



INNOVATIVE CONSTRUCTION SHED DESIGN COMPETITION
FOUR WINNERS HAVE BEEN ANNOUNCED



FROM "THIRSTY" TO "MARTIAN" CONCRETE AND MORE
NEW CONSTRUCTION MATERIALS



NEW AWARD TO RECOGNIZE WOMEN LEADERS IN SAFETY
BY THE NATIONAL SAFETY COUNCIL



TOP 10 RESIDENTIAL DESIGN TRENDS FOR THE NEXT DECADE
DEMOGRAPHICS SET THE STAGE

SKYlines

A SKYLINE RESTORATION PUBLICATION

Façade Inspection Reports Sub-Cycle 8B Begins

February 21, 2016 marks the beginning of **Sub-cycle 8B**. Owners with buildings located on blocks ending in a 0, 7, or 8 have two years (until February 21, 2018) to undergo inspection and to file Critical Examination Reports with the DOB. The set terms are required under the **Façade Inspection Safety Program (FISP)**, formerly known as Local Law 11/98, which is currently in its 8th Cycle. Cycle 8 is in effect from February 21, 2015 to February 20, 2020.

FISP REPORTS CYCLE 8 CONTINUES

SUB-CYCLE 8B	FILING START DATE	FILING DEADLINE
BLOCKS# 0,7,8	02.21.2016	02.21.2018

Block# in Sub-Cycle = Last Digit of the Building's Block Number

The law requires all buildings within the five boroughs of NYC with a height of six stories or greater to be inspected by a registered architect (RA) or professional engineer (PE) and to report and file any findings with the DOB. Each building's exterior must undergo a close-up inspection of its roof, walls, terraces, railings, fire escapes, canopies, and air conditioners. Once the inspection is completed, the building's condition is then classified as either Safe, Safe with Repair and Maintenance Program (SWARMP), or Unsafe. A Safe building needs no further action, a building that is categorized as Safe With Repair And Maintenance Program (SWARMP) must be repaired within the time frame listed by the engineer or architect in the report, and an Unsafe building must be repaired within 30 days and the public protected immediately. For more information, please visit nyc.gov.

ENGINEER'S CORNER NEGLECTED PARAPETS MAY CAUSE BUILDING DETERIORATION



PHOTOGRAPH: SULLIVAN ENGINEERING LLC

**By Michael Frech,
Sullivan Engineering LLC**

Even though parapets are often the easiest architectural feature to monitor and maintain, they are often the most neglected. There are key reasons why these short walls extending above the roof deck experience the most deterioration from weathering.

A standard façade wall is only exposed to the weather on the exterior face of a structure. At the

Continued on page 7

FIVE BOROUGHES

New Crane Rule in Effect

Effective January 1, 2016, RS 19-2 has been repealed and replaced by Rule 3319-01. The new Rule applies to cranes, derricks, and dedicated pile drivers that operate within New York City.

Rule 3319-01 largely renumbers and republishes RS 19-2. The new Rule also strengthens and modernizes the Certificate of Approval (aka Prototype Approval) process. With limited exceptions, all new crane, derrick, or dedicated pile driver makes and models are required to obtain a Certificate of Approval.

CD1 Form Revision

The CD1 Form, which is required to obtain or amend a Certificate of Approval, has been revised to account for the changes in Rule 3319-01.

Two versions of the CD1 Form can now be found on the DOB website, as well as updated instructions for each of the forms.

The CD1 Form is to be used by:

- ◆ An owner or manufacturer of a crane, derrick, or dedicated pile driver to apply for a new Certificate of Approval; or
- ◆ The manufacturer of a crane, derrick, or dedicated pile driver to apply to amend an existing Certificate of Approval.

The CD1-OA Form is to be used by:

- ◆ The owner of a crane, derrick, or dedicated pile driver to apply to amend an existing Certificate of Approval.

NOTE: Only CD1 and CD1-OA Forms that specify a revision date of "12/15" (or later) in the bottom right corner will be accepted.

Source: nyc.gov/buildings

Javits Center to Undergo \$1B Renovation

The Jacob K. Javits Center, the complex that for the past 30 years has hosted the regions largest trade shows, is entering a new phase of its expansion with a proposed \$1 billion renovation. The proposal, announced by **Governor Andrew M. Cuomo** in early January, will create five times more space within the facility with construction expected to begin late 2016. The renovation of the six-block complex, which stretches from 34th Street to 40th Street along 11th Avenue and the Hudson River in New York City, will also create thousands of full-time, part-time and construction-related jobs. Once completed, Javits will include a 60,000 SF ballroom, the largest in the Northeast, in addition to a solar energy array, which will be the largest of its kind in a public building in New York State.

