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R. Baker Specializes in Curtain Wall Dismantling and Demolition

Skyscrapers clad in sparkling glass curtain walls have dominated the New York City skyline since the mid- to late- twentieth century. Curtain walls have a finite life expectancy, however, and eventually require removal and replacement. As a leading demolition and rigging contractor in the New York, New Jersey and Connecticut tri-state area, R. Baker & Son is heavily involved in curtain wall dismantling, abatement and demolition.

A curtain wall is a non-structural, relatively-light-weight exterior building covering usually constructed of an extruded aluminum frame and glass, metal or thin stone panels. Framing is attached to the building structure, allowing wind and gravity loads to be transferred at the floor line or to building columns. Curtain walls degrade over time, and among the issues that affect aging curtain walls over time are poor thermal performance, water intrusion, damaged or compromised glass, deterioration of metal framing or anchors, or increased noise levels that have come to exceed original design specifications. Such problems eventually necessitate replacement with a new, more efficient curtain wall system.

The first building in New York City to feature a curtain wall is the 39-story Secretariat Building at the United Nations Headquarters completed in 1952. The innovative new technology set the standard for buildings not only in NYC but around the world. Over time, the UN curtain wall had deteriorated and required replacement, and several years ago, R. Baker & Son was selected to perform curtain wall dismantling, abatement and demolition of the United Nations Secretariat Building, Conference Building and General Assembly.

The Baker Team has completed numerous other curtain wall dismantling projects of various sizes throughout the tri-state area, with several currently underway. For more information about curtain wall dismantling and demolition, please contact R. Baker & Son at (732) 222-3553.



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Focus On Equipment: The Ring Crane



The ring crane is a type of luffing jib heavy-lift crane with a broad, round track at its base that allows the slewing while carrying extremely heavy loads. Ring cranes, which are relatively uncommon, have long reach and a small footprint and can lift as much as 5,000 tons. They are typically used in the construction of refineries, oil and gas, mining, offshore platforms, and nuclear power plants.

The world's largest construction crane is a ring crane known as "Big Carl", a Sarens SGC-250 currently being used in the UK to construct the Hinkley Point C nuclear power plant. Over the course of the project, which is expected to be completed by 2025, the crane will be used to lift more than 600 prefabricated sections including main sections of the steel containment liner and

reactor building domes. Big Carl can lift 5,000 tons on the 160m main boom and has a 52m jib that can be expanded up to 100m, giving a maximum height of 250m and a radius of 275m.

It took 280 trucks to transport the crane piece-by-piece from Belgium to the UK and ten weeks for reconstruction using five smaller cranes. Fifty-two of the containers used to transport the pieces were filled with locally sourced ballast are being used to provide counterweights, each weighing 100 tons. Ground pressure remains under 25 tons per square meter due to the large number of wheels on the four bogies that run on the 48.5m double ring beam and the 80 spreader mats the crane uses. Big Carl has 128 wheels for slewing and lifting and 96 wheels for traveling. Ordinarily, ring cranes remain stationary, but due to the large scale project, 6km of rail track was constructed at the site to allow the fully-rigged crane to travel between separate lifting locations, an industry first.

Few things in the construction world can be more frustrating than the "not-my-problem"

R. Baker & Son: The Buck Stops Here

mentality that rears its ugly head when project problems arise. Far too often, the tendency among contractors is to ask "whose fault is this", rather than the more appropriate and productive "how do we solve this".

R. Baker & Son subscribes to the latter school of thought. Anyone who's ever had any involvement in a construction project is probably well aware that many contractors assume responsibility only for what is explicitly mentioned in project specifications, nothing more. When problems occur, they are the first to engage in the blame game, denial, and various other unproductive tactics that serve only to stall the project and frustrate all parties involved. This is contrary to how the Baker Team operates. We are problem solvers, not fault finders



R. Baker & Son is highly experienced in recognizing potential problems and remedying them before they can occur, but as we all know, not all problems are avoidable. To paraphrase a famous poet, even the best laid plans can go awry. This is why we approach every setback we encounter head-on and take expedient steps to correct them, with no finger-pointing, foot-dragging, shoulder-shrugging, or sulking. We share a common goal with our valued clients: to get the job done, and get it done right.

The Mystery of 58 Joralemon Street

The truth about 58 Joralemon Street is an open secret among the residents of this lovely, tree-lined Brooklyn Heights neighborhood. At first glance, nothing about the impeccably maintained, three-story, red brick Greek revival townhouse seems out of place, but passersby who take a closer look might notice the odd vacantness, the blacked-out windows, the industrial-looking front door. The truth is, the building is a false front for a subway emergency exit and ventilation shaft.

“Shaft House”, as neighbors have nicknamed the building, was built in 1847 as a private home and was later converted to a multi-family dwelling. When subway service was expanded into Brooklyn in 1908, it was purchased and gutted by the IRT, converted to a fan plant, and outfitted with industrial steel louvers to vent air and smoke from the tunnel below. The New York City Transit Authority acquired the property in 1953, and in 1999 they began a major renovation of the building that included replacement of antiquated ventilation equipment and updating the façade to blend in with its neighbors. Installation of a penthouse air outlet allowed replacement of the unattractive louvers with faux black Lexan windows.

Those who have been inside the cavernous, windowless interior of 58 Joralemon describe a collection of electrical panels, switches, catwalks, and ventilation shafts. Dimly-lit metal stairs descend nine stories to the track bed of the 4 and 5 subway and serve as an escape route in case of emergency. Fans the size of cars can be activated from a remote location to supply fresh air or expel smoke and heat in the event of a fire.



Demolition work involves many of the same hazards that arise during other construction activities. However, demolition also involves additional hazards due to a variety of other factors. Some of these include: lead-based paint, sharp or protruding objects and asbestos-containing material.

OSHA QUICK CARD DEMOLITION SAFETY



- * Brace or shore up the walls and floors of structures which have been damaged and which employees must enter.
- * Inspect personal protective equipment (PPE) before use.
- * Select, wear and use appropriate PPE for the task.
- * Inspect all stairs, passageways, and ladders; illuminate all stairways.
- * Shut off or cap all electric, gas, water, steam, sewer, and other service lines; notify appropriate utility companies.
- * Guard wall openings to a height of 42 inches; cover and secure floor openings with material able to withstand the loads likely to be imposed.
- * Floor openings used for material disposal must not be more than 25% of the total floor area.
- * Use enclosed chutes with gates on the discharge end to drop demolition material to the ground or into debris containers.
- * Demolition of exterior walls and floors must begin at the top of the structure and proceed downward.
- * Structural or load-supporting members on any floor must not be cut or removed until all stories above that floor have been removed.
- * All roof cornices or other ornamental stonework must be removed prior to pulling walls down.
- * Employees must not be permitted to work where structural collapse hazards exist until they are corrected by shoring, bracing, or other effective means.