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Steel Industry Releases Industry-Wide Environmental Product Declaration for Cold-Formed Steel Studs and Track

The Steel Recycling Institute released the first industry-wide Environmental Product Declaration (EPD) for Cold-Formed Steel Studs and Track manufactured in the United States and Canada. More

AISI Publishes S240-15, North American Standard for Cold-Formed Steel Structural Framing

The American Iron and Steel Institute (AISI) has published AISI S240-15, North American Standard for Cold-Formed Steel Structural Framing, 2015 Edition, to address requirements for building construction with cold-formed steel structural framing that are common to prescriptive and engineered design. More

AISI Publishes S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members

The American Iron and Steel Institute (AISI) has published AISI S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members, 2015 Edition, to address requirements for building construction with nonstructural members made from cold-formed steel. More

AISI Publishes S400-15, North American Standard for Seismic Design of Cold-Formed Steel Structural Systems

The American Iron and Steel Institute (AISI) has published a new standard, AISI S400-15, North American Standard for Seismic Design of Cold-Formed Steel Structural Systems, 2015 Edition to address the design and construction of cold-formed steel structural members and connections used in the seismic force-resisting systems in buildings and other structures. More

Does LEED v4 Provide a Better Deal for Steel?

Leadership in Energy and Environmental Design version 4 (LEED v4) is the latest incarnation of the revolutionary green building rating system. More
COLD-FORMED STEEL ENGINEERS INSTITUTE – NEWS AND UPDATES

CFSEI Publishes New Technical Note on Mechanical Bridging and Bridging Anchorage of Axially Loaded Cold-Formed Steel Studs
The Cold-Formed Steel Engineers Institute (CFSEI) has published a new Technical Note, “Mechanical Bridging and Bridging Anchorage of Axially Loaded Cold-Formed Steel Studs” (Tech Note W400-16). More

CFSEI Accepting Entries for 2016 Design and Distinguished Service Awards
The Cold-Formed Steel Engineers Institute (CFSEI) is accepting entries through March 30, 2016 for its prestigious Design and Distinguished Service Awards, which recognize outstanding achievement for projects, products and individual service. More

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Wei-Wen Yu International Specialty Conference on Cold-Formed Steel Structures 2016 to be Held November 9-10, 2016
The biennial Wei-Wen Yu International Specialty Conference on Cold-Formed Steel Structures will be held on November 9-10, 2016 at the Royal Sonesta Harbor Court Baltimore Hotel in Baltimore, Maryland. More

Seventh International Conference on Coupled Instabilities in Metal Structures to be Held November 7-8, 2016
The Cold-Formed Steel Research Consortium (CFSRC) will host the Seventh International Conference on Coupled Instabilities in Metal Structures (CIMS) on November 7-8, 2016 at the Royal Sonesta Hotel in Baltimore, Maryland. More

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Cold-Formed Steel Trusses and Blast Loads
3:00 p.m. Eastern Time
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May 23-24, 2016
2016 CFSEI Expo
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Continued Growth in Nonresidential Construction Spending

Forecast for 2016
Nonresidential construction spending exceeded economist expectations for 2015 and is forecast to continue its upward climb through 2016 before slowing slightly in 2017, according to the AIA’s latest semi-annual Consensus Construction Forecast released today. More

US Construction Spending Hit 8-Year-High in 2015
WASHINGTON - U.S. construction spending rebounded slightly in December, helping push total spending for 2015 to the highest level in eight years. More

2016 Nonresidential Construction Spending May Not Grow as Rapidly as 2015
Nonresidential fixed investment shrunk by 1.8% in the fourth quarter, the first time the segment has contracted since the third quarter of 2012. More

10 Construction Industry Trends to Watch in 2016
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Los Angeles Wants $20 Million From Developer of Burnt Downtown Apartment Building
Developer Geoff Palmer has produced an impressive list of enemies in his quest to speckle the LA map with his trademark Italy-meets-Epcot-meets-dormitory mega fortress apartment complexes. More

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Steel Industry Releases Industry-Wide Environmental Product Declaration for Cold-Formed Steel Studs and Track

WASHINGTON, D.C. – The Steel Recycling Institute released the first industry-wide Environmental Product Declaration (EPD) for Cold-Formed Steel Studs and Track manufactured in the United States and Canada. The EPD quantifies the “cradle-to-gate” life cycle environmental impacts of these products, and can be used by architects and engineers to document these impacts. The EPD, based on a peer-reviewed life cycle assessment (LCA), can also help designers achieve the credits required for building certification within LEED® and other green building rating programs.

This is the first industry-wide assessment of the life cycle environmental impacts of these commercial building products in North America. Roll-formed from galvanized steel sheet into a variety of shapes, cold-formed steel studs and track are being used as the primary structural system for buildings up to nine stories in height and have been used for curtain walls and interior partitions for decades.

“Environmental impacts of materials are critical decision factors for architects, engineers and builders,” said Lawrence W. Kavanagh, president of SMDI. “With the construction industry moving to comprehensive assessments of a product’s entire life cycle, it’s important this EPD is now being added to the resources we and our partners have developed for our customers in the construction industry.”

