1.4 Masterplan of Existing Kingsgate School Site

1.4.1 Strategic Overview

The redevelopment of the existing Kingsgate School site, part of Camden Council's Community Investment Programme (CIP) has been the object of a series of appraisals which have lead to the current feasibility study underway by Maccreanor Lavington on behalf of LBC.

This has lead to the comprehensive assessment of a number of approaches to the site to understand the benefits and restrictions of different massing solutions developed through a series of iterations from January 2015 with which the appointed design team has engaged at both a strategic and detailed level.

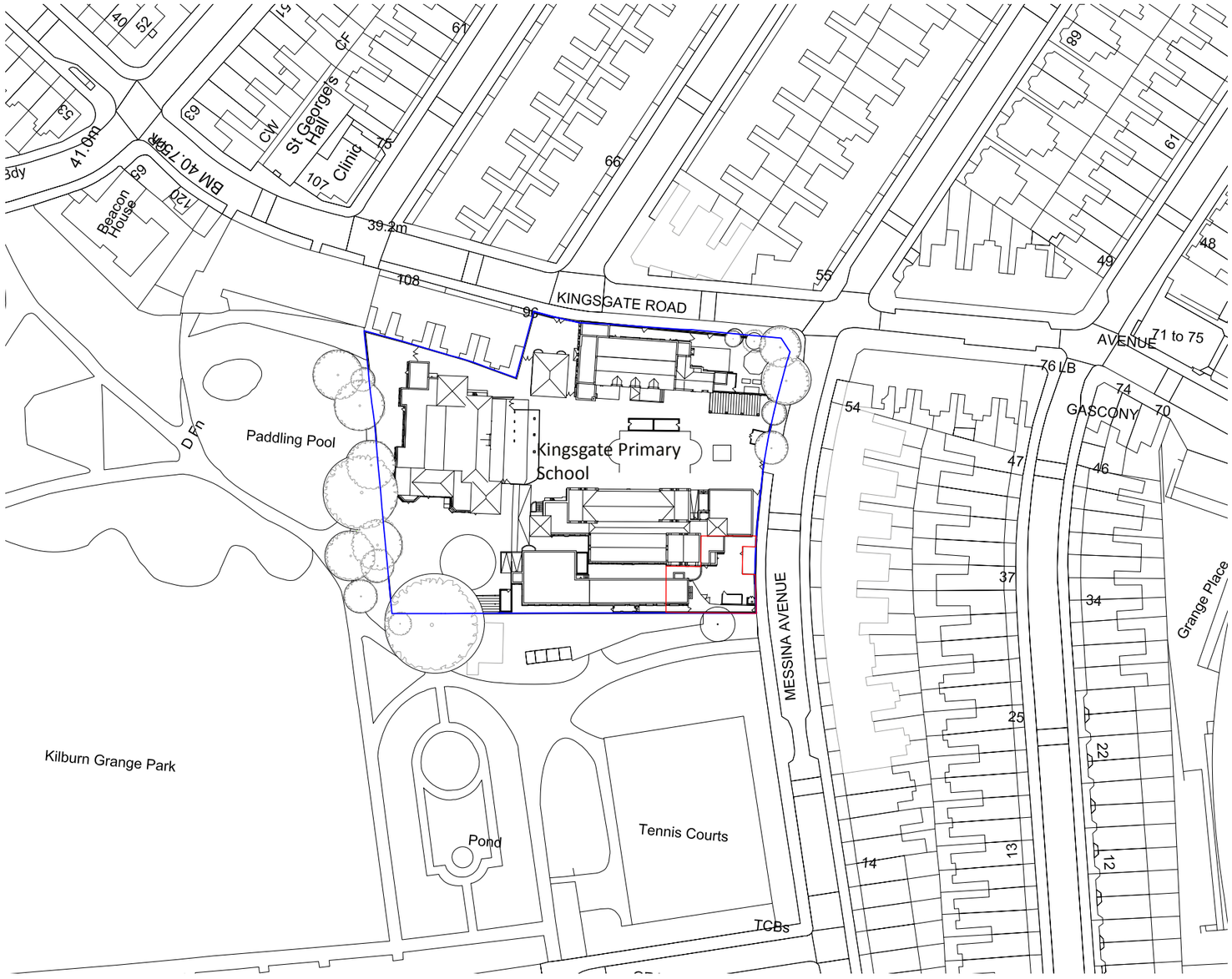
This process highlighted the south west corner of the site as the most appropriate location for the science classroom.

Delivery Aims

The school is to remain operational during redevelopment. Impact on teaching, learning and extended school club provision to be minimised.

