

# Nad Al Sheba Bridges

Client: RTA  
Contractor: AFCONS  
Location: Dubai, UAE  
Products: Rapidshor / Superslim Soldiers / GTX Beams

## Case Study



The Dh4.6 billion reinvention of the Nad Al Sheba Racecourse, was one of the most eagerly awaited projects in the UAE and one that was very much in the public eye. RMD Kwikform Middle East was awarded the contract to supply the formwork and shoring for the construction of bridges that leads to the racecourse's main grandstand.

Nad Al Sheba is the home of The Dubai World Cup - famously known as the world's richest race. The challenge to create the access to this development was accepted by Afcons Construction Mideast. The new course will be built upon the site of the old Nad Al Sheba racecourse, but will be much more than just a racecourse. Like many projects in Dubai, the scale of this project is immense, resulting in the development of the 1.4 million square metre Meydan City.

There are three bridges that were the focus for RMD Kwikform - the main bridge over a future canal and two bridges leading to the main grandstand which run along a radius with a cantilevered edge on either side. Arul Raja, RMD Kwikform Sales Manager comments on the customer's specifications, "When we discussed the formwork and shoring requirements for the project with Afcons they specified a system that provided the flexibility to be used on other project sites as well as - most importantly - meeting the demands of this projects programme time."

The key to meeting this requirement was in RMD Kwikform's extensive 'off the shelf' products. The bridge construction was supported by a series of 80kN Rapidshor towers that were linked to provide additional support throughout the shoring. The towers were then topped with Superslim Soldiers to provide

a platform for the attachment of the cantilever sections. Both Rapidshor and Superslim Soldiers are used in a wide range of formwork and shoring solutions, ensuring the flexibility required by Afcons to transport and use this equipment on further projects.

Although 90% of the formwork and shoring used was standard equipment, the remaining 10% was made up of a specialised adjustable Crank Soldier used to create the cantilevered edge. The Crank Soldier allows small adjustments to be made to the formwork to ensure just the right shape is achieved for the cantilevered edge.

This cantilevered edge was created in individual sections and then craned onto the Rapidshor towers and fixed in place. Constructed from Superslim Soldiers with GTX beams to create the decking, once in place the cantilever could be poured and cured, ready to accommodate the final slab.

Arul continues: "The fact that the cantilever sections could be constructed on the ground and then lifted on to the bridge, rather than built in-situ delivers tangible benefits to meeting planned programme time. This essentially speeds up construction time by allowing almost simultaneous construction and pouring."

Mr Naseer Al Yasiri Project Manager at customer Afcons commented, "For this project we needed a formwork and shoring supplier who had experience of working on high profile projects in the Middle East to demanding programme times. RMD Kwikform worked very hard with us to provide the best solution to our brief."

Arul Raja continues, "Over the last few years we have supported a number of Government RTA jobs, including bridges, tunnels and canals here in the UAE. It is on the strength of this experience that we have achieved this, our next major bridge project."

The new Nad Al Sheba racecourse, which is approximately five times the size of the original, was opened to expectant racing fans for the 2010 Dubai World Cup. It boasts a state of the art synthetic track, a 60,000 seater grandstand, a five start hotel, ten restaurants and parking for 10,000 cars. With the grandstand as its centrepiece the rest of Meydan City consist of mixed commercial and residential developments.

