

International Code Council
CONSENSUS COMMITTEE ON HURRICANE RESISTANT CONSTRUCTION
(IS-HRC)

Meeting #13 – February 14, 2008
Telephone Conference

TENTATIVE MINUTES

I. CALL TO ORDER

The Chairman called the meeting to order at 10:00 AM. The Chairman welcomed everyone and self-introductions were made.

Fourteen voting members are required for a quorum. A roll call showed the following 14 voting members present at the call to order:

Charles Anderson	Eric Haefli
Shelia Blake	Marcelino Iglesias
Ralph Dorio	Medard Kopczynski
Brad Douglas	Mo Madani
Charles Everly	James Russell
Dennis Graber	Stephen Skalko
Dale Greiner	Gary Walker

II. APPROVAL OF AGENDA

The meeting agenda was approved unanimously.

III. ATTENDANCE

Fourteen committee members, six guests and two ICC staff member were present.

Members present:

Charles Anderson
Shelia Blake
Ralph Dorio
Brad Douglas
Charles Everly
Dennis Graber
Dale Greiner
Eric Haefli
Marcelino Iglesias
Medard Kopczynski
Mo Madani
James Russell
Stephen Skalko
Gary Walker

Guests present:

Matt Dobson
Gary Ehrlich
Michael Gardner
Bonnie Manley
Randy Shackelford
Larry Wainright

ICC Staff present:

Larry Franks-Secretary
Dave Bowman – Manager of Codes

IV. MEMBERSHIP

There has been no change in the membership of the committee. The committee has a total of 26 voting members. We now have 9 General, 8 User, and 9 Producer voting members.

V. **APPROVAL OF MEETING #12 MINUTES – August 14-15, 2007**

The meeting #12 minutes were approved unanimously.

VI. **COMMITTEE APPROVAL OF REVISED TABLES 205H AND 205J**

Dennis Graber explained that the method of analysis used in the computer program contained an error that resulted in unconservative values in the table. The revised tables have the corrected values.

The units of feet should be shown in the title for Tables 205H and for the building width heading in tables 205H and 205J. The committee agreed that adding the units is editorial and staff will make this correction.

The committee unanimously approved the revised Tables 205H and 205J as shown in pages 9 through 15 of Third Public Comments Draft (November 2007).

VII. **CONSIDERATION OF COMMENTS ON THIRD PUBLIC COMMENTS DRAFT(NOVEMBER 2007)**

a. **Public comments on Third Public Comments Draft (November 2007)**

The Public Comments Agenda consists of 7 public comments as shown in the attached **Public Comments Agenda for the IS-HRC Third Public Comments Draft dated November 2007.**

The committee discussed and approved the resolution of the 7 public comments.

VIII. **COMMITTEE APPROVAL OF PUBLIC COMMENTS REPORT**

The results of the committee's action will be published in the Public Comments Report (PCR) and posted on the ICC website. The commenters will be notified to let the committee know if their comments have been resolved. The commenters will also be notified of their right to appeal.

(See the attached PCR – Third Public Comments Draft Dated November 2007)

IX. **OTHER BUSINESS**

a. **Review Work Plan**

The work plan has been revised to show the detailed time interval required for the ANSI process. **See attached Work Plan dated November 7, 2007.**

b. **Discussion of completion steps.**

Based on the committee's action today a fourth public comment draft will be posted for public comment. A BSR8-4 will be submitted to ANSI for posting for public comment. If no significant public comments are received on BSR8-4, the publish date of July 2008 should be met.

The ICC code change proposal to place the standard in the IBC and IRC is proposal S79-07/08, Parts I & II.

The Chairman, Med Kopczynski, will testify for the proposal to the IRC Building & Energy Committee at the public hearings in Palm Springs, CA. Gary Walker, Marcelino Iglesias and Randy Shackelford will be available to testify for the proposal to the IBC Structural Committee.

c. Next meeting.