Programme and Phasing

The programme for works to the existing school will depend on how procurement is developed for this site. This work also needs to be tied into the programme associated with the development of the new site



Key

Planning application boundary

Adjacent land in applicant's ownership (plus adjoining park)

Site Location Plan Scale 1:1250

1.5 KS2 Remodelling Phase 1 Science Lab Classroom

1.5.1 Science Lab Brief

The brief and concept design has been guided by extensive consultation both with the school design group and with the wider school community over an extended period of time and benefits from the excellent client relationship with LBC and Kingsgate School, building on lessons learned from the development of the Liddell Road scheme.

Permanent function brief:

- The brief responds to Kingsgate School's need for a specialist science classroom for 30 pupils; Currently 34 hours of science are timetabled weekly, of which 50% are practical ie. should be taught in a lab.
- There is currently a science resource room for teaching and material storage within the school but no dedicated teaching space for it
- There is also a requirement for a space to assist with the timetabling of project based activities including art, design and technology and cooking
- This space is seen as potentially helping with the timetabling of interventions - the School's structured way in which each year group is subdivided into sets of maximum 20 pupils for particular subjects including English and maths, a teaching model which is key to its high standards and attainment levels
- The space can also be used for before and after school activities and potentially for community use after hours and at weekends

Interim period function brief:

- To be used as a general classroom for 30 pupils for foreseeable period of 4-6 months until the relocation of KS1 to Liddell Road

Space requirement:

- Calm environment, benefiting from north light and natural ventilation
- Room well connected to rest of school
- Facility to include external area to increase opportunity for outdoor learning
- No dedicated WC facilities as the classrooms will be served by school wide facilities
- Multifunctional and flexible with work benches around the perimeter, with power and data provision and no fixed furniture in the centre of the room to allow for layout adaptation and use as general classroom at the outset
- Vinyl/linoleum flooring to cope with the practical nature of the space
- Furniture wall along one wall for display, class storage, cookery facilities and interactive and white board
- Areas for dedicated storage included in the furniture wall such as cookery, tools, science equipment and general class based storage
- Island sink off furniture wall for group activities and demonstrations
- As a stand alone building also to provide non-teaching storage for cleaning equipment, pupil coats and bags

The science lab classroom needs to be complete and operational as a standard year group classroom by September 2016 in order to accommodate a bulge class in the existing school prior to KS1 relocation to Liddell Road.

1.5.2 Application Site Photos

The area of the site for the science classroom has a back of house character which has developed in an ad hoc manner with many services added and modified over time. The site is separated from the main playground by the new three storey extension to the KS2 block. Before this it had been used as a school garden despite the abundance of hard materials.

1

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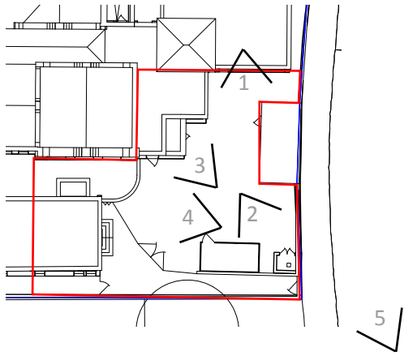
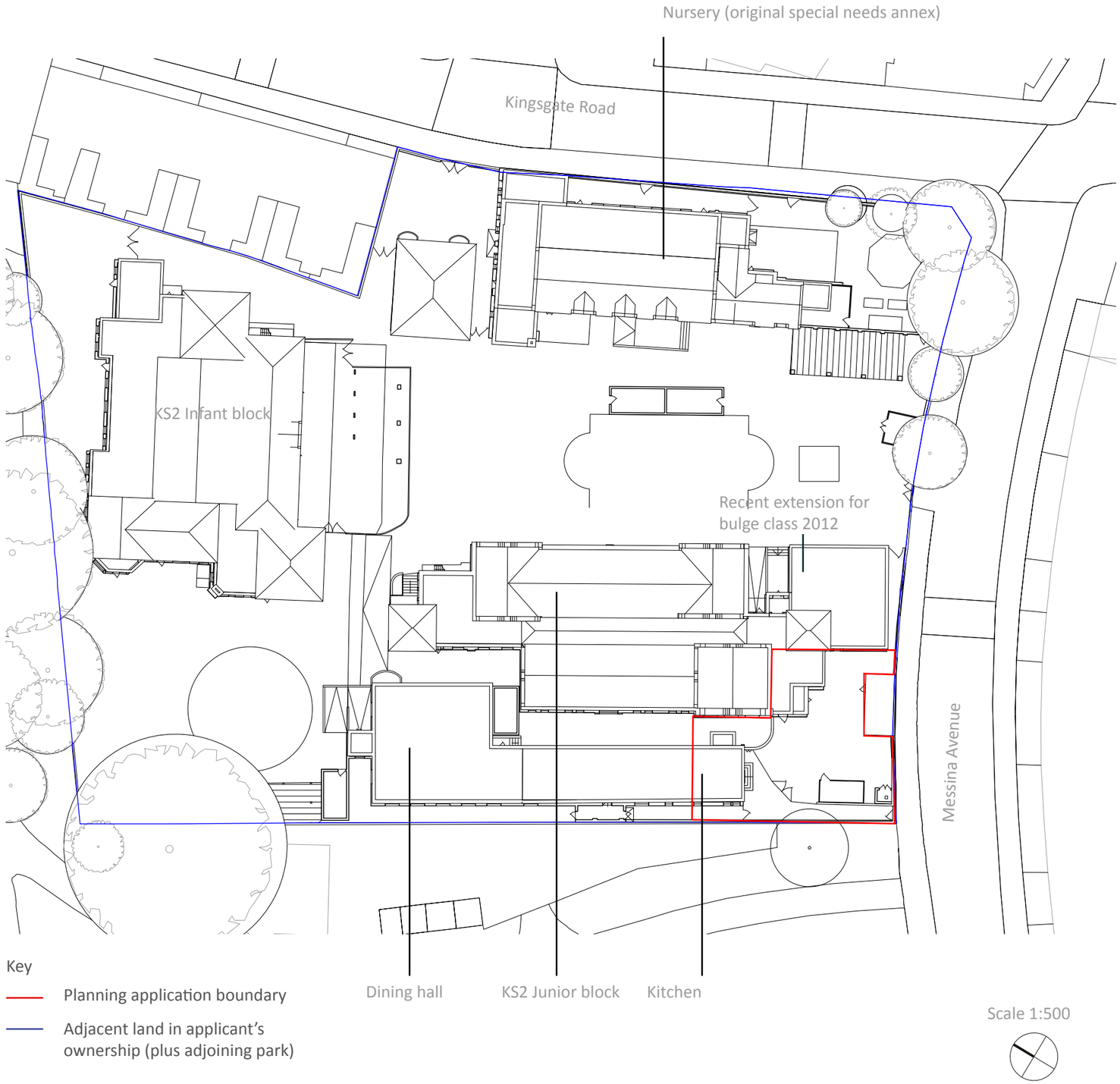


