Uintah
43
63
7.0

Utah
43
63
4.5

Wasatch
86
63
5.0

Washington
29
63
6.0

Wayne
36
63
6.5

Weber

43
63
4.5

TABLE NO. R301.2(5b)

REQUIRED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS1,2

The following jurisdictions require design snow load values that differ from the Equation in the Utah Snow Load Study.

County
City
Elevation
Ground Snow Load (psf)
Roof Snow Load (psf) 6

Carbon
Price3
All other county locations5
5550
--
43
--
30
--

Davis
Fruit Heights3
4500 - 4850
57
40

Emery
Green River3
4070
36
25

Garfield
Panguitch3
6600
43
30

Rich
Woodruff3
Laketown4
Garden City5
Randolph4
6315
6000

--
6300
57
57
--
57
40
40
--
40

San Juan
Monticello3
6820
50
35

Summit
Coalville3
Kamas4
5600
6500
86
114
60
80

Tooele
Tooele3
5100
43
30

Utah
Orem3
Pleasant Grove4
Provo5
4650
5000
--
43
43
--
30
30
--

Wasatch
Heber5
--
--
--

Washington
Leeds3
Santa Clara3
St. George3
All other county locations5
3460
2850
2750
--
29
21
21
--
20
15
15
--

Wayne
Loa3
7080
43
30

1The IRC requires a minimum live load – See R301.6.

2This table is informational only in that actual site elevations may vary. Table is only valid if site elevation is within 100 feet of the listed elevation. Otherwise, contact the local Building Official.

3Values adopted from Table VII of the Utah Snow Load Study

4Values based on site-specific study. Contact local Building Official for additional information.

5Contact local Building Official.

6Based on Ce =1.0, Ct =1.0 and Is =1.0"

(10) IRC, Section R301.6, is deleted and replaced with the following: "R301.6 Utah Snow Loads. The snow loads specified in Table R301.2(5b) shall be used for the jurisdictions identified in that table. Otherwise, the ground snow load, Pg, to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula: Pg = (Po2 + S2(A-Ao)2)0.5 for A greater than Ao, and Pg = Po for A less than or equal to Ao.
WHERE:
Pg = Ground snow load at a given elevation (psf);
Po = Base ground snow load (psf) from Table No. R301.2(5a);
S = Change in ground snow load with elevation (psf/100 ft.) From Table No. R301.2(5a);
A = Elevation above sea level at the site (ft./1,000);
Ao = Base ground snow elevation from Table R301.2(5a) (ft./1,000).
The building official may round the roof snow load to the nearest 5 psf. The ground snow

load, Pg, may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments.
Where the minimum roof live load in accordance with Table R301.6 is greater than the design roof snow load, such roof live load shall be used for design, however, it shall not be reduced to a load lower than the design roof snow load. Drifting need not be considered for roof snow loads less than 20 psf."

(11) In IRC, Section R302.2, the words "Exception: A" are deleted and replaced with the following:
"Exceptions:
1. A common 2-hour fire-resistance-rated wall is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installation shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.
2. In buildings equipped with an automatic residential fire sprinkler system, a".

(12) In IRC, Section R302.2.4, a new exception 6 is added as follows: "6. Townhouses separated by a common 2-hour fire-resistance-rated wall as provided in Section R302.2."

(13) In IRC, Section R302.5.1, the words "self-closing device" are deleted and replaced with "self-latching hardware".

(14) In IRC, Section R303.4, the number "5" is changed to "3" in the first sentence.

(15) IRC, Sections R311.7.4 through R311.7.4.3, are deleted and replaced with the following: "R311.7.4 Stair treads and risers. R311.7.4.1 Riser height. The maximum riser height shall be 8 inches (203 mm). The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).
R311.7.4.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the greatest winder tread depth at the 12-inch (305 mm) walk line shall not exceed the smallest by more than 3/8 inch (9.5 mm).
R311.7.4.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed the smallest nosing projection by more than 3/8 inch (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch diameter (102 mm) sphere.
Exceptions.
1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).
2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less."

(16) In IRC, Section R312.1.2, the words "adjacent fixed seating" are deleted.

(17) IRC, Section R312.2, is deleted.

(18) IRC, Sections R313.1 through R313.2.1, are deleted and replaced with the following: "R313.1 Design and installation. When installed, automatic residential fire sprinkler systems for townhouses or one- and two-family dwellings shall be designed and

installed in accordance with Section P2904."

(19) A new IRC, Section R315.5, is added as follows: "R315.5 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over-current protection.

Exceptions:

1. Carbon monoxide alarms shall be permitted to be battery operated when installed in buildings without commercial power.

2. Hard wiring of carbon monoxide alarms in existing areas shall not be required where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for hard wiring, without the removal of interior finishes."

(20) A new IRC, Section R315.6, is added as follows: "R315.6 Interconnection. Where more than one carbon monoxide alarm is required to be installed within an individual dwelling unit in accordance with Section R315.1, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes."

(21) In IRC, Section R403.1.6, a new Exception 4 is added as follows: "4. When anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines, and at all exterior walls."

(22) In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2 and Item 3 as follows: "Exception: When anchor bolt spacing does not exceed 32 inches (816 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines, and at all exterior walls."

(23) In IRC, Section R404.1, a new exception is added as follows: "Exception: As an alternative to complying with Sections R404.1 through R404.1.5.3, concrete and masonry foundation walls may be designed in accordance with IBC Sections 1807.1.5 and 1807.1.6 as amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."

(24) IRC, Section R501.3, is deleted.

Section 203 (Contingently Superseded)
Amendments to Chapters 6 through 15 of IRC.

15A-3-203 (Contingently Superseded). Amendments to Chapters 6 through 15 of IRC.

(1) IRC, Sections R612.2 through R612.4.2, are deleted.

(2) IRC, Chapter 11, is deleted and replaced with Chapter 11 of the 2006 International Residential Code and Chapter 4 of the 2006 International Energy Conservation Code.

(3) IRC, Section M1411.6, is deleted.

(4) In IRC, Section M1502.4.4.1, the words "25 feet (7,620 mm)" are deleted and replaced with "35 feet (10,668 mm)".

Section 203 (Contingently Effective)
Amendments to Chapters 6 through 15 of IRC.

15A-3-203 (Contingently Effective). Amendments to Chapters 6 through 15 of IRC.

(1) In IRC, Section N1101.8 (R103.2), all words after the words "herein governed." are deleted and replaced with the following: "Construction documents include all documentation required to be submitted in order to issue a building permit."

(2) In IRC, Section N1101.14 (R303.3), all wording after the first sentence is deleted.

(3) In IRC, Table N1102.1.1 (R402.1.1) and Table N1102.1.3 (R402.1.3), the rows for "climate zone 3", "climate zone 5 and Marine 4", and "climate zone 6" are deleted and replaced and a new footnote j is added as follows:

"TABLE N1102.1.1 (R402.1.1)

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENTa

CLIMATE ZONE

FENESTRATION U-FACTOR b

SKYLIGHT b U-FACTOR

GLAZED FENESTRATION SHGC b,e

CEILING R-VALUE

WOOD FRAME WALL R-VALUE

MASS WALL R-VALUE i,j

FLOOR R-VALUE

BASEMENT c WALL R-VALUE

SLAB d
R-VALUE
& DEPTH
CRAWL
SPACE c
WALL
R-VALUE

3
0.65
0.65
0.40
30
15
5
19
0
0
5/13

5 and
Marine 4
0.35
0.60
NR
38
19 or 13 +
5h
13
30 g
10/13
10, 2 ft
10/13

6
0.35
0.60
NR
49
19 or 13 +
5h
15
30 g
10/13
10, 4 ft
10/13

j. Log walls complying with ICC400 and with a minimum average wall thickness of 5" or greater shall be permitted in Zones 5-8 when overall window glazing is .31 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil), and all other component requirements are met."