While a core component of steel’s sustainability is its continuous recyclability, environmental implications of steel reuse, recovery and recycling are reported in a separate module in the EPD to give users the ability to factor in their own end-of-life assumptions.

Continued next page …
This process began with development of the “North American Product Category Rule (PCR) for Designated Steel Construction Products” published in May 2015, which covers fabricated structural steel, cold-formed steel sections and concrete reinforcing steel used and/or sold in North America. In addition to SMDI members, PCR development stakeholders included the American Institute for Steel Construction, the Concrete Reinforcing Steel Institute, the Metal Building Manufacturers Association and the Steel Framing Alliance. It is based on the EN 15804 European standard for construction products and conforms to ISO 21930:2007 - “Sustainability in building construction – Environmental declaration of building products.”

The EPD is available for download at www.recycle-steel.org.

Source: The Steel Recycling Institute, February 8, 2016
TOP STORIES

AISI Publishes S240-15, North American Standard for Cold-Formed Steel Structural Framing

This first edition integrates several AISI standards into one document for easier reference.

WASHINGTON, D.C., January 12, 2016 – The American Iron and Steel Institute (AISI) has published AISI S240-15, North American Standard for Cold-Formed Steel Structural Framing, 2015 Edition, to address requirements for building construction with cold-formed steel structural framing that are common to prescriptive and engineered design. It applies to the design and installation of structural members and connections utilized in cold-formed steel light-frame construction applications, including floor and roof systems, structural walls, shear walls, strap braced walls and diaphragms to resist in-plane lateral loads, and trusses for load-carrying purposes.

The standard is to be used in conjunction with AISI S100-12, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 Edition and is intended for adoption and use in the United States, Canada and Mexico. It is available for free download at http://www.aisistandards.org.

AISI S240-15 integrates the following AISI standards into one document for easy reference, and thus supersedes all previous editions of these standards:

- AISI S200-12, North American Standard for Cold-Formed Steel Framing—General Provisions
- AISI S210-07 (2012), North American Standard for Cold-Formed Steel Framing—Floor and Roof System Design (Reaffirmed 2012)
- AISI S211-07 (2012), North American Standard for Cold-Formed Steel Framing—Wall Stud Design (Reaffirmed 2012)

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- AISI S212-07 (2012), *North American Standard for Cold-Formed Steel Framing—Header Design* (Reaffirmed 2012)
- AISI S213-07 w/ S1-09 (2012), *North American Standard for Cold-Formed Steel Framing—Lateral Design With Supplement 1* (Reaffirmed 2012)
- AISI S214-12, *North American Standard for Cold-Formed Steel Framing—Truss Design*

Additionally, AISI S240-15 includes:

- Modifications to its provisions that align it with a new standard to be published soon—AISI S400, *North American Standard for Seismic Design of Cold-Formed Steel Structural Systems*.
- A new Chapter F on testing that allows reference to applicable AISI S900-Series Test Standards.
- A new location for truss test methods, which were moved from Section E7 to Appendix 2.

This first edition of AISI S240 is dedicated to John P. Matsen, P.E., who passed away in June 2015. Matsen was a widely respected structural engineer for more than 30 years and the founder and principal of Matsen Ford Design Associates, Inc. in Waukesha, Wisconsin. He was an active member of AISI’s Committee on Framing Standards and served on numerous subcommittees and task groups. He is credited with helping to pioneer and expand the use of cold-formed steel framing in structural and nonstructural applications.

*Editor, Framework Online*
AISI Publishes S220-15, North American Standard for Cold-Formed Steel Framing—Nonstructural Members

New edition updates 2011 edition of AISI S220


The standard provides an integrated treatment of Allowable Strength Design (ASD), Load and Resistance Factor Design (LRFD), and Limit States Design (LSD) by including the appropriate resistance factors for use with LRFD and LSD, and the appropriate factors of safety for use with ASD. This edition updates the 2011 edition of AISI S220.

These major revisions were made in the 2015 edition:

- Performance requirements for screw penetration were added in Section A6.6.
- Referenced documents in Section A7 were updated.
- Testing requirements were expanded in Section F1 to reference the new AISI S916-15 Test Standard when required to determine the strength and deformation behavior of bridging connectors. AISI S916-15, Test Standard for Cold-Formed Steel Framing – Nonstructural Interior Partition Walls With Gypsum Board, 2015 Edition, establishes a rational method of determining the strength and stiffness of nonstructural interior partition wall assemblies framed with cold-formed steel. It provides an alternative to the

Continued next page …

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TOP STORIES

AISI Publishes S400-15, North American Standard for Seismic Design of Cold-Formed Steel Structural Systems
This first edition merges AISI S110-07 with seismic portions of AISI S213-07

WASHINGTON, D.C. – The American Iron and Steel Institute (AISI) has published a new standard, AISI S400-15, North American Standard for Seismic Design of Cold-Formed Steel Structural Systems, 2015 Edition to address the design and construction of cold-formed steel structural members and connections used in the seismic force-resisting systems in buildings and other structures. The standard is to be used in conjunction with AISI S100-12, North American Specification for the Design of Cold-Formed Steel Structural Members, 2012 Edition and AISI S240-15, North American Standard for Cold-Formed Steel Structural Framing, 2015 Edition. It is intended for adoption and use in the United States, Canada and Mexico. It is available for free download at www.aisistandards.org.