The need for a next meeting or telephone conference will be determined later. If a meeting or telephone conference is required, staff will poll the committee for the date and time.

XI. ADJOURN

The meeting was adjourned at 11:20 a. m. on Thursday, February 14, 2008.

**Public Comments Agenda for the
IS-HRC Third Public Comments Draft
Dated November 2007**

Item: Grundahl 01 – 202.1.7.3

- 5) Revision to: Section 202.1.7.3 Table _____ Figure _____
- 6) **COMMENT** Revise as follows (check BOX and state proposed change):
 Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

202.1.7.3 Fasteners and connectors that are exposed directly to the weather or subject to salt corrosion in coastal areas, as determined by the building official, or in contact with treated wood under exterior exposures shall comply with the following:

COMMENT Continued (Attach additional sheets as necessary)

7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

Contact with treated wood but under dry exposures has not been shown to require enhanced corrosion resistance and is commonly accepted with standard galvanizing such as G60 or G90.

There are several applications of preservative treated lumber where the high moisture content expected with exterior exposures do not occur, and therefore the fasteners need not have increased corrosion resistance. Some examples include:

- 1) When chord segments using preservative treated lumber are included in a truss because a portion of that material is extended outside the structure (like chord overhangs) and exposed to the weather, however the connections to the truss plates are made a substantial distance inward from the exterior exposure.

- 2) When preservative treatment is used for termite or other insect resistance in dry applications.

In these situations, requiring an enhanced corrosion resistance unnecessarily drives up the cost of construction for no good reason since the increased corrosion resistance is not required.

Item: Shackelford 01 – 202.1.7.3.1 and 304.3.1

5) Revision to: Sections 202.1.7.3.1 and 304.3.1

6) **COMMENT** Revise as follows (check BOX and state proposed change):

Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

202.1.7.3.1 Screws, bolts and nails shall be corrosion resistant by coating, galvanization, or composition (stainless steel, nonferrous metal, or other suitable corrosion resistant material). The corrosion resistance of fasteners with diameters over 3/8 inch shall be demonstrated by compliance with ASTM A153. The corrosion resistance of fasteners with diameters of 3/8 inch or less shall be demonstrated through one of the following methods:

1. Corrosion resistance equivalent to ASTM A153.
2. Corrosion resistance equivalent to ASTM A641 Class 1.
3. Corrosion resistance exhibiting not more than 5% red rust after 1000 hours exposure in accordance with ASTM B117.
4. Corrosion resistance exhibiting not more than 5% red rust after 280 hours exposure for nails, 1000 hours for roof covering fasteners, or 360 hours exposure for other carbon steel fasteners, in accordance with ASTM G85, Annex 5.

304.3.1 Screws, bolts and nails shall be corrosion resistant by coating, galvanization, or composition (stainless steel, nonferrous metal, or other suitable corrosion resistant material). The corrosion resistance of fasteners with diameters over 3/8 inch shall be demonstrated by compliance with ASTM A153. The corrosion resistance of fasteners with diameters of 3/8 inch or less shall be demonstrated through one of the following methods:

1. Corrosion resistance equivalent to ASTM A153.
2. Corrosion resistance equivalent to ASTM A641 Class 1.
3. Corrosion resistance exhibiting not more than 5% red rust after 1000 hours exposure in accordance with ASTM B117.
4. Corrosion resistance exhibiting not more than 5% red rust after 280 hours exposure for nails, 1000 hours for roof covering fasteners, or 360 hours exposure for other carbon steel fasteners, in accordance with ASTM G85, Annex 5.

7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

The purpose of this proposal is to make this requirement match up with requirements for coastal jurisdictions that already enforce corrosion standards on fasteners.

Section 1517 of the Florida Building Code (HVHZ) specifies that "Nails or wood screws shall be hot dipped electro or mechanically galvanized to a thickness sufficient to resist corrosion in compliance with TAS 114, Appendix E, Section 2 (ASTM G 85)."