TABLE N1102.1.3 (R402.1.3)

EQUIVALENT U-FACTORSa

CLIMATE ZONE	FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
3	0.65	0.65	0.035	0.082	0.141	0.047	0.360	0.136
5 and Marine 4	0.35	0.60	0.030	0.060	0.082	0.033	0.059	0.065

6
0.35
0.60
0.026
0.060
0.060
0.033
0.059
0.065

(4) In IRC, Section N1102.2.1 (R402.2.1), the last sentence is deleted.

(5) In IRC, Section N1102.2.2 (R402.2.2), the last sentence is deleted.

(6) In IRC, Section N1102.3.3 (R402.3.3), the last sentence is deleted.

(7) In IRC, Section N1102.3.4 (R402.3.4), the last sentence is deleted.

(8) In IRC, Section N1102.4.1 (R402.4.1), in the first sentence, the word "and" is deleted and replaced with the word "or".

(9) In IRC, Section N1102.4.1.1 (R402.4.1.1), the last sentence is deleted and replaced with the following: "Where allowed by the building official, the builder may certify compliance to components criteria for items which may not be inspected during regularly scheduled inspections."

(10) In IRC, Section N1102.4.1.2 (R402.4.1.2), the following changes are made:

(a) In the first sentence, the words "in Zones 1 and 2, and 3 air changes per hour in Zone 3 through 8" are deleted.

(b) In the third sentence, the words "Where required by the building official," and the word "third" are deleted.

(c) The following sentence is inserted after the third sentence: "The following parties shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed contractors who have completed training provided by Blower Door Test equipment manufacturers or other comparable training."

(11) In IRC, Section N1102.4.4 (R402.4.4), the last sentence is deleted.

(12) In IRC, Section N1103.2.2 (R403.2.2), the requirements for total leakage testing are deleted and replaced with the following:

"1. Postconstruction test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m2) of conditioned floor space when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

2. Rough-in test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m2) of conditioned floor area when tested at a pressure differential of at least 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 7.5 cfm (212 L/min) per 100 square feet (9.29 m2) of conditioned floor area."

(13) In IRC, Section N1103.2.2 (R403.2.2), the exception for total leakage testing is deleted and replaced with the following: "Exception: The total leakage test is not required for systems with all air handlers and at least 50% of all ducts (measured by length) located entirely within the building thermal envelope."

(14) In IRC, Section N1103.2.3 (R403.2.3), the words "or plenums" are deleted.

(15) In IRC, Section N1103.4.2 (R403.4.2), the sentences for "3.", "9.", and the last sentence are deleted.

(16) In IRC, Section N1103.5 (R403.5), the first sentence is deleted.

(17) IRC, Section N1104.1 (R404.1) and the exception are deleted, and N1104.1.1 (R404.1.1) becomes N1104.1 (R404.1).

(18) In IRC, Table N1105.5.2(1) (R405.5.2(1)), the following changes are made under the column STANDARD REFERENCE DESIGN:

(a) In the row "Air exchange rate", the words "in Zones 1 and 2, and 3 air changes per hour in Zones 3 through 8" are deleted.

(b) In the row "Heating systemsf, g", the standard reference design is deleted and replaced with the following:

"Fuel Type: same as proposed design

Efficiencies:

Electric: air source heat pump with prevailing federal minimum efficiencies

Nonelectric furnaces: natural gas furnace with prevailing federal minimum efficiencies

Nonelectric boilers: natural gas boiler with prevailing federal minimum efficiencies

Capacity: sized in accordance with Section N1103.6"

(c) In the row "Cooling systemsf, h" the words "As proposed" are deleted and replaced with the following:

"Fuel Type: Electric

Efficiency: in accordance with prevailing federal minimum standards"

(d) In the row "Service water heatingf, g, h, i", the words "As proposed" are deleted and replaced with the following:

"Fuel Type: same as proposed design

Efficiency: in accordance with prevailing federal minimum standards

Tank Temperature: 120o F"

(e) In the row "Thermal distribution systems" the word "none" is deleted and replaced with the following: "Thermal distribution system efficiency (DSE) of .080 shall be applied to both the heating and cooling system efficiencies."

(19) In Table N1105.5.2(2) (R405.5.2(2)), the number "0.80" is inserted under "Forced air systems" for "Distribution system components located in unconditioned space".

(20) In IRC, Section M1307.2, the words "In Seismic Design Categories D1 and D2" are deleted.

(21) The RESCheck Software adopted by the United States Department of Energy and modified to meet the requirements of this section shall be used to verify compliance with this section. The software shall address the Total UA alternative approach and account for Equipment Efficiency Trade-offs when applicable per the standard reference design as amended.

(22) IRC, Section M1411.6, is deleted.

Section 204
Amendments to Chapters 16 through 25 of IRC.

15A-3-204. Amendments to Chapters 16 through 25 of IRC.

(1) In IRC, Table M1601.1.1(2), in the section "Round ducts and enclosed rectangular ducts", the word "enclosed" is deleted; the words "14 inches or less" are deleted and replaced with "over 8 inches but less than 15 inches"; the wording "8 inches or less" under duct size, "0.013" under minimum thickness (in.), "30" under equivalent gage no., and "0.0159" under aluminum minimum thickness (in.), are added; and the section "Exposed rectangular ducts" is deleted.

(2) In IRC, Section M1901.3, the word "only" is inserted between the words "labeled" and "for".

(3) A new IRC, Section G2401.2, is added as follows: "G2401.2 Meter Protection. Fuel gas services shall be in an approved location and/or provided with structures designed to protect the fuel gas meter and surrounding piping from physical damage, including

falling, moving, or migrating ice and snow. If an added structure is used, it must provide access for service and comply with the IBC or the IRC."

Section 205
Amendments to Chapters 26 through 35 of IRC.

15A-3-205. Amendments to Chapters 26 through 35 of IRC.

(1) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized, provided that the source has been developed in accordance with Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction."

(2) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as administered by the Department of Environmental Quality, Division of Water Quality."

(3) In IRC, Section P2801.7, all words in the first sentence up to the word "water" are deleted.

(4) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow assembly testing. The premise owner or his designee shall have backflow prevention assemblies operation tested at the time of installation, repair, and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly."

(5) IRC, Table P2902.3, is deleted and replaced with the following:

"DEVICE
DEGREE OF HAZARDa
APPLICATIONb
APPLICABLE
STANDARDS

BACKFLOW PREVENTION ASSEMBLIES:

Double check backflow prevention assembly and double check fire protection backflow prevention assembly
Low hazard
Backpressure or backsiphonage
Sizes 3/8" - 16"
ASSE 1015, AWWA C510, CSA B64.5, CSA B64.5.1

Double check detector fire protection backflow prevention assemblies
Low hazard
Backpressure or backsiphonage
Sizes 3/8" - 16"

ASSE 1048

Pressure vacuum breaker assembly
High or low hazard
Backsiphonage only
Sizes 1/2" - 2"
ASSE 1020, CSA B64.1.2

Reduced pressure principle backflow prevention assembly and reduced pressure principle fire protection backflow assembly
High or low hazard
Backpressure or backsiphonage
Sizes 3/8" - 16"
ASSE 1013, AWWA C511, CSA B64.4, CSA B64.4.1

Reduced pressure detector fire protection backflow prevention assemblies
High or low hazard
Backpressure or backsiphonage (Fire Sprinkler Systems)
ASSE 1047

Spill-resistant vacuum breaker assembly
High or low hazard
Backsiphonage only
Sizes 1/2" - 2"
ASSE 1056

BACKFLOW PREVENTER PLUMBING DEVICES:

