

CODE CORNER

2008 INTERNATIONAL CODES FINALIZED IN MINNEAPOLIS

The members of the International Code Council and interested parties met in Minneapolis, Minnesota, from September 17th to the 23rd to finalize the contents of the 2009 International Codes. Significant changes were approved that will affect the requirements of the International Building Code® and the International Residential Code®.

By far the most hotly contested issue was that of fire sprinklers in residential buildings. The membership considered a series of proposals on sprinklers. In the end, two were approved: RB64 which will require residential sprinklers in all one and two family dwellings and townhouses effective January 1, 2011; and RB66, which will allow a reduction in the fire separation between townhouses if a residential sprinkler system is installed.

Also on the non-structural front, a proposal was approved to require carbon monoxide

alarms in dwellings that contain either fuel fired equipment or an attached garage. While not as controversial, several major changes were made to the structural requirements of the IBC and IRC.

Two new ICC Standards were adopted for reference in both the IBC and IRC. The first is the ICC-500, *Standard for the Design and Construction of Storm Shelters*. This will require that if someone constructs a storm shelter, it must be designed and built in accordance with this standard. The second is the ICC-600, *Standard for Residential Construction in High Wind Regions*. This standard replaces the SBCCI SSTD-10 as one of the prescriptive options for construction where the windspeed exceeds 100 mph.

Another change to both the IBC and IRC will require that the corrosion-resistant finish of connectors that are in contact

with treated wood must be in accordance with the instructions of either the connector manufacturer or the treated wood manufacturer. To learn more about Simpson Strong-Tie® product recommendations and the latest corrosion research, visit www.strongtie.com and click on Corrosion Information.

In the IRC, major changes were made to the wall bracing section, so that the bracing is more effective in resisting wind forces. Currently, bracing amounts are based on seismic resistance only, even though windspeeds are listed in the table. In the 2009 IRC, there will be two different wall bracing amount tables, depending on whether the structure must resist wind or seismic forces. Also, significant revisions were made to braced wall line connections to the foundation at the bottom and to the roof framing at the top of the wall.

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CONSUMER OUTREACH

READY TO BE STORMSTRUCK™? NEW WEATHER EXPERIENCE OPENS AT EPCOT®

High winds, thunder, lightening and hail – no, this is not your typical Midwest storm; this is much bigger than that, this is StormStruck™, a new experiential exhibit at INNOVENTIONS at Epcot® at the Walt Disney World® Resort in Florida. This interactive exhibit promises to entertain visitors while providing important safety information about high winds and ways to protect homes from storm damage.

StormStruck opened to the public in August and is predicted to reach approximately 12 million Epcot® visitors over its three-year run. For Disney and its disaster safety sponsors, the Federal Alliance of Safe Homes (FLASH), RenaissanceRe, State Farm and Simpson Strong-Tie, the opening of the exhibit comes at an ideal time.

“With the recent hurricane and tornado activity, there’s no better time than now to prepare families and homes for severe weather events. Simpson Strong-Tie is extremely proud to be involved in a project that will broaden our message of structural safety and educate families about how to make their homes storm ready,” said Terry Kingsfather, president of Simpson Strong-Tie.

StormStruck is designed to educate homeowners about why structural integrity is so important to the safety of their homes. The exhibit teaches them some of the simple

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CONSUMER OUTREACH (continued from page 1)

steps they can take to prepare and strengthen their homes for high wind events. StormStruck visitors will have the opportunity to experience a simulated storm with wind, rain, thunder and lightening, and see firsthand the damage it can cause to a neighborhood. Tasked with rebuilding and repairing the homes that are damaged, exhibit goers must then make choices, such as whether to rebuild the frame of a house with only nails or with metal connectors. They also must decide how to repair windows, a roof and a garage door. Their choices are quickly put to the test when the next storm strikes. After the second storm, the presenter shares the correct answers and explains how critical it is to build and rebuild a home right to prevent damage.