Many fastener manufacturers have already performed testing to this standard. This proposal is to allow roof fasteners that have already performed testing to this standard to be able to meet the performance standard of ICC-600. The ASTM G85 test standard is at least as severe as the ASTM B117 standard that has already been approved. This proposal will not lessen the standards for corrosion resistance.

Item: Grundahl 02 – 202.1.7.3.1

- 5) Revision to: Section 202.1.7.3.1 Table _____ Figure _____
- 6) **COMMENT** Revise as follows (check BOX and state proposed change):
 Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

202.1.7.3.1 Screws, bolts and nails shall be corrosion resistant by coating, galvanization, or composition (stainless steel, nonferrous metal, or other suitable corrosion resistant material). The corrosion resistance of galvanized fasteners with diameters over 3/8 inch shall be equal to or equivalent to that provided demonstrated by compliance with ASTM A153. The corrosion resistance of fasteners with diameters of 3/8 inch or less shall be demonstrated through one of the following methods:

1. Compliance, or Corrosion resistance equivalent, to with ASTM A153.
2. Compliance, or Corrosion resistance equivalent, to with ASTM A641 Class 1.
3. Corrosion resistance exhibiting not more than 5% red rust after 1000 hours exposure in accordance with ASTM B117.
4. Corrosion resistance exhibiting not more than 5% red rust after 280 hours exposure for nails, or 360 hours exposure for other carbon steel fasteners in accordance with ASTM G85, ANNEX 5.

COMMENT Continued (Attach additional sheets as necessary)

- 7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

ASTM A153 and A641 are material specifications, not test methods. The wording specifying corrosion resistance to these standards would presumably require testing as the standards merely specify coating thicknesses. Our presumption is that the intent of the language is as it has been edited.

Item: Grundahl 03 – 304.3.1

5) Revision to: Section 304.3.1 Table _____ Figure _____

6) **COMMENT** Revise as follows (check BOX and state proposed change):

Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

304.3.1 Screws, bolts and nails shall be corrosion resistant by coating, galvanization, or composition (stainless steel, nonferrous metal, or other suitable corrosion resistant material). The corrosion resistance of galvanized fasteners with diameters over 3/8 inch shall be equal to or equivalent to that provided ~~demonstrated~~ by compliance with ASTM A153. The corrosion resistance of fasteners with diameters of 3/8 inch or less shall be demonstrated through one of the following methods:

1. ~~Compliance, or Corrosion resistance equivalent, to~~ with ASTM A153.
2. ~~Compliance, or Corrosion resistance equivalent, to~~ with ASTM A641 Class 1.
3. Corrosion resistance exhibiting not more than 5% red rust after 1000 hours exposure in accordance with ASTM B117.
4. Corrosion resistance exhibiting not more than 5% red rust after 280 hours exposure for nails, or 360 hours exposure for other carbon steel fasteners in accordance with ASTM G85, ANNEX 5.

COMMENT Continued (Attach additional sheets as necessary)

7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

ASTM A153 and A641 are material specifications, not test methods. The wording specifying corrosion resistance to these standards would presumably require testing as the standards merely specify coating thicknesses. Our presumption is that the intent of the language is as it has been edited.

Item: Grundahl 04 – 202.1.7.3.2

5) Revision to: Section 202.1.7.3.2 Table _____ Figure _____

6) **COMMENT** Revise as follows (check BOX and state proposed change):

Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

202.1.7.3.2 Metal plates and connectors shall be stainless steel, hot dipped galvanized prior to fabrication to meet ASTM A653 Coating Designation G185, ~~or~~ hot dipped galvanized after fabrication to meet ASTM A123, or provided with a protective coating such as specified by ANSI/TPI 1-2002.