AISI S400-15 results from the merging of AISI S110-07 w/S1-09, Standard for Seismic Design of Cold-Formed Steel Structural Systems—Special Bolted Moment Frames, 2007 Edition With Supplement 1-09, and the seismic portions of AISI S213-07 w/S1-09, North American Standard for Cold-Formed Steel Framing—Lateral Design, 2007 Edition With Supplement 1-09. Additionally, many of the seismic design requirements stipulated in AISI S400-15 are drawn from AISC 341-10, Seismic Provisions for Structural Steel Buildings, which was developed by the American Institute of Steel Construction (AISC).

The new standard was developed over the course of two years by the AISI S400 Working Group under the Lateral Design Subcommittee of the AISI Committee on Framing Standards. Special recognition is extended in the standard to Hank Martin, Sr., who served as AISI’s West Coast Regional Director of Construction Codes and Standards from 1982 to 2006. Martin was pivotal in the final adoption of cold-formed
steel lateral design into the model building codes. His vision for the industry led to the establishment of the AISI Committee on Framing Standards in 1998, the development of AISI S213 in 2004, and eventually to the publication of AISI S110 in 2009.

Editor, Framework Online
TOP STORIES

Does LEED v4 Provide a Better Deal for Steel?

Leadership in Energy and Environmental Design version 4 (LEED v4) is the latest incarnation of the revolutionary green building rating system.

According to Mark Thimons, vice-president, sustainability at the U.S.-based Steel Market Development Institute, it's also providing more opportunities for builders to earn points by choosing steel.

"LEED has always rewarded recycled content," says Thimons. "In this version of LEED, we're seeing opportunities for steel in a revamped materials section including credits for life cycle assessment, environmental product declarations (EPDs) and transparency."

"Both the U.S. and Canadian versions of LEED v4 are identical regarding materials and resources (MR) credits for LEED-certified projects," says Mark Hutchinson, vice-president, green building programs, with the Canada Green Building Council. MR credits focus on "minimizing the embodied energy and other impacts associated with the extraction, processing, transport, maintenance and disposal of building materials."

Under LEED for New Construction and Major Renovations (v4), there are five MR credits available for many steel products, for a total possible 13 LEED points:

- Building life-cycle impact reduction (up to five points)
- Building product disclosure and optimization — environmental product declarations (up to two points)
- Building product disclosure and optimization — sourcing of raw materials (up to two points)
- Building product disclosure and optimization — material ingredients (up to two points)

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• Construction and demolition waste management (up to two points).

The building product disclosure and optimization (BPDO) credits offer two levels of compliance. Disclosure involves providing documentation about some of the building material products used in a building project. Optimization involves assurances that a percentage of building products complies with a certain number of environmentally positive characteristics identified in LEED — for example, preventing depletion of nonrenewable energy resources.

Steel can be a critical factor in earning points for any of these credits, says Thimons. However, he notes that steel has an advantage out of the gate because of a transparent supply chain in both new steel production and recycled steel.

"On the 'environmental product declarations' credit, just producing an EPD satisfies disclosure," says Thimons.

“That's where the steel industry in general has a head start, because the industry has been working on industry-wide and product-specific EPDs to convey all of the environmental impacts over the product life cycle. There are EPDs for anything from steel doors to steel roofing, steel cladding and wall cladding and there are others in development or near completion, including cold-formed steel framing, steel deck and structural steel.”

The disclosure option for the "sourcing of raw materials" credit requires a document reporting the source of raw materials using a manufacturer's list.

“This includes not just 'steel,' but also the addition of a galvanized coating or paint for some products," says Thimons.

Continued next page …
"There's another credit for meeting recycled content, which has always been a strong point for steel. It's still the only material approved for a default recycled content of 25 per cent. Many steel producers actually publish their true recycled content and those numbers are often higher than 25 per cent."

In fact, the Canadian Steel Producers Association says that Canada's steel recycling rate stands at in excess of 60 per cent, with more than seven-million tonnes recycled in 2012. The US Geological Survey estimates that 72-million tonnes of ferrous scrap were purchased in the U.S. the same year.

Thimons notes that steel life — cycle inventory data can be used to demonstrate the requirements of the "building life-cycle impact reduction" credit. Through steel recycling, it can also help to achieve points under the construction and demolition waste management credit.

"Steel can also be used in roofing applications to assist in achieving the LEED heat island reduction credit for solar reflective roofing," says Thimons. "The versatility of steel, its supply-chain transparency and its continuous recyclability provide plenty of opportunities under LEED v4."

CFSEI Publishes New Technical Note on Mechanical Bridging and Bridging Anchorage of Axially Loaded Cold-Formed Steel Studs

The Cold-Formed Steel Engineers Institute (CFSEI) has published a new Technical Note, “Mechanical Bridging and Bridging Anchorage of Axially Loaded Cold-Formed Steel Studs” (Tech Note W400-16). It provides a detailed discussion of the design requirements and methods to laterally brace (bridge) axially loaded cold-formed steel stud walls.

