

Ravenscraig Sports Centre



RhinoGuard 25/40 PAS 68 Bollards

Challenge

A major development masterplan in central Scotland has led to the creation of the country's first new town in over 50 years.

The development of Ravenscraig, North Lanarkshire, is one of the largest regeneration projects in Europe, covering a total area of 450 hectares. Based on the site of the former Ravenscraig steel works, the new town will become home to over 10,000 people, and is expected to create 12,000 new jobs, attracting investment in excess of £1.2 billion over the next 15 years.

A key part of the town's development plan was the construction of a £30m state of the art regional sports facility, which is in line to be used as a training base during the London 2012 Olympics and Glasgow Commonwealth Games in 2014. The facility has also been confirmed as a venue for the Olympic affiliated 'International Children's Games' in 2011.

The complex includes a range of top sports facilities including an indoor athletics hall, dance studios and outdoor football pitches. The venue will also

be used to host leisure and cultural events on a regular basis, with the capacity to hold around 5,000 people.

With the threat of international terrorism increasing dramatically in recent years, there is a major focus on reducing the UK's vulnerability to potential vehicle-borne terrorist attacks. The areas considered to be at greatest risk include any 'crowded places' with large gatherings of people, which can range from shopping centres and sports stadia, to rail stations, leisure venues and the public realm.

Coordinated by the National Counter Terrorism Security Office (NaCTSO), Counter Terrorism Security Advisers provide advice and guidance on the use of appropriate security measures to help mitigate the risk of terrorist attacks within their police force area. CTSA's in North Lanarkshire identified a requirement for the Ravenscraig facility to be protected due to its potential to attract large crowds of people and its high profile links with both the Olympic and Commonwealth Games.

As a result, it was recommended that in order to protect key areas of the facility from vehicle-

borne threats, the perimeter protection measures implemented at the site should be crash tested in accordance with the BSI PAS 68 performance standard for vehicle security barriers.

In addition to the security requirements, there was also an additional requirement for the site to provide visitors with adequate cycle parking facilities, allowing them to securely lock their bikes whilst attending the centre.

Solution

Working closely with the project's architect, Populous, and site contractor WH Malcolm, Marshalls Street Furniture was able to provide an effective solution to the site's counter-terrorism requirements.

It was identified that in order to adequately protect critical areas of the site from attack, the perimeter protection measures would need to be capable of withstanding an impact from a 2.5 tonne 4x4 vehicle travelling at 40mph.



Marshalls

Transforming Britain's Landscapes

A total of 28 stainless steel RhinoGuard 25/40 PAS 68 tested bollards were installed strategically around the site in order to protect the most vulnerable areas of the building from hostile vehicle attack.

Standard Rhino removable bollards were also installed at various points around the site in order to protect areas less vulnerable to attack, whilst enabling temporary vehicle access when required. Marshalls Street Furniture supplied a total of 13 removable stainless steel RS001 bollards, which feature a secure locking socket mechanism, allowing the bollards to be removed when temporary vehicle access is required and then securely locked into place to provide effective protection.

A total of 35 Steel Sheffield cycle stands, polyester powder coated in silver were installed outside the main entrance of the building to provide visitors with secure cycle parking facilities. Ferrocast Islington motorcycle stands were also installed in the car park, to provide visitors with a secure method of locking their motorcycles whilst visiting the centre.

