

## ROSENDALE PRIMARY SCHOOL RETROFIT

**Location:** Lambeth, London, UK  
**Client:** Rosendale Primary School

**Phases 1 to 3 completed:** 2011 - 2014  
(over six week holiday periods)

**Construction cost:** £500k (Phases 1 to 3)

### Awards:

- AJ Retrofit Award - Schools
- Ofsted 'Outstanding'

**The gradual refurbishment of a Victorian primary school in south London is creating a great place for children to learn - and making massive energy savings.**

Since 2011 we have been carrying out phased improvements, within a very tight budget, to the Grade II listed Rosendale Primary School in south London.

Three phases have been completed so far and we are now working on the next. Classrooms have been remodelled, toilets have been consolidated into a single unisex block, existing spaces reorganised and access improved, creating vastly improved conditions for both children and teachers.

There is now better circulation and surveillance, more storage, and children benefit from a safer, brighter and more spacious environment.

Our holistic and sensitive approach inspired the head and governors to ask us to prepare a long-term strategic plan for further improvements, such as reorganising the school buildings, improving the playground, and exploring how to accommodate additional pupil places. The masterplan is helping the school to make the right decisions and supports its funding applications.



**Above:** Classroom before refurbishment - cluttered; windows fixed shut so no ventilation; blackout blinds to prevent over-heating meant lights were on all day.



**Above:** Classroom after refurbishment - showing work bench and accessible storage for children.  
*Photo@Paul Raftery.*



**Above:** The internal windows of the classrooms can now be opened to allow natural ventilation through the school. *Photo@Paul Raftery*

## Context

Rosendale Primary School was built in 1899. Unsympathetic, piecemeal interventions over the years had detracted from many of its positive original Victorian features.

We set out to rediscover the good environmental design of the original buildings. False ceilings were stripped away, allowing natural light to pour in from high-level windows. We restored the best of the original features, such as fireplaces, dado rails, teachers' cupboards and wood flooring, making them relevant to a 21st century classroom but at the same time adding character to the building.

## Collaboration

Our designs for each phase of the refurbishment were tailored exactly to the school's requirements. We began by building up a picture of a day in the life of the school: how teachers, pupils and parents moved about the buildings and used the spaces. We listened to them all.

The children told us what they liked and didn't like – and they didn't like the existing toilets. When we were remodelling the toilets during the second phase of refurbishment, they worked with an artist to create decorative wall-mounted ceramics for the communal handwashing area.

## Creativity

A pragmatic and sensible series of relatively small-scale – and low cost – interventions is underpinned by a longer-term strategic plan grounded in a comprehensive understanding of the school's fabric.

Our starting point was to make better use of existing space and create better places for learning. Circulation has been improved and congestion avoided by moving cloakrooms closer to classrooms.

Budget constraints precluded replacing two south-facing glazed extensions that suffered from under-heating and over-heating and – in attempts to reduce glare – loss of natural daylight. We built a thermal model to determine where the rooms were failing and then found ways to remedy it. We adjusted the size and location of roof lights, optimising daylight and minimising glare, and replaced glazing with high-performance, solar-controlled glass.

Also during the first phase, we remodelled four classrooms. Although the classrooms are relatively small, we created a sense of place by adding a raised platform in the corner of the room to be used as a quiet space for reading or group work.

The classrooms have new floors, a work bench around the perimeter of the room, with storage below, new furniture and concealed services. We have installed new insulation and energy-efficient radiators and replaced fluorescent strip lighting with low energy fittings.

During the second phase, we replaced existing toilets with a new unisex block with individual locked cubicles and communal handwashing area.

Each phase has been implemented during the school holidays, so that the school has been able to stay open during term time.



**Above:** Refurbished WCs. *Photos@Paul Raftery.*

## Climate

Our approach to refurbishment has always been 'fabric first' to reduce energy use. The phases completed so far have resulted in a dramatic reduction – up to 50 per cent – in energy consumption.

Redesign of the location of roof lights in the two glazed extensions allows daylight to penetrate more deeply into the room plan, insulation of the roof reduces heat loss, and solar controlled glass mitigates heat gain. A new external timber pergola provides solar shading.

