

FALL 2012

OFF THE WALL

An Industry Publication by the Wall-Ceiling & Carpentry Industries of New York, Inc.

Manhattan Building Permits Jump –page 7

Proposed 625' Ferris Wheel
plus mall and hotel complex
for Staten Island.
Cover caption on page 3.
More information on page 9.

*WC&C 2012 Barbecue Photos
pages 14-17*





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CALENDAR December 2012

DATE	TIME & PLACE	TYPE OF MTG.
Dec 11 (Tues)	4:00 pm	No. Hemp CC Board Meeting
Dec 11 (Tues)	6:00 pm	No. Hemp CC Christmas Party



ON THE COVER

In this image released by the New York Mayor's Office, is an artist's rendering of a proposed 625-foot Ferris wheel, billed as the world's largest, planned as part of a retail and hotel complex along the Staten Island waterfront in New York. The attraction, called the New York Wheel, will cost \$230 million.

More information on page 9.

OFF THE WALL

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*From the
Executive Director
John DeLollis*

Here is our Opportunity to Shine

There is a lot of work around now of a generally unfulfilling nature. The devastation brought by hurricane Sandy leaves New York's construction industry in great demand. But it is not the proud work of building our city, it is restoration after the ravages left by the storm. Still, the determination and expertise of our union contractors and their crews is a comfort to the people of New York and the outlying areas because when the chips are down people know they can trust the quality of the reconstruction.

This is a showcase for us. It's up to us, the union contractors, to show that there is a reason why our crews are working fast and first class. It is because of the high quality training and dedicated work ethic union construction offers. Here is our opportunity to shine. Let's make sure we are heard.

A recent issue of Crain's New York Business proclaimed "Storm repairs offer bump to recovering construction industry." It points to the potential of steady work for an industry that has shed more than 20,000 jobs since its 132,600 peak in 2008. Unfortunately, this is a false positive. It is not steady work. What we need is for the financial gridlock that has slowed building in the city to be broken so that steady employment can recover. And now that our union contracts have been concluded, our members must find ways to compete for market share. Let's do it.

An interesting test is now being conducted by The District Council which can have positive effects for our members. According to Review Officer Dennis Walsh, they are currently investigating a time-entering program where stewards will be able to access a site by computer with specific job numbers and passwords. Union members will be able to log in and inspect work time that has been entered for the individual. Errors can be reported quickly and disagreements can be settled. Stewards, representatives and employers are being trained. Live testing is being conducted. It sounds like a good program and should represent a faithful representation of a worker's hours on a job. The program, while promising, still has to be reviewed before anyone can sign on to it.

I wish you all a happy, safe, and profitable holiday season. — *John DeLollis*

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*From the
PRESIDENT
Michael Weber*

Down the Home Stretch

It has been a long time coming and it looks like we finally have a deal for a new five year agreement with the New York City District Council of Carpenters. Of course, it is never over until the fat lady sings as they say. To finalize the collective bargaining agreement we still need to clear a few hurdles.

We are currently working with the District Council to implement a new payroll reporting process which is essential to gaining approval for full mobilization. Once this anti-corruption process is implemented, it should pave the way to finalize our collective bargaining agreement.

I would like to offer my condolences to the millions of people who have been severely affected by Hurricane Sandy, above all those who lost loved ones or their homes across a wide arc of destruction encompassing the east coast. This storm has put too many families and businesses through tremendous duress over the past few weeks. For me, it highlighted the importance of having a disaster/recovery plan in place. The more prepared you are, the quicker you will be able to get things back up and running.

Best wishes and have a safe upcoming holiday season.

— *Mike Weber*

Manhattan Building Permits Jump

New permits for renovation projects also rose significantly in the borough this year. The growth could spur more hiring.



The city Buildings Department has issued 70 permits for construction of new buildings this year, as of Sept. 30, compared with just 36 during the same period last year.

Photo by Buck Ennis.

By Tania Karas/Crain's New York Business

New building permits in Manhattan are up 94% since the beginning of the year, the city Department of Buildings said in October, and that's good news for the city's economy. The jump in construction comes even as the cost to build reaches a rate almost on par with costs at height of the building boom.

The city Buildings Department has issued 70 permits for construction of new buildings this year, as of Sept. 30, compared with just 36 during the same period last year. New permits for major renovation projects are also up 12%, year-over-year.

Since new buildings in the city tend to be expensive, multi-story projects, all that new construction equals big revenues and new employment opportunities.

"Big building in Manhattan is on the rise, and that's good news for all New Yorkers," city Buildings Commissioner Robert LiMandri said. "These major construction projects mean more homes, more jobs—and a stronger economy for our city."

Meanwhile, the New York Building

Congress released a report Monday that shows rising construction costs may be approaching the inflated rate they hit at the height of the last decade's construction boom.

Construction costs in New York City rose nearly 3.6% in 2011, according to a construction costs index tracked by trade magazine Engineering News-Record, which the Building Congress referenced in its report. That increase came on top of a 2.4% rise in 2010.

Engineering News-Record projects a 4.3% jump for 2012.

But that jump is less pronounced than during building boom years, the Building Congress said. In 2008, construction costs increased by 5.7%.

"Given that the rise in New York City construction costs now surpasses national trends, the numbers are of concern," Buildings Congress President Richard Anderson said. "Rising costs will make it even more difficult for private sector developers to obtain financing for new projects, while further constraining the capital budgets of city and state agencies." •

NY Construction Spending Seen Topping \$30B

Forecast total for this year is highest since 2008, up 9% from last year. Non-residential construction likely to set new record of \$12.6 billion.

*By Ali Elkin
Crain's New York Business*

Construction spending in New York City is expected to surpass \$30 billion this year for the first time since 2008, according to a report from the New York Building Congress.

Richard Anderson, Building Congress president, noted that this year's forecast is "more upbeat" than it has been in years.

"I think you'll be heartened and encouraged by this report in most, but not all, respects," Mr. Anderson told the forum's audience.

The forecast 2012 total of \$30.7 billion is up 9% from last year. Having crossed the \$30 billion level, the Building Congress expects spending to stay at or near those levels for at least the next two years. More surprisingly, the group's forecast shows non-residential construction hitting an all-time high of \$12.6 billion this year. Included in that total are offices—including work at the World Trade Center—plus institutional development, hotels and sports—including Brooklyn's Barclays Center—and entertainment venues.

Residential construction spending is also rising. It is expected to reach \$3.2 billion in 2012, up from \$2.9 billion in 2011. Meanwhile, the Building Congress forecast also shows a slight increase in government construction spending to \$14.9 billion in 2012, from \$14.6 in 2011.

"The residential is picking up and it's somewhat surprising," Mr. Anderson said after the forum. "Given that there's strong demand in both rental and purchases in New York City, it seems to be understandable."

Though spending is increasing, the Building Congress predicts a slight, 700-job decline in construction employment to 110,800 in 2012. That would be the lowest level since 1998. •



It's The Law

By Mark A. Rosen

Mark A. Rosen is legal counsel to the Association of Wall-Ceiling & Carpentry Industries of New York, Inc. He is a partner in the firm of McElroy, Deutsch, Mulvaney & Carpenter, LLP. Mark practices in the areas of construction and contract law, public contract law, arbitration, surety, and general commercial litigation. He can be reached at mrosen@mdmc-law.com.

Court Finds Employer Was Obligated To Make Benefit Contributions For An Employee Performing Non-Bargaining Unit Work

A federal court found that a construction company was obligated to make employee benefit contributions on behalf of a union employee that performed non-bargaining unit work for the company.

The company was bound to collective bargaining agreements (“CBA’s”) with a union through its membership in various employer associations in the union’s geographical jurisdiction. The company performed cement masonry work. The employee in question performed work within the scope of the CBA’s for which the company made fringe benefit contributions to the appropriate union benefit funds. However, the employer claimed that the employee also performed work outside the scope of the CBA’s for which the company did not make any contributions.

The Benefit Funds audited the company and asserted a deficiency for contributions for the hours the employer claimed the employee performed non-bargaining unit work.

The court found that the applicable CBA’s covered all employees that performed bargaining unit work. The CBA’s did not limit coverage to employees only performing bargaining unit work. The CBA’s explicitly stated that the employer was to make contributions for “each hour worked by employees covered by the collective bargaining agreements.” Accordingly, the court held that the employer was obligated to make contributions for all hours worked by a covered employee whether the work itself was within the scope of the CBA’s or not.

Court Finds That Union Employer Is Obligated To Make Fringe Benefit Fund Contributions On Behalf Of Its Non-Union Employees

A federal court found that an electrical contractor was obligated to make pension fund contributions for all of its employees working in the union’s jurisdiction regardless of whether they were members of the union or not.

The employer in question was a signatory with the electrical union. It used union labor to work on union worksites and made the appropriate pension contributions to the union’s benefit funds on behalf of those employees. The employer also employed non-union employees on non-union worksites. It did not make such contributions for those employees. The union’s benefit fund performed an audit and asserted a delinquency for the hours worked by the non-union workers.

The court found that the collective bargaining agreement at issue unambiguously required the employer to make pension contributions to the funds for all of its employees working within the union’s jurisdiction. Thus, the employer was obligated to make contributions for the non-union employees it employed, as well.

Department Of Labor Orders Contractor To Make Additional Payments To Workers For Lodging Expenses

A Department of Labor Administrative Law Judge (“ALJ”) determined that a contractor had to make additional payments to workers from out of state to reimburse them for lodging expense.