COMMENT Continued (Attach additional sheets as necessary)

7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

Section 6.5.1 of ANSI/TPI 1-2002, National Design Standard for Metal Plate Connected Wood Truss Construction, provides three coating options that are recognized as providing increased corrosion protection for metal connector plates. These include:

- (a) Epoxy-Polyamide Primer (SSPC-Paint 22)
- (b) Coal-Tar Epoxy-Polyamide Black or Dark Red Paint (SSPC-Paint 16), and
- (c) Basic Zinc Chromate-Vinyl Butyral Wash Primer (SSPC-Paint 27) and cold applied Asphaltic Mastic (Extra Thick Film) Paint (SSPC-Paint 12).

Item: Grundahl 05 – 304.3.2

- 5) Revision to: Section 304.3.2 Table _____ Figure _____
- 6) **COMMENT** Revise as follows (check BOX and state proposed change):
 Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

304.3.2 Metal plates and connectors shall be stainless steel, hot dipped galvanized prior to fabrication to meet ASTM A653 Coating Designation G185, ~~or~~ hot dipped galvanized after fabrication to meet ASTM A123, or provided with a protective coating such as specified by ANSI/TPI 1-2002.

COMMENT Continued (Attach additional sheets as necessary)

7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

Section 6.5.1 of ANSI/TPI 1-2002, National Design Standard for Metal Plate Connected Wood Truss Construction, provides three coating options that are recognized as providing increased corrosion protection for metal connector plates. These include:

- (d) Epoxy-Polyamide Primer (SSPC-Paint 22)
- (e) Coal-Tar Epoxy-Polyamide Black or Dark Red Paint (SSPC-Paint 16), and
- (f) Basic Zinc Chromate-Vinyl Butyral Wash Primer (SSPC-Paint 27) and cold applied Asphaltic Mastic (Extra Thick Film) Paint (SSPC-Paint 12).

Item: Wills 01 – 702.4 and 702.5

- 5) Revision to: Section 702.4 and 702.5 Table _____ Figure _____
- 6) **COMMENT** Revise as follows (check BOX and state proposed change):
 Revise as follows: Add new text as follows Delete and substitute as follows: Delete without Substitution:

Show the proposed NEW or REVISED or DELETED TEXT in legislative format: ~~Line through text to be deleted.~~ Underline text to be added.

702.4 GYPSUM SHEATHING BEHIND HORIZONTAL VINYL AND ALUMINUM SIDING

Walls clad with gypsum sheathing behind horizontal vinyl and aluminum siding shall incorporate not less than 5/8- inch-thick material. Installation is limited to Exposure B and C categories in accordance with Section 104.4 and in areas where the maximum wind speed is less than 110 MPH. Material shall be fastened using 1 3/4-inch-long 11 gauge galvanized roofing nails or 1 1/4-inch-long Type S-12 screws spaced at 8 inches on center at edges, ends, and intermediate framing members. Studs shall be spaced not more than 16 inches on center. ~~Steel framing members shall be minimum 43 mils (18 gage) material.~~ When used to resist shear forces, application shall be in accordance with Sections 2210.5, 2305, or 2308.9.3 of the International Building Code or Section R602.10 of the International Residential Code.

702.5 STRUCTURAL FIBERBOARD SHEATHING BEHIND HORIZONTAL VINYL AND ALUMINUM SIDING

Walls clad with structural fiberboard sheathing behind horizontal vinyl and aluminum siding shall incorporate not less than 1/2-inch-thick material. Installation is limited to Exposure B and C categories in accordance with Section 104.4 and in areas where the maximum wind speed is less than 110 MPH. Material shall be fastened using 1 3/4-inch-long 11 gauge galvanized roofing nails or 1 1/4-inch-long Type S-12 screws spaced at 8 inches on center at edges, ends, and intermediate framing members. Studs shall be spaced not more than 16 inches on center. ~~Steel framing members shall be minimum 43 mils (18 gage) material.~~ When used to resist shear forces, application shall be in accordance with Sections 2210.5, 2305, or 2308.9.3 of the International Building Code or Sections R602.10 of the International Residential Code.

