**Structural Technical Advisory Committee – Comment**

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

S– Comment #1

Anthony Lynn Miller, P.E.

PGT Industries, Inc.

See attachment #1

**TAC Recommendation:**

**Commission Action:**

S – Comment #2

**Proposed Modification to the Florida Building Code**

**Modification #: Section 553.73, Fla Stat**

**Name: Joseph D, Belcher for Masonry Association of Florida; Florida Independent Concrete and Associated Products Association**

**Address: 41 Oak Village Boulevard, Homosassa, Florida 34446-5632**

**E-mail: joe@jdbcodeservices.com**

**Phone: 352-450-2631**

**Fax: 813-925-4152**

**Code: FBC-B – Florida Supplement to the 2015 IBC – ICC EDIT VERSION**

**NOTE: PROPOSED CHANGES SHOWN IN RED TEXT. Other changes are as shown in the Florida Supplement.**

**Section #: Chapter 35 TMS**

**Text of Modification [additions underlined; deletions ~~stricken~~]:**

**TMS The Masonry Society**

 **3970 Broadway, Unit 201-D**

**Boulder, CO 80304-1135**

**Standard Referenced**

**reference in code**

**number Title section number**

**TMS 402- ~~11~~ 16 Building Code Requirements for Masonry Structures …**

**TMS 602— ~~11~~ 16 Specification for Masonry Structures ......……………………**

**Fiscal Impact Statement [Provide documentation of the costs and benefits of the proposed modifications to the code for each of the following entities. Cost data should be accompanied by a list of assumptions and supporting documentation. Explain expected benefits.]:**

**A. Impact to local entity relative to enforcement of code: No impact. Proposal is to adopt updated standard and specification that were not completely through the nationally recognized TMS process for submission to the FBC process.**

**B. Impact to building and property owners relative to cost of compliance with code: No impact. Proposal is to adopt updated standard and specification that were not completely through the nationally recognized TMS process for submission to the FBC process.**

**C. Impact to industry relative to cost of compliance with code:** **No impact. Proposal is to adopt updated standard and specification that were not completely through the TMS process for submission to the FBC process.**

**D. Impact to small business: No impact. Proposal is to adopt updated standard and specification that were not completely through the nationally recognized TMS process for submission to the FBC process.**

**Rationale [Provide an explanation of why you would like this Proposed Modification to the Florida Building Code.]: Updates the code to add the latest edition of the referenced documents to Chapter 46. Due to differences in the timing of the processes between TMS and the FBC, the updated edition of TMS 402 and 602 were not available at the deadline for submitting changes to the FBC 6th Edition. The updated standard and specification were proposed to and adopted into the next edition of the base code. (ADM94-16)**

**Please explain how the proposed modification meets the following requirements:**

1. **Has a reasonable and substantial connection with the health, safety, and welfare of the general public: Updates to the latest edition of the national standard and specification for masonry construction.**
2. **Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction: Updates to the latest edition of the national standard and specification for masonry construction.**
3. **Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities: Does not discriminate.**
4. **Does not degrade the effectiveness of the code: Does not degrade: updates to the latest edition of the national standard and specification for masonry construction.**
5. **The provisions contained in the proposed amendment are addressed in the applicable International Code. Updates to the latest edition of the national standard and specification for masonry construction.**
6. **The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code, and why the proposed amendment applies to this state. Updates to the latest edition of the national standard and specification for masonry construction.**
7. **The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process. The updated standard and specification will be adopted by the next edition of the base code.**

**TAC Recommendation:**

**Commission Action:**

S – Comment #3

**Proposed Modification to the Florida Building Code**

**Modification #: Section 553.73, Fla Stat**

**Name: Joseph D, Belcher for Masonry Association of Florida; Florida Independent Concrete and Associated Products Association**

