

St Brides Primary School

General Introduction to Project



St Bride's is a single stream primary school with a nursery that was built to replace an existing facility destroyed by fire. It consists of seven classrooms, a two room nursery, an ICT room, gym hall, changing, dining and GP facilities.

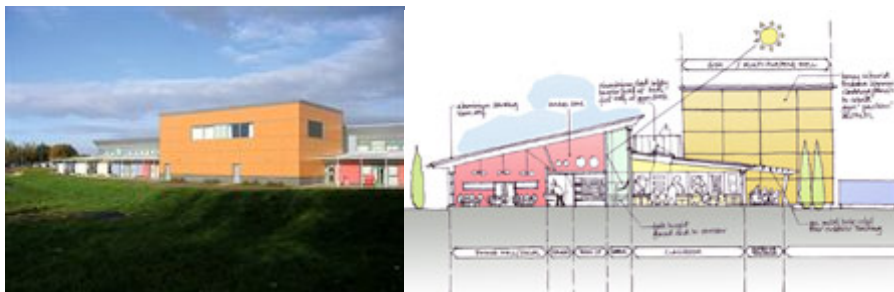
The school is very much designed as a community facility and the layout accommodates the use of non-classroom areas, and specifically the gym and dining room, as community facilities outwith school hours. Adult-sized shower facilities are provided.

This school was selected as a case study as it is an early example of a number of schools built by South Lanarkshire as part of a 'Partnering Agreement' between the Council and the same architect and main contractor team. The Council's architecture team worked closely with the delivery team and the school users, and this has provided a successful basis for the development of a number of subsequent schools. These schools are all bespoke designs, to suit the specific needs of their sites, and as such are in no way formulaic. However, the design approach in terms of team working and consultation with users is allowing the Council to learn from each school and to develop new ideas based on issues that arise in each case. This was further evidenced through discussion with the Head Teacher who, although pleased with her own school, was equally pleased that suggestions made during consultation, which had had not been possible to accommodate in St Bride's, had been implemented in later schools. By comparing this school with the latest example, [Chatelherault School](#), (also featured as a case study) it is evident that this approach has merits and could serve as a model for other local authorities.

Key Project Data

Sector	Primary with Nursery
Location	Ailsa Drive, Bothwell, South Lanarkshire
Client/ Local Authority	South Lanarkshire Council
School Capacity	231 primary pupils 40am/ 40pm nursery pupils
Procurement Route	Open book Design and Build - Framework Partnership
Project Value	£3.7 million
Gross Internal Floor Area	2085 sq m
Design Team	Architects - Atkins Civil and Structural Engineers - Atkins M&E Engineers - Davie McCulloch
Specialist Consultants	Scotframe - timber frame contractor
Contractors	Mowlem
Start Date	May 2004
Completion Date	December 2004

Design Features



The scheme has a simple extruded form with a split 'duo-pitch' roof to allow clerestory daylighting to all areas, and to allow natural ventilation to penetrate the depth of the building. The building has a simple section, but the attention to detail results in a building that gives a light airy feel to the spaces and allows maximum use of passive heating, lighting and ventilation.

The location and linear form of the building were dictated by the need to avoid a major gas main which crosses the site. However, efforts were made to avoid a sprawling form and the building remains fairly compact. The rectangular result is penetrated by the gym/assembly hall block, which is located centrally in the building opposite the main entrance. This becomes the heart of the school, providing a service hub that serves the two teaching wings and gives a direct access point for visitors.

To provide a sense of ownership and identity, each of the classrooms is themed with a particular colour, expressed in the choice of carpet and a 'feature' teaching wall. Classrooms have direct access to an external teaching area and from there to the wider play environment.



The area outside each classroom is also colour-coded to match the internal features, helping the younger children to recognise their classroom when returning from outside reinforcing the notion of ownership. The overall visual impact of the use of colour in this way is that it provides a vibrant façade, with the rich, red coloured timber laminate of the gym hall acting as a counterpoint.

The south facing classrooms, whilst having extensive glazing, are shaded by a 'brise soleil', which adds to the sense of enclosure of the external teaching spaces. The classrooms also have a large openable roof light towards the back of the room in order to introduce daylight to the depth of the space, and to provide a route to optimise natural ventilation.

The school has excellent outdoor play facilities with double doors from each classroom that give direct access to the playground and the nursery has a separate large soft play area. The external landscaping is dominated by a grass bank 'amphitheatre' which was originally devised as a solution to avoid excessive transportation of excavation materials from the site. This feature has become a popular play area, while also providing an area for external assembly in dry conditions.

Choice of Site

On site of previous school.

