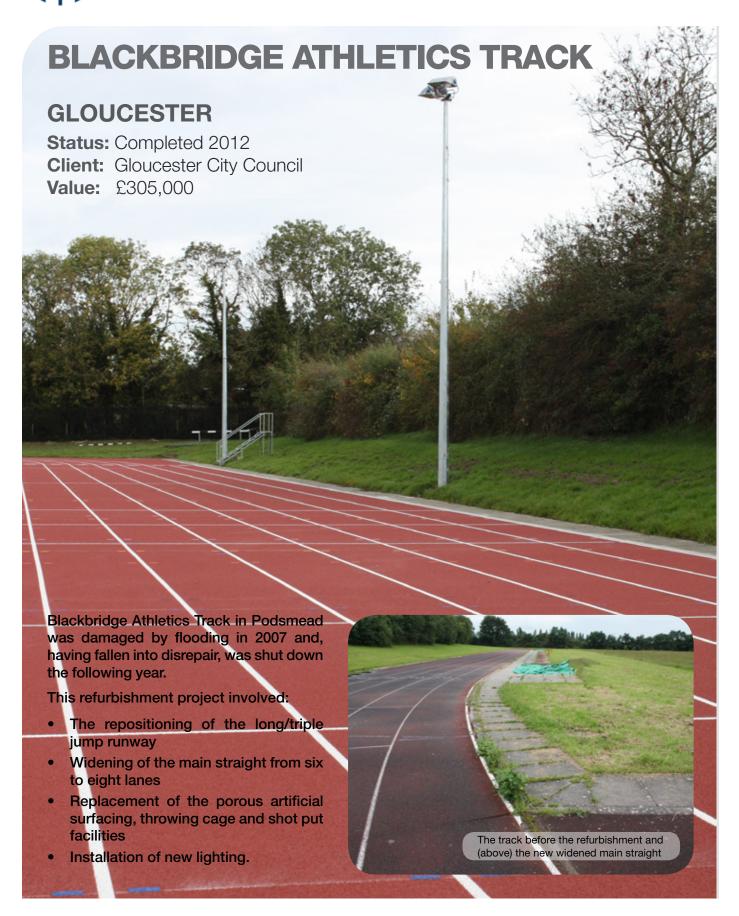
Facility Case Study

Creating a sporting habit for life



The project was jointly funded by Gloucester City Council and Sport England.



As-built layout of the six-lane track with main straight extended to eight Existing 400m 6 lane track vertisular vertisular access Existing Pavilion Scarry Relocated long jump Existing track alrea future pavillor Existing Javelin discus & hammer ne-surfaced overspil New fencing is hedge planting 100m home straight-extended to 8 lanes wide Existing Polevault car park Existing vegetation vehicular access & cav park Existing gated access from School. New lighting

columns for evening training







Key features

- A new main entrance was developed, together with a car park to make the track more accessible to users.
- Electric sockets were fitted to the bases of some of the new lighting columns to allow maintenance equipment to be used.
- The topsoil and sub-soil excavated from the track widening was re-used on the other side of the track to extend the embankment on which the long/triple jump runway was constructed.

General Description of Works

The works centred on the removal and replacement of the existing porous artificial surfacing and the extension of the main straight from six to eight lanes. The surface regularity of the existing macadam base was improved by localised patching although the macadam on the javelin runway and pole vault runway required total replacement. The existing long jump runway and landing pit was located inside the track. To comply with current UK Athletics recommendations, these were relocated to the outside of the circuit.

The new artificial surfacing was a porous system comprising a resin bound rubber crumb base layer and a polyurethane-sprayed textured surface. The existing throwing cage was replaced and new hammer and discus circles built. The natural turf surround to the cage was replaced with a porous macadam surface. The shot put fan was also reconstructed.

Schedule of Areas

Total area of site	2.7 hectares
Area of existing track	3,628 m ²
Area of widened section	324 m ²
Total area of track works	3,952 m ²

General Accommodation

6-lane 400 m running track with eight-lane 100 m main straight	1 no.
Javelin, discus and hammer throwing	1 no.
Long/triple jump (relocated to outside of track)	1 no.
Pole vault runway (inside track circuit)	1 no.
Shot put (inside track circuit)	1 no.



Drainage	150 mm-diameter perforated-plastic pipe within a shingle-filled trench outside the main straight connected into the existing track drainage system
Geotextile membrane	Extension to the main straight, new runways and throwing cage surround. Installed above the formation
Stone	250 mm depth of recycled MOT Type 1 grading. Frost resistant and free draining. Extension to the main straight, new runways, and throwing cage surround
Macadam	65 mm total thickness of porous macadam, comprising 40 mm base course, with nominal aggregate size of 20 mm, and 25 mm wearing course, with nominal aggregate size of 10 mm. Extension to the main straight, new runways and throwing cage surround
Kerbs/edgings	150 x 100 mm edgings outside the main straight. 150 x 50 mm edgings outside new long/triple jump runway
Artificial surfacing	13 mm thick porous athletics track surfacing
Equipment	Throwing cage with 7 m-high sides, 10 m-high gates and hinged uprights. New adjustable steeplechase barrier for the water jump
Lighting	10 no. 10 m-high adjustable columns fitted with 2 no. 'flat glass' luminaires with 1kW lamps to give 100 lux average horizontal illuminance to the track circuit. Lighting operated on an 'all on' or 'all off' switching arrangement - i.e. straights and bends cannot be lit individually. All cabling in new ducting

Summary of Elemental Costs

	Element	Total cost (£)	Cost (£) per m ²
1	Construction works consisting of preparatory work/excavations, stone, macadam, kerbs/edgings	95,400	24.14
2	Artificial surfacing	107,400	27.17
3	Lighting	63,100	15.96
4	Equipment (throwing cage)	20,750	5.25
5	Security fencing	12,000	3.04
6	Landscaping and reinstatement	included	-
7	Preliminaries	6,350	1.61
8	Professional fees *	n/a	-
	TOTAL CONTRACT SUM	305,000	77.17

Notes:

- Costs stated are rounded and based on second guarter 2012
- Costs stated exclude VAT
- At the start of the project a reserve of £30,000 was set aside for contingencies of which £13,000 was spent (included in above figures)
- The client provided £250,000 towards the cost of the project, Sport England provided £100,000 and the athletics club provided £30,000
- Caution should be taken when using any sets of figures, and professional advice should be sought regarding current market rates
- * The council designed and managed the contract 'in-house'.

Click here for 'User Guide'

Click here for current 'Design and Cost Guidance'

Environmental Sustainability

The topsoil and sub-soil excavated from the track widening was re-used on the other side of the track to extend the embankment on which to construct the external long jump runway

Procurement / Programme

Tender	Framework contractor (Charles Lawrence Surfaces) allocated by Sport England under 'Inspired Facilities' funding
Contract	JCT Minor Works Building Contract 2005 Edition Revision 2:2009
Duration	Construction planned for 10 weeks but extended to 14 weeks due to extra work

Specific Items of Interest

Improved accessibility	New site access strategy and car park
Ease of maintenance	Electric sockets were fitted to the bases of some of the new lighting columns for maintenance equipment access

... The new facility has provided a much-needed athletics hub for the club and the community... ? ?





All Photographs @ MSc - Consultants 2012