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COLD-FORMED STEEL ENGINEERS INSTITUTE – NEWS AND UPDATES

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Obama Sets New Energy Efficiency Goal
With comprehensive energy efficiency legislation cooling on the congressional back burner, President Obama issued an executive order Thursday to spur energy efficiency upgrades at manufacturing facilities. More

100 mph Wind (Simulated) Storm Hits S.C. Town
RICHBURG, S.C. A wind storm ripped through this Chester County town Tuesday at about 10:30 a.m. In less than thirty minutes, winds exceeding 100 mph left the exterior wall of a concrete building crumbled on the ground. More

Expert: Set achievable diversion goal before zero waste
When considering the definition of zero waste, it’s not always about what can be readily seen. More

Housing recovery could lift jobs, spending
After years of depressed activity, home prices and new construction have started to pick up in recent months as foreclosures have slowed, suggesting the housing market may have finally bounced off the bottom. More

July Preliminary Data Show Large Import Increases Continuing In Several Key Products
Washington, D.C. – Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported today that the U.S. imported a total of 2,582,000 net tons (NT) of steel in July, including 2,028,000 NT of finished steel (down 8% each, respectively, from June final data). More

Nucor Steel Louisiana Construction Is Underway
Convent, LA – Nucor Corporation is in the midst of one of the largest industrial projects in Louisiana history with the construction of the Nucor Steel Louisiana, LLC facility. More
Is Acoustics the Next Thermal? SFA Prepares for Challenge With Update to Online Directory

The title of this article may seem like a rather strange and disjointed headline for a story in Framework Online, but both parts of it have implications for the CFS industry.

By now, most in the industry are aware of the many potential challenges to CFS framing posed by modern energy codes and standards. Acoustic performance may be the next emerging issue, with similar potential impact to our industry in terms of the changes it may require.

Over the past several years, SFA has seen repeated attempts in codes and standards produced by the International Code Council (ICC), American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE), and others to broaden the scope and magnitude of acoustic requirements. This issue will be one we face over and over again. Perhaps nowhere is this more evident than in the “green code” world such as the International Green Construction Code (IgCC), ASHRAE 189.1 (Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings), and Leadership in Energy and Environmental Design (LEED). Although voluntary in most areas, some of these standards are beginning to see adoption as mandatory requirements. California is one example where a mandatory green code is already in place.

In addition, federal agencies in the United States have expressed interest in 189.1 and other green standards as part of their specifications. Like the thermal issues, it may take a while for acoustics to go “mainstream” and become part of the regular code, but the likelihood of this happening is high as new requirements creep into specifications.

Perhaps the best way of understanding this issue is to consider where our industry is now and where we are headed. Currently, acoustic requirements are specified in building codes in terms of a sound transmission coefficient (STC) for airborne noise and Impact Insulation Class (IIC) for impact noise. Most new or proposed requirements have focused on the airborne noise component.

Historically, acoustic protection has centered on providing some minimal protection from noise between dwelling units. This makes sense at some level in that people live and sleep in residential buildings. However, the 2012 International Residential Code (IRC) does not have any mandatory requirements for either STC or IIC. The IRC only includes acoustic provisions in an appendix that must be adopted separately to become mandatory in a jurisdiction.

Moving on to larger buildings, including hotels, apartments and other multifamily buildings, the 2012 International Building Code (IBC) has a relatively small set of acoustic requirements in Section 1207 as part of Chapter 12 on Interior Environment.

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Section 1207 basically requires an STC of 50 for walls and floors between dwelling units. Likewise, an IIC of 50 is required for floor/ceiling assemblies that separate dwelling units. No other occupancies are addressed.

The IBC further states that a lower STC or IIC of 45 is acceptable if the value is determined from a field test, versus a laboratory test that is typically used. ASTM E 90 and ASTM E 492 are specified as the test methods for the STC and IIC, respectively.

Meeting the STC and IIC requirements in the IBC is not difficult with many fairly typical CFS assemblies. For example, SFA has a directory with assemblies that have been tested to meet different levels of acoustic and fire performance. However, the potential challenges arise when considering the emerging acoustic requirements in green codes and standards that will eventually find their way into “regular” buildings codes.

To answer the question “Where are we going?” with acoustic requirements, we will look to the emerging green codes and standards. Many of the same requirements are either currently contained in the major green documents or are under discussion. Due to the copycat nature of these codes, we can expect all of the green documents to be similar after a few rounds of changes. In this article, we will rely mostly on the 189.1 standard to illustrate specific points, but it really can be considered representative of a wide range of green codes.

The most significant provisions in 189.1 relate to the scope of acoustic requirements. Whereas the IBC acoustic requirements only cover dwelling unit separation, the green codes and standards have expanded scopes that address other types of occupancies including tenant space, spaces adjacent to dwellings and tenant spaces, patient rooms in nursing homes, and classrooms. Most STC and IIC ratings are the same as in the IBC, with higher STC ratings to protect classrooms. For example, an STC of 53 is the base requirement to separate classrooms from showers and rest rooms. Likewise, 189.1 requires an STC of 60 to separate classrooms from gyms, cafeterias, mechanical rooms and indoor swimming pools.

Perhaps the most significant deviation from regular buildings codes and 189.1 and other green standards is the concept of protecting buildings from noise generated outdoors for all types of buildings. This is a new concept that introduces many unknown variables for CFS framing and other materials. The outdoor-indoor transmission coefficient (OITC) is the term often used to describe requirements for exterior walls.

