**Structural Technical Advisory Committee – Comments**

**7th Edition (2020) Florida Building Code, Test Protocol (TP)**

 S- TP- Comment #1

**From:** Rodriguez, Gaspar (RER) [mailto:Gaspar.Rodriguez@miamidade.gov]
**Sent:** Tuesday, October 1, 2019 9:10 AM
**To:** Madani, Mo
**Subject:** Changes to 2020 Code Mods

Good morning Mo,

Attached are changes to three mods to the Test Protocols for HVHZ, my hope is the changes presented can be incorporated during the February FBC Meeting.

TAS 103 Mod R8282 has a formatting error were Section 8.2 is included in Section 8.1 and should be brought down and separated from Section 8.1.  Also, Section 14 and 21 have renumbering changes which will produce a protocol easier to comprehend.

TAS 104 Mod R8283 has renumbering changes in Section 12 and 13, which will produce a protocol easier to comprehend.

Regarding RAS 127 Mod S7156, we have been examining, researching and checking the accuracy of the calculations provided in this mod.  After consulting many Professional Engineers experienced in roof design wind calculations, it has become apparent that the design pressure values established on all twelve tables will need to be adjusted. The attached file has the accurate values, the good news is the values will all be lower than originally figured and should be welcomed by the roofing industry.

I am looking forward to hearing from you on if these changes can be incorporated in the 2020 FBC.

Regards,

**Gaspar J Rodriguez,** Senior Code Officer, Roofing
**Miami-Dade County Department of Regulatory and Economic Resources**

**TESTING APPLICATION STANDARD (TAS) No. 103-20**

**TEST PROCEDURE FOR SELF-ADHERED UNDERLAYMENTS FOR USE IN ~~DISCONTINUOUS~~ TILE ROOF SYSTEMS**

(See attachment 4)

**TESTING APPLICATION STANDARD (TAS) No. 104-~~95~~20**

**TEST PROCEDURE FOR NAIL-ON UNDERLAYMENT FOR USE IN ~~DISCONTINUOUS~~ TILE ROOF SYSTEMS**

(See attachment 7)

**:**

**ROOFING APPLICATION STANDARD (RAS) No. 127-20**

**PROCEDURE FOR DETERMINING THE MOMENT OF RESISTANCE AND MINIMUM**

**CHARACTERISTIC RESISTANCE LOAD TO INSTALL A TILE SYSTEM ON A**

**BUILDING OF A SPECIFIED ROOF SLOPE AND HEIGHT USING ALLOWABLE STRESS DESIGN (ASD) IN ACCORDANCE WITH ASCE 7**

(See attachment comment 6)

**TAC Recommendation: AS**

**Commission Action: AS**

S – TP - Comment #2

**From:** Rodriguez, Gaspar (RER) [mailto:Gaspar.Rodriguez@miamidade.gov]
**Sent:** Friday, October 4, 2019 10:23 AM
**To:** Madani, Mo
**Subject:** Changes to Mod 7157, RAS 128

Good morning Mo,

I hope this is the last request to include changes at the February FBC meeting.  This change is some typos and removing two tables, which according to the feedback we have received would have led to confusion in the field.

Regards,

**Gaspar J Rodriguez,** Senior Code Officer, Roofing
**Miami-Dade County Department of Regulatory and Economic Resources**

**ROOFING APPLICATION STANDARD (RAS) No. 128-20 STANDARD PROCEDURE FOR DETERMINING APPLICABLE WIND ALLOWABLE STRESS DESIGN PRESSURES FOR LOW SLOPE ROOF IN ACCORDANCE WITH ASCE 7**

(See attachment 5)

**TAC Recommendation: AS**

**Commission Action: AS**

**6th Edition (2017) Florida Building Code, Building**

**CHAPTER 16 STRUCTURAL DESIGN**

**S – B-Ch. 16 - Comment #1**

**From:** Amanda Hickman [mailto:amanda@thehickmangroup.com]
**Sent:** Thursday, January 2, 2020 4:06 PM
**To:** Madani, Mo
**Cc:** The Hickman Group
**Subject:** Comments on: Standard update, Mod S7982, Mod 8137 & 8139

Hi Mo,

Happy New Year!  Attached are our comments for the Florida code.  Please confirm that you received.

