



HERITAGE STATEMENT

Springwood Junior School

(Formerly known as Hulbert School)

Renewing the Existing Patent Glazing

C10326

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1.0 INTRODUCTION

Springwood Junior School was formerly known as Hulbert School and is located in Waterlooville. The 3.2-hectare school site contains one main school building and four small outbuildings within grounds of hardstanding, amenity grassland and woodland areas. The site is set in a wider landscape of suburban residential dwellings with small blocks of woodland.

Springwood Junior School was built in 1981-1982, by Hampshire County Council Architect's Department. It is a strong example of a school designed in-house by Hampshire County Council architect's department, which created a large body of important work and was noted in particular for its inventive and successful school buildings under the leadership of Sir Colin Stansfield Smith. Springwood Junior School was grade II listed on the 6th October 2017.

2.0 UNDERSTANDING THE HERITAGE

2.1 Background

As stated in the list entry Springwood Junior School is a strong example of a school designed in-house by Hampshire County Council architect's department, which created a large body of important work and was noted in particular for its inventive and successful school buildings under the leadership of Sir Colin Stansfield Smith.

2.2 Context

Springwood Junior School is located within the south-east part of Waterlooville, 550m west of the M3 motorway. Springwood Junior School is located in Waterlooville. The 3.2-hectare school site contains one main school building and four small outbuildings within grounds of hardstanding, amenity grassland and woodland areas. The site is set in a wider landscape of suburban residential dwellings with small blocks of woodland.



Fig 1. Aerial View of the school

2.3 History

Hulbert Middle School (now Springwood Junior School), was built in 1981-1982 by Hampshire County Council Architect's Department under the leadership of Sir Colin Stansfield Smith (1932-2013, knighted in 1993). Stansfield Smith led an in-house reaction against the system-building and standardisation which had gone before, introducing one-off steel and timber frames and expansive roofs, though the planning of the schools, many of which featured deep footprints and high-level glazing, was more consistent. The job architects for Hulbert Middle School were Mervyn Perkins and David White, with John Godding.

3.0 Statement of Significance

Springwood Junior School's deep plan and expansive pitched roof places it within a group of Hampshire schools sometimes referred to as 'barn' or 'big roof' schools; other examples include Fort Hill Secondary School (1976-1978) and Four Lanes Primary School (1981-1982), both at Basingstoke. The precedent for this approach - a flexibly-arranged interior under a single wide-span roof - was Robert Maguire and Keith Murray's influential St Paul with St Luke Primary School in east London of 1970-1971. At Springwood the architects used devices found in other Hampshire schools, but as is typical to this county, these devices were brought together as a unique piece of architecture. They

worked in collaboration with the Timber Research and Development Association (TRADA) to adapt an agricultural portal-frame for the main structure of the building, a fitting choice for its rolling, rural site which was the former grounds of a large house. The efficiency of the building's deep plan and structure achieved cost savings which the architects spent on additional teaching areas, achieving 20 per cent in excess of the minimum then required by the Department of Education and Science. A variety of spaces were provided to allow for different types of activity and learning, from messy, practical activities, to quiet and small-group working, and each classroom had its own access into the grounds. This blend of connected spaces and open layout provided a structured informality and flexibility informed by the influential Plowden report of 1967.