Many of the emerging green codes have criteria to determine when the OITC is required, such as distance from expressways or airports. Other criteria include specific outdoor sound levels. Many of the requirements are subjective, and SFA is concerned that building officials will have no choice but to make broad determinations because of this subjectivity. OITC requirements are currently set at 40, or what is deemed an equivalent “composite” STC of 50 in the 189.1 standard.

Another issue with the OITC requirements is that they warrant different testing criteria than the traditional STC rating. Use of the term “composite” STC or the OITC will likely require test results for the entire assembly, including windows and other openings.

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Because these openings are the weak links in the assembly, the rest of the wall may need to make up for their deficiencies in order to meet the overall OITC or composite STC.

How will this impact CFS? The answer to this question is not clear in regard to the OITC and composite STC requirements, mainly because very few tests have been conducted for CFS assemblies. The big challenge for our industry will likely be to test and publish generic assembly test results or for individual manufacturers to do so for proprietary systems.

Despite the unknown challenges associated with protecting buildings from exterior noise, what is clear is that in the years ahead, designers of CFS buildings in the United States will need to meet more STC and IIC ratings for use groups well beyond the dwelling units typically protected in the current IBC and other regular building codes. Although more testing will be necessary in the future, there are assemblies that have been tested and meet many of the newer tenant and dwelling unit separation (i.e., not outdoor-generated noise, but noise from adjacent interior spaces) requirements in 189.1 and other green codes and standards.

The CFS industry in Canada faces a similar challenge. While the issues may be somewhat different, the fundamental concern over whether enough test data exists to meet emerging requirements is the same. A current draft of the National Building Code introduces the use of “apparent” STC ratings. In the future, it may be necessary for the CFS industry to provide these ratings in order to meet current acoustic requirements between dwelling units in Canada. The apparent STC rating appears to be similar to the composite STC in that it requires a test of the full assembly, including openings and intersections or joints.

SFA is working with the Steel Stud Manufacturers Association (SSMA), the Steel Framing Industry Association (SFIA) and the Canadian Steel Construction Council (CSCC) to monitor the situation with proposed changes in the U.S. and Canadian codes. Our intent is to develop a unified approach by combining resources to address the issue of acoustics in an efficient and comprehensive manner.

In order to bring you the latest information on this issue, SFA is currently updating "A Guide To Fire And Acoustic Data For Steel Floor, Wall & Roof Assemblies." The directory in PDF format has been updated several times over the years, but the resources to update the online searchable directory have not been available. With industry co-funding and in-kind effort from the CSCC, we are now in a position to update both the PDF version and the online searchable directory. We expect the update to be completed in October 2012. Look for an announcement of the new directory's availability by email or the December 2012 issue of Framework Online.

- Editor, Framework Online
TOP STORIES

Cold-Formed Steel Framing at METALCON International 2012 – October 9-11, 2012 – Rosemont, IL

“Stud U for the Masses – What You Think You Know and What You Really Don’t About Cold-Formed Steel Framing” – Part 1 Tuesday October, 9, 2012, and Part 2 – Wednesday, October 10, 2012

Although cold-formed steel framing continues to play an increasing role in small, multi-family and mid-rise structures, it is often misunderstood in the construction marketplace. This two-part session will help participants to more thoroughly understand the benefits and best practices of cold-formed steel framing.

Architects, builders and contractors, engineers, building inspectors and building trades instructors will all benefit from this custom-designed program. It is modeled after the very successful 2-1/2 day Stud U program, which was responsible for the construction of several main show floor projects at previous METALCON International gatherings. After each show, the projects would be demolished and reconstructed to benefit others, such as the Stud U demonstration that was rebuilt as a single home for a wounded soldier in the Homes For Our Troops partnership in Melbourne, Florida in 2008.

Part One of the 2012 METALCON session, titled “Back to Basics,” will clarify any existing mystery in specifying, designing, installing and inspecting cold-formed steel structures. It will use a single-family home project as a blueprint to demonstrate resources readily available for cold-formed steel. Instructors will walk through various construction scenarios from foundations to trusses. This session will focus on:

- Foundations
- Floors
- Walls - Structural and Non-Structural and Headers
- Roofs
- Panelization
- Cold-Formed Steel Framing and Other Materials

Part Two of the program will build on the expertise learned in Part One by uncovering some of the most frequently overlooked items during design, specifying and installing cold-formed steel framing. It will include topics such as the right steel thickness, the types and quantity of fasteners, and the most efficient tools to use. Participants will also learn the correct installation practices required to pass the most rigorous inspection. In this session, participants will have an opportunity to see the latest design and construction techniques using a combination of graphics and a structure already constructed in the METALCON International Exhibit Hall. Lastly, participants will construct a mini-cold-formed steel framing project using state-of-the-art industry tools to facilitate hands-on experience.

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With more than 60 years of experience combined, the original Stud U Team of Danny Feazell, president – Premium Steel Building Systems; Nader Elhajj, director of Middle East and Africa, FrameCad Solutions; and Maribeth Rizzuto, LEED AP, director of education and sustainable construction, Steel Framing Alliance and managing director, Cold-Formed Steel Engineers Institute will once again lead this interactive program.

For more information on METALCON International 2012, visit www.metalcon.com.

- Editor, Framework Online
Continuing the Mission – Four Tech Notes Released

Following its mission "to enable and encourage the efficient design of safe and cost-effective cold-formed steel structures," the Cold-Formed Steel Engineers Institute (CFSEI) has published four new documents in its ongoing Tech Notes series—"Fire Assemblies of Cold-Formed Steel Construction," “Evaluation of Screw Strength,” “ASTM Standards for Cold-Formed Steel,” and “Corrosion Protection for Cold-Formed Steel Framing in Coastal Areas.” These Tech Notes are available as a free download for members or for purchase at the American Iron and Steel Institute (AISI) online bookstore at https://shop.steel.org/c/48/cfsei-tech-notes.

