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H.B. 45

STATE CONSTRUCTION CODE ADOPTION

2010 GENERAL SESSION

STATE OF UTAH

Chief Sponsor: Michael T. Morley

Senate Sponsor: J. Stuart Adams

LONG TITLE

Committee Note:

The Business and Labor Interim Committee recommended this bill.

General Description:

This bill adopts the State Construction Code in accordance with the Utah Uniform Building Standards Act.

Highlighted Provisions:

This bill:

- includes general provisions; and
- adopts the state construction code.

Monies Appropriated in this Bill:

None

Other Special Clauses:

This bill takes effect on July 1, 2010.

Utah Code Sections Affected:

ENACTS UNCODIFIED MATERIAL

Be it enacted by the Legislature of the state of Utah:

Section 1. **Title -- Definitions -- General Provisions.**

(1) This bill is known as the "State Construction Code Adoption Act."

(2) As used in this bill:

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(a) "Division" means the Division of Occupational and Professional Licensing created in Utah Code, Section 58-1-103.

(b) "State Construction Code" means the code adopted under Section 2 of this bill.

(c) "Utah Code" means the Utah Code Annotated (1953), as amended.

(3) As part of the division's compliance with Utah Code, Section 58-56-6, the division may modify the format of the state construction code to provide accessibility to users of the State Construction Code.

Section 2. State Construction Code adopted.

In accordance with Utah Code, Title 58, Chapter 56, Utah Uniform Building Standards Act, the Legislature, repeals the state construction code in effect on June 30, 2010, and adopts the following as the State Construction Code effective July 1, 2010:

State Construction Code

Part 1. General Provisions

Section 101. Specific editions of construction codes of a nationally recognized code authority adopted -- Scope of application.

(1) (a) Subject to the limitations contained in Subsections (4), (5), and (6), the following construction codes are incorporated by reference, and together with the amendments specified under this bill, are the construction standards to be applied to building construction, alteration, remodeling, and repair, and in the regulation of building construction, alteration, remodeling and repair in the state:

(i) the 2009 edition of the International Building Code (IBC), including Appendix J, issued by the International Code Council;

(ii) the 2008 edition of the National Electrical Code (NEC), issued by the National Fire Protection Association;

(iii) the 2009 edition of the International Plumbing Code (IPC), issued by the International Code Council;

(iv) the 2009 edition of the International Mechanical Code (IMC), issued by the International Code Council;

(v) the 2009 edition of the International Residential Code (IRC), issued by the International Code Council;

(vi) the 2009 edition of the International Energy Conservation Code (IECC), issued by

the International Code Council;

(vii) the 2009 edition of the International Fuel Gas Code (IFGC), issued by the International Code Council;

(viii) subject to Subsection (3), the Federal Manufactured Housing Construction and Safety Standards Act (HUD Code), as issued by the Department of Housing and Urban Development and published in 24 C.F.R. Parts 3280 and 3282 (as revised April 1, 1990);

(ix) subject to Subsection (2), Appendix E of the 2009 edition of the International Residential Code, issued by the International Code Council; and

(x) subject to Subsection (2), the 2005 edition of the NFPA 225 Model Manufactured Home Installation Standard, issued by the National Fire Protection Association.

(b) Consistent with Title 65A, Chapter 8, Management of Forest Lands and Fire Control, the Legislature adopts the 2006 edition of the Utah Wildland Urban Interface Code (UWUI) issued by the International Code Council, with the alternatives or amendments approved by the Utah Division of Forestry, as a construction code that may be adopted by a local compliance agency by local ordinance or other similar action as a local amendment to the codes listed in this Subsection (1).

(2) The following are the installation standards for manufactured housing for new installations or for existing manufactured or mobile homes that are subject to relocation, building alteration, remodeling, or rehabilitation in the state:

(a) The manufacturer's installation instruction for the model being installed is the primary standard.

(b) If the manufacturer's installation instruction for the model being installed is not available or is incomplete, the following standards apply:

(i) Appendix E of the 2009 edition of the IRC, as issued by the International Code Council for installations defined in Section AE101 of Appendix E; or

(ii) if an installation is beyond the scope of the 2009 edition of the IRC as defined in Section AE101 of Appendix E, the 2005 edition of the NFPA 225 Model Manufactured Home Installation Standard, issued by the National Fire Protection Association.

(c) A manufacturer, dealer, or homeowner is permitted to design for unusual installation of a manufactured home not provided for in the manufacturer's standard installation instruction Appendix E of the 2009 edition of the IRC, or the 2005 edition of the NFPA 225, if

the design is approved in writing by a professional engineer or architect licensed in Utah.

(d) For a mobile home built before June 15, 1976, the home shall also comply with the additional installation and safety requirements specified in State Construction Code, Section 208.

(3) Pursuant to the HUD Code Section 604(d), a manufactured home may be installed in the state that does not meet the local snow load requirements as specified in State Construction Code, Section 202, except that the manufactured home shall have a protective structure built over the home that meets the IRC and the snow load requirements under State Construction Code, Section 202.

(4) To the extent that a construction code adopted under Subsection (1) establishes a local administrative function or establishes a method of appeal which pursuant to Utah Code, Section 58-56-8 is designated to be established by the compliance agency:

(a) that provision of the construction code is not included in the State Construction Code; and

(b) a compliance agency may establish provisions to establish a local administrative function or a method of appeal.

(5) (a) To the extent that a construction code adopted under Subsection (1) establishes a provision, standard, or reference to another code that by state statute is designated to be established or administered by another state agency, or a local city, town, or county jurisdiction:

(i) that provision of the construction code is not included in the State Construction Code; and

(ii) the agency or local government has authority over that provision of the construction code.

(b) Provisions excluded under this Subsection (5) include:

(i) the International Property Maintenance Code;

(ii) the International Private Sewage Disposal Code, authority over which is reserved to the Department of Health and the Department of Environmental Quality;

(iii) the International Fire Code, authority over which is reserved to the Utah Fire Prevention Board, pursuant to Utah Code, Section 53-7-106;

(iv) a day care provision that is in conflict with Utah Code, Title 26, Chapter 39, Utah

Child Care Licensing Act, authority over which is designated to the Utah Department of Health; and

(v) a wildland urban interface provision that goes beyond the authority under Utah Code, Section 58-56-4, for the State Construction Code, authority over which is designated to the Utah Division of Forestry or to a local compliance agency.

(6) If a construction code adopted under Subsection (1) establishes a provision that exceeds the scope described in Title 58, Chapter 56, Utah Uniform Building Standards Act, to the extent the scope is exceeded, the provision is not included in the State Construction Code.

Part 2. Statewide Amendments

Section 201. Statewide amendments to the IBC.

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

(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; 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 dangerous or unsafe, the building official is authorized to stop work."

(4) In IBC, Section 202, the definition for "Assisted Living Facility" is deleted and replaced with the following: "ASSISTED LIVING FACILITY. See Section 308.1.1."

(5) In IBC, Section 202, the definition for "Child Care Facilities" is deleted and replaced with the following: "CHILD CARE FACILITIES. See Section 308.3.1."

(6) In the list in IBC, Section 304.1, "Ambulatory health care facilities" is deleted and replaced with "Ambulatory health care facilities with four or fewer surgical operating rooms."

(7) IBC, Section 305.2, is deleted and replaced with the following: "305.2 Day care.

The use of a building or structure, or portion thereof, for educational, supervision, child day care centers, or personal care services of more than four children shall be classified as a Group E occupancy. See Section 424 for special requirements for Group E child day care centers. Exception: Areas used for child day care purposes with a Residential Certificate 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 310.1 or shall comply with the International Residential Code in accordance with Section 101.2. Areas used for Hourly Child Care Centers, as defined in Utah Administrative Code, R430-60, or Out of School Time Programs, as defined in Utah Administrative Code, R430-70, may be classified as accessory occupancies."

(8) In IBC, Section 308, the following definitions are added: "308.1.1 Definitions. 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.

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.

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."

(9) In IBC, Section 308.2, the words "Assisted living facilities" are deleted and replaced with "Type I Assisted living facilities."

