



Royal Wharf London

Design + Access Statement Plot 23 (School)

Report prepared by:

FeildenCleggBradleyStudios



Revision history

Revision	Date Issued	Note
P1	16.05.2017	Planning Issue

Summary Schedule

GEA School

Ground Floor:	1269	sqm
First Floor:	1391	sqm
Second Floor:	665	sqm
Total:	3325	sqm

GIA School

Ground Floor:	1166	sqm
First Floor:	1117	sqm
Second Floor:	598	sqm
Total:	2881	sqm

Introduction

Plot 23 is to provide a newbuild primary school at the heart of the Royal Wharf masterplan development. The school is located adjacent to the linear pocket square and the main high street, and is located opposite the community facility (Plot 22).

The aim is to deliver a school building for occupation in September 2019.

The brief for the school has been developed in conjunction with the local Primary School, Britannia Village, and it is a proposed "Free School." The school will be two-form entry, and includes a two-form entry (half-day) nursery, providing accommodation for 420 pupils and 60 nursery pupils.

Our design responds to the character of the Royal Wharf development while maintaining the distinctive civic appearance of a public building, balanced with the more intimate nature required of a primary school. It will inspire the pupils, staff and visitors, and as a public civic building it has the position it deserves within the development. It will be visible to all, distinctive and appropriate for its use.

The site and building organisation is clear and legible, creating a series of diverse spaces, faithfully following the brief. The new building, naturally ventilated and with lots of natural daylight, will create a happy and very successful school.



Royal Wharf Illustrative Masterplan

Compliance with Parameter Plans

Parameter plans as part of the outline application are listed below and the following items are noted with regard to Plot 23.

1782-OPA-001-P5 Outline Site Boundary

The proposal sits within the outline site application boundary and complies with the parameter.

1782-OPA-002-P5 Existing Site Levels

The proposal sits within the outline site application boundary and complies with the parameter.

1782-OPA-003-P10 Formation Level Plan

The proposal sits within the outline site application boundary and complies with the parameter.

1782-OPA-004-P8 Flood Defense Level Plan

The proposal contains D1 class use at this level.

1782-OPA-005-P7 Proposed Upper Level Plan

The proposal contains D1 class use at this level.

1782-OPA-006-P10 Proposed Building Footprints

The proposal generally sits within the limits of deviation. Refer to subsequent chapters explaining the massing development.

1782-OPA-007-P8 Proposed minimum A.O.D. Levels

The proposed parapet height is +18.60 and complies with the designated criteria.

1782-OPA-008-P11 Proposed maximum A.O.D. Levels

The proposed parapet height is +18.60 and complies with the designated criteria.

1782-OPA-009-P8 Proposed Public and Private Realm

The proposal complies with the designated criteria.

