

## CASE STUDY

# CHELSEA FOOTBALL CLUB TRAINING ACADEMY

## Cobham, Surrey

|                       |   |
|-----------------------|---|
| Project:              | Construction of Training Ground Pitches |
| Client:               | Chelsea Football Club                   |
| Contract Supervisors: | White Horse Contractors Limited         |
| Contract Value:       |   |
| Phases 1 & 2:         | £1.5 Million                            |
| Phase 4:              | £1.4 Million                            |



### PHASE 1 and 2

Six full size natural grass football pitches were constructed to a high specification. More than 20,000 tonnes of topsoil was removed from site and even greater volumes of aggregate, sand and rootzone imported. The Traffic Management Plan was organised and controlled entirely by White Horse Contractors management and workforce.

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The pitch areas were laser graded using a D6M LGP Bulldozer; after which, came the installation of both a comprehensive drainage and irrigation system. Over 12,000 metres of drainage pipe was installed controlling not only what precipitation may occur but also a high and seasonally variable water table.

A 100mm depth gravel carpet was laid using 6mm gravel over a geotextile protected formation, the pitches were then constructed in layers using lower rootzone sand to 150mm depth then upper rootzone mix of 125mm depth, finally 25mm of fibre sand was incorporated into the surface upon which 65,000m<sup>2</sup> of special washed turf was laid.

An innovative form of under pitch heating was installed to three of the six pitches. The system consisted of hundreds of conductive polymer mats and many thousands of linear metres of cabling, linked to 22 underground transformer pits, all of which had to be incorporated between the lower and upper rootzone sands.

This bespoke construction, provided the contractor with the opportunity to work with new and innovative technology and utilise experiences learned from previous contracts of this scale.



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### PHASE 4

Works included a 500lux floodlit match pitch of the same dimensions as Stamford Bridge, a 9,500m<sup>2</sup> 3G artificial turf pitch, together with a goal keeping practice area and two training pitches. The facility was designed by Turftrax Ground Management Systems to provide a first class training venue for the CFC Youth Academy.

Following topsoil removal carried out by WHC owned plant, an intensive drainage scheme was installed in the match pitch prior to the laying of a specially blended rootzone mix, incorporating both fertiliser and lignite for prolonged moisture retention.

The construction of the training pitches followed a more conventional sports turf construction specification incorporating dismantling and removal of existing tennis courts, significant re-levelling works and a piped drainage system overlaid with sand slits.

During the course of the construction WHC assisted with the design for the construction of a 10,000m<sup>3</sup> irrigation reservoir. WHC was able to offer the client added value by retaining all excavated materials on site which afforded the opportunity of raising the levels of a further two pitches and upgrading their specification to include a drainage system and improved irrigation. This was achieved whilst generating significant financial savings for the client, reduced vehicle movements to benefit the environment and local residents and provided a more sustainable construction methodology.

