

Barton Square Manchester



Round of applause: Spectacular coliseum

In October 2005, Manchester's thriving Trafford Centre announced plans for further expansion. Following on from its previous extensive and successful work at the Trafford Centre, Trent Concrete secured a £6.4 million contract with Bovis Lend Lease which subsequently grew to £7.5 million for the design, detailing, manufacture and installation of the reconstructed stone cladding and features on the development.

Costing £70 million, the 200,000 square feet (19,000m²) extension, known as 'Barton Square', comprises four 'L' shaped blocks arranged to form a central square, mall and colonnade. Located to the west of the main building, Barton Square is linked to the rest of the centre via a glazed bridge. The architecture is based on an Italian square and includes a large fountain, as well as a campanile tower.

A coliseum faced with granite, topped with a curved cornice forms a special feature in the mall. Precast columns over seven metres high are arranged in a twin line, forming an inner and outer radius.

Spanning between the columns are reconstructed stone spandrel/cornice beams, the heaviest weighing 23 tonnes. The cornice section is formed on both faces of the beam and the two lines of columns are connected by a special reconstructed stone double beam, infilled by tapering slabs 200mm thick.



Coliseum: centre of attention

▼ We are committed to producing pre-cast concrete cladding that's tailor made to suit individual architectural specifications. As well as delivering greater cost and speed efficiencies with off-site construction methods, we are at the cutting edge of pre-cast concrete design and take great pride in delivering a true work of art with every project. ▼

David Walker,
Managing Director,
Trent Concrete

Project:	Barton Square, Manchester
Client:	Peel Holdings
Architect:	Leach Rhodes Walker
Contractor:	Bovis Lend Lease
Products:	Precast buff reconstructed stone cladding
Completion date:	2007

Tailor made to impress

Tailor made to the architect's and client's specifications and cast in a buff reconstructed stone mix, the stunning rotunda features an acid-etched finish.

Forming the main entrance of the impressive complex, the rotunda comprises 2465 x 1065 x 7630mm high rectangular columns. Each column was constructed of four stacked individual blocks, the heaviest weighing 15 tonnes.

Spandrel capitol/cornice beams span between the columns, typically weighing 31 tonnes each. Over them sits a 45 tonne main support beam. These hefty units required both special transportation and site lifting equipment.

The Barton Square project required detailed planning and close co-operation and co-ordination with other trades. With its different facets of external wall cladding and the special structural elements which form the colonnade, coliseum and rotunda, it was a complicated job requiring a high degree of skill, ability and experience.

A story in two halves

Running the length of the four blocks that form the mall area is the colonnade. Cast in two halves and stitched together in the factory each column, over seven metres tall, was delivered to site as a 13 tonne unit. Spanning between the columns is a 21 tonne cornice beam.

The structure is connected to the main building by a special twin-beam unit, spanning 4500mm and weighing 19 tonnes. Hollow-core flooring infills the roof.



