



# Masonry Association of Florida, Inc.

## Codes & Standards Update

### Codes and Standards Update November 2009 Joe Belcher, MAF Code Consultant

Florida Building Code. The 2007 Florida Building Code is complete. The code itself and the 2009 Supplement, the first supplement, went into effect on March 1, 2009. The Florida Building Commission processed further glitch amendments which went into effect on October 1, 2009. Barring legislative mandates, there should be no further changes until the implementation of the 2010 Florida Building Code scheduled for December 31, 2011. The Commission established March 1, 2010, as the deadline for submitting proposed changes to the 2010 Florida Building Code (FBC). The foundation code for the next edition will be the 2009 Editions of the International Codes. The glitch amendments of interest to the industry include correcting values in various tables in the Florida Building Code Residential related to reinforcement steel in grouted masonry and an amendment to clarify the thickness of brick ledges.

Energy. Following national trends the Commission has received considerable direction from the governor and the legislature regarding increasing the energy efficiency of the code. There are four prime concerns of potential interest to the industry addressed by the Energy Workgroup appointed by the Commission:

1. The Governor's Executive Order (GEO) mandating a 15% increase in thermal efficiency in the FBC 2007 Edition (GEO 127). The increase was addressed by inclusion in the 2009 Supplement and revisions to F.A.C Rule 9B-13, Thermal Efficiency Standards.
2. The legislative mandate for a 20% increase in thermal efficiency in the FBC 2010 Edition. The Commission obtained a ruling that the 15% increase from the GEO could be considered as part of the 20% increase mandated by the legislature. The workgroup is working with stakeholders to evaluate options for achieving an additional 5% increase which will be proposed modifications to the 2010 Edition of the FBC.
3. The legislature mandated creating a cost-effectiveness test to be adopted by rule prior to implementation of the mandated increases after the 2010 Edition. The law requires the test to measure cost-effectiveness and to ensure that energy efficiency increases result in a positive net financial impact. [Ch.553.9061(3), FS] The work on the rule creating the cost-effectiveness test has been completed with the rule effective July 2009.
4. The legislative mandate to increase thermal efficiency by 10% in each edition of the FBC with a total accumulative increase of 50% by the 2019 Edition of the Florida Building Code.

In addition to the mandated increases in energy efficiency, the legislature required the use the International Energy Conservation Code (IECC) as the foundation code for the 2010 FBC. The mandate included a direction to modify the IECC as necessary to retain efficiencies from the Florida Thermal Efficiency Code. The 2009 IECC contains a slight increase in the prescriptive requirements for mass walls. The workgroup is currently



## Masonry Association of Florida, Inc. Codes & Standards Update

developing strategies to meet the legislative mandates and combine the Florida Thermal Efficiency Code with the IECC. The work will result in proposed code changes to be included in the 2010 Edition of the FBC. While it is too early to predict the final outcome, there seems to be agreement amongst the participants that further increases to the building envelope requirements are not cost-effective or energy effective.

**Product Approval.** The Commission formalized rules raising the fees for product approval services across the board and establishing a limit of 150 lines per category of product. The new fees take effect November 10, 2009. The new fees are as follows:

1. The fee for product approval increased to \$500.00 from \$300.00 per subcategory of product. Fee for revision of an existing approval increased to \$500.00 from \$300.00, i.e. a revision resulting in a material change to the performance of a product or product design specification or both, and which may include the addition of products within the same subcategory.
2. Fee for editorial revisions of an existing product approval that does not result in material change to the performance of a product or product design specification or both, increased to \$150.00 from \$100.00.
3. Fee for affirmation of compliance with a new edition of the standards adopted by the code increased to \$100.00 from \$50.00.

**Wind Design.** It appears changes are in the wind for wind design. The International Code Council is currently developing the 2012 Edition of the International Codes (I-Codes). The 2012 I-Codes will adopt the latest edition of the American Society of Civil Engineers standard ASCE 7-2010. The new ASCE provisions are based on new research from Applied Research Associates (ARA), the developers of the current wind speed maps used in ASCE 7. The new research by ARA indicates current ASCE 7 wind speeds are conservative. The 2010 Edition of ASCE 7 is a total rewrite of the standard which, among myriad other changes, contains three wind speed maps instead of a single map. The maps are based on ultimate wind speeds which at first glance appear to be considerably higher for portions of Florida. (See ultimate wind speed maps following.) The map used for the design of a building will depend on the category of building as defined. Under current scheduling the 2012 I-Codes would be adopted in Florida in late 2013 or early 2014 at the earliest. The code consultant has been advised there will be proposals to adopt ASCE 7-10 in the 2010 FBC, rather than wait for the adoption of the 2012 I-Codes.

The new standard introduces ultimate wind speed maps and stipulates a wind load factor of 1.0. The building categories will be defined by the code. The map used in the design depends on the building category. Category II buildings will use 700 year return period wind speeds; Category III and IV buildings will use 1700 year return



## Masonry Association of Florida, Inc. Codes & Standards Update

period wind speeds; Category I buildings will use 300 year return wind speeds. (For building categories see Table 1604.5 following.) While the wind speeds on the new maps will appear to be considerably higher, the use of a wind load factor of 1.0, as opposed to the current 1.6, will result in lower design pressures for most of the state. Maps depicting the equivalent wind speeds between the current maps and the ultimate maps are presented. The red lines on the equivalence maps indicate the current basic wind speeds with the black lines showing the equivalent wind speeds of the ultimate wind speed maps with the 1.6 factor applied. The end result will be slightly increased design pressures in some cases in the southern portion of the state and decreased design pressures in the remainder of the state. The maps provided are from draft documents and the final provisions and maps may have slight variations.

As mentioned earlier in this article, the Commission has established March 1, 2010, as the deadline for code change proposals. Now is the time for MAF members to provide input to problems encountered with the code or for suggested changes to the masonry provisions.