The contractor was performing a dredging project for the federal government and was bound by the Davis-Bacon Act prevailing wage provisions. The contractor employed employees from various states to work on the project. The collective bargaining agreement at issue provided for a per diem payment of \$35 for lodging, meals and incidental expenses. The employees did receive those payments.

However, the ALJ found that the employees in question incurred significant out of pocket expenses over and above the \$35. The ALJ determined that when those additional out-of-pocket expenses for the cost of

lodging were factored in, the employees did not receive the required prevailing wage required by the Davis-Bacon Act. The ALJ found that that language of the Davis-Bacon Act requires contractors to pay the required wages “unconditionally.” The contractor has filed an appeal have from the decision.

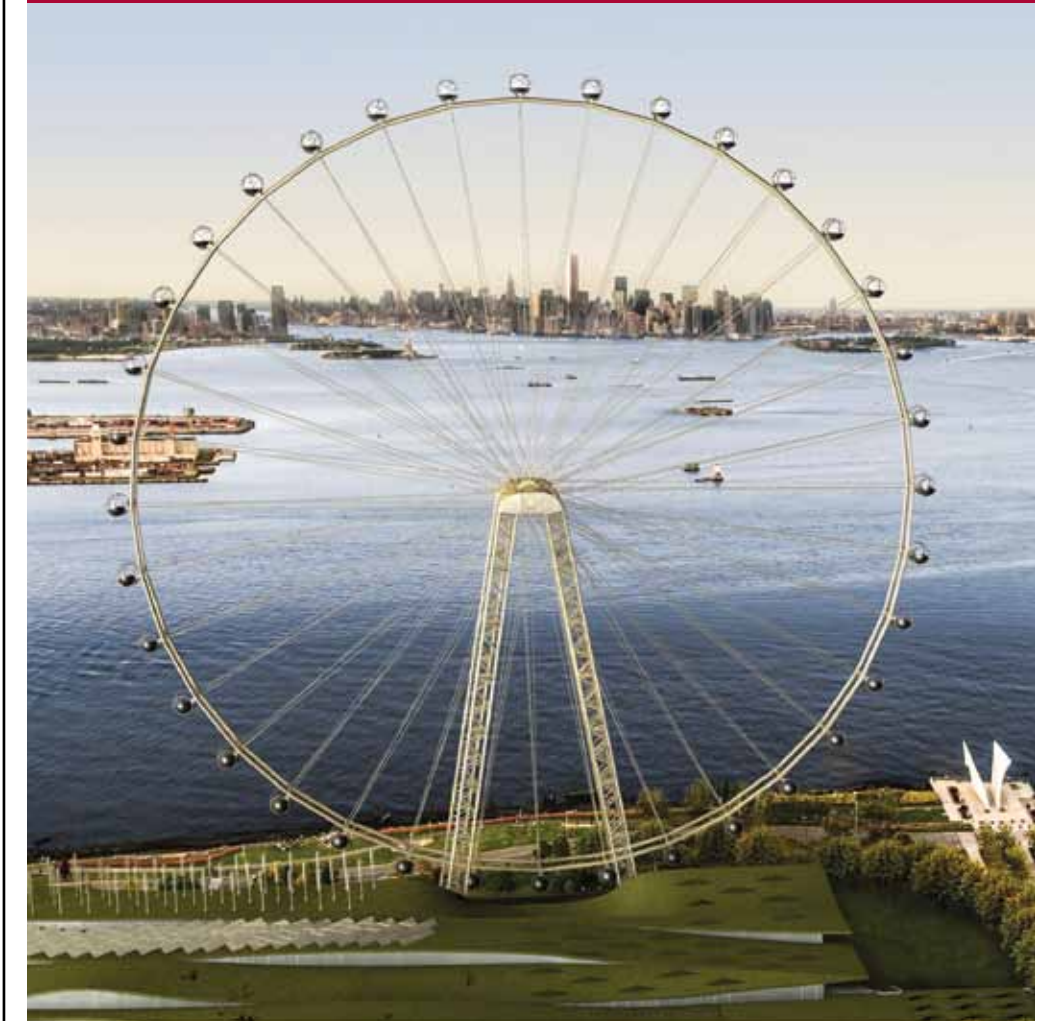
Court Shifts Burden To Employer For Providing Accurate Records Regarding The Work Its Employees Performed

A federal court shifted the burden to an employer to keep and provide accurate records of the hours its employees spent performing work covered by a collective bargaining agreement.

The employer/contractor in question signed a series of collective bargaining agreements with various unions. Over time, the contractor shifted its primary business to work not covered by those collective bargaining agreements. Thereafter, the benefit funds from the unions performed an audit and determined that the company owed additional contributions for unreported work allegedly covered by the collective bargaining agreements. The employer claimed that the hours in question did not relate to work covered by the collective bargaining agreements.

In its decision, the court shifted the burden to the employer to maintain and produce sufficient records to prove that it was not obligated to make contributions for the in question. The court determined that the burden should be shifted because there was evidence that some of the employees at issue had performed covered work that was not reported to the benefit fund. The court found that the employer neglected to maintain “adequate records.” The court stated that shifting the evidential burden to employers that failed to provide sufficient records limits the employer’s “incentives” to underreport hours. •

ON THE COVER



Planned Hotel Complex For Staten Island Includes 625-Foot-Tall Ferris Wheel

Developers plan to build a tourist complex on New York’s Staten Island that includes a 200-room hotel, a mall and a 625-foot-tall Ferris wheel intended to become the world’s tallest. City officials hope that the \$230 million Ferris wheel brings more tourists into the less-visited New York borough. Construction is scheduled to begin in 2014, with the grand opening expected by the end of 2015.

NYC Development Hub Is Expanded

The NYC Development Hub is a state-of-the-art plan review center to accelerate the approval process for construction projects throughout New York City.

At the Development Hub in Lower Manhattan, licensed professionals can electronically submit digital plans for new buildings and major construction projects (Alteration 1) and resolve any issues with City officials in a virtual environment. The plan review center is made up of the Department’s senior plan examiners, who collaborate with representatives from six other City agencies involved in the construction project approval process.

All electronic filings at the Department of Buildings are now coordinated through the Development Hub in Lower Manhattan, including the new *Hub Self-Service* – under which

New York State-licensed architects and engineers can professionally certify plans for small construction projects (Alteration 2 and Alteration 3) without visiting a Department office. Through



the Department’s website, applicants can create online accounts complete the necessary electronic forms and upload the proper documents in order to receive approvals and obtain construction permits. Alteration 2 and 3 applications are typically submitted when there is no change in use, occupancy or egress.

Other electronic filings at the Department (formerly known as eFiling) also are being coordinated through the Development Hub, including Electrical Applications and Limited Alteration Applications.

Location & Contact Information

NYC Development Hub
80 Centre Street, 3rd Floor
New York, New York
nycdevelopmenthub@buildings.nyc.gov

NYC Releases Data on Energy Use in Private Buildings Greener, Greater Buildings Plan

To reach its aggressive sustainability goals, New York City needs to do more than improve new construction and renovations. It has to proactively address its existing buildings, a problem that is difficult to tackle because New York City has almost a million of them. However, it turns out that the city’s square footage is highly concentrated in less than two percent of its properties; two percent translates into 15,000 properties over 50,000 square feet, which account for half of New York City’s square footage and 45 percent of New York City’s total greenhouse gas (GHG) emissions. These larger buildings also tend to have more sophisticated management and more financial and technical resources than do smaller buildings.

Consequently, New York City enacted a comprehensive effort, called the Greener, Greater Buildings Plan (GGBP), which targets energy efficiency in these large existing buildings. The City’s signature effort in energy efficiency is an internationally recognized, industry-transforming energy efficiency package that is leading the nation in energy efficiency policy. GGBP is designed to ensure that information about energy is provided to decision-makers and that the most cost-effective energy efficiency measures are pursued.

GGBP consists of four regulatory pieces supplemented by with extensive jobs training and a financing entity called the New York City Energy Efficiency Corporation (NYCEEC). It includes a requirement that large buildings annually benchmark their energy performance (LL84); that a local energy code be adopted (LL85); that every 10 years these buildings conduct an energy audit and a retro-commissioning (LL87); and that by 2025, the lighting in the non-residential space be upgraded to meet code and large commercial tenants be provided with sub-meters (LL88).

These laws will reduce greenhouse gas emissions by almost 5 percent, have a net savings of \$7 billion, and create roughly 17,800 construction-related jobs over 10 years. •

EPA Delays Lead Paint Rule for Commercial Buildings Until 2015

The Environmental Protection Agency’s inclusion of commercial buildings in a residential lead paint rule is being delayed until 2015. A lack of required studies for the Lead: Renovation, Repair and Painting Rule led the agency to extend the regulation’s scope.

By Jason Knott/CEPrp.com

In a ruling that affects integrators who install large speakers in commercial buildings, the Environmental Protection Agency has delayed its plans to expand the Lead: Renovation, Repair and Painting Rule to commercial buildings until 2015, according to an update from the National Association of Home Builders (NAHB).

Because lead-based paint can still be used in commercial and industrial buildings, the commercial rule would apply to every commercial building in the country regardless of when built. In addition, EPA has yet to approve a test kit for the presence of lead-based paint that meets the accuracy standard it said it would require when the residential rule was implemented in 2010.