Materials

In accordance with all of South Lanarkshire's schools, St Bride's was built on the basis of a 60 year life cycle. Materials were therefore selected on the basis of life cycle, durability and sustainability.

- External walls: the use of timber frame allowed for off site construction, resulting in high quality finish, ease of erection and a sustainable solution in terms of carbon absorbing credentials, recyclability and adaptability.
- External wall finish: pre-coloured render was selected on the basis of whole life costing to reduced maintenance by avoiding the need for re-painting.
- Internal walls: lightweight internal partitions were selected to allow flexibility for potential future expansion or alteration.
- Roof: sheet metal roofing material was selected to give a low maintenance 25 year life span and improve recyclability.



The timber frame structure and lightweight partitioning takes account of the need for acoustic control/ sound reduction, and also provides flexibility within the building for expansion or alteration of the internal spaces. This increases the useful life of the school and reduces the need for additional onerous building works should a requirement for change in use be identified in the future.

Artificial lighting throughout is controlled by movement sensors (with a manual override for sunny days, projection, etc). The natural ventilation strategy minimises the need for additional air handling equipment.

Viewpoints

Client's Perspective



The school brief was developed by the client, but the design was part of the tendering and evaluation process. Educational managers and the Head Teacher were involved in the design selection process.

The initial brief, in terms of accommodation size and educational requirements, was developed by South Lanarkshire's Education Resources Team and the detailed brief was then developed by the Housing and Technical Resources Team at the Council.

Architect's Perspective



The 'partnering agreement' (an open book Design & Build contract) allowed amendment to take place without incurring a negative impact regarding cost and time. This was particularly important in this case due to the need to deliver an ambitious programme in a tight timescale allowing entry to the school to tie-in with term times.

The user was represented both by an educationalist, who had input into the brief and attended initial design meetings, and the Head Teacher, who had input on decoration, play and other areas and who also attended 'partnering' workshops.

Sustainability was part of the dialogue and was mainly driven by the architect in this instance. Some desirable items were omitted to remain within the budget for the project.

Users' Perspective



Feedback has been generally positive on all levels and the users are delighted with the school, which is innovative and well-designed, providing an environment that they are able to enjoy. The morale of both pupils and staff has been raised by working in such a pleasant environment.

Teachers have embraced the covered outdoor play areas, which are easily accessible from all classrooms, regularly taking the children outside during class time. Children are also encouraged to eat their lunch outside in warmer weather.

Outdoors there is also a large play area with an all weather pitch and a 'trim-trail' to encourage exercise, all of which is provided in a safe and controlled, environment. The school also has excellent accessibility services.

There has been a noticeable growth in extra curricular activities and an increase in the number of users of the building. A number of new lunch time and after school clubs have

been established. As a result the school has employed a coordinator to oversee these activities.

The school has a number of flexible spaces that can be used for a variety of purposes. Visiting specialists and support staff feel comfortable within the school and find the building easy to navigate.

Users reported a few issues regarding the building layout that affect how well it functions as a school. The size of the staffroom, which was altered to provide changing facilities for a child with special needs had to be worked into the existing footprint. These remain as issues for the school, but do not detract from the fact that the users are extremely happy with the bright, airy building which they now occupy.

It is South Lanarkshire's policy to keep gym halls and dining spaces separate. There is also a policy of having full stage facilities within the gym including a lift access and changing and scenery areas. In general, this approach has proved popular, but the issue of providing a central gathering space is being addressed in more recent school projects.

General evaluation of building

The building became a benchmark for the area, and the concept is now being further developed in the latest round of schools delivered under the same procurement route in South Lanarkshire.

The client drew attention to a recent HMIE report that found the overall quality of the accommodation to be excellent, and reported that:

"The school was bright and attractive and provided a very welcoming learning environment... All associated with the school commented on the very positive impact the new building had on morale and pupils' enthusiasm for school... Classrooms were spacious and well-equipped and allowed pupils easy access to outside teaching areas to extend and enhance their learning."(HMIE inspection report, October 2006).



Lessons Learned

This school has been the genesis for 13 schools, which have been designed and constructed by the local authority, Mowlem and Atkins team and the lessons learned have been applied to projects that followed.

Lessons regarding provision of changing facilities for children with special needs have now been incorporated as a matter of course by the Council, as has the inclusion of a larger gathering space. The success of the full stage and lighting rig and dedicated changing facilities have been further enhanced and delivered in all South Lanarkshire's ensuing school projects.

In hindsight, toilets for pupils are not ideally situated in the school. They are not easily accessible during break time and are remote from the classrooms at the far end of the two wings of the school.

Further Information

For further information please use the contact details provided in the table below.

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