1	STATE CONSTRUCTION CODE ADOPTION
2	2010 GENERAL SESSION
3	STATE OF UTAH
4	Chief Sponsor: Michael T. Morley
5	Senate Sponsor: J. Stuart Adams
6 7	LONG TITLE
8	Committee Note:
9	The Business and Labor Interim Committee recommended this bill.
10	General Description:
11	This bill adopts the State Construction Code in accordance with the Utah Uniform
12	Building Standards Act.
13	Highlighted Provisions:
14	This bill:
15	<ul><li>includes general provisions; and</li></ul>
16	<ul> <li>adopts the state construction code.</li> </ul>
17	Monies Appropriated in this Bill:
18	None
19	Other Special Clauses:
20	This bill takes effect on July 1, 2010.
21	Utah Code Sections Affected:
22	ENACTS UNCODIFIED MATERIAL
<ul><li>23</li><li>24</li></ul>	Be it enacted by the Legislature of the state of Utah:
25	Section 1. Title Definitions General Provisions.
26	(1) This bill is known as the "State Construction Code Adoption Act."
27	(2) As used in this bill:



28	(a) "Division" means the Division of Occupational and Professional Licensing created
29	in Utah Code, Section 58-1-103.
30	(b) "State Construction Code" means the code adopted under Section 2 of this bill.
31	(c) "Utah Code" means the Utah Code Annotated (1953), as amended.
32	(3) As part of the division's compliance with Utah Code, Section 58-56-6, the division
33	may modify the format of the state construction code to provide accessibility to users of the
34	State Construction Code.
35	Section 2. State Construction Code adopted.
36	In accordance with Utah Code, Title 58, Chapter 56, Utah Uniform Building Standards
37	Act, the Legislature, repeals the state construction code in effect on June 30, 2010, and adopts
38	the following as the State Construction Code effective July 1, 2010:
39	State Construction Code
40	Part 1. General Provisions
41	Section 101. Specific editions of construction codes of a nationally recognized code
42	authority adopted Scope of application.
43	(1) (a) Subject to the limitations contained in Subsections (4), (5), and (6), the
44	following construction codes are incorporated by reference, and together with the amendments
45	specified under this bill, are the construction standards to be applied to building construction,
46	alteration, remodeling, and repair, and in the regulation of building construction, alteration,
47	remodeling and repair in the state:
48	(i) the 2009 edition of the International Building Code (IBC), including Appendix J,
49	issued by the International Code Council;
50	(ii) the 2008 edition of the National Electrical Code (NEC), issued by the National Fire
51	Protection Association;
52	(iii) the 2009 edition of the International Plumbing Code (IPC), issued by the
53	International Code Council;
54	(iv) the 2009 edition of the International Mechanical Code (IMC), issued by the
55	International Code Council;
56	(v) the 2009 edition of the International Residential Code (IRC), issued by the
57	International Code Council;
58	(vi) the 2009 edition of the International Energy Conservation Code (IECC), issued by

59	the International Code Council;
60	(vii) the 2009 edition of the International Fuel Gas Code (IFGC), issued by the
61	International Code Council;
62	(viii) subject to Subsection (3), the Federal Manufactured Housing Construction and
63	Safety Standards Act (HUD Code), as issued by the Department of Housing and Urban
64	Development and published in 24 C.F.R. Parts 3280 and 3282 (as revised April 1, 1990);
65	(ix) subject to Subsection (2), Appendix E of the 2009 edition of the International
66	Residential Code, issued by the International Code Council; and
67	(x) subject to Subsection (2), the 2005 edition of the NFPA 225 Model Manufactured
68	Home Installation Standard, issued by the National Fire Protection Association.
69	(b) Consistent with Title 65A, Chapter 8, Management of Forest Lands and Fire
70	Control, the Legislature adopts the 2006 edition of the Utah Wildland Urban Interface Code
71	(UWUI) issued by the International Code Council, with the alternatives or amendments
72	approved by the Utah Division of Forestry, as a construction code that may be adopted by a
73	local compliance agency by local ordinance or other similar action as a local amendment to the
74	codes listed in this Subsection (1).
75	(2) The following are the installation standards for manufactured housing for new
76	installations or for existing manufactured or mobile homes that are subject to relocation,
77	building alteration, remodeling, or rehabilitation in the state:
78	(a) The manufacturer's installation instruction for the model being installed is the
79	primary standard.
80	(b) If the manufacturer's installation instruction for the model being installed is not
81	available or is incomplete, the following standards apply:
82	(i) Appendix E of the 2009 edition of the IRC, as issued by the International Code
83	Council for installations defined in Section AE101 of Appendix E; or
84	(ii) if an installation is beyond the scope of the 2009 edition of the IRC as defined in
85	Section AE101 of Appendix E, the 2005 edition of the NFPA 225 Model Manufactured Home
86	Installation Standard, issued by the National Fire Protection Association.
87	(c) A manufacturer, dealer, or homeowner is permitted to design for unusual
88	installation of a manufactured home not provided for in the manufacturer's standard installation
89	instruction Appendix E of the 2009 edition of the IRC, or the 2005 edition of the NFPA 225, if

90	the design is approved in writing by a professional engineer or architect licensed in Utah.
91	(d) For a mobile home built before June 15, 1976, the home shall also comply with the
92	additional installation and safety requirements specified in State Construction Code, Section
93	<u>208.</u>
94	(3) Pursuant to the HUD Code Section 604(d), a manufactured home may be installed
95	in the state that does not meet the local snow load requirements as specified in State
96	Construction Code, Section 202, except that the manufactured home shall have a protective
97	structure built over the home that meets the IRC and the snow load requirements under State
98	Construction Code, Section 202.
99	(4) To the extent that a construction code adopted under Subsection (1) establishes a
100	local administrative function or establishes a method of appeal which pursuant to Utah Code,
101	Section 58-56-8 is designated to be established by the compliance agency:
102	(a) that provision of the construction code is not included in the State Construction
103	Code; and
104	(b) a compliance agency may establish provisions to establish a local administrative
105	function or a method of appeal.
106	(5) (a) To the extent that a construction code adopted under Subsection (1) establishes
107	a provision, standard, or reference to another code that by state statute is designated to be
108	established or administered by another state agency, or a local city, town, or county
109	jurisdiction:
110	(i) that provision of the construction code is not included in the State Construction
111	Code; and
112	(ii) the agency or local government has authority over that provision of the construction
113	code.
114	(b) Provisions excluded under this Subsection (5) include:
115	(i) the International Property Maintenance Code;
116	(ii) the International Private Sewage Disposal Code, authority over which is reserved to
117	the Department of Health and the Department of Environmental Quality;
118	(iii) the International Fire Code, authority over which is reserved to the Utah Fire
119	Prevention Board, pursuant to Utah Code, Section 53-7-106;
120	(iv) a day care provision that is in conflict with Utah Code, Title 26, Chapter 39, Utah

121	Child Care Licensing Act, authority over which is designated to the Utah Department of
122	Health; and
123	(v) a wildland urban interface provision that goes beyond the authority under Utah
124	Code, Section 58-56-4, for the State Construction Code, authority over which is designated to
125	the Utah Division of Forestry or to a local compliance agency.
126	(6) If a construction code adopted under Subsection (1) establishes a provision that
127	exceeds the scope described in Title 58, Chapter 56, Utah Uniform Building Standards Act, to
128	the extent the scope is exceeded, the provision is not included in the State Construction Code.
129	Part 2. Statewide Amendments
130	Section 201. Statewide amendments to the IBC.
131	The following are adopted as amendments to the IBC to be applicable statewide:
132	(1) IBC, Section 106, is deleted.
133	(2) (a) In IBC, Section 110, a new section is added as follows: "110.3.5,
134	Weather-resistant exterior wall envelope. An inspection shall be made of the weather-resistant
135	exterior wall envelope as required by Section 1403.2, and flashing as required by Section
136	1405.4 to prevent water from entering the weather-resistive barrier."
137	(b) The remaining sections of IBC, Section 110, are renumbered as follows: 110.3.6,
138	Lath or gypsum board inspection; 110.3.7, Fire-and smoke-resistant penetrations; 110.3.8
139	Energy efficiency inspections; 110.3.9 Other inspections; 110.3.10 Special inspections;
140	110.3.11 Final inspection.
141	(3) IBC, Section 115.1, is deleted and replaced with the following: "115.1 Authority.
142	Whenever the building official finds any work regulated by this code being performed in a
143	manner either contrary to the provisions of this code or other pertinent laws or ordinances or
144	dangerous or unsafe, the building official is authorized to stop work."
145	(4) In IBC, Section 202, the definition for "Assisted Living Facility" is deleted and
146	replaced with the following: "ASSISTED LIVING FACILITY. See Section 308.1.1."
147	(5) In IBC, Section 202, the definition for "Child Care Facilities" is deleted and
148	replaced with the following: "CHILD CARE FACILITIES. See Section 308.3.1."
149	(6) In the list in IBC, Section 304.1, "Ambulatory health care facilities" is deleted and
150	replaced with "Ambulatory health care facilities with four or fewer surgical operating rooms."
151	(7) IRC Section 305.2 is deleted and replaced with the following: "305.2 Day care

152	The use of a building or structure, or portion thereof, for educational, supervision, child day
153	care centers, or personal care services of more than four children shall be classified as a Group
154	E occupancy. See Section 424 for special requirements for Group E child day care centers.
155	Exception: Areas used for child day care purposes with a Residential Certificate or a Family
156	License, as defined in Utah Administrative Code, R430-90 Licensed Family Child Care, may
157	be located in a Group R-2 or R-3 occupancy as provided in Section 310.1 or shall comply with
158	the International Residential Code in accordance with Section 101.2. Areas used for Hourly
159	Child Care Centers, as defined in Utah Administrative Code, R430-60, or Out of School Time
160	Programs, as defined in Utah Administrative Code, R430-70, may be classified as accessory
161	occupancies."
162	(8) In IBC, Section 308, the following definitions are added: "308.1.1 Definitions. The
163	following words and terms shall, for the purposes of this section and as used elsewhere in this
164	code, have the meanings shown herein.
165	TYPE I ASSISTED LIVING FACILITY. A residential facility licensed by the Utah
166	Department of Health that provides a protected living arrangement for ambulatory,
167	non-restrained persons who are capable of achieving mobility sufficient to exit the facility
168	without the assistance of another person.
169	TYPE II ASSISTED LIVING FACILITY. A residential facility licensed by the Utah
170	Department of Health that provides an array of coordinated supportive personal and health care
171	services to residents who meet the definition of semi-independent.
172	SEMI-INDEPENDENT. A person who is:
173	A. Physically disabled but able to direct his or her own care; or
174	B. Cognitively impaired or physically disabled but able to evacuate from the facility with the
175	physical assistance of one person.
176	RESIDENTIAL TREATMENT/SUPPORT ASSISTED LIVING FACILITY. A residential
177	treatment/support assisted living facility which creates a group living environment for four or
178	more residents licensed by the Utah Department of Human Services, and provides a protected
179	living arrangement for ambulatory, non-restrained persons who are capable of achieving
180	mobility sufficient to exit the facility without the physical assistance of another person."
181	(9) In IBC, Section 308.2, the words "Assisted living facilities" are deleted and
182	replaced with "Type I Assisted living facilities."

183	(10) IBC, Section 308.3, is deleted and replaced with the following: "308.3 Group I-2.
184	This occupancy shall include buildings and structures used for medical, surgical, psychiatric,
185	nursing, or custodial care on a 24-hour basis of more than three persons who are not capable of
186	self-preservation. This group shall include, but not be limited to the following: hospitals,
187	nursing homes (both intermediate care facilities and skilled nursing facilities), mental hospitals,
188	detoxification facilities, ambulatory surgical centers with five or more operating rooms where
189	care is less than 24 hours, and type II assisted living facilities. Type II assisted living facilities
190	with five or fewer persons shall be classified as a Group R-4. Type II assisted living facilities
191	as defined in 308.1.1 with at least six and not more than sixteen residents shall be classified as
192	a Group I-1 facility."
193	(11) In IBC, Section 308.3.1, the definition for "CHILD CARE FACILITIES" is
194	deleted and replaced with the following: "CHILD CARE FACILITIES. A child care facility, as
195	licensed by the Department of Human Services in Utah Administrative Code, R501, that
196	provides care on a 24-hour basis to more than four children 2 1/2 years of age or less shall be
197	classified as Group I-2."
198	(12) IBC, Section 308.5, is deleted and replaced with the following: "308.5 Group I-4,
199	day care facilities. This group shall include buildings and structures occupied by persons of any
200	age who receive custodial care less than 24 hours by individuals other than parents or
201	guardians, relatives by blood, marriage, or adoption, and in a place other than the home of the
202	person cared for. A facility such as the above with four or fewer persons shall be classified as
203	an R-3 or shall comply with the International Residential Code in accordance with Section
204	101.2. Places of worship during religious functions and Group E child day care centers are not
205	included."
206	(13) IBC, Section 308.5.2, is deleted.
207	(14) In IBC, Section 310.1, in the subsection designated as R-1, at the end of the
208	sentence beginning with "Congregate living facilities" the following is added: "or shall comply
209	with the International Residential Code."
210	(15) In IBC, Section 310.1, in the subsection designated as R-2, at the end of the
211	sentence beginning with "Congregate living facilities" the following is added: "or shall comply
212	with the International Residential Code."
213	(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:

- 216 <u>1. Compliance with the Utah Administrative Code, R710-8, Day Care Rules, as enacted under</u>
- 217 <u>the authority of the Utah Fire Prevention Board.</u>
- 218 2. Use is approved by the State Department of Health, as enacted under the authority of the
- 219 <u>Utah Code, Title 26, Chapter 39, Utah Child Care Licensing Act, and in any of the following</u>
- 220 <u>categories:</u>
- 221 <u>a. Utah Administrative Code, R430-50, Residential Certificate Child Care.</u>
- b. Utah Administrative Code, R430-90, Licensed Family Child Care.
- 223 3. Compliance with all zoning regulations of the local regulator."
- 224 (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
- 227 <u>Living Facilities including more than five but not more than 16 residents, excluding staff.</u>
- 228 Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3
- 229 except as otherwise provided for in this code."
- 230 (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
- 232 <u>308.1.1".</u>
- 233 (19) Section IBC, 403.5.5, is deleted.
- 234 (20) In IBC, Section 422.1, the words "Sections 422.1 to 422.6" are replaced with
- 235 "Sections 422.1 to 422.7".
- 236 (21) In IBC, Section 422, a new section is added as follows: "422.7 Separation.
- 237 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
- 240 who are incapable of self preservation."
- 241 (22) A new IBC, Section 424, is added as follows: "Section 424 Group E Child Day
- 242 <u>Care Centers. Group E child day care centers shall comply with Section 424.</u>
- 243 424.1 Location at grade. Group E child day care centers shall be located at the level of exit
- 244 discharge.