We have repaired existing sash windows so that they can be opened in classrooms and reinstated high-level openings in the halls to maximise natural ventilation. New heating pipework and energy-efficient radiators with controls, and presence sensor lighting have been installed.

Children and teachers have said that classrooms are now comfortable in both summer and winter.

Pupils are directly involved in making their school more environmentally sustainable. We are helping the school to measure and understand its CO<sub>2</sub> emissions using the low carbon toolkit pioneered by The Atlas Project, developed by Cambridge University's Programme for Sustainability Leadership. The school is able to calculate its carbon footprint and work out a plan for reducing it.

By working with the existing fabric and re-using what was there as much as possible, we have reduced the embodied energy of the building works.

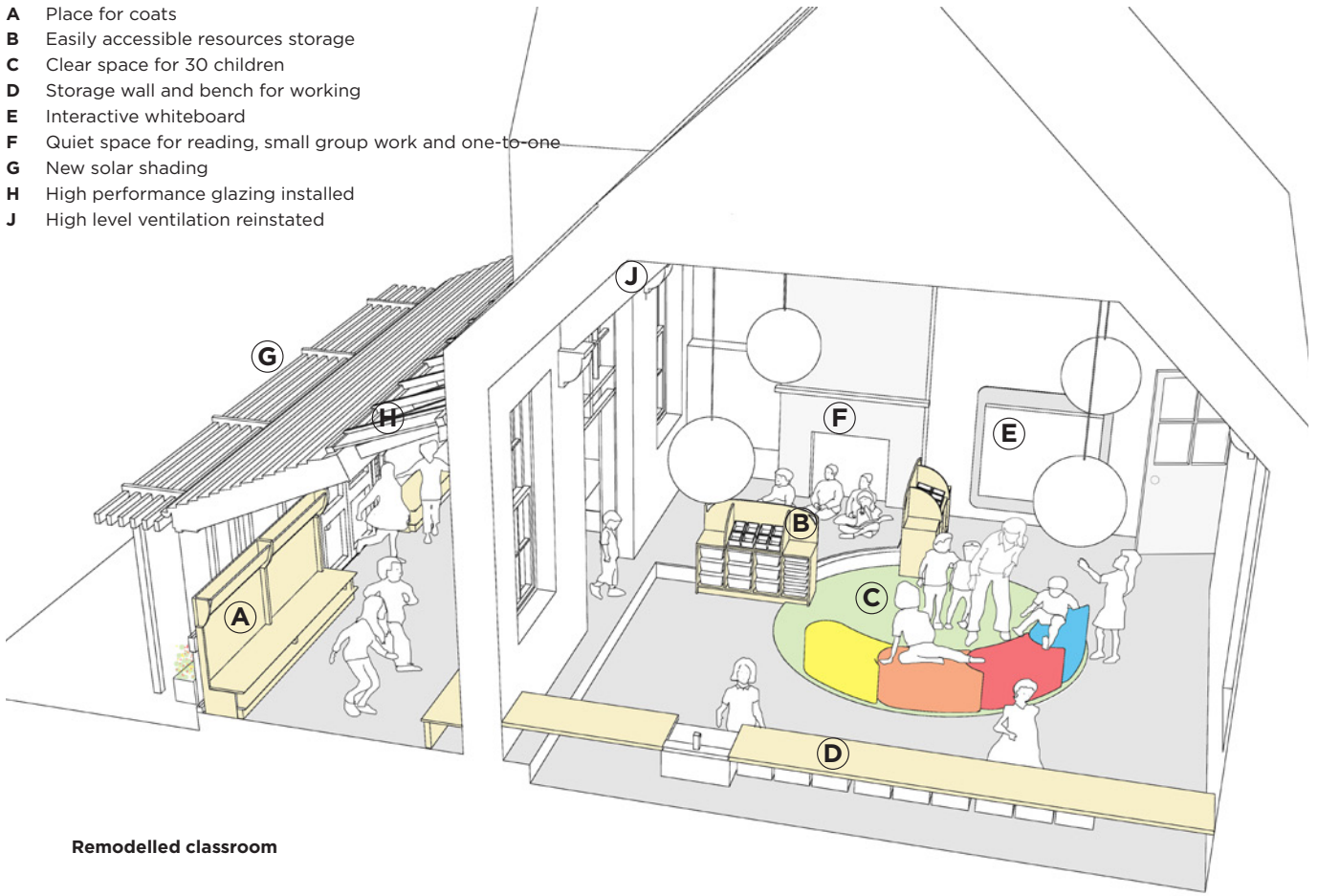
*"Cullinan Studio consulted all those who would be using the space - teachers, children and parents... by the end of the project, they became part of the school community. We were astonished at the results they produced in the time given and hope to continue working with them for many years to come."*

