

MINUTES

The meeting convened at the MBA Office called to order by Michael Coello, of Coello & Associates, at 9:33 a.m.

TASK FORCE MEMBERS PRESENT: Michael Coello, Pattie Stone, Mary Schroeder, Jim Wozniak, Neal Solheim, Mark Benkowski, Ron Klassen, Alan Quick, Chad Weubben, Pat Stevens, Scott Satula, Brian Walter, Tom Johnson, Fred Baumgart, and Richard Paur.



GUESTS PRESENT: Larry Swaziek, Art Dahlberg, Bob Neale

After introductions, a motion was made, seconded, and approved to accept a revised version of the minutes from the March 2nd, 2010 meeting.

Next, under Old Business, Mr. Satula indicated that he would be making a change to item no. 285 in the continually updated chart consisting of differences between the IRC and the UDC.

Next, during the meeting, the Task Force reviewed the Definitions section of the IRC, and noted the following differences.

<u>IRC Provision</u>	<u>UDC Provision</u>	<u>Difference</u>	<u>Comment</u>
Preface p. iv	N/A	An <i>italicized</i> word in the IRC indicates that the word is defined in the definition sections of the IRC	UDC does not have this feature. Committee questioned whether this is something that could be done with the UDC?
R202	20.07	General item - This section contains several plumbing specific definitions from chapters 25-33 of the IRC.	The Plumbing chapters are <u>not</u> being considered for adoption in Wisconsin.
G2403		This section contains definitions specific to the Fuel Gas Ch. 24	
	22.10	UDC Chapters 20 & 22 contain definitions	
R202 Accessory structure	20.07(1)	IRC defines an "accessory structure" as a structure not greater than 3,000 sq. ft. and not over 2 stories	UDC defines such buildings as "accessory buildings" when not attached and incidental to the principal structure.
R202 Attic, Habitable		IRC defines a "habitable attic space". Three (3) specific criteria must be met in the IRC for an area to be considered a "habitable attic space" - 1) Room/area contains 70 sq. ft. minimum. 2) Room meets R305 ceiling height requirements. 3) Room/area is fully enclosed by walls, floor and a ceiling.	

R202 Conditioned space/conditio ned area	22.10(3), 22.40(2)	While both codes regulate the design temperature for heating, the IRC also regulates the temperature design for the cooling season by requiring the AC system to maintain a minimum design temperature of 85 degrees.	The AC design temperature is not in the UDC. Also, the UDC has a 2 degree "higher" design temperature (70 degrees) than the IRC (68 degrees).
R202 Emergency Escape and Rescue Opening	21.03(6)	IRC defines an egress window as an "Emergency Escape and Rescue Opening"	UDC language is focused toward an egress only window.
		A definition of a "column" is lacking in both codes and the committee suggested that one should be created so that the code has clear language to enforce when a "column" is notched or bored.	<i>ICC Technical support indicates that R602.6 applies to all conditions. For questionable stud borings, the AHJ could ask for engineering analysis.</i>
General comment: Certain UDC definitions would have to be transferred to a Wisconsin-ized IRC where UDC code text is maintained.			
	20.07(7)	The IRC appears to lack a definition for a "balcony".	Committee suggested that the UDC definition of "balcony" be added to the IRC.
R202	20.07(37)	IRC includes cooking portions of kitchens as "habitable space".	Committee recommends that the IRC definition of "habitable space" be modified to match the UDC definition of "habitable room".
R202		IRC contains definitions for "grade plane" and "story above grade plane".	Since the IRC contains a broader scoping statement than the UDC, committee recommends that the language in the UDC pertaining to building height be maintained.
	20.12	The IRC would have to include language for "modular" or "Manufactured homes" (same as UDC) to comply with state statutes.	
R202		IRC defines "noncombustible material".	Not in UDC.
R202		IRC defines a "public way".	Not in UDC.
R202		IRC defines a "shear wall".	Not in UDC.
R309	20.07(10) & (35)	UDC defines a "garage" and a "carport".	Not in IRC.
R202		IRC defines "occupied space".	Not in UDC.
R202		IRC defines "structural insulated panels" (SIP) and wood structural panels.	Not in UDC.

Next, there was a discussion with representatives from the IRC as to the nature of their code development process. Mr. Neale noted that all members of the ICC can vote in the Assembly during the code development process, but you must be present to vote. Task Force members noted that this was problematic, because some groups are better funded than others, thereby allowing certain interests to regularly travel to meetings, whereas other perspectives could not attend en masse.

Additionally, Mr. Neale indicated that any Committee Action can, in all cases, be overridden by a 2/3 vote by the Assembly. This gives the Assembly an immense amount of power in the ICC code development process.

The Task Force discussed their concerns about the ICC code development process, and how that process could have an impact on the cost of housing in Wisconsin, should this state adopt the IRC.

The Task Force then agreed to tentatively reconvene at the end of this summer, to discuss the status of the individual groups' review of the differences between the IRC and the UDC.

Chairman Coello then adjourned the meeting at approximately 3:02 p.m.