245	Exception:	Child day care s	paces for children	over the age of 24	4 months may	be located on the

- second floor of buildings equipped with automatic fire protection throughout and an automatic
- 247 <u>fire alarm system.</u>
- 248 <u>424.2 Egress. All Group E child day care spaces with an occupant load of more than 10 shall</u>
- 249 <u>have a second means of egress. If the second means of egress is not an exit door leading</u>
- 250 <u>directly to the exterior, the room shall have an emergency escape and rescue window</u>
- 251 complying with Section 1029.
- 252 424.3 All Group E Child Day Care Centers shall comply with Utah Administrative Code,
- 253 R430-100 Child Care Centers."
- 254 (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
- 256 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
- 258 <u>1008.1.9.3</u> as amended;
- 259 2. The total combined area of both stories shall not exceed the total allowable area for a
- 260 <u>one-story building; and</u>
- 261 3. All other provisions that apply in Section 407 have been provided."
- 262 (24) In IBC, Table 508.4, a new footnote g is added as follows: "g. See Section 422.7
- 263 for additional requirements of Group B Ambulatory Health Care Facilities."
- 264 (25) In IBC, Section 707.5.1, a new exception 4 is added as follows: "4. Group B
- 265 Ambulatory Health Care Facilities."
- 266 (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
- 268 <u>aspects of a fire protection system as installed."</u>
- 269 (27) In IBC, Section (F)903.2.2, the words "all fire areas" are deleted and replaced with
- 270 "buildings".
- 271 (28) IBC, Section (F)903.2.4, condition 2, is deleted and replaced with the following:
- 272 "2. A Group F-1 fire area is located more than three stories above the lowest level of fire
- 273 <u>department vehicle access."</u>
- 274 (29) IBC, Section (F)903.2.7, condition 2, is deleted and replaced with the following:
- 275 "2. A Group M fire area is located more than three stories above the lowest level of fire

276	department vehicle access."
277	(30) IBC, Section (F)903.2.8, is deleted and replaced with the following: "(F)903.2.8
278	Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be
279	provided throughout all buildings with a Group R fire area.
280	Exceptions:
281	1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses)
282	constructed in accordance with the International Residential Code For One- and Two-Family
283	<u>Dwellings.</u>
284	2. Group R-4 fire areas not more than 4,500 gross square feet and not containing more than 16
285	residents, provided the building is equipped throughout with an approved fire alarm system that
286	is interconnected and receives its primary power from the building wiring and a commercial
287	power system."
288	(31) IBC, Section (F)903.2.9, condition 2, is deleted and replaced with the following:
289	"2. A Group S-1 fire area is located more than three stories above the lowest level of fire
290	department vehicle access."
291	(32) IBC, Section (F)903.2.10, is deleted and replaced with the following: "(F)903.2.10
292	Group S-2. An automatic sprinkler system shall be provided throughout buildings classified as
293	parking garages in accordance with Section 406.2 or where located beneath other groups.
294	Exception 1: Parking garages of less than 5,000 square feet (464 m²) accessory to Group R-3
295	occupancies.
296	Exception 2: Open parking garages not located beneath other groups if one of the following
297	conditions is met:
298	a. Access is provided for fire fighting operations to within 150 feet (45,720 mm) of all
299	portions of the parking garage as measured from the approved fire department vehicle access;
300	<u>or</u>
301	b. Class I standpipes are installed throughout the parking garage."
302	(33) In IBC, Section (F)903.2.10.1, the last clause "where the fire area exceeds 5,000
303	square feet (464 m <sup>2</sup> )" is deleted.
304	(34) IBC, Section (F)904.11, is deleted and replaced with the following: "(F)904.11
305	Commercial cooking systems. The automatic fire-extinguishing system for commercial
306	cooking systems shall be of a type recognized for protection of commercial cooking equipment

307	and exhaust systems. Pre-engineered automatic extinguishing systems shall be tested in
308	accordance with UL 300 and listed and labeled for the intended application. The system shall
309	be installed in accordance with this code, its listing and the manufacturer's installation
310	instructions.
311	Exception: Factory-built commercial cooking recirculating systems that are tested in
312	accordance with UL 710B and listed, labeled, and installed in accordance with Section 304.1 of
313	the International Mechanical Code."
314	(35) IBC, Subsections (F)904.11.3, (F)904.11.3.1, (F)904.11.4, and (F)904.11.4.1, are
315	<u>deleted.</u>
316	(36) A new IBC, Section (F)907.9, is added as follows: "Section (F)907.9 Carbon
317	monoxide alarms. Carbon monoxide alarms shall be installed on each habitable level of a
318	dwelling unit or sleeping unit in Groups R-2, R-3, R-4, and I-1 equipped with fuel burning
319	appliances and in dwelling units that have attached garages. If more than one carbon monoxide
320	alarm is required, they shall be interconnected as required in the International Fire Code,
321	Chapter 9, Section 907.2.11.3. In new construction, carbon monoxide alarms shall receive their
322	primary power as required in the International Fire Code, Chapter 9, Section 907.2.11.4. Listed
323	single- and multiple-station carbon monoxide alarms shall comply with UL 2034 and shall be
324	installed in accordance with the provisions of this code and NFPA 720."
325	(37) In IBC, Section 1008.1.9.6:
326	(a) the words "Group I-1 and" are added in the title and in the first sentence before the
327	words "Group I-2";
328	(b) the word "delayed" is deleted throughout and replaced with "controlled"; and
329	(c) the last sentence before the numbered subsections 1 through 6 is deleted.
330	(38) In IBC, Section 1009.4.2, exception 5 is deleted and replaced with the following:
331	"5. In Group R-3 occupancies, within dwelling units in Group R-2 occupancies, and in Group
332	U occupancies that are accessory to a Group R-3 occupancy, or accessory to individual
333	dwelling units in Group R-2 occupancies, the maximum riser height shall be 8 inches (203
334	mm) and the minimum tread depth shall be 9 inches (229 mm). The minimum winder tread
335	depth at the walk line shall be 10 inches (254 mm), and the minimum winder tread depth shall
336	be 6 inches (152 mm). A nosing not less than 0.75 inch (19.1 mm) but not more than 1.25
337	inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less

338	than 10 inches (254 mm)."
339	(39) In IBC, Section 1009.12, a new exception 6 is added as follows: "6. In
340	occupancies in Group R-3, as applicable in Section 101.2 and in occupancies in Group U,
341	which are accessory to an occupancy in Group R-3, as applicable in Section 101.2, handrails
342	shall be provided on at least one side of stairways consisting of four or more risers."
343	(40) In IBC, Section 1013.2, the words "adjacent fixed seating" are deleted.
344	(41) In IBC, Section 1013.2, a new exception 5 is added as follows: "5. For
345	occupancies in Group R-3 and within individual dwelling units in occupancies in Group R-2,
346	as applicable in Section 101.2, guards shall form a protective barrier not less than 36 inches
347	(914 mm) in height."
348	(42) In IBC, Section 1015.2.2, the following sentence is added at the end: "Additional
349	exits or exit access doorways shall be arranged a reasonable distance apart so that if one
350	becomes blocked, the others will be available."
351	(43) IBC, Section 1024, is deleted.
352	(44) A new IBC, Section 1109.7.1, is added as follows: "1109.7.1 Platform
353	(wheelchair) lifts. All platform (wheelchair) lifts shall be capable of independent operation
354	without a key."
355	(45) In IBC, Section 1208.4, subparagraph 1 is deleted and replaced with the
356	following: "1. The unit shall have a living room of not less than 165 square feet (15.3 m²) of
357	floor area. An additional 100 square feet (9.3 m²) of floor area shall be provided for each
358	occupant of such unit in excess of two."
359	(46) In IBC, Table 1604.5, Occupancy Category III, in the sentence that begins Group
360	I-2, a new footnote b is added as follows: "b. Type II Assisted Living Facilities that are I-2
361	occupancy classifications in accordance with Section 308 shall be Occupancy Category II in
362	this table."
363	(47) In IBC, Section 1605.2.1, the formula shown as " $f_2 = 0.2$ for other roof
364	configurations" is deleted and replaced with the following: " $f_2 = 0.20 + .025(A-5)$ for other
365	configurations where roof snow load exceeds 30 psf;
366	$\underline{f}_2 = 0$ for roof snow loads of 30 psf (1.44kN/m <sup>2</sup> ) or less.
367	Where $A = Elevation$ above sea level at the location of the structure (ft/1000)."
368	(48) In IBC, Section 1605.3.1 and Section 1605.3.2, exception 2 in each section is

369	deleted and replaced with the following: "2. Flat roof snow loads of 30 pounds per square foot
370	(1.44 kNm²) or less need not be combined with seismic loads. Where flat roof snow loads
371	exceed 30 pounds per square foot (1.44 kNm²), the snow loads may be reduced in accordance
372	with the following in load combinations including both snow and seismic loads. $W_s$ as
373	calculated below, shall be combined with seismic loads.
374	$W_s = (0.20 + 0.025(A-5))P_f$ is greater than or equal to $0.20 P_f$ .
375	Where:
376	$\underline{W}_s$ = Weight of snow to be included in seismic calculations;
377	$\underline{A}$ = Elevation above sea level at the location of the structure (ft/1000)
378	$\underline{P_f} = Design \ roof \ snow \ load, \ psf;$
379	For the purpose of this section, snow load shall be assumed uniform on the roof footprint
380	without including the effects of drift or sliding. The Importance Factor, I, used in calculating $P_{\rm f}$
381	may be considered 1.0 for use in the formula for W <sub>s</sub> .".
382	(49) IBC, Section 1608.1, is deleted and replaced with the following: "1608.1 General.
383	Except as modified in section 1608.1.1, 1608.1.2, and 1608.1.3 design snow loads shall be
384	determined in accordance with Chapter 7 of ASCE 7, but the design roof load shall not be less
385	than that determined by Section 1607."
386	(50) A new IBC, Section 1608.1.1, is added as follows: "1608.1.1 Section 7.4.5 of
387	Chapter 7 of ASCE 7 referenced in Section 1608.1 of the IBC is deleted and replaced with the
388	following: "Section 7.4.5 Ice Dams and Icicles Along Eaves. Where ground snow loads exceed
389	75 psf, eaves shall be capable of sustaining a uniformly distributed load of 2p <sub>f</sub> on all
390	overhanging portions. No other loads except dead loads shall be present on the roof when this
391	uniformly distributed load is applied. All building exits under down-slope eaves shall be
392	protected from sliding snow and ice."
393	(51) In IBC, Section 1608.1.2, a new section is added as follows: "1608.1.2 Utah Snow
394	Loads. The ground snow load, $P_g$ , to be used in the determination of design snow loads for
395	buildings and other structures shall be determined by using the following formula: $P_g = (P_o^2 +$
396	$S^2(A-A_o)^2$ ) <sup>0.5</sup> for A greater than $A_o$ , and $P_g = P_o$ for A less than or equal to $A_o$ .
397	WHERE:
398	$\underline{P}_{g}$ = Ground snow load at a given elevation (psf);
399	P = Base ground snow load (psf) from Table No. 1608 1.2(a):

400	S = Change in ground snow load with elevation (psf/100 ft.) From Table No. 1608.1.2(a);				
401	$\underline{A}$ = Elevation above sea level at the site (ft./1000);				
402	$\underline{A}_{o}$ = Base ground snow elevation from Table 1608.1.2(a) (ft./1000).				
403	The building o	fficial may rou	ınd the	roof sno	ow load to the nearest 5 psf. The ground snow load
404	P <sub>g</sub> , may be adju	usted by the bu	ilding o	official	when a licensed engineer or architect submits data
405	substantiating	the adjustment	s. A rec	ord of s	such action together with the substantiating data
406	shall be provid	ed to the divis	ion for	a perma	anent record.
407	The building o	fficial may als	o direct	ly adop	t roof snow loads in accordance with Table
408	1608.1.2(b), pr	ovided the site	e is no n	nore tha	an 100 ft. higher than the listed elevation.
409	Where the min	imum roof live	e load ii	n accord	dance with section 1607.11 is greater than the
410	design roof sno	ow load, such i	roof live	e load sl	hall be used for design, however, it shall not be
411	reduced to a lo	ad lower than	the desi	gn roof	snow load. Drifting need not be considered for
412	roof snow load	ls less than 20	psf."		
413	(52) IE	BC, Table 1608	3.1.2(a)	and Tal	ble 1608.1.2(b), are added as follows:
414				"TAB	LE NO. 1608.1.2(a)
415		STATE (	OF UTA	AH - RE	EGIONAL SNOW LOAD FACTORS
416		<u>COUNTY</u>	$\underline{\mathbf{P}}_{\mathrm{o}}$	<u>S</u>	$\underline{\mathbf{A}}_{\mathbf{o}}$
417		<u>Beaver</u>	<u>43</u>	<u>63</u>	<u>6.2</u>
418		Box Elder	<u>43</u>	<u>63</u>	<u>5.2</u>
419		<u>Cache</u>	<u>50</u>	<u>63</u>	<u>4.5</u>
420		<u>Carbon</u>	<u>43</u>	<u>63</u>	<u>5.2</u>
421		<u>Daggett</u>	<u>43</u>	<u>63</u>	<u>6.5</u>
422		<u>Davis</u>	<u>43</u>	<u>63</u>	<u>4.5</u>
423		<u>Duchesne</u>	<u>43</u>	<u>63</u>	<u>6.5</u>
424		<u>Emery</u>	<u>43</u>	<u>63</u>	<u>6.0</u>
425		<u>Garfield</u>	<u>43</u>	<u>63</u>	<u>6.0</u>
426		<u>Grand</u>	<u>36</u>	<u>63</u>	<u>6.5</u>
427		<u>Iron</u>	<u>43</u>	<u>63</u>	<u>5.8</u>
428		<u>Juab</u>	<u>43</u>	<u>63</u>	<u>5.2</u>
429		Kane	<u>36</u>	<u>63</u>	<u>5.7</u>
430		<u>Millard</u>	<u>43</u>	<u>63</u>	<u>5.3</u>

446 TABLE NO. 1608.1.2(b)

<u>43</u>

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<u>86</u>

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<u>Uintah</u>

Wasatch

Wayne

Weber

Washington

<u>Utah</u>

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

7.0

<u>4.5</u>

<u>5.0</u>

6.0

6.5

<u>4.5</u>

448		Roo	of Snow	<b>Ground Snow</b>
449		Loa	d (PSF)	Load (PSF)
450	Beaver County			
451	<u>Beaver</u>	<u>5920 ft.</u>	<u>43</u>	<u>62</u>
452	Box Elder County			
453	<b>Brigham City</b>	4300 ft.	<u>30</u>	<u>43</u>
454	<u>Tremonton</u>	4290 ft.	<u>30</u>	<u>43</u>
455	Cache County			
456	<u>Logan</u>	4530 ft.	<u>35</u>	<u>50</u>
457	<b>Smithfield</b>	4595 ft.	<u>35</u>	<u>50</u>
458	Carbon County			
459	<u>Price</u>	<u>5550 ft.</u>	<u>30</u>	<u>43</u>
460	Daggett County			
461	<u>Manila</u>	<u>5377 ft.</u>	<u>30</u>	<u>43</u>

462	Davis County			
463	<b>Bountiful</b>	4300 ft.	<u>30</u>	<u>43</u>
464	<u>Farmington</u>	4270 ft.	<u>30</u>	<u>43</u>
465	<u>Layton</u>	4400 ft.	<u>30</u>	<u>43</u>
466	Fruit Heights	4500 ft.	<u>40</u>	<u>57</u>
467	<u>Duchesne County</u>			
468	<u>Duchesne</u>	<u>5510 ft.</u>	<u>30</u>	<u>43</u>
469	Roosevelt	5104 ft.	<u>30</u>	<u>43</u>
470	Emery County			
471	<u>Castledale</u>	5660 ft.	<u>30</u>	<u>43</u>
472	Green River	4070 ft.	<u>25</u>	<u>36</u>
473	Garfield County			
474	<u>Panguitch</u>	6600 ft.	<u>30</u>	<u>43</u>
475	Grand County			
476	<u>Moab</u>	3965 ft.	<u>5</u>	<u>36</u>
477	Iron County			
478	Cedar City	5831 ft.	<u>30</u>	<u>43</u>
479	Juab County			
480	<u>Nephi</u>	5130 ft.	<u>30</u>	<u>43</u>
481	Kane County			
482	<u>Kanab</u>	<u>5000 ft.</u>	<u>25</u>	<u>36</u>
483	Millard County			
484	<u>Millard</u>	5000 ft.	<u>30</u>	<u>43</u>
485	<u>Delta</u>	4623 ft.	<u>30</u>	<u>43</u>
486	Morgan County			
487	<u>Morgan</u>	5064 ft.	<u>40</u>	<u>57</u>
488	Piute County			
489	<u>Piute</u>	5996 ft.	<u>30</u>	<u>43</u>
490	Rich County			
491	Woodruff	6315 ft.	<u>40</u>	<u>57</u>
492	Salt Lake County			

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493	<u>Murray</u>	4325 ft.	<u>30</u>	<u>43</u>
494	Salt Lake City	4300 ft.	<u>30</u>	<u>43</u>
495	<u>Sandy</u>	4500 ft.	<u>30</u>	<u>43</u>
496	West Jordan	4375 ft.	<u>30</u>	<u>43</u>
497	West Valley	4250 ft.	<u>30</u>	<u>43</u>
498	San Juan County			
499	<u>Blanding</u>	6200 ft.	<u>30</u>	<u>43</u>
500	<u>Monticello</u>	6820 ft.	<u>35</u>	<u>50</u>
501	Sanpete County			
502	<u>Fairview</u>	6750 ft.	<u>35</u>	<u>50</u>
503	Mt. Pleasant	5900 ft.	<u>30</u>	<u>43</u>
504	<u>Manti</u>	5740 ft.	<u>30</u>	<u>43</u>
505	<u>Ephraim</u>	5540 ft.	<u>30</u>	<u>43</u>
506	<u>Gunnison</u>	5145 ft.	<u>30</u>	<u>43</u>
507	Sevier County			
508	<u>Salina</u>	5130 ft.	<u>30</u>	<u>43</u>
509	Richfield	5270 ft.	<u>30</u>	<u>43</u>
510	Summit County			
511	<u>Coalville</u>	5600 ft.	<u>60</u>	<u>86</u>
512	<u>Kamas</u>	6500 ft.	<u>70</u>	<u>100</u>
513	Park City	6800 ft.	<u>100</u>	<u>142</u>
514	Park City	8400 ft.	<u>162</u>	<u>231</u>
515	Summit Park	7200 ft.	<u>90</u>	<u>128</u>
516	Tooele County			
517	<u>Tooele</u>	5100 ft.	<u>30</u>	<u>43</u>
518	<u>Uintah County</u>			
519	<u>Vernal</u>	5280 ft.	<u>30</u>	<u>43</u>
520	<u>Utah County</u>			
521	American Fork	4500 ft.	<u>30</u>	<u>43</u>
522	<u>Orem</u>	4650 ft.	<u>30</u>	<u>43</u>
523	Pleasant Grove	5000 ft.	<u>30</u>	<u>43</u>