Source: homeandtextilestoday.com



Skanska USA Head Elected Chair of NYC Building Congress

Skanska USA's **Richard Cavallaro** is taking the reins at the New York City Building Congress. Cavallaro was elected chair of the association at the group's last meeting on January 11, 2016, succeeding Thornton Tomasetti's **Tom Scarangelo**, whose two-year term expired. "This is an exciting time to be a part of the design, construction and real estate industry," Cavallaro said in a statement. "I am extremely fortunate to follow in the footsteps of Tom Scarangelo." He added that he will continue work on the Building Congress Task Force on Innovation and Best Practices, which Scarangelo created. Cavallaro has been recognized on behalf of his improvements in construction safety, as well as helping push the industry to innovate and practice more efficient operations.

Source: *The Real Deal*

Top 10 Residential Design Trends for the Next Decade



According to the **American Institute of Architects (AIA)**, an aging population, recovery from the last housing collapse and slower-than-expected economic growth will determine home design trends for the next 10 years. Leading architecture firms identified the key trends as

universal design, a healthy living environment, infill development with a focus on improved design, and kitchens as the focus of household activities. The AIA said that although these are the anticipated trends, new technologies, evolving building code and regulatory issues, and changing consumer preferences for housing features and materials will also influence home design.

Overall, the AIA said trends for the next 10 years will be determined by economic and demographic developments, rather than technological innovations alone. The baby boomers are heading into retirement years, and those 65 and older will account for two-thirds of the net population growth in the next 10 years, necessitating more aging-in-place design.

Gen Xers, or those between 31 and 50 years old, were hit hardest by the Great Recession and are a key demographic for the future of housing. The millennials, however, are the largest generation, and delays in life events like marriage and family for this group will skew demand toward renting. The slowdown in population growth will reduce the need for new homes, according to the AIA, shifting the focus to improving existing homes.

The AIA's full list of the top 10 residential design trends for the next 10 years includes:

- 1 Technological integration will become more prevalent, with dedicated support for personal devices, along with automated controls for temperature, security and lighting.

- 2 Increased consumer awareness about environmental health issues, leading to more widespread use of low or non-volatile organic compounds for paint and composite wood, natural fiber upholstery, carpets without polyvinyl chloride backing and air purification systems.
- 3 Design strategies that strengthen homes against natural disasters, including elevating residences, windows with impact glazing, dedicated safe rooms and backup power generation.
- 4 Increased use of energy-efficient and other sustainable design elements and products such as solar panels, water reclamation systems and tankless water heaters.
- 5 Aging-in-place and universal design elements to accommodate an aging population, including wider hallways, added handrails and one-level living spaces.
- 6 Kitchens serving as the focal point of the home, highlighted by open design concepts.
- 7 Heavy emphasis and investment in outdoor living spaces.
- 8 Need for space devoted to home offices, reflecting changing work patterns.
- 9 Infill development promoting smaller, better designed homes.
- 10 Strong preference for urban lifestyle characteristics, resulting in higher-density development that provides additional amenities to residents.

Source: constructiondive.com





...And a Happy New Year!

PHOTOGRAPHS: NAS KARAS STUDIOS

On a mild Friday, December 11th, Skyline Restoration hosted its annual holiday party at Gotham Hall, the once prominent Greenwich Savings Bank, which lies in the heart of Manhattan on 36th and Broadway.

Despite the unseasonably warm weather, the holiday spirit contagion filled the air as Skyliners, clients, friends, and families made their way through the NYC masses to attend a night filled with holiday-themed drinks, delicious food, warm conversation, and festive music.

Following a grand entrance through the lobby of the building—which was erected in 1924 and designated a New York Landmark in 1992—attendees were led up a broad staircase to the mezzanine where they savored the many appetizers and drinks offered during the cocktail hour.

It was then time to enter the red and amber themed grand ballroom, which boasted a magnificent domed glass ceiling supported by opposing rows of Corinthian columns. Here, participants enjoyed the elliptical space featuring antique teller booths, gourmet spreads, a Skyline-themed ice bar, and a life-size *Ironworkers* statue installation by artist Sergio Furnari recreating the famous 1932 photograph *New York Construction Workers Lunching on a Crossbeam*. The night came to an end with Greek music and dance that has become a popular tradition in recent years.