TASK FORCE COMMITTEE

UDC/IRC COMPARISON

	A	B	C	D	E
1	Date	IRC	UDC	DIFFERENCES	DISCUSSION
2					
3				CHAPTER-2 DEFINITIONS	
4	3/2/10	IRC Preface p. iv	N/A	An <i>italicized</i> word in the IRC indicates that the word is defined in the definition sections of the IRC	UDC does not have this feature. Committee questioned whether this is something that could be done with the UDC?
5	3/23/10	R202	20.07	General item - This section contains several plumbing specific definitions from chapters 25-33 of the IRC.	The Plumbing chapters are <u>not</u> being considered for adoption in Wisconsin.
6	3/23/10	G2403		This section contains definitions specific to the Fuel Gas Ch. 24	
7	3/23/10		22.10	UDC Chapters 20 & 22 contain definitions	
8	3/23/10	R202 Accessory structure	20.07(1)	IRC defines an "accessory structure" as a structure not greater than 3,000 sq. ft. and not over 2 stories	UDC defines such buildings as "accessory buildings" when not attached and incidental to the principal structure.
9	3/23/10	R202 Attic, Habitable		IRC defines a "habitable attic space". Three (3) specific criteria must be met in the IRC for an area to be considered a "habitable attic space" - 1) Room/area contains 70 sq. ft. minimum. 2) Room meets R305 ceiling height requirements. 3) Room/area is fully enclosed by walls, floor and a ceiling.	
10	3/23/10	R202 Conditioned space/conditioned area	22.10(3), 22.40(2)	While both codes regulate the design temperature for heating, the IRC also regulates the temperature design for the cooling season by requiring the AC system to maintain a minimum design temperature of 85 degrees.	The AC design temperature is not in the UDC. Also, the UDC has a 2 degree "higher" design temperature (70 degrees) than the IRC (68 degrees)
11	3/23/10	R202 Emergency Escape and Rescue Opening	21.03(6)	IRC defines an egress window as an "Emergency Escape and Rescue Opening"	UDC language is focused toward an egress only window.
12	3/23/10			A definition of a "column" is lacking in both codes and the committee suggested that one should be created so that the code has clear language to enforce when a "column" is notched or bored.	<i>ICC Technical support indicates that R602.6 applies to all conditions. For questionable stud borings, the AHJ could ask for engineering analysis.</i>

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UDC/IRC COMPARISON

	A	B	C	D	E
13	3/23/10			General comment: Certain UDC definitions would have to be transferred to a Wisconsin IRC where UDC code text is maintained.	
14	3/23/10		20.07(7)	The IRC appears to lack a definition for a "balcony".	Committee suggested that the UDC definition of "balcony" be added to the IRC.
15	3/23/10	R202	20.07(37)	IRC includes cooking portions of kitchens as "habitable space".	Committee recommends that the IRC definition of "habitable space" be modified to match the UDC definition of "habitable room".
16	3/23/10	R202		IRC contains definitions for "grade plane" and "story above grade plane".	Since the IRC contains a broader scoping statement than the UDC, committee recommends that the language in the UDC pertaining to building height be maintained.
17	3/23/10		20.12	The IRC would have to include language for "modular" or "Manufactured homes" (same as UDC) to comply with state statutes.	
18	3/23/10	R202		IRC defines "noncombustible material".	Not in UDC.
19	3/23/10	R202		IRC defines a "public way".	Not in UDC.
20	3/23/10	R202		IRC defines a "shear wall".	Not in UDC.
21	3/23/10	R309	20.07(10) & (35)	UDC defines a "garage" and a "carport".	Not in IRC.
22	3/23/10	R202		IRC defines "occupied space".	Not in UDC.
23	3/23/10	R202		IRC defines "structural insulated panels" (SIP) and wood structural panels.	Not in UDC.
24					
25				CHAPTER-3 PLANNING	
26	6/30/09			Which code would apply to UDC homes constructed pre-IRC?	Follow code home was originally built under
27	6/30/09	R301.5 (Table R301.5)	21.02	IRC requires bedroom Live Load of 30 PSF	Should be 40 PSF to accommodate future change of use
28	6/30/09	R301.5 (Table R301.5)	21.02	IRC requires live load of 10 PSF for attics without storage	Change to 5 PSF, same as UDC
29	6/30/09	R301.5 (Table R301.5)		IRC requires live load of 30 PSF for attics with fixed stairs	Change to 40 PSF to be consistent with hab. room floor loading

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	A	B	C	D	E
30	6/30/09			Major significance	Maintain current rules in UDC Ch.. 20 but insert IRC definitions
31	6/30/09			Dcomm to maintain control of UDC	Maintain current administrative rule making process
32	6/30/09			Eliminate confusion with amended code	Have ICC produce Wisconsin specific code based on IRC
33	6/30/09			Allow ample time to train on new versions of code	Adopt 2009 version of IRC in 2012 (lag one code cycle for UDC adoption)
34	6/30/09	Def. of "Habitable Space"	20.07(37)	IRC considers cooking portion of a kitchen as "habitable space". This results in a requirement to provide natural light & ventilation in the cooking portion of kitchen.	Delete the word "cooking" in IRC definition of "Habitable Space"
35	6/30/09	IRC Table 301.2(1)		Wisconsin has different zones for snow loads	Create separate tables for each zone
36	6/30/09	IRC Table 301.2(1)		General design criteria	Dcomm to fill in table
37	6/30/09	R301.4	21.02(1)(a)	IRC lacks specific "loading" language for earth-sheltered dwellings	Add language in UDC to this section
38	6/30/09	R301.7 (Table R301.7)	Not addressed	IRC regulates deflection/UDC does not	Considering eliminating this section
39	6/30/09	R302.2 to R302.2.4	Not addressed	Townhomes not currently addressed in UDC	Considering eliminating these sections
40	6/30/09	Table R302.1	Table 21.08	IRC more restrictive on fire separations	Insert UDC requirements into IRC table, include "zero lot line", committee still discussing 3/4 hour vs. 1 hour
41	6/30/09	R302.3	21.08(2)	IRC requires rated 1-hour sep. in 2-family dwellings, UDC is prescriptive	Need further clarification on how hourly ratings are achieved in IRC
42	6/30/09	R302.7	Not addressed	IRC requires enclosed rooms under stairs to be protected with 1/2" drywall, extra cost (\$30-\$400 based on type of stairway) to	Still discussing
43	6/30/09	R302.5.2	Not addressed	IRC prohibits (direct) opening from garage to bedroom	Still discussing
44	6/30/09	Table R302.1	N/A	(Fire separation) Penetrations to comply with R317.3. incorrect reference	Correct errata, should be R302.4.1
45	6/30/09	R302.9.1	N/A	<i>Is paint a regulated interior finish in the IRC?</i>	<i>Most paints applied to drywall achieve Class A flame spread rating</i>
46	6/30/09	R302.10.1 ex. 1	N/A	How does the IRC define a "concealed space". Would this include the vapor barrier under the insulation in the attic? Is a class "A" vapor barrier required?	A concealed space is similar to insulation in a wall cavity
47	6/30/09	R303.1	21.05	Wisconsin has different zones for snow loads	Add exception for habitable rooms in basements other than bedrooms similar to UDC