**Address: 41 Oak Village Boulevard, Homosassa, Florida 34446-5632**

**E-mail: joe@jdbcodeservices.com**

**Phone: 352-450-2631**

**Fax: 813-925-4152**

**Code: FBC-R – Florida Supplement to the 2015 IRC – ICC EDIT VERSION**

**NOTE: PROPOSED CHANGES SHOWN IN RED TEXT. Other changes are as shown in the Florida Supplement.**

**Section #: Chapter 46 TMS**

**Text of Modification [additions underlined; deletions ~~stricken~~]:**

**TMS The Masonry Society**

 **3970 Broadway, Unit 201-D**

**Boulder, CO 80304-1135**

**Standard Referenced**

**reference in code**

**number Title section number**

**TMS 402- ~~11~~ 16 Building Code Requirements for Masonry Structures …**

**TMS 602— ~~11~~ 16 Specification for Masonry Structures ......……………………**

**Fiscal Impact Statement [Provide documentation of the costs and benefits of the proposed modifications to the code for each of the following entities. Cost data should be accompanied by a list of assumptions and supporting documentation. Explain expected benefits.]:**

**A. Impact to local entity relative to enforcement of code: No impact. Proposal is to adopt updated standard and specification that were not completely through the nationally recognized TMS process for submission to the FBC process.**

**B. Impact to building and property owners relative to cost of compliance with code: No impact. Proposal is to adopt updated standard and specification that were not completely through the nationally recognized TMS process for submission to the FBC process.**

**C. Impact to industry relative to cost of compliance with code:** **No impact. Proposal is to adopt updated standard and specification that were not completely through the TMS process for submission to the FBC process.**

**D. Impact to small business: No impact. Proposal is to adopt updated standard and specification that were not completely through the nationally recognized TMS process for submission to the FBC process.**

**Rationale [Provide an explanation of why you would like this Proposed Modification to the Florida Building Code.]: Updates the code to add the latest edition of the referenced documents to Chapter 46. Due to differences in the timing of the processes between TMS and the FBC, the updated edition of TMS 402 and 602 were not available at the deadline for submitting changes to the FBC 6th Edition. The updated standard and specification were proposed to and adopted into the next edition of the base code. (ADM94-16)**

**Please explain how the proposed modification meets the following requirements:**

1. **Has a reasonable and substantial connection with the health, safety, and welfare of the general public: Updates to the latest edition of the national standard and specification for masonry construction.**
2. **Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction: Updates to the latest edition of the national standard and specification for masonry construction.**
3. **Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities: Does not discriminate.**
4. **Does not degrade the effectiveness of the code: Does not degrade: updates to the latest edition of the national standard and specification for masonry construction.**
5. **The provisions contained in the proposed amendment are addressed in the applicable International Code. Updates to the latest edition of the national standard and specification for masonry construction.**
6. **The amendment demonstrates by evidence or data that the geographical jurisdiction of Florida exhibits a need to strengthen the foundation code beyond the needs or regional variations addressed by the foundation code, and why the proposed amendment applies to this state. Updates to the latest edition of the national standard and specification for masonry construction.**
7. **The proposed amendment was submitted or attempted to be included in the foundation codes to avoid resubmission to the Florida Building Code amendment process. The updated standard and specification will be adopted by the next edition of the base code.**

**TAC Recommendation:**

**Commission Action:**

S – Comment #4

**From:** Fred Hilpert [mailto:furmanhilpert@embarqmail.com]
**Sent:** Tuesday, December 13, 2016 1:36 PM
**To:** Madani, Mo
**Cc:** info@aaof.org; joe@jdbcodeservices.com; 'Fred Hilpert'
**Subject:** Written Comments for the 6th Edition (2017) Update to the Florida Building Code (FBC)

December 13, 2016

Florida Building Commission

C/O:  Building Codes and Standards Office

Attn:  Written Comments for the 6th Edition (2017) Update to the Florida Building Code (FBC)

Commentary:  Paragraph 2002.4.1 should be struck/deleted.  The verbiage should be moved to paragraph 2002.3.4 and changed as indicated.

**~~2002.4.1 Design guide.~~**~~The following design guides shall be accepted as conforming to accepted engineering practices:

AAF~~ *~~Guide to Aluminum Construction in High Wind Areas~~*~~.~~

**2002.3.4 Design guide.**Only the "Screen Enclosure" section of the AAF *Guide to Aluminum Construction in High Wind Areas* shall be accepted as conforming to engineering practices.

Commentary:  So that the Residential Code agrees with the Building Code, paragraph R301.2.1.1.1 should be changed as indicated.

**R301.2.1.1.1 Aluminum ~~structure design~~ Screen Enclosure Design.**
The "Screen Enclosure" section of the  AAF *Guide to Aluminum Construction in High Wind Areas* shall be permitted for the construction of ~~the~~ aluminum ~~structures therein addressed.~~ screen enclosures.