After the show, guests are led into an educational area where they can learn more about storms and proper building techniques. A website also has been created to help reinforce storm preparedness. To learn more, visit www.stormstruck.org. ■



NEW STRUCTURAL SAFETY RESOURCE FOR HOMEOWNERS

To better educate homeowners about structural safety, a new area on www.strongtie.com has been created just for them. On the homepage, there's a new promotion called "For Homeowners." Clicking here takes you to the new "safer, stronger home" area on the site, which features information about connectors, earthquakes, high winds and decks. Designed especially for homeowners, visitors will find such resources as home strengthening tips, simple explanations about Simpson Strong-Tie[®] products, and new animated visuals to help explain continuous-load-path construction and how wind and earthquakes affect a home. ■



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A new ACI standard, ACI332, *Code Requirements for Residential Structural Concrete*, was adopted in the IRC as an alternate to ACI318.

In the IBC, several changes were made that apply to anchors and anchorage. One approved change removed the requirement for anchorage of concrete and masonry walls to roofs to resist the standard 280 plf. This revision was for low seismic areas only. A somewhat related change allowed wall anchors that are designed to resist seismic

wall out of plane forces to be exempted from the ductility requirements of ACI 318, Section D.3.3.4. Another change clarified that anchors installed in hardened concrete are subject to periodic special inspection, not continuous special inspection.

In addition, a simplified wind design method proposed by the National Council of Structural Engineers was slightly modified by several proposals before adoption. Finally, the new 2008 ANSI/AF&PA *Special Design Provisions for Wind and Seismic Standard*

was adopted for reference in the IBC. This contains the latest information needed to design wood members, connections and assemblies to resist wind or seismic forces.

Look for all of this and more in the soon to be published 2009 IBC and IRC. ■

Code Corner is written by engineer Randy Shackelford, P.E. of Simpson Strong-Tie. When he's not attending code hearings, he can be reached at rshackelford@strongtie.com.

WORKSHOPS & TRAINING

NORTHEAST

Simpson Strong-Tie Wall Bracing Workshop

West Springfield, Massachusetts Thursday, November 6

Simpson Strong-Tie Anchor Systems® for Engineers & Architects

Rochester, New York Wednesday, November 12

Continuous Load Path - Wood Framed Structures

Columbus, Ohio Wednesday, November 19
Cherry Hill, New Jersey Wednesday, Jan 14, 2009

SOUTHEAST

Builders, Contractors & Developers Workshop

McKinney, Texas Thursday, November 6

Building Officials & Inspectors Workshop

Jacksonville, Florida Thursday, November 13
McKinney, Texas Friday, November 21

Introduction to High Wind Design & Construction – AIBD

Jacksonville, Florida Saturday, November 15

NORTHWEST

Simpson Strong-Tie Anchor Systems®

Kent, Washington Tuesday, November 4

General Connector Technology

Kent, Washington Thursday, November 6

IBC 2006 Wind & Seismic Design

Stockton, California Thursday, December 11

SOUTHWEST

Connector Workshop for Building Officials & Inspectors

Brea, California Thursday, November 6

IBC 2006 Wind & Seismic Design

North Las Vegas, Nevada Thursday, November 13

Phoenix, Arizona Tuesday, November 18

Honolulu, Hawaii Tuesday, December 2

Cracked Concrete & Advanced Anchor Topics

Brea, California Thursday, November 20

Connector Workshop for Contractors, Builders & Developers

Brea, California Wednesday, December 10

For more information regarding workshop content and for a complete schedule, visit the Workshops and Training section of our website at www.strongtie.com/workshops.

SERVICE UPDATE

ADDITIONAL PRODUCT EVALUATION AGENCY PROVIDES QUALITY, EXPEDITED PRODUCT EVALUATION REPORTS



The International Association of Plumbing and Mechanical Officials Evaluation Services (IAPMO ES) is a product evaluation agency that has been evaluating plumbing and mechanical products for more than 80 years. IAPMO ES also now provides

evaluations on structural building products. Similar to ICC-ES, IAPMO ES is accredited by the American National Standards Institute (ANSI) and evaluates building products, materials and designs according to all applicable codes and standards to ensure continuous compliance to such documents. The ANSI accreditation for IAPMO ES and ICC-ES is equal in all respects for product evaluation. Evaluation Reports generated by IAPMO ES represent a thorough, quality product evaluation to the International Building Codes®.