Thanks,

Amanda

Amanda Hickman
President/Consultant

Proposed changes/comments to the proposed 2020 FBC, Building

By: Mike Steele, Greenheck Fan Corp., AMCA committee member

Date: 12-19-2019 Rev01

The below is in Building, Chapter 16, the black is original proposed language, the **red** is the additions from another commenter (Norman Bellamy, per S7982 A3 handout) that were added to the proposed, and the **purple** is Mike Steele’s updates with supporting commentary noted by the use of “[#]” references.

**1626.5 Louvers.**

**1626.5.1** Louvers protecting intake and**/or** [1] exhaust ventilation ducts **~~not assumed to be open~~** [2]that are located **on the building envelope and are** [3]within 30 feet (9144 mm) of grade shall meet the **impact and cyclical pressure** [4] requirements of AMCA 540 or **TAS 201 (large missile test)** [5] **or** shall be protected by an impact-resistant cover complying with **~~the large missile test of~~**TAS 201 **(large missile test)** [6], TAS 202, **and** [7] TAS 203. **Louvers shall also comply with Sections 1626.5.3 thru 1626.5.7.** [7.1]

[1] Eliminates the loophole of a louver that only protects an intake duct or that only protects an exhaust duct form not having to conform to the required testing of Section 1626.5.1.

[2] The original wording of “Louvers…not assumed to be open…” leads to confusion of the requirement. Louvers are typically an “open” device in the sense that they allow air to flow through them. Some louvers have adjustable blades that can be closed, and in that sense, the louver could be considered “closed” when the blades are in the closed position. A louver without an impact-resistant covering complying to TAS 201, 202, and 203 is still required to be impact resistant whether the louver’s blades are in the open or closed position because the closed bladed louver is then now the impact-resistant device in the building’s envelope that must meet the TAS 201, 202, and 203 requirements. Therefore, the blade orientation of open or closed does not correlate to the intent of the standard. A second interpretation of the word “open” is in regards to if the louver is installed on a building that is considered to be an “open building” per ASCE 7. An ASCE 7 “open building” does not require an additional pressure coefficient per ASCE 7 Table 26.13-1. All other building classes (partially open, partially enclosed, and enclosed buildings) do require an additional pressure coefficient that adds to the overall pressure that the building envelope must be able to withstand. One could conclude that an ASCE 7 “open building” does not need to be impact-resistant due to the addition hole in the building’s envelope does not change the pressure imposed on the building during a wind event, and that all other building types (which are not assumed to be “open buildings”) do require the impact-resistance that Section 1626.5.1 is stating. A third interpretation of the word “open” is that the louver is open or exposed to the elements or by not being covered up by an impact-resistant covering. This interpretation makes the most sense because if the louver is not protected (open) then it does need to be protected by another impact-resistant device, which is exactly what the very end of 1626.5.1 requires. To eliminate the impact-resistant covering requirement of being listed twice within 1626.5.1, it is suggested that the phrase “not assumed to be open” to be removed as its intent is more clearly stated and understood by the last phrase “or shall be protected by an impact-resistant cover…”

[3] Clarifies that louvers inside the building are not required to comply with this section.

[4] Clarifies that the cyclical pressure testing portion of AMCA 540 and TAS 201 protocols are also required.

[5] Clarifies that the large missile test is required as there is also a TAS 201 small missile test. Note that “the large missile test” was previously in this sentence, but it was only specifically relating to the requirements of the optional impact-resistant covering of the louver (and not the louver itself).

[6] Having the phrase of “the large missile test of” prior to TAS 201, 202, and 203 makes it read as though the large missile test relates to ALL three of the TAS tests. Moving the phrase to after the “TAS 201” test makes pertain to only the TAS 201 test as well as conforming the way the phrase is proposed to be added in Sections 1626.5.2 and 1626.5.3.

[7] To aid in the sequential word flow of the sentence.