COMMENT Continued (Attach additional sheets as necessary)

7) **SUPPORTING INFORMATION** (State purpose and reason, and provide substantiation to support proposed change):

I remember the committee discussion that developed these sections; however, I am unable to recall the basis of this specific limitation on steel framing thickness. I don't question that there needs to be a minimum thickness, nor do I have any evidence to suggest that 43 mil

is the wrong choice in this instance. This public comment is submitted to prompt documentation of the basis for this provision.

Public Comments Report

IS-HRC Third Public Comments Draft dated November 2007

Item: Grundahl 01

Section: 202.1.7.3

Committee Action: Negative

Comment: Wood treated with some treatments (ACQ or CA) are highly corrosive to fasteners and connectors in wood with higher moisture content. The treated wood will be exposed to moisture during construction. This will be difficult to enforce since the building official would have to determine if the treated wood is dry and remains dry.

Item: Shackelford 01

Section: 202.1.7.3.1 and 304.3.1

Committee Action: Accept in principle

Motion – Modify item 4 in sections 202.1.7.3.1 and 304.3.1 to change covering to tile-
Passed

Comment: Modify Sections 202.1.7.3.1 and 304.3.1 as follows:

202.1.7.3.1 Screws, bolts and nails shall be corrosion resistant by coating, galvanization, or composition (stainless steel, nonferrous metal, or other suitable corrosion resistant material). The corrosion resistance of fasteners with diameters over 3/8 inch shall be demonstrated by compliance with ASTM A153. The corrosion resistance of fasteners with diameters of 3/8 inch or less shall be demonstrated through one of the following methods:

1. Corrosion resistance equivalent to ASTM A153.
2. Corrosion resistance equivalent to ASTM A641 Class 1.
3. Corrosion resistance exhibiting not more than 5% red rust after 1000 hours exposure in accordance with ASTM B117.
4. Corrosion resistance exhibiting not more than 5% red rust after 280 hours exposure for nails, 1000 hours for roof ~~covering~~ tile fasteners, or 360 hours exposure for other carbon steel fasteners, in accordance with ASTM G85, Annex 5.

304.3.1 Screws, bolts and nails shall be corrosion resistant by coating, galvanization, or composition (stainless steel, nonferrous metal, or other suitable corrosion resistant material). The corrosion resistance of fasteners with diameters over 3/8 inch shall be demonstrated by compliance with ASTM A153. The corrosion resistance of fasteners with diameters of 3/8 inch or less shall be demonstrated through one of the following methods:

1. Corrosion resistance equivalent to ASTM A153.
2. Corrosion resistance equivalent to ASTM A641 Class 1.
3. Corrosion resistance exhibiting not more than 5% red rust after 1000 hours exposure in accordance with ASTM B117.
4. Corrosion resistance exhibiting not more than 5% red rust after 280 hours exposure for nails, 1000 hours for roof ~~covering~~ tile fasteners, or 360 hours exposure for other carbon steel fasteners, in accordance with ASTM G85, Annex 5.

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Item: Grundahl 02

Section: 202.1.7.3.1

Committee Action: Accept

Comment:

Item: Grundahl 03

Section: 304.3.1

Committee Action: Accept

Comment:

Item: Grundahl 04

Section: 202.1.7.3.2

Committee Action: Accept in principle

Motion -Delete the word such. Delete 2002 after ANSI/TPI 1. The year date is shown in Appendix A- Passed

Comment: Modify Section 202.1.7.3.2 as follows:

202.1.7.3.2 Metal plates and connectors shall be stainless steel, hot dipped galvanized prior to fabrication to meet ASTM A653 Coating Designation G185, hot dipped galvanized after fabrication to meet ASTM A123, or provided with a protective coating ~~such~~ as specified by ANSI/TPI 1-2002.

