



MEVA shows core strength

Three cores built fast and flexibly with the foldable MGC climbing system

Columbus, Ohio has been a city on the move for the last decade. It has attracted more companies to locate there, and with them have come more and more job opportunities; attracting new college graduates and young professionals to the city. Every year, Columbus has moved further and further up the lists of best places for young professionals to live – and is currently ranked in the top 10 in the United States leading sources. And as the city attracts more of this demographic, the demand for services, restaurants, and bars that cater to their age group has grown. Among those looking to fill this niche is The Moxy hotel.

The Moxy is a boutique hotel chain that has tailored its' brand to a youthful market. Construction began early this year in the highly-popular Short North neighborhood. The Moxy will be one of the newest additions to the Columbus skyline at 10-stories tall and contain 118 guest rooms. It will also include a restaurant on the main floor and a 6,200 square foot roof-top bar that will be accessible to the public. There will also be 45,000 square feet of office space.

Mevalite for core walls

The hotel contains three cores; two with stairs and one combination core with an elevator bank and stairs. The combination core is an unusual shape with two of the sides being octagonal. In addition to this challenge, there

were also crane limitations on the jobsite in terms of space and lifting capacity. Mevalite vertical formwork was the ideal solution to these every day jobsite challenges. At only 5-7 lbs per square foot (depending on hardware), the Mevalite hand-set clamp system was designed especially for concrete works where assembly and stripping are done without a crane. The two-chamber aluminum hollow profile allows for panels to be handled by hand with as little as one worker, while still achieving a sturdy pour rating of 1,350 psf. According to Tony Weddel, a superintendent at Lithko, "Because of the type of crane, core shape, and the limited space, Mevalite was perfect for forming. We had to pull some panels out in order to jump the forms from floor to floor. Other systems would have been too heavy" The flexibility in the arrangement of Mevalites' panels was also an advantage: the panels come in sizes ranging from 9'x3' to 3'x.5' and can be connected horizontally or vertically, making the octagon shapes easier to configure.

MGC for safe, quick climbing

For the cores on this project, Lithko chose the MEVA Guided Climber MGC as the main system. Safety is the highest priority for Lithko, and MGC is an ideal answer to the safety obstacles of high-rise construction. The newest generation of MGC comes to the jobsite with the working platforms already integrated, minimizing the

The MGC flies in with the working platforms already integrated, minimizing the amount of labor and space needed at the jobsite.



With built in profiles, MGC can be lifted safely by crane even in high wind velocities.

amount of labor and space needed at the jobsite. Guiding profiles are built in to the structure for secure climbing and extensions are mounted and fed in from below, further minimizing the risks of erecting the formwork from upper levels. As an additional safety feature, the working platform is completely enclosed. MGC is lifted by crane, and because the profiles are built into the wall, it can be raised safely even in high wind velocities while minimizing crane time. The guided system also allowed for quick cycling. From rollback, it took approximately 5-10 minutes to go to the next floor. "It didn't take long. It slides right up in a matter of minutes", Mr. Weddel advised.

KLK, and MEVA Flipper Inner Shaft Platform

Because one side of the building features a stepped-in design, KLK Climbing Scaffolds were used to climb the outer portion of one of the out-

side cores. KLK features integrated formwork support that allows for easy connection to the formwork and can be flown by crane to different positions, making it the best choice for the design of the wall. A working scaffold area of 7.5 ft for gives workers safe conditions even at great heights. Inside of the cores the MevaLite panels were supported by the MEVA Flipper Beam Inner Shaft Platform System. These platforms consist of steel double C-channels that are custom-built and sized to job requirements; a good solution for core designs with abnormal geometries. The platform is designed for a live load of 50 psf and to support the weight of the formwork and workers. The platform and inner shaft formwork can be cycled together in a single pick, reducing work, saving time and further enhancing safety.

PROJECT DATA

Project

Moxy Hotel, Columbus, OH

Owner

Crawford Hoying

Contractor

Lithko Contracting, LLC

MEVA Systems

- MevaLite wall formwork
- KLK climbing platforms
- MGC guided climbing (foldable)
- MEVA Flipper Inner Shaft Platform

Engineering and support

Marcus Browne and Robert Herndon of MEVA Formwork Systems, Inc. in Springfield, Ohio