

ACO Water Management

Westfield Stratford City retail and leisure complex

Prestigious Westfield project chooses precision drainage from ACO.



As part of the regeneration of London's east end and major transport links, the high profile Westfield Stratford City retail and leisure complex expects to host many tens of thousands of visitors from near and far in 2012. As a crucial element of the construction project, a bespoke drainage system from leading specialist drainage manufacturer and supplier ACO Technologies plc was selected by the Westfield design team and management contractor ImtechMeica, as meeting the exact high build specification and design remit for this illustrious project.

Following the grand opening in September 2011, the \pounds 1.75billion Westfield Stratford City is one part of the major redevelopment programme in and around East London and stands in close proximity to the prestigious new international sports stadium, the main venue for the major

sporting occasions of 2012. With over 250 retailers and over 70 places to dine, covering 1.9 million square feet of retail and leisure, Westfield Stratford City is the largest urban shopping centre in Europe.

- Westfield project and the drainage specification brief supplied to ACO Technologies plc were for a discreet and unobtrusive system to provide exceptional functionality.
- 2. Installation challenge required careful planning included the impressive 17.5 metre radius curved patio entrance area to the complex, a triangular stage feature for arts and crafts activities and free-flowing sloping gradient areas.

Solution:

Quality bespoke low profile surface drainage system. Black granite finish Heelsafe gratings and bespoke stainless steel support frames to Load Class C 250. Uncompromising demands on high aesthetical appearance were placed by the architects on the Westfield project and the drainage specification brief supplied to ACO Technologies plc was for a discreet and unobtrusive system to provide exceptional functionality. This posed an immediate dilemma for ACO's technical team, as maintaining the visual integrity required along the wider paved areas would result in insufficient surface drainage capacity to convey rainwater away, especially during heavy downpours.

ACO specialist experience in design innovation was called upon to overcome this challenge. The team devised a system in one specific area using two interconnected, parallel channels 100mm apart; one blind and one open.

The ACO team also carefully considered important installation factors and specified the use of bespoke MultiDrain V300S channels and MultiDrain M100DS 0100 shallow channels, both manufactured from polymer concrete with stainless steel edge rails and Heelsafe lockable gratings. This minimised the need for deep excavation channelling during installation, saving valuable time and associated costs, especially when installing across structural floor elements around the retail basement area. Other installation challenges that required careful planning included the impressive 17.5metre radius curved patio entrance area to the complex, a triangular stage feature for arts and crafts activities and free-flowing sloping gradient areas.

Contractors installed the channels quickly

To maximise efficiency, ACO supplied the bespoke MultiDrain M100DS channels in 1 metre and 0.5 metre straight sections for use with both straight 1 metre length and curved 0.5 metre length gratings, allowing contractors to install the channels quickly. The visible gratings were supplied from stock, saving time on delivery and manufacturing with all precise detail work fabricated on site before finally being installed. In total approximately 2000 metres of channel were used on the project

With a range of grating finishes and high performance options available from ACO, a black granite/gravel finish using Heelsafe lockable gratings, manufactured from 4mm thick Grade 304 stainless steel, was specified for this project to provide a safe, secure and discreet drainage solution but with optimum water flow capacity. The 123mm and 58mm width gratings are supported on bespoke grade 304 stainless steel support frame classified to Load Class C 250. Alan Kirby, Project Manager of management contractor ImtechMeica said, "The grand paved thoroughfare in Westfield Stratford City posed a real challenge for us and will be one of the first sights shoppers see as they approach the entrance, so we knew we had to get the finish right. The sweeping, curved feature, gradient falls and main triangular stage area all presented particular challenges when dealing with surface water drainage, requiring tight tolerances to be adhered to. Luckily, drainage specialists ACO Technologies plc provided us with a quality bespoke low profile surface drainage system that reduced preparatory work necessary to install, saving considerable time. The result has produced strong, precise, accentuated drainage lines that blend perfectly throughout. The whole project is one that we feel both proud and confident in."

Along with the upgraded public transport facilities, shoppers will find the smart new environs of Westfield Stratford City easy to get to and an irresistible place to visit. The attention to detail from the drainage upwards and the sheer scale of redevelopment is raising the profile of this area of East London that is set to attract large numbers of visitors.



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