Cold-formed steel studs provide a cost-effective and extremely efficient structural solution for a typical mid-rise building. In recent years, the height of a typical cold-formed steel building has increased due to advancements gained through comprehensive research and testing on the behavior and design parameters of cold-formed steel. To ensure the integrity of the structure, the design engineer must fully understand the behavior and bracing requirements of a cold-formed steel load-bearing stud. This Technical Note examines the bridging and anchorage requirements, the methods to achieve them, and the current code requirements for buckling resistance.

The Technical Note covers:

- Design requirements for the bridging components of axially loaded cold-formed steel studs.
- A discussion of the methods to accomplish effective bracing of axially loaded cold-formed steel studs against both flexural and torsional buckling modes.
- A demonstration of bridging anchorage using flat strap cross-bracing, welded diagonal brace, a strong-back stud, and a built-up section.
- A design example that compares two bracing design alternatives available to designers.

Continued next page …
It was written by Nabil Rahman, Ph.D., P.E., The Steel Network, Inc. This Technical Note is the latest in CFSEI’s continuing series of instructional documents on topics related to cold-formed steel framing for commercial and residential construction.

CFSEI Technical Notes are available free of charge to CFSEI members at www.cfsei.org. Non-members can purchase them at the AISI Steel Store. For more information on joining CFSEI, visit www.cfsei.org.

CFSEI maintains a Steel Framing Hotline to answer inquiries from construction professionals seeking cold-formed steel solutions for their projects. Suggestions for additional Technical Note topics are welcomed. The Steel Framing Hotline is accessible at 1-800-79-STEEL.

Editor, Framework Online

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CFSEI Accepting Entries for 2016 Design and Distinguished Service Awards

The Cold-Formed Steel Engineers Institute (CFSEI) is accepting entries through March 30, 2016 for its prestigious Design and Distinguished Service Awards, which recognize outstanding achievement for projects, products and individual service. The winners will be announced at the CFSEI 2016 Expo, which will be held May 23-24, 2016 in Annapolis, Maryland.

The CFSEI Awards Program acknowledges outstanding achievement in creative design, technical innovation, and best practices in the use of cold-formed steel (CFS) as well as individuals who have volunteered time and talent to the cold-formed steel industry. Awards are presented in three categories:

- **Category 1 – Project:** The award recognizes small and large projects constructed in 2015 that exemplify excellence in the structural design of new or renovated structures utilizing CFS products. Awards are presented for First Place, Second Place and Third Place.
- **Category 2 – Product or Software** – The award recognizes any product or software development that has made a positive impact on the cold-formed steel industry in 2015. Awards will be given to an eligible project at the discretion of the Awards Committee regardless of the total number of projects submitted.
- **Category 3 – Distinguished Service** - The award recognizes the contributions of an individual who has volunteered significant time, talent and resources to the cold-formed steel industry. One Distinguished Service Award will be presented.

Continued next page …
The entries will be judged for design creativity and technical innovation by a panel of five CFS professionals, including two CFSEI member professional engineers, a professor of structural engineering, a licensed architect, and a licensed contractor. The rules of eligibility, entry instructions, and mailing address are available at the CFSEI website at http://www.cfsei.org/2016cfseiawardsprogram.

Editor, Framework Online
Wei-Wen Yu International Specialty Conference on Cold-Formed Steel Structures 2016 to be Held November 9-10, 2016

The biennial Wei-Wen Yu International Specialty Conference on Cold-Formed Steel Structures will be held on November 9-10, 2016 at the Royal Sonesta Harbor Court Baltimore Hotel in Baltimore, Maryland.

The conference will cover these subjects concerning cold-formed steel:

- Basic and applied research
- Structural design
- Development of new products
- Development of new design criteria
- Manufacturing technique
- Construction methods
- Economy and effective use of cold-formed steel
- Engineering education

The conference will include presentation of the Wei-Wen Yu Outstanding Paper Award for the best student-authored or co-authored paper at the conference; and the Wei-Wen Yu Student Scholars Program will be awarded to qualified university students to provide travel reimbursement support to attend and present a paper at the conference.

Since 1971, 22 International Specialty Conferences on Cold-Formed Steel Structures have been held in Rolla, Missouri; St. Louis, Missouri; and Orlando, Florida. Leading researchers, engineers, manufacturers and educators who are involved in research, design, manufacture, and the use of cold-formed steel members will present detailed discussions of their recent findings.

For more information, please visit the website or contact Christina Stratman at the Center for Cold-Formed Steel Structures.

Source: Center for Cold-Formed Steel Structures
MARKETPLACE

Seventh International Conference on Coupled Instabilities in Metal Structures to be Held November 7-8, 2016

The Cold-Formed Steel Research Consortium (CFSRC) will host the Seventh International Conference on Coupled Instabilities in Metal Structures (CIMS) on November 7-8, 2016 at the Royal Sonesta Hotel in Baltimore, Maryland. The conference will bring together the world’s experts in the field of structural mechanics and stability to review and discuss current developments in research and design, with specific emphasis on coupled and interacted problems in structural stability as commonly found in thin-walled and slender metallic structures. The two-day conference will include technical sessions, an exhibit hall, and networking opportunities.

