



Andrew Tang

site lines

Andrew Tang of Pellings spells out the design lessons for secondary schools as they expand to meet the intake ‘bulge.’

St Mary Magdalene School, Woolwich – a £7.6m new build primary school re-built on the site of the original Victorian school. The Voluntary Aided St Mary Magdalene C of E School in the Diocese of Southwark increased in size from 1FE to 2FE through the use of a robust design methodology that incorporates ‘playdecks’, providing external playspace on four levels of the building



Having worked for the past 10 years, largely in the primary education sector, I have been involved with a number of projects directly related to the so-called population ‘bulge’ the UK is undergoing. We have now seen this issue migrate gradually to secondary education and frequently find ourselves asking: how we can draw on our experience from primary and transfer the knowledge to the secondary sector?

In theory, forecasting secondary school place requirements should be fairly straightforward. Primaries have been dealing with an increase in pupil intake for several years – made up of both the bulge (a consequence of an increase in birth rate since 2012) and longer-term growth in school age populations, particularly in London and the South East, which is also driving housing demand.

It is very likely that the vast majority of the (up to) additional 300,000 secondary school places will be found through expansion of existing schools, as has been the case with primaries. Finding land and

achieving consent for new schools in the areas of need is extremely tough, as many academies have discovered. In addition, the relatively short timescales mean that there is little choice beyond building within the curtilage of existing schools.

In my experience, there are six key lessons to be learned from managing the demand for primary places:

Early engagement reaps rewards

Successful school expansion projects start long before an architect is appointed. Key stakeholders need to be identified and engaged with before the project enters design stage. Parents and teachers generally don’t react well to having expansions imposed on them, no matter how pressing the requirement. However, this does not mean that objections cannot be overcome or at least minimised, and architects are experts in using a whole range of techniques to listen and communicate.

Take a campus-wide approach

Many school campuses have developed piecemeal and a review of existing accommodation, followed by what can often be fairly straightforward remodeling, can increase the efficiency of the school and thereby improve curriculum delivery. The value of this pragmatic approach should not be underestimated, as an efficient use of existing space reduces the need for new construction and can deliver a higher quality environment within finite budgets. The assessment of external space is equally important and together with an understanding of how pupils use these spaces, is critical to providing flexible, covered or all-weather space which can deliver intensive year round use.

With expansion projects becoming more common within fixed school boundaries, and often within confined sites, this process is key to a successful outcome. Equally, analysis must extend beyond the curtilage of the school site to look at the marriage value of adjacent sites. For example, as part of a recent design competition we looked to a bordering disused care home as an option for amalgamation with an existing school.

Design for the actual need

Architects are, by nature, aspirational and endeavour to realise their vision. However, if my experience of primary school expansion is the norm, and I suspect it is, there is little place for ego in this type of work. This does not mean that we must compromise in terms of quality, with key standards such as BB103 and the EFA’s Baseline Designs

Blackfen School for Girls, Kent – £2m secondary school refurbishment and expansion. Pellings designed a 735 m² extension at the front of the existing school to provide an attractive appearance consistent with a modern performance-orientated environment



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for Schools treated as guidance.

However, every pound of budget will have to work extremely hard, and tough choices need to be made. Pellings' approach of agreeing non-negotiable "must have" outcomes with sponsors, school managers and teaching staff during design development means that an overall solution is developed that delivers best value for all parties. To achieve this, the design team must have great expertise in all aspects of design not least of which is keeping abreast of the developing technologies and construction methods. This allows us to help non-expert clients make the best decisions.

A good example is modular (volumetric) construction of which, in my experience, many primary school clients hold very negative preconceptions, usually based on decades old practices. However, 21st century modular buildings are a world away from the cabins of old in terms of performance, and still offer the advantages of short construction timescales, so speeding up projects. In addition, through selection of facades, such as Trespa panels or brick slip systems, a wide range of aesthetic objectives can be achieved.

A modular design strategy could, for example, focus on the interfaces that users have with the buildings, as it allows each school to tailor each building towards its particular needs. This can be achieved while standardising the elements that are of less interest to the

schools such as structural elements, form of construction, fenestration, door openings, etc. The quality of design remains critical, however, with high quality educational buildings having a demonstrable impact in facilitating curriculum delivery. This helps to recruit and retain staff and in providing flexibility to conform to developments in approaches to teaching and learning.

Design for flexible use

Flexible design has been a key trend in primary schools and I firmly believe there are lessons to learn for secondary schools. The challenge is greater because of the many specialist teaching areas in secondary schools such as laboratories or sports or arts and design. However by understanding requirements and, for example, specifying building services for multiple uses, spaces can be reconfigured far more cost effectively in the future.

Add value

The best educational architects are able to deliver more than just the basic accommodation needs, while not compromising budgets. Indeed, this is the real challenge for myself and the team at Pellings and the real satisfaction comes from exceeding client expectations and delivering something that delights. The specific requirement for secondary schools is likely to be different from primary.

For example, issues such as branding are generally more important for secondary schools. Adding value in terms of creating areas that give parents, pupils, and staff pride in the school can be quite simple such as via creative use of graphics, and spaces that allow for a wide range of working practices. Striking design, investment in external space and good connectivity all add value to a school and engage the community.

Understand who the client is

I would argue that a good design outcome is result of having a clear vision of how education will be delivered and how this is translated into a thorough brief. In considering the experience gained from primary school projects, it is important that we do not lose sight of the fact that secondary education will often have distinct criteria and approaches to similar problems.

With ever-increasing pressure on local education authorities to cut back and with government enthusiasm for privately-funded academies, there is a great opportunity for expert educational architects to provide creative solutions to the secondary school 'bulge' within the confines of existing school sites or adapting buildings previously occupied for alternative uses.

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