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524		<u>Provo</u>	5000 ft.	<u>30</u>	<u>43</u>		
525		Spanish Fork	4720 ft.	<u>30</u>	<u>43</u>		
526	Wasat	tch County					
527		<u>Heber</u>	<u>5630 ft.</u>	<u>60</u>	<u>86</u>		
528	Wash	ington County					
529		<u>Central</u>	5209 ft.	<u>25</u>	<u>36</u>		
530		<u>Dameron</u>	4550 ft.	<u>25</u>	<u>36</u>		
531		<u>Leeds</u>	3460 ft.	<u>20</u>	<u>29</u>		
532		<u>Rockville</u>	3700 ft.	<u>25</u>	<u>36</u>		
533		Santa Clara	2850 ft.	<u>15 (1)</u>	<u>21</u>		
534		St. George	2750 ft.	<u>15 (1)</u>	<u>21</u>		
535	<u>Wayn</u>	e County					
536		Loa	<u>7080 ft.</u>	<u>30</u>	<u>43</u>		
537		<u>Hanksville</u>	4308 ft.	<u>25</u>	<u>36</u>		
538	Webe	r County					
539		North Ogden	4500 ft.	<u>40</u>	<u>57</u>		
540		<u>Ogden</u>	4350 ft.	<u>30</u>	<u>43</u>		
541	<u>NOTES</u>						
542	(1) The IBC requires a minimum live load - See 1607.11.2.						
543	(2) This table is informational only in that actual site elevations may vary. Table is only valid						
544	if site elevation is within 100 feet of the listed elevation."						
545	(53) A new IBC, Section 1608.1.3, is added as follows: "1608.1.3 Thermal Factor. The						
546	value for the thermal factor, C <sub>t</sub> , used in calculation of p <sub>f</sub> shall be determined from Table 7.3 in						
547	ASCE 7.						
548	Exception: Except for	or unheated structures,	the value of C <sub>t</sub>	need not excee	ed 1.0 when ground		
549	snow load, P <sub>g</sub> is calculated using Section 1608.1.2 as amended."						
550	(54) IBC, Section 1608.2, is deleted and replaced with the following: "1608.2 Ground						
551	Snow Loads. The gro	ound snow loads to be	used in determi	ining the design	snow loads for roofs		
552	in states other than U	tah are given in Figure	e 1608.2 for the	contiguous Ur	nited States and Table		
553	1608.2 for Alaska. Site-specific case studies shall be made in areas designated CS in figure						
554	1608.2. Ground snow loads for sites at elevations above the limits indicated in Figure 1608.2						

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555	and for all sites within the CS areas shall be approved. Ground snow load determination for
556	such sites shall be based on an extreme value statistical analysis of data available in the vicinity
557	of the site using a value with a 2-percent annual probability of being exceeded (50-year mean
558	recurrence interval). Snow loads are zero for Hawaii, except in mountainous regions as
559	approved by the building official."
560	(55) In IBC, Section 1609.1.1, a new exception 7 is added as follows: "7. The wind
561	design procedure as found in Section 1616 through 1624 of the 1997 Uniform Building Code
562	may be used as an alternative wind design procedure for signs and free standing walls as listed
563	in item 7 listed in Table 16-H of the 1997 Uniform Building Code. The Importance Factor, I,
564	shall be determined in accordance with Table 6-1 of ASCE 7. Stress increases are only allowed
565	as provided in Section 1605.3 of the 2009 IBC."
566	(56) A new IBC, Section 1613.1.1, is added as follows: "1613.1.1 ASCE 12.7.2 and
567	12.14.8.1 of Chapter 12 of ASCE 7 referenced in Section 1613.1, Definition of W, Item 4 is
568	deleted and replaced with the following:
569	4. Where the flat roof snow load, P <sub>f</sub> , exceeds 30 psf, the snow load included in seismic design
570	shall be calculated, in accordance with the following formula: $W_s = (0.20 + 0.025(A-5))P_f$ is
571	greater than or equal to $0.20 P_f$ .
572	WHERE:
573	$\underline{W}_s$ = Weight of snow to be included in seismic calculations;
574	$\underline{A}$ = Elevation above sea level at the location of the structure (ft/1000);
575	$\underline{P_f}$ = Design roof snow load, psf.
576	For the purposes of this section, snow load shall be assumed uniform on the roof footprint
577	without including the effects of drift or sliding. The Importance Factor, I, used in calculating P <sub>f</sub>
578	may be considered 1.0 for use in the formula for W <sub>s</sub> ."
579	(57) A new IBC, Section 1613.8, is added as follows: "1613.8 ASCE 7, Section
580	13.5.6.2.2 paragraph (e) is modified to read as follows: (e) Penetrations shall have a sleeve or
581	adapter through the ceiling tile to allow for free movement of at least 1 inch (25 mm) in all
582	horizontal directions.
583	Exceptions:
584	1. Where rigid braces are used to limit lateral deflections.
585	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:

593 <u>"TABLE 1807.1.6.4</u>

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594	EMPIRICAL FOUNDATION WALLS (1,7,8)
	21:11 111 2112 1 3 21 (21111 211 ) (1111 22 (1111 3)

595	Max. Height	Top Edge	Min.	<u>Vertical</u>	<u>Horizontal</u>	Steel at	Max. Lintel	Min. Lintel
596		<u>Support</u>	<b>Thickness</b>	<b>Steel (2)</b>	<u>Steel (3)</u>	Openings (4)	<b>Length</b>	<b>Length</b>
597	2'(610 mm)	None	<u>6"</u>	<u>(5)</u>	2#4 Bars	2- #4 Bars above	2'(610 mm)	2"for each
598						1- #4 Bar each side		foot of
599						1- #4 Bar below		opening
600								width;
601								min. 6"
602	3'(914 mm)	None	<u>6"</u>	#4@32"	3-#4 Bars	2- #4 Bars above	2'(610 mm)	2"for each
603						1- #4 Bar each side		foot of
604						1- #4 Bar below		<u>opening</u>
605								width;
606								min. 6"
607	4'(1219 mm)	<u>None</u>	<u>6"</u>	#4@32"	<u>4-#4 Bars</u>	2- #4 Bars above	3'(914 mm)	2"for each
608						1- #4 Bar each side		foot of
609						1- #4 Bar below		<u>opening</u>
610								width;
611								min. 6"
612	<u>6'(1829 mm)</u>	Floor or roo	<u>f 8"</u>	#4@24"	5-#4 Bars	2- #4 Bars above		2"for each
613		<u>Diaphragm</u>				1- #4 Bar each side		foot of
614		<u>(6)</u>				<u>1- #4 Bar below</u>		<u>opening</u>
615								width;
616								min. 6"
617	8'(2438 mm)	Floor or roo	<u>f 8"</u>	#4@24"	6-#4 Bars	2- #4 Bars above	<u>6'(1829 mm)</u>	2"for each
618		<u>Diaphragm</u>				1- #4 Bar each side		foot of
619		<u>(6)</u>				<u>1- #4 Bar below</u>		opening
620								width;
621								min. 6"
622	9'(2743 mm)	Floor or roo	<u>f 8"</u>	#4@16"	7-#4 Bars	2- #4 Bars above	<u>6'(1829 mm)</u>	2"for each
623		<u>Diaphragm</u>				1- #4 Bar each side		foot of
624		<u>(6)</u>				1- #4 Bar below		opening

625	width;
626	<u>min. 6"</u>
627	Over 9' Engineering required for each column
628 629	(2743 mm) Footnotes:
630	(1) Based on 3,000 psi (20.6 Mpa) concrete and 60,000 psi (414 Mpa) reinforcing steel.
631	(2) To be placed in the center of the wall, and extended from the footing to within three inches
	•
632	(76 mm) of the top of the wall; dowels of #4 bars to match vertical steel placement shall be
633	provided in the footing, extending 24 inches (610 mm) into the foundation wall.
634	(3) One bar shall be located in the top four inches (102 mm), one bar in the bottom four inches
635	(102 mm) and the other bars equally spaced between. Such bar placement satisfies the
636	requirements of Section 1805.9. Corner reinforcing shall be provided so as to lap 24 inches
637	<u>(610 mm).</u>
638	(4) Bars shall be placed within two inches (51 mm) of the openings and extend 24 inches (610
639	mm) beyond the edge of the opening; vertical bars may terminate three inches (76 mm) from
640	the top of the concrete.
641	(5) Dowels of #4 bar at 32 inches on center shall be provided in the footing, extending 18
642	inches (457 mm) into the foundation wall.
643	(6) Diaphragm shall conform to the requirements of Section 2308.
644	(7) Footing shall be a minimum of nine inches thick by 20 inches wide.
645	(8) Soil backfill shall be soil classification types GW, GP, SW, or SP, per Table 1610.1. Soil
646	shall not be submerged or saturated in groundwater."
647	(60) A new IBC, Section 2306.1.5, is added as follows: "2306.1.5 Load duration
648	factors. The allowable stress increase of 1.15 for snow load, shown in Table 2.3.2, Frequently
649	Used Load Duration Factors, C <sub>d</sub> , of the National Design Specifications, shall not be utilized at
650	elevations above 5,000 feet (1524 M)."
651	(61) In IBC, Section 2308.6, a new exception is added as follows: "Exception: Where
652	foundation plates or sills are bolted or anchored to the foundation with not less than 1/2 inch
653	(12.7 mm) diameter steel bolts or approved anchors, embedded at least 7 inches (178 mm) into
654	concrete or masonry and spaced not more than 32 inches (816 mm) apart, there shall be a
655	minimum of two bolts or anchor straps per piece located not less than 4 inches (102 mm) from
656	each end of each piece. A properly sized nut and washer shall be tightened on each bolt to the

657	plate."
658	(62) IBC, Section 2506.2.1, is deleted and replaced with the following: "2506.2.1
659	Other materials. Metal suspension systems for acoustical and lay-in panel ceilings shall
660	conform with ASTM C635 listed in Chapter 35 and Section 13.5.6 of ASCE 7-05, as amended
661	in Section 1613.8, for installation in high seismic areas."
662	(63) In IBC, Section 2902.1, the title for Table 2902.1 is deleted and replaced and a
663	new footnote g is added as follows:
664	(a) "Table 2902.1, Minimum Number of Required Plumbing Facilities <sup>a, g</sup> "; and
665	(b) "FOOTNOTE: g. When provided, in public toilet facilities there shall be an equal
666	number of diaper changing facilities in male toilet rooms and female toilet rooms."
667	(64) In IBC, Section 3006.5, a new exception is added as follows: "Exception:
668	Hydraulic elevators and roped hydraulic elevators with a rise of 50 feet or less."
669	(65) A new section IBC, Section 3401.6, is added as follows: "3401.6 Parapet bracing,
670	wall anchors, and other appendages. Buildings constructed prior to 1975 shall have parapet
671	bracing, wall anchors, and appendages such as cornices, spires, towers, tanks, signs, statuary,
672	etc. evaluated by a licensed engineer when said building is undergoing reroofing, or alteration
673	of or repair to said feature. Such parapet bracing, wall anchors, and appendages shall be
674	evaluated in accordance with 75% of the seismic forces as specified in Section 1613. When
675	allowed by the local building official, alternate methods of equivalent strength as referenced in
676	an approved code under Utah Code, Subsection 58-56-4(6)(a), will be considered when
677	accompanied by engineer-sealed drawings, details, and calculations. When found to be
678	deficient because of design or deteriorated condition, the engineer's recommendations to
679	anchor, brace, reinforce, or remove the deficient feature shall be implemented.
680	EXCEPTIONS:
681	1. Group R-3 and U occupancies.
682	2. Unreinforced masonry parapets need not be braced according to the above stated provisions
683	provided that the maximum height of an unreinforced masonry parapet above the level of the
684	diaphragm tension anchors or above the parapet braces shall not exceed one and one-half times
685	the thickness of the parapet wall. The parapet height may be a maximum of two and one-half
686	times its thickness in other than Seismic Design Categories D, E, or F."
687	(66) IBC, Section 3408.4, is deleted and replaced with the following: "3408.4 Change

688	in Occupan	cy. When a change in occupancy results	in a structure being reclassified to a higher				
689	Occupancy Category (as defined in Table 1604.5), or when such change of occupancy results in						
690	a design occ	a design occupant load increase of 100% or more, the structure shall conform to the seismic					
691	<u>requiremen</u>	ts for a new structure.					
692	Exceptions:	<u>.</u>					
693	1. Specific	seismic detailing requirements of this c	ode or ASCE 7 for a new structure shall not				
694	be required	to be met where it can be shown that th	e level of performance and seismic safety is				
695	equivalent t	to that of a new structure. Such analysis	shall consider the regularity, overstrength,				
696	redundancy	, and ductility of the structure within the	e context of the existing and retrofit (if any)				
697	detailing pr	oviding. Alternatively, the building office	cial may allow the structure to be upgraded				
698	in accordan	ce with referenced sections as found in	an approved code under Utah Code,				
699	Subsection	58-56-4(6)(a).					
700	2. When a	change of use results in a structure being	g reclassified from Occupancy Category I or				
701	II to Occupa	ancy Category III and the structure is loo	cated in a seismic map area where S <sub>DS</sub> is less				
702	than 0.33, c	ompliance with the seismic requirement	ts of this code and ASCE 7 are not required.				
703	3. Where d	esign occupant load increase is less than	25 occupants and the Occupancy Category				
704	does not ch	ange."					
705	<u>(67)</u>	In IBC, Section 3411.1, the exception	is deleted and replaced with the following:				
706	"Exception:	Type B dwelling or sleeping units requ	ired by section 1107 of this code are not				
707	required to	be provided in existing buildings and fa	cilities unless being altered or undergoing a				
708	change of o	ccupancy classification."					
709	<u>(68)</u>	The following referenced standard is a	dded under NFPA in IBC, Chapter 35:				
710			"Referenced in code				
711	Number	<u>Title</u>	Section number				
712	<u>720-09</u>	Standard for the Installation of	<u>907.9</u>				
713		Carbon Monoxide (CO) Detection and	<u>[</u>				
714		Warning Equipment"					
715	<u>(69)</u>	The following referenced standard is a	dded under UL in IBC, Chapter 35:				
716			"Referenced in code				
717	Number	<u>Title</u>	Section number				
718	2034-2008	Standard of Single- and	<u>907.9</u>				

719	Multiple-station Carbon Monoxide Alarms"
720	Section 202. Statewide Amendments to the IRC.
721	The following are adopted as amendments to the IRC to be applicable statewide:
722	(1) The statewide amendments to the following which may be applied to detached one
723	and two family dwellings and multiple single family dwellings shall be applicable to the
724	corresponding provisions of the IRC:
725	(a) IBC under State Construction Code, Section 201;
726	(b) IPC under State Construction Code, Section 203;
727	(c) IMC under State Construction Code, Section 204;
728	(d) IFGC under State Construction Code, Section 205;
729	(e) NEC under State Construction Code, Section 206; and
730	(f) IECC under State Construction Code, Section 207.
731	(2) In IRC, Section 109:
732	(a) A new IRC, Section 109.1.5, is added as follows: "R109.1.5 Weather-resistant
733	exterior wall envelope inspections. An inspection shall be made of the weather-resistant
734	exterior wall envelope as required by Section R703.1 and flashings as required by Section
735	R703.8 to prevent water from entering the weather-resistive barrier."
736	(b) The remaining sections are renumbered as follows: R109.1.6 Other inspections;
737	R109.1.6.1 Fire-and smoke-resistance-rated construction inspection; R109.1.6.2 Reinforced
738	masonry, insulating concrete form (ICF) and conventionally formed concrete wall inspection;
739	and R109.1.7 Final inspection.
740	(3) IRC, Section R114.1, is deleted and replaced with the following: "R114.1 Notice to
741	owner. Upon notice from the building official that work on any building or structured is being
742	prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an
743	unsafe and dangerous manner, such work shall be immediately stopped. The stop work order
744	shall be in writing and shall be given to the owner of the property involved, or to the owner's
745	agent or to the person doing the work; and shall state the conditions under which work will be
746	permitted to resume."
747	(4) In IRC, Section R202, the following definition is added: "CERTIFIED
748	BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to
749	test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction

750 under Utah Code, Subsection 19-4-104(4)."