The CFSEI Tech Notes provide technical instruction on specific topics related to cold-formed steel framing for residential and commercial construction. The new documents include:

Fire Assemblies of Cold-Formed Steel Construction (Tech Note T100-12)

In most cases, load-bearing cold-formed steel sections are required to be fire-resistant when they are part of a compartment’s wall or floor or when they support other floors. This Tech Note provides a comprehensive list of resources summarizing available tested fire-rated steel assemblies, building code requirements, test methods and applicable references.

Evaluation of Screw Strength (Tech Note F701-12)

This Tech Note provides design guidance for the evaluation of screws when subjected to pure shear, pure tension and combined shear and tension in accordance with the North American Specification for the Design of Cold-Formed Steel Structural Members (AISI-S100-07 with 2010 Addendum). It assists design engineers in evaluating the strength of screws when test data is not available.

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ASTM Standards for Cold-Formed Steel (Tech Note G800-12)

This Tech Note provides an overview of the principal ASTM standards affecting cold-formed steel framing, which are often referenced in building codes and contractual documents. (ASTM International was formerly known as the American Society for Testing and Materials.)

Corrosion Protection for Cold-Formed Steel Framing in Coastal Areas (Tech Note D200-12)

This 2012 update outlines available corrosion-resistant materials for cold-formed steel framing members and makes recommendations for buildings at various distances from the ocean and for different exposure conditions within an individual building.

So far in 2012, a total of seven Tech Notes have been released. To obtain copies or explore the full library of topics, visit http://www.cfsei.org/technotes_1.htm.

- Editor, Framework Online
CFS Bracing Requirements Delivered to a Computer Near You!

Continuing its series of timely education on cold-formed steel topics, CFSEI will host a new webinar titled “Cold-Formed Steel Bracing—Why? When? And How?” to address this unique building design challenge on Thursday, October 4, 2012 at 3:00 PM EST. The webinar will explain why different sections and systems need bracing, when to use bracing effectively, and how to design it. The presenter will be Jennifer Zabik, P.E., S.E., an expert in this area and co-author of “Bracing Cold-Formed Steel Structures: A Design Guide,” which will be referenced during the webinar. 1.5 hours of continuing education credit will be awarded.

“Loading a cold-formed steel section is unique compared with most other sections because the load path does not typically travel through the shear center,” Zabik said. “This eccentricity can cause twist and sway of the members if they are not properly braced. For proper design, the brace force for individual sections must be transferred through the system. Therefore, the system as a whole must be braced and designed to carry this force.”

Zabik said that in addition to the completed design (which carries the permanent load), the engineer can be asked to design temporary bracing for the construction phase of the project. “The webinar will provide recommendations to guide the design engineer through this process, which is especially important to preventing potential failures due to the lack of bracing during installation,” she said.

Jennifer Zabik, P.E., S.E., is registered in the state of Florida and has been practicing structural engineering there for seven years. She is also registered in Louisiana, Georgia, Illinois, North Carolina, South Carolina, Alabama and Puerto Rico. She served as president of the CFSEI-Florida Chapter from 2010-2012. She serves on the board of directors for the Structural Engineering Institute of the American Society of Civil Engineers (ASCE-SEI) East Central Branch. Zabik earned her Master's degree at the University of Florida and co-authored the monograph “Bracing Cold-Formed Steel Structures: A Design Guide” with Thomas Sputo, Ph.D., P.E., S.E., technical director of the Steel Deck Institute.

More information on the webinar and registration are available on the CFSEI website, www.cfsei.org.

- Editor, Framework Online
MARKETPLACE

Nonresidential Building Construction Rises for the Second Month in a Row

Nonresidential building construction spending advanced 0.3% at a seasonally adjusted (SA) rate in June after rising 1.4% in May. On a year-to-date, not seasonally adjusted (NSA) basis, spending increased 9.2% compared to the same period in 2011.

“For lease” private projects spending fell 0.7% (SA) in June following a healthy 1.2% rise in May. Year-to-date for lease spending increased 9.7% compared to a year ago. June lodging construction spending surged 3.7% after falling 1.1% in May. June office construction spending slipped 0.3% after rising 0.3% in May (revised up from a 1.5% drop). Retail construction spending dropped 1.9% after jumping 2.4% in May. On a year-to-date basis, hotel construction spending increased 22.8%, office construction spending 3.1%, and retail construction spending 12.4%.

Construction spending for institutional projects shrank 0.3% in June after rising 0.3% (revised up from a 1.5% fall). On a year-to-date basis, spending was up 2.6% from last year. Three of the categories in this group increased in June — health care (+0.4%), religious (+0.7%), and amusement and recreation (+1.4%). However, on a year-to-date basis all of these categories were up compared to the same period in 2011 except religious and amusement/recreation construction spending, which were down 8.0% and 1.8%, respectively.

Manufacturing construction spending climbed 3.7% in June after surging 5.5% in May, posting its fifth consecutive monthly increase. Meanwhile, year-to-date spending was up a solid 35.8% compared to last year.