Existing site photographs plan


Nursery (original special needs annex)
Kingsgate Road
KS2 Infant block
Recent extension for bulge class 2012
Messina Avenue
Dining hall
KS2 Junior block
Kitchen
Key
Planning application boundary
Adjacent land in applicant's ownership (plus adjoining park)
Scale 1:500

2.0 Science Lab - Proposal

2.1 Layout

Use

The science classroom responds to the brief requiring flexible teaching space for delivering practical science lessons.

It provides two areas, one indoor and one outdoor that are flexible and can be fully opened to create one large area.

It is designed with a flexible layout for the delivery of KS2 science curriculum, as well as being used for the following:

- Use as a general classroom
- Art/design and technology/project based work
- Cooking
- Breakfast and after school club activities
- Out of hours community based use

Amount

Internal areas:

The science classroom is 60 sqm stand alone building to provide learning accommodation for 30 children.

External areas:

The new classroom is complemented by approximately a 60 sqm outdoor learning area with stepped seating which forms part of the landscape between the existing buildings and the new classroom.

Location and Layout

The location for the Science Lab classroom has been chosen for a number of strategic reasons.

In the short term it allows for the construction to take place without impacting on the school's operation which minimises the risk of programme delays in delivery of the temporary classroom by September 2016.

In the long term it extends the amount of usable external area on site and revitalises an underused pocket and connects it with the rest of the school.

It can be directly accessed from Messina Avenue which suits out of hours and community use.