Antisiphon-type fill valves for gravity water closet flush tanks
High hazard
Backsiphonage only
ASSE 1002, CSA B125.3

Backflow preventer for carbonated beverage machines
Low hazard
Backpressure or backsiphonage
Sizes 1/4" - 3/8"
ASSE 1022

Backflow preventer with intermediate atmospheric vents
Low hazard
Backpressure or backsiphonage
Sizes 1/4" - 3/8"
ASSE 1012, CSA B64.3

Dual check valve type backflow preventers
Low hazard
Backpressure or backsiphonage
Sizes 1/4" - 1"
ASSE 1024, CSA B64.6

Hose connection backflow preventer

High or low hazard
Backsiphonage only Sizes 1/2" - 1"
ASSE 1052, CSA B64.2, B64.2.1

Hose connection vacuum breaker
High or low hazard
Backsiphonage only
Sizes 1/2", 3/4", 1"
ASSE 1011, CAN/CSA B64.1.1

Atmospheric type vacuum breaker
High or low hazard
Backsiphonage only
Sizes 1/2" - 4"
ASSE 1001, CSA B64.1.1

Vacuum breaker wall hydrants, frost resistant, automatic draining type
High or low hazard
Backsiphonage only
Sizes 3/4", 1"
ASSE 1019, CSA B64.2.2

OTHER MEANS or METHODS:

Air gap
High or low hazard
Backsiphonage only
ASME A112.1.2

Air gap fittings for use with plumbing fixtures, appliances and appurtenances
High or low hazard
Backpressure or backsiphonage
ASME A112.1.3

For SI: 1 inch = 25.4 mm

a. Low Hazard - See Pollution (Section 202), High Hazard - See Contamination (Section 202)

b. See Backpressure (Section 202), See Backpressure, low head (Section 202), See Backsiphonage Section 202)

Installation Guidelines: The above specialty devices shall be installed in accordance with their listing and the manufacturer's instructions and the specific provisions of this chapter."

(6) In IRC, Section P3009.1, all words after the word "urinals" are deleted and the following sentence is added at the end: "Gray water recycling systems for subsurface landscape irrigation shall conform with UAC R317-401 Gray Water Systems."

(7) A new IRC, Section P3009.1.1, is added as follows: "P3009.1.1 Recording. The existence of a gray water recycling system shall be recorded on the deed of ownership for that property. The certificate of occupancy shall not be issued until the documentation of the recording required under this section is completed by the owner."

(8) In IRC, Section P3009.2, the words "and systems for subsurface landscape irrigation shall comply with Section P3009.14" are deleted.

(9) IRC, Section P3009.6, is deleted and replaced with the following: "P3009.6 Potable water connections. The potable water supply to any building utilizing a gray water recycling system shall be protected against backflow by a reduced pressure backflow prevention assembly installed in accordance with Section P2902."

(10) In IRC, Section P3009.7, the following is added at the end of the sentence: "and other clear water wastes which have a pH of 6.0 to 9.0; are non-flammable, non-combustible; without objectionable odor; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."

(11) In IRC, Section P3009.13.3, in the second sentence, the following is added between the words "backflow" and "in": "by a reduced pressure backflow prevention assembly or an air gap installed".

(12) IRC, Section P3009.14, is deleted and replaced with the following: "Section P3009.14 LANDSCAPE IRRIGATION SYSTEMS. Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of UAC R317-401, Gray Water Systems. Gray water recycling systems utilized for subsurface irrigation for other occupancies shall comply with UAC R317-3, Design Requirements for Wastewater Collection, Treatment and Disposal and UAC R317-4, Onsite Waterwaste Systems."

(13) In IRC, Section P3103.6, the following sentence is added at the end of the paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."

(14) In IRC, Section P3104.4, the following sentence is added at the end of the paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed below grade in accordance with Chapter 30, and Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent."

15A-3-206. Amendments to Chapters 36 and 44 of IRC.

(1) In IRC, Section E3902.12, the following words are deleted: "family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreation rooms, closets, hallways, and similar rooms or areas.
Exception: This section does not apply for a simple move or an extension of a branch circuit or an outlet which does not significantly increase the existing electrical load. This exception does not include changes involving remodeling or additions to a residence."

(2) IRC, Chapter 44, is amended by adding the following reference standard:

"Standard reference number
Title
Referenced in code section number

USC-FCCCHR 10th Edition Manual of Cross Connection Control
Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531
Table P2902.3"

Section 302
Amendments to Chapters 1 and 2 of IPC.

15A-3-302. Amendments to Chapters 1 and 2 of IPC.

(1) A new IPC, Section 101.2, is added as follows: "For clarification, the

International Private Sewage Disposal Code is not part of the plumbing code even though it is in the same printed volume."

(2) In IPC, Section 202, the definition for "Backflow Backpressure, Low Head" is deleted.

(3) In IPC, Section 202, the following definition is added: "Certified Backflow Preventer Assembly Tester. A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection 19-4-104(4)."

(4) In IPC, Section 202, the following definition is added: "Contamination (High Hazard). An impairment of the quality of the potable water that creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids or waste."

(5) In IPC, Section 202, the definition for "Cross Connection" is deleted and replaced with the following: "Cross Connection. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas, or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow")."

(6) In IPC, Section 202, the following definition is added: "Deep Seal Trap. A manufactured or field fabricated trap with a liquid seal of 4" or larger."

(7) In IPC, Section 202, in the definition for gray water a comma is inserted after the word "washers"; the word "and" is deleted; and the following is added to the end: "and clear water wastes which have a pH of 6.0 to 9.0; are non-flammable; non-combustible; without objectionable odors; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."

(8) In IPC, Section 202, the following definition is added: "High Hazard. See Contamination."

(9) In IPC, Section 202, the following definition is added: "Low Hazard. See Pollution."

(10) In IPC, Section 202, the following definition is added: "Pollution (Low Hazard). An impairment of the quality of the potable water to a degree that does not create a hazard to the public health but that does adversely and unreasonably affect the aesthetic qualities of such potable water for domestic use."

(11) In IPC, Section 202, the definition for "Potable Water" is deleted and replaced with the following: "Potable Water. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Utah Code, Title 19, Chapters 4, Safe Drinking Water Act, and 5, Water Quality Act, and the regulations of the public health authority having jurisdiction."

Section 303
Amendments to Chapter 3 of IPC.

15A-3-303. Amendments to Chapter 3 of IPC.

(1) In IPC, Section 303.4, the following exception is added:
"Exception: Third-party certification for backflow prevention assemblies will consist of any combination of two certifications, laboratory or field. Acceptable third party laboratory certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently provides the only field testing of backflow protection assemblies. Also see www.drinkingwater.utah.gov and Division of Drinking Water Rule, Utah Administrative Code, R309-305-6."

(2) IPC, Section 304.3, Meter Boxes, is deleted.

(3) IPC, Section 311.1, is deleted.

(4) In IPC, Section 312.3, the following is added at the end of the paragraph:

"Where water is not available at the construction site or where freezing conditions limit the use of water on the construction site, plastic drainage and vent pipe may be permitted to be tested with air. The following procedures shall be followed:

1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can explode, causing serious injury or death.

2. Contractor assumes all liability for injury or death to persons or damage to property or for claims for labor and/or material arising from any alleged failure of the system during testing with air or compressed gasses.

3. Proper personal protective equipment, including safety eyewear and protective headgear, should be worn by all individuals in any area where an air or gas test is being conducted.

4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.

5. No water supply system shall be pressurized in excess of 6 psi as measured by accurate gauges graduated to no more than three times the test pressure.

6. The pressure gauge shall be monitored during the test period, which should not exceed 15 minutes.

7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or gases should be vented, and test balls and plugs should be removed with caution."