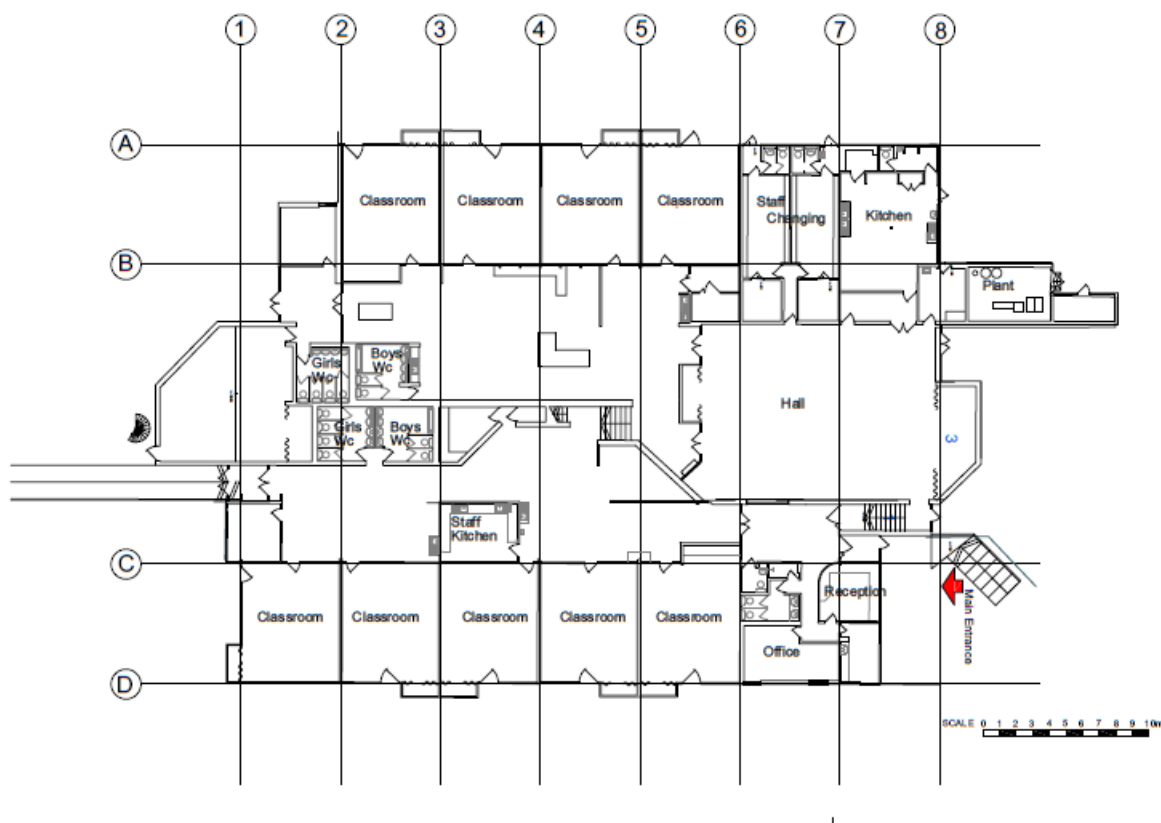


Fig 2. Existing plan

The building has a roughly rectangular footprint, only slightly longer than it is wide. The long axis is orientated approximately east-west, with the entrance, hall, kitchen and administrative functions to the east, the drama room at the west end, and classrooms extending east-west along the north and south sides. The building has a single-storey, but its height allows for a split in the floor level along its east-west axis (the north side is lower than the south side). Red brick walls, cranked and stepping up in height, run through the building, and out to either end, delineating the change in level.

Between the cellular classrooms along the north and south perimeter, is a sequence of communal spaces, which flow from the upper level to the lower level. There are some internal rooms backing on to the classrooms, intended for practical activities. Some of these have since been opened up to increase the areas for informal teaching, and at the east end a small additional screened area has been created for semi-private work. At the very core of the plan, in a linear arrangement between the two levels, is a row of WCs with a mezzanine above, which houses the staff room and an open-sided resource area.



Fig 3. West Elevation showing the feature 'floppy hat' roof.



Fig 4. South Elevation showing the feature 'floppy hat' roof and the patent glazing.

Over the wide-span hardwood structure was draped a pitched roof with a complex profile, termed a 'floppy hat' by White, which had to achieve sufficient height to permit the building to step up a slope, the change in level meaning the upper and lower schools were literally that. Internally the organising principle, established at the earlier Four Lanes Primary School, is of a perimeter of cellular classrooms around a free-flowing sequence of communal spaces, designed so that the classrooms could be locked and the central area opened to community groups in the evening. The central area has a higher thermal capacity than the perimeter and was intended by the energy-conscious Perkins to act as a heat sink for the building.

The building is formed from a wide-span timber portal frame with a sheet aluminium-clad roof. Beneath the frame the plan is divided up by walls of red brick running through the core of the building, cedar-wood boarding, and glazed screens held in timber frames.



Fig.5 Interior view of the school showing the feature glulam beams and timber slat ceiling



Fig 6. Interior view of the school showing the feature glulam beams and rooflights.



Fig 7. Interior view of the school showing the feature timber soffit ceiling with feature red ceiling radiant panel.