This Page

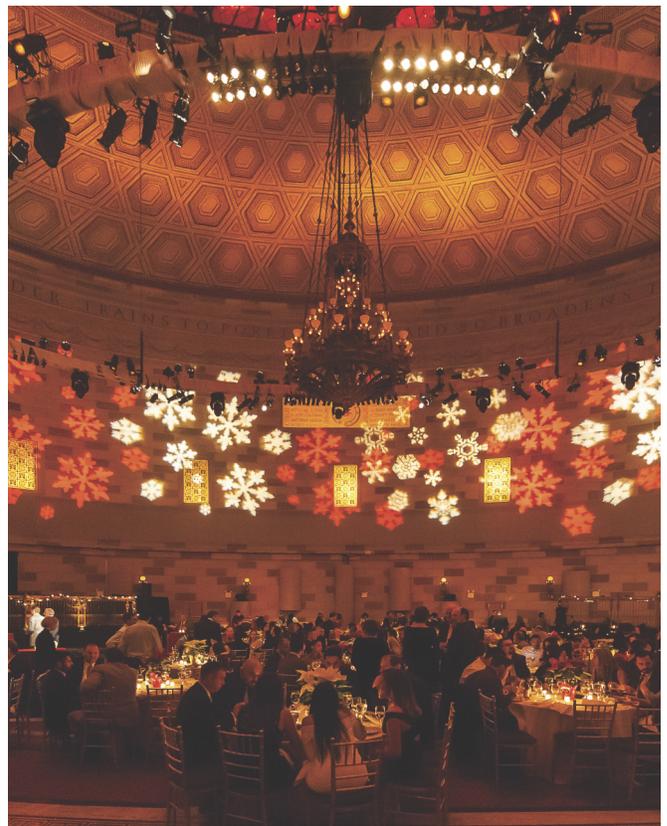
- Cocktail hour at Gotham Hall's mezzanine.
- Skyline Restoration President, John Tsampas, greets guests.

Opposite Page

- Dinner and dance at Gotham Hall's Ballroom.
- Life-size *Ironworkers* statue by artist Sergio Furnari inspired by the famous photograph *New York Construction Workers Lunching on a Crossbeam*.



PHOTOGRAPHS: NAS KARAS STUDIOS



Construction Industry Realizing Drone Potential

Drones are becoming increasingly desirable in the construction industry as a result of three core benefits – improved aerial documentation, data collection, surveying, and inspection; cost-effective and higher quality aerial photography; as well as improved job site safety for workers and pedestrians by reducing risky human engagements.

While the advent of drones in the construction industry is beneficial and promising, it does not go without rules and regulations. According to the **FAA**; “By law, any aircraft operation in the national airspace requires a certificated and registered aircraft, a licensed pilot, and operational approval”. However, the FAA does conduct case-by-case authorizations for commercial drone operations under **Section 333 of the FAA Modernization and Reform Act of 2012**. Section 333 Exemption process provides operators who wish to pursue safe and legal entry into the National Airspace System (NAS) a competitive advantage in the unmanned aircraft systems (UAS) marketplace, thus discouraging illegal operations and improving safety. To learn more about drone rules and regulations, please visit **faa.gov**.



Drones are becoming a major tool in the construction industry by improving safety, cost and operational efficiency.

Concrete Tech: From “Thirsty” to “Martian” Concrete and More

Featured in one of the most viral construction-related videos of 2015, **Lafarge Tarmac’s** Topmix Permeable concrete product can “drink” more than 1,000 gallons of water in a minute. The product is applied over a base layer of gravel and, depending on the permeability of the substrate, the water is able to pervade the ground below or divert elsewhere through a series of pipes. However, the empty spaces in the permeable concrete, which allow water to flow through, have limited the product's use in more rigorous applications, like heavily-traveled highways, and have raised questions about possible damage from freezing water.



PHOTO: TARMAC

Lafarge Tarmac's Topmix Permeable concrete product can “drink” more than 1,000 gallons of water in a minute.

Meanwhile, researchers at **Cardiff University** in Wales have been testing self-healing concrete formulas. The project, Materials for Life (M4L), will be the formula’s first test, and researchers hope to come away with a system that can be embedded into concrete structures to facilitate repairs when it senses damage.

Researchers at the **Self-Assembly Lab at MIT** and **Gramazio Kohler Research** have invented what they call “reversible concrete,” made using a 3-D printer, rocks and string. The team presented “Rock Print,” at the Chicago Architecture Biennial, and demonstrated how simply a 13-foot-tall column could be disassembled by winding up the string placed throughout the structure.

Lastly, scientists at **Northwestern University** in Illinois are innovating in the field of building materials with their “Martian concrete” product, which they say could be used to build habitable structures on the surface of Mars. The “concrete” formula is made up of a 50-50 mix of Martian soil and molten sulphur, and researchers say it is durable and resistant to acid, salt and low temperatures.

Source: *Construction Dive*

ENGINEER'S CORNER

Neglected Parapets May Cause Building Deterioration

Continued from page 1

parapet level, the façade cladding material is exposed on three sides: the exterior, the interior and the top. The parapet also has detailing that is integrated into the roof or other waterproofing membrane. This increased exposure and integration provide more opportunities for water infiltration and increases the rate of deterioration.