(10) IBC, Section 308.3, is deleted and replaced with the following: "308.3 Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing, or custodial care on a 24-hour basis of more than three persons who are not capable of self-preservation. This group shall include, but not be limited to the following: hospitals, nursing homes (both intermediate care facilities and skilled nursing facilities), mental hospitals, detoxification facilities, ambulatory surgical centers with five or more operating rooms where care is less than 24 hours, and type II assisted living facilities. Type II assisted living facilities with five or fewer persons shall be classified as a Group R-4. Type II assisted living facilities as defined in 308.1.1 with at least six and not more than sixteen residents shall be classified as a Group I-1 facility."

(11) In IBC, Section 308.3.1, the definition for "CHILD CARE FACILITIES" is deleted and replaced with the following: "CHILD CARE FACILITIES. A child care facility, as licensed by the Department of Human Services in Utah Administrative Code, R501, that provides care on a 24-hour basis to more than four children 2 1/2 years of age or less shall be classified as Group I-2."

(12) IBC, Section 308.5, is deleted and replaced with the following: "308.5 Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the person cared for. A facility such as the above with four or fewer persons shall be classified as an R-3 or shall comply with the International Residential Code in accordance with Section 101.2. Places of worship during religious functions and Group E child day care centers are not included."

(13) IBC, Section 308.5.2, is deleted.

(14) In IBC, Section 310.1, in the subsection designated as R-1, at the end of the sentence beginning with "Congregate living facilities" the following is added: "or shall comply with the International Residential Code."

(15) In IBC, Section 310.1, in the subsection designated as R-2, at the end of the sentence beginning with "Congregate living facilities" the following is added: "or shall comply with the International Residential Code."

(16) In IBC, Section 310.1, the following is added at the end of the subsection

designated as R-3: "Areas used for day care purposes may be located in a residential dwelling unit under all of the following conditions:

1. Compliance with the 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 State 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."

(17) In IBC, Section 310.1, the subsection designated as R-4 is deleted and replaced with the following: "R-4: Residential occupancies shall include buildings arranged for occupancy as Type I Assisted Living Facilities or Residential Treatment/Support Assisted Living Facilities including more than five but not more than 16 residents, excluding staff. Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise provided for in this code."

(18) In IBC, Section 310.2, the definition for "Residential Care/Assisted Living Facilities" is deleted and replaced with the following: "Assisted Living Facilities, see Section 308.1.1".

(19) Section IBC, 403.5.5, is deleted.

(20) In IBC, Section 422.1, the words "Sections 422.1 to 422.6" are replaced with "Sections 422.1 to 422.7".

(21) In IBC, Section 422, a new section is added as follows: "422.7 Separation. Occupancies classified as Group B Ambulatory Health Care Facilities shall be separated from all surrounding tenants and occupancies in accordance with Table 508.4 but not less than one-hour fire barrier when the suite is capable of providing care for four or more care recipients who are incapable of self preservation."

(22) A new IBC, Section 424, is added as follows: "Section 424 Group E Child Day Care Centers. Group E child day care centers shall comply with Section 424.

424.1 Location at grade. Group E child day care centers shall be located at the level of exit discharge.

Exception: 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.

424.2 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.

424.3 All Group E Child Day Care Centers shall comply with Utah Administrative Code, R430-100 Child Care Centers."

(23) 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."

(24) In IBC, Table 508.4, a new footnote g is added as follows: "g. See Section 422.7 for additional requirements of Group B Ambulatory Health Care Facilities."

(25) In IBC, Section 707.5.1, a new exception 4 is added as follows: "4. Group B Ambulatory Health Care Facilities."

(26) In IBC, Section (F)902, the definition for record drawings is deleted and replaced with the following: "(F)RECORD DRAWINGS. Drawings ("as builts") that document all aspects of a fire protection system as installed."

(27) In IBC, Section (F)903.2.2, the words "all fire areas" are deleted and replaced with "buildings".

(28) 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."

(29) 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."

(30) IBC, Section (F)903.2.8, is 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."

(31) 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."

(32) IBC, Section (F)903.2.10, is deleted and replaced with the following: "(F)903.2.10 Group S-2. An automatic sprinkler system shall be provided throughout buildings classified as parking garages in accordance with Section 406.2 or where located beneath other groups.

Exception 1: Parking garages of less than 5,000 square feet (464 m^2) accessory to Group R-3 occupancies.

Exception 2: Open parking garages not located beneath other groups if one of the following conditions is met:

a. Access is provided for fire fighting operations to within 150 feet (45,720 mm) of all portions of the parking garage as measured from the approved fire department vehicle access; or

b. Class I standpipes are installed throughout the parking garage."

(33) In IBC, Section (F)903.2.10.1, the last clause "where the fire area exceeds 5,000 square feet (464 m^2)" is deleted.

(34) 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."

(35) IBC, Subsections (F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1, are deleted.

(36) A new IBC, Section (F)907.9, is added as follows: "Section (F)907.9 Carbon monoxide alarms. Carbon monoxide alarms shall be installed on each habitable level of a dwelling unit or sleeping unit in Groups R-2, R-3, R-4, and I-1 equipped with fuel burning appliances and in dwelling units that have attached garages. If more than one carbon monoxide alarm is required, they shall be interconnected as required in the International Fire Code, Chapter 9, Section 907.2.11.3. In new construction, carbon monoxide alarms shall receive their primary power as required in the International Fire Code, Chapter 9, Section 907.2.11.4. Listed single- and multiple-station carbon monoxide alarms shall comply with UL 2034 and shall be installed in accordance with the provisions of this code and NFPA 720."

(37) In IBC, Section 1008.1.9.6:

(a) the words "Group I-1 and" are added in the title and in the first sentence before the words "Group I-2";

(b) the word "delayed" is deleted throughout and replaced with "controlled"; and

(c) the last sentence before the numbered subsections 1 through 6 is deleted.

(38) In IBC, Section 1009.4.2, 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)."

(39) In IBC, Section 1009.12, 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."

(40) In IBC, Section 1013.2, the words "adjacent fixed seating" are deleted.

(41) In IBC, Section 1013.2, a new exception 5 is added as follows: "5. For occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2, as applicable in Section 101.2, guards shall form a protective barrier not less than 36 inches (914 mm) in height."

(42) In IBC, Section 1015.2.2, the following sentence is added at the end: "Additional exits or exit access doorways shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available."

(43) IBC, Section 1024, is deleted.

(44) A new IBC, Section 1109.7.1, is added as follows: "1109.7.1 Platform (wheelchair) lifts. All platform (wheelchair) lifts shall be capable of independent operation without a key."

(45) 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 m^2) of floor area. An additional 100 square feet (9.3 m^2) of floor area shall be provided for each occupant of such unit in excess of two."

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

(47) In IBC, Section 1605.2.1, the formula shown as "$f_2 = 0.2$ for other roof configurations" is deleted and replaced with the following: "$f_2 = 0.20 + .025(A-5)$ for other configurations where roof snow load exceeds 30 psf;

$f_2 = 0$ for roof snow loads of 30 psf (1.44kN/m^2) or less.

Where A = Elevation above sea level at the location of the structure (ft/1000)."

(48) In IBC, Section 1605.3.1 and Section 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 kNm^2) or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 pounds per square foot (1.44 kNm^2), the snow loads may be reduced in accordance with the following in load combinations including both snow and seismic loads. W_s as calculated below, shall be combined with seismic loads.

$W_s = (0.20 + 0.025(A-5))P_f$ is greater than or equal to $0.20\ P_f$.

Where:

W_s = Weight of snow to be included in seismic calculations;

A = Elevation above sea level at the location of the structure (ft/1000)

P_f = 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 P_f may be considered 1.0 for use in the formula for W_s.".

(49) IBC, Section 1608.1, is deleted and replaced with the following: "1608.1 General. Except as modified in section 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."

(50) 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 $2p_f$ 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."

(51) In IBC, Section 1608.1.2, a new section is added as follows: "1608.1.2 Utah Snow Loads. The ground snow load, P_g, to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2 + S^2(A-A_o)^2)^{0.5}$ for A greater than A_o, and $P_g = P_o$ for A less than or equal to A_o.

WHERE:

P_g = Ground snow load at a given elevation (psf);

P_o = 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./1000);

A_o = Base ground snow elevation from Table 1608.1.2(a) (ft./1000).

The building official may round the roof snow load to the nearest 5 psf. The ground snow load, P_g, may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments. A record of such action together with the substantiating data shall be provided to the division for a permanent record.

The building official may also directly adopt roof snow loads in accordance with Table 1608.1.2(b), provided the site is no more than 100 ft. higher than the listed elevation.