(5) In IPC, Section 312.5, the following is added at the end of the paragraph:

"Where water is not available at the construction site or where freezing conditions limit the use of water on the construction site, plastic water pipes may be permitted to be tested with air. The following procedures shall be followed:

1. Contractor shall recognize that plastic is extremely brittle at lower temperatures and can explode, causing serious injury or death.

2. Contractor assumes all liability for injury or death to persons or damage to property or for claims for labor and/or material arising from any alleged failure of the system during testing with air or compressed gasses.

3. Proper personal protective equipment, including safety eyewear and protective headgear, should be worn by all individuals in any area where an air or gas test is being conducted.

4. Contractor shall take all precautions necessary to limit the pressure within the plastic piping.

5. Water supply systems shall be pressure tested to a minimum of 50 psi but not more than 80 psi as measured by accurate gauges graduated to no more than three times the test pressure.

6. The pressure gauge shall be monitored during the test period, which should not exceed 15 minutes.

7. At the conclusion of the test, the system shall be depressurized gradually, all trapped air or gases should be vented, and test balls and plugs should be removed with caution."

(6) A new IPC, Section 312.10.3, is added as follows: "312.10.3 Tester Qualifications. Testing shall be performed by a Utah Certified Backflow Preventer Assembly Tester in accordance with Utah Administrative Code, R309-305."

Section 304
Amendments to Chapter 4 of IPC.

15A-3-304. Amendments to Chapter 4 of IPC.

(1) In IPC, Table 403.1, the following changes are made:

(a) The title for Table 403.1 is deleted and replaced with the following: "Table 403.1,

Minimum Number of Required Plumbing Facilitiesa, h";

(b) In the row for "E" occupancy in the field for "OTHER" a new footnote i is added.

(c) In the row for "I-4" occupancy in the field for "OTHER" a new footnote i is added.

(d) A new footnote h is added as follows: "FOOTNOTE: h. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms."

(e) A new footnote i is added to the table as follows: "FOOTNOTE i: Non-residential child care facilities shall comply with additional sink requirements of Utah Administrative Code R430-100-4."

(2) A new IPC, Section 406.3, is added as follows: " 406.3 Automatic clothes washer safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in accordance with Section 504.7."

(3) A new IPC, Section 412.5, is added as follows: "412.5 Public toilet rooms. All public toilet rooms shall be equipped with at least one floor drain."

Section 304
Amendments to Chapter 4 of IPC.

15A-3-304. Amendments to Chapter 4 of IPC.

(1) In IPC, Table 403.1, the following changes are made:

(a) The title for Table 403.1 is deleted and replaced with the following: "Table 403.1, Minimum Number of Required Plumbing Facilitiesa, h";

(b) In the row for "E" occupancy in the field for "OTHER" a new footnote i is added.

(c) In the row for "I-4" occupancy in the field for "OTHER" a new footnote i is added.

(d) A new footnote h is added as follows: "FOOTNOTE: h. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms."

(e) A new footnote i is added to the table as follows: "FOOTNOTE i: Non-residential child care facilities shall comply with additional sink requirements of Utah Administrative Code R430-100-4."

(2) A new IPC, Section 406.3, is added as follows: " 406.3 Automatic clothes washer safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in accordance with Section 504.7."

(3) A new IPC, Section 412.5, is added as follows: "412.5 Public toilet rooms. All public toilet rooms shall be equipped with at least one floor drain."

Section 305
Amendments to Chapter 5 of IPC.

15A-3-305. Amendments to Chapter 5 of IPC.

(1) IPC, Section 502.4, is deleted and replaced with the following: "502.4 Seismic supports. Appliances designed to be fixed in position shall be fastened or anchored in an approved manner. Water heaters shall be anchored or strapped to resist horizontal displacement caused by earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of the appliance's vertical dimensions. At the lower point, the strapping shall maintain a minimum distance of 4 inches (102 mm) above the controls."

(2) In IPC, Section 504.7.2, the following is added at the end of the section: "When permitted by the code official, the pan drain may be directly connected to a soil stack,

waste stack, or branch drain. The pan drain shall be individually trapped and vented as required in Section 907.1. The pan drain shall not be directly or indirectly connected to any vent. The trap shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044, a barrier type floor drain trap seal protection device meeting ASSE 1072, or a deep seal p-trap."

(3) A new IPC, Section 504.7.3, is added as follows: "504.7.3 Pan Designation. A water heater pan shall be considered an emergency receptor designated to receive the discharge of water from the water heater only and shall not receive the discharge from any other fixtures, devises, or equipment."

Section 306
Amendments to Chapter 6 of IPC.

15A-3-306. Amendments to Chapter 6 of IPC.

(1) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Utah Code, Sections 73-3-1, 73-3-3, and 73-3-25, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction. The source shall supply sufficient quantity of water to comply with the requirements of this chapter."

(2) IPC, Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5, and 602.3.5.1, are deleted.

(3) A new IPC, Section 604.4.1, is added as follows: "604.4.1 Manually operated metering faucets. Self closing or manually operated metering faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the faucet."

(4) IPC, Section 606.5, is deleted and replaced with the following: "606.5 Water pressure booster systems. Water pressure booster systems shall be provided as required by Section 606.5.1 through 606.5.11."

(5) A new IPC, Section 606.5.11, is added as follows: "606.5.11 Prohibited installation. In no case shall a booster pump be allowed that will lower the pressure in the public main to less than the minimum water pressure specified in Utah Administrative Code R309-105-9."

(6) In IPC, Section 608.1, the words "and pollution" are added after the word "contamination."

(7) IPC, Table 608.1, is deleted and replaced with the following:

"TABLE 608.1

Application of Back Flow Preventers

DEVICE
DEGREE OF HAZARDa
APPLICATIONb
APPLICABLE STANDARDS

BACKFLOW PREVENTION ASSEMBLIES:

Double check backflow prevention assembly and double check fire protection backflow prevention assembly
Low hazard
Backpressure or backsiphonage
Sizes 3/8" - 16"

ASSE 1015, AWWA C510, CSA B64.5, CSA B64.5.1

Double check detector fire protection backflow prevention assemblies
Low hazard
Backpressure or backsiphonage
Sizes 3/8" - 16"
ASSE 1048

Pressure vacuum breaker assembly
High or low hazard
Backsiphonage only
Sizes 1/2" - 2"
ASSE 1020, CSA B64.1.2

Reduced pressure principle backflow prevention assembly and reduced pressure principle fire protection backflow assembly
High or low hazard
Backpressure or backsiphonage
Sizes 3/8" - 16"
ASSE 1013, AWWA C511, CSA B64.4, CSA B64.4.1

Reduced pressure detector fire protection backflow prevention assemblies
High or low hazard
Backpressure or backsiphonage (Fire Sprinkler Systems)
ASSE 1047

Spill-resistant vacuum breaker assembly
High or low hazard
Backsiphonage only
Sizes 1/2" - 2"
ASSE 1056

BACKFLOW PREVENTER PLUMBING DEVICES:

Antisiphon-type fill valves for gravity water closet flush tanks
High hazard
Backsiphonage only
ASSE 1002, CSA B125.3

Backflow preventer for carbonated beverage machines
Low hazard
Backpressure or backsiphonage
Sizes 1/4" - 3/8"
ASSE 1022

Backflow preventer with intermediate atmospheric vents
Low hazard
Backpressure or backsiphonage
Sizes 1/4" - 3/8"
ASSE 1012, CSA B64.3

Dual check valve type backflow preventers

Low hazard
Backpressure or backsiphonage
Sizes 1/4" - 1"
ASSE 1024, CSA B64.6

Hose connection backflow preventer
High or low hazard
Backsiphonage only Sizes 1/2" - 1"
ASSE 1052, CSA B64.2, B64.2.1

Hose connection vacuum breaker
High or low hazard
Backsiphonage only
Sizes 1/2", 3/4", 1"
ASSE 1011, CAN/CSA B64.1.1

Atmospheric type vacuum breaker
High or low hazard
Backsiphonage only
Sizes 1/2" - 4"
ASSE 1001, CSA B64.1.1

Vacuum breaker wall hydrants, frost resistant, automatic draining type
High or low hazard
Backsiphonage only
Sizes 3/4", 1"
ASSE 1019, CSA B64.2.2

OTHER MEANS or METHODS:

Air gap
High or low hazard
Backsiphonage only
ASME A112.1.2

Air gap fittings for use with plumbing fixtures, appliances and appurtenances
High or low hazard
Backpressure or backsiphonage
ASME A112.1.3

For SI: 1 inch = 25.4 mm

a. Low Hazard - See Pollution (Section 202), High Hazard - See Contamination (Section 202)

b. See Backpressure (Section 202), See Backpressure, low head (Section 202), See Backsiphonage (Section 202)

Installation Guidelines: The above specialty devices shall be installed in accordance with their listing and the manufacturer's instructions and the specific provisions of this chapter."