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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)

766 STATE OF UTAH - REGIONAL SNOW LOAD FACTORS  $\underline{\mathbf{P}}_{\mathrm{o}}$ <u>S</u> 767 COUNTY  $\underline{\mathbf{A}}_{\mathbf{o}}$ 768 **Beaver** <u>43</u> <u>63</u> <u>6.2</u> 769 Box Elder <u>43</u> <u>63</u> <u>5.2</u> 770 Cache <u>50</u> <u>63</u> 4.5 771 Carbon <u>43</u> <u>63</u> <u>5.2</u> 772 6.5 Daggett <u>43</u> <u>63</u> 773 **Davis** <u>43</u> <u>63</u> <u>4.5</u> 774 Duchesne <u>43</u> <u>63</u> <u>6.5</u> 775 Emery <u>43</u> <u>63</u> 6.0 776 Garfield <u>43</u> <u>63</u> <u>6.0</u> 777 Grand <u>36</u> <u>63</u> 6.5 778 <u>Iron</u> <u>43</u> <u>63</u> <u>5.8</u> 779 <u>43</u> <u>Juab</u> <u>63</u> <u>5.2</u> 780 36 <u>63</u> <u>5.7</u> Kane

781	<u>Millard</u>	<u>43</u>	<u>63</u>	<u>5.3</u>
782	<u>Morgan</u>	<u>57</u>	<u>63</u>	<u>4.5</u>
783	<u>Piute</u>	<u>43</u>	<u>63</u>	<u>6.2</u>
784	<u>Rich</u>	<u>57</u>	<u>63</u>	<u>4.1</u>
785	Salt Lake	<u>43</u>	<u>63</u>	<u>4.5</u>
786	San Juan	<u>43</u>	<u>63</u>	<u>6.5</u>
787	<u>Sanpete</u>	<u>43</u>	<u>63</u>	<u>5.2</u>
788	<u>Sevier</u>	<u>43</u>	<u>63</u>	<u>6.0</u>
789	<u>Summit</u>	<u>86</u>	<u>63</u>	<u>5.0</u>
790	<u>Tooele</u>	<u>43</u>	<u>63</u>	<u>4.5</u>
791	<u>Uintah</u>	<u>43</u>	<u>63</u>	<u>7.0</u>
792	<u>Utah</u>	<u>43</u>	<u>63</u>	<u>4.5</u>
793	<u>Wasatch</u>	<u>86</u>	<u>63</u>	<u>5.0</u>
794	<u>Washington</u>	<u>29</u>	<u>63</u>	<u>6.0</u>
795	<u>Wayne</u>	<u>36</u>	<u>63</u>	<u>6.5</u>
796	<u>Weber</u>	<u>43</u>	<u>63</u>	<u>4.5</u>
797		TABLE N	O. R301.2(5b)	
798	RECOMMENDED SNO	W LOADS FOR	SELECTED UTAH	H CITIES AND TOWNS(2)
799			Roof Snow	Ground Snow
800			Load (PSF)	Load (PSF)
801	Beaver County			
802	<u>Beaver</u>	<u>5920 ft</u>	<u>43</u>	<u>62</u>
803	Box Elder County			
804	Brigham City	4300 ft.	<u>30</u>	<u>43</u>
805	<u>Tremonton</u>	4290 ft.	<u>30</u>	<u>43</u>
806	Cache County			
807	<u>Logan</u>	4530 ft.	<u>35</u>	<u>50</u>
808	<u>Smithfield</u>	4595 ft.	<u>35</u>	<u>50</u>
809	Carbon County			
810	<u>Price</u>	<u>5550 ft.</u>	<u>30</u>	<u>43</u>
811	Daggett County			

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812	Manila	5377 ft.	<u>30</u>	<u>43</u>
813	Davis County		<del></del>	_
814	Bountiful	4300 ft.	<u>30</u>	<u>43</u>
815	<u>Farmington</u>	4270 ft.	<u>30</u>	<u>43</u>
816	<u>Layton</u>	4400 ft.	<u>30</u>	<u>43</u>
817	Fruit Heights	4500 ft.	<u>40</u>	<u>57</u>
818	<u>Duchesne County</u>			
819	<u>Duchesne</u>	<u>5510 ft.</u>	<u>30</u>	<u>43</u>
820	Roosevelt	<u>5104 ft.</u>	<u>30</u>	<u>43</u>
821	Emery County			
822	<u>Castledale</u>	<u>5660 ft.</u>	<u>30</u>	<u>43</u>
823	Green River	4070 ft.	<u>25</u>	<u>36</u>
824	Garfield County			
825	<u>Panguitch</u>	<u>6600 ft.</u>	<u>30</u>	<u>43</u>
826	Grand County			
827	<u>Moab</u>	3965 ft.	<u>25</u>	<u>36</u>
828	<u>Iron County</u>			
829	Cedar City	<u>5831 ft.</u>	<u>30</u>	<u>43</u>
830	Juab County			
831	<u>Nephi</u>	<u>5130 ft.</u>	<u>30</u>	<u>43</u>
832	Kane County			
833	<u>Kanab</u>	<u>5000 ft.</u>	<u>25</u>	<u>36</u>
834	Millard County			
835	<u>Millard</u>	<u>5000 ft.</u>	<u>30</u>	<u>43</u>
836	<u>Delta</u>	4623 ft.	<u>30</u>	<u>43</u>
837	Morgan County			
838	<u>Morgan</u>	5064 ft.	<u>40</u>	<u>57</u>
839	Piute County			
840	<u>Piute</u>	<u>5996 ft.</u>	<u>30</u>	<u>43</u>
841	Rich County			
842	<u>Woodruff</u>	6315 ft.	<u>40</u>	<u>57</u>

843	Salt Lake County			
844	<u>Murray</u>	4325 ft.	<u>30</u>	<u>43</u>
845	Salt Lake City	4300 ft.	<u>30</u>	<u>43</u>
846	<u>Sandy</u>	4500 ft.	<u>30</u>	<u>43</u>
847	West Jordan	4375 ft.	<u>30</u>	<u>43</u>
848	West Valley	4250 ft.	<u>30</u>	<u>43</u>
849	San Juan County			
850	<u>Blanding</u>	6200 ft.	<u>30</u>	<u>43</u>
851	<u>Monticello</u>	6820 ft.	<u>35</u>	<u>50</u>
852	Sanpete County			
853	<u>Fairview</u>	6750 ft.	<u>35</u>	<u>50</u>
854	Mt. Pleasant	<u>5900 ft.</u>	<u>30</u>	<u>43</u>
855	<u>Manti</u>	<u>5740 ft.</u>	<u>30</u>	<u>43</u>
856	<u>Ephraim</u>	<u>5540 ft.</u>	<u>30</u>	<u>43</u>
857	<u>Gunnison</u>	<u>5145 ft.</u>	<u>30</u>	<u>43</u>
858	Sevier County			
859	<u>Salina</u>	<u>5130 ft.</u>	<u>30</u>	<u>43</u>
860	Richfield	<u>5270 ft.</u>	<u>30</u>	<u>43</u>
861	<b>Summit County</b>			
862	<u>Coalville</u>	<u>5600 ft.</u>	<u>60</u>	<u>86</u>
863	<u>Kamas</u>	<u>6500 ft.</u>	<u>70</u>	<u>100</u>
864	Park City	<u>6800 ft.</u>	<u>100</u>	<u>142</u>
865	Park City	8400 ft.	<u>162</u>	<u>231</u>
866	Summit Park	<u>7200 ft.</u>	<u>90</u>	<u>128</u>
867	Tooele County			
868	<u>Tooele</u>	<u>5100 ft.</u>	<u>30</u>	<u>43</u>
869	<u>Uintah County</u>			
870	<u>Vernal</u>	<u>5280 ft.</u>	<u>30</u>	<u>43</u>
871	<u>Utah County</u>			
872	American Fork	<u>4500 ft.</u>	<u>30</u>	<u>43</u>
873	<u>Orem</u>	<u>4650 ft.</u>	<u>30</u>	<u>43</u>

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874	Pleasant Grove	5000 ft.	<u>30</u>	<u>43</u>
875	<u>Provo</u>	5000 ft.	<u>30</u>	<u>43</u>
876	Spanish Fork	4720 ft.	<u>30</u>	<u>43</u>
877	Wasatch County			
878	<u>Heber</u>	5630 ft.	<u>60</u>	<u>86</u>
879	Washington County			
880	<u>Central</u>	5209 ft.	<u>25</u>	<u>36</u>
881	<u>Dameron</u>	4550 ft.	<u>25</u>	<u>36</u>
882	<u>Leeds</u>	3460 ft.	<u>20</u>	<u>29</u>
883	<u>Rockville</u>	3700 ft.	<u>25</u>	<u>36</u>
884	Santa Clara	2850 ft.	<u>15 (1)</u>	<u>21</u>
885	St. George	2750 ft.	<u>15 (1)</u>	<u>21</u>
886	Wayne County			
887	<u>Loa</u>	7080 ft.	<u>30</u>	<u>43</u>
888	<u>Hanksville</u>	4308 ft.	<u>25</u>	<u>36</u>
889	Weber County			
890	North Ogden	4500 ft.	<u>40</u>	<u>57</u>
891	<u>Ogden</u>	4350 ft.	<u>30</u>	<u>43</u>
802	NOTES			

- 892 <u>NOTES</u>
- 893 (1) The IRC requires a minimum live load See R301.6.
- 894 (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."
- 896 (8) IRC, Section R301.6, is deleted and replaced with the following: "R301.6 Utah
- 897 Snow Loads. The ground snow load, P<sub>g</sub>, to be used in the determination of design snow loads
- for buildings and other structures shall be determined by using the following formula:  $P_g = (P_o^2)$
- 899  $+ S^2(A-A_0)^2$  for A greater than  $A_0$ , and  $P_0 = P_0$  for A less than or equal to  $A_0$ .
- 900 WHERE:
- 901  $\underline{P}_g$  = Ground snow load at a given elevation (psf);
- 902  $\underline{P}_0 = \text{Base ground snow load (psf) from Table No. R301.2(5a);}$
- 903 S = Change in ground snow load with elevation (psf/100 ft.) From Table No. R301.2(5a);
- 904 A = Elevation above sea level at the site (ft./1000);

905	$\underline{A}_{o}$ = Base ground snow elevation from Table R301.2(5a) (ft./1000).
906	The building official may round the roof snow load to the nearest 5 psf. The ground snow load,
907	$\underline{P}_{g}$ , may be adjusted by the building official when a licensed engineer or architect submits data
908	substantiating the adjustments. A record of such action together with the substantiating data
909	shall be provided to the division for a permanent record.
910	The building official may also directly adopt roof snow loads in accordance with Table
911	R301.2(5b), provided the site is no more than 100 ft. higher than the listed elevation.
912	Where the minimum roof live load in accordance with Table R301.6 is greater than the design
913	roof snow load, such roof live load shall be used for design, however, it shall not be reduced to
914	a load lower than the design roof snow load. Drifting need not be considered for roof snow
915	loads less than 20 psf."
916	(9) In IRC, Section R302.2, the words "Exception: A" are deleted and replaced with the
917	following: "Exceptions: 1. A common 2-hour fire-resistance-rated wall is permitted for
918	townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in
919	the cavity of the common wall. Electrical installation shall be installed in accordance with
920	Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with
921	Section R302.4.
922	2. In buildings equipped with an automatic residential fire sprinkler system, a".
923	(10) In IRC, Section R302.2.4, a new exception 6 is added as follows: "6. Townhouses
924	separated by a common 2-hour fire-resistance-rated wall as provided in Section R302.2."
925	(11) IRC, Sections R311.7.4 through R311.7.4.3, are deleted and replaced with the
926	following: "R311.7.4 Stair treads and risers. R311.7.4.1 Riser height. The maximum riser
927	height shall be 8 inches (203 mm). The riser shall be measured vertically between leading
928	edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed
929	the smallest by more than 3/8 inch (9.5 mm).
930	R311.7.4.2 Tread depth. The minimum tread depth shall be 9 inches (228 mm). The tread
931	depth shall be measured horizontally between the vertical planes of the foremost projection of
932	adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within
933	any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). Winder treads
934	shall have a minimum tread depth of 10 inches (254 mm) measured as above at a point 12
935	inches (305 mm) from the side where the treads are narrower. Winder treads shall have a

936	minimum tread depth of 6 inches (152 mm) at any point. Within any flight of stairs, the
937	greatest winder tread depth at the 12 inch (305 mm) walk line shall not exceed the smallest by
938	more than 3/8 inch (9.5 mm).
939	R311.7.4.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater
940	than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4
941	inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection
942	shall not exceed the smallest nosing projection by more than 3/8 inches (9.5 mm) between two
943	stories, including the nosing at the level of floors and landings. Beveling of nosing shall not
944	exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading
945	edge of the tread above at an angle not more than 30 degrees (0.51 rad) from the vertical. Open
946	risers are permitted, provided that the opening between treads does not permit the passage of a
947	4-inch diameter (102 mm) sphere.
948	Exceptions.
949	1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).
950	2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches
951	(762 mm) or less."
952	(12) In Section R312.2, the words "adjacent fixed seating" are deleted.
953	(13) IRC, Section R313, is deleted.
954	(14) IRC, Section R315.1, is deleted and replaced with the following: "R315.1 Carbon
955	monoxide alarms. For new construction, a listed carbon monoxide alarm shall be installed on
956	each habitable level of dwelling units within which fuel-fired appliances are installed and in
957	dwelling units that have attached garages."
958	(15) IRC, Section R315.3, is deleted and replaced with the following: "R315.3 Alarm
959	requirements. Listed single- and multiple-station carbon monoxide alarms shall comply with
960	U.L. 2034 and shall be installed in accordance with the provision of this code and NFPA 720."
961	(16) In IRC, Section R403.1.6, a new Exception 4 is added as follows: "4. When
962	anchor bolt spacing does not exceed 32 inches (813 mm) apart, anchor bolts may be placed
963	with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from
964	each end of each plate section at interior bearing walls, interior braced wall lines and at all
965	exterior walls."
966	(17) In IRC, Section R403.1.6.1, a new exception is added at the end of Item 2 and

967	Item 3 as follows: "Exception: When anchor bolt spacing does not exceed 32 inches (816 mm)
968	apart, anchor bolts may be placed with a minimum of two bolts per plate section located not
969	less than 4 inches (102 mm) from each end of each plate section at interior bearing walls,
970	interior braced wall lines and at all exterior walls."
971	(18) In IRC, Section R404.1, a new exception is added as follows: "Exception: As an
972	alternative to complying with Sections R404.1 through R404.1.5.3, concrete and masonry
973	foundation walls may be designed in accordance with IBC Sections 1807.1.5 and 1807.1.6 as
974	amended in Section 1807.1.6.4 and Table 1807.1.6.4 under these rules."
975	(19) IRC, Sections R612.2 through R612.4.2, are deleted.
976	(20) IRC, Chapter 11, is deleted and replaced with Chapter 11 of the 2006 International
977	Residential Code and Chapter 4 of the 2006 International Energy Conservation Code.
978	(21) IRC, Section M1411.6, is deleted.
979	(22) In IRC, Section M1502.4.4.1, the words "25 feet (7620 mm)" are deleted and
980	replaced with "35 feet (10668 mm)".
981	(23) A new IRC, Section G2401.2, is added as follows: "G2401.2 Meter Protection.
982	Fuel gas services shall be in an approved location and/or provided with structures designed to
983	protect the fuel gas meter and surrounding piping from physical damage, including falling,
984	moving, or migrating ice and snow. If an added structure is used, it must provide access for
985	service and comply with the IBC or the IRC."
986	(24) A new IRC, Section P2602.3, is added as follows: "P2602.3 Individual water
987	supply. Where a potable public water supply is not available, individual sources of potable
988	water supply shall be utilized provided that the source has been developed in accordance with
989	Utah Code, Sections 73-3-1 and 73-3-25, as administered by the Department of Natural
990	Resources, Division of Water Rights. In addition, the quality of the water shall be approved by
991	the local health department having jurisdiction."
992	(25) A new IRC, Section P2602.4, is added as follows: "P2602.4 Sewer required.
993	Every building in which plumbing fixtures are installed and all premises having drainage
994	piping shall be connected to a public sewer where the sewer is within 300 feet of the property
995	line in accordance with Utah Code, Section 10-8-38; or an approved private sewage disposal
996	system in accordance with Utah Administrative Code, Chapter 4, Rule R317, as administered
997	by the Department of Environmental Quality Division of Water Quality "