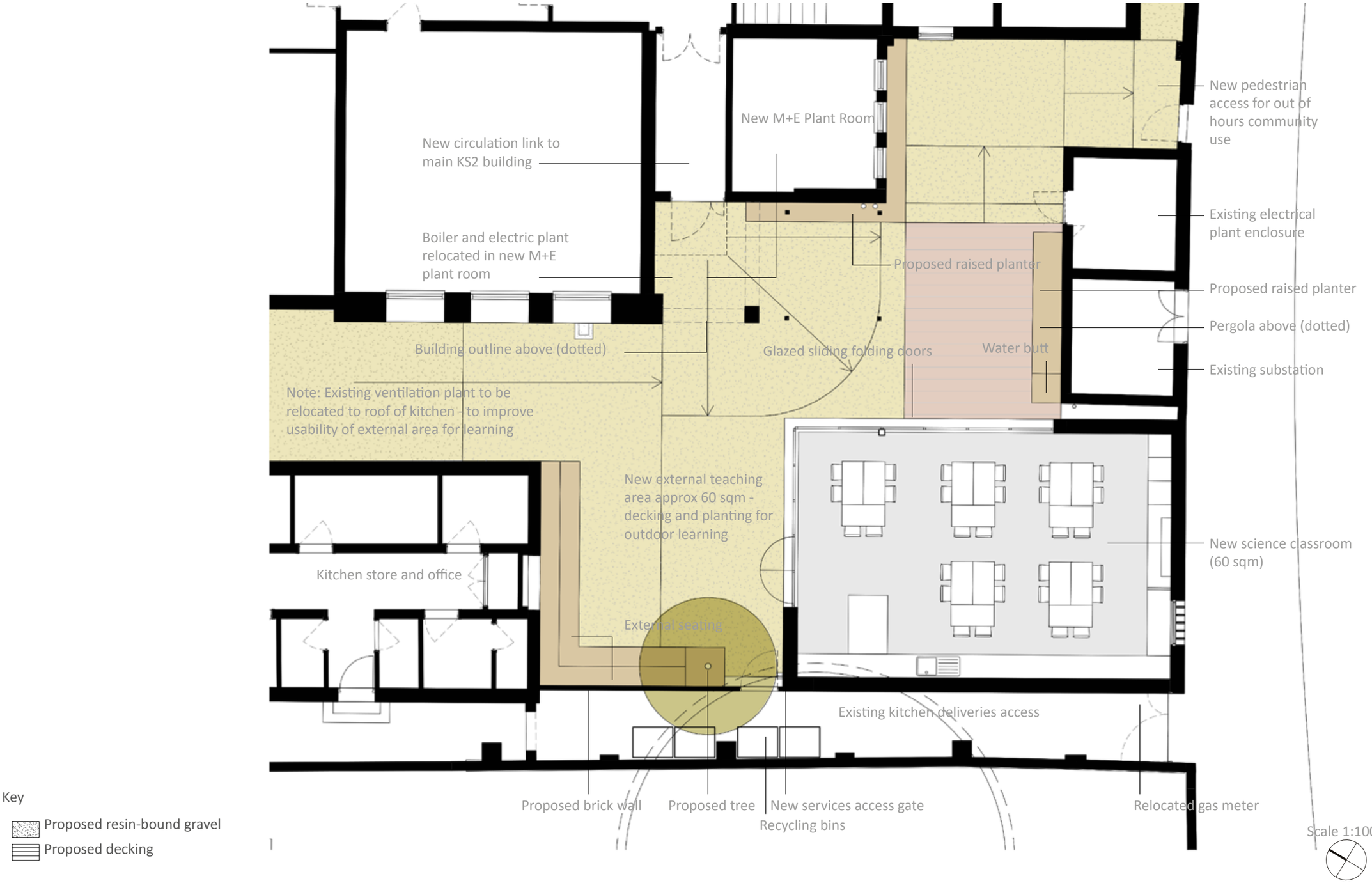
The existing area is cluttered with plant and services, as part of the proposals many of these are being reorganised and relocated to provide more usable areas.

The proposal introduces a new circulation route through the existing KS2 boiler and science resource rooms connecting the new development with the existing KS2 building and playground.

Relocating plant also opens up the potential for greater connectivity with the rest of the site including the KS2 halls and dining hall through what is currently an underused service alley.

2.1.1 Proposed Site Plan

2.1.2 Proposed Floor Plan



Key

- Proposed resin-bound gravel
- Proposed decking

2.1.3 Proposed Roof Plan

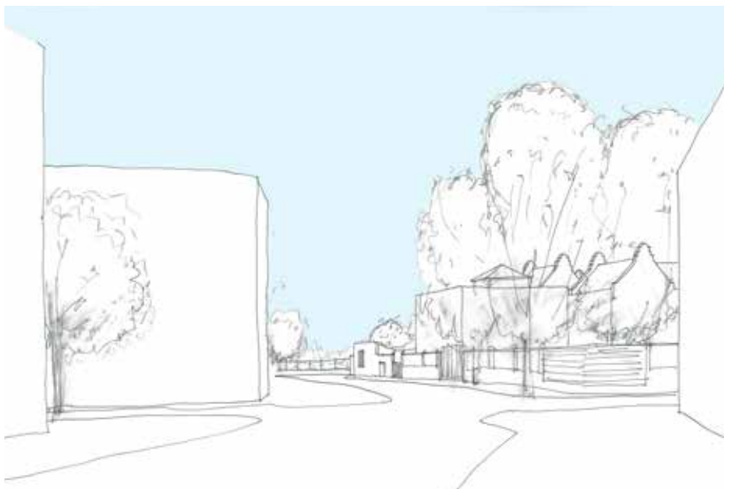
Scale 1:100

2.2 Scale and Massing

The proposed new Science Lab sits discretely into the south corner of the site.

To define its presence the single storey space has a green pitched roof which lifts up to create increased height onto Messina Avenue, asserts the School's presence and offers a positive yet sensitive contribution to the street frontage.