EPA had entered into a voluntary legal settlement with environmental groups agreeing to propose an expansion of the existing residential lead paint rule. The proposal included the removal of the “opt-out provision” allowing homeowners without children who live in homes built before 1978 to choose to exempt contractors, including integrators, from following specific work practices and record-keeping requirements. The law has steep fines for contractors.

EPA also agreed to require all contractors, including integrators, working in pre-1978 housing to perform expensive third-party lead dust clearance testing before completing a renovation project. However, that proposal was withdrawn last year by a petition by the NAHB to the White House under President Obama’s Executive Order on Regulatory Reform.

The final element of the legal settlement required EPA to accelerate the development of the commercial buildings rule and the agency agreed to introduce one by September 2012.

However, the agency failed to perform prerequisite studies on the potential lead dust exposures to adults – not children – during renovation activities in pre-1978 commercial buildings. Under federal law EPA is required to perform these studies prior to proposing a commercial building rule. To date, EPA has not conducted the required study, according to the NAHB. •

Violators Of Federal Contracting Rules On The Rise

The number of contractors suspended or barred from doing business with the federal government because of violations of federal contracting policies rose from an estimated 1,900 in fiscal 2009 to more than 3,000 last year, according to a White House report (<http://www.whitehouse.gov/blog/2012/09/18/taking-contractor-accountability-next-level>). “While the vast majority of government contractors compete fairly to deliver the best value to the American people, it is critical that the government take a hard line against those who would defraud taxpayers,” noted Joe Jordan, White House administrator of federal procurement policy.



City Hall Wins BD+C 2012 Platinum Reconstruction Award



New York's City Hall last received a major renovation nearly a century ago. Four years ago, a Building Team led by construction manager Hill International took on the monumental task of restoring City Hall for another couple of hundred years of active service.

City Hall, as viewed through historic City Hall Park. Designed by architects Joseph François Mangin, a French émigré, and John McComb, Jr., a native New Yorker, in the Federal style with French influences, it was constructed from 1803 to 1812. City Hall holds one of the most important collections of 19th-century portraiture and furnishings, including pieces by Charles Christian and Honoré Lannuier, as well as George Washington's desk. City Hall is crowned by a statue of Justice.



Building Design + Construction

Built in 1812, New York's City Hall ranks among the most important historic buildings in the nation's most populous and, some would argue, grandest city. With its elaborate furnishings and interiors, invaluable fine arts collection, and gorgeously decorative plaster ceilings, it has been a fitting home to the city's 108 mayors (including the incumbent, Michael Bloomberg), City Council members, and numerous municipal executive and legislative offices for two centuries. It stands as one of the nation's oldest city halls still in continuous use.

City Hall last received a major renovation nearly a century ago. Four years ago, a Building Team led by construction manager Hill International took on the monumental task of restoring City Hall for another couple of hundred years of active service.

The job posed some unusual problems. City Hall sits atop four subway lines, which raised concerns about vibration during construction. Both its American Georgian interior and Federal-style exterior have been designated New York City landmarks and are listed on the National Register of Historic Places, making any attempt at restoration a white-glove job. And, as the Building Team would learn, excavation of the site would uncover archeological artifacts whose documentation and preservation had to be completed before work could continue.

The Building Team also had to contend with the political theatricality of the place—the possibility that at any moment the Mayor might call a press conference that would

halt work, or a tour group would come through and interrupt reconstruction activity, or the adjacent park might become the site of a demonstration that could disrupt the delivery of materials. Compounding these logistical issues was a well-publicized fixed date of completion: July 1, 2012, the bicentennial of its original occupancy.

The Hill-led team took on the challenge in bold fashion, starting with the 1903-era ceiling in the 4,050-sf Council Chamber. The 75x54-foot ceiling, with its elaborate oil-on-canvas murals—a central oval panel measuring 40x22 feet surrounded by four 11x11-foot octagonal panels, which are mounted onto the plaster ceiling—towered nearly 29 feet above the floor, complicating the task of restoration.

To enable its team of 11 specialty conservation contractors to execute the work to the level of detail and quality that the project called for, the Building Team erected a temporary “ballroom floor” 11 feet below the ceiling, rather than using scaffolding.

This enabled the conservators to work with much greater precision on the ceiling and allowed them to discover areas of deterioration that might not have been addressed under conventional methods. The canvasses were hand-scraped from the plaster base and removed for off-site refurbishment.

‘Trench warfare’ in Lower Manhattan

Another massive undertaking involved the revamping of the building's electrical service. Previously, City Hall obtained its electricity from feeds running from the Tweed Building across the street via an

underground tunnel.

To provide City Hall with its own source of electrical service, the Building Team proposed running the electrical feed from a vault located across the street to a newly constructed electrical sub-basement beneath the East Wing. This would require digging an open trench of two thousand linear feet.

Unfortunately, the route of the trench went through a rich lode of archeological artifacts and graves, which meant that work had to be halted with every new discovery. Compounding the problem, the excavation posed a threat to the nearly 300-year-old trees on the park site. The pace of excavation slowed to two feet a day.

Hill International turned for advice to colleagues who were working on local subway projects. They suggested the use of a micro-tunnel boring machine. This device allowed the City Hall team to cut a 32-inch tunnel at a depth of 15 to 20 feet, thereby avoiding any contact with artifacts or human remains. A job that could have taken eight months was completed in three and a half weeks, saving \$2-3 million.

Although some work is still proceeding, to date the renovation of City Hall has consumed 2,300,000 man-hours, making it one of the most elaborate reconstruction projects in recent U.S. history.

“This was a very experienced team that executed a spectacular restoration of an important symbol of New York City,” said Reconstruction Awards Honorary Chair Walker C. Johnson, FAIA. “Great attention to detail resulted in an exquisite, newly restored structure.” + •

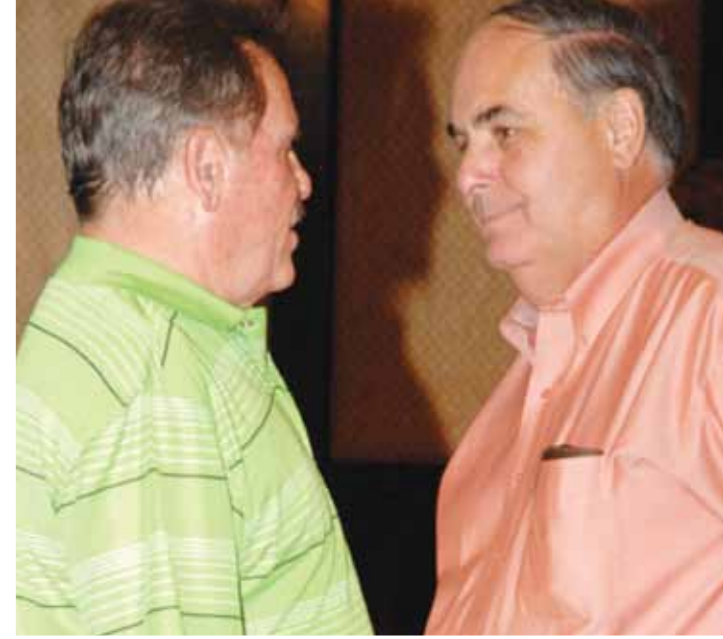
AUGUST 14, 2012 — WESTBURY MANOR

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INDOORS THIS YEAR

LOTS OF FUN AND GREAT FOOD!





Construction Management:

Improve your construction crew's productivity in five minutes a day.

The Daily Huddle

By Gregg M. Schoppman/
constructionbusinessowner.com



IMAGES OF JOE MONTANA, PEYTON MANNING AND TIM TEBOW BARKING SIGNALS TO THEIR 10 OFFENSIVE TEAMMATES CREATE VIVID ILLUSTRATIONS OF HOW SMALL PLANNING CAN INFLUENCE A GAME. Within as few as 10 to 15 words, these play callers communicate what each player's objective and role should be over the next few seconds. These huddles only last seconds, but they can greatly impact each step of a game.

Imagine how productive your construction crews would be if they began each day with this type of huddle.

A typical day on a construction project often begins with crews scrambling for their tools and mustering to their respective work site without huddling together to discuss the day's plan. This would be the same as the quarterback immediately hiking the ball without anyone having knowledge of the next play. As farfetched as this may sound, construction crews begin every day in this same fashion.

To see if your construction crews operate this way, have your operations managers ask this question to any person on their crew: What is the goal for today? The answers will vary but will often fall within these three categories:

- 1. The Shoulder Shrug** – Often accompanied by a soft spoken "I don't know," the shoulder shrug shows the crew does not have a daily huddle.
- 2. The Eternal Optimist** – The answer "Just as much as we can boss" sounds great on the surface—if only estimators could estimate based on this. This is also evidence of a huddle not occurring.
- 3. The Superstar** – "We will get 400 LF installed," "We will

pave to mile marker 100+12," "We'll finish the third floor ceiling grid." This answer shows the team meets regularly and has a plan with measurable goals.

Do not blame your crew members if they respond with one of the first two responses.

The crew leader, foreman and/or superintendent must establish the goals. In most cases, these project leaders know the budget and schedule, and they should provide this information to their workers (similar to the quarterback calling the signals). If someone does not call the signals, the players will dictate their own ways to play the game.

Businesses may develop comprehensive preconstruction plans only to see the execution lost in the small daily details. For instance, if project leaders do not meet with their crews to discuss jobsite conditions, required materials, customer demands and environmental factors that affect the project, they cannot adjust the daily plans accordingly. Crews who work without a huddle may be active but will most likely be unproductive. Activity without direction is a source of margin erosion.

