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## Anyone for tennis? Canoe Lake Tennis Pavilion, Southsea

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# Canoe Lake Tennis Pavilion, Southsea

*Canoe Lake Leisure has invested considerable time and money in new tennis facilities on Southsea Common. Four new all-weather tennis courts and twelve existing grass courts have been refurbished to international standards. Darren Bray of PAD studio reports.*

**P**AD studio has designed a new pavilion as a permanent base for the tennis club and for users of all courts at the site. The building will also host a range of sports and community classes all year round. Southsea Common is a historic part of the Southsea seafront, which has received limited investment over recent years. This project was intended to be a beacon, not only for tennis, but for the community and Southsea, who have eagerly embraced the facility.

In Southsea, Portsmouth, a small group of individuals formed Canoe Lake Leisure (CLL) to safeguard the future of the Canoe

Lake grass tennis courts, at a time when Council funding cuts meant their future was uncertain. The existing clubhouse was the target of repeated vandalism and unsafe for public use. CLL heavily invested in private funding to restore the twelve grass courts, four artificial courts and two hard courts, as well as provide a new purpose-built pavilion with provision to host both community events and children's indoor tennis.

CLL leases the new pavilion site and the restored tennis courts from Portsmouth and Southsea City Council. Using private finance and enormous perseverance, CLL has transformed the area, refurbishing the



Canoe Lake Pavilion viewed from the grass courts.

grass courts to an international standard and building four new artificial grass courts. The pavilion is the first public building to be built on Southsea seafront for 30 years.

The pavilion site and tennis courts are divided by a public footpath leading to the seafront. The pavilion has a great vantage point – enabling both sets of courts to be viewed – as well as the common and boating lake beyond. As a result, a key requirement was a two-storey building to maximise such an attractive location. The ground floor, formed from brick, provides a solid base and large openings are carved away to reveal views into the building, showing activity on the courts beyond. The aim was to provide a robust base, inviting the community to engage with tennis and other activities in the area.

The pavilion's first-floor viewing gallery is set against mature trees to the south of the site, and is designed to be as unobtrusive, transparent and delicate as possible. A slim butterfly roof floats above the largely glazed first floor, reducing the building's mass and creating covered outdoor seating space. Both the materials and structure of the building have been mindfully designed as the area suffers from persistent vandalism. All glazing at ground-floor level can be secured at night

Double-height entrance and reception space.





Double-height entrance and reception space.



Main ground-floor studio spaces.

through finely detailed, sliding mesh shutters which slide into recessed brick pockets. At night, their perforated finish allows the building to glow subtly, helping to improve security lighting along the public footpath.

The concept for the building is reinforced through the materials specified, some not often used in UK public buildings of this scale. The bricks, for example, are Danish handmade clay bricks, much longer than a standard UK brick and half as high. This helps the building appear to sit lower and longer. The interior is deliberately utilitarian, designed to be hard-wearing and enduring, while softened with plywood lining, ash floors, a wonderfully tactile cast concrete exposed roof and colourful furnishings.

The client wished to limit the running costs of the new building primarily using passive methods with a fabric-first methodology. The building has not yet been assessed using any BREEAM, Passivhaus or equivalent standard; however, it has far exceeded requirements set out in Building Regulations passing SBEM calculations with ease.

The blockwork construction of ground-

floor and first-floor elements with exposed internal concrete soffit offers the tremendous benefits of thermal mass, significantly reducing temperature fluctuations throughout the day. Spaces stay cool in summer and retain warmth in winter.

### Concrete construction process

The decision to use cast-in-situ concrete slab and precast concrete elements on this public building came from both structural needs and durability requirements. Initially, the design team explored precast concrete plank systems for the first-floor slab; however, due to the sizes and complex geometry required, were unable to find a sub contractor to complete the work. Working with concrete consultant Jonathan Reid of GreyMatter Concrete and Toby Ronalds of Eckersley O'Callaghan, the first-floor slab was redesigned as a fair-faced in-situ structure. Reid introduced James Saward of Torricon Construction, who was working on Rogers Stirk Harbour + Partners' £225 million Burlington Gate project on Old Burlington Street, London.

PAD studio took the client to meet Saward at Burlington Gate and review all the in-situ work in progress. Fortunately, he was convinced to undertake the small slab in Portsmouth. The site visit enabled the review and appraisal of the variety of finishes available, giving the design team confidence to commit to an exposed fair-faced 'special' cast-in-situ concrete finish.

The innovative procurement process and construction management provided the opportunity to carefully select and choose the subcontractors and suppliers working on the project, ensuring people were appointed



External terrace glass balustrading detail with precast concrete parapet coping by Specialist Precast Products.



First-floor viewing area and bar.

for their expertise in delivering high-quality workmanship. This allowed for collaboration with many specialists' that brought exceptional added value to the project throughout.

The switch to in-situ concrete provided the opportunity to create an excellent exposed fair-faced finish, which would lend itself to the durability required from both client and context. The exposed surface was also exploited for its reflectivity and thermal mass benefits, assisting in reducing the artificial daylight required and internal temperature fluctuations.

Aided by GreyMatter Concrete and the engineer Eckersley O'Callaghan, a bespoke exposed concrete finish specification was developed. The aim was to keep this as simple as possible, referring to the *National Structural Concrete Specification*<sup>(1)</sup> for details on a 'special' finish. Critically, it was agreed to write in the post-finishing method and approach, so that an allowance and agreement was in place for this work to be undertaken. GreyMatter Concrete reviewed the exposed soffit/ceiling once struck and the design team agreed to proceed with some localised post-finishing work.

The precast concrete elements on the project consisted of parapet copings, perimeter ground-level plinth and window cills. Jonathan Reid recommended an approach to Martyn Fear of Specialist Precast Products to discuss how we might collaborate on these elements. These three key pieces needed to be robust, fit the overall tectonic quality of the building and, most importantly, be affordable. It became apparent that Specialist Precast could meet all these key criteria and produced beautiful samples for

both client and PAD studio to sign off and place an order.

A great deal of importance was placed in innovation and collaboration through concept design, development, technical detailing and procurement. By using construction management for this project, PAD studio had enormous flexibility to explore a range of construction methods, sub contractors and suppliers. This would not have been possible under many other procurement methods. Importantly, we have our trusting and forward-thinking client to thank for investing in this process.

The Pavilion has already been embraced by the LTA (Lawn Tennis Association) who hosted the inaugural Aegon Southsea Trophy as a professional pre-Wimbledon Ladies event, in late June, one week after the building's completion. Fittingly, tickets were free and the Pavilion in its first week had several thousand visitors, hosted some of the top one hundred ladies' players and was featured on BBC South.

Stephen Morgan, the newly elected MP for Portsmouth and Southsea commented to the press recently that, "The Aegon Southsea Trophy really is Portsmouth at its best. Local schools, local people and world-class tennis players all coming together for a fantastic tournament. The team at Canoe Lake have worked so hard on this facility which benefits both the local community, who are able to play tennis here, and the athletes in their preparations for Wimbledon." ■

#### Reference:

1. CONSTRUCT. *National Structural Concrete Specification. Fourth edition complying with BS EN 13670:2009*. The Concrete Centre, Camberley, 2010.