Within the site the roof steps down as a flat membrane surface to receive maximum number of photovoltaic panels (PV) which is screened from the street by the pitched section, but is intentionally visible from the science garden.



Perspective View - Corner of Messina and Kingsgate Road

Perspective View - Messina Avenue

View of Science Garden

View of Science Garden

2.3 Landscape

Science Garden and Outside Classroom

The landscape around the science classroom creates an enclosed space with a specific character. The existing playgrounds are largely focused on active play, while these proposals are looking at quiet social interaction, reflection and outdoor learning.

This space will act as an extension of the classroom to enhance the teaching of scientific and environmental topics, with the aim to provide an explicit educational opportunity to experience and monitor the production, management and use of resources such as electricity, water and food.

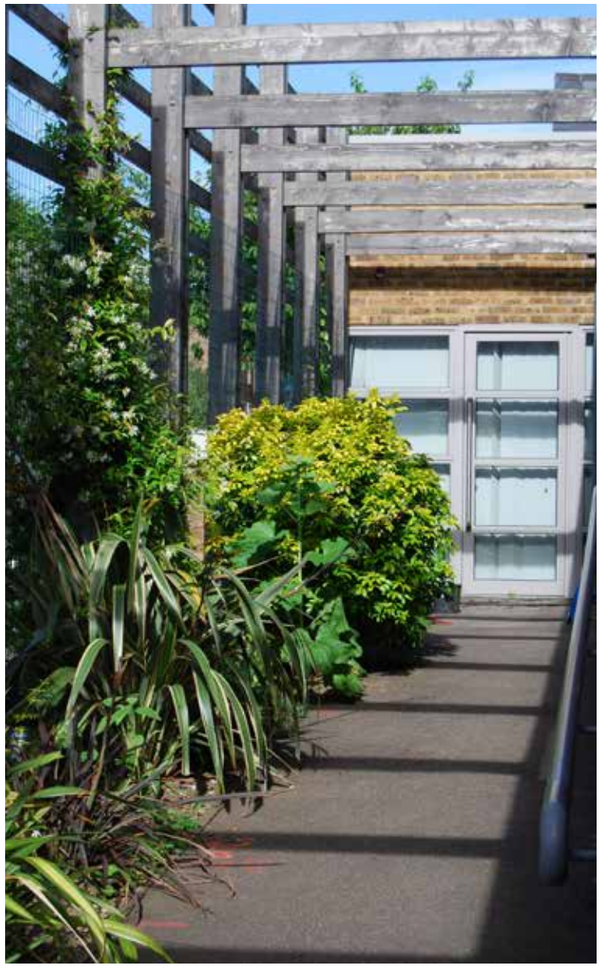
Components of the external space will include:

- Timber deck and stepped seating area for 30 pupils
- Pergola/trellis for climbers
- Water points
- Planting area
- Raised planting beds with opportunities for growing edible plants to encourage healthy eating
- Rainwater harvesting butt
- Photovoltaic panels array – on roof, visible from garden but screened from street view by green roof section profile.

Landscape and Accessibility

The proposals increase accessibility between the KS2 building, the playground and the wider school. The existing site has a number of changes in level which are mediated through the proposals to ensure level access throughout.

A new doorway is created onto Messina Avenue to provide access for breakfast club drop off and after school clubs which currently share the kitchen access gate passing through the area where the bins are stored. By separating these entrances out, the back of house access is maintained and a more welcoming entrance is created.



Kentish Town Primary School, London
Meadowcroft Griffin Architects

Christopher Hatton Primary School, London
Meadowcroft Griffin Architects

2.4 Appearance

2.4.1 Principles and Materials

The massing, detailing and materials of the proposed scheme aim to respond to and complement the context of the surroundings and existing building.

The new building seeks to match the quality materials of the existing context with harmonious contemporary elements and in doing so, seeks to preserve and enhance the school and wider area.

The principle employed in developing the language of the new buildings has been to ensuring that the new building is both respectful of and distinct from the existing school is fundamental to the success of the development.

It is considered key that the selected materials age gracefully and require minimal maintenance to ensure the new buildings share the longevity enjoyed by the existing building. To this end a high quality stock brick is used to offer a robust, durable building which reflects surrounding context.