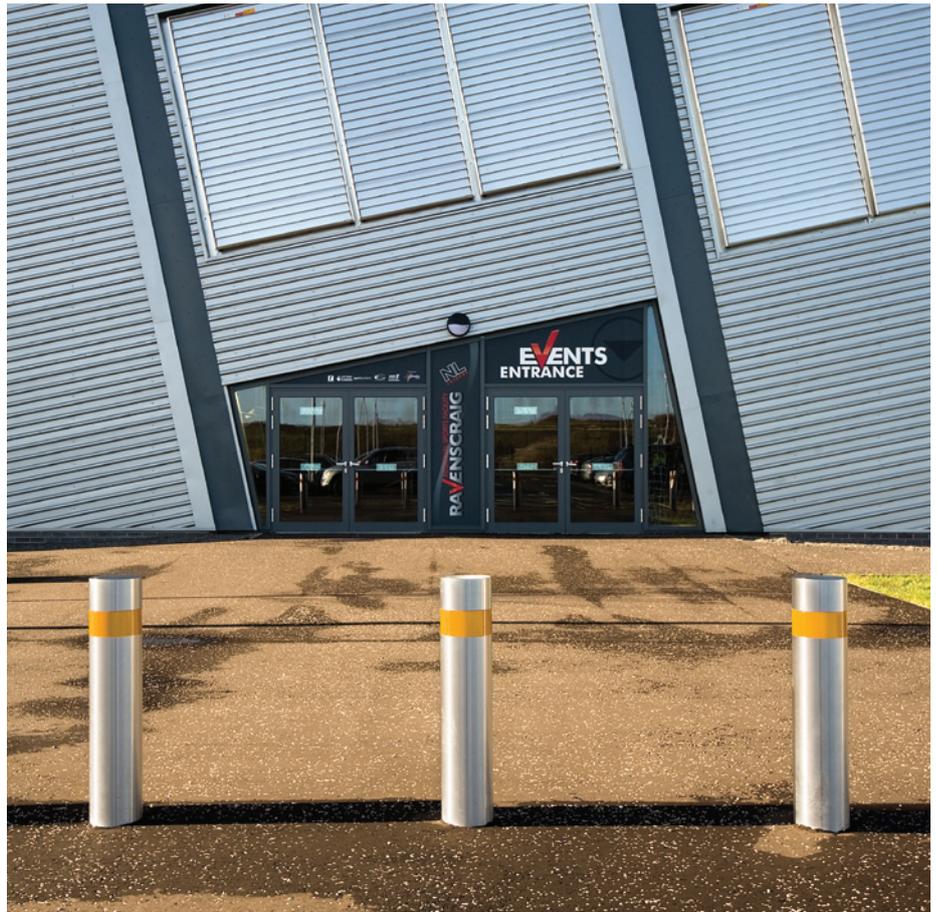
Benefits

The RhinoGuard 25/40 bollards provide assured levels of perimeter protection to the Ravenscraig facility. The bollards have been successfully crash tested in accordance with the PAS 68 standard using a 2.5 tonne 4x4 vehicle travelling at 40mph. The product brought the vehicle to a complete stop with zero penetration beyond the bollard.

The grade 316L stainless steel finish of both the RhinoGuard 25/40 and RS001 removable bollards provides a contemporary aesthetic which complements the unique, modern design of the state of the art sports facility.

The material also provides attractive life cost benefits as it requires very little maintenance to retain its original contemporary appearance. Grade 316L stainless steel is much less susceptible to the effects of corrosion than cheaper alternative grades and also offers greater resistance to the effects of pitting and staining.

The simple design of the Sheffield cycle stand is one of the most popular with cyclists, as it supports bicycles well and is secure as both the front wheel and the frame of the bike can be locked to the stand to prevent vandalism and theft. The cycle stands were all root fixed to provide added security. The steel stands were also galvanised to prevent rusting and then polyester powder coated in silver to provide a contemporary finish.