(8) In IPC, Section 608.3, the word "and" after the word "contamination" is deleted

and replaced with a comma and the words "and pollution" are added after the word "contamination" in the first sentence.

(9) In IPC, Section 608.5, the words "with the potential to create a condition of either contamination or pollution or" are added after the word "substances".

(10) In IPC, Section 608.6, the following sentence is added at the end of the paragraph: "Any connection between potable water piping and sewer-connected waste shall be protected by an air gap in accordance with Section 608.13.1."

(11) IPC, Section 608.7, is deleted and replaced with the following: "608.7 Stop and Waste Valves installed below grade. Combination stop-and-waste valves shall be permitted to be installed underground or below grade. Freeze proof yard hydrants that drain the riser into the ground are considered to be stop-and-waste valves and shall be permitted."

(12) In IPC, Section 608.11, the following sentence is added at the end of the paragraph: "The coating and installation shall conform to NSF Standard 61 and application of the coating shall comply with the manufacturer's instructions."

(13) IPC, Section 608.13.3, is deleted and replaced with the following: "608.13.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012 or CSA CAN/CSA-B64.3. These devices shall be permitted to be installed on residential boilers only, without chemical treatment, where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from being submerged."

(14) IPC, Section 608.13.4, is deleted.

(15) IPC, Section 608.13.9, is deleted and replaced with the following: "608.13.9 Chemical dispenser backflow devices. Backflow devices for chemical dispensers shall comply with Section 608.16.7."

(16) IPC, Section 608.15.3, is deleted and replaced with the following: "608.15.3 Protection by a backflow preventer with intermediate atmospheric vent. Connections to residential boilers only, without chemical treatment, shall be protected by a backflow preventer with an intermediate atmospheric vent."

(17) IPC, Section 608.15.4, is deleted and replaced with the following: "608.15.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breakers. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. Fill valves shall be set in accordance with Section 425.3.1. Atmospheric Vacuum Breakers - The critical level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. Pipe-applied vacuum breakers shall be installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or device served. No valves shall be installed downstream of the atmospheric vacuum breaker. Pressure Vacuum Breaker - The critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood level of the fixture or device."

(18) In IPC, Section 608.15.4.2, the following is added after the first sentence: "Add-on-backflow prevention devices shall be non-removable. In climates where freezing temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow preventer shall be used."

(19) In IPC, Section 608.16.2, is deleted and replaced as follows: "608.16.2 Connections to boilers. The potable supply to a boiler shall be protected by an air gap or a reduced pressure principle backflow preventer, complying with ASSE 1013, CSA B64.4 or AWWA C511.

Exception: The potable supply to a residential boiler without chemical treatment may be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA CAN/CSA-B64.3."

(20) IPC, Section 608.16.3, is deleted and replaced with the following: "608.16.3

Heat exchangers. Heat exchangers shall be separated from potable water by double-wall construction. An air gap open to the atmosphere shall be provided between the two walls. Exceptions:
1. Single wall heat exchangers shall be permitted when all of the following conditions are met:
a. It utilizes a heat transfer medium of potable water or contains only substances which are recognized as safe by the United States Food and Drug Administration (FDA);
b. The pressure of the heat transfer medium is maintained less than the normal minimum operating pressure of the potable water system; and
c. The equipment is permanently labeled to indicate only additives recognized as safe by the FDA shall be used.
2. Steam systems that comply with paragraph 1 above.
3. Approved listed electrical drinking water coolers."

(21) In IPC, Section 608.16.4.1, a new exception is added as follows: "Exception: All class 1 and 2 systems containing chemical additives consisting of strictly glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against backflow with a double check valve assembly. Such systems shall include written certification of the chemical additives at the time of original installation and service or maintenance."

(22) IPC, Section 608.16.7, is deleted and replaced with the following: "608.16.7 Chemical dispensers. Where chemical dispensers connect to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2, Section 608.13.5, Section 608.13.6 or Section 608.13.8. Chemical dispensers shall connect to a separate dedicated water supply separate from any sink faucet."

(23) IPC, Section 608.16.8, is deleted and replaced with the following: "608.16.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2 or Section 608.13.8."

(24) A new IPC, Section 608.16.11, is added as follows: "608.16.11 Automatic and coin operated car washes. The water supply to an automatic or coin operated car wash shall be protected in accordance with Section 608.13.1 or Section 608.13.2."

(25) IPC, Section 608.17, is deleted and replaced with the following: "608.17 Protection of individual water supplies. See Section 602.3 for requirements."

Section 307
Amendments to Chapter 7 of IPC.

15A-3-307. Amendments to Chapter 7 of IPC.

(1) IPC, Section 701.2, is deleted and replaced with the following: "701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is accessible and is within 300 feet of the property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal system in accordance with Utah Administrative Code, Rule R317-4, as administered by the Department of Environmental Quality, Division of Water Quality."

(2) In IPC, Section 712.3.3.1, the following words are added before the word "or": "stainless steel, cast iron, galvanized steel".

Section 309
Amendments to Chapter 9 of IPC.

15A-3-309. Amendments to Chapter 9 of IPC.

(1) In IPC, Section 903.1, when the number of inches is to be specified, "12 inches (304.8mm)" is inserted.

(2) In IPC, Section 903.6, the following sentence is added at the end of the paragraph: "Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward."

(3) In IPC, Section 905.4, the following sentence is added at the end of the paragraph: "Horizontal dry vents below the flood level rim shall be permitted for floor drain, floor sink, and bath tub installations when installed in accordance with Sections 702.2, 905.2 and 905.3 and provided with a wall clean out."

Section 310
Amendments to Chapter 10 of IPC.

15A-3-310. Amendments to Chapter 10 of IPC.

In IPC, Section 1002.4, the following is added at the end of the paragraph: "Approved Means of Maintaining Trap Seals. Approved means of maintaining trap seals include the following, but are not limited to the methods cited:

1. A listed trap seal primer conforming to ASSE 1018 and ASSE 1044.

2. A hose bibb or bibbs within the same room.

3. Drainage from an untrapped lavatory discharging to the tailpiece of those fixture traps which require priming. All fixtures shall be in the same room and on the same floor level as the trap primer.

4. Barrier type floor drain trap seal protection device meeting ASSE Standard 1072.

5. Deep seal p-trap".

Section 311
Amendments to Chapter 11 of IPC.

15A-3-311. Amendments to Chapter 11 of IPC.

(1) IPC, Section 1104.2, is deleted and replaced with the following: "1104.2 Combining storm and sanitary drainage prohibited. The combining of sanitary and storm drainage systems is prohibited."

(2) IPC, Section 1109, is deleted.

Section 313
Amendments to Chapter 13 of IPC.

