

STRIDE TREGLOWN

Thinking Schools

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The funding, programme and procurement process of current school buildings means that successful projects require a collaborative team pulling cohesively together to achieve the desired results. In this 'restrictive' climate for school design, how can we, as designers, push the boundaries of what is possible? The thoughts put forward over the following pages aim to capture some of the most important emerging themes that we are encountering.

The demand for schools in densely populated urban areas is inevitably increasing and the reuse of buildings, historic or otherwise, can answer part of this need and may bring unique benefits to a school's character. How can we ensure that sensitivity to the existing building is balanced with the creation of an optimum learning environment?

To complement this reuse approach, the residential and commercial sectors have embraced the solution to build higher, to fit more on a smaller footprint. Designers are now having to consider if schools should follow suit.

Revisiting our projects and learning from our building users in our 'Inhabitant' series has been crucial to learning to design for all the senses - giving a greater chance of connecting with more users.

Echoing our focus on 'Place', a key challenge is to find ways in which school sites can be flexible; used by multiple groups of people and provide facilities to more than just their students – positioning schools at the heart of the community.

Thoughtful design should underpin everything. It needn't be expensive, but it must be considered and afforded time.

I hope you enjoy reading our thoughts. Please get in touch – we'd be delighted to discuss any of our approaches or projects with you.

Caroline Mayes

Director, Head of Schools

Craig Brown, Associate Architect

Craig specialises in school design and is currently lead project architect for Ealing Fields High School – a secondary school on a complex historical site in West London.



Creative reuse – part preservation, part inspiration

With a shrinking number of city centre locations available for school development, it's becoming more common for us to design new schools on increasingly complex sites, often incorporating existing buildings.

I have recently led two school projects that included the refurbishment and conversion of existing historic buildings which were to be integrated within a larger new school: Oasis Academy Temple Quarter in Bristol and Ealing Fields High School in West London.

Ealing Fields High School involves a combination of substantial new build and the refurbishment of historic buildings to become an 840 place secondary school.

Our starting point was to sensitively assess the rabbit warren of existing buildings to identify which were most historically valuable, in best condition and most suitable for integration in a new school. This exercise concluded that only the Grade II listed manor house and former servants' quarters were viable for retention.

Further analysis was then necessary to establish how the brief for a conventional secondary school could be mapped onto the floorplan of a 17th century manor, originally built for Charles II's Chancellor of the Exchequer!

The balance between the demands of efficient re-use and sensitivity to significant historic assets is essential for a project's success. However, the aspirations of various stakeholders do not always perfectly align.

A lounge where Queen Victoria once took tea was a prime example of a space earmarked by the funders for teaching. However, we felt the room, with its historic fabric and associations, was too significant to be included in the school's area brief. Instead, the decision was made to restore the lounge, giving the school a parlour space bursting with character and history.

We were fortunate to have extensive, direct communication with the DfE project lead which enabled us to develop a bespoke design that evolved iteratively and sensibly in this way. This dialogue was critical to the success of the overall project.

As the demand for schools in densely populated urban areas inevitably increases, it is more likely that projects will be constrained in some form and require a degree of creative customisation.

Reuse of buildings, historic or otherwise, can answer part of this need and may bring benefits to a school's character if appropriately incorporated. But it is essential to recognise that projects with unique constraints require a bespoke brief and creative solutions which are allowed to develop without rigidly adhering to the 'one size fits all' approach.

Ealing Fields,
West London



Rachel Bremner, Associate Architect

Rachel has over ten years of experience designing and delivering school projects in London and the South East including Harris Academy Clapham, a DfE secondary school in Lambeth.



Is high rise the future for urban school design?

In London, the current demand for both secondary and primary school places is high. With an increase in population year on year, this problem is not likely to go away.

Space is already at a premium in our cities, so how do we provide state of the art education facilities with sufficient external space to meet this demand?

The residential and commercial sectors have embraced the solution to build higher, fitting more on a smaller footprint. Should schools follow suit?

When designing a high rise school, we need to rethink conventional internal adjacencies. Spaces we would normally expect to be on the ground floor have to move to upper floors. We must consider; access to quality external space; the logistics of people movement; fire strategy; and, how to ensure the sense of community is not lost when the school is spread over multiple floors.



Harris Academy Clapham, Lambeth

The key to success is working closely with education providers to develop a smaller footprint that works.

One of our projects, Harris Academy Clapham (HAC), presented us with this challenge. The DfE required a brand new secondary school for 975 pupils on a small site in south London, as part of a campus with our recently completed Glenbrook Primary School.

At five storeys, HAC is the tallest school we've designed, and like other schools, the dining area, library and main hall were to be at its heart. We made the radical decision to elevate the sports hall to the second floor of the building. This enabled us to gain external space on the ground as well as providing a large flexible covered external area for the school to use below. The covered area also provides spill-out for dining which can be used in all weathers. In addition, the activity studio and drama studio are

on the 3rd floor. Large spaces on upper floors are not without their challenges – there are implications on structure, services coordination, vibration and acoustics.

Other solutions to the high density problem are to incorporate schools into mixed-use developments. Successful recent schemes in London utilise the ground and first floors of apartment buildings and use the revenue from sales as funding for the school, such as Kingston Community School which we are currently developing the detailed design for.

Urban school design will need to adapt and evolve over the coming years to meet the demands of our growing population. With space at a premium in our cities, innovative ways to provide creative, inspiring education facilities will be needed – we look forward to the challenge!