[7.1] As ducted louvers have their own section with specific test requirements listed, one could argue that Section 1626.5.1 is separate from 1626.5.3, and conclude that TAS 202 testing is not required for Section 1626.5.1 (ducted louvers). It is suggested to either add the TAS 202 reference sections as shown to the end of Section 1626.5.1, OR re-order the sections as shown below:

Current order: Possible New proposed order:

1626.5.1 Ducted louver tests 1626.5.1 All louvers tests

1626.5.2 Life safety louver tests 1626.5.1.1 Ducted louver tests

1626.5.3 All louver tests 1626.5.1.2 Life safety louver tests

Due to the already added Section 1626.5.3 requirement of specifically requiring TAS 202 testing, then TAS 202 should also be called out in the louver-type-specific the other Sections

Note this it is odd that in the current language, if a louver is within 30 feet of grade, and NOT ducted or NOT for life safety air, then it is NOT required to be impact tested. This appears to be a loophole. If normal windows and cladding within 30 feet of grade need to be impact tested, then why not all louvers within 30 feet? This loophole can be closed by removing the ducted requirement from the current 1626.5.1 as shown below in green addition and strikeout:

**1626.5.1** **All** Louvers **~~protecting intake and/or exhaust ventilation ducts that are~~** located **on the building envelope and are** within 30 feet (9144 mm) of grade…

Note that 1626.5.2 should then be an exception to 1626.5.1, not its own section:

**~~1626.5.2~~** **Exception:** Louvers required to **~~be open~~** **provide airflow** [8] for life safety purposes…

[NOTE, that the above highlight is not incorporated into the below updates/comments]

**1626.5.2** Louvers required to **~~be open~~** **provide airflow** [8] for life safety purposes such as providing a breathable atmosphere **that are located on the building envelope and are within 30 feet (9144 mm) of grade** [9] shall meet the **impact and cyclical pressure** [10] requirements of AMCA 540 or **TAS 201 (large missile test).** [11] **Louvers shall also comply with Sections 1626.5.3 thru 1626.5.7.** [11.1]

[8] Clarifies the louver requirement without using the word “open” as it is causing confusion in exactly how it relates to louvers in the preceding Section 1626.5.1.

[9] This entirely bran new section 1626.5.2 regards a different type of louver use (for life safety) than the preceding Section 1626.5.1 (for a louver with a duct). Therefore, all necessary stipulations for impact-resistance need to be reiterated (building envelope and height above grade requirements).

[10] Clarifies that the cyclical pressure testing portion of AMCA 540 and TAS 201 protocols are also required.

[11] Clarifies that the large missile test is required as there is also a TAS 201 small missile test.

[11.1] Same concept as to reasoning of comment [7.1]. Need to clarify TAS 202 testing requirement for this special louver type.

**1626.5.3** **~~Open and closed louvers~~ All louvers** [12] **located on the building envelope, regardless of their function or location from grade,** [13] shall also comply with uniform air pressure testing per TAS 202 protocol and **either the** [14]cyclical wind pressure loading per TAS 203 protocol **or by complying with both the impact and cyclical pressure testing of AMCA 540.** [15] **~~This test shall be applicable to the construction unit of each louver type and material. A minimum of two test specimens made up of hidden (Architectural joints) and visible mullioned assemblies shall be utilized in verification of all specimen assembly conditions.~~** [16]

[12] Clarifies the type of louver without using the words “open” or “closed”. The word “open” was causing confusion in exactly how it relate to louvers, such as in Section 1626.5.1. In this Section 1626.5.3, the word “closed” does not made sense in regards to how the word “open” was deduced to be defined in 1626.5.1 commentary item [2], then “closed” would mean that the louver is covered by an impact-resistant covering, which would then negate any additional requirements that the louver would need to satisfy. As the “within 30 feet of grade” and special application louvers types have already been addressed in these new sections, it is concluded that this third section is for all “other” types of louvers.

[13] Clarifies that even louvers on the envelope and located above the 30 feet of grade need to meet the static and cyclical pressure requirements.

[14] The word “either” is required to due to the proposed addition of an alternate test method of AMCA 540 with cyclical testing.