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U. S. Nonresidential Construction
(billions of U.S. current dollars)

<table>
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<tr>
<th>Monthly Figures (1)</th>
<th>3-Month Moving Average</th>
<th>Year-to-Date (in $s)</th>
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<td>Apr-12 May-12 Jun-12</td>
<td>Apr-12 May-12 Jun-12</td>
<td>Apr-12 May-12 Jun-12</td>
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<tr>
<td>For Lease</td>
<td>93.2 94.3 95.6</td>
<td>92.1 93.6 95.7</td>
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<td>% Change</td>
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<td>0.6% 1.6% 0.1%</td>
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<td>10.6 11.0 11.1</td>
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<td>4.6% 3.9% 0.9%</td>
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<td>Office</td>
<td>35.5 35.6 35.5</td>
<td>35.2 35.7 35.6</td>
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<tr>
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<td>0.4% 1.3% -0.2%</td>
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<td>Commercial</td>
<td>46.6 47.7 46.8</td>
<td>46.3 46.9 47.0</td>
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<td>(mainly retail)</td>
<td>0.4% 2.4% -1.9%</td>
<td>-0.1% 1.3% 0.3%</td>
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<tr>
<td>Institutional</td>
<td>165.2 155.7 155.3</td>
<td>156.3 155.7 156.4</td>
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<tr>
<td>% Change</td>
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<td>-0.6% 0.4% -0.2%</td>
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<td>0.4% 2.2% -0.6%</td>
<td>-6.5% 2.6% 2.6%</td>
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<tr>
<td>Business</td>
<td>40.9 41.5 41.5</td>
<td>40.7 40.9 41.5</td>
</tr>
<tr>
<td>% Change</td>
<td>1.9% 1.8% 0.4%</td>
<td>0.3% 0.5% 1.4%</td>
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<td>Education</td>
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<td>85.3 84.7 83.9</td>
</tr>
<tr>
<td>% Change</td>
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<td>Religious</td>
<td>3.9 3.7 3.8</td>
<td>4.0 3.9 3.8</td>
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<tr>
<td>Public Safety</td>
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<tr>
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<td>Amusement/Recreation</td>
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<td>15.7 15.7 15.8</td>
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<td>-1.6% -0.1% 0.3%</td>
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<tr>
<td>Manufacturing</td>
<td>46.8 51.3 53.2</td>
<td>46.0 49.2 51.1</td>
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<tr>
<td>% Change</td>
<td>1.8% 5.5% 3.7%</td>
<td>2.2% 2.6% 3.7%</td>
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<td>Total (2)</td>
<td>297.0 301.3 302.1</td>
<td>296.4 296.5 300.2</td>
</tr>
<tr>
<td>% Change</td>
<td>-0.1% 0.4% 0.3%</td>
<td>-0.1% 0.7% 0.9%</td>
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Source: Census Bureau, U.S. Department of Commerce. Calculations: Reed Construction Data

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The Forecast

The chief risks to the construction spending forecast include the continuing problems in Europe, the expiration of the Bush tax cuts at the end of the year, the need to raise the federal debt ceiling, and the threat of significantly higher oil prices for a sustained period. Although these risks remain, RCD Economics assumes none of them worsens to the point that it derail the economy. Thus the forecast is for spending totals to strengthen throughout 2012 and 2013 as U.S. economic growth improves and companies increase hiring and investment in new plant and equipment in response to rising demand. Low long-term interest rates continue to be a positive for investment.

The forecast is for nonresidential construction spending to increase 6.4% in 2012 and to improve further in 2013, expanding 7.4%.

Source: Reed Construction Data, August 21, 2012
MARKETPLACE

Nonresidential Construction Spending Expected to Be Up in 2012 and 2013

Washington, D.C. – August 2, 2012 – Even with the myriad of obstacles preventing a full scale recovery for the overall U.S. economy, the design and construction industry appears to have reasons to be at least modestly optimistic in the coming months and into next year. A sharp spike in demand for industrial facilities so far this year, along with sustained demand for hotels and retail projects factors into what projects to be a 4.4% rise in spending this year for nonresidential construction projects – up from a projection of a 2.1% increase in the January Consensus Forecast. The American Institute of Architects (AIA) semi-annual Consensus Construction Forecast, a survey of the nation’s leading construction forecasters, also projects a 6.2% increase of spending in 2013.

"With companies looking to bring back manufacturing jobs from overseas, there has been a sharp rise in demand for industrial facilities, which is leading to an upward revision in projections for future construction spending," said AIA Chief Economist, Kermit Baker, PhD, Hon. AIA. "Continued budget shortfalls at the state and local level, along with a depressed municipal bond market are holding the institutional market back from seeing similar upticks in spending."

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Overall nonresidential</td>
<td>4.4%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Commercial / industrial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>o Industrial</td>
<td>12.9%</td>
<td>8.1%</td>
</tr>
<tr>
<td>o Hotels</td>
<td>9.5%</td>
<td>18.2%</td>
</tr>
<tr>
<td>o Retail</td>
<td>6.2%</td>
<td>9.0%</td>
</tr>
<tr>
<td>o Office buildings</td>
<td>4.7%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Institutional</td>
<td>0.7%</td>
<td>3.0%</td>
</tr>
<tr>
<td>o Healthcare facilities</td>
<td>4.0%</td>
<td>7.5%</td>
</tr>
<tr>
<td>o Education</td>
<td>0.3%</td>
<td>1.1%</td>
</tr>
<tr>
<td>o Amusement / recreation</td>
<td>0.1%</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

…Continued next page
Remarking on what risks exist that could undermine these projections, Baker added, “Federal tax and spending changes – the so-called fiscal cliff – that may come into play in early 2013 could upset the economic applecart and prove detrimental to recovery possibilities. We will likely have a better sense after the presidential election what will happen with regards to the Bush-era tax cuts, Social Security payroll tax, extended unemployment, and deficit reduction plans that will have a ripple effect that will extend to the construction industry.”