Thin-walled structures consist of a wide and growing field of engineering applications which seek efficiency in strength and cost by minimizing material. The result is a structure in which the stability of the components (i.e., “thin walls”) is often the primary aspect of behavior and design. Thin-walled structure advancements impact industrial, institutional, commercial and residential buildings; box girder bridges; ship hulls; aircraft skins; and buried structures such as tanks, pipes and culverts.

Dr. Ben Schafer, Ph.D., P.E., Director of the Cold-Formed Steel Research Consortium, is chairman of the conference. For more information and registration details, visit http://www.ce.jhu.edu/cims2016 or contact Ben Schafer.

The Cold-Formed Steel Research Consortium is a group of principal investigators from several universities who are sharing their experimental and computational facilities to undertake specific projects that span all aspects of cold-formed steel structural research. AISI is a founding partner of the CFSRC.

Source: Johns Hopkins University
MARKETPLACE

Continued Growth in Nonresidential Construction Spending
Forecast for 2016

Hotels, offices, manufacturing facilities, and recreation spaces are driving the climb.

Nonresidential construction spending exceeded economist expectations for 2015 and is forecast to continue its upward climb through 2016 before slowing slightly in 2017, according to the AIA’s latest semi-annual Consensus Construction Forecast released today. The survey of the country’s leading construction market forecasters projects growth of 8.3 percent for nonresidential building in 2016 and 6.7 percent for the category in the following year.

High demand for hotels, offices, manufacturing facilities, and recreation spaces, in particular, will continue to drive spending this year, the report finds. “While rising interest rates could pose a challenge to the U.S. economy, lower energy prices, improved employment figures and an enacted federal budget for 2016 are all factoring into a very favorable outlook for the construction industry,” said AIA chief economist, Kermit Baker, Hon. AIA, in a press release. He adds that the institutional project sector has recovered and is now on “very solid footing.”

The report follows (and echoes the sentiments of) last week’s release of two key, monthly economic indicators focused on employment and hiring—one from payroll processing company ADP and its partner Moody’s Analytics and the other from the Bureau of Labor Statistics. Both sets of reports found strength in the construction sector, with hiring continuing to recover from a sluggish fall, and that employment gains were the strongest across all markets among businesses with fewer than 500 employees.

Continued next page …
Next week's release of the AIA's Architectural Billings Index should shed more light on how architecture and design firms, specifically, are faring as a result of the continued growth in commercial construction spending and hiring gains in the architecture and construction sectors.

Source: Architect, February 11, 2016
MARKETPLACE

US Construction Spending Hit 8-Year-High in 2015

WASHINGTON - U.S. construction spending rebounded slightly in December, helping push total spending for 2015 to the highest level in eight years.

Construction spending increased 0.1 percent in December after falling in October and November, the Commerce Department said Monday.

The December increase was driven by gains in home construction and spending on government projects. That offset declines in spending on private construction of shopping centers, office buildings and hotels.

For all of 2015, construction jumped 10.5 percent to $1.1 trillion, the highest total since 2007.

A home construction boom peaked in 2006 before falling for the next five years. Construction spending has been climbing since 2012. Economists believe building activity, fueled by home construction, will bolster the overall economy this year.

Home construction was a bright spot in the fourth quarter, growing at an annual rate of 8.1 percent in the October-December period. That was one of the best showings for any major category.

The overall economy, as measured by the gross domestic product, grew at a meager annual rate of 0.7 percent in the fourth quarter. Economists are looking for stronger growth of around 2.5 percent in the current January-March period.

For December, home construction advanced 0.9 percent, while non-residential construction fell 2.1 percent. Spending on state and local government projects was up 2.3 percent, but spending on federal building projects fell 3.3 percent.
For all of 2015, home construction rose 12.6 percent, while private non-residential activity was up 12 percent. This sector was strong for most of the year, but it has declined in three of the past four months. Spending on state and local building projects rose 6.1 percent in 2015, while spending on federal projects was up a smaller 0.7 percent.

Source: Associated Press, February 1, 2016

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2016 Nonresidential Construction Spending May Not Grow as Rapidly as 2015

Nonresidential fixed investment shrank by 1.8% in the fourth quarter, the first time the segment has contracted since the third quarter of 2012. For the year, nonresidential fixed investment expanded by 2.9% after growing by 6.2% in 2014 and 3% in 2013.

“The economy did not end the year well,” said ABC Chief Economist Anirban Basu. “Today’s GDP data adds weight to the argument that the U.S. is in a corporate profits recession, an industrial recession and was experiencing a softening of investments. With the exception of the residential building sector, business capital outlays have declined as corporations deal with a combination of sagging exports, competitive imports, declining energy related investments, rising wage pressures and healthcare costs.

“Recent turbulence in financial markets suggest that capital availability may continue to soften,” said Basu. “While residential construction is likely to continue to recover given the combination of low interest rates and accelerating household formation, nonresidential construction spending growth may begin to sputter a bit as those who deploy capital become more defensive. This is not to suggest that nonresidential construction spending is set to decline. Many contractors continue to report significant and growing backlog. However, the current situation suggests that the growth in backlog and ultimately in spending may not be quite as rapid as it was earlier in 2015.”

