GREATER SHEPPARTON SPORTS PRECINCT

BUILT USING INNOVATIVE PRODUCTS SUCH AS MAPESOIL FOR THE SUBBASE, THE PRECINCT MAY BE A VENUE FOR THE 2030 COMMONWEALTH GAMES

Completed in 2016 for the community of the Goulburn Valley in Southern Australia, the Greater Shepparton Regional Sports Precinct is a regional sports hub with facilities for athletics, football, hockey, netball and a range of other uses.

This 21 million Australian dollar (over 13 million Euro) project is one of the most significant sports centre in regional Australia and is paramount in a bid by 11 regional Victorian towns and cities to host the Commonwealth Games in 2030.

Having regularly hosted state-wide sports championships in numerous sports and welcomed international competitions in squash, BMX, triathlon, and beach volleyball, it may well be that the precinct will, in just over a dozen years, host one of the world's largest sporting events.

INNOVATIONS FROM ABROAD FOR THE SUBBASE

Among innovations within the precinct, the contractor Tuff Turf Pty Ltd completed the design and construction of two synthetic grass all-weather playing fields.

In both hockey fields the synthethic grass covering was installed with ULTRABOND TURF 2 STARS two-component, rapid-setting polyurethane adhesive with very low emission of volatile organic compounds (VOC). The lines were marked with ULTRABOND TURF TAPE 300 jointing strip.

With the final stages of the redevelopment well underway, the contractors also took on the challenge of the design and construction of a running track surface approved to the standards of IAAF (International Association of Athletics Federation). Again with problematic subbase issues, the contractor looked for an answer to keeping the costs associated with the removal of vast amounts of material to a minimum. As a result, they approached Mapei Australia Pty Ltd (the Group's local subsidiary) for their recommendation on the use of MAPESOIL 100, a product specifically produced for sub-base stabilisation as compared to conventional products. Although MAPESOIL 100 had been extensively used in Europe at recognised projects such as Luigi Ferraris Stadium in Genoa, Chievo Training Centre in Verona, Juventus Sta-

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PHOTO 1. Geotechnical tests were conducted on the soil to be treated.
PHOTO 2. Spreading and mixing MAPESOIL 100.
PHOTO 3. Compacting MAPESOIL 100 with a roller.
PHOTO 4. Mixing and compacting the mix.
PHOTO 5. The track before completion of the works.
PHOTO 6. ULTRABOND TURF 2 STARS was used to bond turf in two hockey pitches in the precinct.

dium and Training Centre in Turin, and Atalanta Training Centre in Zingonia (Italy) to name a few, this was to be the first installation of this type in Australia.
With the use of MAPESOIL 100 to stabilise the sub-base, the contractor found the answer to overcoming this problematic site. The use of this stabilising product by Mapei meant that there was a 75% reduction in waste soil removal from site.
The contractor took on this alternate treatment process after months of geotechnical testing which gave them the security of achieving the results required for the perfect sub-base.
As a consequence, detailed tests were conducted at every possible hold point of the construction to ensure Australian standards were met and specifications followed. It came as no surprise that all results obtained from tests, especially as for CBR load-bearing index values and density ratio, outperformed expectations of the Australian team given that the MAPESOIL 100 had not been utilised on a project in Australia previously.
Geotechnical tests were conducted to measure certain values so as to ensure optimum results were obtained. After initial test results were obtained, the installation of MAPESOIL 100 commenced.
After the application of the MAPESOIL 100 with the addition of water to achieve the optimum moisture content (OMC), the involved areas were mixed, graded and then rolled to achieve compaction of the sub-base. On the completion of compaction the surface was kept moist to ensure a proper seasoning of the surface.
The final result was a credit to all concerned and certainly allowed the acknowledgment that sub-base stabilisation should now look to the MAPESOIL system as a real and viable option for the future in all Australian sports venues.

IN THE SPOTLIGHT

MAPESOIL 100
It is a hydraulic, high-performance, fibre-reinforced powdered stabilising agent used to treat and consolidate soil and recycled or raw aggregates. It is used for stabilising sub-bases for artificial turf playing surfaces, such as synthetic grass football pitches; for cold-recycling old sub-bases from existing sports surfaces made from bitumen conglomerate; for creating sub-bases for playing surfaces by recycling old, worn out synthetic playing surfaces; for stabilising existing clay courts and converting them into artificial grass pitches, etc.. Thanks to its high performance characteristics, sub-bases constructed using MAPESOIL 100 are particularly suitable for installing the latest generation of synthetic grass (such as "FIFA PRO"), as well as for installing top level playing surfaces as specified by the relative Sports Federations for other disciplines.

TECHNICAL DATA
Athletics track and hockey pitches at Greater Shepparton Regional Sports Precinct, Shepparton (Australia)
Year of construction: 2016
Year of the intervention: 2016
Intervention by Mapei: supplying products for the subbase and for installing synthetic grass surfaces
Client: Shepparton City Council
Contractor: Tuff Turf Pty Ltd
Project manager: Travis Knight
Mapei coordinator: Neil McIntosh, Mapei Australia Pty Ltd

MAPEI PRODUCTS
Stabilising the subbase: Mapesoil 100
Installing synthetic grass: Ultrabond Turf 2 Stars, Ultrabond Turf Tape 300

For further information on the products see www.mapei.com and www.mapei.com.au