Similar to the ICC-ES Acceptance Criteria process, IAPMO ES has a process for developing Evaluation Criteria, when needed, to ensure that the product evaluation requirements are clear. Just as is done with ICC-ES, the applicant submits a proposed Evaluation Criteria to IAPMO ES for consideration. IAPMO ES and their qualified independent structural engineering consultants review, comment on and revise the draft criteria as they consider necessary. The draft criteria is then posted to the IAPMO ES website for public comment. Once all comments are received and evaluated the Evaluation Criteria is approved. IAPMO ES also utilizes pre-qualified structural engineering firms to assist with product evaluation reviews. This additional, independent review helps ensure that thorough, competent structural reviews are performed.

In July, Simpson Strong-Tie received its first evaluation report from IAPMO ES. "IAPMO ES provided a very thorough technical review," said Jeremy Gilstrap, manager of Engineering R&D for Simpson Strong-Tie. "We still rely on ICC-ES for the majority of our code reports, but we recognize they have a tremendous work load that sometimes impacts the review time frame."

Due to the time sensitivity of obtaining evaluation reports, Simpson Strong-Tie decided to submit a few evaluation report applications to IAPMO ES. To date the results have been very positive. IAPMO ES has provided very good reviews and evaluation reports and the ICC-ES service level has improved.

The third-party review and issuance of evaluation reports by both agencies should result in verification of manufacturers' performance claims, ready acceptance by building officials and ease of specification for building designers. Even with these third-party evaluation reports, it is still important for those who rely on the reports to review them and understand the information that is presented, including any aspects of the product application that must be designed by others and any limitations for use of the product.

Simpson Strong-Tie recognizes the importance of providing timely evaluation reports for all new products and is working hard with both IAPMO ES and ICC-ES to help accomplish this objective.

For more information about IAPMO ES, visit www.iapmoes.org. To review the latest Simpson Strong-Tie code listings, visit www.strongtie.com and click on Resources – Code Reports. ■

APPLICATION UPDATE

NEW OLYMPIC FACILITY SHOWCASES TIMBER ROOF

In the afterglow of an amazing Summer Olympics in Beijing, there is now much anticipation for the upcoming 2010 Winter Olympics to be held in Vancouver, Canada. Less than two years away, the city and neighboring areas are in the midst of completing many construction projects to get ready for the games. The City of Richmond, British Columbia, is preparing to open the Richmond Oval, a new world-class, silver LEED® certified facility that will host the long track speed skating competition and 12 medal events at the Olympics.

Just a stone's throw from the Vancouver airport, the 344,445 square foot multi-purpose facility is designed for both sporting and community events. The Oval will feature ice, court and turf surfaces to accommodate a number of summer and winter sports, and will include 8,000 spectator seats. Pre- and Post-Games, the facility will be available for a variety of uses, including sports, recreation and wellness activities.

Construction of the Richmond Oval commenced in September of 2005, and the building is scheduled to open later this year. One of the most impressive features of the new facility is its roof, which is constructed completely of B.C. wood and features arched trusses and rafters, creating a unique wave design. Fifteen large glulams were used to support the massive roof structure, which spans more than six acres. The roof itself is fastened to the glulams using 260,000 Simpson Strong-Tie® Strong Drive® screws (SDS). The Strong-Drive screw is a 1/4" diameter structural screw that is ideal for wood-to-wood applications as well as some Simpson Strong-Tie® connectors. The unique design of the SDS screw allows it to install without predrilling. Fast & Epp Structural Engineers is the firm responsible for the roof's engineering design.

To learn more about the Richmond Oval project, visit www.richmond.ca. To learn more about Simpson Strong-Tie SDS screws and their multiple applications, visit www.strongtie.com. ■



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