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UDC/IRC COMPARISON

	A	B	C	D	E
48	6/30/09	R303.2	21.05	IRC would require the adjoining room to have an open wall if borrowing for natural light & ventilation	Delete R303.2, add new exception 4. to R303.1 by inserting language from UDC 21.05(1)(b) which allows natural light to be borrowed through glazed openings and other approved methods.
49	6/30/09	R303.1	21.05(1) & (2)	IRC requires 4% ventilation vs. UDC's 3.5%	Still discussing. Technically, an IRC home could be built without windows if certain conditions are met.
50	6/30/09	R303.4	23.02(3)	Outdoor opening locations more restrictive in IRC	Still discussing
51	7/28/09	R316.5.3	21.11	Foam plastic exposed to attic must be covered with ignition barrier	R316.4 requirements will apply unless the criteria in R316.5.3 is met.
52	7/28/09	R303.4.2		Exhaust openings not to be directed on walkways	More restrictive than UDC/Research this section
53	7/28/09	R303.6		Stairway illumination/different than UDC	Consider eliminating this section
54	7/28/09	R303.7.1	21.05	Cannot borrow nat. lt. from a windowed sunroom	Insert language to permit glazing on unheated sunrooms
55	7/28/09	R303.7	21.05	Natural light openings	Is it permissible for a 2nd floor window to open above adjacent 1-story portion of dwelling? <i>ANSWER: As long as the window opens to a yard that is contiguous and unobstructed to the right-of-way, it is permitted, 2nd floor windows that open onto a 1-story garage roof meeting the same criteria are permitted.</i>
56	7/28/09	R303.8	20.04(1)(c)1.	IRC would require Wisconsin dwellings to be heated	Insert UDC exception in 20.04(1)(c)1.
57	7/28/09	R304		Minimum room areas not in UDC	
58	7/28/09	R305.1.1	21.06	Ceiling heights less than 6'-8" treated as crawl space in IRC	Add language to recognize stepped ceiling heights less than 6'-8"
59	7/28/09	R306		Sanitation requirements/Not in UDC	Remove this section
60	7/28/09	R307	84.20(5)(o)4.	Plumbing fixture clearances	Amend language to be consistent with 84.20(5)(o)4.
61	7/28/09	R308	21.05(3)	Safety glazing requirements more comprehensive than UDC	IRC incorporates more federal standards of CPSC 16 CFR
62	7/28/09	R308.6		Carports not specifically addressed in UDC	
63	7/28/09	R310.1	21.03(6)	Egress window requirements more restrictive in IRC	Add language to allow step inside dwelling to reduce sill height same as UDC
64	7/28/09	R310.1		IRC requires egress window in basement regardless of bedroom	Eliminate this requirement

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UDC/IRC COMPARISON

	A	B	C	D	E
65	7/28/09	R310.1		Egress window must open to a yard or court that opens to a public way	<i>As long as the window opens to a yard that is contiguous and unobstructed to the right-of-way, it is permitted.</i>
66	7/28/09	R311.3.1 & .2		IRC measures step height at exterior door from top of threshold	Amend to permit measurement from floor to floor same as UDC and R311.7.4 (stairways)
67	3/23/10	R311.4		The IRC requires a stairway exit or ramp from a loft.	UDC permits a ladder exit.
68	7/28/09	R311.6	21.035(2) & (3)	Hallway width	Use more descriptive language in UDC
69	7/28/09	R311.7	21.04(4)	IRC does not recognize intermediate irregular landings	Amend to include UDC provisions for such landings but check to see if such a change would impact ISO ratings due to most accidents occurring on stairways in homes, <i>DCOMM Larry Swaziek indicates that ISO is more concerned with environmental issues being addressed in the code such as flood protection</i>
70	7/28/09	R311.7.4.3		Stairway nosing details	Add same requirements for concrete steps
71	7/28/09	R311.8	21.045	Ramp slope more restrictive in IRC (1/12 vs. 1/8)	
72	7/28/09	R311.7.7.1	21.04(3)	Handrail height difference	
73	7/28/09	R312.3	21.04(3)(c)	Guardrail height differences	
74	7/28/09	R315		Carbon Monoxide alarms required in IRC	
75	7/28/09	R316.5.3		Foam plastic exposed to attic must be covered with ignition barrier	<i>R316.4 requirements will apply unless the criteria in R316.5.3 is met.</i>
76	7/28/09	R316.5.4		Foam plastic exposed to crawl space must be covered with ignition barrier, less restrictive than UDC	<i>R316.4 requirements will apply unless the criteria in R316.5.4 is met.</i>
77	7/28/09	R316.5.7		Foam backer board on siding	<i>1/2" thickness rule applies unless foam meets criteria in R316.6</i>
78	7/28/09	R316.5.9 & 10	21.11(1)(c)	Flame spread ratings required for foam plastic interior finishes	Requirement not in UDC, amend to include exceptions in UDC

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UDC/IRC COMPARISON

	A	B	C	D	E
79	7/28/09	R316.5.11		IRC would not permit foam sheathing in box sill w/o thermal barrier	Delete the word "spray" in IRC code section R316.5.11
80	7/28/09	R317.1 # 7.		IRC requires vapor barrier for wood framing members attached to concrete walls below grade if using untreated lumber	Amend to not permit vapor barriers at all due to concerns with moisture accumulation between concrete wall and vapor barrier
81	7/28/09	R317.1.3		IRC governs use of decay resistant wood in certain geographical areas	Not addressed in UDC
82	7/28/09	R317.1.5		IRC requires structural lumber to be pressure treated if exposed (not under roof, eave or other protective covering)	Eliminate this requirement
83	7/28/09	R317.3.1 ex. 1		1/2" or larger fastener bolts exempt from protective coating requirement	Recent information indicates that such fasteners are corroding
84	7/28/09	R317.4		IRC addresses wood/plastic composites	Not addressed in UDC
85	7/28/09	R318		Protection against subterranean termites	Not addressed in UDC
86	7/28/09	R319		IRC requires address numbers on house	Delete this requirement, normally in Zoning Code
87	7/28/09	R320		Accessibility for 4 or more dwelling/sleeping units	Not in UDC, would not apply, delete requirement
88	7/28/09	R321		Elevators and platform lifts	Amend to current UDC/COMM 18 language
89	7/28/09	R322		Flood resistant construction	Amend to conform to state regulations
90	7/28/09	R323		Storm shelters	Not addressed in UDC
91					
92				CHAPTER -4 FOUNDATIONS	
93	7/28/09	R401.3	21.12	IRC requires 6" drop in 10' for grade adjacent to house	Amend to incorporate UDC language which addresses rate of drop
94	7/28/09	R402		Wood foundations	More comprehensive than UDC
95	7/28/09	R403.3	21.16(2)	Frost protected shallow foundations	Specific language contained in IRC
96	7/28/09	R403.1	21.15	IRC minimum footing thickness is 6", UDC is 8"	
97	7/28/09			Trench foundations not clearly addressed in IRC	To be researched
98	7/28/09	R403.1.5	21.15	Slope at bottom of footing	Not addressed in UDC

