SPORT ENGLAND

Facility
Case Study

Creating sporting opportunities in every community

K2 CRAWLEY LEISURE CENTRE

CRAWLEY, SUSSEX

Status: Completed 2005
Client: Crawley Borough Council
Value: £25.76m

The K2 Crawley Sport & Leisure Centre consists of a 50m swimming pool, leisure pool, 12 court multi-purpose sports hall, health & fitness suite, 12m climbing wall, five squash courts, dedicated gymnastics training hall, indoor bowls, martial arts and athletics facility. In addition to providing sport and leisure facilities to the community it provides the primary sport & physical education facilities for the Thomas Bennett Community College next door.

The main entrance and reception area is clearly identified by a feature curtain-walled enclosure to the climbing wall. The reception area includes the leisure centre café forming a focal point for accessing all the other major activities. This enables visitors direct views of the climbing wall, fitness suite, swimming pools and gymnastics hall, encouraging people to stay and watch family and friends as well as considering other sports and leisure pursuits to participate in.

The 50m pool provides flexible swimming for training and competitive standards and includes a range of diver training. The pool hall also has a dedicated learner pool and spectator seating for 400 people.

The UKA certified 400m athletics track can hold county standard outdoor track and field competitions. The centre also includes access to external multi-user games areas (MUGA's) and a synthetic pitch.

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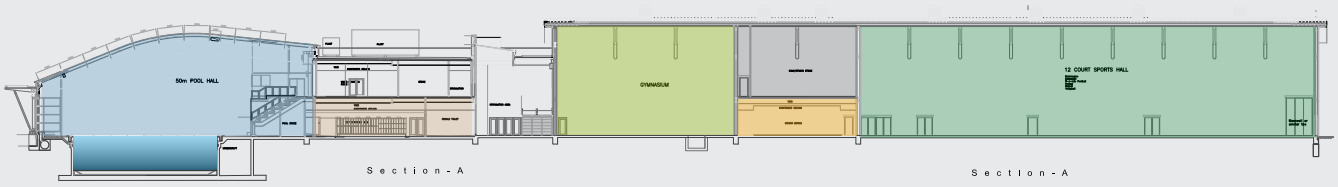
In 2006, Crawley scored the highest satisfaction rating in the country for its sport and recreation facilities within the Active People Survey.



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Movable floors and bulkheads

Movable floors have been used to change the water depth over two separate areas to either end of the pool tank area in order to achieve greater programming flexibility. They allow more activities to be accommodated within a single pool area or improve activities that may be compromised by a fixed depth of water. This has also enabled reduced net operating cost.

The two movable pools can be adjusted from a depth of a few centimetres for carer and baby classes to a safe depth of 4.0m for a person diving from the diving end. The bulkheads move vertically and when in their lowered position are housed in a recess in the pool floor (see sectional diagram).

The two bulkheads and moveable floor sections provide the following benefits to the facility:

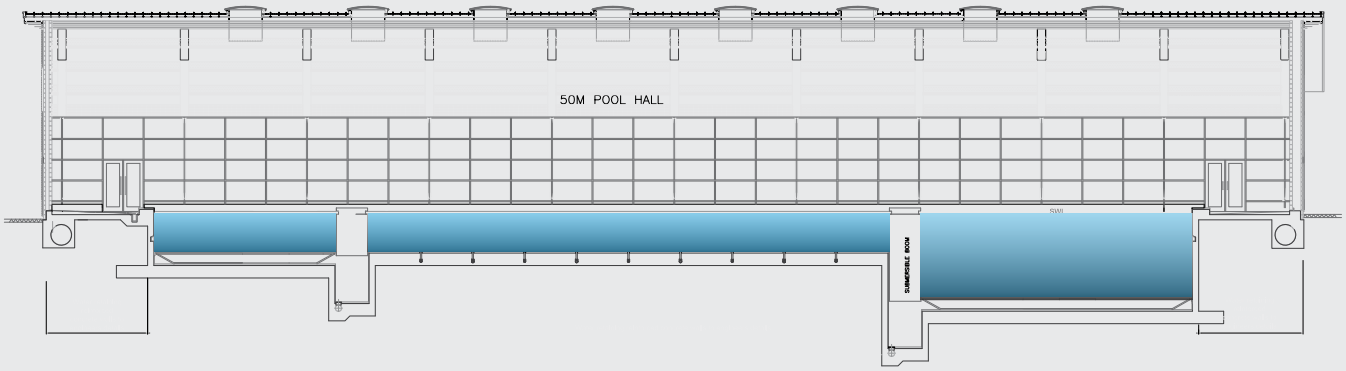
- Division of the water area to allow different activities simultaneously. This is often desirable for safety reasons.
- Reduction of the length of the pool from 50.0m to 25.0m, which is the length recognised by the ASA for training and competition.
- Provide measurable distances where accuracy is important.
- Provide a safety barrier to the edge of a movable floor.
- Provision of diving facilities without the need for a separate diving pool.
- The bulkheads allow convenient access around each of the three pool divisions improving safety.