The daily huddle should not be complicated. Using a visual aid can be helpful to ensure everyone understands the daily objective. I call this visual aid the Daily Huddle Communication Center (DHCC). Figure 2 and Figure 3 below are excellent examples of DHCCs.

The various components of the DHCC include the following:

Simplicity – Many firms try to accomplish too much in a short huddle. Focus on two to three areas (e.g., safety, production and materials).

Real-Time Safety – Use job-hazard analyses, and devote immediate attention to safety issues.

Timing – Stay within a five- to 10-minute time limit. The small stopwatch in the top left corner of Figure 2 keeps the crew leader disciplined to stay within time constraints. Also, ask everyone to stand during the huddle to keep it brief.

Benchmarking – The afternoon or "PM Huddle" should discuss which goals could not be achieved, and the project leader should determine the cause. This huddle gives the crew a sense of accountability.

Tomorrow's Targets – The column on the far right of Figure 2 establishes the goals for the next day.

To display the DHCC, foremen and superintendents can use a dry erase board or a flip chart secured to the side of a trailer. For remote jobsites that lack a trailer or cargo box, foremen can even use a dry erase marker on the hood of their truck to establish the goal.

The tool used for the huddle is not as important as the process involved in creating the daily behavior. Just as everyone understands the value and need to exercise, a construction firm must instill the same behavior in its field managers.

Figure 2: The Daily Huddle Communication Center

Figure 3: Daily Huddle Communication Center Completed

Buy-In from the Construction Team

The daily huddle concept can be implemented easily, but you must first gain the field crew's collective buy-in. Implement the following to have successful daily huddles:

Communicate Clearly – If the team does not understand the playbook, they will never understand the play. Create a common vocabulary that everyone on the team will understand. Consider language hurdles and adjust accordingly.

Make the Goals Visible – Place the DHCC in a visible spot, such as break areas, tool cribs, cargo boxes, parking areas, etc.

Test the Communication – Senior management must conduct routine tests to ensure the huddles happen daily. Spot checks and jobsite quizzes work well. Also, remember to ask the crews the goal of the day. •

Gregg M. Schoppman is a consultant with FMI, management consultants and investment bankers for the construction industry. Schoppman specializes in the areas of productivity and project management. He also leads FMI's project management consulting practice. Prior to joining FMI, Schoppman served as senior project manager for a general contracting firm in central Florida. He has completed complex construction projects in the medical, pharmaceutical, office, heavy civil, industrial, manufacturing and multi-family markets. Furthermore, Schoppman has expertise in numerous contract delivery methods as well as knowledge of many geographical markets. For more information, visit www.fminet.com or email Gregg Schoppman at gschoppman@fminet.com.

Figure 1

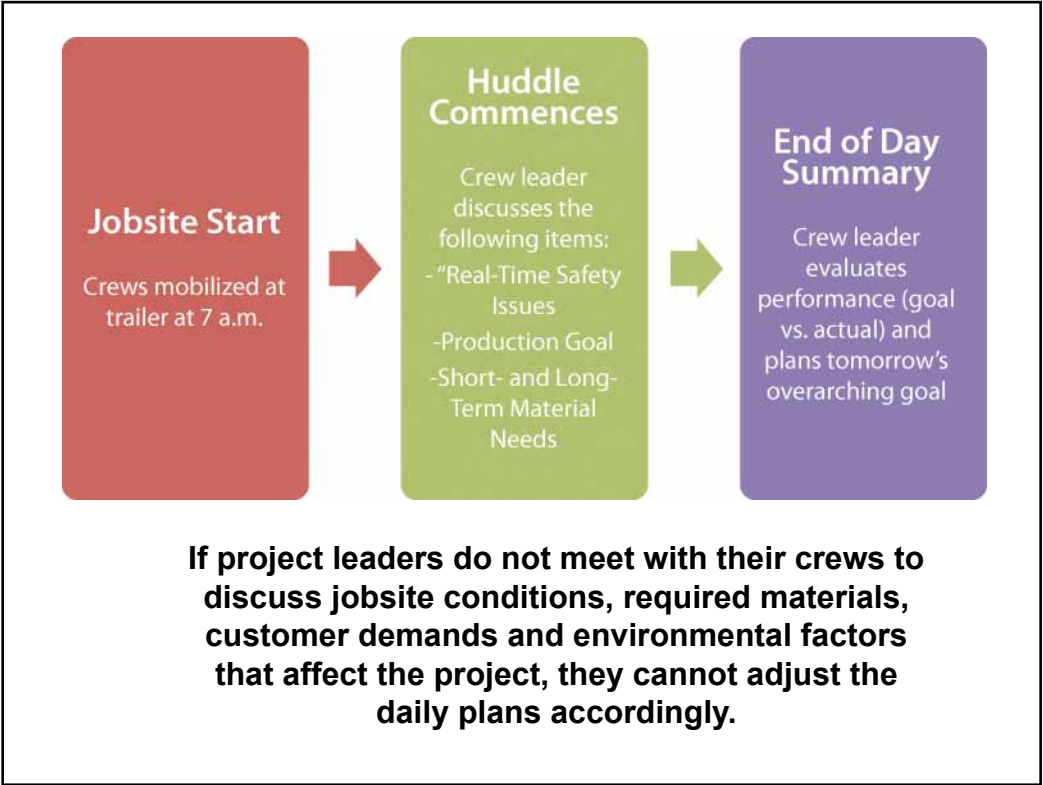


Figure 2

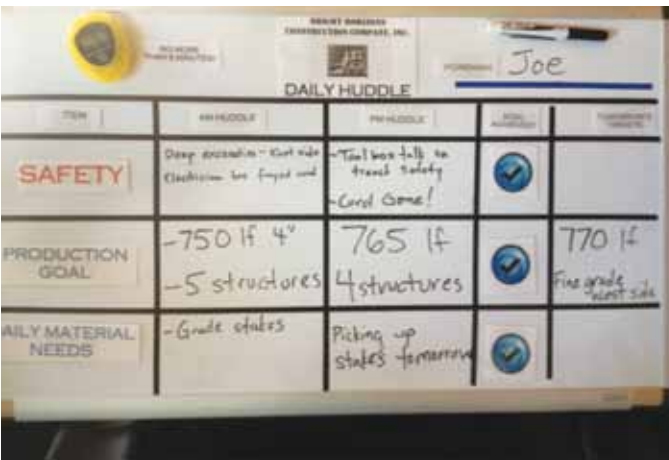
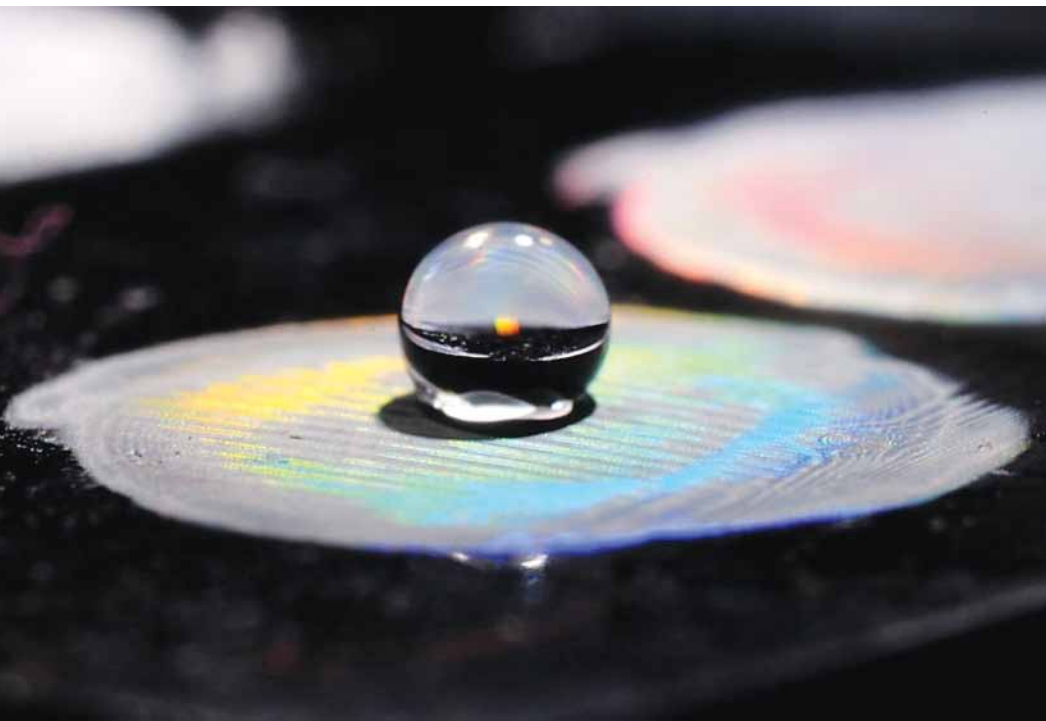


Figure 3

‘Butterfly Wing’ Buildings Would Never Need Painting

By Francie Diep, TechNewsDaily Staff



New material mimics qualities of butterfly wings

A drop of water sits on a piece of a new, colorful, water-resistant material. The material's texture mimics that of butterfly wings, causing water to bead.

CREDIT: AFM

A new material inspired by butterfly wings repels water and gleams with brilliant color. Like iridescent butterflies, the material uses tiny structures on its surface to achieve both qualities.