Designing schools for the senses



Phil Grant, Senior Associate Architect

Phil's experience with Special Educational Needs (SEN) learning environments has inspired him to study part-time for a Professional Doctorate in the application of multisensory design in schools, with particular reference to Post Occupancy Evaluations.

“ We all experience the world in a different way, making it challenging for designers to create SEN spaces that are equally beneficial and meaningful to all occupants. Even so, when we design for the senses, our buildings have a greater chance of connecting with users, and particularly those with sensory disabilities.”



The Deaf Academy, Exmouth: A new school with residential accommodation for Deaf young people aged five to twenty-five. Light, open spaces optimise visual communication for sign language

and lip-reading and provide good acoustics to maximise access to sound for those using assistive technology such as hearing devices.

Josh Blackledge, Architect

Based in London, Josh is currently working on Leigh Academy Blackheath and Harris Academy Clapham, both new build ESFA secondary schools.



Positioning schools at the heart of communities

Schools are central to our communities. It's not enough to design great learning environments for students. To be truly successful, schools must integrate with, and benefit, the wider area.

Creating new community space is especially important in inner city areas where high value sites are often developed for housing. The demolition of youth clubs or community centres can have a huge impact on an area. Schools can fill this gap by providing space for sports, social clubs and local groups.

However, in this there is a paradox. We want schools to be open, permeable and accessible to everyone living nearby, yet during the working day the safety of students is the priority.

Our challenge as designers is to find ways in which the school can be used flexibly by multiple groups throughout its lifetime.

Our recent project for Leigh Academy Blackheath in London is a prime example of an inner city school operated by an enthusiastic trust keen to provide facilities for nearby residents. The surrounding area is undergoing redevelopment with new housing projects bringing more people into the area and putting strain on local services.

Through careful design, we have created a school which serves the local community and at the same time ensures student safety. Facilities for use by local clubs (including a sports hall, a drama and dance studio and theatre) are arranged close to the edge of the site for easy public access. We avoided a building set in the distance behind ominous fences. Instead landscaping and open green space provide a direct line of site from the street so residents feel welcome.

Having the community facilities arranged in one block means the main teaching block is separately accessed and secure. Students can safely use the entire teaching facility whilst the school generates revenue by letting out community spaces in the late afternoon and into the evening.

Working with trusts to find new and interesting ways for their schools to serve the community remains a key priority for us throughout the design process. As architects, our goal is for our buildings to benefit the areas in which they are built. Schools, when designed with the community in mind, can become genuinely useful facilities that bring people together.

Leigh Academy
Blackheath



James Page, Associate Architectural Designer James is a design lead for school projects in our Cardiff studio. He has been responsible for the design of over £70m of school projects over the last 10 years.



Ysgol Bae Baglan – a flagship Band A project. What's in store for Band B?



Band B – what's in store for Welsh school design?

Band B of the Welsh Government's 21st Century Schools and Colleges Programme will bring £1.8 billion of capital funding and a further £0.5 billion via Wales' new Mutual Investment Model. This new stream of funding for over 100 schools and colleges will no doubt present challenges; some old and some new.

Tight budgets have long been a fact of government funded school procurement but they should not be an excuse for a substandard outcome. Thoughtful design should underpin everything. It needn't

be expensive, but it must be considered and afforded time - an increasingly rare commodity with many project programmes.

There is a real skill to creating something that is visually striking, whilst still affordable, well proportioned, buildable, robust and - most importantly - a joy to use. This is something that we always fight for even as budgets inevitably diminish. Equally, listening to the aspirations of end users and combining that engagement with a progressive and innovative take on guidance standards

allows us to create spaces that anticipate changes in the way pupils learn.

Standards shouldn't squeeze quality

Band B will see designers further ushered towards 'standardised solutions' as a means of ensuring value for money. Whilst there are clearly savings to be made through procuring template designs across multiple sites, there are design concessions that must be accepted, and relationship with site context is often the biggest casualty.

Experience of delivering model schools during Band A has prompted us to consider that maybe standardisation should be less focussed on regurgitation of template layouts and more concentrated on the contractor and design teams' knowledge of, and confidence in, a 'kit of parts'.

Tried and tested construction details and a consistent materials palette are what really makes the model school and we should reserve the right of flexibility in layout as much as possible. Modular and offsite solutions are likely to add a further dimension to standardised school design that we must remain open to.

It's not all 'out with the old'

Refurbishment and remodelling is likely to be much more common in Band B. Most local authorities used Band A to replace their worst performing stock, so the next tranche will inevitably address the schemes that didn't warrant the full new-build treatment. Reuse offers different challenges and opportunities, particularly in terms of our approach to sustainability.

Our Band A refurb projects like Pentrehafod Comprehensive are a good model, as they allowed us to explore circular design principles by reusing existing building components and consciously designing new elements with ease of disassembly and future reuse in mind.

As Band B heats up, the Welsh education sector still offers exciting opportunities to innovate. Simplicity is the key to reducing capital costs and operational expenditure for our clients. We know from experience that less is definitely more if you get the design right.

Contact us



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STRIDE TREGLOWN

Stride Treglown is an employee-owned architectural practice of over 300 people.

We are not driven by ego. Instead, we focus on the needs of our clients and the people that use our projects, creating inspiring, sustainable spaces that genuinely work.

BATH
BIRMINGHAM
BRISTOL
CARDIFF
LONDON
MANCHESTER
PLYMOUTH
TRURO
WINCHESTER

ARCHITECTURE
BIM & DIGITAL DESIGN
BRANDING & WAYFINDING
BUILDING SURVEYING
HISTORIC BUILDINGS & CONSERVATION
INTERIOR DESIGN
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