998	(26) In IRC, Section P2801.7, the word "townhouses" is deleted.			
999	(27) A new IRC, Section P2902.1.1, is added as follows: "P2902.1.1 Backflow			
1000	assembly testing. The premise owner or his designee shall have backflow prevention			
1001	assemblies operation tested	at the time of installation	on, repair, and relocation	ation and at least on an
1002	annual basis thereafter, or m	ore frequently as requi	red by the authority	having jurisdiction.
1003	Testing shall be performed by	y a Certified Backflow	Preventer Assembl	y Tester. The assemblies
1004	that are subject to this parag	raph are the Spill Resis	stant Vacuum Break	er, the Pressure Vacuum
1005	Breaker Assembly, the Doub	ole Check Backflow Pr	evention Assembly,	the Double Check
1006	Detector Assembly Backflow	w Preventer, the Reduc	ed Pressure Principl	e Backflow Preventer,
1007	and Reduced Pressure Detec	etor Assembly."		
1008	(28) IRC, Table P29	02.3 is deleted and rep	laced with the follo	wing:
1009		"TABLE	P2902.3	
1010		General Method	ds of Protection	
1011	<u>Assembly</u>	<u>Degree</u>	<u>Application</u>	Installation Criteria
1012	(applicable	<u>of</u>		
1013	standard)	<u>Hazard</u>		
1014	Reduced	<u>High or</u>	Backpressure or	a. The bottom of each
1015	<u>Pressure</u>	Low	Backsiphonage	RP assembly shall
1016	Principle Backflow		<u>1/2" - 16"</u>	be a minimum of 12
1017	Preventer (AWWA			inches above the
1018	C511, USC-FCCCHR,			ground or floor.
1019	<u>ASSE 1013</u>			b. RP assemblies shall
1020	CSA CNA/CSA-B64.4)			NOT be installed in
1021	and Reduced Pressure			a pit.
1022	<u>Detector Assembly</u>			c. The relief valve on
1023	(ASSE 1047, USC-			each RP assembly
1024	FCCCHR)			shall not be
1025				directly connected
1026				to any waste
1027				disposal line,
1028				including sanitary

1029				sewer, storm drains,
1030				or vents.
1031				d. The assembly shall
1032				be installed in a
1033				horizontal position
1034				only unless listed
1035				or approved for
1036				vertical installation.
1037	Double Check	Low	Backpressure or	a. If installed in a
1038	Backflow		<b>Backsiphonage</b>	pit, the DC assembly
1039	<u>Prevention</u>		<u>1/2" - 16"</u>	shall be installed
1040	<u>Assembly</u>			with a minimum of
1041	(AWWA C510,			12 inches of
1042	USC-FCCCHR.			clearance between
1043	ASSE 1015)			all sides of the
1044	Double Check			vault including
1045	Detector Assembly			the floor and roof
1046	Backflow Preventer			or ceiling with
1047	(ASSE 1048,			adequate room for
1048	<u>USC-FCCCHR</u> )			testing and
1049				maintenance.
1050				b. Shall be installed
1051				in a horizontal
1052				position unless
1053				listed or approved
1054				for vertical
1055				installation.
1056	<u>Pressure</u>	High or	<b>Backsiphonage</b>	a. Shall not be
1057	<u>Vacuum</u>	<u>Low</u>	<u>1/2" - 2"</u>	installed in an
1058	<u>Breaker</u>			area that could be
1059	<u>Assembly</u>			subjected to

1060	(ASSE 1020,			backpressure or
1061	<u>USC-FCCCHR)</u>			back drainage
1062				conditions.
1063				b. Shall be installed
1064				a minimum of 12
1065				inches above all
1066				downstream piping
1067				and the highest
1068				point of use.
1069				c. Shall not be
1070				installed below
1071				ground or in a
1072				vault or pit.
1073				d. Shall be installed
1074				in a vertical position
1075				only.
10/3				omy.
1075	<u>Spill</u>	<u>High or</u>	<u>Backsiphonage</u>	a. Shall not be
	Spill Resistant	<u>High or</u> <u>Low</u>	Backsiphonage 1/4" - 2"	-
1076	-	•	1	a. Shall not be
1076 1077	Resistant	•	1	a. Shall not be installed in an
1076 1077 1078	Resistant Vacuum	•	1	a. Shall not be installed in an area that could
1076 1077 1078 1079	Resistant Vacuum Breaker	•	1	a. Shall not be installed in an area that could be subjected to
1076 1077 1078 1079 1080	Resistant Vacuum Breaker (ASSE 1056,	•	1	a. Shall not be installed in an area that could be subjected to backpressure or
1076 1077 1078 1079 1080 1081	Resistant Vacuum Breaker (ASSE 1056,	•	1	a. Shall not be installed in an area that could be subjected to backpressure or back drainage
1076 1077 1078 1079 1080 1081 1082	Resistant Vacuum Breaker (ASSE 1056,	•	1	a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions.
1076 1077 1078 1079 1080 1081 1082 1083	Resistant Vacuum Breaker (ASSE 1056,	•	1	a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions. b. Shall be installed
1076 1077 1078 1079 1080 1081 1082 1083 1084	Resistant Vacuum Breaker (ASSE 1056,	•	1	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
1076 1077 1078 1079 1080 1081 1082 1083 1084 1085	Resistant Vacuum Breaker (ASSE 1056,	•	1	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
1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086	Resistant Vacuum Breaker (ASSE 1056,	•	1	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
1076 1077 1078 1079 1080 1081 1082 1083 1084 1085 1086 1087	Resistant Vacuum Breaker (ASSE 1056,	•	1	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

1091		ground or in a
1092		vault or pit.
1093		d. Shall be installed
1094		in a vertical position
1095		only.
1096	General	The assembly owner,
1097	Installation	when necessary,
1098	<u>Criteria</u>	shall provide devices
1099		or structures to
1100		facilitate testing,
1101		repair, and/or
1102		maintenance and
1103		to ensure the safety of
1104		the backflow
1105		technician.
1106		Assemblies shall not
1107		be installed more than
1108		five feet off the floor
1109		unless a permanent
1110		platform is installed.
1111		The body of the
1112		assembly shall not be
1113		closer than 12 inches
1114		to any wall, ceiling or
1115		encumbrance, and
1116		shall be accessible for
1117		testing, repair and/or
1118		maintenance.
1119		In cold climates,
1120		assemblies shall be
1121		protected from

1122				freezing by a means
1123				acceptable to the code
1124				official.
1125				Assemblies shall be
1126				maintained as an intact
1127				assembly."
1128	(29) IRC, Table 290	2.3a, is added a	as follows:	
1129		117	ГАВLE 2902.3a	
1130	<u>Spe</u>	cialty Backflow	v Devices for low hazard us	se only
1131	<u>Device</u>	Degree of	<u>Application</u>	<u>Applicable</u>
1132		<u>Hazard</u>		<u>Standard</u>
1133	Air Gap	High or	<b>Backsiphonage</b>	See Table P2902.3.1
1134		Low		<u>ASME A112.1.2</u>
1135	Antisiphon-type	Low	<b>Backsiphonage</b>	ASSE 1002
1136	Water Closet Flush			CSA CAN/
1137	Tank Ball Cock			<u>CSA-B125</u>
1138	<u>Atmospheric</u>	High or	<b>Backsiphonage</b>	<u>ASSE 1001</u>
1139	<u>Vacuum</u>	Low	a. Shall not be	<u>USC-FCCCHR</u> ,
1140	<u>Breaker</u>		installed in an	<u>CSA</u>
1141			area that could be	<u>CAN/CSA-B64.1.1</u>
1142			subjected to	
1143			backpressure or back	
1144			drainage conditions.	
1145			b. Shall not be installed	
1146			where it may be subjected	<u>l</u>
1147			to continuous pressure	
1148			for more than 12 consecu-	<u>tive</u>
1149			hours at any time.	
1150			c. Shall be installed a	
1151			minimum of six inches ab	<u>oove</u>
1152			all downstream piping and	<u>d</u>

1153			the highest point of use.	
1154			d. Shall be installed on the	<u>2</u>
1155			discharge (downstream) si	<u>ide</u>
1156			of any valves.	
1157			e. The AVB shall be insta	<u>lled</u>
1158			in a vertical position only.	<u>.</u>
1159	Dual check valve	Low	<b>Backsiphonage</b>	ASSE 1024
1160	Backflow Preventer		or Backpressure	
1161			<u>1/4" - 1"</u>	
1162	Backflow Preventer	Low	<b>Backsiphonage</b>	<u>ASSE 1012</u>
1163	with Intermediate	Residential	or Backpressure	CSA CAN/
1164	Atmospheric Vent	<u>Boiler</u>	1/4" - 3/4"	<u>CSA-B64.3</u>
1165	<u>Dual check valve</u>	Low	<u>Backsiphonage</u>	ASSE 1022
1166	type Backflow		or Backpressure	
1167	<u>Preventer for</u>		<u>1/4" - 3/8"</u>	
1168	Carbonated Beverage			
1169	Dispensers/Post			
1170	Mix Type			
1171	<u>Hose-connection</u>	Low	<u>Backsiphonage</u>	<u>ASSE 1011</u>
1172	Vacuum Breaker		<u>1/2", 3/4", 1"</u>	CSA CAN/
1173				<u>CSA-B64.2</u>
1174	Vacuum Breaker	Low	<u>Backsiphonage</u>	ASSE 1019
1175	Wall Hydrants,		<u>3/4", 1"</u>	CSA CAN/
1176	Frost-resistant,			CSA-B64.2.2
1177	Automatic Draining			
1178	<u>Type</u>			
1179	<b>Laboratory Faucet</b>	Low	<u>Backsiphonage</u>	ASSE 1035
1180	Backflow Preventer			CSA CAN/
1181				CSA-B64.7
1182	Hose Connection	Low	<u>Backsiphonage</u>	ASSE 1052
1183	Backflow Preventer		<u>1/2" - 1"</u>	

1101	T . 11 . 1 . C . 1 . 1				
1184	<u>Installation Guidelines: The above specialty devices shall be installed in accordance with their</u>				
1185	listing and the manufacturer's instructions and the specific provisions of this chapter."				
1186	(30) In IRC, Section	P3103.6, the following sentence is added	at the end of the		
1187	paragraph: "Vents extending	through the wall shall terminate not less t	han 12 inches from the		
1188	wall with an elbow pointing	downward."			
1189	(31) In IRC, Section	P3104.4, the following sentence is added	at the end of the		
1190	paragraph: "Horizontal dry v	ents below the flood level rim shall be per	mitted for floor drain		
1191	and floor sink installations w	hen installed below grade in accordance v	vith Chapter 30, and		
1192	Sections P3104.2 and P3104	.3. A wall cleanout shall be provided in th	e vertical vent."		
1193	(32) In IRC, Section	E3902.11, the following words are deleted	d: "family rooms, dining		
1194	rooms, living rooms, parlors	libraries, dens, sunrooms, recreations roo	ms, closets, hallways,		
1195	and similar rooms or areas".				
1196	(33) IRC, Chapter 44	4, is amended by adding the following refe	rence standard:		
1197	"Standard				
1198	<u>reference</u>		Referenced in code		
1199	<u>number</u>	<u>Title</u>	Section number		
1200	<u>USC-</u>	Foundation for Cross-Connection	<u>Table P2902.3</u>		
1201	<u>FCCCHR</u>	Control and Hydraulic Research			
1202	<u>9th</u>	University of Southern California			
1203	<b>Edition</b>	Kaprielian Hall 300			
1204	<u>Manual</u>	Los Angeles CA 90089-2531			
1205	of Cross				
1206	Connection				
1207	Control"				
1208	(34) In IRC, Chapter	44, the following standard is added under	NFPA as follows:		
1209	<u>Standard</u>				
1210	<u>reference</u>		Referenced in code		
1211	number	<u>Title</u>	section number		
1212	<u>720-09</u>	Standard for the Installation	<u>R315.3</u>		
1213		of Carbon Monoxide (CO) Detection			
1214		and Warning Equipment"			

1215	(35) IRC, Appendix O, Gray Water Recycling Systems, is deleted and replaced with
1216	Appendix C of the International Plumbing Code as amended by the state construction code.
1217	Section 203. Statewide Amendments to the IPC.
1218	The following are adopted as amendments to the IPC to be applicable statewide:
1219	(1) A new IPC, Section 101.2, is added as follows: "For clarification, the International
1220	Private Sewage Disposal Code is not part of the plumbing code even though it is in the same
1221	printed volume."
1222	(2) In IPC, Section 202, the definition for "Backflow Backpressure, Low Head" is
1223	<u>deleted.</u>
1224	(3) In IPC, Section 202, the following definition is added: "Certified Backflow
1225	Preventer Assembly Tester. A person who has shown competence to test Backflow prevention
1226	assemblies to the satisfaction of the authority having jurisdiction under Utah Code, Subsection
1227	<u>19-4-104(4)."</u>
1228	(4) In IPC, Section 202, the definition for "Cross Connection" is deleted and replaced
1229	with the following: "Cross Connection. Any physical connection or potential connection or
1230	arrangement between two otherwise separate piping systems, one of which contains potable
1231	water and the other either water of unknown or questionable safety or steam, gas, or chemical,
1232	whereby there exists the possibility for flow from one system to the other, with the direction of
1233	flow depending on the pressure differential between the two systems (see "Backflow")."
1234	(5) In IPC, Section 202, the definition for "Potable Water" is deleted and replaced with
1235	the following: "Potable Water. Water free from impurities present in amounts sufficient to
1236	cause disease or harmful physiological effects and conforming to the Utah Code, Title 19,
1237	Chapters 4 and 5, and the regulations of the public health authority having jurisdiction."
1238	(6) In IPC, Table 303.4, the item listed as "Backflow prevention devises" is modified
1239	as follows:
1240	(a) in the Third-Party Certified field, after the word "Required" add "See footnote 1";
1241	(b) in the Third-Party Tested field the following is added: "Required see footnote 1";
1242	<u>and</u>
1243	(c) a new footnote 1 is added as follows: "1. Third party certification will consist of
1244	any combination of two certifications, laboratory or field. Acceptable third party laboratory
1245	certifying agencies are ASSE, IAPMO, and USC-FCCCHR. USC-FCCCHR currently provides

1246	the only field testing of backflow protection assemblies. Also see www.drinkingwater.utah.gov
1247	and Division of Drinking Water Rule R309-305-6."
	-
1248	(7) IPC, Section 304.3, Meter Boxes, is deleted.
1249	(8) IPC, Section 311.1, is deleted.
1250	(9) IPC, Sections 312.10 through 312.10.2, are deleted and replaced with the
1251	following: "312.10 Backflow assembly testing. The premise owner or his designee shall have
1252	backflow prevention assemblies operation tested at the time of installation, repair, and
1253	relocation and at least on an annual basis thereafter, or more frequently as required by the
1254	authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer
1255	Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant
1256	Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow
1257	Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced
1258	Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly."
1259	(10) In IPC, Section 403.1, a new footnote g is added as follows: "FOOTNOTE: g.
1260	When provided, in public toilet facilities there shall be an equal number of diaper changing
1261	facilities in male toilet rooms and female toilet rooms."
1262	(11) A new IPC, Section 406.4, is added as follows: "406.4 Automatic clothes washer
1263	safe pans. Safe pans, when installed under automatic clothes washers, shall be installed in
1264	accordance with Section 504.7."
1265	(12) A new IPC, Section 412.5, is added as follows: "412.5 Public toilet rooms. All
1266	public toilet rooms shall be equipped with at least one floor drain."
1267	(13) In IPC, Section 504.7.2, the following is added at the end of the section: "When
1268	permitted by the code official, the pan drain may be directly connected to a soil stack, waste
1269	stack, or branch drain. The pan drain shall be individually trapped and vented as required in
1270	Section 907.1. The pan drain shall not be directly or indirectly connected to any vent. The trap
1271	shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044."
1272	(14) A new IPC, Section 504.7.3, is added as follows: "504.7.3 Pan Designation. A
1273	water heater pan shall be considered an emergency receptor designated to receive the discharge
1274	of water from the water heater only and shall not receive the discharge from any other fixtures.
1275	devises or equipment."
1276	(15) IPC, Section 602.3, is deleted and replaced with the following: "602.3 Individual

1277	water supply. Where	a potable public water	supply is not available	, individual sources of	
1278	potable water supply shall be utilized provided that the source has been developed in				
1279	accordance with Utah	Code, Sections 73-3-	1, 73-3-3, and 73-3-25	, as administered by the	
1280	Department of Natura	al Resources, Division	of Water Rights. In ad	dition, the quality of the	
1281	water shall be approv	ed by the local health o	<u>department having juri</u>	sdiction. The source shall	
1282	supply sufficient quar	ntity of water to compl	y with the requirement	s of this chapter."	
1283	(16) IPC, Sec	etions 602.3.1, 602.3.2,	602.3.3, 602.3.4, 602	3.5, and 602.3.5.1, are	
1284	<u>deleted.</u>				
1285	(17) A new II	PC, Section 604.4.1, is	added as follows: "60	4.4.1 Manually operated	
1286	metering faucets. Self	f closing or manually o	perated metering fauce	ets shall provide a flow of	
1287	water for at least 15 s	econds without the nee	ed to reactivate the fau	cet."	
1288	(18) IPC, Sec	etion 606.5, is deleted a	and replaced with the f	ollowing: "606.5 Water	
1289	pressure booster syste	ems. Water pressure bo	oster systems shall be	provided as required by	
1290	Section 606.5.1 through 606.5.11."				
1291	(19) A new II	PC, Section 606.5.11, i	s added as follows: "6	06.5.11 Prohibited	
1292	installation. In no case shall a booster pump be allowed that will lower the pressure in the				
1293	public main to less than 20 psi."				
1294	(20) IPC, Table 608.1, is deleted and replaced with the following:				
1295		<u>"</u>	TABLE 608.1		
1296		General	Methods of Protection		
1297	<u>Assembly</u>	<u>Degree</u>	<u>Application</u>	Installation Criteria	
1298	(applicable	<u>of</u>			
1299	standard)	<u>Hazard</u>			
1300	Reduced	<u>High or</u>	Backpressure or	a. The bottom of each	
1301	<u>Pressure</u>	Low	<b>Backsiphonage</b>	RP assembly shall	
1302	Principle Backflow		<u>1/2" - 16"</u>	be a minimum of 12	
1303	Preventer (AWWA			inches above the	
1304	C511, USC-FCCCHR, ground or floor.				
1305	<u>ASSE 1013</u>			b. RP assemblies shall	
1306	CSA CNA/CSA-B64	<u>.4)</u>		NOT be installed in	
1307	and Reduced Pressure	2		a pit.	