A material that's both colorful and water-repelling could someday go into sensors that regulate the interior temperature of "smart buildings," said Shu Yang, a University of Pennsylvania chemist whose research group made the new material.

Color may come quickly to mind when people think about butterflies, but the little flutterers are remarkably water-resistant, too. "They have to fly, so they cannot afford to have any dirt on the wings," Yang told TechNewsDaily. The surface of butterfly wings has minuscule bumps that cause any water that hits the wing to form beads and roll away, Yang explained. That cleans off the dirt.

Yang and a team of architects and engineers are looking to make a sturdy sensor that changes color in response to temperature. The color change would trigger a computer program that automatically adjusts the heaters and air conditioners of a smart building. "The general goal is for energy-efficient buildings," Yang said.

Her material also could go on the outside of buildings, to provide colorful designs that are more durable than conventional paint and that resist dirt and mildew, she said.

The color in the new material — as in its insect inspiration — doesn't come from the pigments and dyes that color most household items. Instead, the material's particularly bright hues come from well-ordered ridges and other structures that are invisible to the naked eye. The complex structures reflect light in particular ways, creating different colors that people see.

Scientists call such colors structural color. They can last longer than pigments because they don't fade in the sun. "As long as you don't destroy the structure, the color is always there," Yang said.

At the same time, to make a material waterproof, Yang's team needed to make the surface rough and bumpy. The roughness isn't apparent to the touch because the bumps are nano-sized, but the tiny textures reduce water's ability to stick to the material.

Yang and her research team created a recipe for making a material that has both the patterned ridges for structural color and the nano-bumps for waterproofing. The researchers are now looking to change their manufacturing process to make it less expensive.

Yang's research projects usually focus on just structural color or just waterproofing, not both, she said. But "in nature, in all of these things, it's not just single-functional," she said. "It always is multifunctional."

Yang and her colleagues published a paper about their work in the July issue of the journal Advanced Functional Materials. •

Interdisciplinary Research Leads To Reduced Construction Costs And Multiple Awards

From Structural Engineer

Mani Golparvar-Fard, an assistant professor of civil and environmental engineering at Virginia Tech, has developed an augmented reality modeling system that automatically analyzes physical progress on large-scale construction projects. The system allows a contractor to determine whether a project is on, ahead, or behind schedule, leading to cost savings and reduction in project delivery time.

Without the need for a Global Positioning System (GPS) or any other location tracking technology, the modeling system, named the 4 Dimensional Augmented Reality or D4AR, is able to geo-spatially store digital pictures of a building in 4D (3D plus time) and integrates the photos with Building Information Models (BIM) during any and all phases of construction.

With the widespread popularity of digital photography, on-site pictorial recordings of construction projects have become a daily part of the building process. Field engineers might take around 250 pictures per day providing a wealth of visual information.

However, the challenge remained as to how to automatically determine the three dimensional geometry of the construction site from the unordered and uncalibrated collection of images, Golparvar-

Continued on page 22

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Reduced Construction Costs

from page 21

Fard said. Furthermore the images needed to be accurately registered with BIM in a common three dimensional environment, allowing performance of the project in forms of physical progress, cost, and delivery time to be systematically analyzed.

Golparvar-Fard achieved this caching in his method by reconstructing as-built 4D point cloud models from the unordered daily site photographs, and comparing the reconstructed models with BIM using a new computer vision and machine learning based method.

The augmented reality system developed by Golparvar-Fard also gives the construction industry the ability to automate and remotely monitor the safety, quality, and site layout. His modeling environment allows the “integrated visualization of as-built and as-planned models,” he explained.

With the D4AR models, any user is able to load their digital photo logs for a specific building, reconstruct a 3D scene, and navigate through the pictures by location and time. The D4AR models also provide

users with the unique ability to organize and integrate their daily construction images with BIM and project schedule, and interactively browse through the geospatial configuration, saving time and delivery time.

At the 2012 Construction Research Congress, Golparvar-Fard received the award for best journal paper from the American Society for Civil Engineers’ Journal of Construction Engineering and Management for his work on D4AR. During the same event, Golparvar-Fard along with graduate student Andrey Dimitrov and Feniosky Peña-Mora, dean of engineering and applied science at Columbia University, received the Best Poster Award for their poster, “Robust Material Recognition for Automated Generation of Building Information Models from Unordered Site Image Collections.”

Dimitrov is a computer science master’s student and a Ph.D. candidate in civil engineering and engineering mechanics at Columbia University, under the supervision of Golparvar-Fard and Peña-Mora.

D4AR provides new possibilities for the construction industry, including evidence

for dispute resolution, safety inspection measures, progress evaluation and analysis, and even faster, more accurate as-built versus as-planned evaluation.

Golparvar-Fard is commercializing the D4AR tool through a spinoff company he started with Peña-Mora and Silvio Savarese of the University of Michigan-Ann Arbor. The D4AR modeling system is currently being tested by Turner Construction with the World Trade Center and several other high profile construction projects. Turner and the National Science Foundation helped fund the research.

Golparvar-Fard is also expanding this modeling method to other areas of research from rapid energy performance modeling of existing buildings to structural stability analysis.

Golparvar-Fard began his work on the D4AR modeling as a graduate student in 2007 at the University of Illinois at Urbana-Champaign when he superimpose a three dimensional building information model over time lapsed images and used a metaphor based on traffic light colors to represent performance deviations. •

Tracking Construction Workers

Construction Companies Turn To RFID To Manage Workers

Construction companies are turning to RFID technology to keep track of their workers, minimize risk and ensure compliance with regulations. Tags on safety equipment or smart cards send location data to tablets or smartphones of managers who use the data to direct projects and workers more efficiently, this article notes.

In the construction industry, being able to keep track of a workforce comprised of hundreds of mobile employees spread out across different jobsites can be a huge value on projects. This is why some construction companies are using RFID (radio-frequency identification) to track the exact location of each worker.

In Washington, D.C., for example, Grunley Construction, www.grunley.com, Rockville, Md., is using RFID for realtime workforce monitoring on two projects at American University for a period of 9-12 months.

The technology isn’t just used to make sure employees are working. Rather, it helps make better decisions and mitigates risk on a job. Some contractors even use the technology to insure compliance with local economic development and hiring objectives.

Here is how the technology works in the construction industry: Tags attached to hardhats or ID badges send data about workers’ whereabouts to Web-based devices, including smartphones and tablets. Armed with the data, project managers can make decisions and integrate information with daily reports, work schedules, and even

accounting.

As another example, in Baltimore, Md., RAM/KBE Joint Venture is using technology to monitor the workforce and for local employment initiative analysis at the Baltimore Learning Center project, which will be monitored for a period of 12-14 months.

Both Grunley and RAM/KBE are using Workforce Monitor from ADR Software, www.softwareadr.com, Reston, Va., which is a service that provides employee data to improve decision making, project documentation, safety, and response readiness. The system uses RFID tags that are embedded in all-weather job stickers that stick to hard hats and ID badges to monitor the workforce.

Currently, this particular technology is used to track more than 40,000 workers at construction sites throughout the United States. The company says the service is changing the way general contractors manage labor and manpower, and the adoption rate continues to increase.

While RFID might not be used to monitor stationary employees in the office, construction companies are finding great value in the technology to track the mobile workforce. — *Constructech* •

PRODUCT NEWS

Sustainable Hardwood Flooring And Cabinetry From Armstrong Featured Throughout The Vision House® In Innoventions At Epcot® Presented By Green Builder® Media



allows people to enjoy wood’s natural beauty, while knowing it was derived from a carefully managed renewable resource,” said Mara Villanueva-Heras, vice president, Marketing, Armstrong Residential Flooring.

150 Years of Innovation and Sustainability

In its 150 years of doing business, Armstrong® has a history of

innovation and wise use of resources. Its interior products business began by recycling cork waste to make linoleum flooring for homes and commercial buildings. One hundred years later, the company is still making linoleum with natural ingredients, and now markets the most extensive portfolio of residential floor products available – genuine hardwood, laminate, linoleum, vinyl sheet and tile – as well as cabinets and ceiling products.

As the world’s largest hardwood flooring company and a manufacturer of wood cabinetry products, Armstrong has a vested interest in protecting the forests where the raw materials originate. “Our commitment to sustainability requires that we protect the communities where we extract, process and manufacture our wood products,” said Villanueva-Heras.

Trees Are a Renewable Resource
Hardwood is typically a big part of the

discussion for homeowners who want to live a green lifestyle and play a part in preserving the world’s natural resources. The floors are beautiful and long-lasting, and hardwood flooring typically does not emit appreciable levels of volatile organic compounds (VOCs). All Armstrong hardwood flooring comes pre-finished for a no fuss, no muss installation. There’s no dust from sanding, no fumes from chemicals, no waiting for the finish to dry. Since hardsurface flooring is durable and easily cleanable, it is typically a good choice for people sensitive to allergens and dust.

Cabinets are a major factor for any home remodel, especially in the kitchen. “Armstrong Origins™ cabinets not only look beautiful, but they are low in VOCs because they use a urea-formaldehyde free, soy-based adhesive,” said Howard Maymon, Vice President, Finance & Strategy – Armstrong Cabinet Products.

“The exhibit focuses on helping homeowners reduce their environmental impact without sacrificing aesthetics or comfort. Armstrong is thrilled to have the opportunity to work with Green Builder® Media to show how every day, accessible products and technologies can make a huge impact,” said Villanueva-Heras. “The exhibit is built on the idea that we all have the power to make positive changes to our home environment. Every little step makes a big difference.”