15A-3-313. Amendments to Chapter 13 of IPC.

(1) In IPC, Section 1301.1, all words after the word "urinals" are deleted and the following sentence is added at the end: "Gray water recycling systems for subsurface landscape irrigation shall conform with UAC R317-401 Gray Water Systems."

(2) A new IPC, Section 1301.1.1, is added as follows: "1301.1.1 Recording. The existence of a gray water recycling system shall be recorded on the deed of ownership for that property. The certificate of occupancy shall not be issued until the documentation of the recording required under this section is completed by the owner."

(3) In IPC, Section 1301.2, the words "and systems for subsurface landscape irrigation shall comply with Section 1303" are deleted.

(4) IPC, Section 1301.6, is deleted and replaced with the following: "1301.6 Potable water connections. The potable water supply to any building utilizing a gray water recycling system shall be protected against backflow by a reduced pressure backflow prevention assembly installed in accordance with Section 608."

(5) In IPC, Section 1301.7, the following is added at the end of the sentence: "and

other clear water wastes which have a pH of 6.0 to 9.0; are non-flammable, non-combustible; without objectionable odor; non-highly pigmented; and will not interfere with the operation of the sewer treatment facility."

(6) In IPC, Section 1302.3, in the second sentence, the following is added between the words "backflow" and "in": "by a reduced pressure backflow prevention assembly or an air gap installed".

(7) IPC, Section 1303, is deleted and replaced with the following: "Section 1303 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS. Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of UAC R317-401, Gray Water Systems. Gray water recycling systems utilized for subsurface irrigation for other occupancies shall comply with UAC R317-3, Design Requirements for Wastewater Collection, Treatment and Disposal and UAC R317-4, Onsite Waterwaste Systems."

15A-3-314. Amendments to Chapter 14 of IPC.

(1) In IPC, Chapter 14, the following referenced standard is added under ASSE:

"Standard reference number
Title
Referenced in code section number

1072-2007
Performance Requirements for Barrier Type Floor Drain Trap Seal Protection Devices
1004.2"

(2) In IPC, Chapter 14, the following referenced standard is added:

"Standard reference number
Title
Referenced in code section number

USC-FCCCHR 10th Edition Manual of Cross Connection Control
Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531
Table 608.1"

15A-3-401. General provisions.

The following are adopted as amendments to the IMC to be applicable statewide:

(1) In IMC, Section 202, the definition for "CONDITIONED SPACE" is deleted and replaced with the following: "CONDITIONED SPACE. An area, room, or space enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
1. Openings directly into an adjacent conditioned space.
2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
3. Un-insulated duct, piping or other heat or cooling source within the space."

(2) In IMC, Section 403, a new Section 403.8 is added as follows: "Retrospective effect. Removal, alteration, or abandonment shall not be required, and continued use and maintenance shall be allowed, for a ventilation system within an existing installation that complies with the requirements of this Section 403 regardless of whether the ventilation system satisfied the minimum ventilation rate requirements of prior law."

(3) In IMC, Table 603.4, in the section "Round ducts and enclosed rectangular ducts", the word "enclosed" is deleted; the words "14 inches or less" are deleted and replaced with "over 8 inches but less than 15 inches"; the wording "8 inches or less" under

duct size, "0.013" under minimum thickness (in.), "30" under equivalent gage no., and "0.0159" under aluminum minimum thickness (in.), are added; and the section "Exposed rectangular ducts" is deleted.

(4) In IMC, Section 1004.2, the first sentence is deleted and replaced with the following: "Boilers and pressure vessels in Utah are regulated by the Utah Labor Commission, Division of Boiler, Elevator and Coal Mine Safety, except those located in private residences or in apartment houses of less than five family units. Boilers shall be installed in accordance with their listing and labeling, with minimum clearances as prescribed by the manufacturer's installation instructions."

(5) In IMC, Section 1004.3.1, the word "unlisted" is inserted before the word "boilers".

(6) IMC, Section 1101.10, is deleted.

15A-3-501. General provisions.

The following are adopted as an amendment to the IFGC to be applicable statewide:

(1) In IFGC, Section 404.9, a new Section 404.9.1, is added as follows: "404.9.1 Meter protection. Fuel gas services shall be in an approved location and/or provided with structures designed to protect the fuel gas meter and surrounding piping from physical damage, including falling, moving, or migrating ice and snow. If an added structure is used, it must still provide access for service and comply with the IBC or the IRC."

(2) IFGC, Section 409.5.3, is deleted.

(3) In IFGC, Section 631.2, the following sentence is inserted before the first sentence: "Boilers and pressure vessels in Utah are regulated by the Utah Labor Commission, Division of Boiler, Elevator and Coal Mine Safety, except those located in private residences or in apartment houses of less than five family units."

15A-3-601. General provision.

The following are adopted as amendments to the NEC to be applicable statewide:

(1) The IRC provisions are adopted as the residential electrical standards applicable to installations applicable under the IRC. All other installations shall comply with the adopted NEC.

(2) In NEC, Section 310.15(B)(7), the second sentence is deleted and replaced with the following: "For application of this section, the main power feeder shall be the feeder(s) between the main disconnect and the panelboard(s)."

15A-3-701 (Contingently Effective). General provisions.

The following is adopted as an amendment to the IECC to be applicable statewide:

(1) In IECC, Section C202, the definition for "CONDITIONED SPACE" is deleted and replaced with the following: "CONDITIONED SPACE. An area, room or space enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
1. Openings directly into an adjacent conditioned space.
2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
3. Un-insulated duct, piping or other heat or cooling source within the space."

(2) In IECC, Section C404.4, a new exception is added as follows: "Exception: Heat traps, other than the arrangement of piping and fittings, shall be prohibited unless a means of controlling thermal expansion can be ensured as required in the IPC Section 607.3."

(3) In IECC, Section R103.2, all words after the words "herein governed." are deleted and replaced with the following: "Construction documents include all documentation required to be submitted in order to issue a building permit."

(4) In IECC, Section R202, the definition for "CONDITIONED SPACE" is deleted and replaced with the following: "CONDITIONED SPACE. An area, room or space

enclosed within the building thermal envelope that is directly heated or cooled, or indirectly heated or cooled by any of the following means:
1. Openings directly into an adjacent conditioned space.
2. An un-insulated floor, ceiling or wall adjacent to a conditioned space.
3. Un-insulated duct, piping or other heat or cooling source within the space."

(5) In IECC, Section R303.3, all wording after the first sentence is deleted.

(6) In IECC, Table R402.1.1 and Table R402.1.3, the rows for "climate zone 3", "climate zone 5 and Marine 4, and climate zone 6" are deleted and replaced and a new footnote j is added as follows:

"TABLE R402.1.1

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENTa

CLIMATE ZONE

FENESTRATION U-FACTOR b

SKYLIGHT b U-FACTOR

GLAZED FENESTRATION SHGC b,e

CEILING R-VALUE

WOOD FRAME WALL R-VALUE

MASS WALL R-VALUE I, j

FLOOR R-VALUE

BASEMENT c WALL R-VALUE

SLAB d

R-VALUE
& DEPTH
CRAWL
SPACE c
WALL
R-VALUE

3
0.65
0.65
0.40
30
15
5
19
0
0
5/13

5 and
Marine 4
0.35
0.60
NR
38
19 or 13 + 5h
13
30 g
10/13
10, 2 ft
10/13

6
0.35
0.60
NR
49
19 or 13 + 5h
15
30 g
10/13
10, 4 ft
10/13

j. Log walls complying with ICC400 and with a minimum average wall thickness of 5" or greater shall be permitted in Zones 5-8 when overall window glazing is .31 U-factor or lower, minimum heating equipment efficiency is 90 AFUE (gas) or 84 AFUE (oil), and all other component requirements are met.