Source: American Institute of Architects, August 2, 2012
MARKETPLACE

Concerns Force Delay of LEED 2012

After a multi-punch assault on the USGBC’s LEED 2012 rating system, Rick Fedrizzi, President of the USGBC, was forced to announce that LEED 2012 would not go to ballot as originally planned, would be renamed LEED V4, and would be delayed until June 2013. The lead up to this has been brewing for several months as multiple iterations of LEED 2012 were released for public comment, each of them significantly different than the last. This, in combination with a GSA report that favors a competing green building rating system over LEED, proved to be LEED 2012’s undoing.

A Stiff Jab

In 2006, the GSA identified LEED as the “most appropriate sustainable building rating system available for evaluation of GSA projects “for use in construction of federal facilities.” This was a huge deal for LEED and give it instant credibility and sped its adoption in both public and private sector work. A press release on the USGBC website touted the report’s conclusions as “a major boost” to LEED and the “endorsement” of LEED by the GSA tantamount to “a de facto standard for the industry.”

The GSA is required to re-evaluate green building certification rating systems for use in federal facilities every five years. Its second evaluation was released in March 2012, and pitted LEED against the new ANSI Green Globes rating system. The report concludes that Green Globes aligns most closely with the review criteria for new construction, aligning with 25 of the 27 criteria, while LEED only managed to align with 20 of the 27.

Ouch.

A Solid Body Shot

The release of the GSA evaluation study was followed closely by a hearing conducted by the House of Representatives Science, Space, and Technology Committee’s Subcommittee on Investigations and Oversight on the science behind green building rating systems. Committee Chair Paul Broun of Georgia opened the hearing with the following statement:

“Are taxpayers saving money as a result of LEED standards? I’d like to learn why [LEED and Green Globes] are more effective than one that could be developed by DOE and GSA themselves. I am also concerned that consensus appears to be missing in some cases. Recent proposed changes to LEED for 2012 also appear to penalize some common building materials with little to no basis in science such as PVC piping. Shouldn’t we instead be focusing on saving taxpayer dollars rather than social engineering? Adopting standards that don’t save taxpayer money or tell American workers that the products they make are not welcome in federal buildings defies common sense.”

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Several individuals were invited to testify before the committee, including representatives from the USGBC and Green Globes’ Green Building Initiative. The most substantive, and damning, testimony came from Professor John Scofield, PhD Physics of Oberlin College. Dr. Scofield is particularly critical of the LEED rating system and its unfulfilled promises of energy efficiency. He cites a 2008 National Building Institute study that shows “no correlation between the number of energy efficiency points awarded by LEED and measured energy consumption.” He goes on to say:

“It is my experience that what LEED designers deliver is what most LEED building owners want—namely, green publicity, not energy savings. Long before the building is occupied LEED building owners reap enormous green publicity from so-called news articles that are nothing more than press releases that list the many benefits of the intended building along with the architect’s optimistic energy projections.”

Ooomph!

A Left Hook

In a letter to Rick Fedrizzi dated May 18, 2012, a group of self-proclaimed sustainable design leaders representing several US-based architectural firms, a plea was made to put the brakes on the development of LEED 2012. The letter states:

“… the current version contains many elements that suggest a variety of consequences which are unpredictable, and which are punctuated by the significant variations we have observed between the four versions of the proposed changes released thus far. Furthermore, these numerous versions have continued to propose changes that are highly prone to have unintended consequences in the marketplace, credits that promote practices that are weak and not aligned with the overarching goal of transparency and performance, credits whose compliance paths include tools that are not yet in our firms’ practice toolkits or do not have clear consensus and as a result have not yet been adopted by industry, and credits for which the complexity of documentation is only adding to these challenges and therefore will diminish participation. In some cases, we fear that credits being proposed have already been proven as unachievable within the day-to-day reach of our practices. To the extent that this leads our clients to not pursue certain sustainable design strategies, our projects will be diminished in their environmental intelligence.”

I have to assume that these concerns were raised during the “open and transparent” development process and that they were ignored by the USGBC, something I am personally familiar with having seen it happen on more than one occasion during my tenure with the USGBC Materials and Resources Technical Advisory Group.

Kah-pow!

The Knock-Out Punch

In a letter dated May 18, 2012, 56 U.S. Congressmen, both republicans and democrats, express their deep concern about proposed LEED rating system changes to GSA’s...
Acting Administrator Daniel Tangherlini. The letter is consistent with the concerns raised by the sustainable leaders USGBC membership group and offers even more explicit concerns:

“The proposed LEED 2012 rating system is a significant departure from the previous version and will eliminate the use of dozens of materials and hundreds of proven building products, all while driving up building costs to the taxpayer and threatening employment in our districts.

“We are deeply concerned that the LEED 2012 rating system is becoming a tool to punish chemical companies and plastics makers and spread misinformation about materials that have been at the forefront of improving environmental performance—and even occupant safety—in buildings.”

The letter concludes with a request that the GSA stop using LEED as a preferred green building certification tool if the USGBC adopts LEED 2012.

Lights out!

Conclusion

Fedrizzi’s open letter about the delay of LEED 2012 spins it simply as “100 percent in response to helping our stakeholders fully understand and embrace this next big step.” Really? One-hundred percent? That’s hard to believe in the face of the multiple blows LEED 2012 has been dealt.