Kate Atkins, Head of School, Rosendale Primary School



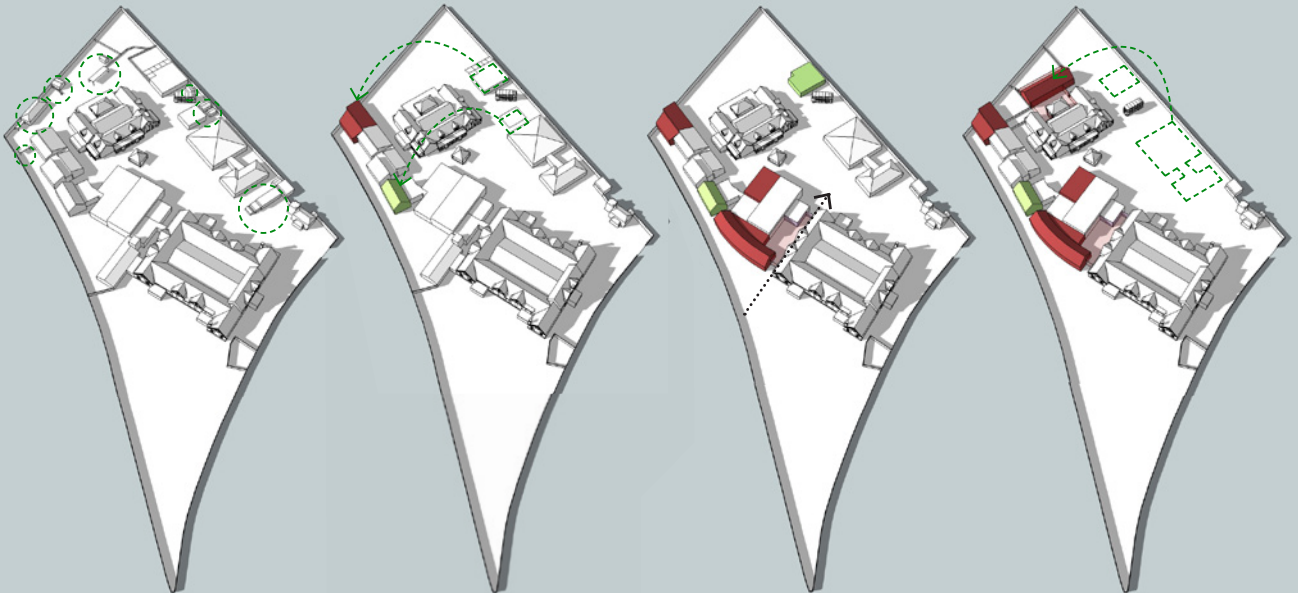
**Above:** The fireplace and teacher's cupboard are incorporated into a new reading corner with a raised platform defining the space. *Photo@Paul Raftery.*

- A Place for coats
- B Easily accessible resources storage
- C Clear space for 30 children
- D Storage wall and bench for working
- E Interactive whiteboard
- F Quiet space for reading, small group work and one-to-one
- G New solar shading
- H High performance glazing installed
- J High level ventilation reinstated



**Remodelled classroom**

**Strategic Future Plan: Phasing**



**1.** Existing school with poor use of grounds and many temporary buildings

**2.** Decant from porta-cabin to new nursery building with easy access for drop off and pick-up

**3.** New main entrance create with new administration offices, entrance foyer and enlarge dining hall. Administration offices decant temporarily into old nursery building

**4.** Decant from poor quality building to age appropriate reception classrooms extended from the Key Stage 1 Victorian block and improve playground area to recommended standards for 3 form entry school