Discussion:

I am Fred Hilpert, PE 50477, of Furman & Hilpert Engineering, Inc.  I am a member of the Aluminum Association of Florida but, my “Written Comments” are entirely my own.

In my professional opinion, as currently written, the "Screen Enclosure" section of the *Guide to Aluminum Construction in High Wind Areas* is the only applicable part of AAF's publication.  I base my proposed 2017 code revisions on my review of the 6th Edition (2017) Update E-mailed, Friday 12/2/2016 at 11:15 AM by Joe Bigelow of the Building Codes and Standards Office.

Cordially,

Fred Hilpert, PE 50477 (FL)

copy:

Aluminum Association of Florida, Inc.
Attn:  Board of Directors

3751 Maguire Boulevard, Suite 260
Orlando, FL 32803
Phone: (407) 898-8286

**TAC Recommendation:**

**Commission Action:**

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

S/R – Comment #5

**6th Edition (2017) FBC, Existing Building Section 707.3.2**

**Proposed revision**

**Submitted by: T. Eric Stafford, IBHS**

**707.3.2 Roof diaphragms resisting wind loads in high-wind regions.**
Where roofing materials are removed from more than 50 percent of the roof diaphragm or section of a building located where the ultimate design wind speed, V*ult*, is greater than 115 mph, as defined in Section 1609 (the HVHZ shall comply with Section 1620) of the *Florida Building Code, Building*, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated by a registered design professional for the wind loads specified in the *Florida Building Code, Building*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting at least 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *Florida Building Code, Building*.

 **Exceptions:**

1. This section does not apply to buildings permitted subject to the *Florida Building Code*.
2. This section does not apply to site built single family dwellings. Site-built single-family dwellings shall comply with Sections 706.7 and 706.8.

**Reason:** This proposed revision resolves a conflict with the mitigation provisions for site-built single family dwellings in Section 706 and also clarifies who is to perform the evaluation of the structural roof components.

Where more than 50% of a roof covering is removed, Section 707.3.2 requires specific roof structural elements to be retrofitted where those elements are not capable of resisting at least 75% of the wind loads specified in the FBCB. There is concern that owners will put off needed re-roofing and roof repairs due to the costs associated with the evaluation and retrofitting required in this section. The proposed revisions provide reasonable exceptions to this section while still maintaining the required retrofits for the most vulnerable buildings.

New language is added clarifying that the evaluation of the roof diaphragm, it’s connections to the roof framing members, and roof-to-wall connections is to be performed by a registered design professional. It has been brought to our attention that some jurisdictions are requiring the roofing contractor to perform and verify the capacity of the specified structural roof connections. This new language clarifies that the evaluation is to be performed by a registered design professional.

Two new exceptions are added for correlation with similar requirements for site-built single-family dwellings in Section 706.7 and 706.8. Sections 706.7 and 706.8, often referred to as the mitigation provisions, requires re-nailing of the roof deck, the installation of a secondary water barrier, and the installation of roof-to-wall connections under certain circumstances. However, both Sections provide a blanket exception to these provisions for structures built and permitted to the *Florida Building Code* (any edition). The exception was the result of studies in the aftermath of the hurricanes of 2004 and 2005 which generally revealed that homes built to the FBC and designed to modern wind provisions performed well. New language in Exception 1 simply extends the same benefit to this section for commercial buildings.

New Exception 2 clarifies that Section 707.3.2 does not apply to site-built single-family buildings. While Sections 706.7 and 706.8, are specific to site-built single family dwellings, the provisions of Section 707.3.2 are more restrictive for some cases and therefore may result in a confusing regarding which provisions apply. New Exception 2 aligns with the intent of the code and clarifies it’s applicability to site-built single-family buildings.

**TAC Recommendation:**

**Commission Action:**

S/R – Comment #6

**6th Edition (2017) FBC, Existing Building Section 707.3.2**

**Proposed revision**

**Submitted by: T. Eric Stafford, IBHS**

**707.3.2 Roof diaphragms resisting wind loads in high-wind regions.**
Where roofing materials are removed from more than 50 percent of the roof diaphragm or section of a building located where the ultimate design wind speed, V*ult*, is greater than 115 mph, as defined in Section 1609 (the HVHZ shall comply with Section 1620) of the *Florida Building Code, Building*, roof diaphragms, connections of the roof diaphragm to roof framing members, and roof-to-wall connections shall be evaluated by a registered design professional for the wind loads specified in the *Florida Building Code, Building*, including wind uplift. If the diaphragms and connections in their current condition are not capable of resisting at least 75 percent of those wind loads, they shall be replaced or strengthened in accordance with the loads specified in the *Florida Building Code, Building*.