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."

(52) 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	P_o	S	A_o
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)

RECOMMENDED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS(2)

		Roof Snow Load (PSF)	Ground Snow Load (PSF)
Beaver County			
Beaver	5920 ft.	43	62
Box Elder County			
Brigham City	4300 ft.	30	43
Tremonton	4290 ft.	30	43
Cache County			
Logan	4530 ft.	35	50
Smithfield	4595 ft.	35	50
Carbon County			
Price	5550 ft.	30	43
Daggett County			
Manila	5377 ft.	30	43

Davis County				
	Bountiful	4300 ft.	30	43
	Farmington	4270 ft.	30	43
	Layton	4400 ft.	30	43
	Fruit Heights	4500 ft.	40	57
Duchesne County				
	Duchesne	5510 ft.	30	43
	Roosevelt	5104 ft.	30	43
Emery County				
	Castledale	5660 ft.	30	43
	Green River	4070 ft.	25	36
Garfield County				
	Panguitch	6600 ft.	30	43
Grand County				
	Moab	3965 ft.	5	36
Iron County				
	Cedar City	5831 ft.	30	43
Juab County				
	Nephi	5130 ft.	30	43
Kane County				
	Kanab	5000 ft.	25	36
Millard County				
	Millard	5000 ft.	30	43
	Delta	4623 ft.	30	43
Morgan County				
	Morgan	5064 ft.	40	57
Piute County				
	Piute	5996 ft.	30	43
Rich County				
	Woodruff	6315 ft.	40	57
Salt Lake County				

Murray	4325 ft.	30	43
Salt Lake City	4300 ft.	30	43
Sandy	4500 ft.	30	43
West Jordan	4375 ft.	30	43
West Valley	4250 ft.	30	43
San Juan County			
Blanding	6200 ft.	30	43
Monticello	6820 ft.	35	50
Sanpete County			
Fairview	6750 ft.	35	50
Mt. Pleasant	5900 ft.	30	43
Manti	5740 ft.	30	43
Ephraim	5540 ft.	30	43
Gunnison	5145 ft.	30	43
Sevier County			
Salina	5130 ft.	30	43
Richfield	5270 ft.	30	43
Summit County			
Coalville	5600 ft.	60	86
Kamas	6500 ft.	70	100
Park City	6800 ft.	100	142
Park City	8400 ft.	162	231
Summit Park	7200 ft.	90	128
Tooele County			
Tooele	5100 ft.	30	43
Uintah County			
Vernal	5280 ft.	30	43
Utah County			
American Fork	4500 ft.	30	43
Orem	4650 ft.	30	43
Pleasant Grove	5000 ft.	30	43

Provo	5000 ft.	30	43
Spanish Fork	4720 ft.	30	43
Wasatch County			
Heber	5630 ft.	60	86
Washington County			
Central	5209 ft.	25	36
Dameron	4550 ft.	25	36
Leeds	3460 ft.	20	29
Rockville	3700 ft.	25	36
Santa Clara	2850 ft.	15 (1)	21
St. George	2750 ft.	15 (1)	21
Wayne County			
Loa	7080 ft.	30	43
Hanksville	4308 ft.	25	36
Weber County			
North Ogden	4500 ft.	40	57
Ogden	4350 ft.	30	43

NOTES

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

(2) This 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."

(53) A new IBC, Section 1608.1.3, is added as follows: "1608.1.3 Thermal Factor. The value for the thermal factor, C_t, used in calculation of p_f shall be determined from Table 7.3 in ASCE 7.

Exception: Except for unheated structures, the value of C_t need not exceed 1.0 when ground snow load, P_g is calculated using Section 1608.1.2 as amended."

(54) 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."

(55) In IBC, Section 1609.1.1, a new exception 7 is added as follows: "7. The wind design procedure as found in Section 1616 through 1624 of the 1997 Uniform Building Code may be used as an alternative wind design procedure for signs and free standing walls as listed in item 7 listed in Table 16-H of the 1997 Uniform Building Code. The Importance Factor, I, shall be determined in accordance with Table 6-1 of ASCE 7. Stress increases are only allowed as provided in Section 1605.3 of the 2009 IBC."

(56) 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, P_f, exceeds 30 psf, the snow load included in seismic design shall be calculated, in accordance with the following formula: $W_s = (0.20 + 0.025(A-5))P_f$ is greater than or equal to 0.20 P_f.

WHERE:

W_s = Weight of snow to be included in seismic calculations;

A = Elevation above sea level at the location of the structure (ft/1000);

P_f = 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 P_f may be considered 1.0 for use in the formula for W_s."

(57) A new IBC, Section 1613.8, is added as follows: "1613.8 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."

(58) 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."

(59) 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'(1219 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'(1829 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		2"for each foot of opening width; min. 6"
8'(2438 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'(1829 mm)	2"for each foot of opening width; min. 6"
9'(2743 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'(1829 mm)	2"for each foot of opening

			width;
			min. 6"
Over 9' (2743 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."

(60) 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, C_d, of the National Design Specifications, shall not be utilized at elevations above 5,000 feet (1524 M)."

(61) 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."

(62) 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 7-05, as amended in Section 1613.8, for installation in high seismic areas."

(63) In IBC, Section 2902.1, the title for Table 2902.1 is deleted and replaced and a new footnote g is added as follows:

(a) "Table 2902.1, Minimum Number of Required Plumbing Facilities[a, g]"; and

(b) "FOOTNOTE: g. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms."

(64) 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."

(65) A new section IBC, Section 3401.6, is added as follows: "3401.6 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 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 58-56-4(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."

(66) IBC, Section 3408.4, is deleted and replaced with the following: "3408.4 Change

in Occupancy. When a change in occupancy results in a structure being reclassified to a higher Occupancy 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. Such analysis shall consider the regularity, overstrength, redundancy, and ductility of the structure within the context of the existing and retrofit (if any) detailing providing. 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 58-56-4(6)(a).

2. When a change of use results in a structure being reclassified from Occupancy Category I or II to Occupancy Category III and the structure is located in a seismic map area where S_{DS} 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 Occupancy Category does not change."

(67) In IBC, Section 3411.1, the exception is deleted and replaced with the following: "Exception: Type B dwelling or sleeping units required by section 1107 of this code are not required to be provided in existing buildings and facilities unless being altered or undergoing a change of occupancy classification."

(68) The following referenced standard is added under NFPA in IBC, Chapter 35:

Number	Title	"Referenced in code Section number
720-09	Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment"	907.9

(69) 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	907.9

Multiple-station Carbon Monoxide Alarms"

Section 202. Statewide Amendments to the IRC.

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

(1) The statewide amendments to the following which may be applied to detached one and two family dwellings and multiple single family dwellings shall be applicable to the corresponding provisions of the IRC:

(a) IBC under State Construction Code, Section 201;

(b) IPC under State Construction Code, Section 203;

(c) IMC under State Construction Code, Section 204;

(d) IFGC under State Construction Code, Section 205;

(e) NEC under State Construction Code, Section 206; and

(f) IECC under State Construction Code, Section 207.

(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 structured 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 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")."

(6) 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 and 5, and the regulations of the public health authority having jurisdiction."