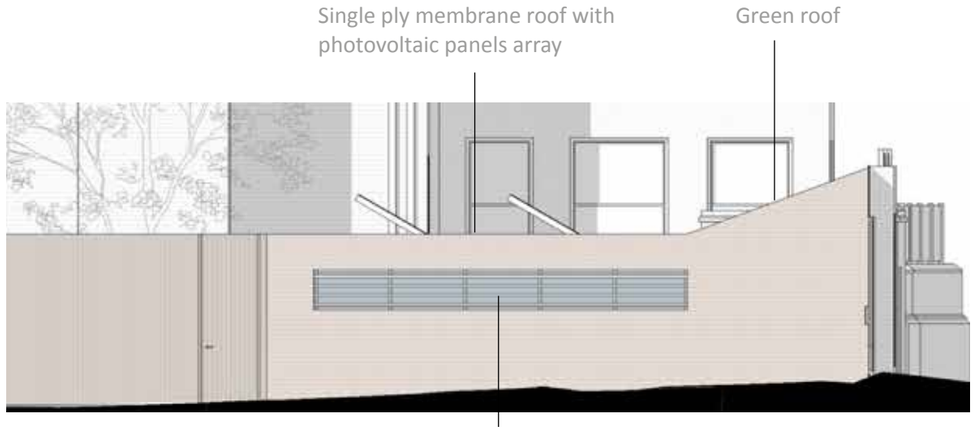
To create an open feel and a flexible space a large amount of glazing is proposed to the northern corner of the classroom which will be openable to link with the outdoor teaching area.

A large fixed window is located onto Messina Avenue, with a robust vertical timber solar shading to minimise solar gain and provide security.

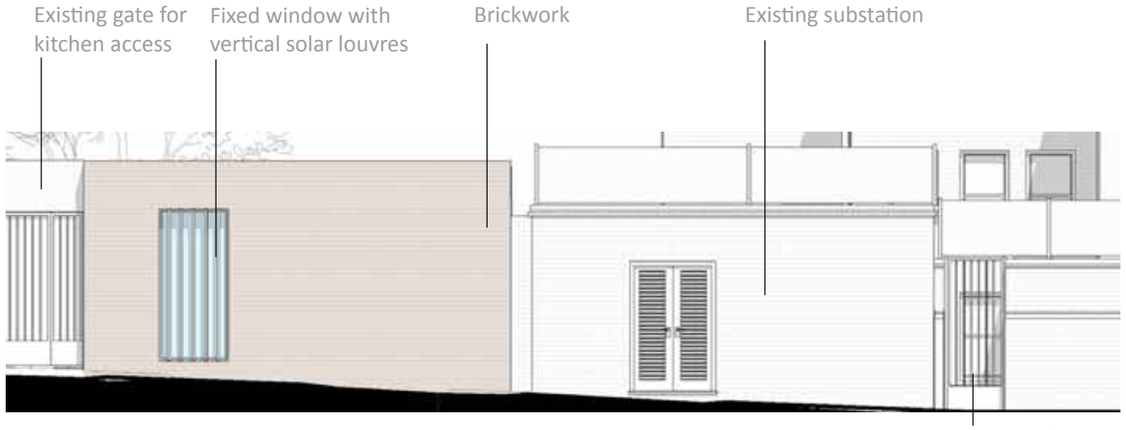
The external skin of the building is exposed cross laminated timber which provides a warm and calm quality to the teaching environment and relates to the timber decking, pergola and fencing of the new garden, perceived as a seamless continuation of the teaching space into the garden.