The following segments highlight the fourth quarter’s GDP release.

- Personal consumption expenditures expanded 2.2% in the fourth quarter after growing by 3% in the third quarter.
• Spending on goods grew 2.4% in the fourth quarter after expanding 5% in the third quarter and 5.5% in the second quarter.
• Real final sales of domestically produced output increased 1.2% for the fourth quarter after a 2.7% increase in the third quarter.
• Federal government spending increased 2.7% in the fourth quarter, the segment’s largest increase since the third quarter of 2014.
• Nondefense spending increased 1.4% in the fourth quarter after expanding 2.8% in the previous quarter.
• National defense spending expanded by 3.6% in the fourth quarter after contracting by 1.4% during the third.
• State and local government spending contracted by 0.6% in the fourth quarter after increasing by 2.8% in the third quarter.

Source: Associated Builders And Contractors, Inc., January 29, 2016
10 Construction Industry Trends to Watch in 2016

Now that 2015 has come and gone, construction professionals are focusing attention on the year ahead. Analysts predict 2016 will be a strong year for the industry, as Dodge Data & Analytics’ 2016 Construction Outlook report predicted 6% growth, with the value of construction starts reaching an estimated $712 billion.

We talked with experts from various sectors of the construction industry to find out their predictions for 2016. Their answers varied from new technology trends, to workforce concerns, to homebuyer preferences. But one common thread connected all of the experts: They have high hopes that 2016 will bring strong demand and booming business.

"I don't think I could be any more optimistic for 2016," Bud LaRosa, chief business performance officer and chief financial officer for Tocci Building Companies, told Construction Dive. "These are truly the good times."

Here are the top 10 trends to watch in 2016, according to the experts:

1. Skilled labor shortage will continue to plague construction companies

The most commonly mentioned trend for 2016 was the continued effects of the skilled worker shortage. A significant portion of employees who left the industry during the recession never returned, and companies are still struggling to find workers at all levels to properly staff their teams.

"The overwhelming, number one issue is access to skilled labor," Dominic Thasarathar, Autodesk's senior industry program manager for construction and natural resources, told Construction Dive. "So many people left the industry or were laid off, and now there's a real struggle to find the right people to staff the projects that are now coming online."

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The labor crisis is not a new issue, and most experts predict it will continue well into 2016 and beyond, as the talent deficit will require multiple years to fill up again.

"Not only has the construction industry struggled to appeal to a younger, more technologically savvy workforce, but during the economic downturn, many companies opted not to bring in younger, newer talent," said Tom Menk, an assurance partner with BDO's national real estate and construction practice. "Now, that's causing struggles to fill that gap in the workforce, which is coupled with the need across industries for companies to replace retiring baby boomers."

Another significant concern: The slowdown in immigration has contributed to the already existing labor shortage, as reports have found many workers who returned to Mexico during the recession have not come back to the U.S. due to increased immigration controls and more job opportunities in Mexico.

"I think politically, the environment against immigration has changed some of the workforce dynamics and made it difficult to staff a lot of the trades," LaRosa said. "I think that trend continues. I don't see that easing anytime in the next two to three years."

2. Prefab/offsite construction methods will become more popular

Offsite — also known as modular or prefabricated — construction has been gaining ground as an alternative building method that offers the benefits of reduced construction time, less waste and possible cost savings. As companies struggle to staff job sites and stick to difficult schedules, many have started to turn to prefab as an option that offers more certainty.

"A lot of use of things like prefabrication, we expect that to be an accelerating trend next year," Thasarathar said.

Ron Antevy, president and CEO of e-Builder, told Construction Dive he has seen a growing use of prefab methods, especially in the healthcare sector.
"(Prefab) is up-and-coming. That's a way to save costs and speed up the time," he said. "Some of the larger owners out there are starting to realize there are efficiencies there, but you have to be doing a certain amount of volume for these kinds of strategies to pay off."

Wider implementation of offsite construction has been somewhat hindered by the design and construction culture, according to experts at the Offsite Construction Expo in September. They also cited the change in the traditional building process that comes with offsite methods as a deterrent for implementing the approach, as contractors and owners struggle to adapt to the varied timeline of decisions and building. Still, the additional certainty that comes with prefab could catalyze the growing trend in 2016.

3. Construction companies will be more cautious about project selection

The crippling recession and lingering labor shortage have spurred another trend among construction industry decision makers: Many are now being more cautious about the amount of new work they can handle, and about growing their companies.

"(Companies) are not going to overeat. They're only taking the work they can handle," Chris Kennedy, vice president of Suffolk Construction, told Construction Dive. "It's different from the last boom, when people were signing up for work. Everybody still has those recent wounds. They're going to be a lot more cautious about growing a firm bigger than they can handle."

The labor shortage has left employers at all levels forced to take a closer look at the number and size of projects they can handle at once.

"We as general contractors have become a lot more selective of the projects we pursue," Chuck Taylor, director of operations for Englewood Construction, told Construction Dive. "I think the subcontractors are going to be in a very similar position."

