



the **OUTRIGGER**

APRIL 2018

R. Baker & Son Magazine - 11 Years Strong
Service-Disabled Veteran-Owned Business

Emergency Demolition At Brooklyn Warehouse

It was just before 5:00 p.m. and the owner of a 25,000 square foot Brooklyn warehouse was in a severe bind. A wall and part of the roof of the recently-vacated building had unexpectedly collapsed, and the remaining walls appeared ready to cave in as well.

The building owner pulled out his cell phone, Googled “demolition contractor NY” and dialed the first company that popped up: R. Baker & Son. As luck would have it one of our demolition crews was wrapping up for the day at a near by job site when the call came in. Baker immediately dispatched the crew to the building collapse where they arrived just before 6:00 p.m. Less than an hour had elapsed since the emergency call.

Within two hours of their arrival, our crew had the area cordoned off with temporary fencing and was in the process of identifying and isolating the building’s utilities. Gas lines were turned off, and the electrical lateral was disconnected to eliminate any public danger. Walls were shored up with timbers to prevent further collapse.

Early the next morning, our team performed a site assessment and a task hazard analysis while fresh crew members and various equipment arrived on site; including 2 excavators, 2 Bobcats, a front-end loader, and a lull. Soon after, Baker crew members went into action and walls began coming down. To the surprise of the warehouse owner, demolition was safely completed, all debris was cleared, and permanent fencing was securely installed within five days after the initial emergency call came in.



inside this issue...

**BAKER COMPLETES EMERGENCY DEMOLITION
ENR PHOTO CONTEST | HOME SWEET 3-D PRINTED HOME
RIGGING NEAR OVERHAD POWERLINES | REO SPEEDWAGON**

ENR

The Year In Construction Photo Contest

A photo of R. Baker & Son rigging a bronze sculpture, referred to by its creator as *Die Kugelkaryatide*, and damaged on 9/11 at the WTC site has been named one of ENR's **2017 Year in Construction Photo Contest** winners.

An R. Baker Project Manager captured the nighttime photo of the Koenig Sphere, which once stood between the Twin Towers, being guided by a Baker crew member to its new foundation as the Freedom Tower stands illuminated against the night sky behind it.

R. Baker & Son is proud to be honored by this photography award and will be sending a framed copy of the photograph to the Fritz Koenig Museum in Germany as a tribute, in recognition of the sculptor who passed away in 2017.



Home Sweet 3-D Home

An Austin, Texas-based startup called ICON recently showcased America's first fully-permitted, 3D-printed home at this year's SXSW Festival (March 9-18, 2018). More than one billion people do not have access to adequate and safe housing, so ICON, in partnership with a housing nonprofit New Story, is bringing 3D-printing technology to developing countries as a low-cost solution for families living in extreme poverty. They plan to construct a community of one hundred 3D-printed homes in El Salvador as early as next year, with additional locations soon to follow.

The single-story 650 square-foot concrete home, which features a living room, bedroom, bathroom, and curved porch, was produced onsite at SXSW using a giant mobile printer called Vulcan. Printing took less than twenty-four hours and cost about \$10,000, but that price is expected to come down to less than \$4,000 per house soon. Compared to traditional construction, ICON says their 3D-printed homes production takes half the time and half the price, once installation of foundation, windows, roof, electrical, and plumbing is factored in.

Watch Vulcan in action and see interiors of the SXSW 3D-printed home: <https://youtu.be/SvM7jFZGAec>



RIGGING NEAR OVERHEAD POWER LINES

Crane operation near overhead power lines is one of the most dangerous jobs a rigging crew can undertake. In fact, electrocution is the number one cause of crane-related fatalities, making compliance with OSHA standards and guidelines crucial when working in proximity to overhead power lines.

Before equipment enters a job site near overhead power lines, a 360-degree hazard assessment inside the work zone must be complete. If a determination shows that a crane could exceed minimum required distances, further action will be necessary by the contractor. The first option is to coordinate with the power company to have the lines de-energized and visibly grounded. Line owners will sometimes opt to move the lines so that minimum clearance distance is achievable. Both options require some preplanning as it may take some time to complete the necessary work.



OSHA requirements for working near overhead power lines that are not de-energized are clear cut. For power lines 50 kV or less, all parts of the crane, boom, rigging equipment, and loads carried must remain at least 10 feet away. This distance increases to 20 feet for lines rated 50 kV to 350 kV, and 50 feet for lines over 350 kV. If the voltage cannot be determined, cranes and rigging equipment must be kept at least 45 feet away. A planning meeting with the crane operator and riggers must be conducted to review the location of the power lines and implement a rigging plan to prevent encroachment. All taglines used must be non-conductive to avoid electrocution. An elevated warning line, barricade or line of electrocution hazard warning signs equipped with high-visibility

flags are erected 20 feet from the power line in view of the crane operator. In addition, the rigging contractor must utilize at least one of the following: a dedicated spotter, proximity alarm, range control device, range of motion limiting device, or insulating link.

Crane operators and rigging crew members should be trained to work safely near overhead power lines, and how to react if safety measures fail and contact is made. Dedicated spotters have the critical responsibility to ensure that the minimum distance is not breached and thus must receive specialized training.

Pictured right is a 1938 REO Speed Wagon purchased and customized by R. Baker All Industrial Services in 1940 after they were hired by Gulf Oil to remove obsolete bulk water dock lines at their Gulfport fuel storage facility on the Arthur Kill in Staten Island, NY. Pneumatic saws were being used on the project, as electric tools had been forbidden, so company founder Ruby Baker had the Speed Wagon retrofitted with a hand-cranked Ingersoll Rand air compressor to power the necessary tools. A large oak toolbox was installed behind the cab. The project took a year to complete, and the truck remained in R. Baker's service until the mid-1950s.

REO SPEEDWAGON