1782-OPA-010-P8 Proposed Movement Plan

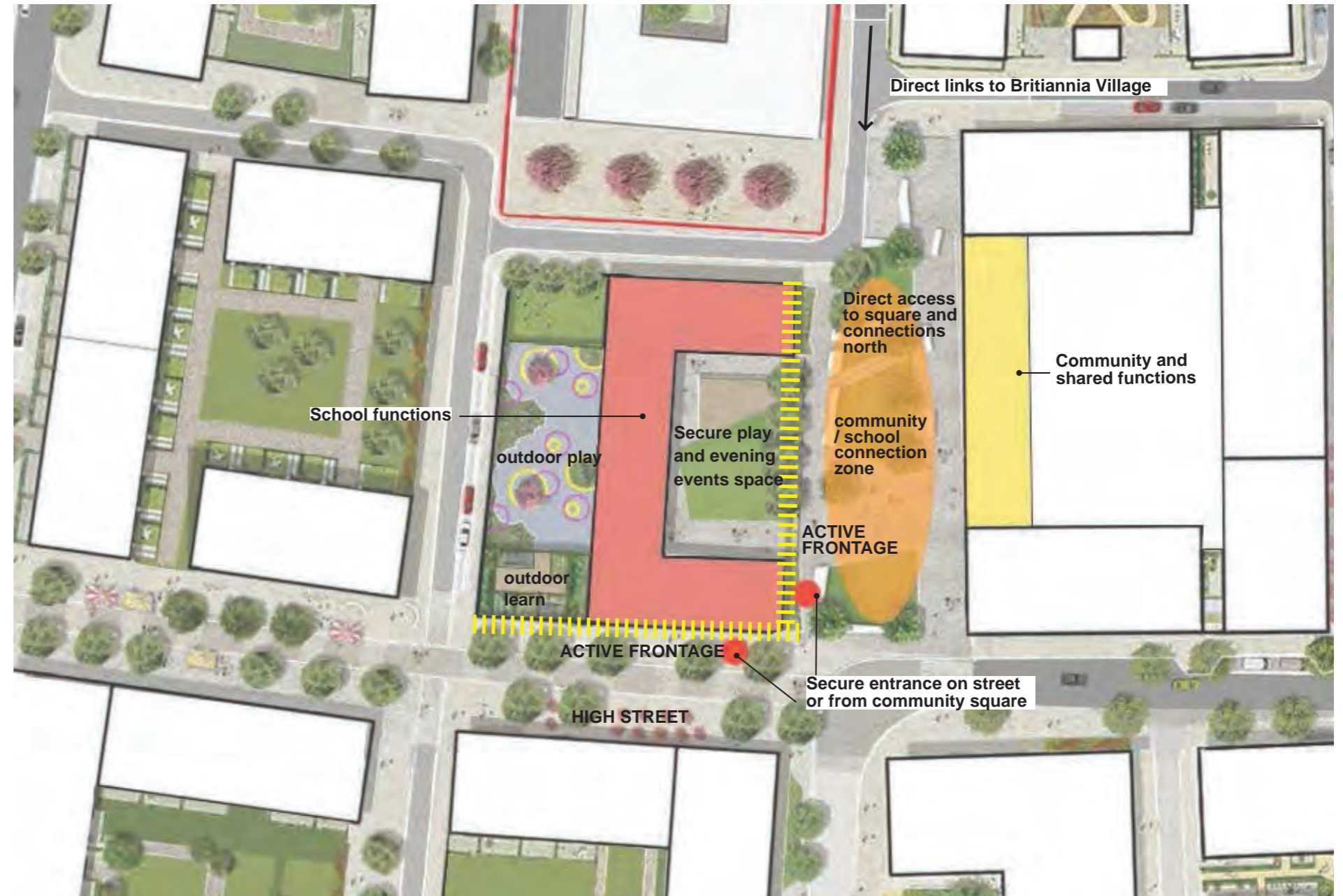
The proposal complies with the designated criteria.

Masterplan

The overall Masterplan for the site was amended under section 73 application reference 15/00577/VAR. As part of the Council's determination of this amended Masterplan the Design Review Panel (DRP) made a number of recommendations which are relevant to Plot 23 (the School). Key design principles noted at DRP for inclusion in school design brief and have been incorporated:

- Activity and transparency to key high street frontages to maintain the character of the street-scape
- External spaces associated with the school must be carefully considered to not only provide the optimum layout for the school, but also a positive relationship to the public realm
- Entrances, routes and spaces
- Clarity of drop-off strategy

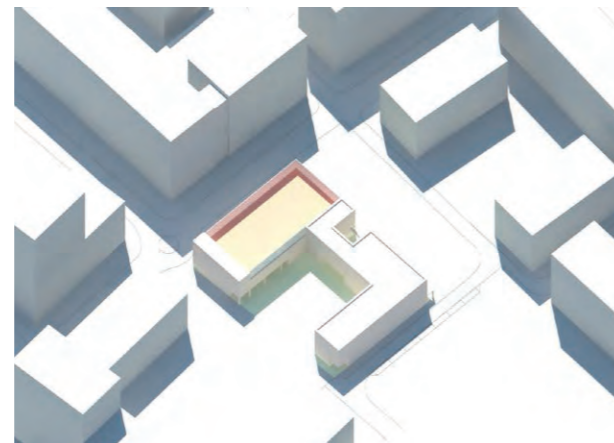
The school's position on the corner of the high street and pocket square provides a civic function to these important public spaces. As a primary school, it is not of the same scale as the surrounding residential buildings, however the largest spaces (main hall and MUGA) provide an articulation and civic scale appropriate for the high street elevation and the adjacent plots. The building addresses the pocket square and the community facility housed in the plinth of plot 22 opposite.