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4. BIM will become a necessity, and owner interest in the technology will grow

Building Information Modeling has been a growing trend for years, as it is no longer relegated to just the largest firms. Experts have said BIM provides tangible business benefits, no matter the level of implementation. Many have cited BIM's ability to provide more consistent, more accurate and less time-consuming project document generation. In addition, BIM users can expect better collaboration and coordination among the different parties involved in a project, according to industry users.

"It used to be a nice thing to have, and now it's a necessity," LaRosa said.

Jay Dacey, president of Integrated Builders, added, "In the bigger jobs, BIM is pretty much a staple right now."

Antevy said he has seen owner interest in BIM grow, as many are now requiring their contractors to utilize the technology.

"The owners have been hands-off as it relates to BIM. It has been for the contractors and designers, so we're seeing owners start to get more interested in that," he said. "They're interested because there's data there that they can capture and capitalize on."

5. Green building will grow in commercial and residential sectors

Commercial construction has typically led the pack in green adoption, but the residential sector is starting to catch up. The growing trend in both sectors is driven not just by a desire to produce environmentally friendly structures, but by consumer demand, higher-quality results and lifecycle cost savings, according to experts at Greenbuild 2015.

Thasarathar said that with larger construction projects, companies are aiming for LEED certification, "even if it's not prescribed."
Dacey added that although developments outside of city centers tend to not prioritize LEED as much, "almost every building design incorporates green principles." He said he expects green building and LEED certification to continue growing in the coming years.

In the residential sector, green building currently accounts for 26-33% of the total residential market and has helped contribute to the industry's recovery after the recession, according to Dodge Data & Analytics.

"I do think (green building) is a growing trend in response to demand," Robert Dietz, an economist with the National Association of Home Builders, told Construction Dive. He pointed to the aging in place movement as a driving force for that demand, as baby boomers are remodeling their current homes and seeking out ways to increase energy efficiency and reduce utility bills.

6. Jobsite accidents and criminal indictments on the rise

Last year, authorities across the U.S. pumped up efforts to seek out contractor misconduct and dish out severe punishment, including criminal charges, for violations and offenses from worker safety issues to corruption. Manhattan even launched the Construction Fraud Task Force in August to investigate "wrongdoing and unsafe practices" in construction, including fraud, bribery, extortion, money laundering, bid rigging, larceny and safety violations. A New York Times report in November also found that construction worker deaths are on the rise in New York City, and safety measures were inadequate on many of the construction sites where deaths occurred and that immigrants represented a disproportionate percentage of those killed.

Experts predict this heightened focus on industry wrongdoing will continue into 2016, especially as OSHA will increase its fines this year for the first time since 1990.

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Raymond T. Mellon, a senior partner at Zetlin & De Chiara, said he believes construction accidents will increase in New York City this year due to "a dilution of the trained and experienced work force as a result of the continuing red hot construction market." He added, "This will lead to more entry level, unseasoned construction workers not appropriately trained as to the work itself, as well as safety features, on worksites. Combine this with the entry of 'novice developers' who have a tendency to cut corners, and you have the potential for more accidents."

David Pfeffer, chair of the Construction Practice Group at Tarter Krinsky & Drogin, said he predicts there will be more criminal indictments in 2016 because officials "want to make an example." He added that although indictments this year with be the result of past practices, he believes the influx of cases will "help in the long-term future. It definitely has an effect... We have a very good construction industry here. They do listen. The bad contractors generally don't stick around."

7. Booming multifamily sector will slow down as single-family sector picks up steam

Industry analysts have largely agreed that the multifamily sector's hot streak will inevitably cool down, and that slowdown will likely occur in 2016. On the positive side, the single-family sector is expected to pick up steam and see a strong year. In its 2016 Construction Outlook, Dodge Data predicted single-family construction will see a 20% increase in starts this year, while multifamily is expected to post a 7% gain after several years of double-digit increases.

"I expect the homebuilding sector will continue to show improvement. If anything happens on the multifamily side, I think it will probably level off. The upward slope for multifamily won't be as strong as for single-family," Alex Carrick, CMD's chief economist, told Construction Dive.
Still, single-family housing has a long way to go to return to pre-recession, "normal" levels. During a webinar in November, NAHB Chief Economist David Crowe said single-family construction is currently 53% back to what is considered "normal" levels, and should be 91% of the way there by the end of 2017. Multifamily, on the other hand, is already significantly higher than "normal" levels, currently 32% above the mark. Crowe said the multifamily sector is expected to slowdown in the next two years, coming in 9% higher than "normal" levels at the end of 2017.

8. Laser scanning technology will gain popularity

Although BIM tends to dominate the construction technology narrative, experts pointed to another emerging technology that is having a significant impact on the industry: laser scanning. 3-D laser scanners can create a digital reproduction of the dimensions and positions of objects in a certain space, and then turn that information into a point cloud image.

"Laser scanning I think has a lot of room to run. Not as many people are using it, but it's a great tool to measure more precisely than most conventional ways," LaRosa said. "What the laser scanner allows you to do is get millions of data points and put that into a building information model and provide much more information about conditions you couldn't get previously. Look for that to continue to grow certainly next year and for another five years."