Older and Current Parapet Designs

The time period in which the parapet was designed often determines the severity and pace of deterioration. Older designs often focused on keeping water out, and did not provide a method for allowing water to exit the parapet assembly. Current designs tend to incorporate redundancy, which means the design prevents water entry and allows water to exit the parapet assembly before it causes deterioration.

Parapets can often be easily inspected from the roof. Unfortunately, this is usually done only when an interior leak is reported. Once there is internal water infiltration however, severe damage to the parapet, the roof assembly or even to the structural elements of the building could be possible.

During their seasonal roof inspection, building personnel should also inspect the parapet. Check for deteriorating mortar or sealant in the seams or joints of the coping at the top of the parapet. Manually test the coping material to ensure none of it is loose. Inspect the interior face of the parapet for signs of deterioration such as failing mortar or sealant joints, vertical staining from the coping to the roof, and the integrity of the cladding material itself.

The detail between the roof base flashing and parapet should also be inspected. This detail is often altered from its original design when a roof has been replaced. The new roof base flashings might be surface-mounted, therefore covering the original through wall flashing and weeps that were designed so water could exit the parapet assembly. Building personnel should check the integrity of the flashing material and locate the weeps. The weeps should be



PHOTO: SKYLINE RESTORATION INC.

The increased exposure of a parapet provides more opportunities for water infiltration and increases the rate of deterioration.

positioned above the roof base flashings and be clear of any debris.

Setbacks in the façade will allow for a closeup inspection of the exterior face of the parapet from the roof. If the building does not have setbacks, an inspection using binoculars should be performed from ground level. Any vertical staining, deteriorated mortar or sealant, displaced brick or bowing lintels should be noted.

If any of these conditions exist, water is probably infiltrating the parapet. A design professional should be retained to perform a more comprehensive inspection and to determine the proper method of restoration. Being vigilant in your seasonal inspections and proactive in your restoration efforts can be the difference between a simple repointing project and a total parapet replacement, structural repairs or a roof replacement.



The New York Landmarks Conservancy is Honoring Apple Inc.

The New York Landmarks Conservancy will present the Chairman's Award to Apple, Inc. on March 9th at the Metropolitan Club for their contribution to preserving, restoring, and repurposing notable historic structures in New York City. Apple has placed four New York City stores in historic buildings – marrying high tech and distinguished architecture in Grand Central Terminal (an individual New York City landmark), 103 Prince Street (in the SoHo Historic District), 401 W. 14th Street (Gansevoort Market Historic District), and 940 Madison Avenue (Upper East Side Historic District).

The Landmarks Conservancy inaugurated the Chairman's Award in 1988 to recognize exceptional organizations and companies that have demonstrated their dedication to protecting New York's rich architectural heritage. For more information, visit nylandmarks.org.

SKYlines

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Paper from responsible sources



The Winners of the Construction Shed Design Competition

On December 17, 2015, The New York Building Congress announced the winners of the **Innovative Construction Shed Design Competition** spearheaded by the Building Congress Task Force on

Innovation and Best Practices and the New York Building Foundation. Four winners were chosen out of thirty-three applications submitted to the competition, which was arranged to “create innovative and attractive alternatives to the confining and often forbidding structures that currently cover nearly 200 miles of sidewalks around buildings sites throughout the five boroughs”.

The winners include **Side+Ways+Shed** by Francis Cauffman; **SCAFFOLDWING** by Gannett Fleming Engineers and Architects, P.C.; **G-Shed** by Gensler; and **UrbanArbor** (photo) by PBDW Architects and Anastos Engineering Associates. The winning submissions chosen “best exemplified the goals of the competition of offering practical, cost-effective off-the-shelf designs that are far more attractive than standard sheds” said Sciame Construction Chairman and CEO Frank J. Sciame, who chaired the competition committee. To see pictures and descriptions of the winners, please visit nybuildingfoundation.org/construction-shed.

New NSC Award to Recognize Women Leaders in Safety

The **National Safety Council** announced it is now accepting nominations for the **Marion Martin Recognition Award**, which is presented to women who have advanced safety and broken down traditional gender barriers within the safety field.

"Marion Martin was a trailblazer and visionary, and her long career was distinguished by efforts to save lives and prevent injuries," said **Deborah A.P. Hersman**, CEO of the National Safety Council. "We are excited to recognize the next generation of Marion Martins through the establishment of this inaugural award." Qualifications include at least one of the following: influenced other women to pursue careers in the safety field; opened doors for women in a safety employment setting that are historically and professionally limited to them; and advanced opportunities for women within the safety field. Nomination instructions are available at nsc.org/nscwomen.