[15] Adds an alternate test method to comply with the cyclical testing requirement by using the cyclical portion of the AMCA 540 test protocol. Note that the AMCA 540 cyclical testing option is already allowed in Sections 1626.5.1 and 1626.5.2.

[16] These two sentences are re-worded and moved to new proposed sections 1626.5.4, 1626.5.5, and 1626.5.6. Testing of each type of louver material and each mullion type should not only be limited to the TAS 202 as stated in this section, but it should also be required for the AMCA 540 and TAS 201 testing as required in the preceding sections. Therefore, moving the requirements to non-louver location specific sections will allow for the requirements of testing each louver material and each mullion type to encompass all louvers setups.

**1626.5.4 Alternate construction.**

**All required testing shall be applicable to the construction of each type of perimeter frame, each type of blade, each type of mullion (visible, architectural, hidden, recessed, etc.) and each material type thereof for verification of all specimen assembly conditions.** [17] **Non-structural additions (such as flanges) to the perimeter frame or mullion shall not require additional testing or verification unless deemed necessary by the authority having jurisdiction.** [18]

[17] This new proposed section is the re-worded result of a sentence that was removed from Section 1626.5.3 regarding construction types and required testing thereof.

[18] Clarifies that testing of non-structural elements added to the louver frame or mullion is not mandatory.

**1626.5.5 Non-mulled louver installations.**

**The applicable AMCA 540, TAS 201, and TAS 203 tests shall consist of a minimum of three individual identical louver test specimens.** [19]

[19] This new section is the result of a re-write of the removed sentence of Section 1626.5.3 and clarifies the testing and number of sections required explicitly for non-mulled (single-section) louvers. The requirements are based on over 12 years of observation and testing of various louver types for HVHZ approval.

**1626.5.6 Vertical/horizontal mulled louver installations.**

**The applicable AMCA 540, TAS 201, and TAS 203 tests shall consist of a minimum of three louver panels. A minimum of two of the panels shall be assembled into a mulled test specimen. Each desire vertical and/or horizontal mullion setup shall be tested.** [20]

[20] This new section is the result of a re-write of the removed sentence of Section 1626.5.3 and clarifies the testing and number of sections required explicitly for mulled (multi-section wide/high) louvers. The requirements are based on over 12 years of observation and testing of various louver types for HVHZ approval.

**1626.5.7 Additional test requirements.**

**Louvers seeking to comply with TAS 201 shall comply with Section 1626.2 for large missile impact, including cyclic pressure loading complying with Table 1625.4. Louvers seeking to comply with either AMCA 540 or TAS 203 shall also comply with Table 1625.4. Due to differences in test protocol requirements of specimen size and mounting, an AMCA 540 test specimen shall not be used as a TAS 202 test specimen, and vice versa.  A TAS 202 test specimen is allowed to be uses as a TAS 201 test specimen.** [21]

[21] Adds language to clarify specifics of various required tests. The requirements are based on over 12 years of observation and testing of various louver types for HVHZ approval.

Note that Section 1609.1.2.1, should then also be updated to match the flow of the above proposed 1626.5.1:

**1609.1.2.1Louvers.**

Louvers protecting intake and**/or** exhaust ventilation ducts **(which are** not assumed to **~~be~~** **count towards the total** open **area of a building)** that are located within 30 feet (9144 mm) of grade shall meet the requirements of AMCA 540 or shall be protected by an impact-resistant cover complying with the large missile test of ASTM E1996 or an approved impact-resistance standard. Louvers required to **~~be open~~** **provide airflow** for life safety purposes such as providing a breathable atmosphere shall meet the requirements of AMCA 540.

1626.5.1 Ducted louvers within than 30 feet of grade = Impact and Cyclic testing

1626.5.2 Airflow (life safety) louvers within than 30 feet of grade = Impact and Cyclic testing

1626.5.3 All other louvers within or above 30 feet of grade = Impact, Cyclic, & STATIC testing

**TAC Recommendation: AM with handout (see attached handout)**

**Commission Action: AM with handout**

**CHAPTER 23 WOOD**

**S – B-Ch. 23 - Comment #1**

**From:** Coats, Paul [mailto:PCoats@awc.org]
**Sent:** Saturday, December 28, 2019 10:36 PM
**To:** Madani, Mo
**Subject:** Comments on Florida Building Code Draft

Hi Mo, attached are our comments to the draft of the FBC that you sent me, noting some needed corrections. Please let me know that you received this and that it can serve as formally submitted comments. If there’s another format or electronic system for submittal under the Jan. 2 deadline just let me know, and thank you for reaching out to us for a review.