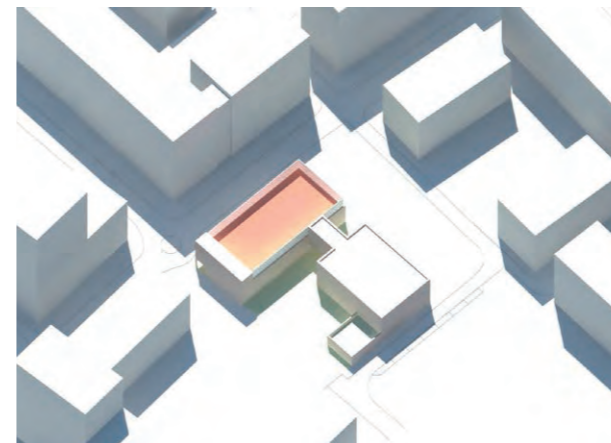
Schematic School Layout included in Section 73 Design and Access Statement



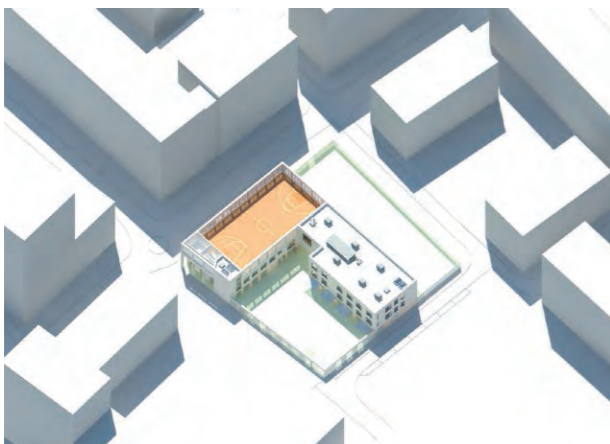
Masterplan massing (constraints: yellow minimum, brown maximum)



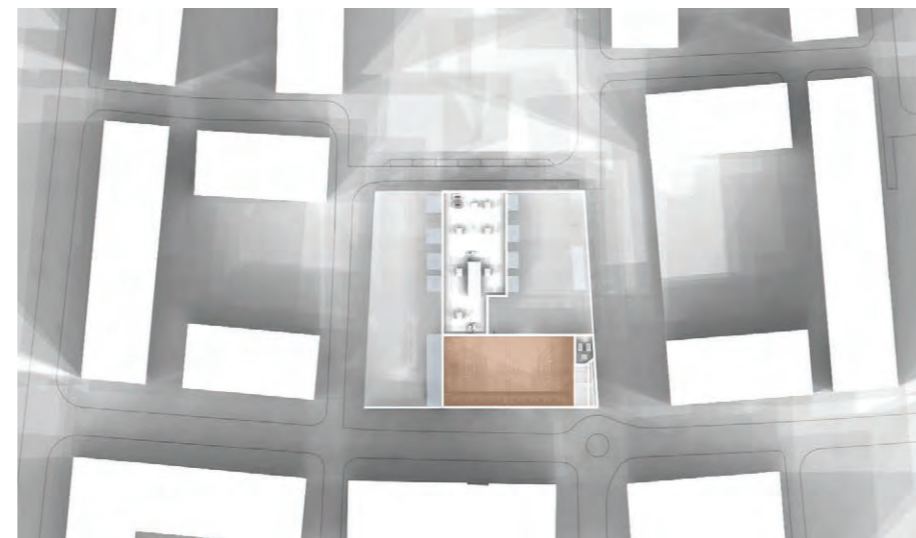
Initial Proposal (single sided classrooms)



May 2016 Scheme



Proposed Scheme



8am - 4pm Shadow Study

Proposed high street elevation (south)



Plot 24

Plot 23 (School)

Plot 22

Scale and Massing

The scale and massing strategy for Plot 23 follow the parameters set out in the original consented Masterplan (amended under section 73 application reference 15/00577/VAR as described on page 6), which is then refined to respond to the detailed design of the blocks.

The diagrams opposite illustrate a number of strategic developments from the consented masterplan:

- The initial proposal sought to maintain the three storey horseshoe plan form; however this did not suit the layout for the school, as it required single-sided corridor access with very long corridors, and did not deliver an optimal arrangement for the school.
- The scheme was developed so that the south and west wings have a three storey massing to maintain the building's presence while maximising external play spaces.
- The compound shadow diagram combine shadows cast at different times on the four equinox/solstice days. This gives an indication of the average shadows cast by the adjacent buildings. The shadow study shows that although the school is surrounded by taller buildings, both the building and playspaces do not suffer from significant overshadowing during school hours (8am - 4pm) - refer also to the sun and daylight assessment.
- The scale of the building is maximised on the high street elevation, with brick frames articulating large openings onto the roof top MUGA which sits above the main hall.
- A high wall with entrance gates and fence panels and provides a strong but permeable plot boundary along the edge of the pocket square.

Appearance

The Masterplan identifies the school as a stand-alone style which will complement the surrounding context, and be of natural materials.

A desire is for a building that is timeless, elegant and efficient but also robust and having a sense of gravitas appropriate for a public building, with the scale appropriate to a Primary School for young children. We have proposed a three-storey building that minimises its footprint on the ground, is distinguishable from its residential scale neighbours and is easily recognised as a public building.