INNOVENTIONS cast members lead guests at the VISION House® through a guided tour, featuring building science fundamentals, integrated design elements, green products, and intelligent systems that aim to enhance the home’s sustainability. Visitors are then directed into a post-show area, which contains interactive kiosks that contain further information about sustainable living. Throughout the exhibit, visitors are encouraged to consider how they can reduce their personal impact on the planet, as well as make changes in their own homes to make them more sustainable and durable. •

PRODUCT NEWS

New Advance Cool Grip II Taping Knives

If you don't hold the Cool Grip II, you'll never feel anything like it. Feel the fine ergonomics and American craftsmanship balanced perfectly in your hand. The company



invented the drywall taping knife over 70 years ago. It's time to get excited about innovation all over again.

Flexible blue spring steel or stainless steel held in aluminum rib. Soft overlay molded to polypropylene handle is riveted directly to blade. Handle surface reduces hand moisture to improve your grip. Newly designed smaller handle for better ergonomics and less hand fatigue. Soft grip fins on the side for better feel and comfort. Straight blade. Lightweight. Excellent design, for best results. Available in Blue Steel and Stainless Steel. Made in U.S.A.

For more information visit: <http://www.advance-equipment.com/Advance-Cool%20Grip-II-Taping-Knives.php>.

Cut metal and Move HILTI SCM 18-A Cordless Metal Cutting Circular Saw

The new SCM 18-A Cordless Metal Cutting Circular Saw delivers fast, smooth cuts for most metal cutting applications. This Hilti tool and blade combination cuts everyday materials like strut, threaded rod and rebar plus the system will take on demanding applications like back-to-back strut or thick steel with ease.

Designed with cold cutting technology which provides a clean, cool cut to help increase productivity and an optimized blade that increases tool life, the SCM 18-A is built



to withstand the toughest jobsite conditions.

The SCM 18-A offers portability for easy movement around the jobsite and features a clear vision pane for better line of sight and a LED light that provides better visibility of the work surface.

For more cuts per charge, use the SC-C MU 6 1/2" x 5/8" z40 A 40T ferrous metal cutting blade with the SCM 18-A. This blade has tungsten carbide and titanium carbide tips brazed to the teeth and with the SCM 18-A delivers exceptional wear resistance. Using the tool and blade system delivers efficient and smooth cutting for even longer life.

To further ensure quality performance, the SCM 18-A CPC Cordless Metal Cutting Circular Saw and Batteries are backed by Hilti Lifetime Service, a unique service agreement that includes two years of no-cost coverage.*

For more information on the Hilti SCM 18-A CPC Cordless Circular Saw please contact Hilti Customer Service. From the U.S., call Hilti, Inc., at 1-800-879-8000 or visit www.us.hilti.com.

Blue Line USA Introduces Its Blue2 Flat Boxes



Blue Line announced the release of a new model Flat Box - the Blue 2. Although we had made several changes to the old design, it was essentially the same as the Premier box from 20 years ago - time for an update!

The Blue 2 boxes feature a smaller side

Ansell Collaborates with DuPont to Make Ultra-Lightweight Gloves with DuPont™ Kevlar® Yarn

DuPont and Ansell, world leaders in protection technologies, have collaborated on Ansell's newest ultra-lightweight and highly cut-resistant gloves to protect workers. The gloves, which feature DuPont™ Kevlar® yarns and Kevlar® in combination with reinforced stainless steel, are part of Ansell's ActivArmr® portfolio.

Ansell's range of new products include an 18-gauge lightweight cut-resistant glove, hybrid cut-resistant padded protection gloves and ergonomic durable general purpose gloves that will revolutionize the way gloves are viewed. Ansell's new "Best In Class" gloves are available globally for construction workers and are specifically suited for specialty trade, such as the HVAC, plumbing, heavy labor sectors and general contractors. Other gloves in the portfolio are targeted specifically for use by the military.

For more information go to: <http://www2.dupont.com/media/en-us/news-events/all-releases.html>



PRODUCT NEWS

profile, while retaining the same capacity. We have changed the blade retainer design and all boxes now have two actuator pins. The spacing of the ratchet teeth is now tighter and along with a lighter spring, provides a finer adjustment for compound coverage.

For more information visit www.bluelineusa.com.

Carboline Completes Testing for New Cryogenic and Fire Protection System

Carboline Company announced it has completed the test program for a new dual cryogenic and fire protection system. All cryogenic and hydrocarbon fire testing has been witnessed by Underwriters Laboratories (UL) in accordance to current North American



and international standards. This versatile system is designed to provide protection against the structural failure of steel during the extraordinary fluctuation in temperatures presented by a cryogenic spill (-238°F / -150°C) followed by a highly flammable hydrocarbon fire event (2000°F / 1093°C). It is intended for use on structural steel, vessels, piping and ductwork in LNG terminals, LPG storage facilities, refineries, and petrochemical plants.

This new industrial grade cryogenic and fire protection system utilizes two key products; Carbotherm 730, a recently released 100% solids, epoxy syntactic insulative coating, and Thermo-Lag 3000, a tried and true industrial grade epoxy intumescent fireproofing.

"We are known for our great fireproofing products, and with the addition of Carbotherm 730 we now have a product system that allows us to protect steel during exposures in two rapidly changing environments that are polar opposites in temperature," said Dallas Finch V.P. of Global Research & Development.

In this innovative system, Carbotherm 730 is used as an underlayment for Thermo-Lag 3000 to protect the steel from structural failure due to exposure to cryogenic temperatures (-238°F / -150°C). Thermo-Lag 3000 is applied over the Carbotherm 730, providing a 1-4 hour fire rating based on UL 1709

continues on following page



New Bosch 18V Right Angle Drill Delivers -in-Class Chuck Capacity, Performance and Ergonomics

Bosch Power Tools is expanding its right angle drill lineup with the new Bosch ADS101 18-volt Cordless Lithium-ion HC Right Angle Drill. Delivering best-in-class chuck capacity, performance and ergonomics, the drill is designed especially for electricians, plumbers, installers, carpenters, remodelers and HVAC professionals who need a high performing, high capacity 18-volt right angle drill.

The ADS181 offers the largest chuck capacity in cordless right angle drills with its 1/2-inch ratcheting auto-lock chuck. This feature allows users to tackle the maximum range of applications from drilling to driving, and supports an expanded range of drill bits, including 1/2-inch mandrels, forstner bits, step drill bits, auger bits and the full range of drill index bits. Professionals will find many uses for the drill, including heavy-duty outer shell roughing and framing, standard-duty internal layout and installations and basic-duty finishing work.

The ADS181 also offers the most powerful motor among 18-volt cordless right angle drills to deliver 40 percent more torque – up to 160 inch-pounds – for increased tool performance and longer tool life.

High capacity Lithium-ion batteries

power the tool through 42 percent more runtime than competitors. The ADS101 runs on the Flexible Power System of Bosch batteries, including both the 3.0-ah FatPack (ADS181-101) or 1.5-ah SlimPack (ADS181-102). Superior ergonomics are provided via a slim, soft grip design and an extended position trigger for comfort and control while in use. A compact head length of 4.6 inches allows for drilling and driving in close quarters, while an LED white light illuminates works areas from the base of the tool.

The ADS181 is constructed to survive real jobsite conditions and features all metal gear design and DuraShield housing to withstand accidental drops and heavy-duty applications. The tool also comes equipped with intelligent electronic protection to increase motor life (electronic motor protection) and battery lifetime (electronic cell protection). This maximizes tool and battery performance, runtime and lifetime.

The ADS181 is available now through authorized dealers nationwide for a suggested retail price of \$199 for the ADS181-102 with SlimPack battery and \$229 for the ADS181-101 with FatPack battery. To find out more or to locate a dealer, visit www.boschtools.com or call 877-BOSCH-99.

PRODUCT NEWS

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or BS-476 hydrocarbon certifications. The combination of the two products provides the ultimate in fireproofing protection for what is clearly an extreme exposure. “The investment in the assets involved in the storage and processing of liquid natural gas and other highly flammable chemicals is costly. This new system will help minimize damages to these assets, and provide life safety to plant personnel. This minimizes down time, expensive repair or replacement costs, and saves lives,” said David Wolf, V.P. of International Sales.

For more information go to www.carboline.com

CEMEX Introduces Fortium ICF

Fortium ICF eliminates 75% of steel reinforcement required for vertical concrete construction

CEMEX USA, announced the launch in the United States of Fortium ICF, a new construction material specifically engineered to reduce the time and material needed to build vertical concrete wall systems, such as Insulated Concrete Form (ICF) building envelopes, while providing substantial savings in long term maintenance and energy costs.

Fortium ICF employs cutting-edge advancements in mineralogy and nanotechnology to improve the performance of concrete at a microscopic level, and eliminates fully up to 75% of the steel reinforcement typically required for vertical concrete construction. The result is a concrete structure that is built 50% faster with turn-key savings of over 32% compared to traditional ICF construction.

“The dramatic reduction in the use of supporting steel rebar enables builders to construct concrete homes that are not only more affordable, but superior to traditional ICF-constructed homes in terms of strength, safety and energy efficiency,” said Karl Watson, President of CEMEX USA. “Additionally, Fortium provides the opportunity to builders

and homeowners to dramatically reduce the carbon footprint of home construction.”