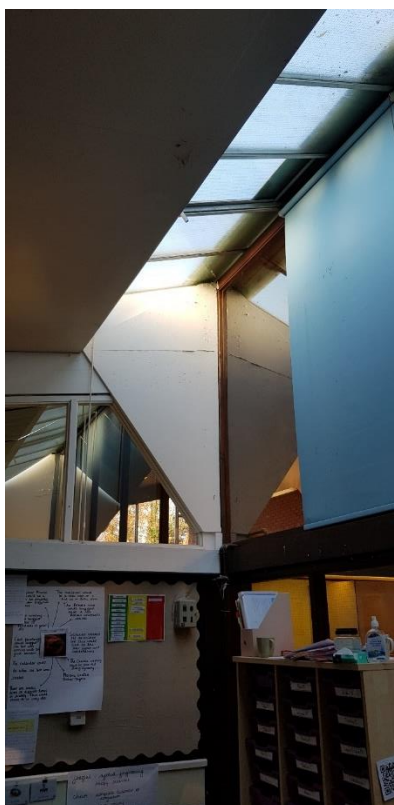


Fig 8. Interior view of the school showing the feature glulam structure and the existing patent glazing.



Fig 8. Exterior view of the school showing the existing patent glazing and roof.

3.1 Evidential Value

Evidential value derives from the fact the building remains substantially intact from when it was first built. The significant features remain as follows:

- 'Floppy hat ' feature roof is intact creating a significant feature.
- The underside of the 'floppy hat' ceilings with feature timber slats and integrated lighting remains in tact as a striking design feature
- The interior unusual central shared open space remains in tact as a light and airy space and is still used for informal teaching.
- The feature brick walls both internally and externally remain intact

3.2 Historical Value

School building was both a symbolic aspiration of post-war Britain and an urgent need, driven by the 'baby boom', the raising of the school leaving age, planned new towns and estates and the reconstruction of bomb-damaged buildings. Programmes of new schools were coordinated and designed by local education authorities with loans and oversight from central government. Demand was met by prefabricated 'kits of parts', either sponsored by public authorities or developed privately. Elsewhere, where bricks and bricklayers were readily available, traditional techniques were adapted to incorporate large windows and flat roofs. Collaboration between architects and educationists could result in expressive plans which facilitated patterns of learning and movement. The requirement for abundant daylight and outdoor access led to dispersed layouts, a trend which was countered by tight cost limits and constrained sites.

The 1944 Education Act divided schooling into primary and secondary stages with a break at age 11. Some authorities provided separate infant and junior schools with a break at age 7 plus; others, primary schools for the 5-11 age range. School sizes likewise varied from two-class village schools to primaries of 480 pupils. Informal, 'child-centred' learning through first-hand experience, advocated in the Plowden report of 1967, was encouraged by the provision of special areas for quiet and messy work and more open layouts. At Buckinghamshire and Hampshire a mix of enclosed class bases and shared space was provided, allowing teachers to strike their own balance between varied groups and activities and traditional whole-class teaching.

A meeting was held with the conservation officer Mrs Rachel McMurry to discuss the proposals on site in January 2023. It was discussed that the existing patent glazing product no longer existed and a new product would be proposed which closely matches the existing patent glazing.

3.3 Aesthetic Value

Springwood Junior School has high aesthetic value since it is a piece of outstanding school architectural design and substantially remains unaltered since originally built. The feature 'floppy hat roof' is the original roof. The interior design of using brick walls, feature ceiling following the profile of the 'exterior floppy' hat roof remains intact. The integrated lighting and heating in the existing building remains intact and significantly contributes to the outstanding original design.

3.4 Communal Value

Springwood Junior school is a building which contributes significantly to the community of pupils, parents and staff who use and enjoy the building. Springwood Junior School provides significant communal value as an outstanding architectural design as shown by the school's grade II listing.

3.5 Summary of significance

The outstanding architectural design of Springwood Junior School in its unusual 'floppy hat' roof, feature glulam structure and innovative plan, together with the double height interior central space all contribute the substantial significance of the overall design resulting in the grade II listing.

4.0 Assessment of Impact

4.1 The Proposals to Springwood Junior School are as follows:

The proposals are as indicated on drawings C10326, P06, P07, P08, P09 and P10 and can be summarised as follows:

1. Removal of existing satin anodised aluminium patent glazing with georgian wired glass including aluminium flashings.
2. Installation of new powder coated aluminium patent glazing colour to match existing with new insulated panels (33% of the total) with new aluminium flashings to match existing. The new insulated panels will be coloured a similar tonal grey as the new glazed sections of the existing patent glazing.

