

Title: Doka protection screens help increase construction site safety & productivity in Salford

Subtitle: *The latest residential development in MediaCity chooses Xclimb60 perimeter safety solution from Doka. Protecting the site team and objects falling from the edge of the building, improving both processes and productivity on the construction programme.*

Main contractor Bowmer + Kirkland appointed OBR Construction to build the reinforced concrete frame of this residential development. Comprising of 280 apartments and ground floor commercial space within two blocks of 14 storeys and 17 storeys, the project is committed to delivering a variety of ownership opportunities for local residents and workers in the area.

Construction on the new £70 million project, offering a mix of one, two, and three bed apartments, began in August 2020. Plot D3 at MediaCity Salford in Greater Manchester, is just a short walk to the Metrolink, major local media facilities, museums and restaurants.

OBR Construction contacted Doka at an early stage in the project - having worked together successfully on another project in Bristol during 2020 - in order to develop an appropriate solution to the challenges of safely constructing the concrete frames on this particular site. OBR required a perimeter edge protection solution that included access points within a screen to enable the RC frame construction and first fix works to continue uninterrupted. The brief was also to minimise crane use where possible, find a way to work within the limited site laydown areas and install the windows and waterproofing from behind a safe, weather-independent solution to stay on schedule.

The proposed solution from Doka was to use the Xclimb60 protection screens in a configuration which included two loading bays per building to enable ongoing movement and cycling of formwork and other construction materials in and out of the structure. The 28 screen sections enabled OBR to very simply prepare the units for installation on the buildings by quickly joining two sections together with quick acting connections. Once installed, the assembled screen unit offers up to a huge 104m² area of protection each, with screens up to 7.2 metres wide and covering 14.5 metres or four storeys in height.

A major benefit of the solution for OBR was the ability for Doka to leave the lower half of the screen without floor supports to enable clear access for the waterproofing and window installation. The 4.8 x 4.25m² loading bays allowed for the façade materials to be loaded into the structure as required to allow for the building to be made watertight before the screens moved up to the next casting step.

Providing a solution to both the concrete formworkers and following trades, the Xclimb system enabled a safe and progressive build programme for OBR and Bowmer + Kirkland.

CJ Padden, Contracts Manager at OBR highlighted *“The protection screens from Doka are different to other solutions on the market, the system comes pre-assembled in very large sections. This meant we could just join two sections together using quick fix attachments and lift the entire 7.2-metre wide panel unit onto the building in one process. Easy – no need to spend time adjusting telescopic elements”*.

The units do not require any special transport conditions as they can be pre-assembled section widths of 2.9 metres wide when delivered to comply with maximum un-escorted load restriction guidelines for the United Kingdom. The limited site space available was a key consideration for OBR as they worked with Doka to manage a just-in-time delivery of the units to be installed directly on the buildings and

minimise site space requirements. At stages of the project, up to four complete screens were being delivered and installed on the building per day.

Capable of maximum widths up to 7.2 metres, with just two climbing profiles, the protection screens from Doka can suit projects which require from 2.5 up to 4 floors in height to be protected. These features effectively enable large areas of protection screen on commercial and residential projects to be moved in one operation up the building as the build progresses. As an optional extra, it is also possible to use hydraulic lifting on the system in order to save further crane use on site.

Suitable for both post-tensioned and pre-tensioned slab build options, the Xclimb protection screens from Doka can be adapted to suit and off-set the screens differently to safely enable access around the slab edge in both circumstances.

With standardised solutions for working around columns at building edges, the system ensures gaps within the screen are virtually eliminated in order to maintain the safety of construction teams working at height by removing the possibility of falling. The system also minimises the possibility of site tools and construction materials falling from the upper floors onto either those working below or passing pedestrians.

The Doka protection screen is also proven to improve conditions on typically exposed live construction levels by greatly reducing the impact of wind and other severe weather conditions. Not only helping maintain site activity and improving productivity, but also improving working conditions for the site teams themselves, by making the environment more secure and minimising the impact of worker concerns such as vertigo.

Installed from the lower floors, Doka provided on-site product demonstration and support for the first lifts to help site teams ensure methodology and safety requirements were fully understood.

The project is set to complete in late 2022.

Proposed Images:



Installation of the Xclimb Protection Screens in progress from the first floor



Waterproofing and Window units installed following the first movement of the screens



Programme on schedule on upper levels