TASK FORCE COMMITTEE

UDC/IRC COMPARISON

	A	B	C	D	E
99	7/28/09	R403.1.6	21.18	Foundation anchorage	More comprehensive than UDC
100	7/28/09	R403.1.7		Footings on or adjacent to slopes	Needs further study
101	7/28/09	R403.1.8		Foundations on expansive soils	Needs further study
102	7/28/09	R403.4		Crushed stone footings for pre-cast concrete foundations	Not addressed in UDC
103	8/25/09	R404		IRC does not recognize trench foundations	Amend to include provisions for trench foundations
104	8/25/09	R404.1.1		IRC allows rubble foundations	Not addressed in UDC
105	8/25/09	R404.1.2.4	21.18(2)	Reinforcement required in IRC using ACI 332 Standard used in IRC PCA 100 for poured concrete foundations	Reinforcement may be required in UDC based on unbalanced fill height, ACI 318, which is in UDC, has provisions for reinforcement, vertical reinforcement would be required in IRC
106	8/25/09	R404.1.2.4		Seismic provisions	Would not apply in Wisconsin
107	8/25/09	R404.1.5.2		Committee questioned the relationship between the exception and the code provisions	<i>The defined term "wall" may need to be amended. By the ICC's interpretation, the "wall" thickness includes the exterior sheathing (eg. foam insulation) and the drywall finish. The UDC only considers the wood stud portion of the wall for support on the foundation. Committee recommends that we use apply this term as currently used in the UDC.</i>
108	8/25/09	R404.1.5.3		Pier and curtain walls	Not addressed in UDC
109	8/25/09	R404.1.6	21.10(1)	Min. height above grade for foundation wall is 4" in IRC	UDC approaches this requirement similarly through decay protection
110	8/25/09	R404.1.7	21.18, 21.02	IRC requires 1st floor to be on foundation <u>and</u> anchored prior to backfilling	UDC requires this indirectly through foundation wall tables
111	8/25/09	R404.2	20.24(2)	IRC directly addresses wood foundations	UDC indirectly addresses wood foundations through referenced standard
112	8/25/09	R404.5		IRC addresses precast concrete walls	Not addressed in UDC
113	8/25/09	R404.4		IRC governs retaining walls that are part of foundation	Not addressed in UDC
114	8/25/09	R404.3	21.22(1)(b)	IRC has min. nominal 2" requirement for sill plates, if used	No minimum requirement in UDC
115	8/25/09	R403.1.6	21.22(1)	IRC only permits sill plates and bolts for anchorage	UDC has same requirement but allows other options. Potential amendment to include UDC provisions.

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	A	B	C	D	E
116	8/25/09	R405	21.17(2)	In IRC, depending on soil classification, foundation drainage may not be required	UDC bases the need on the height of water table and approval of AHJ
117	8/25/09	R406	21.18(3)	IRC requires damp proofing for both masonry and poured concrete walls	UDC only requires damp proofing on masonry foundation walls
118	8/25/09	R407.2		IRC requires protective coatings on inside and outside for columns	Not addressed in UDC, consider deleting this section
119					
120				CHAPTER-5 FLOORS	
121	8/25/09	R502.2.2	21.225	IRC addresses deck ledger connections	Not in UDC, requires further study
122	8/25/09	R502.3.2	21.02(1)	Need to delete "other than sleeping rooms", also delete table R502.3.1(1)	Based on previous live load change from Planning Chapter 3
123	8/25/09	R502.3.3	21.22(6)	Floor cantilevers. Consider changing 2nd & 3rd sentences in this section to read as exceptions. This change would be more consistent with IRC format	
124	8/25/09	R502.6.2	21.22(4)(a)1.c.	IRC requires min. 3" for joist overlaps, UDC requires max. 6"	Note difference
125	8/25/09	R502.7	21.22(4)1.d.	IRC requires joist overlaps to be blocked	Similar requirement with additional options in UDC
126	8/25/09	R502.7.1	21.22(9)	Bridging: IRC requires bridging for 2 x 12 or greater, UDC is 2 x 8 or greater	Note difference
127	8/25/09	Table R602.3(1)	See fastener schedule in UDC Appendix	IRC specifies 3.5" length for 16d nails, UDC only specifies 16d	DCOMM uses ICS ESR report 1327 specifies equivalency of nail strengths, Committee to consider permitting industry standard 3" 16d nail vs. 3.5" nail
128	8/25/09	R502.10	21.22(7)	Framing of openings less restrictive in IRC for tail joists (12' vs. 8')	Maintain 8' requirement
129	8/25/09	R503.3	21.22(8)(c) ??	IRC contains a standard for particle board underlayment	
130	8/25/09	R504	21.205	IRC is more descriptive for wood floors in contact with ground	Indirectly addressed in UDC
131	8/25/09	R505	20.24(1)	IRC contains a section for light gauge steel frames floors	Indirectly addressed in UDC
132	8/25/09	R506.1	21.20, 21.203	IRC requires a concrete floor thickness of 3.5" for all concrete floors, UDC requires 3" for basement and 4" for garage floors	Note difference

