CASE STUDY - MULTIFAMILY

JeffJack Apartments | Chicago, Illinois

PROJECT OVERVIEW

PROPERTY TYPE
Multifamily

BRAND SOLUTION
Berko®

INSTALLATION DATE
2015

HEATING CHALLENGE
Snow and ice melt in parking garage

PRODUCTS SOLUTION
40 Berko® 4800-watt, three-element infrared heaters

INSTALLING CONTRACTOR
Kelso-Burnett



Berko infrared heaters mounted on side wall in the JeffJack parking garage

During construction of the 190-unit, 15-story JeffJack Apartments building in downtown Chicago, the owner sought an effective method to prevent snow and ice build-up on the parking garage ramps during winter. Infrared heaters from Marley Engineered Products® paved the way.

Situated on the corner of North Jefferson Street and West Jackson Boulevard, the JeffJack building features a 133-space, open air, naturally ventilated two-level parking garage.

“Chicago winter weather can wreak havoc on streets and quickly make driving and walking conditions unsafe,” said Kenneth Maruyama, *AIA*, senior project architect at Chicago-based Thomas Roszak Architecture, the firm that directed the project.

Maruyama sought a solution and turned to Chicago-based electrical contractor Kelso-Burnett, and Thomas Sales & Marketing, an electrical equipment manufacturer’s representative.

After careful consideration, the subcontracting team recommended installation of 40 Berko® 4800-watt, three-element infrared heaters manufactured by Marley Engineered Products®. Berko® infrared heaters are designed to provide total or supplemental spot heating in commercial and industrial areas, and feature heavy gauge, bright anodized aluminum reflectors protected inside a steel enclosure.

“Infrared radiant heat warms objects and people but not the air, and are ideal for parking ramps,” said Thomas Molk, president of Thomas Sales & Marketing. “Infrared heaters also are ideal for taxi stands, overhangs, hotels, airports, rail transport stations, work stations in buildings and much more.

INSTALLATION HEATS UP

Jeff Weir, branch manager with Kelso-Burnett, and Molk, oversaw the design and installation of the system. “I usually recommend infrared heating over slab heating cables in ramps,” said Molk. “Cars cause a lot of vibration with concrete and the failure rate of slab systems can be a real concern in these applications.”

While the space was ideal for infrared units, it posed installation challenges in some areas of the parking garage. “The height of the garage was limited in some areas, which didn’t lend itself to

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putting the heaters directly on the ceiling in those places," said Weir. "Thus, we needed a design that allowed us to heat those spaces another way." Where overhead clearance was limited, the team decided to mount the heaters along a side wall. However, this method required a special mount because the standard mounting bracket did not allow for the heater to be tilted.

"We had a sheet metal shop fabricate a special mounting bracket for the side wall units that would allow them to be angled downward toward the floor," said Molk.

Where vertical space was ample, the infrared heaters were installed above and parallel to the ramp with the standard mounting brackets.

Conduit and junction boxes were placed in the concrete during construction and wire fed to the units to provide electrical power.

With the units mounted, the heaters were then connected to a sensor that detects and measures moisture and temperature. This allows the system to turn on automatically when temperatures drop to a certain level or if it detects moisture. The units also can be controlled manually.

NUMEROUS BENEFITS REALIZED

Carlos Rosario, chief engineer of the JeffJack Apartments, attests to the effectiveness of the infrared heaters and the automatic sensor system.

"The infrared heaters have worked efficiently through our second winter now with no issues whatsoever," said Rosario. "The units prevent snow from accumulating on the ramps and freezing, which would be a major issue for residents trying to drive on or walk down the ramps."

Rosario keeps the units operating on automatic so they activate when needed. "I always have the sensor on because it's more efficient, and I don't always have time to monitor the conditions myself," said Rosario. "The heaters activate when the conditions warrant it."

Another time saver, according to Rosario, is that he doesn't have to salt the ramps to keep cars and residents from slipping. "These heaters have really made my job easier," said Rosario. "And, I know that building residents really appreciate them, too."



JeffJack Apartments in Chicago, completed in 2015



Infrared heaters installed in JeffJack parking garage using standard mount



A small white sensor connected to the infrared heaters detects moisture and temperature