(7) 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	P_o	S	A_o
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)

RECOMMENDED SNOW LOADS FOR SELECTED UTAH CITIES AND TOWNS(2)

		Roof Snow Load (PSF)	Ground Snow Load (PSF)
Beaver County			
Beaver	5920 ft	43	62
Box Elder County			
Brigham City	4300 ft.	30	43
Tremonton	4290 ft.	30	43
Cache County			
Logan	4530 ft.	35	50
Smithfield	4595 ft.	35	50
Carbon County			
Price	5550 ft.	30	43
Daggett County			

Manila	5377 ft.	30	43	
Davis County				
Bountiful	4300 ft.	30	43	
Farmington	4270 ft.	30	43	
Layton	4400 ft.	30	43	
Fruit Heights	4500 ft.	40	57	
Duchesne County				
Duchesne	5510 ft.	30	43	
Roosevelt	5104 ft.	30	43	
Emery County				
Castledale	5660 ft.	30	43	
Green River	4070 ft.	25	36	
Garfield County				
Panguitch	6600 ft.	30	43	
Grand County				
Moab	3965 ft.	25	36	
Iron County				
Cedar City	5831 ft.	30	43	
Juab County				
Nephi	5130 ft.	30	43	
Kane County				
Kanab	5000 ft.	25	36	
Millard County				
Millard	5000 ft.	30	43	
Delta	4623 ft.	30	43	
Morgan County				
Morgan	5064 ft.	40	57	
Piute County				
Piute	5996 ft.	30	43	
Rich County				
Woodruff	6315 ft.	40	57	

Salt Lake County				
	Murray	4325 ft.	30	43
	Salt Lake City	4300 ft.	30	43
	Sandy	4500 ft.	30	43
	West Jordan	4375 ft.	30	43
	West Valley	4250 ft.	30	43
San Juan County				
	Blanding	6200 ft.	30	43
	Monticello	6820 ft.	35	50
Sanpete County				
	Fairview	6750 ft.	35	50
	Mt. Pleasant	5900 ft.	30	43
	Manti	5740 ft.	30	43
	Ephraim	5540 ft.	30	43
	Gunnison	5145 ft.	30	43
Sevier County				
	Salina	5130 ft.	30	43
	Richfield	5270 ft.	30	43
Summit County				
	Coalville	5600 ft.	60	86
	Kamas	6500 ft.	70	100
	Park City	6800 ft.	100	142
	Park City	8400 ft.	162	231
	Summit Park	7200 ft.	90	128
Tooele County				
	Tooele	5100 ft.	30	43
Uintah County				
	Vernal	5280 ft.	30	43
Utah County				
	American Fork	4500 ft.	30	43
	Orem	4650 ft.	30	43

Pleasant Grove	5000 ft.	30	43
Provo	5000 ft.	30	43
Spanish Fork	4720 ft.	30	43
Wasatch County			
Heber	5630 ft.	60	86
Washington County			
Central	5209 ft.	25	36
Dameron	4550 ft.	25	36
Leeds	3460 ft.	20	29
Rockville	3700 ft.	25	36
Santa Clara	2850 ft.	15 (1)	21
St. George	2750 ft.	15 (1)	21
Wayne County			
Loa	7080 ft.	30	43
Hanksville	4308 ft.	25	36
Weber County			
North Ogden	4500 ft.	40	57
Ogden	4350 ft.	30	43

NOTES

(1) The IRC requires a minimum live load - See R301.6.

(2) This 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."

(8) IRC, Section R301.6, is deleted and replaced with the following: "R301.6 Utah Snow Loads. The ground snow load, P_g, to be used in the determination of design snow loads for buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2 + S^2(A-A_o)^2)^{0.5}$ for A greater than A_o, and $P_g = P_o$ for A less than or equal to A_o.

WHERE:

P_g = Ground snow load at a given elevation (psf);

P_o = 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./1000);

A_o = Base ground snow elevation from Table R301.2(5a) (ft./1000).

The building official may round the roof snow load to the nearest 5 psf. The ground snow load, P_g, may be adjusted by the building official when a licensed engineer or architect submits data substantiating the adjustments. A record of such action together with the substantiating data shall be provided to the division for a permanent record.

The building official may also directly adopt roof snow loads in accordance with Table R301.2(5b), provided the site is no more than 100 ft. higher than the listed elevation.

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."

(9) 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".

(10) 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."

(11) 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 inches (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."

(12) In Section R312.2, the words "adjacent fixed seating" are deleted.

(13) IRC, Section R313, is deleted.

(14) IRC, Section R315.1, is deleted and replaced with the following: "R315.1 Carbon monoxide alarms. For new construction, a listed carbon monoxide alarm shall be installed on each habitable level of dwelling units within which fuel-fired appliances are installed and in dwelling units that have attached garages."

(15) IRC, Section R315.3, is deleted and replaced with the following: "R315.3 Alarm requirements. Listed single- and multiple-station carbon monoxide alarms shall comply with U.L. 2034 and shall be installed in accordance with the provision of this code and NFPA 720."

(16) 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."

(17) 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."

(18) 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."

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

(20) 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.

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

(22) In IRC, Section M1502.4.4.1, the words "25 feet (7620 mm)" are deleted and replaced with "35 feet (10668 mm)".

(23) 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."

(24) 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."

(25) 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 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."

(26) In IRC, Section P2801.7, the word "townhouses" is deleted.

(27) 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."

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

"TABLE P2902.3

General Methods of Protection

Assembly (applicable standard)	Degree of Hazard	Application	Installation Criteria
Reduced Pressure Principle Backflow Preventer (AWWA C511, USC-FCCCHR, ASSE 1013 CSA CNA/CSA-B64.4) and Reduced Pressure Detector Assembly (ASSE 1047, USC-FCCCHR)	High or Low	Backpressure or Backsiphonage 1/2" - 16"	a. The bottom of each RP assembly shall be a minimum of 12 inches above the ground or floor. b. RP assemblies shall NOT be installed in a pit. c. The relief valve on each RP assembly shall not be directly connected to any waste disposal line, including sanitary

				sewer, storm drains, or vents. d. The assembly shall be installed in a horizontal position only unless listed or approved for vertical installation.
Double Check Backflow Prevention Assembly (AWWA C510, USC-FCCCHR, ASSE 1015) Double Check Detector Assembly Backflow Preventer (ASSE 1048, USC-FCCCHR)	Low	Backpressure or Backsiphonage 1/2" - 16"	a. If installed in a pit, the DC assembly shall be installed with a minimum of 12 inches of clearance between all sides of the vault including the floor and roof or ceiling with adequate room for testing and maintenance. b. Shall be installed in a horizontal position unless listed or approved for vertical installation.
Pressure Vacuum Breaker Assembly	High or Low	Backsiphonage 1/2" - 2"	a. Shall not be installed in an area that could be subjected to

(ASSE 1020, USC-FCCCHR)				backpressure or back drainage conditions. b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use. c. Shall not be installed below ground or in a vault or pit. d. Shall be installed in a vertical position only.
Spill Resistant Vacuum Breaker (ASSE 1056, USC-FCCCHR)	High or Low	Backsiphonage	1/4" - 2"	a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions. b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use. c. Shall not be installed below

		ground or in a vault or pit.
		d. Shall be installed in a vertical position only.
General Installation Criteria		The assembly owner, when necessary, shall provide devices or structures to facilitate testing, repair, and/or maintenance and to ensure the safety of the backflow technician.
		Assemblies shall not be installed more than five feet off the floor unless a permanent platform is installed.
		The body of the assembly shall not be closer than 12 inches to any wall, ceiling or encumbrance, and shall be accessible for testing, repair and/or maintenance.
		In cold climates, assemblies shall be protected from

freezing by a means acceptable to the code official. Assemblies shall be maintained as an intact assembly."

(29) IRC, Table 2902.3a, is added as follows:

"TABLE 2902.3a

Specialty Backflow Devices for low hazard use only

Device	Degree of Hazard	Application	Applicable Standard
Air Gap	High or Low	Backsiphonage	See Table P2902.3.1 ASME A112.1.2
Antisiphon-type Water Closet Flush Tank Ball Cock	Low	Backsiphonage	ASSE 1002 CSA CAN/ CSA-B125
Atmospheric Vacuum Breaker	High or Low	Backsiphonage a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions. b. Shall not be installed where it may be subjected to continuous pressure for more than 12 consecutive hours at any time. c. Shall be installed a minimum of six inches above all downstream piping and	ASSE 1001 USC-FCCCHR, CSA CAN/CSA-B64.1.1

			the highest point of use.	
			d. Shall be installed on the	
			discharge (downstream) side	
			of any valves.	
			e. The AVB shall be installed	
			in a vertical position only.	
Dual check valve	Low	Backsiphonage	ASSE 1024	
Backflow Preventer		or Backpressure		
		1/4" - 1"		
Backflow Preventer	Low	Backsiphonage	ASSE 1012	
with Intermediate	Residential	or Backpressure	CSA CAN/	
Atmospheric Vent	Boiler	1/4" - 3/4"	CSA-B64.3	
Dual check valve	Low	Backsiphonage	ASSE 1022	
type Backflow		or Backpressure		
Preventer for		1/4" - 3/8"		
Carbonated Beverage				
Dispensers/Post				
Mix Type				
Hose-connection	Low	Backsiphonage	ASSE 1011	
Vacuum Breaker		1/2", 3/4", 1"	CSA CAN/	
			CSA-B64.2	
Vacuum Breaker	Low	Backsiphonage	ASSE 1019	
Wall Hydrants,		3/4", 1"	CSA CAN/	
Frost-resistant,			CSA-B64.2.2	
Automatic Draining				
Type				
Laboratory Faucet	Low	Backsiphonage	ASSE 1035	
Backflow Preventer			CSA CAN/	
			CSA-B64.7	
Hose Connection	Low	Backsiphonage	ASSE 1052	
Backflow Preventer		1/2" - 1"		

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."