Torriano Infant School Library, Kentish Town, London AY Architects

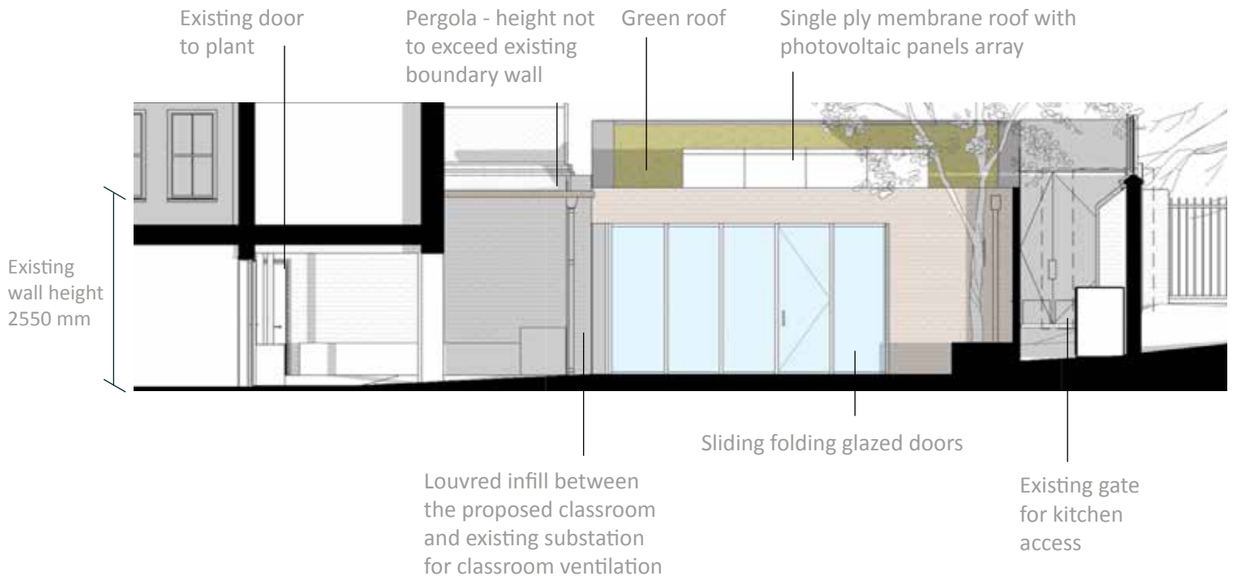
2.4.2 Proposed Elevations



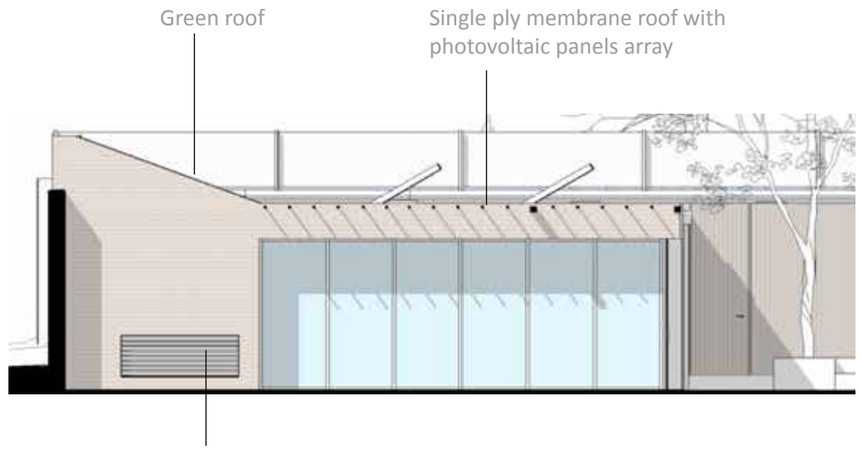
South-West Elevation



South-East Elevation



North-West Elevation



Scale 1:100

North-East Elevation

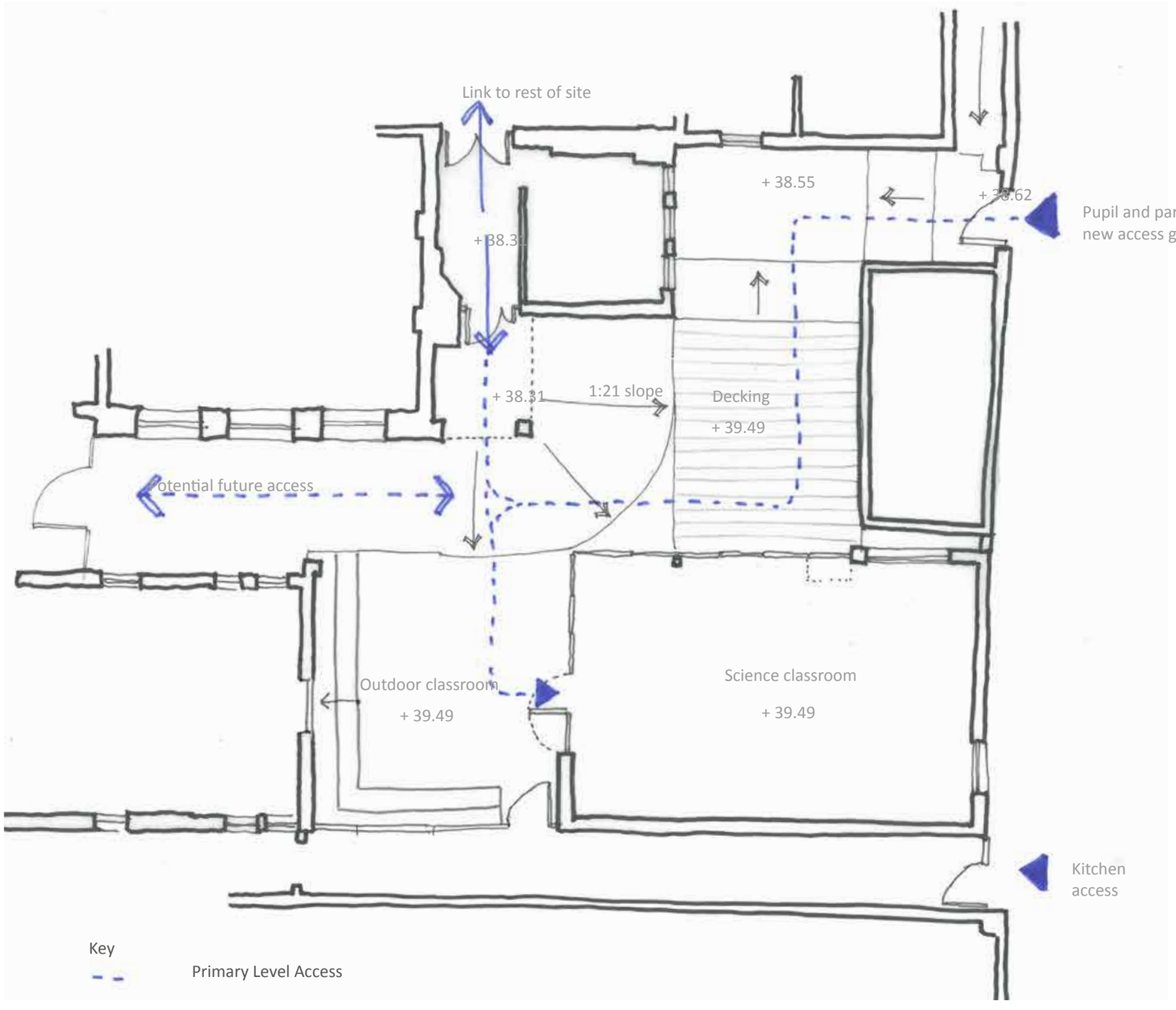
2.5 Access

Site wide Improvements

The new Science Lab is located on the corner of the site currently used to access the extended school provision for breakfast and after school clubs. The existing access is awkward, located between the kitchen delivery gate and the electricity substation. We propose to maintain this route for kitchen deliveries and waste collection only and relocate the dedicated before and after school clubs pupil and parent access to a new gate on Messina Avenue into the proposed science garden.

These proposals offer the opportunity to create a welcoming and secure access for out of hours and community use of the new facility, potentially to be extended to both the existing hall and dining room.

The proposals allow for a new access gate from Messina Avenue and new surfacing to adjust the levels within the site using slopes of 1:21 or shallower to ensure the Science Lab and Garden fully accessible and meets Part M requirements. Ancillary facilities such as accessible WC are provided in the adjacent new build extension.



2.6 Sustainability

Energy Strategy

As a Science Lab the proposed new space is intended to act as an exemplar for sustainability and renewable energy solutions. By explicitly embedding sustainability within the fabric of the new building the children can develop an increased awareness through actively managing and monitoring their environment.

The proposal looks to adopt a fabric first approach, following the simple principle of creating a building which uses less energy before applying 'bolt on' renewables. This strategy is to be achieved using a number of measures, including:

- High performance U-Values for glazing and fabric.
- Simplified passive ventilation strategies employing openable windows in combination with passive ventilation stacks where necessary.
- Use of an automatic monitoring and targeting system.
- Presence detection on lighting systems.
- Optimising air tightness, assisted by the proposed use of cross laminated timber construction – "Build tight, ventilate right".
- Optimise daylighting through the use of generous fenestration and roof lights.