Paul

Table 2304.10.1 footnote “d”:  Actually, a RSRS is a Roof Sheathing Rink Shank nail.  It should keep its capitalization since it’s a proper name with specific dimensions in ASTM F1667, not to be confused with common ring shank nails that have no specific dimensions or design values.

Section 2305.2 the term “(Δ dia)” should be “(Δdia)”

Section 2305.3 the term “(Δ)” should be “(Δsw)”

In Equation 23-1 the term Δ in both the equations should be Δdia

In Equation 23-1 definitions, dia should be Δdia

In Equation 23-2 the numerator in the first term should be 8vh3, not 8vh as shown in the markup.

In Equation 23-1 the term Δ in both the equations should be Δsw

In Equation 23-2 definitions, dΔa should be da

In Equation 23-2 definitions D should be Δsw

Section 2314.4.7 should be corrected as follows (strike-out to be deleted, underlined to be added):

**2314.4.7** ~~American Forest and Paper Association, 1111 19~~

~~Street NW, Washington, D.C. 20036.~~ American Wood Council, 222 Catoctin Circle SE, Suite 201, Leesburg, VA 20175.

1. ANSI/~~AF&PA~~ AWC NDS—2018: National Design Specification for

Wood Construction with 2018 NDS Supplement.

~~2. ANSI/AF&PA Design Values for Wood Construction.~~

3. AWC Wood Structural Design Data.

4. AWC STJR—2015: Span Tables for Joists and Rafters.

5. AWC 2015 Design Values for Joists and Rafters.

6. AWC WCD No. 1—Wood Construction Data No. 1, Details for Conventional

Wood Frame Construction.

7. AWC WCD No. 4—Wood Construction Data No. 4, Plank-and-Beam

Framing for Residential Building.

8. AWC WCD No. 5—Wood Construction Data No. 5, Heavy Timber

Construction ~~Details~~.

9. AWC WCD No. 6—Wood Construction Data No. 6, Design of Wood

Frame Structures for Permanence.

10. ANSI/~~AF&PA~~AWC PWF–~~2007~~2015: Permanent Wood

Foundation ~~(PWF)~~ Design Specification.

11. ANSI/~~AF&PA~~ AWC WFCM–~~2001~~2018: *Wood Frame Construction*

*Manual for One- and Two-Family Dwellings.*

12. ANSI/~~AF&PA~~AWC SDPWS-~~2008~~2015: Special Design Provisions

for Wind and Seismic.

Figure 1609.3(2): It appears you may need to delete Risk Category IV from the title of Figure 1609.3(2) since the new figure 1609.3(3) appears to cover Risk Category IV.

**TAC Recommendation: AS**

**Commission Action: AS**

**S – B-Ch. 23 - Comment #2**

**From:** Michael L. Faulhaber AIA NCARB [mailto:michaelfaulhaber@londonbay.com]
**Sent:** Tuesday, January 7, 2020 12:19 PM
**To:** Madani, Mo
**Subject:** FBC Framing Lumber Language

Mo,

Per our conversation this morning, I’m sending you a marked-up page from the Code that illustrates my concerns about the language used to describe framing lumber sizes. I didn’t look at other pages in the code where similar conditions might occur, but I suspect there are some.

Michael

**Michael L. Faulhaber, AIA, NCARB**
Director of Design

**(**See attachment 2)

**TAC Recommendation: AM to include term ‘nominal’**

**Commission Action: AM to include term ‘nominal’**

**CHAPTER 35 REFERENCED STANDARDS**

**S – B-Ch. 35 - Comment #1**

**From:** Gary Hartman Intertek [mailto:gary.hartman@intertek.com]
**Sent:** Tuesday, January 08, 2019 11:18 AM
**To:** Madani, Mo
**Subject:** 6th Ed. Ch 35 Errata

Hello Mo,

It was nice meeting you in person in Tampa last month. I hope your New Year is off to a good start.