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1308	Detector Assembly			c. The relief valve on
1309	(ASSE 1047, USC-			each RP assembly
1310	<u>FCCCHR)</u>			shall not be directly
1311				connected to any waste
1312				disposal line, including
1313				sanitary sewer, storm rains,
1314				or vents.
1315				d. The assembly shall be
1316				installed in a horizontal
1317				position only unless listed
1318				or approved for vertical
1319				installation.
1320	<u>Double Check</u> <u>Low</u>		Backpressure or	a. If installed in a pit,
1321	<b>Backflow</b>		<u>Backsiphonage</u>	the DC assembly
1322	<u>Prevention</u>		<u>1/2" - 16"</u>	shall be installed
1323	<u>Assembly</u>			with a minimum of
1324	(AWWA C510,			12 inches of
1325	<u>USC-FCCCHR</u> ,			clearance between
1326	ASSE 1015)			all sides of the
1327	Double Check			vault including the
1328	Detector Assembly			floor and roof or
1329	Backflow Preventer			ceiling with adequate
1330	(ASSE 1048,			room for testing and
1331	USC-FCCCHR)			maintenance.
1332				b. Shall be installed in a
1333				horizontal position unless
1334				listed or approved for
1335				vertical installation.
1336	<u>Pressure</u>	High or	<u>Backsiphonage</u>	a. Shall not be installed
1337	<u>Vacuum</u>	Low	<u>1/2" - 2"</u>	in an area that could be
1338	<u>Breaker</u>			subjected to

1339	<u>Assembly</u>			backpressure or
1340	(ASSE 1020,			back drainage
1341	USC-FCCCHR)			conditions.
1342				b. Shall be installed a
1343				minimum of 12 inches
1344				above all downstream
1345				piping and the highest point
1346				of use.
1347				c. Shall not be installed
1348				below ground or in a vault
1349				or pit.
1350				d. Shall be installed in a
1351				vertical position only.
1352	<u>Spill</u>	High or	<b>Backsiphonage</b>	a. Shall not be
1353	Resistant	<u>Low</u>	<u>1/4" - 2"</u>	installed in an
1354	<u>Vacuum</u>			area that could
1355	<u>Breaker</u>			be subjected to
1356	(ASSE 1056,			backpressure or
1357	<u>USC-FCCCHR</u> )			back drainage
1358				conditions.
1359				b. Shall be installed a
1360				minimum of 12 inches
1361				above all downstream
1362				piping and the highest point
1363				of use.
1364				c. Shall not be installed
1365				below ground or in a vault
1366				or pit.
1367				d. Shall be installed in a
1368				vertical position only.
1369	General			The assembly owner,

1370	<u>Installation</u>			when necessary, shall
1371	<u>Criteria</u>			provide devices or
1372				structures to facilitate
1373				testing, repair, and/or
1374				maintenance and to ensure
1375				the safety of the backflow
1376				technician.
1377				Assemblies shall not be
1378				installed more than five feet
1379				off the floor unless a
1380				permanent platform is
1381				installed.
1382				The body of the assembly
1383				shall not be closer than 12
1384				inches, to any wall, ceiling
1385				or encumbrance, and shall
1386				be accessible for testing,
1387				repair and/or maintenance.
1388				In cold climates, assemblies
1389				shall be protected from
1390				freezing by a means
1391				acceptable to the code
1392				official.
1393				Assemblies shall be
1394				maintained as an intact
1395				assembly."
1396	(21) IPC, T	able 608.1.1 is added as	s follows:	
1397		<u>"</u>	TABLE 608.1.1	
1398		Specialty Backflow	w Devices for low ha	zard use only
1399	<u>Device</u>	Degree of	<b>Application</b>	<u>Applicable</u>
1400		<u>Hazard</u>		<u>Standard</u>

1401	Air Gap	High or	<u>Backsiphonage</u>	See Table 608.15.1
1402		Low		ASME A112.1.2
1403	Antisiphon-type	Low	<u>Backsiphonage</u>	ASSE 1002
1404	Water Closet Flush			CSA CAN/
1405	Tank Ball Cock			<u>CSA-B125</u>
1406	<u>Atmospheric</u>	High or	Backsiphonage	ASSE 1001
1407	<u>Vacuum</u>	Low	a. Shall not be	<u>USC-FCCCHR</u> ,
1408	<u>Breaker</u>		installed in an	<u>CSA</u>
1409			area that could be	CAN/CSA-B64.1.1
1410			subjected to	
1411			backpressure or back	
1412			drainage conditions.	
1413			b. Shall not be installed	
1414			where it may be subjected	
1415			to continuous pressure	
1416			for more than 12 consecutive	<u>)</u>
1417			hours at any time.	
1418			c. Shall be installed a	
1419			minimum of six inches	
1420			above all downstream piping	
1421			and the highest point of use.	
1422			d. Shall be installed on the	
1423			discharge (downstream) side	
1424			of any valves.	
1425			e. The AVB shall be installed	<u>1</u>
1426			in a vertical position only.	
1427	Dual check valve	<u>Low</u>	<u>Backsiphonage</u>	ASSE 1024
1428	Backflow Preventer		or Backpressure	
1429			<u>1/4" - 1"</u>	
1430	Backflow Preventer	<u>Low</u>	<u>Backsiphonage</u>	<u>ASSE 1012</u>
1431	with Intermediate	Residential	or Backpressure	CSA CAN/

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1432	Atmospheric Vent	<u>Boiler</u>	1/4" - 3/4"	CSA-B64.3
1433	Dual check valve	<u>Low</u>	Backsiphonage	ASSE 1022
1434	type Backflow		or Backpressure	
1435	Preventer for		<u>1/4" - 3/8"</u>	
1436	Carbonated Beverage			
1437	Dispensers/Post			
1438	Mix Type			
1439	Hose-connection	Low	<u>Backsiphonage</u>	ASSE 1011
1440	Vacuum Breaker		1/2", 3/4", 1"	CSA CAN/
1441				CSA-B64.2
1442	Vacuum Breaker	Low	<u>Backsiphonage</u>	ASSE 1019
1443	Wall Hydrants,		<u>3/4", 1"</u>	CSA CAN/
1444	Frost-resistant,			CSA-B64.2.2
1445	Automatic Draining			
1446	<u>Type</u>			
1447	<b>Laboratory Faucet</b>	Low	<u>Backsiphonage</u>	ASSE 1035
1448	Backflow Preventer			CSA CAN/
1449				CSA-B64.7
1450	Hose Connection	Low	<u>Backsiphonage</u>	ASSE 1052
1451	Backflow Preventer		<u>1/2" - 1"</u>	
1452	Installation Guidelines: The	above specialty	devices shall be installed in a	accordance with their
1453	listing and the manufacturer	s instructions a	nd the specific provisions of the	his chapter."
1454	(22) In IPC, Section	608.6, the follo	owing sentence is added at the	end of the paragraph:
1455	"Any connection between po	otable water pip	ing and sewer-connected wast	te shall be protected
1456	by an air gap."			
1457	(23) IPC, Section 60	8.7, is deleted.		
1458	(24) In IPC, Section	608.11, the fol	lowing sentence is added at th	e end of the
1459	paragraph: "The coating and	installation sha	all conform to NSF Standard 6	1 and application of
1460	the coating shall comply wit	h the manufactu	urer's instructions."	
1461	(25) IPC, Section 60	8.13.3, is delete	ed and replaced with the follow	wing: "608.13.3
1462	Backflow preventer with inte	ermediate atmo	spheric vent. Backflow prever	nters with

1463	intermediate atmospheric vents shall conform to ASSE 1012 or CAS CAN/CAS-B64.3. These
1464	devices shall be permitted to be installed on residential boilers only, without chemical
1465	treatment, where subject to continuous pressure conditions. The relief opening shall discharge
1466	by air gap and shall be prevented from being submerged."
1467	(26) IPC, Section 608.13.4, is deleted.
1468	(27) IPC, Section 608.13.9, is deleted.
1469	(28) IPC, Section 608.15.3, is deleted and replaced with the following: "608.15.3
1470	Protection by a backflow preventer with intermediate atmospheric vent. Connections to
1471	residential boilers only, without chemical treatment, shall be protected by a backflow preventer
1472	with an intermediate atmospheric vent."
1473	(29) IPC, Section 608.15.4, is deleted and replaced with the following: "608.15.4
1474	Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type
1475	or pressure-type vacuum breakers. The critical level of the atmospheric vacuum breaker shall
1476	be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. The
1477	critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm)
1478	above the flood level rim of the fixture or device. Fill valves shall be set in accordance with
1479	Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar
1480	locations that will contain toxic fumes or vapors. Pipe-applied vacuum breakers shall be
1481	installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor, or
1482	device served. No valves shall be installed downstream of the atmospheric vacuum breaker."
1483	(30) In IPC, Section 608.15.4.2, the following is added after the first sentence:
1484	"Add-on-backflow prevention devices shall be non-removable. In climates where freezing
1485	temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow
1486	preventer shall be used."
1487	(31) In IPC, Section 608.16.2, the first sentence of the paragraph is deleted and
1488	replaced as follows: "608.16.2 Connections to boilers. The potable water supply to the
1489	residential boiler only, without chemical treatment, shall be equipped with a backflow
1490	preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA
1491	CAN/CSA B64.3."
1492	(32) IPC, Section 608.16.3, is deleted and replaced with the following: "608.16.3 Heat
1493	exchangers. Heat exchangers shall be separated from potable water by double-wall

1494	construction. An air gap open to the atmosphere shall be provided between the two walls.
1495	Exceptions:
1496	1. Single wall heat exchangers shall be permitted when all of the following conditions are met:
1497	a. It utilizes a heat transfer medium of potable water or contains only substances which are
1498	recognized as safe by the United States Food and Drug Administration (FDA);
1499	b. The pressure of the heat transfer medium is maintained less than the normal minimum
1500	operating pressure of the potable water system; and
1501	c. The equipment is permanently labeled to indicate only additives recognized as safe by the
1502	FDA shall be used.
1503	2. Steam systems that comply with paragraph 1 above.
1504	3. Approved listed electrical drinking water coolers."
1505	(33) In IPC, Section 608.16.4.1, a new exception is added as follows: "Exception: All
1506	class 1 and 2 systems containing chemical additives consisting of strictly glycerine (C.P. or
1507	U.S.P. 96.5 percent grade) or propylene glycol shall be protected against backflow with a
1508	double check valve assembly. Such systems shall include written certification of the chemical
1509	additives at the time of original installation and service or maintenance."
1510	(34) IPC, Section 608.16.7, is deleted and replaced with the following: "608.16.7
1511	Chemical dispensers. Where chemical dispensers connect to the water distribution system, the
1512	water supply system shall be protected against backflow in accordance with Section 608.13.1,
1513	Section 608.13.2, Section 608.13.5, Section 608.13.6 or Section 608.13.8."
1514	(35) IPC, Section 608.16.8, is deleted and replaced with the following: "608.16.8
1515	Portable cleaning equipment. Where the portable cleaning equipment connects to the water
1516	distribution system, the water supply system shall be protected against backflow in accordance
1517	with Section 608.13.1, Section 608.13.2 or Section 608.13.8."
1518	(36) A new IPC, Section 608.16.11, is added as follows: "608.16.11 Automatic and
1519	coin operated car washes. The water supply to an automatic or coin operated car wash shall be
1520	protected in accordance with Section 608.13.1 or Section 608.13.2."
1521	(37) IPC, Section 608.17, is deleted.
1522	(38) IPC, Section 701.2, is deleted and replaced with the following: "701.2 Sewer
1523	required. Every building in which plumbing fixtures are installed and all premises having
1524	drainage piping shall be connected to a public sewer where the sewer is within 300 feet of the

1525	property line in accordance with Utah Code, Section 10-8-38; or an approved private sewage
1526	disposal system in accordance with Utah Administrative Code, Rule R317-4, as administered
1527	by the Department of Environmental Quality, Division of Water Quality."
1528	(39) IPC, Section 901.3, is deleted and replaced with the following: "901.3 Chemical
1529	waste vent system. The vent system for a chemical waste system shall be independent of the
1530	sanitary vent system and shall terminate separately through the roof to the open air or to an air
1531	admittance valve provided at least one chemical waste vent in the system terminates separately
1532	through the roof to the open air."
1533	(40) In IPC, Section 904.1, when the number of inches is to be specified, "12 inches
1534	(304.8mm)" is inserted.
1535	(41) In IPC, Section 904.6, the following sentence is added at the end of the paragraph:
1536	"Vents extending through the wall shall terminate not less than 12 inches from the wall with an
1537	elbow pointing downward."
1538	(42) In IPC, Section 905.4, the following sentence is added at the end of the paragraph:
1539	"Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink
1540	installations when installed in accordance with Sections 702.2, 905.2 and 905.3 and provided
1541	with a wall clean out."
1542	(43) In IPC, Section 917.8, a new exception is added as follows: "Exception: Air
1543	admittance valves shall be permitted in non-neutralized special waste systems provided that
1544	they conform to the requirements in Sections 901.3 and 702.5, are tested to ASTM F1412, and
1545	are certified by ANSI/ASSE."
1546	(44) In IPC, Section 1002.4, the following is added at the end of the paragraph:
1547	"Approved Means of Maintaining Trap Seals. Approved means of maintaining trap seals
1548	include the following, but are not limited to the methods cited:
1549	(a) Listed Trap Seal Primer
1550	(b) A hose bibb or bibbs within the same room
1551	(c) Drainage from an untrapped lavatory discharging to the tailpiece of those fixture traps
1552	which require priming. All fixtures shall be in the same room and on the same floor level as the
1553	trap primer
1554	(d) Barrier type floor drain trap seal protection device meeting ASSE Standard 1072
1555	(e) Deep seal p-trap"

1556	(45)	IPC, Section 1104.2, is deleted and replaced v	with the following: "1104.2
1557	Combining storm and sanitary drainage prohibited. The combining of sanitary and storm		
1558	drainage syste	ems is prohibited."	
1559	(46)	IPC, Section 1108, is deleted.	
1560	<u>(47)</u>	In IPC, Chapter 14, the following referenced	standard is added under ASSE:
1561	"Standard		
1562	reference		Referenced in code
1563	<u>number</u>	<u>Title</u>	section number
1564	<u>1072-2007</u>	Performance Requirements for	<u>1004.2</u>
1565		Barrier Type Floor Drain Trap	
1566		Seal Protection Devices"	
1567	<u>(48)</u> ]	In IPC, Chapter 14, the following referenced	standard is added:
1568	"Standard		
1569	<u>reference</u>		Referenced in code
1570	<u>number</u>	<u>Title</u>	section number
1571	<u>USC-</u>	Foundation for Cross-Connection	<u>Table 608.1</u>
1572	<u>FCCCHR</u>	Control and Hydraulic Research	
1573	9th Edition	University of Southern California	
1574	Manual of	Kaprielian Hall 300	
1575	Cross	Los Angeles CA 90089-2531	
1576	Connection		
1577	Control"		
1578	<u>(49)</u> ]	IPC, Appendix C, is deleted and replaced with	h the following Appendix C, Gray
1579	Water Recycl	ing Systems, which may be adopted by local	jurisdictions only as provided under
1580	the State Con	struction Code: "Appendix C Gray Water Re	cycling Systems
1581	Note: Section	n 301.3 of this code requires all plumbing fix	tures that receive water or waste to
1582	discharge to the sanitary drainage system of the structure. In order to allow for the utilization of		
1583	a gray water system, Section 301.3 should be revised to read as follows:		
1584	(a) In jurisdictions which have adopted this Appendix C as amended as a local amendment as		
1585	provided here	ein, Section 301.3 of the IPC is deleted and re	placed with the following:
1586	301.3 Connections to drainage system. All plumbing fixtures, drains, appurtenances, and		