(30) 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."

(31) 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."

(32) In IRC, Section E3902.11, the following words are deleted: "family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, recreations rooms, closets, hallways, and similar rooms or areas".

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

"Standard reference number	Title	Referenced in code Section number
USC-FCCCHR 9th 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

(34) In IRC, Chapter 44, the following standard is added under NFPA as follows:

Standard reference number	Title	Referenced in code section number
720-09	Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment"	R315.3

(35) IRC, Appendix O, Gray Water Recycling Systems, is deleted and replaced with Appendix C of the International Plumbing Code as amended by the state construction code.

Section 203. Statewide Amendments to the IPC.

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

(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 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")."

(5) 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 and 5, and the regulations of the public health authority having jurisdiction."

(6) In IPC, Table 303.4, the item listed as "Backflow prevention devises" is modified as follows:

(a) in the Third-Party Certified field, after the word "Required" add "See footnote 1";

(b) in the Third-Party Tested field the following is added: "Required see footnote 1"; and

(c) a new footnote 1 is added as follows: "1. Third party certification 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 R309-305-6."

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

(8) IPC, Section 311.1, is deleted.

(9) IPC, Sections 312.10 through 312.10.2, are deleted and replaced with the following: "312.10 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."

(10) In IPC, Section 403.1, a new footnote g is added as follows: "FOOTNOTE: g. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms."

(11) A new IPC, Section 406.4, is added as follows: "406.4 Automatic clothes washer safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in accordance with Section 504.7."

(12) 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."

(13) 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."

(14) 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."

(15) 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."

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

(17) 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."

(18) 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."

(19) 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 20 psi."

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

"TABLE 608.1

General Methods of Protection

Assembly (applicable standard)	Degree of Hazard	Application	Installation Criteria
Reduced Pressure Principle Backflow Preventer (AWWA C511, USC-FCCCHR, ASSE 1013 CSA CNA/CSA-B64.4) and Reduced Pressure	High or Low	Backpressure or Backsiphonage 1/2" - 16"	a. The bottom of each RP assembly shall be a minimum of 12 inches above the ground or floor. b. RP assemblies shall NOT be installed in a pit.

Detector Assembly (ASSE 1047, USC-FCCCHR)				c. The relief valve on each RP assembly shall not be directly connected to any waste disposal line, including sanitary sewer, storm rains, or vents.
				d. The assembly shall be installed in a horizontal position only unless listed or approved for vertical installation.
Double Check Low Backflow Prevention Assembly (AWWA C510, USC-FCCCHR, ASSE 1015) Double Check Detector Assembly Backflow Preventer (ASSE 1048, USC-FCCCHR)		Backpressure or Backsiphonage 1/2" - 16"		a. If installed in a pit, the DC assembly shall be installed with a minimum of 12 inches of clearance between all sides of the vault including the floor and roof or ceiling with adequate room for testing and maintenance.
				b. Shall be installed in a horizontal position unless listed or approved for vertical installation.
Pressure Vacuum Breaker	High or Low	Backsiphonage 1/2" - 2"		a. Shall not be installed in an area that could be subjected to

Assembly (ASSE 1020, USC-FCCCHR)				backpressure or back drainage conditions. b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use. c. Shall not be installed below ground or in a vault or pit. d. Shall be installed in a vertical position only.
Spill Resistant Vacuum Breaker (ASSE 1056, USC-FCCCHR)	High or Low	Backsiphonage 1/4" - 2"		a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions. b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use. c. Shall not be installed below ground or in a vault or pit. d. Shall be installed in a vertical position only.
General				The assembly owner,

Installation Criteria		when necessary, shall provide devices or structures to facilitate testing, repair, and/or maintenance and to ensure the safety of the backflow technician. Assemblies shall not be installed more than five feet off the floor unless a permanent platform is installed. The body of the assembly shall not be closer than 12 inches, to any wall, ceiling or encumbrance, and shall be accessible for testing, repair and/or maintenance. In cold climates, assemblies shall be protected from freezing by a means acceptable to the code official. Assemblies shall be maintained as an intact assembly."

(21) IPC, Table 608.1.1 is added as follows:

"TABLE 608.1.1

Specialty Backflow Devices for low hazard use only

Device	Degree of Hazard	Application	Applicable Standard

Air Gap	High or Low	Backsiphonage	See Table 608.15.1 ASME A112.1.2
Antisiphon-type Water Closet Flush Tank Ball Cock	Low	Backsiphonage	ASSE 1002 CSA CAN/ CSA-B125
Atmospheric Vacuum Breaker	High or Low	Backsiphonage a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions. b. Shall not be installed where it may be subjected to continuous pressure for more than 12 consecutive hours at any time. c. Shall be installed a minimum of six inches above all downstream piping and the highest point of use. d. Shall be installed on the discharge (downstream) side of any valves. e. The AVB shall be installed in a vertical position only.	ASSE 1001 USC-FCCCHR, CSA CAN/CSA-B64.1.1
Dual check valve Backflow Preventer	Low	Backsiphonage or Backpressure 1/4" - 1"	ASSE 1024
Backflow Preventer with Intermediate	Low Residential	Backsiphonage or Backpressure	ASSE 1012 CSA CAN/

Atmospheric Vent	Boiler	1/4" - 3/4"	CSA-B64.3
Dual check valve type Backflow Preventer for Carbonated Beverage Dispensers/Post Mix Type	Low	Backsiphonage or Backpressure 1/4" - 3/8"	ASSE 1022
Hose-connection Vacuum Breaker	Low	Backsiphonage 1/2", 3/4", 1"	ASSE 1011 CSA CAN/ CSA-B64.2
Vacuum Breaker Wall Hydrants, Frost-resistant, Automatic Draining Type	Low	Backsiphonage 3/4", 1"	ASSE 1019 CSA CAN/ CSA-B64.2.2
Laboratory Faucet Backflow Preventer	Low	Backsiphonage	ASSE 1035 CSA CAN/ CSA-B64.7
Hose Connection Backflow Preventer	Low	Backsiphonage 1/2" - 1"	ASSE 1052

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."

(22) 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."

(23) IPC, Section 608.7, is deleted.

(24) 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."

(25) 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 CAS CAN/CAS-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."

(26) IPC, Section 608.13.4, is deleted.

(27) IPC, Section 608.13.9, is deleted.

(28) 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."

(29) 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. 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. The critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood level rim of the fixture or device. Fill valves shall be set in accordance with Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. 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."

(30) 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."

(31) In IPC, Section 608.16.2, the first sentence of the paragraph is deleted and replaced as follows: "608.16.2 Connections to boilers. The potable water supply to the residential boiler only, without chemical treatment, shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA CAN/CSA B64.3."

(32) 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."

(33) 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."

(34) 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."

(35) 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."

(36) 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."

(37) IPC, Section 608.17, is deleted.

(38) 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 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."

(39) IPC, Section 901.3, is deleted and replaced with the following: "901.3 Chemical waste vent system. The vent system for a chemical waste system shall be independent of the sanitary vent system and shall terminate separately through the roof to the open air or to an air admittance valve provided at least one chemical waste vent in the system terminates separately through the roof to the open air."

(40) In IPC, Section 904.1, when the number of inches is to be specified, "12 inches (304.8mm)" is inserted.

(41) In IPC, Section 904.6, 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."

(42) 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 and floor sink installations when installed in accordance with Sections 702.2, 905.2 and 905.3 and provided with a wall clean out."

(43) In IPC, Section 917.8, a new exception is added as follows: "Exception: Air admittance valves shall be permitted in non-neutralized special waste systems provided that they conform to the requirements in Sections 901.3 and 702.5, are tested to ASTM F1412, and are certified by ANSI/ASSE."

(44) 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:

(a) Listed Trap Seal Primer

(b) A hose bibb or bibbs within the same room

(c) 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

(d) Barrier type floor drain trap seal protection device meeting ASSE Standard 1072

(e) Deep seal p-trap"

(45) 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."