TABLE R402.1.3 EQUIVALENT U-FACTORSa

CLIMATE ZONE	**3**	**5 and Marine 4**	**6**
FENESTRATION U-FACTOR	**0.65**	**0.35**	**0.35**
SKYLIGHT U-FACTOR	**0.65**	**0.60**	**0.60**
CEILING U-FACTOR	**0.035**	**0.030**	**0.026**
FRAME WALL U-FACTOR	**0.082**	**0.060**	**0.060**
MASS WALL U-FACTOR b	**0.141**	**0.082**	
FLOOR U-FACTOR	**0.047**	**0.033**	
BASEMENT WALL U-FACTOR	**0.360**	**0.059**	
CRAWL SPACE WALL U-FACTOR	**0.136**	**0.065**	

0.060
0.033
0.059
0.065

(7) In IECC, Section R402.2.1, the last sentence is deleted.

(8) In IECC, Section R402.2.2, the last sentence is deleted.

(9) In IECC, Section R402.3.3, the last sentence is deleted.

(10) In IECC, Section R402.3.4, the last sentence is deleted.

(11) In IECC, Section R402.4.1, in the first sentence, the word "and" is deleted and replaced with the word "or".

(12) In IECC, Section R402.4.1.1, the last sentence is deleted and replaced with the following: "Where allowed by the building official, the builder may certify compliance to components criteria for items which may not be inspected during regularly scheduled inspections."

(13) In IECC, Section R402.4.1.2, the following changes are made:

(a) In the first sentence, the words "in Zones 1 and 2, and 3 air changes per hour in Zone 3 through 8" are deleted.

(b) In the third sentence, the words "Where required by the building official," and the word "third" are deleted.

(c) The following sentence is inserted after the third sentence: "The following parties shall be approved to conduct testing: Parties certified by BPI or RESNET, or licensed contractors who have completed training provided by Blower Door Test equipment manufacturers or other comparable training."

(14) In IECC, Section R402.4.4, the last sentence is deleted.

(15) In IECC, Section R403.2.2, the requirements for duct tightness testing are deleted and replaced with the following:

"1. Postconstruction test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m2) of conditioned floor space when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

2. Rough-in test: Total leakage shall be less than or equal to 10 cfm (283 L/min) per 100 square feet (9.29 m2) of conditioned floor area when tested at a pressure differential of at least 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 7.5 cfm (212 L/min) per 100 square feet (9.29 m2) of conditioned floor area."

(16) In IECC, Section R403.2.2, the exception for total leakage testing is deleted and replaced with the following: "Exception: The total leakage test is not required for systems with all air handlers and at least 50% of all ducts (measured by length) located entirely within the building thermal envelope."

(17) In IECC, Section R403.2.3, the words "or plenums" are deleted.

(18) In IECC, Section R403.4.2, the sentences for "3." and "9." and the last sentence are deleted.

(19) In IECC, Section R403.5, the first sentence is deleted.

(20) IECC, Section R404.1 and the exception are deleted, and R404.1.1 becomes R404.1.

(21) In IECC, Table R405.5.2(1), the following changes are made under the column STANDARD REFERENCE DESIGN:

(a) In the row "Air exchange rate", the words "in Zones 1 and 2, and 3 air changes per hour in Zones 3 through 8" are deleted.

(b) In the row "Heating systemsf, g", the standard reference design is deleted and replaced with the following:

"Fuel Type: same as proposed design

Efficiencies:

Electric: air source heat pump with prevailing federal minimum efficiencies

Nonelectric furnaces: natural gas furnace with prevailing federal minimum efficiencies

Nonelectric boilers: natural gas boiler with prevailing federal minimum efficiencies

Capacity: sized in accordance with Section N1103.6"

(c) In the row "Cooling systemsf, h" the words "As proposed" are deleted and replaced with the following:

"Fuel Type: Electric

Efficiency: in accordance with prevailing federal minimum standards"

(d) In the row "Service water heatingf, g, h, i", the words "As proposed" are deleted and replaced with the following:

"Fuel Type: same as proposed design

Efficiency: in accordance with prevailing federal minimum standards

Tank Temperature: 120o F"

(e) In the row "Thermal distribution systems" the word "none" is deleted and replaced with the following: "Thermal distribution system efficiency (DSE) of .080 shall be applied to both the heating and cooling system efficiencies."

(22) In IECC, Table R405.5.2(2), the number "0.80" is inserted under "Forced air systems" for "Distribution system components located in unconditioned space".

(23) The RESCheck Software adopted by the United States Department of Energy and modified to meet the requirements of this section shall be used to verify compliance with this section. The software shall address the Total UA alternative approach and account for Equipment Efficiency Trade-offs when applicable per the standard reference design as amended.

15A-3-801. General provision.

Mobile homes built before June 15, 1976 that are subject to relocation, building alteration, remodeling, or rehabilitation shall comply with the following:

(1) Related to exits and egress windows:

(a) Egress windows. The home has at least one egress window in each bedroom, or a window that meets the minimum specifications of the U.S. Department of Housing and Urban Development's (HUD) Manufactured Homes Construction and Safety Standards (MHCSS) program as set forth in 24 C.F.R. Parts 3280 and 3283, MHCSS 3280.106 and 3280.404 for manufactured homes. These standards require the window to be at least 22 inches in the horizontal or vertical position in its least dimension and at least five square feet in area. The bottom of the window opening shall be no more than 36 inches above the floor, and the locks and latches and any window screen or storm window devices that need to be operated to permit exiting shall not be located more than 54 inches above the finished floor.

(b) Exits. The home is required to have two exterior exit doors, located remotely from each other, as required in MHCSS 3280.105. This standard requires that single-section homes have the doors no less than 12 feet, center-to-center, from each other, and multisection home doors no less than 20 feet center-to-center from each other when measured in a straight line, regardless of the length of the path of travel between the doors. One of the required exit doors must be accessible from the doorway of each bedroom and no more than 35 feet away from any bedroom doorway. An exterior swing door shall have a 28-inch-wide by 74-inch-high clear opening and sliding glass doors shall have a 28-inch-wide by 72-inch-high clear opening. Each exterior door other than screen/storm doors shall have a key-operated lock that has a passage latch; locks shall not require the use of a key or

special tool for operation from the inside of the home.

(2) Related to flame spread:

(a) Walls, ceilings, and doors. Walls and ceilings adjacent to or enclosing a furnace or water heater shall have an interior finish with a flame-spread rating not exceeding 25. Sealants and other trim materials two inches or less in width used to finish adjacent surfaces within these spaces are exempt from this provision, provided all joints are supported by framing members or materials with a flame spread rating of 25 or less. Combustible doors providing interior or exterior access to furnace and water heater spaces shall be covered with materials of limited combustibility (i.e., 5/16-inch gypsum board, etc.), with the surface allowed to be interrupted for louvers ventilating the space. However, the louvers shall not be of materials of greater combustibility than the door itself (i.e., plastic louvers on a wooden door). Reference MHCSS 3280.203.

(b) Exposed interior finishes. Exposed interior finishes adjacent to the cooking range (surfaces include vertical surfaces between the range top and overhead cabinets, the ceiling, or both) shall have a flame-spread rating not exceeding 50, as required by MHCSS 3280.203. Backsplashes not exceeding six inches in height are exempted. Ranges shall have a vertical clearance above the cooking top of not less than 24 inches to the bottom of combustible cabinets, as required by MHCSS 3280.204(e).

(3) Related to smoke detectors:

(a) Location. A smoke detector shall be installed on any ceiling or wall in the hallway or space communicating with each bedroom area between the living area and the first bedroom door, unless a door separates the living area from that bedroom area, in which case the detector shall be installed on the living-area side, as close to the door as practicable, as required by MHCSS 3280.208. Homes with bedroom areas separated by anyone or combination of common-use areas such as a kitchen, dining room, living room, or family room (but not a bathroom or utility room) shall be required to have one detector for each bedroom area. When located in the hallways, the detector shall be between the return air intake and the living areas.