Brick is a material that comes from the earth, is made and laid by hand and can be seen as to express the role of an individual within a larger community. It relates to the historic surroundings. It weathers well.

The building is conceived as a solid object, made from one material, carved and honed to create a connection between playground spaces and break down the volume.

The cladding is designed to play with the balance of transparency and privacy required for a primary school, bringing activity and life to the street frontages, with glimpses into the building, whilst maintaining pupils privacy.



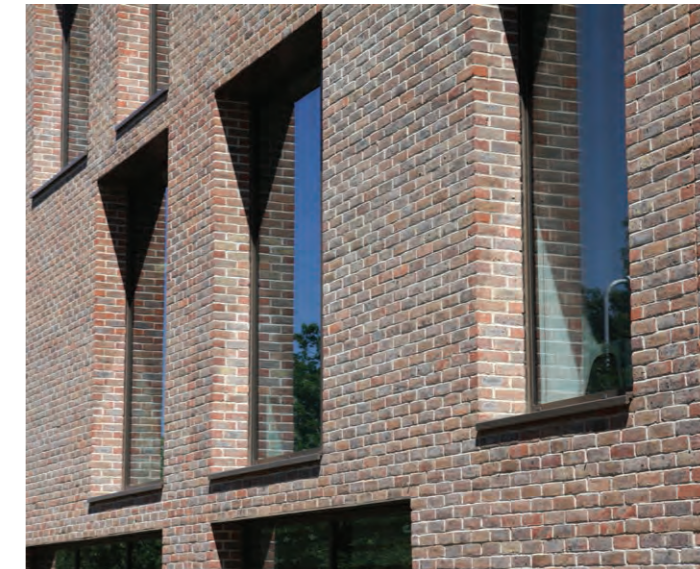
Thomas Gainsborough School



Battersea Park East CE School



Chelsea Academy



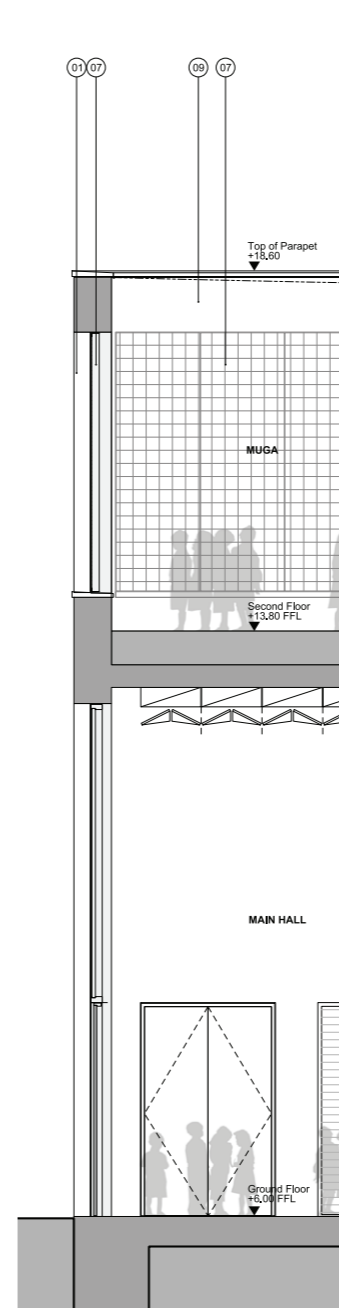
Drapers Academy



TYPICAL CLASSROOM BAY STUDY & SECTION



MAIN HALL SOUTH BAY STUDY & SECTION



Bay Studies

The rooftop Multi-Use-Games-Area (MUGA) is clad in a brickwork framework, with large open panels. This continues the facade of the building, while mesh fencing behind allows views into and out of the MUGA (with ballstop net over).

The classroom windows onto the playgrounds bring a playful element to the facades, the window positions allow for children to sit or stand at the windows, while providing different levels of privacy. Additionally the metal window frames and ventilation louvres provide controllable natural ventilation to the teaching spaces.

Vertical main hall windows facing onto the high street and pocket square articulate the double height nature of the space.

Ground floor windows and doors are full height allowing classrooms to open out on to the playground and maximise daylight and ventilation.