(46) IPC, Section 1108, is deleted.

(47) 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

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

"Standard reference number	Title	Referenced in code section number
USC-FCCCHR 9th 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

(49) IPC, Appendix C, is deleted and replaced with the following Appendix C, Gray Water Recycling Systems, which may be adopted by local jurisdictions only as provided under the State Construction Code: "Appendix C Gray Water Recycling Systems

Note: Section 301.3 of this code requires all plumbing fixtures that receive water or waste to discharge to the sanitary drainage system of the structure. In order to allow for the utilization of a gray water system, Section 301.3 should be revised to read as follows:

(a) In jurisdictions which have adopted this Appendix C as amended as a local amendment as provided herein, Section 301.3 of the IPC is deleted and replaced with the following:

301.3 Connections to drainage system. All plumbing fixtures, drains, appurtenances, and

appliances used to receive or discharge liquid wastes or sewage shall be directly connected to the sanitary drainage system of the building or premises, in accordance with the requirements of this code. This section shall not be construed to prevent indirect waste systems required by Chapter 8.

Exception: Bathtubs, showers, lavatories, clothes washers, laundry trays, and approved clear water wastes shall not be required to discharge to the sanitary drainage system where such fixtures discharge to an approved gray water system for flushing of water closets and urinals or for subsurface landscape irrigation.

SECTION C101 GENERAL

C101.1 Scope. The provisions of this appendix shall govern the materials, design, construction, and installation of gray water systems for flushing of water closets and urinals (see Figure 2).

C101.2 Recording. The existence of a gray water recycling system shall be recorded on the deed of ownership for that property.

C101.3 Definition. The following term shall have the meaning show herein.

GRAY WATER. Waste discharged from lavatories, bathtubs, showers, clothes washers, laundry trays, 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.

C101.4 Permits. Permits shall be required in accordance with Section 106 and may also be required by the local health department.

C101.5 Installation. In addition to the provisions of Section C101, systems for flushing of water closets and urinals shall comply with Section C102. Except as provided for in Appendix C, all systems shall comply with the provisions of the International Plumbing Code.

C101.6 Materials. Above-ground drain, waste, and vent piping for gray water systems shall conform to one of the standards listed in Table 702.1 . Gray water underground building drainage and vent pipe shall conform to one of the standards listed in Table 702.2.

C101.7 Tests. Drain, waste, and vent piping for gray water systems shall be tested in accordance with Section 312.

C101.8 Inspections. Gray water systems shall be inspected in accordance with Section 107.

C101.9 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 principle backflow preventer installed in accordance with this Code.

C101.10 Waste water connections. Gray water recycling systems shall receive only the waste discharge of bathtubs, showers, lavatories, clothes washers, or laundry trays, and other 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.

C101.11 Collection reservoir. Gray water shall be collected in an approved reservoir constructed of durable, nonabsorbent, and corrosion-resistant materials. The reservoir shall be a closed and gas-tight vessel. Access openings shall be provided to allow inspection and cleaning of the reservoir interior.

C101.12 Filtration. Gray water entering the reservoir shall pass through an approved cartridge filter having a design flow rate of less than 0.375 gallons per minute per square foot of effective filter area, or a sand or diatomaceous earth filter designed to handle the anticipated volume of water.

C101.12.1 Required valve. A full-open valve shall be installed downstream of the last fixture connection to the gray water discharge pipe before entering the required filter.

C101.13 Overflow. The collection reservoir shall be equipped with an overflow pipe having the same or larger diameter as the influent pipe for the gray water. The overflow pipe shall be trapped and indirectly connected to the sanitary drainage system.

C101.14 Drain. A drain shall be located at the lowest point of the collection reservoir and shall be indirectly connected to the sanitary drainage system. The drain shall be the same diameter as the overflow pipe required in Section C101.12.

C101.15 Vent required. The reservoir shall be provided with a vent sized in accordance with Chapter 9 and based on the diameter of the reservoir influent pipe.

SECTION C102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS

C102.1 Collection reservoir. The holding capacity of the reservoir shall be a minimum of twice the volume of water required to meet the daily flushing requirements of the fixtures supplied with gray water, but not less than 50 gallons (189 L). The reservoir shall be sized to limit the retention time of gray water to a maximum of 72 hours.

C102.2 Disinfection. Gray water shall be disinfected by an approved method that employs one

or more disinfectants such as chlorine, iodine, or ozone that is recommended for use with the pipes, fittings, and equipment by the manufacturer of the pipe, fittings, and equipment. A minimum of 1ppm residual free chlorine shall be maintained in the gray water recycling system reservoir.

C102.3 Makeup water. Potable water shall be supplied as a source of makeup water for the gray water system. The potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer installed in accordance with this Code. There shall be a full-open valve located on the makeup water supply line to the collection reservoir.

C102.4 Coloring. The gray water shall be dyed blue or green with a food grade vegetable dye before such water is supplied to the fixtures.

C102.5 Materials. Distribution piping shall conform to one of the standards listed in Table 605.4.

C102.6 Identification. Distribution piping and reservoirs shall be identified as containing nonpotable water. Piping identification shall be in accordance with Section 608.8.

SECTION C103 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS

C103.1 Gray water recycling systems utilized for subsurface irrigation for single family residences shall comply with the requirements of Utah Administrative Code, R317-401, Gray Water Systems. Gray water recycling systems utilized for subsurface irrigation for other occupancies shall comply with Utah Administrative Code, R317-3 Design Requirements for Wastewater Collection, Treatment and Disposal Systems, and Utah Administrative Code, R317-4, Onsite Wastewater Systems."

Section 204. Statewide Amendments to the IMC.

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

(1) IMC, Section 1101.10, is deleted.

Section 205. Statewide Amendments to the IFGC.

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

(1) In IFGC, Chapter 4, Section 401, General, a new section IFGC, Section 401.9, is added as follows: "401.9 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."

Section 206. Statewide Amendments to the NEC.

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

(1) During the period of time when the adopted IRC has not yet incorporated the latest residential electrical provisions contained in the adopted NEC, the IRC provisions shall prevail as the adopted 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)(6), 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)."

(3) In NEC, Section 338.10(B)(4)(a), the following words are added at the end of the first sentence after Section 334: "excluding Section 334.80."

Section 207. Statewide Amendments to the IECC.

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

(1) In IECC, Section 504.4, 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."

Section 208. Installation and Safety Requirements for Mobile Homes Built Prior to June 15, 1976.

(1) Mobile homes built prior to June 15, 1976 which are subject to relocation, building alteration, remodeling, or rehabilitation shall comply with the following:

(a) Related to exits and egress windows:

(i) 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.

(ii) 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.

(b) Related to flame spread:

(i) 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.

(ii) 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).

(c) Related to smoke detectors:

(i) 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.

(ii) 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.

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

(i) 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).

(ii) 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.

(A) 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.

(B) 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.

(C) 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.

(e) Related to electrical wiring systems:

(i) 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.

(ii) 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.

(f) Related to replacement furnaces and water heaters:

(i) 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.

(ii) 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).

(iii) 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.

(A) 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.

(B) 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.

Part 3. Local Amendments

Section 301. Local Amendments to the IBC.

The following are adopted as amendments to the IBC to be applicable to the following jurisdictions:

(1) City of Farmington:

(a) A new IBC, Section (F) 903.2.13, is added as follows: "(F) 903.2.13 Group R, Division 3 Occupancies. An automatic sprinkler system shall be installed throughout every dwelling in accordance with NFPA 13D, when any of the following conditions are present:

1. The structure is over two stories high, as defined by the building code;

2. The nearest point of structure is more than 150 feet from the public way;

3. The total floor area of all stories is over 5,000 square feet (excluding from the calculation the area of the basement and/or garage); or

4. The structure is located on a street constructed after March 1, 2000 that has a gradient over 12% and, during fire department response, access to the structure will be gained by using such street. (If the access is intended to be from a direction where the steep gradient is not used, as determined by the Chief, this criteria shall not apply).

Such sprinkler system shall be installed in basements, but need not be installed in garages, under eves or in enclosed attic spaces, unless required by the Chief."

(b) A new IBC, Section 907.9, is added as follows: "907.9 Alarm Circuit Supervision. Alarm circuits in alarm systems provided for commercial uses (defined as other than one- and two-family dwellings and townhouses) shall have Class "A" type of supervision. Specifically, Type "B" or End-of-line resistor and horn supervised systems are not allowed."