3. Removal of existing bolt fixing and filling the holes with water tight rivets. Providing new bolt fixings with new neoprene washers adjacent to the existing fixings in the existing trapezoidal aluminum roof.
4. Cleaning internally of existing gutters and down pipes.

4.2 Statement of Impact

1. Removal of existing of existing satin anodised aluminum patent glazing with georgian wired glazing and aluminium flashings:

The patent glazing is over 40 years old and is leaking . The existing opening lights no longer work effectively and do not provide adequate ventilation resulting the internal environment becoming extremely hot in the summer. The inadequate ventilation results in significant build up of CO2 in classrooms which is in excess of the Building Regulation requirements on ventilation. The existing georgian wired glass is no longer used for safety reasons overhead and its equivalent safety glass is proposed. The proposed glass has improved thermal performance with less heat loss in the winter and better thermal performance. It is proposed to provide approximately 33% insulated panels to the patent glazing to improve the overheating of the building due to solar gain.

The existing patent glazing no longer exists and the proposed patent glazing is the current equivalent product available today. The existing patent glazing does not provide thermally efficient frame and glazing and would not meet the current requirements of the Building Regulations. The new patent glazing has a very similar appearance to the existing patent glazing and provides improved thermal efficiency which improves the sustainability of the building.

There are more openable patent glazing lights to meet the current requirements of the Building Regulations and improve the sustainability of the building since more passive ventilation requires less energy than a mechanical ventilation solution and is therefore more sustainable.

The insulated panels approximately 33% will reduce the solar gain improving the problems of the building overheating. The insulated panels will be a tonal grey colour similar to the glazed sections of patent glazing to minimise the visual impact of the insulated panels.

This element of the works is considered to have a low heritage impact on the building and other heritage assets.

2. Replacing the existing bolt fixing with water tight rivets and installing new fixings adjacent to the existing fixings with new neoprene washers to the existing trapezoidal roof sheeting to match existing ones:

The existing bolt fixings will be replaced with new water tight rivets in the existing holes. New fixings which are the same fixings as the original ones will be provided adjacent to the existing fixings in the troughs of the trapezoidal aluminium sheeting. The new bolt fixings have new neoprene washers which are the same product as the existing and will make the existing roof water tight.

This element of the works is considered to have a low heritage impact on the building and other heritage assets.

3. Cleaning internally of the existing gutters and downpipes:

This element of the works is considered to have a no heritage impact on the building and other heritage assets

4.3 Justification and Mitigation

The existing patent glazing is over 40 years old and has come to the end of its life. The existing patent glazing leaks and the opening lights no longer open effectively. This means there is water penetration to the interior of the building causing damage and the ventilation of the building is inadequate resulting in the build up of CO₂ and overheating of the building in the summer. The building overheats due to solar gain.

The existing patent glazing no longer exists and the proposed patent glazing is the equivalent product available today. The proposed patent glazing has a very similar appearance to the existing patent glazing and has improved thermal performance making it a more sustainable solution. The proposed patent glazing has more opening lights than the existing patent glazing. The proposed insulated panels approximately 33% will mitigate the problem of overheating in the building due to solar gain. It is proposed that the insulated panels have a similar tonal grey colour as the existing glazed sections to retain the visual appearance of the feature of the existing patent glazing. The improved thermal performance of the new patent glazing is to respond to the current climate crisis and sustainable design. The increased rooflights provides more passive ventilation to the interior of the building mitigating the requirement for mechanical ventilation which would require more energy consumption. The insulated panels to the patent glazing mitigate the problem of solar gain as a sustainable passive solution rather than mechanical cooling requiring significant energy consumption. The new patent glazing will have low impact on the heritage of the existing building.

The existing bolt fixings with failing neoprene washers are being replaced with new water tight rivets in the existing holes. New fixings with new neoprene washers are proposed adjacent to the existing

fixings. The new fixings and neoprene washers are the same product as the existing product. This will provide a water tight roof with low impact on the heritage of the existing building.

The existing gutters and downpipes are blocked and will be cleaned internally which will have no impact on the heritage of the existing building.