In addition to these measures, the proposal seeks to provide a 13.2m² of Photovoltaic Panels (PV) on the sloping roof to provide on-site electricity generation to be readable on a digital display for educational purposes. The full extent of the PV provision is subject to confirmation.

Sustainable Materials and Construction

Our material choices will be based on guidance from the BRE 'Green Guide to Specification'; an environmental profiling system for building materials and components which gives an environmental rating to products and provides a quick and easy specification reference. We will attempt to ensure that materials used on site travel the shortest possible distance or are sourced as locally as is economically and logistically viable. For example:

- Brick: we propose to use a stock brick which is a durable, low maintenance product.
- Windows: we propose to use aluminium section windows and doors which are a 'long life', recyclable and environmentally sound solution.
- Insulation: we will specify insulation materials that do not contain substances known to contribute to stratospheric ozone depletion or have the potential to contribute to climate change.
- Internal finishes: we intend to use low emission finishes and furnishings wherever practical.
- Landscaping: we propose to re-use excavation fill generated on site to form new earth mound play features within the playgrounds. It is a more economically and environmentally sustainable solution to move material around the site, than to transport off-site and into landfill.

We are proposing to use cross-laminated timber (CLT) as the principle structural material for the new build elements. CLT panels are produced from kiln dried spruce or fir boards which are stacked at right angles and glued together over their entire surface. These solid timber panels are industrially manufactured structural building elements which are used for walls, floors and roofs. All timber will be sourced from sustainably managed and certified forests which aim for a zero-waste production process. This construction method additionally allows for a certain amount of attractive exposed timber finish to the building interiors.

In terms of environmental impact, the use of wood products has a threefold effect on reducing greenhouse gas emissions by:

- Increasing the carbon sink
- Replacing carbon-hungry alternatives and;
- Encouraging the planting of more trees.

Precedent photographs of cross-laminated timber construction

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