(c) In NFPA Section 13-07, new sections are added as follows: "6.8.6 FDC Security Locks Required. All Fire Department connections installed for fire sprinkler and standpipe systems shall have approved security locks.

6.10 Fire Pump Disconnect Signs. When installing a fire pump, red plastic laminate signs shall be installed in the electrical service panel, if the pump is wired separately from the main disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES NOT Shut Off Fire Pump".

22.1.6 Plan Preparation Identification. All plans for fire sprinkler systems, except for manufacturer's cut sheets of equipment shall include the full name of the person who prepared the drawings. When the drawings are prepared by a registered professional engineer, the

engineer's signature shall also be included.

22.2.2.3 Verification of Water Supply:

22.2.2.3.1 Fire Flow Tests. Fire flow tests for verification of water supply shall be conducted and witnessed for all applications other than residential unless directed otherwise by the Chief. For residential water supply, verification shall be determined by administrative procedure.

22.2.2.3.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an accurate and verifiable water supply.

24.2.3.7 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall include, but are not limited to:

Commercial:

FLUSH-Witness Underground Supply Flush;

ROUGH Inspection-Installation of Riser, System Piping, Head Locations and all Components, Hydrostatic Pressure Test;

FINAL Inspection-Head Installation and Escutcheons, Inspectors Test Location and Flow, Main Drain Flow, FDC Location and Escutcheon, Alarm Function, Spare Parts, Labeling of Components and Signage, System Completeness, Water Supply Pressure Verification, Evaluation of Any Unusual Parameter."

(2) City of North Salt Lake, a new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 Group R, Division 3 Occupancies. An automatic sprinkler system shall be installed throughout every dwelling in accordance with NFPA 13D, when the following condition is present:

1. The structure is over 6,200 square feet.

Such sprinkler system shall be installed in basements, but need not be installed in garages, under eves, or in enclosed attic spaces, unless required by the fire chief."

(3) Park City Corporation, in IBC, Section 3409.2, exception 3, is modified to read as follows: "3. Designated as historic under a state or local historic preservation program."

(4) Park City Corporation and Park City Fire District:

(a) IBC, Section (F)903.2, is deleted and replaced with the following: "(F)903.2 Where required. Approved automatic sprinkler systems in new buildings and structures shall be provided in the location described in this section.

All new construction having more than 6,000 square feet on any one floor, except R-3

occupancy.

All new construction having more than two (2) stories, except R-3 occupancy.

All new construction having three (3) or more dwelling units, including units rented or leased, and including condominiums or other separate ownership.

All new construction in the Historic Commercial Business zone district, regardless of occupancy.

All new construction and buildings in the General Commercial zone district where there are side yard setbacks or where one or more side yard setbacks is less than two and one half (2.5) feet per story of height.

All existing building within the Historic District Commercial Business zone."

(b) In IBC, Table 1505.1, new footnotes d and e are added as follows: "d. Wood roof covering assemblies are prohibited in R-3 occupancies in areas with a combined rating of more than 11 using Tables 1505.1.1 and 1505.1.2 with a score of 9 for weather factors.

e. Wood roof covering assemblies shall have a Class A rating in occupancies other than R-3 in areas with a combined rating of more than 11 using Tables 1505.1.1 and 1505.1.2 with a score of 9 for weather factors. The owner of the building shall enter into a written and recorded agreement that the Class A rating of the roof covering assembly will not be altered through any type of maintenance process.

TABLE 1505.1.1

WILDFIRE HAZARD SEVERITY SCALE

RATING	SLOPE	VEGETATION
1	less than or equal to 10%	Pinion-juniper
2	10.1 - 20%	Grass-sagebrush
3	greater than 20%	Mountain brush or softwoods

TABLE 1505.1.2

PROHIBITION/ALLOWANCE OF WOOD ROOFING

Rating less than or equal to 11	R-3 Occupancy wood roof covering assemblies per Table 1505.1 are	All Other Occupancies wood roof covering assemblies per Table 1505.1 are

	allowed	allowed
greater than or	wood roof covering	wood roof covering
equal to 12	is prohibited	assemblies with a Class A
		rating are allowed"

(c) IBC, Appendix C, is adopted.

(5) Salt Lake City:

(a) In IBC, Section 1008.1.9.7, a new exception is added as follows: "Exception: In International Airport areas designated as Group "A" Occupancies where national security interests are present, the use of panic hardware with delayed egress is allowed when all provision of 1008.1.9.7 are met and under item #4 1 second is changed to 2 seconds."

(6) Sandy City:

(a) A new IBC, Section (F)903.2.13, is added as follows: "(F)903.2.13 An automatic sprinkler system shall be installed in accordance with NFPA 13 throughout buildings containing all occupancies where fire flow exceeds 2,000 gallons per minute, based on Table B105.1 of the 2009 International Fire Code. Exempt locations as indicated in Section 903.3.1.1.1 are allowed.

Exception: Automatic fire sprinklers are not required in buildings used solely for worship, Group R Division 3, Group U occupancies and buildings complying with the International Residential Code unless otherwise required by the International Fire Code.

(b) A new IBC, Appendix L, is added and adopted as follows: "Appendix L BUILDINGS AND STRUCTURES CONSTRUCTED IN AREAS DESIGNATED AS WILDLAND-URBAN INTERFACE AREAS

AL 101.1 General. Buildings and structures constructed in areas designated as Wildland-Urban Interface Areas by Sandy City shall be constructed using ignition resistant construction as determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 International Wildland-Urban Interface Code, as modified herein, shall be used to determine the requirements for Ignition Resistant Construction.

(i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new Section 504.1.1 is added as follows: "504.1.1 General. Subsections 504.5, 504.6, and 504.7

shall only be required on the exposure side of the structure, as determined by the Fire Marshal, where defensible space is less than 50 feet as defined in Section 603 of the 2006 International Wildland-Urban Interface Code.

(ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION Subsections 505.5 and 505.7 are deleted."

Section 302. Local Amendments to the IRC.

The following are adopted as amendments to the IRC to be applicable to the following jurisdictions:

(1) A local amendment to the following which may be applied to detached one and two family dwellings and multiple single family dwellings shall be applicable to the corresponding provisions of the IRC for the local jurisdiction to which the local amendment has been made:

(a) IBC under State Construction Code, Section 301;

(b) IPC under State Construction Code, Section 303;

(c) IMC under State Construction Code, Section 304;

(d) IFGC under State Construction Code, Section 305;

(e) NEC under State Construction Code, Section 306; and

(f) IECC under State Construction Code, Section 307.

(2) City of Farmington:

(a) In IRC, R324 Automatic Sprinkler Systems, new IRC, Sections R324.1 and R324.2 are added as follows: "R324.1 When required. An automatic sprinkler system shall be installed throughout every dwelling in accordance with NFPA 13D, when any of the following conditions are present:

1. the structure is over two stories high, as defined by the building code;

2. the nearest point of structure is more than 150 feet from the public way;

3. the total floor area of all stories is over 5,000 square feet (excluding from the calculation the area of the basement and/or garage); or

4. the structure is located on a street constructed after March 1, 2000 that has a gradient over 12% and, during fire department response, access to the structure will be gained by using such street. (If the access is intended to be from a direction where the steep gradient is not used, as determined by the Chief, this criteria shall not apply).

R324.2 Installation requirements and standards. Such sprinkler system shall be installed in

basements, but need not be installed in garages, under eves or in enclosed attic spaces, unless required by the Chief. Such system shall be installed in accordance with NFPA 13D."

(b) In IRC, Chapter 44, the following NFPA referenced standards are added as follows:

"TABLE

ADD	
13D-07	Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes, as amended by these rules
13R-07	Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height"

(c) In NFPA, Section 13D-07, new sections are added as follows: "1.15 Reference to NFPA 13D. All references to NFPA 13D in the codes, ordinances, rules, or regulations governing NFPA 13D systems shall be read to refer to "modified NFPA 13D" to reference the NFPA 13D as amended by additional regulations adopted by Farmington City.

4.9 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall include, but are not limited to:

Residential:

ROUGH Inspection-Verify Water Supply Piping Size and Materials, Installation of Riser, System Piping, Head Locations and all Components, Hydrostatic Pressure Test.