Item: Grundahl 05

Section: 304.3.2

Committee Action: Accept in principle

Motion -Delete the word such. Delete 2002 after ANSI/TPI 1. The year date is shown in Appendix A- Passed

Comment: Modify Section 304.3.2 as follows:

304.3.2 Metal plates and connectors shall be stainless steel, hot dipped galvanized prior to fabrication to meet ASTM A653 Coating Designation G185, hot dipped galvanized after fabrication to meet ASTM A123, or provided with a protective coating ~~such~~ as specified by ANSI/TPI 1-2002.

PCR – IS-HRC – Third Public Comments Draft

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Item: Wills 01**Section: 702.4 and 702.5****Committee Action: Negative****Comment:** The testing of gypsum sheathing behind horizontal vinyl and aluminum siding was done with 43mils (18 gage) steel framing members.

WORK PLAN (IS-HRC)
ICC Consensus Committee on
Hurricane Resistant Construction

Goal	Projected Date	Remarks
Meeting to consider public Comments	February 28-March 2, 2007 (Meeting #11)	Completed.
Process the report of the committee actions, Public Comments Report (PCR). Post report of the committee actions on the public comments to ICC website	April 16, 2007	Notify commenter's to review the report and within 30 days let us know if their comments have been resolved by the committee's actions (30 days) and notify them of the right to appeal
Submit BSR8-2 to ANSI for posting in their Standards Action for public comment (45 days).	May 1-4, 2007	The notice will be in the May 18, 2006 printing of the ANSI Standards Action.
Contact the commenter's to re-notify them of the 30 day deadline for unresolved comments.	May 11, 2007	
Process report of unresolved objections. Distribute the report of unresolved objections to the committee	May 18, 2007	Instruct the committee to review the report and ask them notify ICC if they change their vote on a particular objection (30 days)
Contact the committee to re-notify them of the 30 day deadline for unresolved comments.	June 8, 2007	
Post notice of August Committee meeting to consider BSR8-2	June 25-29, 2007	Include scope of meeting on the notice
Post public comments received on BSR8-2 draft for review	July 9, 2007	Deadline for public comments is July 2, 2007
Committee meet to resolve public comments	August 2007	
Process the report of the committee actions, Public Comments Report (PCR). Post report of the committee actions on the public comments to ICC website	November 2007	Notify commenter's to review the report and within 30 days let us know if their comments have been resolved by the committee's actions (30 days) and notify them of the right to appeal
Submit BSR8-3 to ANSI for posting in their Standards Action for public comment (45 days).	November 2007	The notice will be in the November 16, 2007 printing of the ANSI Standards Action with a December 31, 2007 deadline.
Contact the commenter's to re-notify them of the 30 day deadline for unresolved comments.	December 2007	
Distribute the report of unresolved objections to the committee	December 2007	Instruct the committee to review the report and ask them notify ICC if they change their vote on a particular objection (30 days)
Contact the committee to re-notify them of the 30 day deadline for unresolved comments.	January 2008	
Post public comments received on BSR8-3 for review	January 2008	Deadline for public comments is December 31, 2007
Post notice of February Committee	January 2008	Include scope of meeting on the notice

meeting to consider BSR8-3		
Committee meets (telephone conference) to consider public comments to BSR8-3 – if required	February 2008	
Process and post PCR and post.	February 2008	Notify commenter's to review the report and within 30 days let us know if their comments have been resolved by the committee's actions (30 days) and notify them of the right to appeal
Contact commenter's with 10-day notice on unresolved comments	March 2008	
Distribute the report of unresolved comments to the committee - if required	March 2008	
Contact committee members with 10-day notice on their review of the report of unresolved comments – if required	April 2008	
Standard submitted to ANSI for certification 45 – 90 days (Assuming no substantive changes)	March 2008 if no unresolved comments, otherwise May 2008	NOTE: This can happen as early as January if no public comments to BSR8-3 are received.
Standard published	May 2008 if no unresolved comments, otherwise July 2008	NOTE: This can happen as early as April if no public comments to BSR8-3 are received.
Committee brings published standard to Final Action Hearings	September 2008	