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	A	B	C	D	E
133	8/25/09	R506.2.1	21.20(2), 21.203	IRC more restrictive for fill materials below concrete floors	Requires further discussion and possible amendment to establish approved process acceptable throughout state
134	8/25/09	R506.2.3	21.20(2)	IRC appears to require vapor barriers in garages	Not required in UDC
135	8/25/09	R506.2.3	22.38(3)	IRC less restrictive for vapor barrier termination, IRC only requires that the VB terminate at base course of wall where UDC requires the VB to run up wall 6".	
136					
137				CHAPTER-6 WALL CONSTRUCTION	
138	9/29/09	R601.2.1	22.38(4)	IRC allows vapor barrier as option for below grade exterior walls, UDC prohibits the plastic sheeting but permits paint as a vapor barrier	Need to maintain prohibitions in 22.38(4) for Class 1 & 2 vapor barriers
139	9/29/09	R602.1.3	UDC (State law allows self-grading on lumber	Lumber grade of structural log members addressed in IRC	
140	9/29/09	R602.3.2	21.24(2)	Top plate overlap less restrictive in IRC	
141	9/29/09	R602.6	21.24(4)	IRC does not appear to address notching/boring of columns	A definition for columns may need to be created. <i>R602.6 applies to all conditions. For questionable stud borings, the AHJ could ask for engineering analysis. Committee would recommend that a clear distinction be identified in the code between a column and typical header/jack studs.</i>
142	9/29/09	R602.7.1		Wood structural panel box header permitted in IRC	
143	9/29/09	R602.6.1	21.24(2)(b)	Notching of top plates for pipes/ducts less restrictive in IRC	
144	9/29/09	R602.10	23.25(8)	2009 IRC wall bracing methods currently adopted by reference in UDC	
145	9/29/09	R602		Seismic provisions in R602 would not be required in Wisconsin	
146	9/29/09	R603	21.02(2)(c)	Light gauge steel wall framing addressed in IRC, UDC addresses this in 21.02(2)(c), Table 22.32, 20.24 adopts AISC 360 Standard	

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	A	B	C	D	E
147	9/29/09	R607	21.26	Unit masonry section, each code is similar but each discuss specific requirements in greater detail - IRC discusses more of what is in the standard while the UDC references the standard	
148	9/29/09	R609.1	21.18(3)(b)1., table 21.18-C footnote b	Grouted masonry requirements addressed in this IRC section while UDC is in the foundation section	
149	9/29/09	R610	21.05(3)	IRC addresses glass unit masonry. Addressed in UDC through the safety glazing section	
150	9/29/09	R607	21.26	Masonry walls - IRC requirements are in one section while UDC references multiple sections	
151	9/29/09	R610.6		IRC addresses glass block installations at the sill	Not addressed in UDC
152	9/29/09	R611		This is a new section in 2009 IRC that merges the requirements for flat insulated concrete form (ICF) walls, waffle-grid walls and conventionally formed above-ground concrete walls and provides very detailed prescriptive construction methods for such walls with option to use accepted industry standards	Matches PCA 100
153	9/29/09	R612		Exterior windows and doors - Requires fall protection in 2nd story rooms or window sill height greater than 6' above grade	Not in UDC, recommend removal of R612.2 to R612.4.2
154	9/29/09	R612.5		IRC has performance requirements for exterior windows and doors, including garage doors for wind speed/resistance/wind borne debris/structural strength	Not addressed in UDC
155	9/29/09	R613		Structural Insulated Panels (SIPS) in IRC	Not in UDC, need to discuss this w/SIPS professional to verify that this section is not product or manufacturer specific
156					
157				CHAPTER-7 WALL COVERINGS	
158	9/29/09	R701.2	21.24(2)	IRC addresses wall coverings for both interior and exterior wall coverings and protection of components from adverse weather conditions	Recommendation to amend code to follow manufacturer's recommendations
159	9/29/09	R702.3		IRC addresses detailed requirements for gypsum construction	Not addressed in UDC

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UDC/IRC COMPARISON

	A	B	C	D	E
160	9/29/09	R703.2	21.24(4)(e)	UDC language for penetrations on exterior water resistive barriers is more prescriptive	
161	9/29/09	R703.2		Water resistive barriers. Remove exception 2. in IRC, unnecessary code provision	
162	9/29/09	R703.5		Wood shingles addresses in IRC	Not addressed in UDC
163	9/29/09	R703.7.6	21.26(7)(a)4.	Weep hole spacing is 33" O.C. in IRC and 24" O.C. in UDC, IRC does not require ventilation at top of brick wall and UDC does	
164	9/29/09	R703.9		IRC addresses exterior insulation finish systems (EIFS)	Not addressed in UDC
165	9/29/09	R703.10		IRC addresses fiber cement siding installation and materials	Not addressed in UDC
166					
167				CHAPTER-8 ROOF-CEILING CONSTRUCTION	
168	10/27/09	R802.5.1		Purlin and support bracing permitted <u>as an option</u> in the IRC to reduce rafter sizing.	
169	10/27/09	R802.8.1		IRC requires various bridging methods for roof rafters and ceiling joists required for 2" x 14" or larger wood members in IRC	
170	10/27/09	R202	21.02(2)	The IRC defines a "Registered Design Professional" and requires the RDP to sign off on documents requiring engineering analysis.	Committee recommendation is to revise this definition and all other similar language in IRC to require structural analysis only (without engineering seal) where IRC requires a registered design professional. An exception to this change would be alterations to an engineered product or component such as a truss under R802.10.4. This is consistent with UDC.
171	10/27/09	R803.2.1.2		Insert words "if used" at the beginning of this section which includes specifications for fire retardant treated lumber	
172	10/27/09	R804		IRC addresses steel roof framing	Not addressed in UDC
173	10/27/09	R805		This section regulates ceiling finishes and basically refers the user back to R702 for interior coverings	Not addressed in UDC