FINAL Inspection-Inspectors Test Flow, System Completeness, Spare Parts, Labeling of Components and Signage, Alarm Function, Water Supply Pressure Verification.

5.2.2.3 Exposed Piping of Metal. Exposed Sprinkler Piping material in rooms of dwellings shall be of Metal.

EXCEPTIONS:

a. CPVC Piping is allowed in unfinished mechanical and storage rooms only when specifically listed for the application as installed.

b. CPVC Piping is allowed in finished, occupied rooms used for sports courts or similar uses only when the ceiling/floor framing above is constructed entirely of non-combustible materials, such as a concrete garage floor on metal decking.

5.2.2.4 Water Supply Piping Material. Water Supply Piping from where the water line enters

the dwelling adjacent to and inside the foundation to the fire sprinkler contractor point-of-connection shall be metal, suitable for potable plumbing systems. See Section 7.1.4 for valve prohibition in such piping. Piping down stream from the point-of-connection used in the fire sprinkler system, including the riser, shall conform to NFPA 13D standards.

5.4 Fire Pump Disconnect Signs. When installing a Fire Pump, Red Plastic Laminate Signs shall be installed in the electrical service panel, if the pump is wired separately from the main disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES NOT Shut Off Fire Pump".

7.1.4 Valve Prohibition. NFPA 13D, Section 7.1 is hereby modified such that NO VALVE is permitted from the City Water Meter to the Fire Sprinkler Riser Control.

7.6.1 Mandatory Exterior Alarm. Every dwelling that has a fire sprinkler system shall have an exterior alarm, installed in an approved location. The alarm shall be of the combination horn/strobe or electric bell/strobe type, approved for outdoor use.

8.1.05 Plan Preparation Identification. All plans for fire sprinkler systems, except for manufacturer's cut sheets of equipment, shall include the full name of the person who prepared the drawings. When the drawings are prepared by a registered professional engineer, the engineer's signature shall also be included.

8.7 Verification of Water Supply:

8.7.1 Fire Flow Tests: Fire Flow Tests for verification of Water Supply shall be conducted and witnesses for all applications other than residential, unless directed otherwise by the Chief. For residential Water Supply, verification shall be determined by administrative procedure.

8.7.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an accurate and verifiable Water Supply.

(3) Morgan City Corporation, in IRC, Section R105.2, Work Exempt From Permit, a new list item number 11 is added as follows: "11. Structures intended to house farm animals, or for the storage of feed associated with said farm animals when all the following criteria is met:

a. The parcel of property involved is zoned for the keeping of farm animals or has grandfathered animal rights.

b. The structure is setback not less than 50 feet from the rear or side of dwellings, and not less than 10 feet from property lines and other structures.

c. The structure does not exceed 1000 square feet of floor area, and is limited to 20 feet in

height. Height is measured from the average grade to the highest point of the structure.

d. Before construction, a site plan is submitted to, and approved by the building official. Electrical, plumbing, and mechanical permits shall be required when that work is included in the structure."

(4) Morgan County, in IRC, Section R105.2, a new list item number 11 is added as follows: "11. Structures intended to house farm animals, or for the storage of feed associated with said farm animals when all the following criteria is met:

a. The parcel of property involved is zoned for the keeping of farm animals or has grandfathered animal rights.

b. The structure is set back not less than required by the Morgan County Zoning Ordinance for such structures, but not less than 10 feet from property lines and other structures.

c. The structure does not exceed 1000 square feet of floor area, and is limited to 20 feet in height. Height is measured from the average grade to the highest point of the structure.

d. Before construction, a Land Use Permit must be applied for, and approved, by the Morgan County Planning and Zoning Department. Electrical, plumbing, and mechanical permits shall be required when that work is included in the structure."

(5) City of North Salt Lake, a new IRC, Section R324, is added as follows: "Section R324 Automatic Sprinkler System Requirements. R324.1 When Required. An automatic sprinkler system shall be installed throughout every dwelling when the following condition is present:

1. The structure is over 6,200 square feet.

R324.2 Installation requirements and standards. Such sprinkler system shall be installed in basements, but need not be installed in garages, under eves, or in enclosed attic spaces, unless required by the fire chief. Such system shall be installed in accordance with NFPA 13D."

(6) Park City Corporation, Appendix P of the 2006 IRC is adopted.

(7) Park City Corporation and Park City Fire District:

(a) IRC, Section R905.7, is deleted and replaced with the following: "R905.7 Wood shingles. The installation of wood shingles shall comply with the provisions of this section. Wood roof covering is prohibited in areas with a combined rating of more than 11 using the following tables with a score of 9 for weather factors.

TABLE

WILDFIRE HAZARD SEVERITY SCALE

RATING	SLOPE	VEGETATION
1	less than or equal to 10%	Pinion-juniper
2	10.1 - 20%	Grass-sagebrush
3	greater than 20%	Mountain brush or softwoods

PROHIBITION/EXEMPTION TABLE

RATING	WOOD ROOF PROHIBITION
less than or equal to 11	wood roofs are allowed
greater than or equal to 12	wood roofs are prohibited"

(b) IRC, Section R905.8, is deleted and replaced with the following: "R905.8 Wood Shakes. The installation of wood shakes shall comply with the provisions of this section. Wood roof covering is prohibited in areas with a combined rating of more than 11 using the following tables with a score of 9 for weather factors.

TABLE

WILDFIRE HAZARD SEVERITY SCALE

RATING	SLOPE	VEGETATION
1	less than or equal to 10%	Pinion-juniper
2	10.1 - 20%	Grass-sagebrush
3	greater than 20%	Mountain brush or softwoods

PROHIBITION/EXEMPTION TABLE

RATING	WOOD ROOF PROHIBITION
less than or equal to 11	wood roofs are allowed
greater than or equal to 12	wood roofs are prohibited"

(c) Appendix K is adopted.

(8) Sandy City, a new IRC, Section R324, is added as follows: "Section R324 IGNITION RESISTANT CONSTRUCTION

R324.1 General. Buildings and structures constructed in areas designated as Wildland-Urban Interface Areas by Sandy City shall be constructed using ignition resistant construction as determined by the Fire Marshal. Section 502 of the 2006 International Wildland-Urban

Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 IWUIC, as modified herein, shall be used to determine the requirements for Ignition Resistant Construction.

(i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new Section 504.1.1 is added as follows:

504.1.1 General. Subsections 504.5, 504.6, and 504.7 shall only be required on the exposure side of the structure, as determined by the Fire Marshal, where defensible space is less than 50 feet as defined in Section 603 of the 2006 IWUIC.

(ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION Subsections 505.5 and 505.7 are deleted."

Section 303. Local Amendments to the IPC.

The following are adopted as amendments to the IPC to be applicable to the following jurisdictions:

(1) Salt Lake City, IPC, Appendix C, as specified and amended in State Construction Code, Subsection 203(49).

(2) South Jordan:

(a) IPC, Section 312.10.2, is deleted and replaced with the following: "312.10.2 Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection backflow prevention assemblies, double check detector fire protection backflow prevention assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10, or CSA B64.10.1. Assemblies, other than the reduced pressure principle assembly, protecting lawn irrigation systems that fail the annual test shall be replaced with a reduced pressure principle assembly."

(b) IPC, Section 608.16.5, is deleted and replaced with the following: "608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by a reduced pressure principle backflow preventer."

Section 304. Local Amendment to the IMC.

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

None.

Section 305. Local Amendment to the IFGC.

The following are adopted as amendments to the IFGC to be applicable to the following jurisdictions:

None.

Section 306. Local Amendment to the NEC.

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

None.

Section 307. Local Amendment to the IECC.

The following are adopted as amendments to the IECC to be applicable to the following jurisdictions:

None.

Section 2. **Effective date.**

This bill takes effect on July 1, 2010.

Legislative Review Note
as of 10-26-09 9:04 AM

Office of Legislative Research and General Counsel

Fiscal Note

H.B. 45 - State Construction Code Adoption

2010 General Session

State of Utah

State Impact

Enactment of this bill will not require additional appropriations.

Individual, Business and/or Local Impact

Enactment of this bill likely will not result in direct, measurable costs and/or benefits for individuals, businesses, or local governments.

1/12/2010, 4:15:23 PM, Lead Analyst: Pratt, S./Attny: PO

Office of the Legislative Fiscal Analyst