 **Exceptions:**

1. This section does not apply to buildings permitted subject to the *Florida Building Code*.
2. This section does not apply to buildings permitted subject to the 1991 *Standard Building Code*, or later edition, or designed to the wind loading requirements of the ASCE 7-88 or later editions, where an evaluation is performed by a registered design professional to confirm the roof diaphragm, connections of the roof diaphragm to roof framing members, and roof-to-wall connections are in compliance with the wind loading requirements of either of these standards or later editions.
3. Buildings with steel or concrete moment resisting frames shall only be required to have the roof diaphragm panels and diaphragm connections to framing members evaluated for wind uplift.
4. This section does not apply to site built single family dwellings. Site-built single-family dwellings shall comply with Sections 706.7 and 706.8.
5. This section does not apply to buildings permitted within the HVHZ after January 1, 1994 subject to the 1994 *South Florida Building Code*, or later editions, or where the building’s wind design is based on the wind loading requirements of ASCE 7-88 or later editions.

**Reason:** This proposed revision resolves a conflict with the mitigation provisions for site-built single family dwellings in Section 706, clarifies who is to perform the evaluation of the structural roof components, and provides additional exceptions for buildings confirmed to be built to modern wind loading criteria.

Where more than 50% of a roof covering is removed, Section 707.3.2 requires specific roof structural elements to be retrofitted where those elements are not capable of resisting at least 75% of the wind loads specified in the FBCB. There is concern that owners will put off needed re-roofing and roof repairs due to the costs associated with the evaluation and retrofitting required in this section. The proposed revisions provide reasonable exceptions to this section while still maintaining the required retrofits for the most vulnerable buildings.

New language is added clarifying that the evaluation of the roof diaphragm, it’s connections to the roof framing members, and roof-to-wall connections is to be performed by a registered design professional. It has been brought to our attention that some jurisdictions are requiring the roofing contractor to perform and verify the capacity of the specified structural roof connections. This new language clarifies that the evaluation is to be performed by a registered design professional.

Two new exceptions are added for correlation with similar requirements for site-built single-family dwellings in Section 706.7 and 706.8. Sections 706.7 and 706.8, often referred to as the mitigation provisions, requires re-nailing of the roof deck, the installation of a secondary water barrier, and the installation of roof-to-wall connections under certain circumstances. However, both Sections provide a blanket exception to these provisions for structures built and permitted to the *Florida Building Code* (any edition). The exception was the result of studies in the aftermath of the hurricanes of 2004 and 2005 which generally revealed that homes built to the FBC and designed to modern wind provisions performed well. New language in Exception 1 simply extends the same benefit to this section for commercial buildings.

New Exception 4 clarifies that Section 707.3.2 does not apply to site-built single-family buildings. While Sections 706.7 and 706.8, are specific to site-built single family dwellings, the provisions of Section 707.3.2 are more restrictive for some cases and therefore may result in a confusing regarding which provisions apply. New Exception 2 aligns with the intent of the code and clarifies it’s applicability to site-built single-family buildings.

New Exception 3 clarifies that buildings with moment resisting frames do not require an evaluation of roof-to-wall connections since these types of buildings will not have roof-to-wall connections.

Exceptions 2 and 5 essentially exempt buildings that are confirmed to be built to modern wind loading criteria. Codes and standards developed in the late 1980’s and early 1990’s (ASCE 7-88, 1994 Standard Building Code, and the 1994 South Florida Building Code) contained wind loading criteria for roof components and cladding that is consistent with current loads on roofs. Roof component and cladding loads in codes and standards prior to these codes were significantly less than current criteria. Evaluations of existing buildings can sometimes be difficult and expensive where certain components are hidden by trim, coverings, or other components. It’s reasonable to provide an exception for structures built to these codes and later editions when it can be confirmed that they were designed and built to meet these codes and standards.

**TAC Recommendation:**

**Commission Action:**