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UDC/IRC COMPARISON

	A	B	C	D	E
174	10/27/09	R806.1		IRC is more specific as to the dimensional openings for attic vent materials	
175	10/27/09	R806.3		IRC requires 1" air space above insulation, UDC does not and relies on manufacturer's recommendation	
176	10/27/09	R806.1	22.39(2)(a)6.	UDC does not require roof vents for dormers or small roof sections under 40 sq. ft., IRC requires vents for all attic spaces	
177	10/27/09	R807.1	21.07	IRC requires attic access to be 22" x 30" and UDC requires 14" x 20". The IRC also requires the scuttle access to have a 30" vertical clearance immediately above the scuttle opening. UDC does not specify the location of the scuttle opening. For required attic access, UDC threshold is 150 sq. ft., IRC threshold is 30 sq. ft.	Recommendation is to keep this the same as UDC.
178					
179				CHAPTER-9 ROOF ASSEMBLIES	
180	10/27/09	R903.5		IRC addresses hail exposure conditions	Not addressed in UDC
181	10/27/09	R907.3	21.28(6)	IRC addresses reroofing, UDC has some new reroofing regulations	
182	10/27/09	R905.2.2		IRC addresses minimum slope for asphalt roofing	Not addressed in UDC
183	10/27/09	R905.1/R905.2		Appears to be a conflict in the IRC as to whether you have to follow the manufacturer's requirements or the code provisions in the referenced sections.	It should be one or the other. Committee recommends amending the words "and the" to "or" in first sentence in R905.1.
184	10/27/09	R905.2.2		Roof slope for asphalt shingles.	This section requires further discussion
185	10/27/09	R905.2.7.1	21.28(4)(b.)	IRC requires 24" of Ice & water shield from inside of wall while UDC is 12"	
186	10/27/09	R905.2.8.2	21.28(7)(b)	IRC requires 24" wide flashing for valley and UDC is 16",	Committee also recommended to make sure that the manufacturer's are also following the ASTM standards.
187	10/27/09	R905.2.8.3		Sidewall flashing addressed in IRC	Not addressed in UDC

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UDC/IRC COMPARISON

	A	B	C	D	E
188	10/27/09	R905.3.4 & R905.3.5		IRC addresses clay and concrete roof tile	Not addressed in UDC
189	10/27/09	R905.4.4		IRC addresses metal roof panels/coverings	Not addressed in UDC
190	10/27/09	R906		Roof coverings	Not addressed in UDC
191					
192				CHAPTER-10 CHIMNEYS AND VENTS	
193	10/27/09	R1001.5	21.29(3)	Masonry firebox walls. IRC requires 8" solid masonry while UDC requires 8" nominal thickness of which 4" min. must be solid	
194	10/27/09	R1001.5.1	21.29	Steel fireplace units addressed in IRC.	
195	10/27/09	R1001.9.1	21.29(6)	IRC requires 2" min. hearth thickness	No minimum in UDC
196	10/27/09	R1001.11	21.29(12) & 21.30(9)	IRC allows for exceptions to less than 2" clearance to masonry chimneys	UDC allows a 1" clearance on the exterior chimneys
197	10/27/09	R1002		IRC addresses masonry heaters	Not addressed in UDC
198	10/27/09	R1003.2	21.15(2)(d)	IRC requires min. 6" footing extension for masonry fireplace footings, UDC requires 4" min.	
199	10/27/09	R1003.5	21.30(4)	Masonry chimney corbelling differences between each code.	
200	10/27/09	R1006 & R1007		Masonry chimney changes in dimension and flue liner offsets	Not addressed in UDC
201	10/27/09	R1003.16	21.30(5)	UDC requires that chimney inlet must be installed at time of construction, IRC does not require installation at time of construction	
202	10/27/09	R1003.17	21.30(6)	IRC requires specific size and location for clean-out where UDC only requires a clean-out. IRC does not require clean-out if accessible through the fireplace opening.	
203	10/27/09	R1003.13	21.30(3)	Minor differences between codes for multiple flue separation requirements	
204	10/27/09	R1006	23.06(1)	IRC has more detail in code for exterior air supply for fireplaces	

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UDC/IRC COMPARISON

	A	B	C	D	E
205	10/27/09	R1005.2		IRC has specific requirements for decorative shrouds (chase enclosures) around fireplace chimney terminations	Not addressed in UDC
206					
207				CHAPTER-11 ENERGY EFFICIENCY	
208	11/17/09	N1102.1	22.31(1)(b)	IRC climate zone boundaries positioned similarly as UDC	UDC Zone-1 is equivalent to IRC Zone 6 , UDC Zone-2 is equivalent to IRC zone 7
209	11/17/09	IRC Table N1102.1	UDC Table 22.31-1	Fenestration, skylight, ceiling R & U factors same in both codes, wall R-value increased to R-20 in 2009 in IRC for cavity only insulation versus R-19 in UDC	
210	11/17/09	IRC Table N1102.1	Table 22.31-1, Note f	footnote f. in UDC table permits compression in wall cavity, IRC has R-20 for wood frame VS UDC of R-19	
211	11/17/09	IRC Table N1102.2	Table 22.31-1	Footnote k. is not in UDC, UDC matches 2006 IRC	
212	11/17/09	IRC Table N1102.3	Table 22.31-1	"Slab R value & depth" in table N1102.1 are different than UDC	
213	11/17/09		Table 22.31-3	As part of the U-factor tables, UDC has a lower equipment efficiency table (where you must install a higher level of insulation) which is not in IRC	
214	11/17/09		Table 22.31-2	UDC has an error, basement wall U value should be 0.059 not 0.065	INFORMATIONAL ONLY
215	11/17/09	N1102.2.3	22.37(3)(a)	<u>Both</u> UDC & IRC require weather-stripping of access hatches and doors between conditioned and unconditioned spaces	
216	11/17/09	N1102.2.4	22.32	Scuttle panel insulation shall be the same R-value as the attic insulation	Not specifically mentioned in UDC
217	11/17/09	N1102.2.10	22.32	IRC spells out that insulation is not required on the horizontal portion of the foundation that supports the masonry veneer.	Not specifically mentioned in UDC
218	11/17/09	N1102.4 #9		Air sealing between dwelling units required in IRC	Not addressed in UDC
219	11/17/09	N1102.4.2.1	22.37	IRC specifies testing options for air leakage	Not addressed in UDC