Stunning: Rotunda with acid etch finish



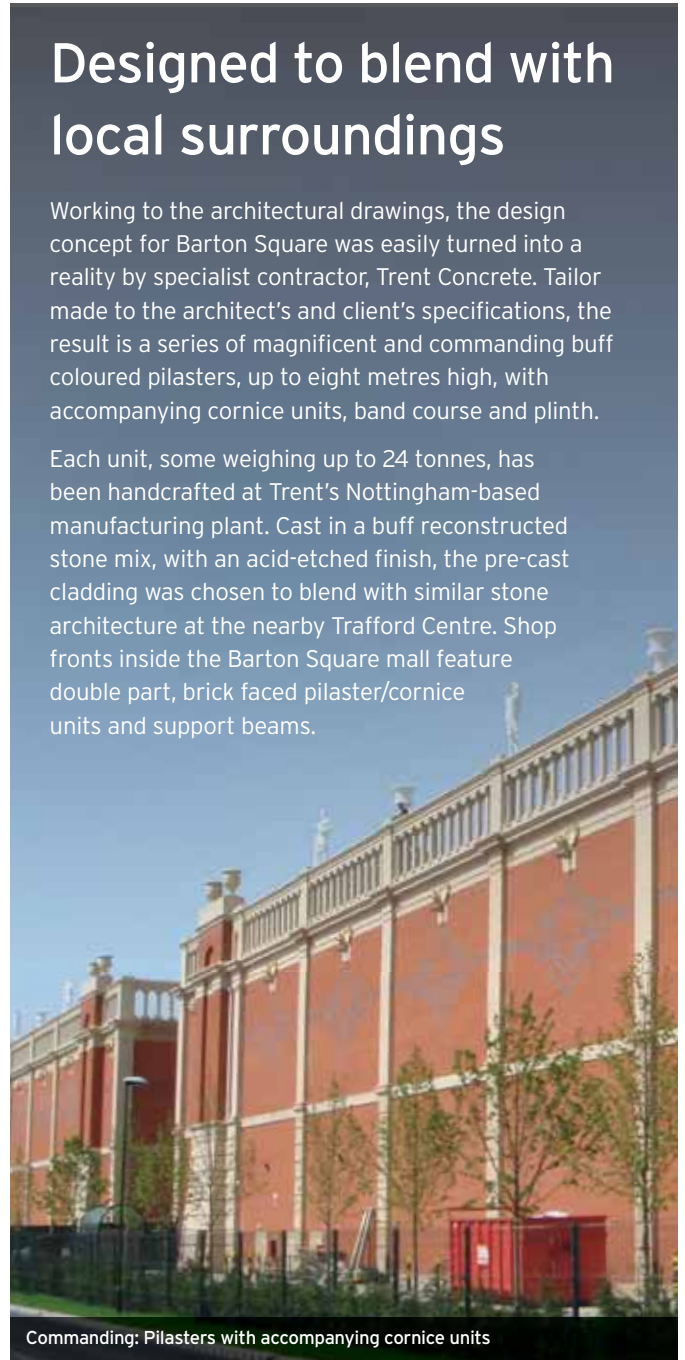
A vision: Classical colonnade, pre-cast to perfection



Designed to blend with local surroundings

Working to the architectural drawings, the design concept for Barton Square was easily turned into a reality by specialist contractor, Trent Concrete. Tailor made to the architect's and client's specifications, the result is a series of magnificent and commanding buff coloured pilasters, up to eight metres high, with accompanying cornice units, band course and plinth.

Each unit, some weighing up to 24 tonnes, has been handcrafted at Trent's Nottingham-based manufacturing plant. Cast in a buff reconstructed stone mix, with an acid-etched finish, the pre-cast cladding was chosen to blend with similar stone architecture at the nearby Trafford Centre. Shop fronts inside the Barton Square mall feature double part, brick faced pilaster/cornice units and support beams.



Commanding: Pilasters with accompanying cornice units

Having used the heaviest components we have produced to date, the project has been pretty special. It certainly required special arrangements, with the weighty panels posing particular logistical transport problems that required the use of special low loader trailers. ▽

David Walker,
Managing Director,
Trent Concrete



Outside view of shops



Trent

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Perfect for the job

Trent's off-site construction methods mean the finished products are ready for delivery on a just in time basis, negating the need for storage. These are then fixed to the structure directly from the trailer, irrespective of all weather conditions, with the exception of high winds. This avoids the need for costly scaffolding and associated site preliminaries.

Produced in factory conditions under tight quality control processes, Trent's precast concrete assures certainty of quality and of costs-contract sums, only being subject to bona-fide variations.

Standing strong

The corner towers on the project comprise 30 individual splayed and tapered reconstructed stone blocks, the largest weighing 12 tonnes.

Each block is stacked on top of the other and restrained to the structure by stainless steel angles. The result is a tapering ashlar effect corner feature, eight metres tall. Above, and supported by the corner blocks, are brick faced panels on which sits a reconstructed stone cornice that supports a brick faced arch panel and cornice.

Tall order: Corner tower



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