So what will LEED V4 look like? It seems reasonable to me that if the USGBC is interested in continuing its cozy relationship with the GSA, it will look different than LEED 2012. And if I were the USGBC, I would additionally look for ways to more closely align LEED with the federal criteria to which it will be judged by the GSA.

What does all this mean for Green Globes? Well, if I were the GSA, I would be interested in showing those 56 U.S. Congressmen that I love Green Globes, and that I no longer favor LEED over a superior green building rating system.

Source: Walls & Ceilings, August 1, 2012
MARKETPLACE

Obama Sets New Energy Efficiency Goal

With comprehensive energy efficiency legislation cooling on the congressional back burner, President Obama issued an executive order Thursday to spur energy efficiency upgrades at manufacturing facilities.

The administration said reaching the goals outlined in the order will reduce energy costs by $10 billion annually and attract between $40 billion and $80 billion in private investment.

“Today, we are taking another step to strengthen American manufacturing by boosting energy efficiency for businesses across the nation,” Obama said Thursday in a statement. “This action will cut costs, increase efficiency, and help our businesses create strong, middle class jobs. We’ll continue to do everything we can to put more people back to work and build an economy that lasts.”

The directive aims to boost combined heat and power capacity to 40 gigawatts by 2020, an increase of 50 percent compared with today. The order said agencies will craft best practices and work with states to encourage combined heat and power implementation, adding the technologies will help keep industrial facilities compliant with emissions regulations.

Combined heat and power technology produces heat and power simultaneously on-site from one fuel source, thereby making energy generation less wasteful. By burning less fuel, combined heat and power technology reduces greenhouse gas emissions and lowers energy costs. And by having the fuel source on-site, manufacturing facilities are shielded from electricity outages.

Energy efficiency advocates have been stymied on Capitol Hill. Republicans have held off passing energy efficiency bills because they want to take a look at federal tax reform, and many energy efficiency initiatives are funded through tax incentives.

But President of the Alliance to Save Energy Kateri Callahan said Wednesday during a Politico-hosted panel at the Republican National Convention that Obama has taken charge on energy efficiency.

Phyllis Cuttino, director of the Pew Clean Energy Program, praised the administration’s order on Thursday. She called it a “common-sense strategy” for adding jobs, lowering energy costs and enhancing electricity reliability.

Cuttino cited studies by the Department of Energy and Oak Ridge National Laboratory that said doubling the nation’s industrial efficiency could create 1 million skilled jobs and bring in $234 billion of investment. Deploying more combined heat and power technology is an important step in achieving that mark, she said.
“Industrial energy efficiency is a pragmatic policy with broad support from members of both political parties,” Cuttino said in a statement. “Harnessing energy efficiency technologies benefits manufacturers, workers, and the environment alike.”

Source: The Hill, August 30, 2012
100 mph Wind (Simulated) Storm Hits S.C. Town

RICHBURG, S.C. A wind storm ripped through this Chester County town Tuesday at about 10:30 a.m.

In less than thirty minutes, winds exceeding 100 mph left the exterior wall of a concrete building crumbled on the ground.

The violent storm was a simulation by Tampa-based Insurance Institute for Business & Home Safety, which has a research center in Richburg, about 45 miles south of Charlotte. The $40 million center – the only one of its kind – opened in October 2010 and has simulated the effects of wildfires, hurricanes and wind storms on homes and commercial structures.

The institute’s 13-person team of engineers, scientists and technicians based in Richburg research how buildings hold up in natural disasters to find ways to improve building practices. As natural disasters have become more frequent and destructive in the past decade, insurance industry players have turned to the institute’s research to help lower insurance costs and make communities safe.

“It seems like no part of the country has been immune,” said IBHS CEO and President Julie Rochman. “Once you get a number of communities feeling affected, the conversation is happening in a lot of different places.”

Tuesday’s test was a simulation of winds in a Texas storm. Two identical 30-foot by 20-foot buildings, designed to replicate strip mall-type restaurants, stood side by side in a test chamber larger than four football fields.

The yellow building, labeled “COMMON,” was built according to typical construction standards. The aqua-colored building, labeled “STRONGER,” was built with wind-resistant materials and reinforcements.

More than 100 fans blasted the two structures with wind gusts up to 130 mph. A few minutes into the test, air cannons shot 2-by-4 boards into the front windows of the buildings.

While the “STRONGER” building came out of the test relatively unscathed, the “COMMON” building’s wall crumbled soon after its windows shattered. Roof flashing, a thin metal sheet that keeps water from leaking into the building, began to peel off and an air vent was detached as wind gusts battered the building.

Rochman said Tuesday’s simulation shows that people can build safer, stronger buildings at a low cost – usually for less than 5 percent of the building’s total cost. The stronger building in Tuesday’s test cost about $63,000 to construct – about $3,100 more than the common building.

…Continued next page
Phillip Love, CEO of South Carolina Farm Bureau Mutual Insurance Company, attended the demonstration on Tuesday.

“This is the type of thing that can help control the cost of insurance as well as the disruption to peoples lives,” he said.

He said the increase in worldwide natural disasters in recent years has translated into higher costs for both insurance companies and policyholders. Using stronger building practices can help keep costs low by reducing property damage, Love said.

In 2011, the insurance industry reported $32.3 billion in U.S. catastrophes losses, according to data from the Insurance Information Institute. More than $3 billion in losses have been reported this year.

Rochman said the benefits of building stronger buildings go beyond monetary. She said about 25 percent of all small businesses that close because of damage from natural disasters never reopen.