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UDC/IRC COMPARISON

	A	B	C	D	E
220	11/17/09		Table 22.36-2	There are default values in the UDC for exterior doors with or without storm doors	Not addressed in IRC
221	11/17/09	Table 601.3.1	22.38	In Zones 6 & 7, the IRC would not allow a class 3 Vapor barrier when the house is sheathed with OSB or plywood	Permitted in UDC
222	11/17/09	N1102.4.3	21.32(1)(b)	IRC requires all wood burning fireplaces to have a gasketed door	Not specifically mentioned in UDC
223	11/17/09	N1103.2.1	22.42	Duct insulation requirements in IRC are less restrictive than UDC, IRC requires R-6 in areas other than the attic which are outside of the thermal envelope.	
224	11/17/09	1103.2.2	22.43	IRC requires a system tightness testing for ducts located outside the conditioned space	Committee recommends removal of this requirement
225	11/17/09	N1103.3 & .4	22.44	Pipe insulation requirements less restrictive in the UDC for boilers	The UDC only addresses insulating of piping outside the thermal envelope
226	11/17/09	N1103.3 & .4	22.44	Pipe insulation requirements less restrictive in the UDC for recirculating hot water pipes	The UDC only addresses insulating of piping outside the thermal envelope
227	11/17/09	N1103.8		IRC addresses pool heater efficiencies	Not addressed in UDC
228	11/17/09	N1103.7		IRC addresses snow and ice-melting systems, including sidewalks	Not addressed in UDC
229	11/17/09	N1104		IRC designates certain lighting efficiencies for at least 50% of the lamps in the home	Not addressed in UDC
230					
231				CHAPTER-12 MECHANICAL ADMINISTRATION	
232	11/17/09	Chapter 12		Mechanical Administration. This is an administrative chapter that would be amended by Dcomm	
233	11/17/09		22.50 - 22.53	UDC has simulated performance alternatives for energy trade-offs	Not addressed in IRC
234					

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UDC/IRC COMPARISON

	A	B	C	D	E
235				CHAPTER-13 GENERAL MECHANICAL SYSTEM REQUIREMENTS	
236	11/17/09	M1305.1.2		Appliance access in IRC conflicts with State Electrical Code	
237	11/17/09	M1307.4		IRC addresses hydrogen generating systems	Not addressed in UDC
238	11/17/09	M1305.1.3 & .4	21.07	The IRC requires the attic and under floor space openings to be large enough to remove the appliance	Not addressed in UDC
239					
240				CHAPTER-14 HEATING AND COOLING EQUIPMENT	
241	11/17/09	M1401.3	23.02(1)	A more thorough review is needed to compare the air temperature design criteria between the two codes	
242	11/17/09	M1410	23.04(2)(b)	UDC prohibits the use of unvented space heaters, IRC allows them	
243	11/17/09	P2802	23.04(5)	<i>UDC allows water heaters for space heating, this item would be more appropriately placed in IRC Ch. 14 Mechanical section</i>	
244	11/17/09	M1407	23.04(3)	IRC addresses duct heaters specifically	Generally addressed by listing in UDC
245	11/17/09	M1408	23.04(3)	IRC addresses vented floor furnaces specifically	Generally addressed by listing in UDC
246	11/17/09	M1410	23.04(3)	IRC addresses vented room heaters specifically	Generally addressed by listing in UDC
247	11/17/09	M1411.4		Auxiliary drain pan required for AC condensates in IRC	Not addressed in UDC
248	11/17/09	1411.3.1	23.156	IRC specifies drain system requirements for AC condensates	Not addressed in UDC
249	11/17/09	M1411.5		AC refrigerant lines require additional R-value in IRC	Not addressed in UDC
250	11/17/09	M1412		IRC addresses absorption cooling equipment	Not addressed in UDC
251	11/17/09	M1413		IRC addresses evaporative cooling equipment	Not addressed in UDC
252					
253				CHAPTER-15 EXHAUST SYSTEMS	

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UDC/IRC COMPARISON

	A	B	C	D	E
254	1/26/10	M1502	23.14	IRC governs any dryer while UDC governs only gas dryers	UDC does not specify to use manufacturers specs for electric dryers
255	1/26/10	M1502.4.6	23.14	IRC requires an exhaust duct to be installed if a space is provided for the dryer	Not addressed in UDC
256	1/26/10	G2439, M1502	23.14	IRC has specific standards for make-up air for dryers for dryers over 200CFM	Not addressed in UDC
257	1/26/10	M1502.5		IRC requires protective nail/screw plates for dryer ducts	Not addressed in UDC
258	1/26/10	M1503.4	23.08	Balanced air requirement starts at 400 CFM in IRC for kitchen exhaust, UDC requirements apply to all kitchen exhaust	
259	1/26/10	M1505		IRC addresses overhead exhaust hoods	Not addressed in UDC
260	1/26/10	M1507.3	23.02(3)(b)	IRC requires a specific ventilation rate for ventilated range hoods in kitchens	Not addressed in UDC
261	1/26/10		23.08		
262					
263				CHAPTER-16 DUCT SYSTEMS	
264	1/26/10	M1601.5	23.08(2)(b)	IRC prohibits under floor plenums in new structures	Permitted in UDC
265	1/26/10	M1601.4	23.08(8), 22.43	IRC requires all air ducts to be sealed.	UDC only requires all ducts outside the thermal envelope to be sealed.
266	1/26/10	M1601.1.1 ,7., 7.3	23.08(2)(a)3.	IRC prohibits stud spaces as return air for more than one level	Permitted in UDC
267	1/26/10	M1602.2, 3.	23.08(2)(a)3.	IRC allows for dilution of return air with outside air and specifies the permitted locations of outside air inlets. This section also lists specific areas where return air may <u>not</u> be taken from.	<i>Need ICC clarification on this</i>
268					
269				CHAPTER-17 COMBUSTION AIR	
270	1/26/10		23.06		