1587	appliances u	sed to receiv	e or discharge	e liquid wastes	or sewage shall	be directly	connected to
1001	appliances a	bou to recert	o or arborrars	liquiu musico	or be wase briair	oc an con ,	commetted 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
- 1590 <u>Chapter 8.</u>
- 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
- 1593 <u>fixtures discharge to an approved gray water system for flushing of water closets and urinals or</u>
- 1594 <u>for subsurface landscape irrigation.</u>
- 1595 <u>SECTION C101 GENERAL</u>
- 1596 C101.1 Scope. The provisions of this appendix shall govern the materials, design,
- 1597 construction, and installation of gray water systems for flushing of water closets and urinals
- 1598 (see Figure 2).
- 1599 C101.2 Recording. The existence of a gray water recycling system shall be recorded on the
- deed of ownership for that property.
- 1601 C101.3 Definition. The following term shall have the meaning show herein.
- 1602 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.
- 1606 C101.4 Permits. Permits shall be required in accordance with Section 106 and may also be
- required by the local health department.
- 1608 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
- 1610 <u>C, all systems shall comply with the provisions of the International Plumbing Code.</u>
- 1611 C101.6 Materials. Above-ground drain, waste, and vent piping for gray water systems shall
- 1612 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.
- 1614 C101.7 Tests. Drain, waste, and vent piping for gray water systems shall be tested in
- accordance with Section 312.
- 1616 C101.8 Inspections. Gray water systems shall be inspected in accordance with Section 107.
- 1617 C101.9 Potable water connections. The potable water supply to any building utilizing a gray

1618	water recycling sy	vstem shall be	protected	against ba	ackflow b	v a reduced	pressure	princir	ole

- backflow preventer installed in accordance with this Code.
- 1620 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.
- 1625 <u>C101.11 Collection reservoir. Gray water shall be collected in an approved reservoir</u>
- 1626 constructed of durable, nonabsorbent, and corrosion-resistant materials. The reservoir shall be a
- 1627 <u>closed and gas-tight vessel. Access openings shall be provided to allow inspection and cleaning</u>
- of the reservoir interior.
- 1629 <u>C101.12</u> Filtration. Gray water entering the reservoir shall pass through an approved cartridge
- 1630 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.
- 1633 C101.12.1 Required valve. A full-open valve shall be installed downstream of the last fixture
- 1634 connection to the gray water discharge pipe before entering the required filter.
- 1635 C101.13 Overflow. The collection reservoir shall be equipped with an overflow pipe having
- 1636 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.
- 1638 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.
- 1641 C101.15 Vent required. The reservoir shall be provided with a vent sized in accordance with
- 1642 Chapter 9 and based on the diameter of the reservoir influent pipe.
- 1643 SECTION C102 SYSTEMS FOR FLUSHING WATER CLOSETS AND URINALS
- 1644 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.
- 1648 C102.2 Disinfection. Gray water shall be disinfected by an approved method that employs one

1649	or more disinfectants such as chlorine, iodine, or ozone that is recommended for use with the
1650	pipes, fittings, and equipment by the manufacturer of the pipe, fittings, and equipment. A
1651	minimum of 1ppm residual free chlorine shall be maintained in the gray water recycling system
1652	reservoir.
1653	C102.3 Makeup water. Potable water shall be supplied as a source of makeup water for the
1654	gray water system. The potable water supply shall be protected against backflow by a reduced
1655	pressure principle backflow preventer installed in accordance with this Code. There shall be a
1656	full-open valve located on the makeup water supply line to the collection reservoir.
1657	C102.4 Coloring. The gray water shall be dyed blue or green with a food grade vegetable dye
1658	before such water is supplied to the fixtures.
1659	C102.5 Materials. Distribution piping shall conform to one of the standards listed in Table
1660	<u>605.4.</u>
1661	C102.6 Identification. Distribution piping and reservoirs shall be identified as containing
1662	nonpotable water. Piping identification shall be in accordance with Section 608.8.
1663	SECTION C103 SUBSURFACE LANDSCAPE IRRIGATION SYSTEMS
1664	C103.1 Gray water recycling systems utilized for subsurface irrigation for single family
1665	residences shall comply with the requirements of Utah Administrative Code, R317-401, Gray
1666	Water Systems. Gray water recycling systems utilized for subsurface irrigation for other
1667	occupancies shall comply with Utah Administrative Code, R317-3 Design Requirements for
1668	Wastewater Collection, Treatment and Disposal Systems, and Utah Administrative Code,
1669	R317-4, Onsite Wastewater Systems."
1670	Section 204. Statewide Amendments to the IMC.
1671	The following are adopted as amendments to the IMC to be applicable statewide:
1672	(1) IMC, Section 1101.10, is deleted.
1673	Section 205. Statewide Amendments to the IFGC.
1674	The following are adopted as amendments to the IFGC to be applicable statewide:
1675	(1) In IFGC, Chapter 4, Section 401, General, a new section IFGC, Section 401.9, is
1676	added as follows: "401.9 Meter protection. Fuel gas services shall be in an approved location
1677	and/or provided with structures designed to protect the fuel gas meter and surrounding piping
1678	from physical damage, including falling, moving, or migrating ice and snow. If an added
1679	structure is used, it must still provide access for service and comply with the IBC or the IRC."

1680	Section 206. Statewide Amendments to the NEC.
1681	The following are adopted as amendments to the NEC to be applicable statewide:
1682	(1) During the period of time when the adopted IRC has not yet incorporated the latest
1683	residential electrical provisions contained in the adopted NEC, the IRC provisions shall prevail
1684	as the adopted residential electrical standards applicable to installations applicable under the
1685	IRC. All other installations shall comply with the adopted NEC.
1686	(2) In NEC, Section 310.15(B)(6), the second sentence is deleted and replaced with the
1687	following: "For application of this section, the main power feeder shall be the feeder(s)
1688	between the main disconnect and the panelboard(s)."
1689	(3) In NEC, Section 338.10(B)(4)(a), the following words are added at the end of the
1690	first sentence after Section 334: "excluding Section 334.80."
1691	Section 207. Statewide Amendments to the IECC.
1692	The following are adopted as amendments to the IECC to be applicable statewide:
1693	(1) In IECC, Section 504.4, a new exception is added as follows: "Exception: Heat
1694	traps, other than the arrangement of piping and fittings, shall be prohibited unless a means of
1695	controlling thermal expansion can be ensured as required in the IPC Section 607.3."
1696	Section 208. Installation and Safety Requirements for Mobile Homes Built Prior to
1697	<u>June 15, 1976.</u>
1698	(1) Mobile homes built prior to June 15, 1976 which are subject to relocation, building
1699	alteration, remodeling, or rehabilitation shall comply with the following:
1700	(a) Related to exits and egress windows:
1701	(i) Egress windows. The home has at least one egress window in each bedroom, or a
1702	window that meets the minimum specifications of the U.S. Department of Housing and Urban
1703	Development's (HUD) Manufactured Homes Construction and Safety Standards (MHCSS)
1704	program as set forth in 24 C.F.R. Parts 3280 and 3283, MHCSS 3280.106 and 3280.404 for
1705	manufactured homes. These standards require the window to be at least 22 inches in the
1706	horizontal or vertical position in its least dimension and at least five square feet in area. The
1707	bottom of the window opening shall be no more than 36 inches above the floor, and the locks
1708	and latches and any window screen or storm window devices that need to be operated to permit
1709	exiting shall not be located more than 54 inches above the finished floor.
1710	(ii) Exits. The home is required to have two exterior exit doors, located remotely from

1711	each other, as required in MHCSS 3280.105. This standard requires that single-section homes
1712	have the doors no less than 12 feet, center-to-center, from each other, and multisection home
1713	doors no less than 20 feet center-to center from each other when measured in a straight line,
1714	regardless of the length of the path of travel between the doors. One of the required exit doors
1715	must be accessible from the doorway of each bedroom and no more than 35 feet away from any
1716	bedroom doorway. An exterior swing door shall have a 28-inch-wide by 74-inch-high clear
1717	opening and sliding glass doors shall have a 28-inch-wide by 72-inch-high clear opening. Each
1718	exterior door other than screen/storm doors shall have a key-operated lock that has a passage
1719	latch; locks shall not require the use of a key or special tool for operation from the inside of the
1720	<u>home.</u>
1721	(b) Related to flame spread:
1722	(i) Walls, ceilings, and doors. Walls and ceilings adjacent to or enclosing a furnace or
1723	water heater shall have an interior finish with a flame-spread rating not exceeding 25. Sealants
1724	and other trim materials two inches or less in width used to finish adjacent surfaces within
1725	these spaces are exempt from this provision, provided all joints are supported by framing
1726	members or materials with a flame spread rating of 25 or less. Combustible doors providing
1727	interior or exterior access to furnace and water heater spaces shall be covered with materials of
1728	limited combustibility (i.e. 5/16-inch gypsum board, etc.), with the surface allowed to be
1729	interrupted for louvers ventilating the space. However, the louvers shall not be of materials of
1730	greater combustibility than the door itself (i.e., plastic louvers on a wooden door). Reference
1731	MHCSS 3280.203.
1732	(ii) Exposed interior finishes. Exposed interior finishes adjacent to the cooking range
1733	(surfaces include vertical surfaces between the range top and overhead cabinets, the ceiling, or
1734	both) shall have a flame-spread rating not exceeding 50, as required by MHCSS 3280.203.
1735	Backsplashes not exceeding six inches in height are exempted. Ranges shall have a vertical
1736	clearance above the cooking top of not less than 24 inches to the bottom of combustible
1737	cabinets, as required by MHCSS 3280.204(e).
1738	(c) Related to smoke detectors:
1739	(i) Location. A smoke detector shall be installed on any ceiling or wall in the hallway
1740	or space communicating with each bedroom area between the living area and the first bedroom
1741	door, unless a door separates the living area from that bedroom area, in which case the detector

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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

1773	entire surface beneath a fireplace stove and beneath an elevated and overhanging fireplace.
1774	(e) Related to electrical wiring systems:
1775	(i) Testing. All electrical systems shall be tested for continuity in accordance with
1776	MHCSS 3280.810, to ensure that metallic parts are properly bonded; tested for operation, to
1777	demonstrate that all equipment is connected and in working order; and given a polarity check,
1778	to determine that connections are proper.
1779	(ii) 5.2 Protection. The electrical system shall be properly protected for the required
1780	amperage load. If the unit wiring employs aluminum conductors, all receptacles and switches
1781	rated at 20 amperes or less that are directly connected to the aluminum conductors shall be
1782	marked CO/ALA. Exterior receptacles, other than heat tape receptacles, shall be of the
1783	ground-fault circuit interrupter (GFI) type. Conductors of dissimilar metals (copper/aluminum
1784	or copper-clad aluminum) must be connected in accordance with NEC, Section 110-14.
1785	(f) Related to replacement furnaces and water heaters:
1786	(i) Listing. Replacement furnaces or water heaters shall be listed for use in a
1787	manufactured home. Vents, roof jacks, and chimneys necessary for the installation shall be
1788	listed for use with the furnace or water heater.
1789	(ii) Securement and accessibility. The furnace and water heater shall be secured in
1790	place to avoid displacement. Every furnace and water heater shall be accessible for servicing,
1791	for replacement, or both as required by MHCSS 3280.709(a).
1792	(iii) Installation. Furnaces and water heaters shall be installed to provide complete
1793	separation of the combustion system from the interior atmosphere of the manufactured home,
1794	as required by MHCSS.
1795	(A) Separation. The required separation may be achieved by the installation of a
1796	direct-vent system (sealed combustion system) furnace or water heater or the installation of a
1797	furnace and water heater venting and combustion systems from the interior atmosphere of the
1798	home. There shall be no doors, grills, removable access panels, or other openings into the
1799	enclosure from the inside of the manufactured home. All openings for ducts, piping, wiring,
1800	etc., shall be sealed.
1801	(B) Water heater. The floor area in the area of the water heater shall be free from
1802	damage from moisture to ensure that the floor will support the weight of the water heater.
1803	Part 3. Local Amendments

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1804	Section 301. Local Amendments to the IBC.
1805	The following are adopted as amendments to the IBC to be applicable to the following
1806	jurisdictions:
1807	(1) City of Farmington:
1808	(a) A new IBC, Section (F) 903.2.13, is added as follows: "(F) 903.2.13 Group R,
1809	Division 3 Occupancies. An automatic sprinkler system shall be installed throughout every
1810	dwelling in accordance with NFPA 13D, when any of the following conditions are present:
1811	1. The structure is over two stories high, as defined by the building code;
1812	2. The nearest point of structure is more than 150 feet from the public way;
1813	3. The total floor area of all stories is over 5,000 square feet (excluding from the calculation
1814	the area of the basement and/or garage); or
1815	4. The structure is located on a street constructed after March 1, 2000 that has a gradient over
1816	12% and, during fire department response, access to the structure will be gained by using such
1817	street. (If the access is intended to be from a direction where the steep gradient is not used, as
1818	determined by the Chief, this criteria shall not apply).
1819	Such sprinkler system shall be installed in basements, but need not be installed in garages,
1820	under eves or in enclosed attic spaces, unless required by the Chief."
1821	(b) A new IBC, Section 907.9, is added as follows: "907.9 Alarm Circuit Supervision.
1822	Alarm circuits in alarm systems provided for commercial uses (defined as other than one- and
1823	two-family dwellings and townhouses) shall have Class "A" type of supervision. Specifically,
1824	Type "B" or End-of-line resistor and horn supervised systems are not allowed."
1825	(c) In NFPA Section 13-07, new sections are added as follows: "6.8.6 FDC Security
1826	Locks Required. All Fire Department connections installed for fire sprinkler and standpipe
1827	systems shall have approved security locks.
1828	6.10 Fire Pump Disconnect Signs. When installing a fire pump, red plastic laminate signs shall
1829	be installed in the electrical service panel, if the pump is wired separately from the main
1830	disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES
1831	NOT Shut Off Fire Pump".
1832	22.1.6 Plan Preparation Identification. All plans for fire sprinkler systems, except for
1833	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

1834

1835	engineer's	signature	shall als	so be	included.
1000	CII SIII COI D	DISTIUCTO	Dilaii ai	,	moraca.

- 1836 22.2.2.3 Verification of Water Supply:
- 1837 <u>22.2.2.3.1</u> 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.
- 1839 For residential water supply, verification shall be determined by administrative procedure.
- 1840 22.2.2.3.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include
- an accurate and verifiable water supply.
- 1842 24.2.3.7 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall
- include, but are not limited to:
- 1844 Commercial:
- 1845 FLUSH-Witness Underground Supply Flush;
- 1846 ROUGH Inspection-Installation of Riser, System Piping, Head Locations and all Components,
- 1847 Hydrostatic Pressure Test;
- 1848 FINAL Inspection-Head Installation and Escutcheons, Inspectors Test Location and Flow,
- 1849 Main Drain Flow, FDC Location and Escutcheon, Alarm Function, Spare Parts, Labeling of
- 1850 Components and Signage, System Completeness, Water Supply Pressure Verification,
- 1851 Evaluation of Any Unusual Parameter."
- 1852 (2) City of North Salt Lake, a new IBC, Section (F)903.2.13, is added as follows:
- 1853 "(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
- 1855 condition is present:
- 1856 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."
- 1859 (3) Park City Corporation, in IBC, Section 3409.2, exception 3, is modified to read as
- 1860 follows: "3. Designated as historic under a state or local historic preservation program."
- 1861 (4) Park City Corporation and Park City Fire District:
- 1862 (a) IBC, Section (F)903.2, is deleted and replaced with the following: "(F)903.2 Where
- 1863 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

1866	occupancy.			
1867	All new construction having more than two (2) stories, except R-3 occupancy.			
1868	All new construction having three (3) or more dwelling units, including units rented or leased,			
1869	and including condomini	ums or other separate ownership.		
1870	All new construction in the	ne Historic Commercial Business zo	one district, regardless of	
1871	occupancy.			
1872	All new construction and	buildings in the General Commercia	al zone district where there are	
1873	side yard setbacks or whe	ere one or more side yard setbacks is	less than two and one half (2.5)	
1874	feet per story of height.			
1875	All existing building with	nin the Historic District Commercial	Business zone."	
1876	(b) In IBC, Table	1505.1, new footnotes d and e are a	added as follows: "d. Wood roof	
1877	covering assemblies are p	prohibited in R-3 occupancies in area	as with a combined rating of more	
1878	than 11 using Tables 150	5.1.1 and 1505.1.2 with a score of 9	for weather factors.	
1879	e. Wood roof covering as	ssemblies shall have a Class A rating	g in occupancies other than R-3 in	
1880	areas with a combined rat	ting of more than 11 using Tables 15	505.1.1 and 1505.1.2 with a score	
1881	of 9 for weather factors. The owner of the building shall enter into a written and recorded			
1882	agreement that the Class A rating of the roof covering assembly will not be altered through any			
1883	type of maintenance process.			
1884		TABLE 1505.1.1		
1885		WILDFIRE HAZARD SEVERI	TY SCALE	
1886	<u>RATING</u>	<u>SLOPE</u>	<u>VEGETATION</u>	
1887	<u>1</u>	less than or equal to 10%	Pinion-juniper	
1888	<u>2</u>	<u>10.1 - 20%</u>	Grass-sagebrush	
1889	<u>3</u>	greater than 20%	Mountain brush or	
1890	<u>softwoods</u>			
1891		<u>TABLE 1505.1.2</u>		
1892	<u>PR</u>	OHIBITION/ALLOWANCE OF W	OOD ROOFING	
1893	<u>Rating</u>	R-3 Occupancy	All Other Occupancies	
1894	less than or	wood roof covering	wood roof covering	
1895	equal to 11	assemblies per	assemblies per	
1896		<u>Table 1505.1 are</u>	<u>Table 1505.1 are</u>	