Taylor added that laser technology allows contractors to precisely "define to the client where we had issues with the existing floor," and then make the necessary changes.

9. Remodeling will have a strong year, especially in the luxury market

Along with strength in the single-family market this year, experts also predict the remodeling sector will have a banner year in 2016.
"We're encouraged by recent data that shows consumers have a strong desire to invest in their homes. In fact, survey respondents are indicating that growth in their home improvement spending is outpacing increases in their overall spending," Mike Horn, vice president of Lowe's ProServices, told Construction Dive. "The number of homeowners indicating that their home improvement spending increased has doubled since 2012. This trend underscores the great opportunity our professional contractors have to meet the needs of 75 million homeowners, in addition to the 5 million who relocate or move into a new home each year, across the country increasingly willing to engage in home improvement in 2016."

Bob Ernst, president of the Building & Remodeling Association of Greater Boston, said he projects significant growth in the remodeling sector this year.

"Through all of the ups and downs, this is the first time I feel very comfortable," he told Construction Dive.

Ernst emphasized the luxury market in particular as offering the most opportunity for remodelers. "At that market level, they're spending money," he said. He noted, however, that the middle and lower markets haven't reached the demand level exhibited in luxury markets, as people in those markets are still struggling to save up enough money for their homes. "People serving primarily those markets might not have as rosy of an outlook," he said.

10. Homebuyers will seek out simple, walkable communities

Last month, the American Institute of Architects released the results of its third-quarter Home Design Trends Survey and found that design elements such as access to public transportation, multi-generational housing, walkable neighborhoods and mixed-use facilities dominate homeowner preferences. "There has been a pronounced shift in driving habits over the last few years, with increasing numbers of people being far more interested walking and utilizing public transit options," AIA Chief Economist Kermit Baker said in a release. "With that is a desire for proximity to employment and commercial activities."

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The AIA survey coincided with a National Association of Realtors survey over the summer that found walkable communities are growing in popularity among Americans of all ages, particularly millennials. Based on the results of the survey, the NAR advised developers aiming to reach the millennial demographic to consider building attached homes within walking distance of shops and restaurants and nearby public transportation. Baby boomers have reportedly expressed similar desires for their homes, as a Washington Post report in October found retiring baby boomers are downsizing and buying smaller homes in urban areas at twice the rate of millennials.

Jerry James, president of Edward R. James Homes, said he predicts baby boomers will continue to drive the new-home construction market this year. He agreed with the NAR and AIA predictions and said he believes boomers want "simplification" driven by a desire to live in locations that allow them to walk to nearby restaurants and shops.

Source: ConstructionDive, January 4, 2016
MARKETPLACE

Los Angeles Wants $20 Million From Developer of Burnt Downtown Apartment Building

Developer Geoff Palmer has produced an impressive list of enemies in his quest to speckle the LA map with his trademark Italy-meets-Epcot-meets-dormitory mega fortress apartment complexes. Everyone from skybridge detractors to Yelp reviewers want his throat for one reason or another. Now add to that list the city of Los Angeles itself. City officials are claiming that the 2014 fire that destroyed the controversial Da Vinci apartment complex was Palmer's fault. According to the LA Times, Palmer has been hit with a $20 million lawsuit filed by the Los Angeles City Attorney. The suit alleges that Palmer was negligent in failing to incorporate "key safety measures" into his Da Vinci Apartments development.

The whole Da Vinci incident did not sit well with City Hall. City Attorney Mike Feuer says the city is trying to recoup taxpayer losses that could have been avoided if the Da Vinci had been "better constructed." The suit claims the Da Vinci fire was the result of poor construction and fire safety planning on the part of Palmer.

According to the lawsuit, the Da Vinci did not have "an appropriate fire protection plan" or provide proper security outside the construction site to protect it from arson. The suit alleges that Palmer failed to compartmentalize construction, which allowed the blaze to spread freely throughout the worksite. The lawsuit also claims that the apartment building did not have fire walls or doors or even the water supply necessary to fight a fire on the property.

The Da Vinci was a bit of a recipe for disaster from the get-go. It was a wood-framed building—which are far cheaper than constructing a steel framed structure—and its frame went up like kindling. LA Fire Department Battalion Chief David Perez estimated at the time that 80 percent of the building was fully engulfed in less than 15 minutes. He went on to call the Da Vinci fire "by far the biggest single fire in an urban area" he'd ever seen.

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The blaze did significant damage to the neighboring buildings and closed the freeway. Heat from the Da Vinci fire damaged the Department of Health offices across the street and cracked 160 windows at the Los Angeles Department of Water and Power building over 400 feet from the fire. The spreading flames even ignited a fire at the nearby Figueroa Plaza complex and melted freeway signs on the 110.

Despite the fire and city lawsuit, Palmer’s work lives on. He called the Da Vinci fire a “temporary loss” and vowed to rebuild in 10 months. Now, some thirteen months later, the Da Vinci redux is currently looming over the 110 Freeway, skybridge and all, just as it did before. Not even a blazing inferno the likes of which LA has never seen can bring down Geoff Palmer.

*Source: Curbed Los Angeles, April 14, 2016*