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UDC/IRC COMPARISON

	A	B	C	D	E
271					
272				CHAPTER-18 CHIMNEYS AND VENTS	
273	1/26/10	M1804.2.2		The IRC requires decorative shrouds to be listed	Not required in UDC
274	1/26/10	M1804.1	23.045	IRC addresses pellet fuel burning appliance vents directly	Indirectly addressed in UDC
275	1/26/10	M1804.2.6, 6.	23.04(1)	Except for direct vent appliances, IRC prohibits a power exhauster type vent termination to be at least 10' from the property line. This does not apply to direct vent appliances	Not required in UDC
276					
277				CHAPTER-19 SPECIAL FUEL-BURNING EQUIPMENT	
278	1/26/10	Ch. 19		IRC specifically addresses clearances for ranges, ovens, sauna heaters, stationary fuel cell power plants and gaseous hydrogen systems	Not addressed in UDC
279					
280				CHAPTER-20 BOILERS AND WATER HEATERS	
281	1/26/10	M2002.5	23.04(4)	Internal low water cut-off required in IRC, internal low water cut requirements not directly addressed in UDC-must refer to Comm 41.30	
282	1/26/10	M2005.2	23.04(6)(a)	Regardless of the listing, the IRC prohibits installing a water heater in any room used as a storage closet	Permitted in UDC per listing
283	1/26/10	M2006		IRC addresses pool heaters	Not addressed in UDC
284					
285				CHAPTER-21 HYDRONIC PIPING	
286	1/26/10	Ch 21	23.10	IRC contains more information on the installation of hydronic piping than the UDC	

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UDC/IRC COMPARISON

	A	B	C	D	E
287	1/26/10	M2101.7		Prohibited tee applications	Not addressed in UDC
288	1/26/10	M2103.2.2		IRC requires R-11 insulation below piping for in-floor heating on a <u>suspended</u> floor	Not addressed in UDC
289	1/26/10	M2103.2.2		IRC requires a thermal break at slab edge for radiant floor heating systems	Not addressed in UDC
290	1/26/10	2103.4		IRC requires testing at 100 psi for hydronic heating system	UDC addresses ASHRAE Standards
291					
292				CHAPTER-22 SPECIAL PIPING AND STORAGE SYSTEMS	
293	1/26/10	Ch 22	23.16	This chapter is consistent with Comm 10 and Comm 40 requirements	Committee recommends that the language in this section be replaced with a reference to Comm 10 and Comm 40
294					
295				CHAPTER-23 SOLAR SYSTEMS	
296	1/26/10	Ch 23		Solar systems	Not in UDC, only reference to solar systems is in Table 22.53-1 on Note g
297					
298				CHAPTER-24 FUEL GAS	
299	3/2/10	General Note	20.24 Table 20.24-10	Many of the provisions in IRC Ch 24 are identical to the NFPA 54 requirements	Many of the code provisions in UDC are indirectly referenced through NFPA 54
300	3/2/10	G2403	20.07	IRC has separate definition section in Ch. 24. Some differences exist between Ch. 24 definitions and UDC definitions	UDC definitions apply broadly to all chapters of UDC
301	3/2/10	G2406.2, 3., 4.	23.04(2)(b)	IRC allows unvented heaters	Not permitted in UDC
302	3/2/10	Ch 24		IRC contains introductory language at beginning of Ch. 24 which basically states that Ch. 24 closely mirrors the language in the ICC IFGC (which is for commercial buildings) while containing amendments for 1 & 2 family dwellings and roughhouses.	

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UDC/IRC COMPARISON

	A	B	C	D	E
303	3/2/10	G2407.4	23.06	IRC has specific makeup air provisions directly in code for exhaust fans, clothes dryers and kitchen ventilation systems. The UDC references NFPA 54 for these requirements	Committee suggests adding some guidance to the user as to when makeup air is required in the code
304	3/2/10	G2411.1		IRC has provisions for bonding CCST gas piping	Not addressed in UDC
305	3/2/10	G2408	23.04(6)(b)	Gas appliance ignition source can be less than 18" above floor through an exception in the IRC for listed gas appliances	UDC requires 18" clearance with no exception
306	3/2/10	2420.5.1	20.24 Table 20.24-10	IRC requires that gas shut-off be located in same room as appliance unless a decorative vented appliance	UDC allows gas shut-off to be within 6' of appliance or in another room within 6' of appliance
307	3/2/10	G2423.1	20.24 Table 20.24-10	IRC has requirements for compressed natural gas dispensing systems	Indirectly referenced in UDC through NFPA 54
308	3/2/10	G2422.1	20.24 Table 20.24-10	IRC has specific requirements for appliance connectors, 6' total length for all connectors	UDC 6' limit is for non-metallic connectors only
309	3/2/10	G2425.8, 7.	23.04(2)(b)	IRC allows unvented room heaters	Not permitted in UDC
310	3/2/10	G2426.4		IRC requires an insulation shield around vents in attics exposed to insulation	Not in UDC unless specified by manufacturer
311	3/2/10	G2426.7		IRC requires shield plates for vents to prevent physical damage to vent	Not in UDC unless specified by manufacturer
312	3/2/10	G2427.4.1.1	20.24 Table 20.24-10	IRC requires primer/solvent for vent pipes to be of contrasting colors	Indirectly referenced in UDC through 2009 NFPA 54
313	3/2/10	G2428.3.18/G2428.3.9.1	23.155(2)	IRC requires vent "wye" fitting to be the same material as common vent in one section and allows differing materials in another section, seems to be a conflict in IRC	UDC permits single or double wall vent systems in common vent
314	3/2/10	G2433		IRC addresses "Log Lighters"	Not addressed in UDC
315	3/2/10	G2439		IRC has more requirements for clothes dryer exhaust such as protective plates for vent, transition ducts, duct length, labeling for duct	Not addressed in UDC
316	3/2/10	G2440		IRC addresses sauna heaters	Not addressed in UDC
317	3/2/10	G2445	23.04(2)(b)	IRC permits unvented room heaters	Not permitted in UDC
318	3/2/10	G2447.2	23.04	IRC prohibits commercial type cooking appliances in dwelling units unless listed for residential use	Such prohibition not addressed in UDC