Schedule of Areas

Gross Site Area	57,194 m^2
Building Footprint Area	11,735 m^2
Gross Floor Area (all floors)	18,295 m^2 (external) 16,979 m^2 (internal)
Pool Area % of Building Footprint Area	9 %

General Accommodation / Standards

Swimming Pools	The 8 lane 50m swimming pool has 2 movable floors and booms to meet a wide range of needs & variable depths, including training & competitive swimming (in either 25m or 50m mode) and diving training facilities (1m and 3m springboards and 5m diving platform). There is also a 13m Learner Pool and formal spectator seating for 400 people.
Sports Hall	Multi-purpose 12-court hall (9.1m height) to BGA standards, with associated storage and retractable 810 person bleacher seating.
Gymnasium	Training hall and stores.
Indoor Bowls	2 Rink.
Squash Courts	5-courts.
Climbing Wall	12m including enclosure.
Health and Fitness Suite	Dedicated changing zone adjacent.
Café & Crush Bar	Open plan to entrance area to cater for potential 3000 concert goers.
Martial Arts	Dedicated facility.
Multifunction rooms	Flexible spatial design.
Changing Areas	Dedicated dryside / wetside to respective facilities.
Offices	Staff / grounds etc.
Athletics grandstand and competitor rooms	The athletics facility can hold county standard outdoor 400m track and field competition events and also indoor training.
Reception area / Circulation	Clear views to outside.



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General Description of Key Specifications and Materials

Frame	Reinforced concrete, steel frame, glulam beams	
Cladding	Render, cedar panels, curtain walling to north face	
Roofing	Profiled metal roofing system	
Internal Walls and Partitions	Low-density concrete blockwork	
Internal Doors	Solid core with laminate finish	
Wall Finishes	Painted plaster (dry areas) / render (wet areas)	
Floor (sports hall / gym)	Semi-sprung beech flooring	
Swimming Pool	Reinforced concrete retaining structure with 2no. submersible booms (moveable floors and bulkheads) to provide water depth range 0-4.0m	
Lighting	Lux levels	Type
Pool zone	300lux	metal halide floodlights
Sports Hall	500lux	surface mounted linear fluorescent
Gymnasium	500lux	surface mounted linear fluorescent
Indoor Bowls	500lux	recessed linear fluorescent
Squash Courts	500lux	surface mounted linear fluorescent
Changing / WC's	300lux / 200lux	combination of recessed linear fluorescent and recessed compact fluorescent downlighters
Offices	500lux	recessed linear fluorescent lamps
Cafe	250lux	recessed metal halide downlighters
Circulation	200lux	recessed compact fluorescent downlighters

Summary of Elemental Costs

	Element	Total Cost (£)	Cost (£) per m^2
1	Substructure	2,350,000	140
2	Superstructure	6,850,000	405
3	Finishes	1,920,000	110
4	Fittings and Furnishings	1,500,000	90
5	Services	5,630,000	330
6	External Works	2,810,000	165
7	Preliminaries	2,700,000	160
8	Contingencies	780,000	45
9	Design Fees	1,220,000	70
	TOTAL CONTRACT SUM	**25,760,000**	**1,515**

Notes:

1. Costs stated are approximate 'rounded-up' 2005 costs, under extremely favourable tender market conditions. Costs were also below the norm due to the high circulation areas and large sports hall and gymnastics areas.
2. The above contract sum excludes the MUGA's and synthetic turf pitch, the client contingency, pre-novation fees, client direct consultants fees and client 'Fittings, Furniture & Equipment' budget.
3. Caution should be taken when using any sets of figures, and professional advice should be sought regarding current market rates.
4. The development was wholly funded by Crawley Borough Council through the sale of the buildings and land occupied by the original 1960's leisure centre that K2 Crawley replaced.

> *"...The K2 Crawley Leisure Centre's 50m pool in this particular location has satisfied a demographic need that has been supported by their national facilities strategy. The variety of diving provisions are unique to the area..."*

Environmental Sustainability

- Use of monodraught natural ventilation to sports hall and gymnastics hall
- Combined Heat & Power (CHP)
- Fluorescent and/or low energy lighting to general areas.

Procurement / Programme

Tender	Two stage
Contract	Design and Build
Duration	21 months from start on site to practical completion

Specific Items of Interest

Element	Area (m^2)
12-court sports hall and storage	2,248
Gymnasium	751
Indoor bowls	607
Squash courts (incl. spectator area)	515
Climbing wall facility and enclosure	203
Health and Fitness Suite (including changing)	1,535
(excluding changing)	1,178
Athletics grandstand and competitor rooms (incl. athletics store & weighing room)	1,079

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