"It’s important for people to understand that a community is not just homes, it’s the businesses too. Both need to be built stronger," she said. "If homes survive and businesses don’t, there’s nobody to live there anymore."

Source: Charlotte Observer, July 17, 2012
MARKETPLACE

Expert: Set achievable diversion goal before zero waste

When considering the definition of zero waste, it's not always about what can be readily seen.

For example, Phoenix-based North Transfer Station and Material Recovery Facility's steel framing is made from approximately 90% recycled content.

It's these sorts of projects that Brea, Calif.-based J.R. Miller & Associates Inc., an architectural building design company, sees as the impetus of instituting a zero-waste culture.

"It starts with how do you define zero waste," said James Miller, president and CEO of J.R. Miller & Associates. "I think different people have different opinions of exactly what that means. My opinion is that you do the best job to divert the most materials you can and, therefore, recover and reuse the most materials you can. At the end of the day, the minimum amount goes to a landfill."

In addition to the recycled steel, the transfer station and MRF has fly ash content for all concrete, photovoltaic solar panel rays and the interior finishes are made with recycled material content.

Miller will discuss his work with zero waste during his presentation today at 4 p.m. during Wasteccon near Washington D.C.

Nearly four years ago, Miller's company also designed the only U.S. Green Building Council LEED Platinum certified jet hangar in the world. Hangar 25 in Burbank, Calif., used 35% recycled content material and 48% local building materials for construction, recycled 77% of building waste during construction, and features photovoltaic solar power to achieve 110% of the building's energy needs.

As Miller attests, going zero waste has its hurdles, which include having the proper infrastructure to collect and reclaim materials, participation from consumers and businesses and political will.

But having periodic zero-waste targets and patience can go a long way. "If you look at those obstacles, those can't be resolved overnight, particularly the public participation part," Miller said. "It takes a lot of education, incentives, marketing and all sorts of things that just can't be achieved overnight. … Another one, though, is being willing to commit the resources to do it right."
One main key to successfully going zero waste is being realistic in the definition.

“Zero waste doesn't mean zero,” Miller said. “I think that’s the same thing as wanting to be perfect. We all know we can't be perfect. If you're not perfect, does that mean you failed?”

MARKETPLACE

Housing recovery could lift jobs, spending

Could the real estate freeze finally be thawing?

After years of depressed activity, home prices and new construction have started to pick up in recent months as foreclosures have slowed, suggesting the housing market may have finally bounced off the bottom.

"It feels very much like we've hit a bottom and we're starting to come off of that bottom," Stuart Miller, CEO of homebuilder Lennar told analysts in June.

But with several previous false starts, it's still too soon to say whether housing is finally out of the woods.

"I'm a little nervous about saying the word 'recovery'," Miller added.

Still, early indications are good that the worst could finally be over for the housing market. And that could be a sign of good things to come in other parts of the economy, too.

Jobs: A housing recovery is likely to have the most direct effect on construction jobs -- and that's no small feat.

The construction industry was one of the hardest hit sectors, slashing 2.3 million jobs, or roughly a quarter of all the American jobs lost in the financial crisis.

As of July, the unemployment rate for construction workers was 12.3%, much higher than the 8.3% unemployment rate for the broader U.S. population.

But a glimmer of hope also showed up in last month's numbers: Homebuilders added 5,800 workers in July -- about the same number they were adding during the real estate boom of 2005 and 2006.

A stronger housing market also translates into more jobs for real estate agents, furniture manufacturers, plumbers, architects and engineers.

Trying to estimate the gains for all these spillover industries is difficult, but economists at High Frequency Economics predict that hiring in housing-related sectors will soon pick up to a pace of 35,000 to 40,000 jobs a month.

Mobility: A housing recovery could help boost hiring in another way.

One of the big problems with the current job market is that there are jobs open, but many of the qualified applicants are in the wrong place at the wrong time. Relocating to follow the jobs isn't an option for those who can't sell their houses.

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For example, jobs are booming in energy-rich states like North Dakota, Oklahoma and Kansas, but that doesn't help the qualified job seekers who are tied to their homes in Nevada, Florida and Arizona.

If home sales start improving in these areas, that may finally free up some people to move to where the jobs are.

"As home prices start to increase, that would be a good change for people that cannot get out of a state or city because they cannot sell their homes," said Eugenio Alemán, Wells Fargo senior economist.

Spending: Consumer spending -- which is one of the largest components of the U.S. economy -- has dragged in 2012. Without spending, the economy can't get back on its feet.

Since the recession, consumers have been reluctant to open their wallets and have shunned spending in favor of paying off debt.

But a housing recovery could also have a strong effect on consumer spending. As home prices rise, so too does the perceived wealth of middle-class families.

Of course, a home isn't a liquid investment like cash, but often just the perception of having a higher net worth can propel consumers to go out and spend.

Economic growth: All of these effects working together could contribute to growing the broader economy. But they're still a long way from being fully realized.

The housing market is often cited as one major drag on economic growth. As the housing sector shrank, so did its share of the national economy.

Historically, residential real estate has accounted for roughly 5% of U.S. gross domestic product. Since the recession, that has halved, with residential investment now accounting for just 2.3% of the broader economy.

For it to get back to the 5% level, the recovery will probably have to continue for at least three to four years, Alemán said.

"We are cautiously optimistic on the recovery of the housing market, because it's still very in its infancy," he said.