As CEMEX’s most recent addition to its growing portfolio of products and initiatives that significantly reduce environmental impacts, Fortium ICF is a product that delivers energy and CO2 savings. Each home built with Fortium ICF reduces building emissions by a total of 170 metric tons of CO2 over the course of 30 years.

CEMEX is a global building materials company that provides high-quality products and reliable service to customers and communities in more than 50 countries throughout the world. CEMEX has a rich history of improving the well-being of those it serves through its efforts to pursue innovative industry solutions and efficiency advancements and to promote a sustainable future.

For information visit www.cemex.com.

Georgia-Pacific Gypsum Launches Searchable Online Assemblies Library

Enhancement to Online Tool Box Gives Architects, Specifiers Easy Access to Assemblies and Wall Systems for Commercial Building Projects

The specification of assemblies using Georgia-Pacific Gypsum products just got easier for architects and specifiers, with the company’s launch of its latest online tool -- a searchable Assemblies Library.

The Georgia-Pacific Gypsum Assemblies Library is a searchable database that provides detailed information, illustrations and performance characteristics for a variety of wall systems and assemblies using gypsum wallboards, sheathing, shaftliner and backer boards from Georgia-Pacific Gypsum. It is the latest enhancement to the free online Georgia-Pacific Gypsum Tool Box, which gives architects, contractors, building owners and facility managers the tools and information needed

to make decisions and increase efficiency throughout design and construction. Visitors may access the Assemblies Library at www.gp.com/toolbox.

“Given the vast number of assembly and system choices and increasingly complicated building code requirements, architects and specifiers need additional tools that will enable them to efficiently design and specify building construction or renovation projects,” said Nicole Lipson, senior marketing manager, Georgia-Pacific Gypsum. “We encourage architects and specifiers to use our new searchable Assemblies Library and the other assets in the online Georgia-Pacific Gypsum Tool Box.”

The Assemblies Library allows users to easily search among, choose from and download information on assemblies that feature one or more Georgia-Pacific Gypsum products. The Assemblies Library allows for searches conducted by categories, including but not limited to:

- Assembly type
- Hourly fire rating
- Sound Transmission Class (STC) rating
- Product type
- Fire test number
- Sound test number.

The searchable Assemblies Library complements other tools within the Georgia-Pacific Gypsum Tool Box, including LEED® Calculation Tools for U.S. and Canada; Online Architectural and Roofing Binders; and a Residential Wall Systems Comparison Tool, among many others.

Since launching the fiberglass mat gypsum panel category more than 25 years ago, Georgia-Pacific Gypsum has installed millions of square feet of its Dens® brand fiberglass mat gypsum products in the construction of new and renovated commercial and residential buildings.

Graco Launches TrueCoat Pro II Handheld Paint

New cordless and electric airless sprayers make small jobs fast and easy

Graco Inc. has announced the launch of the TrueCoat Pro II handheld sprayers, available in cordless and electric models. The new, next

PRODUCT NEWS

generation Graco TrueCoat Pro II professional handheld paint sprayers include features that make spraying small interior, exterior and specialty jobs faster and easier. The TrueCoat

Pro II handheld sprayers save time and materials, while delivering maximum performance, reliability and professional quality finish and results in the palm of the hand.



“The TrueCoat Pro II sprayers really deliver a faster, easier way to spray small jobs with the quality and performance of a full-size airless paint sprayer,” said Kate Grathwohl, Graco Contractor Equipment Division (CED) Worldwide Product Marketing Manager. “The feedback we are getting from the pros is that the TrueCoat Pro II handhelds deliver quality results and performance and reduce the time for small jobs to only minutes from set-up through clean-up. They also appreciate the savings in materials and less hassle.”

The new TrueCoat Pro II sprayers feature the ProControl™ Pressure Control System (variable pressure: 1000 – 2000 psi) that allows users to adjust the pressure to spray thin and thick materials and cover a wider variety of applications. This feature enables more control and reduced overspray at lower fluid pressure while enabling a higher production rate with thicker materials. The TrueCoat II sprayers also feature the new Tilt- n-Spray Pendulum Suction Tube for a full range of motion while spraying up, down and sideways, just like a professional Contractor™ gun, while evacuating all of the material from the cup for fewer refills and more productive spray time. The new TrueCoat II sprayers are ideal for walls, ceilings, trim, doors, siding, garage doors, fences, shutters and decks.

The new TrueCoat II sprayers feature patented and patent-pending ProSpray technology. “This technology delivers professional spray results in the palm of your

hand and makes every project fast and easy from set-up through clean-up,” Grathwohl added.

The fully-repairable TrueCoat Pro II cordless and electric handheld sprayers are available at professional paint retailers across North America. The TrueCoat Pro II models support .011 - .017 reversible tips and include the 32-ounce Tilt-n-Spray Material Cup with cover and five liners, 515 TrueCoat Pro Reversible Tip, Pump Armor Storage and Start-Up Tool, Sprayer Storage Case and instructional DVD. The TrueCoat Pro II cordless version also comes with two

20V Lithium-Ion Power Pack Batteries and Charger and the TrueCoat Pro II electric model comes with a 15-foot SuperFlex Power Cord. Additional accessories are also available for the TrueCoat Pro II and other Graco handheld paint sprayers.

For more information on the Graco TrueCoat Pro II cordless and electric airless handheld sprayers and all Graco paint sprayers, including store locations, spraying tips, sprayer specifications and accessories for each sprayer, features, benefits and usage recommendations, please visit www.graco.com/contractor.

Gypsum Association Releases New Publication

The Gypsum Association is pleased to announce the release of its newest publication, “*Abuse- and Impact-Resistant Gypsum Board*.” This four-page brochure explains in plain language how to select one of two specialty gypsum product types designed for high-traffic or high-use areas. It also explains the benefits of using these gypsum products instead of other building products.

The brochure begins by describing the various conditions that might benefit from the use of one of these products and how their use can contribute to a sustainable built environment. It then explains whether it is better to use a product primarily designed for abuse-resistance or impact-resistance in a particular high-use area. That discussion is followed by brief descriptions of the different types of gypsum products available for creating abuse- and impact-resistant surfaces.

The brochure also describes the testing standard, ASTM C1629, *Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels*, by which these products are rated. The categories covered by the standard include surface abrasion resistance, indentation resistance, soft body impact resistance, and hard body impact resistance. Products tested in a given category that pass are rated one,



two, or three for the particular attribute tested. A rating of one is the lowest passing score, and three is the highest achievable score.

The new publication is now available as a free downloadable PDF on the Association website at www.gypsum.org. It can be found as the first offering on the Complimentary Brochures page, which is at the bottom of the dropdown box that appears after selecting the Publications item from the main menu.

The Gypsum Association is in its 83th year of service as the technical, promotion, and information center of the gypsum industry. The Association, representing gypsum board manufacturing companies located throughout the United States and Canada, is located in Hyattsville, MD.

PRODUCT NEWS

New Wall Bracing Method Provides Design Flexibility, Simpler Code Compliance

By HZ Staff/HousingZone.com

The Engineered Wood Association has published APA System Report SR-102, which details a simplified wall bracing method using continuous wood structural panel sheathing.

The report provides building officials, builders, and designers with a new approach and technical information for bracing the walls of single-family houses. The method applies to homes in areas of low wind and seismicity and provides flexibility for building design and construction.

APA enhanced the 2012 International Residential Code simplified bracing wall provisions to apply to a larger percentage of homes. The simplified method calls for continuously sheathed wood structural panel bracing with a sheathing thickness of 7/16 of an inch, a larger nail (8d), and a nailing schedule of 4 inches, closer than the previous provision.

“APA’s objective was to further streamline the simplified wall bracing provisions in the



researched many options and consulted their basement remodeling contractor, The Finished Basement, LLC, of West Harrison, Ind., for help in their search.

“I would get a sample of a drywall product for Cathy, and by the next day, she would have an allergic reaction to it,” says Wally McCann, owner of The Finished Basement. “We tried several different drywall products, and nothing was working until I read about AirRenew in a remodeling trade magazine and showed a sample of it to the Hendersons. They researched the product information and got excited about it.”

AirRenew Indoor Air Quality Gypsum Board actively helps clean the air by capturing formaldehyde or other aldehydes—a family of VOCs—and converting them into inert compounds that safely remain within the board. AirRenew also features CertainTeed’s M2Tech® technology, which is specially engineered to provide enhanced protection against moisture and mold. As new sources of formaldehyde — such as paint, carpet, furniture and cleaning supplies — are introduced into the interior environment, AirRenew will continue to scavenge formaldehyde ultimately improving indoor air quality.

AirRenew contains up to 96 percent total recycled content and can be installed, finished, and recycled like standard drywall. AirRenew is GREENGUARD® Children & Schools Certified and has completed UL Environment’s stringent Environmental Claims Validation program.

The Finished Basement installed more than 100 sheets of AirRenew throughout the 1,400 square-foot basement, having a very positive first-time experience with the product.

“We found it to be no different at all from standard gypsum board, both in how we hung and finished it,” McCann says. “I wouldn’t hesitate to use it again, especially for customers with allergies.”

The product has also been a success with the homeowners, providing a more pleasant interior environment.

“I absolutely love the AirRenew product,” Cathy Henderson says. “Normally, I get extremely sick around new drywall, due to off-gassing. Not only did AirRenew not make me sick, it eliminated the concerns we had about off-gassing and immediately allowed me to breathe better in the space. AirRenew contributes to indoor air that smells fresh and clean, even when the

2012 IRC and develop a method that would be easier for builders and designers to apply. We also recognized the need for more design flexibility in the placement of braced wall lines around window and door openings,” explained Dr. BJ Yeh, P.E., APA’s technical services director.