I’ve identified a few errata in the 6th Ed. FBC that I’m hoping we can address with the 7th Ed. These are all editorial updates to Chapter 35, Referenced Standards. Please let me know if you have any questions or comments.

* ASTM B117 title should read ‘Standard Practice for Operating Salt Spray (Fog) Apparatus’
* ASTM D256 is no longer referenced in §2614.2
* ASTM E330—02 or -14 is no longer referenced in §1409.10.2 (or Ch. 14 at all)

Best Regards,

**Gary Hartman, P.E.**

**Laboratory Support Engineer**

**TAC Recommendation: AS**

**Commission Action: AS**

**S –B-Ch. 35 – Comment #2**

**From:** BJ Yeh [mailto:borjen.yeh@apawood.org]
**Sent:** Friday, October 25, 2019 1:05 AM
**To:** Madani, Mo
**Cc:** Coats, Paul (pcoats@awc.org)
**Subject:** RE: Mod S7952

Hi Mo:  I have had a chance to look up Chapter 35 Referenced Standards of the FBC Building Supplement.  Unfortunately, the changes do not reflect my proposed changes in Mod S7952-A1 (attached).  The Supplement missed some important updates.  For example, ANSI 117 is referenced in 2314.4.3, but is not included in Chapter 35 of the Supplement.  Another example is ANSI/APA PRG 320-2018, which is referenced in Chapter 46 of FBC Residential Supplement.  However, ANSI/APA PRG 320-2017 is shown in Chapter 35 of FBC Building Supplement.

I hope Chapter 35 of the FBC Supplement can be updated based on all changes proposed in Mod S7952-A1 before the next FBC is published.

**BJ**

(See attachment 3)

**TAC Recommendation: AS**

**Commission Action: AS**

**S –Ch. 35 – Comment #3**

**From:** Jennifer Molin [mailto:jmolin@aws.org]
**Sent:** Thursday, January 2, 2020 12:49 PM
**To:** Madani, Mo
**Subject:** 7th Edition (2020) Update to the Florida Building Code (FBC) Written Comments

Mo,

In anticipation of the rule development workshop(s), written comments on the draft 7th Edition (2020) update to the FBC will be accepted through January 2, 2020. I am emailing you the following comments in regard to the Building Reference Standards, Chapter 35:

~~D1.1-D1.1M:2015~~  D1.1—D1.1M:2020 Structural Steel Welding (This document will be available for purchase by the end of January 2020)

~~D1.3-D1.3M:2008~~  D1.3—D1.3M:2018 Structural Welding—Sheet Steel

~~D9.1-D9.1M-2012~~  D9.1—D9.1M:2018 Sheet Metal Welding Code

If you have any questions please do not hesitate to contact me.

Regards,

Jennifer

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| A close up of a logo  Description automatically generated | **Jennifer Molin**Program Manager II, Standards DevelopmentAmerican Welding Society®P:305-443-9353 x304 | E:jmolin@aws.org 8669 NW 36th Street #130, Miami, FL 33166[AWS.org](http://go.aws.org/1LWLYZt) | [AWS WeldLink](http://go.aws.org/1LWLIK8) | [Facebook](http://www.facebook.com/americanweldingsociety) | [Twitter](http://www.twitter.com/awshq)  |

**TAC Recommendation: AS**

**Commission Action: AS**

**S –General – Comment #1**

**From:** Neil Burning [mailto:nburning@ICCSafe.ORG]
**Sent:** Thursday, January 02, 2020 1:50 PM
**To:** Madani, Mo
**Cc:** Campbell, Thomas
**Subject:** Floridians for Safe Communities Coalition Comments regarding Draft 7th Edition of Florida Building Code

Mo,

I have attached our coalition’s comments regarding the draft 7th edition of the Florida Building Code.

Thank you,

**Neil Burning, CBO**

Vice President, Technical Resources

Government Relations (Florida)

International Code Council

(See attachment 1)

**TAC Recommendation: NAR**

**Commission Action: NAR**