Source: CNNMoney, August 7, 2012
MARKETPLACE

July Preliminary Data Show Large Import Increases Continuing In Several Key Products

Import Market Share in 2012 at 24 Percent

Washington, D.C. – Based on preliminary Census Bureau data, the American Iron and Steel Institute (AISI) reported today that the U.S. imported a total of 2,582,000 net tons (NT) of steel in July, including 2,028,000 NT of finished steel (down 8% each, respectively, from June final data). Year-to-date (YTD) finished steel imports, however, are up 19% vs. the same period in 2011. Annualized total and finished steel imports in 2012 would be 34.7 and 26.8 million NT, respectively, up 22 and 23%, each, respectively vs. 2011. Finished steel import market share in July was an estimated 23% and is estimated at 24% YTD.

Key finished steel products with a significant import increase in July 2012 compared to June are plates in coils (up 23%), line pipe (up 22%) and cold finished bars (up 12%). Major products with significant YTD import increases vs. the same period last year include reinforcing bar (up 54%), line pipe (up 45%), plates – cut lengths (up 42%), oil country goods (up 36%) and sheets & strip galvanized hot dipped (up 32%).

In July, the largest volumes of finished steel imports from offshore were all from Asia and Europe. They were South Korea (285,000 NT, down 9%), Japan (169,000 NT, up 12%), China (116,000 NT, down 41%), Italy (95,000 NT, up 56%) and Germany (87,000 NT, down 30%). For the first 7 months of 2012, the largest offshore suppliers were South Korea (2,171,000 NT, up 20%), Japan (1,171,000 NT, up 31%), Turkey (939,000 NT, up 94%), China (923,000 NT, up 29%) and Germany (724,000 NT, up 27%). Below are charts on estimated steel import market share in recent months and on finished steel imports from offshore by country.

AISI serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI also plays a lead role in the development and application of new steels and steelmaking technology. AISI is comprised of 25 member companies, including integrated and electric furnace steelmakers, and 124 associate members who are suppliers to or customers of the steel industry. AISI’s member companies represent over three quarters of both U.S. and North American steel capacity. For more news about steel and its applications, view AISI’s Web site at www.steel.org.

Source: American Iron and Steel Institute, August 22, 2012
MARKETPLACE

Nucor Steel Louisiana Construction Is Underway

Convent, LA – Nucor Corporation is in the midst of one of the largest industrial projects in Louisiana history with the construction of the Nucor Steel Louisiana, LLC facility. Regal Construction, LLC, a Nucor Building Systems (NBS) Authorized Builder, is currently working to construct integral parts of Nucor Corporation’s newest direct reduced iron (DRI) facility in Convent, Louisiana. As partners, Regal Construction and NBS are leaders in the construction and manufacturing of metal building systems for diverse applications.

Louisiana Governor, Bobby Jindal, worked with Nucor Chairman and CEO, Dan DiMicco, to bring the multi-phase Nucor project to the state. In addition to the manufacturing components, Phase I of the new facility will also include an Administration building, Locker Room, Training & Dining building and Control Room – all design/built by Regal. Regal is proud to utilize countless products that are constructed of Nucor steel in the construction of the buildings including rebar, metal studs, door & frames, steel lockers, ductwork, sprinkler piping, light fixtures and of course the pre-engineered structure.

With design/build partner, Scairono-Martinez Architects, Regal has also incorporated Nucor Steel products in a decorative manner, including cantilevered sunscreens made from steel bar grating, pre-cast terrazzo display panels showcasing Nucor Steel products and a rebar grid suspended from the conference room ceiling.

Nucor Steel Louisiana, LLC will initially create 150 permanent jobs with an annual salary of $75,000. Throughout the various phases of construction Nucor could ultimately invest almost $3 billion and increase permanent employment to more than 1,000. With the purchase of approximately 4,000 acres on the Mississippi River, the company has currently invested more than $50 million.

“It's been very rewarding to build for a client that has long served us as their valued customer,” said Marc Bourgeois, principal at Regal Construction. “We are also honored to be constructing a facility that will have such a significant impact on our state’s economy for years to come.”

About Regal Construction, LLC

With more than 35 years of combined construction experience, Regal Construction, LLC is a preferred contractor within the private sector due in large part to its emphasis on customer service and design/build capabilities. A turn-key commercial general contractor working throughout south Louisiana, Regal's scope of projects include hospitality, fabrication and warehousing, retail facilities, office and medical facilities, and industrial and utility. As an Authorized Builder in the Nucor Building System network, …Continued next page
Regal is able to provide innovative products and services to customers. Regal has installed more than 2,000 tons of NBS steel in the last 5 years. For more information, visit [www.regalconstructionllc.com](http://www.regalconstructionllc.com).

**About Nucor Building Systems**

Nucor Building Systems (NBS) is a leading manufacturer of metal building systems including the industrial, commercial, warehouse, community, and agricultural markets. The authorized Nucor Builder network consists of more than 1,000 of the best design-build contractors in the U.S. and Canada, providing exceptional solutions, on time, and within budget. NBS began in 1987 with the construction of the first Nucor Building Systems division in Waterloo, Indiana. As a result of continued success and focus on long-term growth, Nucor Building Systems now has four manufacturing operations located in Waterloo, Ind., Swansea, S.C., Terrell, Texas, and Brigham City, Utah. NBS also has a sales office in Lancaster, Penn., serving the Northeast. Nucor Building Systems is a Nucor Company, which is the largest producer of steel in the U.S. Nucor Building Systems now employs more than 1,000 people. For more information about Nucor Building Systems, visit [www.nucorbuildingsystems.com](http://www.nucorbuildingsystems.com).

*Source: Design & Build with Metal, September 4, 2012*