For more information about APA’s Simplified Wall Bracing Method and to download the full report, go to www.performancewalls.org.

CertainTeed® AirRenew® Indoor Air Quality Drywall Helps Create Healthy Indoor Environment for Chemical-Sensitive Homeowner

By installing CertainTeed’s AirRenew® Indoor Air Quality Gypsum Board to the walls in their recent basement remodeling project, Lawrenceburg, Ind., homeowners Doug and Cathy Henderson found a solution to a severe allergy problem that has long limited building material options for their home’s interior. Extended exposure to formaldehyde and other volatile organic

compounds (VOCs) emitted as gases from some building products can be life-threatening to Cathy Henderson, who suffers from a severe Multiple Chemical Sensitivity disorder. It was therefore critical to choose a gypsum board – commonly referred to as drywall – for the basement that met the homeowners’ strict indoor air quality requirements. The Hendersons

PRODUCT NEWS

dust of construction is in the air. I wish all construction could use this product!”

For more information on CertainTeed’s AirRenew product and certifications, go to www.airrenew.com or www.certainTeed.com/sustainable.

Introducing The New Clamp-It Disc System From Johnson Abrasives For Exclusive Use With The Porter-Cable® Drywall Sander #7800



The Clamp-It system provides the drywall finishing professional unparalleled performance options in both abrasive product choice and grit selection. Three different abrasive product types are available for maximum control of job objective.

Screen-Kut mesh discs are the ultimate choice to maximize the speed of the sander.

Sic cloth discs are recommended for their superior durability and long sanding life.

AIOx cloth offers the discriminating finisher a less aggressive alternative for the smoothest results.

Throw in the fact that the foam pad stays with the machine after the abrasive discs are worn and replaced, and you have a total abrasive system with Clamp-It that is unmatched for sanding performance.

For more information and to download the Clamp-it Disc System flyer, go to www.johnsonabrasives.com.

ClarkDietrich Helps SkillsUSA Carpentry Students Build Success

ClarkDietrich™ Building Systems Helps SkillsUSA Carpentry Students Build Success During Annual Championships



ClarkDietrich™ Building Systems once again participated in the annual SkillsUSA Championships in Kansas City, MO. in June. Each year, more than 5,000 students compete in 90 occupational and leadership skills contests, with nearly 300 students participating

in carpentry and building events. This year, ClarkDietrich provided RedHeader RO(TM) and ProSTUD(R) Drywall Framing System products for the competition.

“The SkillsUSA Championship is a great opportunity for building and construction students to test their knowledge with modern equipment and products that are used in today’s projects,” said Terry Westerman, vice president of marketing, ClarkDietrich Building Systems. “We are proud to be a long-time supporter of SkillsUSA and the organization’s dedication to ensure the American construction industry has a skilled workforce.”

RedHeader RO is designed for interior and exterior framing applications, and will be used by students to construct a wall partition with a window opening. By using single stud members rather than a built-up header or jamb system, RedHeader offers significant labor savings. ProSTUD’s strength and high-performance features provide students with a lightweight solution for the construction of interior framing.

SkillsUSA helps establish industry standards for job skill training in the classroom, and is recognized by the U.S. Department of Education and U.S. Department of Labor.

Construction Deaths,
Fatality Rate Down in 2011

By Tom Ichniowski/ENR

Construction workplace deaths declined 6.8% in 2011, to 721 from 774 in 2010 and the industry’s fatality rate also was down, to 8.9 per 100,000 full-time equivalent workers, from 9.8 in 2010, the Bureau of Labor Statistics has reported.

BLS said that the 2011 data in its annual report on fatal occupational injuries, released on Sept. 20, are preliminary. It will issue final numbers for 2011 next spring.

4,609 Workers
Died On The
Job In 2011

Preliminary Bureau of
Labor Statistics Census
of Fatal Occupational
Injuries



“With every one of these fatalities, the lives of a worker’s family members were shattered and forever changed. We can’t forget that fact.”

- Hilda Solis, Secretary of Labor

2010, 9.9 in 2009, 9.7 in 2008 and 10.8 in 2007.

The rates are a better yardstick of the industry’s safety picture because they adjust for the significant post-recession drop in construction employment.

For all industry sectors last year, there were 4,609 workplace fatalities, down from 4,690 the year before. The preliminary 2011 national fatality rate was 3.5, compared with 3.6 in 2010, BLS said. Labor Dept. Secretary Hilda L. Solis said the 2011 numbers represent “a step in the right direction, but more needs to be done.” •

OSHA and The National
Safety Council Renew
Alliance to Address
Fall Prevention, Injury
and Illness
Prevention Programs

The Occupational Safety and Health Administration (OSHA) recently renewed its Alliance with the National Safety Council (NSC) to continue enhancing worker safety and health by addressing construction hazards, injury and illness prevention programs and motor vehicle safety.

“Our continued alliance with NSC will focus on, among other things, preventing worker injuries and fatalities from falls in construction,” said Assistant Secretary of Labor for Occupational Safety and Health David Michaels. “Falls cause more fatalities than any other hazard in the construction industry. We look forward to collaborating with the NSC to educate and train employers and workers on preventing job hazards.”

During the two-year agreement, the Alliance will develop fact sheets on the benefits of employers establishing an injury and illness prevention program, hazard identification and control topics that should be included in worker training, fall prevention and best practices for reporting near misses. The Alliance will also develop a case study on preventing falls from heights in construction, focusing on the causes of fall protection failures and how employers can assure an effective and reliable fall prevention program.

NSC is a non-profit, public service organization, founded in 1913, that offers training, educational programs and materials, consulting and advocacy on various safety and health topics. The organization represents 14,000 employers and more than six million workers employed by NSC members.

Through its Alliance Program, OSHA works with unions, consulates, trade and professional organizations, faith- and community-based organizations, businesses and educational institutions to prevent workplace fatalities, injuries and illnesses. The purpose of each alliance is to develop compliance assistance tools and resources, and educate workers and employers about their rights and responsibilities. Alliance Program participants do not receive exemptions from OSHA inspections or any other enforcement benefits. For more information, visit <http://www.osha.gov/dcsp/alliances/index.html>. •

I worked construction for 10 years before my fall. It shattered my body and my livelihood.

Work safely. Use the right equipment.

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FALL PREVENTION POSTER AND BROCHURE ARE AVAILABLE AT <http://www.osha.gov/stopfalls>

University Projects Spur Construction Work

Pace University, which has been steadily growing in the region since 1906, is cranking up its expansion as it moves to develop a distinct campus district in Downtown Manhattan.

Pace is developing additional student housing downtown and launching other projects such as a new home for its performing-arts program which includes acting, musical theater and commercial dance. “We have a very deep commitment to this part of New York,” says Stephen J. Friedman, the university’s president.

In its most recent move, Pace University signed a deal with SL Green Realty Corp. to develop a new 29-story residence hall at 33 Beekman St. in downtown Manhattan, a 129,000-square-foot building which will house approximately 600 students.

The development is slated for completion in the fall of 2015. SL Green also working with Pace to develop a 24-story, 609-bed residence hall and retail space at nearby 180 Broadway, which topped out in April and will be completed by early 2013. Both new buildings will feature amenities such as kitchens, fitness centers and recreational lounges with televisions, couches and pool tables.

While many still view Pace as a commuter school, “that is no longer the case,” Mr. Friedman says. “As enrollment is steadily increasing, more students want to live on campus.”

Pace’s expansion is the latest sign that building by institutions is boosting New York’s construction industry at a time that spending by the private sector has been flagging. Overall construction spending in New York City reached \$27.4 billion in 2011, a 3.5% decline from 2010, when total spending was \$28.4 billion, according to a New York Building Congress analysis of McGraw-Hill data. Construction spending as of



180 Broadway, center, is part of recent expansion by Pace University.

Photo: Kevin Hagen for The Wall Street Journal

May 2012 was down 12% from its peak year of 2007.

Other construction projects in the pipeline include Columbia University’s Manhattanville expansion; New York University’s development in Greenwich Village; and Cornell University’s CornellNYC Tech on Roosevelt Island. In addition, the City University of New York has plans for more than \$2.1 billion worth of construction over the next five years, while Fordham University is also in the early stages of its Lincoln Center

campus expansion.

SL Green is teaming up with the Harel Group and the Naftali Group to codevelop the 33 Beekman building. Pace has signed a 30-year lease for both new buildings.

“Our relationship with Pace is somewhat different than our traditional multifamily business,” explained Andrew Mathias, president of SL Green. “In this case, Pace is the long-term leasehold condo owner and they find students to occupy the space.”

Last January, Pace also signed a 21-year lease for 140 William St. and is gut renovating that seven-story building to transform it into a new home for the performing arts program at Pace’s Dyson College of Arts and Sciences. It will include a 100-seat theater, sound rooms, rehearsal spaces, classrooms and a television studio, and will host public performances. The renovation, which is nearing completion, is partially funded by a \$1 million grant from the Lower Manhattan Development Corp.

— Excerpted in part from an article by Yaffi Spodek in *The Wall Street Journal*

The Association of Wall-Ceiling & Carpentry Industries of New York, Inc.
125 Jericho Tpke., Suite 301, Jericho, NY 11753