RhinoGuard 25/40 Bollards

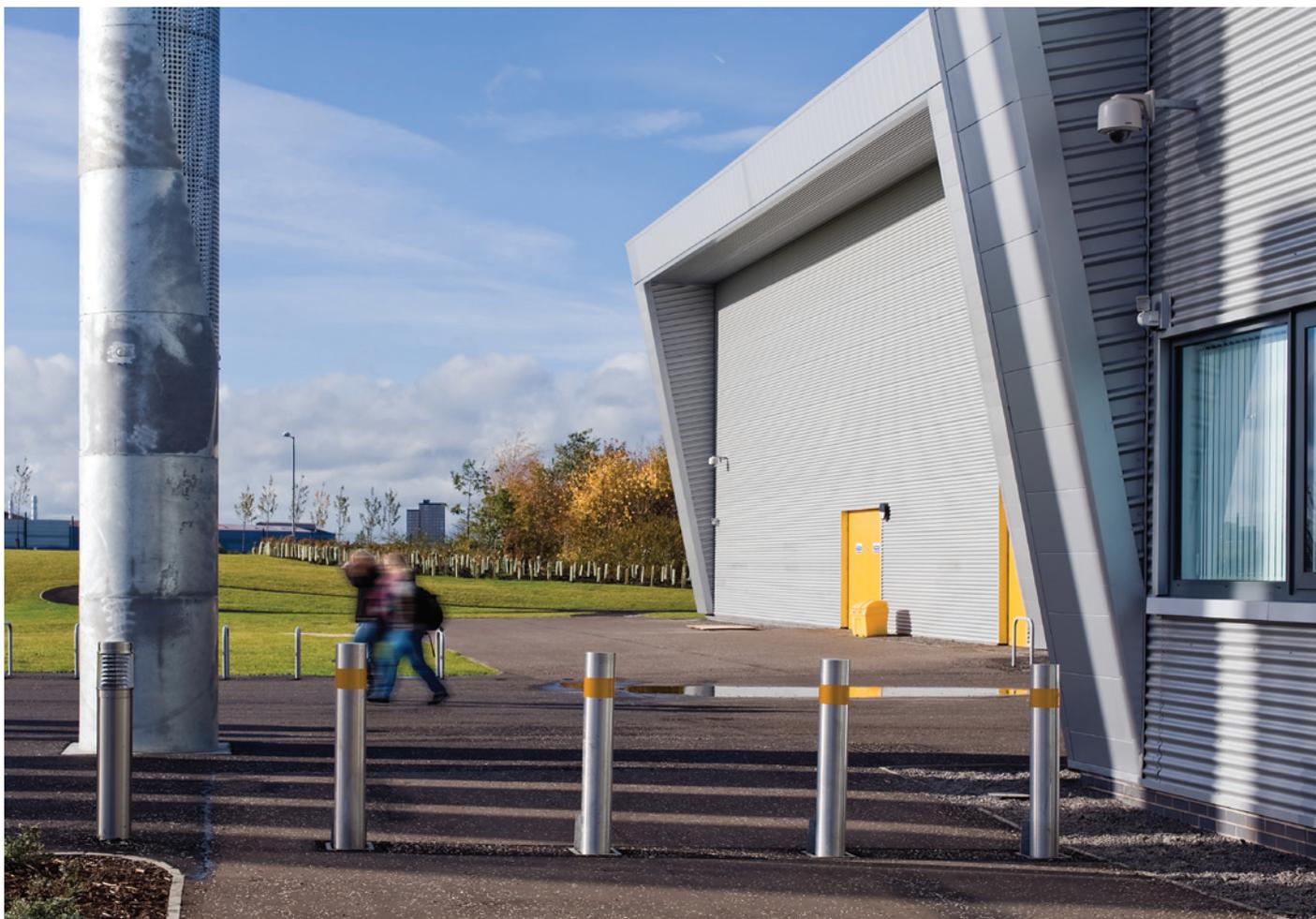


RhinoGuard 25/40



RS001 Lift Out & Lockable Bollards





Steel Sheffield Cycle Stands



Sheffield Cycle Stands



Islington Motorcycle Stands

Contractor

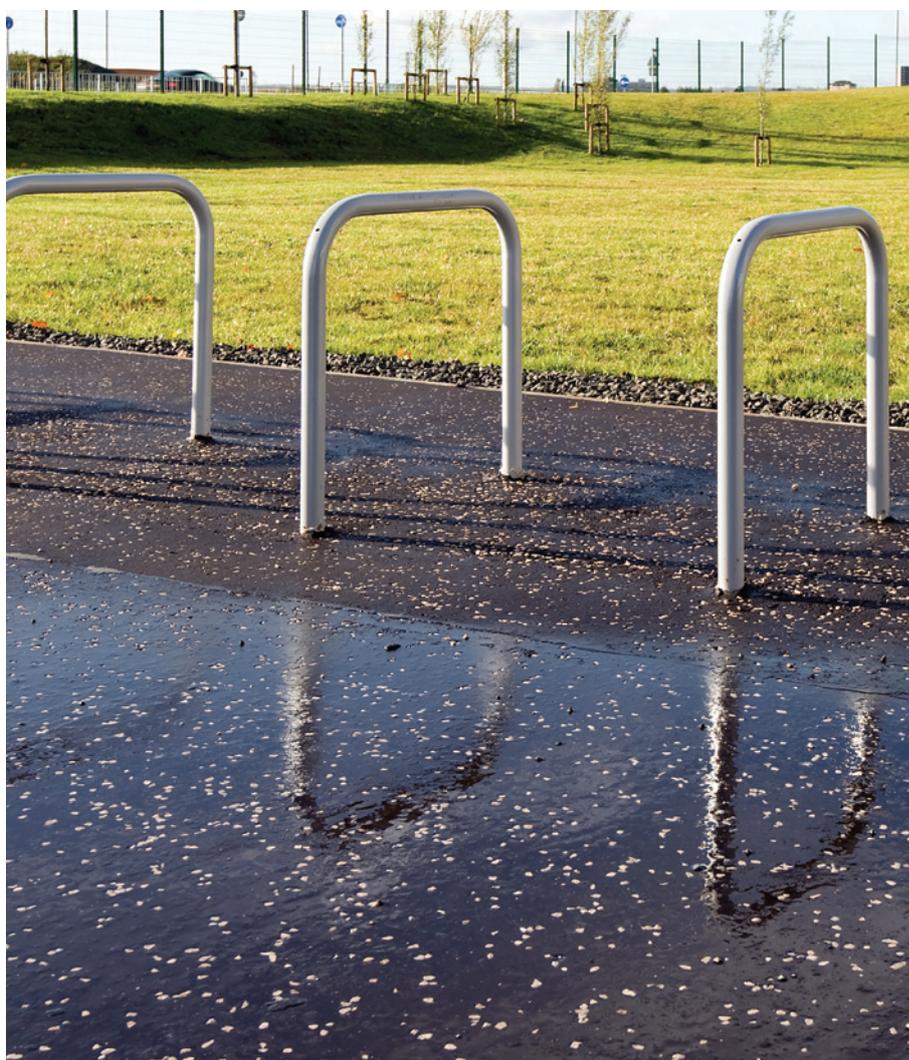
WH Malcolm Ltd

Architect

Populous

Marshalls Product Used:

- RhinoGuard 25/40 PAS 68 bollards
- RS001 Stainless Steel Removable Bollards
- Steel Sheffield Cycle Stands
- Ferrocast Islington Motorcycle Stands



Sheffield Cycle Stands