(b) Switches and electrical connections. Smoke detectors shall have no switches in the circuit to the detector between the over-current protection device protecting the branch circuit and the detector. The detector shall be attached to an electrical outlet box and connected by a permanent wiring method to a general electrical circuit. The detector shall not be placed on the same branch circuit or any circuit protected by a ground-fault circuit interrupter.

(4) Related to solid-fuel-burning stoves/fireplaces:

(a) Solid-fuel-burning fireplaces and fireplace stoves. Solid-fuel-burning, factory-built fireplaces, and fireplace stoves may be used in manufactured homes, provided that they are listed for use in manufactured homes and installed according to their listing/manufacturer's instructions and the minimum requirements of MHCSS 3280.709(g).

(b) Equipment. A solid-fuel-burning fireplace or fireplace stove shall be equipped with an integral door or shutters designed to close the fire chamber opening and shall include complete means for venting through the roof, a combustion air inlet, a hearth extension, and means to securely attach the unit to the manufactured home structure.

(i) Chimney. A listed, factory-built chimney designed to be attached directly to the fireplace/fireplace stove and equipped with, in accordance with the listing, a termination device and spark arrester, shall be required. The chimney shall extend at least three feet above the part of the roof through which it passes and at least two feet above the highest elevation of any part of the manufactured home that is within 10 feet of the chimney.

(ii) Air-intake assembly and combustion-air inlet. An air-intake assembly shall be installed in accordance with the terms of listings and the manufacturer's instruction. A combustion-air inlet shall conduct the air directly into the fire chamber and shall be designed to prevent material from the hearth from dropping on the area beneath the

manufactured home.

(iii) Hearth. The hearth extension shall be of noncombustible material that is a minimum of 3/8-inch thick and shall extend a minimum of 16 inches in front and eight inches beyond each side of the fireplace/fireplace stove opening. The hearth shall also extend over the entire surface beneath a fireplace stove and beneath an elevated and overhanging fireplace.

(5) Related to electrical wiring systems:

(a) Testing. All electrical systems shall be tested for continuity in accordance with MHCSS 3280.810, to ensure that metallic parts are properly bonded; tested for operation, to demonstrate that all equipment is connected and in working order; and given a polarity check, to determine that connections are proper.

(b) 5.2 Protection. The electrical system shall be properly protected for the required amperage load. If the unit wiring employs aluminum conductors, all receptacles and switches rated at 20 amperes or less that are directly connected to the aluminum conductors shall be marked CO/ALA. Exterior receptacles, other than heat tape receptacles, shall be of the ground-fault circuit interrupter (GFI) type. Conductors of dissimilar metals (copper/aluminum or copper-clad aluminum) must be connected in accordance with NEC, Section 110-14.

(6) Related to replacement furnaces and water heaters:

(a) Listing. Replacement furnaces or water heaters shall be listed for use in a manufactured home. Vents, roof jacks, and chimneys necessary for the installation shall be listed for use with the furnace or water heater.

(b) Securement and accessibility. The furnace and water heater shall be secured in place to avoid displacement. Every furnace and water heater shall be accessible for servicing, for replacement, or both as required by MHCSS 3280.709(a).

(c) Installation. Furnaces and water heaters shall be installed to provide complete separation of the combustion system from the interior atmosphere of the manufactured home, as required by MHCSS.

(i) Separation. The required separation may be achieved by the installation of a direct-vent system (sealed combustion system) furnace or water heater or the installation of a furnace and water heater venting and combustion systems from the interior atmosphere of the home. There shall be no doors, grills, removable access panels, or other openings into the enclosure from the inside of the manufactured home. All openings for ducts, piping, wiring, etc., shall be sealed.

(ii) Water heater. The floor area in the area of the water heater shall be free from damage from moisture to ensure that the floor will support the weight of the water heater.

The following codes have also been approved by DFCM as construction standards that may be applied to existing buildings:

R156-15A-401. Adoption - Approved Codes. Approved Codes. In accordance with Subsection 15A-1-204(6)(a), and subject to the limitations contained in Subsection 15A-1-204(6)(b), the following codes or standards are hereby incorporated by reference andapproved for use and adoption by a compliance agency as the construction standards which may be applied to existing buildings in the regulation of building alteration, remodeling, repair, removal, seismic evaluation, and rehabilitation in the state:

(1) the 1997 edition of the Uniform Code for the Abatement of Dangerous Buildings (UCADB) promulgated by the International Code Council;

(2) the 2009 edition of the International Existing Building Code (IEBC), including its appendix chapters, promulgated by the International Code Council;

(3) ASCE 31-03, Seismic Evaluation of Existing Buildings, promulgated by the

American Society of Civil Engineers;
(4) ASCE/SEI 41-06, the Seismic Rehabilitation of Existing Buildings, promulgated by the American Society of Civil Engineers, 2007 edition.

R156-15A-402. Statewide Amendments to the IEBC.
The following are adopted as amendments to the IEBC to be applicable statewide:
(1) In Section 101.5 the exception is deleted.
(2) In Section 202 the definition for existing buildings is deleted and replaced with the following:
EXISTING BUILDING. A building lawfully erected under a prior adopted code, or one which is deemed a legal non-conforming building by the code official, and one which is not a dangerous building.
(3) In Section 605.1, Exception number 3, the following is added at the end of the sentence: "unless undergoing a change of occupancy classification."
(4) Section 606.2.1 is deleted and replaced with the following:
606.2.1 Parapet bracing, wall anchors, and other appendages. Buildings constructed prior to 1975 shall have parapet bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary, etc. evaluated by a licensed engineer when said building is undergoing reroofing, or alteration of or repair to said feature. Such parapet bracing, wall anchors, and appendages shall be evaluated in accordance with the reduced International Building Code level seismic forces as specified in IEBC Section 101.5.4.2 and design procedures of Section 101.5.4. When found to be deficient because of design or deteriorated condition, the engineer's recommendations to anchor, brace, reinforce, or remove the deficient feature shall be implemented.
EXCEPTIONS:
1. Group R-3 and U occupancies.
2. Unreinforced masonry parapets need not be braced according to the above stated provisions provided that the maximum height of an unreinforced masonry parapet above the level of the diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times the thickness of the parapet wall. The parapet height may be a maximum
of two and one-half times its thickness in other than Seismic Design Categories D, E, or F.
(5) Section 907.3.1 is deleted and replaced with the following:
907.3.1 Compliance with the International Building Code. When a building or portion thereof is subject to a change of occupancy such that a change in the nature of the occupancy results in a higher seismic occupancy based on Table 1604.5 of the International Building Code; or where such change of occupancy results in a reclassification of a building to a higher hazard category as shown in Table 912.4; or where a change of a Group M occupancy to a Group A, E, F, M, R-1, R-2, or R-4 occupancy with two-thirds or more of the floors involved in Level 3 alteration work; or when such change of occupancy results in a design occupant load increase of 100% or more, the building shall conform to the seismic requirements of the International Building Code for the new seismic use group.
Exceptions 1-4 remain unchanged.
5. Where the design occupant load increase is less than 25 occupants and the occupancy category does not change.
(6) In Section 912.7.3 exception 2 is deleted.
(7) In Section 912.8 number 7 is added as follows:
7. When a change of occupancy in a building or portion of a building results in a Group R-2 occupancy, not less than 20 percent of the dwelling or sleeping units shall be Type B dwelling or sleeping units. These dwelling or sleeping units may be located on any floor of the building provided with an accessible route. Two percent, but not less than one unit, of the dwelling or sleeping units shall be Type A dwelling units.

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