1897		<u>allowed</u>	allowed
1898	greater than or	wood roof covering	wood roof covering
1899	equal to 12	is prohibited	assemblies with a Class A
1900			rating are allowed"
1901	(c) IBC, Appendix (	C, is adopted.	
1902	(5) Salt Lake City:		
1903	(a) In IBC, Section	008.1.9.7, a new exception is added a	as follows: "Exception: In
1904	International Airport areas d	esignated as Group "A" Occupancies	where national security
1905	interests are present, the use	of panic hardware with delayed egres	s is allowed when all
1906	provision of 1008.1.9.7 are a	met and under item #4 1 second is cha	inged to 2 seconds."
1907	(6) Sandy City:		
1908	(a) A new IBC, Sect	ion (F)903.2.13, is added as follows:	"(F)903.2.13 An automatic
1909	sprinkler system shall be ins	talled in accordance with NFPA 13 th	roughout buildings
1910	containing all occupancies w	where fire flow exceeds 2,000 gallons	per minute, based on Table
1911	B105.1 of the 2009 Internation	onal Fire Code. Exempt locations as i	ndicated in Section
1912	903.3.1.1.1 are allowed.		
1913	Exception: Automatic fire s	prinklers are not required in buildings	s used solely for worship,
1914	Group R Division 3, Group	U occupancies and buildings complyi	ng with the International
1915	Residential Code unless other	erwise required by the International Fi	re Code.
1916	(b) A new IBC, App	endix L, is added and adopted as follo	ows: "Appendix L
1917	BUILDINGS AND STRUC	TURES CONSTRUCTED IN AREAS	S DESIGNATED AS
1918	WILDLAND-URBAN INTI	ERFACE AREAS	
1919	AL 101.1 General. Building	s and structures constructed in areas d	esignated as Wildland-Urban
1920	Interface Areas by Sandy Ci	ty shall be constructed using ignition	resistant construction as
1921	determined by the Fire Mars	hal. Section 502 of the 2006 Internation	onal Wildland-Urban
1922	Interface Code (IWUIC), as	promulgated by the International Cod	e Council, shall be used to
1923	determine Fire Hazard Seven	rity. The provisions listed in Chapter 5	5 of the 2006 International
1924	Wildland-Urban Interface C	ode, as modified herein, shall be used	to determine the
1925	requirements for Ignition Re	sistant Construction.	
1926	(i) In Section 504 of the IW	<u>UIC Class I IGNITION-RESISTANT</u>	CONSTRUCTION a new
1927	Section 504.1.1 is added as a	follows: "504.1.1 General. Subsection	s 504.5, 504.6, and 504.7

1928	shall only be required on the exposure side of the structure, as determined by the Fire Marshal,
1929	where defensible space is less than 50 feet as defined in Section 603 of the 2006 International
1930	Wildland-Urban Interface Code.
1931	(ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION
1932	Subsections 505.5 and 505.7 are deleted."
1933	Section 302. Local Amendments to the IRC.
1934	The following are adopted as amendments to the IRC to be applicable to the following
1935	jurisdictions:
1936	(1) A local amendment to the following which may be applied to detached one and two
1937	family dwellings and multiple single family dwellings shall be applicable to the corresponding
1938	provisions of the IRC for the local jurisdiction to which the local amendment has been made:
1939	(a) IBC under State Construction Code, Section 301;
1940	(b) IPC under State Construction Code, Section 303;
1941	(c) IMC under State Construction Code, Section 304;
1942	(d) IFGC under State Construction Code, Section 305;
1943	(e) NEC under State Construction Code, Section 306; and
1944	(f) IECC under State Construction Code, Section 307.
1945	(2) City of Farmington:
1946	(a) In IRC, R324 Automatic Sprinkler Systems, new IRC, Sections R324.1 and R324.2
1947	are added as follows: "R324.1 When required. An automatic sprinkler system shall be installed
1948	throughout every dwelling in accordance with NFPA 13D, when any of the following
1949	conditions are present:
1950	1. the structure is over two stories high, as defined by the building code;
1951	2. the nearest point of structure is more than 150 feet from the public way;
1952	3. the total floor area of all stories is over 5,000 square feet (excluding from the calculation the
1953	area of the basement and/or garage); or
1954	4. the structure is located on a street constructed after March 1, 2000 that has a gradient over
1955	12% and, during fire department response, access to the structure will be gained by using such
1956	street. (If the access is intended to be from a direction where the steep gradient is not used, as
1957	determined by the Chief, this criteria shall not apply).
1958	R324.2 Installation requirements and standards. Such sprinkler system shall be installed in

1959	basements, but need not be installed in gar	ages under eyes or in enclosed attic spaces unless
1960	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."	
1961	(b) In IRC, Chapter 44, the following NFPA referenced standards are added as follows:	
1962	(b) in fixe, chapter 44, the follows	"TABLE
1963	ADD	TABLE
1964	13D-07	Installation of Sprinkler Systems in
1965	13 <i>D-</i> 07	One- and Two-family Dwellings and
1966		Manufactured Homes, as amended by these rules
1967	13R-07	<u>Installation of Sprinkler Systems in</u>
1968	13K-07	Residential Occupancies Up to and
1969		Including Four Stories in Height"
1970	(c) In NEDA Section 13D-07 new	sections are added as follows: "1.15 Reference to
1970		n the codes, ordinances, rules, or regulations
1972		<del>-</del>
1972	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.	
1973	4.9 Testing and Inspection of Systems. Testing and inspection of sprinkler systems shall	
1975	include, but are not limited to:	
1976	Residential:	
1977		Pining Size and Materials Installation of Riser
1978	ROUGH Inspection-Verify Water Supply Piping Size and Materials, Installation of Riser,  System Piping, Head Legations and all Components, Hydrostatic Pressure Test	
1979	System Piping, Head Locations and all Components, Hydrostatic Pressure Test.  FINAL Inspection-Inspectors Test Flow, System Completeness, Spare Parts, Labeling of	
1980	Components and Signage, Alarm Function	•
1981		d Sprinkler Piping material in rooms of dwellings
1982	shall be of Metal.	a sprinkier riping material in rooms or awenings
1983	EXCEPTIONS:	
1984		mechanical and storage rooms only when specifically
1985	listed for the application as installed.	meenamear and storage rooms omy when specifically
1986	**	cupied rooms used for sports courts or similar uses
1987		is constructed entirely of non-combustible materials,
1988	such as a concrete garage floor on metal de	·
1989		ater Supply Piping from where the water line enters
1707	5.2.2.1 maci suppry riping material. We	mor suppry righting from whore the water time effects

- 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
- 1992 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.
- 1994 <u>5.4 Fire Pump Disconnect Signs. When installing a Fire Pump, Red Plastic Laminate Signs</u>
- shall be installed in the electrical service panel, if the pump is wired separately from the main
- 1996 disconnect. These signs shall state: "Fire Pump Disconnect ONLY" and "Main Breaker DOES
- 1997 NOT Shut Off Fire Pump".
- 1998 7.1.4 Valve Prohibition. NFPA 13D, Section 7.1 is hereby modified such that NO VALVE is
- 1999 permitted from the City Water Meter to the Fire Sprinkler Riser Control.
- 2000 7.6.1 Mandatory Exterior Alarm. Every dwelling that has a fire sprinkler system shall have an
- 2001 exterior alarm, installed in an approved location. The alarm shall be of the combination
- 2002 horn/strobe or electric bell/strobe type, approved for outdoor use.
- 2003 <u>8.1.05 Plan Preparation Identification. All plans for fire sprinkler systems, except for</u>
- 2004 manufacturer's cut sheets of equipment, shall include the full name of the person who prepared
- 2005 the drawings. When the drawings are prepared by a registered professional engineer, the
- 2006 engineer's signature shall also be included.
- 2007 8.7 Verification of Water Supply:
- 2008 <u>8.7.1 Fire Flow Tests: Fire Flow Tests for verification of Water Supply shall be conducted and</u>
- witnesses for all applications other than residential, unless directed otherwise by the Chief. For
- 2010 residential Water Supply, verification shall be determined by administrative procedure.
- 2011 8.7.2 Accurate and Verifiable Criteria. The design calculations and criteria shall include an
- 2012 accurate and verifiable Water Supply.
- 2013 (3) Morgan City Corporation, in IRC, Section R105.2, Work Exempt From Permit, a
- 2014 new list item number 11 is added as follows: "11. Structures intended to house farm animals, or
- 2015 for the storage of feed associated with said farm animals when all the following criteria is met:
- 2016 a. The parcel of property involved is zoned for the keeping of farm animals or has
- 2017 grandfathered animal rights.
- 2018 b. The structure is setback not less than 50 feet from the rear or side of dwellings, and not less
- 2019 than 10 feet from property lines and other structures.
- 2020 c. The structure does not exceed 1000 square feet of floor area, and is limited to 20 feet in

2021	height. Height is measured from the average grade to the highest point of the structure.
2022	d. Before construction, a site plan is submitted to, and approved by the building official.
2023	Electrical, plumbing, and mechanical permits shall be required when that work is included in
2024	the structure."
2025	(4) Morgan County, in IRC, Section R105.2, a new list item number 11 is added as
2026	follows: "11. Structures intended to house farm animals, or for the storage of feed associated
2027	with said farm animals when all the following criteria is met:
2028	a. The parcel of property involved is zoned for the keeping of farm animals or has
2029	grandfathered animal rights.
2030	b. The structure is set back not less than required by the Morgan County Zoning Ordinance for
2031	such structures, but not less than 10 feet from property lines and other structures.
2032	c. The structure does not exceed 1000 square feet of floor area, and is limited to 20 feet in
2033	height. Height is measured from the average grade to the highest point of the structure.
2034	d. Before construction, a Land Use Permit must be applied for, and approved, by the Morgan
2035	County Planning and Zoning Department. Electrical, plumbing, and mechanical permits shall
2036	be required when that work is included in the structure."
2037	(5) City of North Salt Lake, a new IRC, Section R324, is added as follows: "Section
2038	R324 Automatic Sprinkler System Requirements. R324.1 When Required. An automatic
2039	sprinkler system shall be installed throughout every dwelling when the following condition is
2040	present:
2041	1. The structure is over 6,200 square feet.
2042	R324.2 Installation requirements and standards. Such sprinkler system shall be installed in
2043	basements, but need not be installed in garages, under eves, or in enclosed attic spaces, unless
2044	required by the fire chief. Such system shall be installed in accordance with NFPA 13D."
2045	(6) Park City Corporation, Appendix P of the 2006 IRC is adopted.
2046	(7) Park City Corporation and Park City Fire District:
2047	(a) IRC, Section R905.7, is deleted and replaced with the following: "R905.7 Wood
2048	shingles. The installation of wood shingles shall comply with the provisions of this section.
2049	Wood roof covering is prohibited in areas with a combined rating of more than 11 using the
2050	following tables with a score of 9 for weather factors.
2051	<u>TABLE</u>

2052		WILDFIRE HAZARD SEVERITY S	<u>SCALE</u>
2053	<u>RATING</u>	<u>SLOPE</u>	<u>VEGETATION</u>
2054	<u>1</u>	less than or equal to 10%	Pinion-juniper
2055	<u>2</u>	<u>10.1 - 20%</u>	Grass-sagebrush
2056	<u>3</u>	greater than 20%	Mountain brush or
2057			<u>softwoods</u>
2058		PROHIBITION/EXEMPTION TA	<u>BLE</u>
2059	<u>RATING</u>	WOOD ROOF PROHIBITI	<u>ON</u>
2060	less than or equal to 11	wood roofs are allowed	
2061	greater than or equal to 12	wood roofs are prohibited"	
2062	(b) IRC, Section R9	05.8, is deleted and replaced with the	following: "R905.8 Wood
2063	Shakes. The installation of v	vood shakes shall comply with the pro-	ovisions of this section. Wood
2064	roof covering is prohibited i	n areas with a combined rating of mor	re than 11 using the following
2065	tables with a score of 9 for v	veather factors.	
2066		<u>TABLE</u>	
2067		WILDFIRE HAZARD SEVERITY S	<u>SCALE</u>
2068	RATING	<u>SLOPE</u>	<u>VEGETATION</u>
2069	<u>1</u>	less than or equal to 10%	<u>Pinion-juniper</u>
2070	<u>2</u>	<u>10.1 - 20%</u>	Grass-sagebrush
2071	<u>3</u>	greater than 20%	Mountain brush or
2072			<u>softwoods</u>
2073		PROHIBITION/EXEMPTION TA	BLE
2074	RATING	WOOD ROOF PROHIBITI	<u>ON</u>
2075	less than or equal to 11	wood roofs are allowed	
2076	greater than or equal to 12	wood roofs are prohibited"	
2077	(c) Appendix K is a	dopted.	
2078	(8) Sandy City, a ne	w IRC, Section R324, is added as foll	ows: "Section R324
2079	IGNITION RESISTANT CO	<u>ONSTRUCTION</u>	
2080	R324.1 General. Buildings	and structures constructed in areas de	signated as Wildland-Urban
2081	Interface Areas by Sandy Ci	ty shall be constructed using ignition	resistant construction as
2082	determined by the Fire Mars	hal. Section 502 of the 2006 Internati	onal Wildland-Urban

2083	Interface Code (IWUIC), as promulgated by the International Code Council, shall be used to
2084	determine Fire Hazard Severity. The provisions listed in Chapter 5 of the 2006 IWUIC, as
2085	modified herein, shall be used to determine the requirements for Ignition Resistant
2086	Construction.
2087	(i) In Section 504 of the IWUIC Class I IGNITION-RESISTANT CONSTRUCTION a new
2088	Section 504.1.1 is added as follows:
2089	504.1.1 General. Subsections 504.5, 504.6, and 504.7 shall only be required on the exposure
2090	side of the structure, as determined by the Fire Marshal, where defensible space is less than 50
2091	feet as defined in Section 603 of the 2006 IWUIC.
2092	(ii) In Section 505 of the IWUIC Class 2 IGNITION-RESISTANT CONSTRUCTION
2093	Subsections 505.5 and 505.7 are deleted."
2094	Section 303. Local Amendments to the IPC.
2095	The following are adopted as amendments to the IPC to be applicable to the following
2096	jurisdictions:
2097	(1) Salt Lake City, IPC, Appendix C, as specified and amended in State Construction
2098	Code, Subsection 203(49).
2099	(2) South Jordan:
2100	(a) IPC, Section 312.10.2, is deleted and replaced with the following: "312.10.2
2101	Testing. Reduced pressure principle backflow preventer assemblies, double check-valve
2102	assemblies, pressure vacuum breaker assemblies, reduced pressure detector fire protection
2103	backflow prevention assemblies, double check detector fire protection backflow prevention
2104	assemblies, hose connection backflow preventers, and spill-proof vacuum breakers shall be
2105	tested at the time of installation, immediately after repairs or relocation and at least annually.
2106	The testing procedure shall be performed in accordance with one of the following standards:
2107	ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056,
2108	CSA B64.10, or CSA B64.10.1. Assemblies, other than the reduced pressure principle
2109	assembly, protecting lawn irrigation systems that fail the annual test shall be replaced with a
2110	reduced pressure principle assembly."
2111	(b) IPC, Section 608.16.5, is deleted and replaced with the following: "608.16.5
2112	Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems
2113	shall be protected against backflow by a reduced pressure principle backflow preventer."

2114	Section 304. Local Amendment to the IMC.
2115	The following are adopted as amendments to the IMC to be applicable to the following
2116	jurisdictions:
2117	None.
2118	Section 305. Local Amendment to the IFGC.
2119	The following are adopted as amendments to the IFGC to be applicable to the following
2120	jurisdictions:
2121	None.
2122	Section 306. Local Amendment to the NEC.
2123	The following are adopted as amendments to the NEC to be applicable to the following
2124	jurisdictions:
2125	None.
2126	Section 307. Local Amendment to the IECC.
2127	The following are adopted as amendments to the IECC to be applicable to the following
2128	jurisdictions:
2129	None.
2130	Section 2. Effective date.
2131	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

## H.B. 45 - State Construction Code Adoption

## **Fiscal Note**

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