MATERIALS KEY:

- 01 BUFF/ WHITE BRICK
- 02 METAL ENTRANCE GATES / SIGNAGE
- 03 METAL LOUVRE
- 04 METAL FRAME WINDOWS / DOORS
- 05 EXTERNAL CANOPY
- 06 METAL FRAME WINDOWS WITH LOUVRE SIDE PANEL
- 07 METAL MESH TO MUGA / REAR PLAYGROUND
- 08 METAL MESH TO COURTYARD
- 09 RENDER
- 10 KITCHEN FLUE
- 11 METAL GATE

Street Elevations

The south and east elevations face onto significant public spaces (high street and pocket park) and have a more civic scale and appearance, the north and west elevations face onto quiet side streets.

In accordance with the masterplan, these elevations provide strong street edges. The windows have a regular rhythm which relates to the surrounding residential “warehouse” context of the masterplan.

The main hall is articulated with large windows providing a grand scale at the south east corner of the plot.

The garden wall facing the pocket square mirrors the podium to plot 22 opposite, this provides a visual connection between the pocket square and the courtyard through metal fence panels. Large gates allow for the whole school arrival and departure at the beginning and end of the day.



South Elevation



East Elevation



Section A-A through courtyard



West Elevation

Playground and Courtyard Elevations

The windows to the playground and courtyard elevations are designed to bring a more informal “playful” nature to the facades.

Classrooms typically have two windows, one window at floor level, and another window which has a cill height of 600mm allowing some storage below. These windows feature louvred panels to one side with fully opening windows behind providing natural ventilation.

The courtyard is the main entrance space for the pupils and is designed to provide a welcoming and inspiring experience.

Pupils will pass through the courtyard and under the building where they will enter the building and access the main circulation staircase.

In addition to the variety of windows, framed brick walls to the MUGA and ground floor will provide a permeability to the facade and an ever-changing play of light throughout the day.

The west playground space is enclosed with a mesh fencing to the north and west elevations and a brick wall to the south to provide a stronger visible edge to the high street.

School Vision

The Royal Wharf School will be run in conjunction with the Ofsted Outstanding Britannia Village Primary School located within a 5 minute walk of the site.

The education vision for these schools is as follows:

“It takes a whole village to educate a child”

On our Royal Wharf School learning journey we aim to provide a creative, stimulating and happy environment where achievement, mutual respect and self-esteem are valued.

At each twist and turn we aim for our pupils to develop crucial skills, attitudes, talents, knowledge and understanding to assist their continuing growth in a changing world; drawing upon our staff, parents and the local community to guide our pupils towards and beyond the next step of their journey.

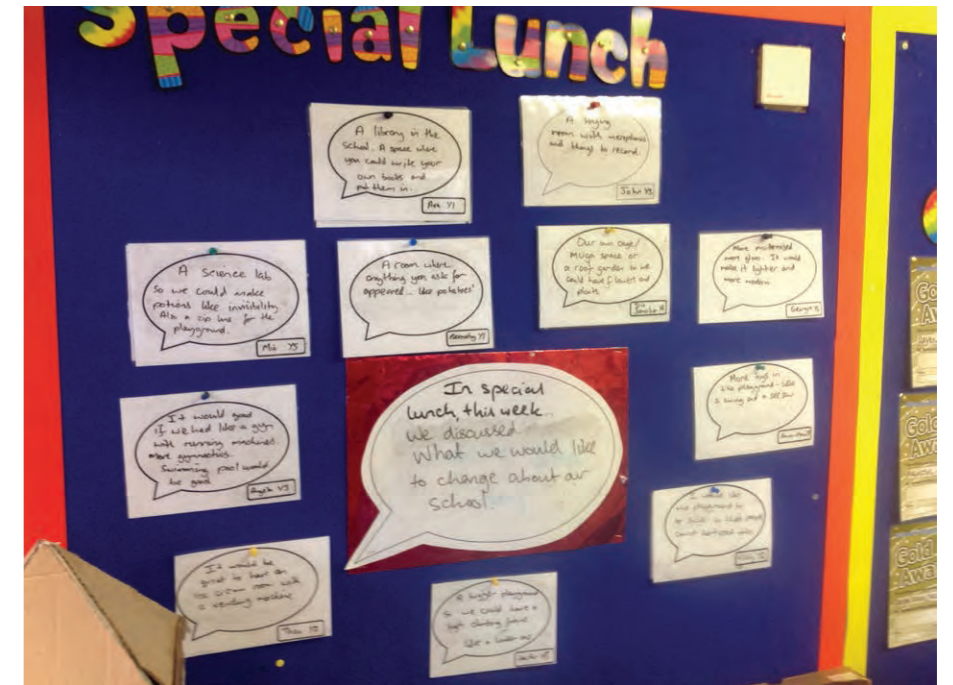
To achieve these aims we will:-

- Provide a broad, balanced, child-centred curriculum which is both accessible and appropriate to all our pupils.

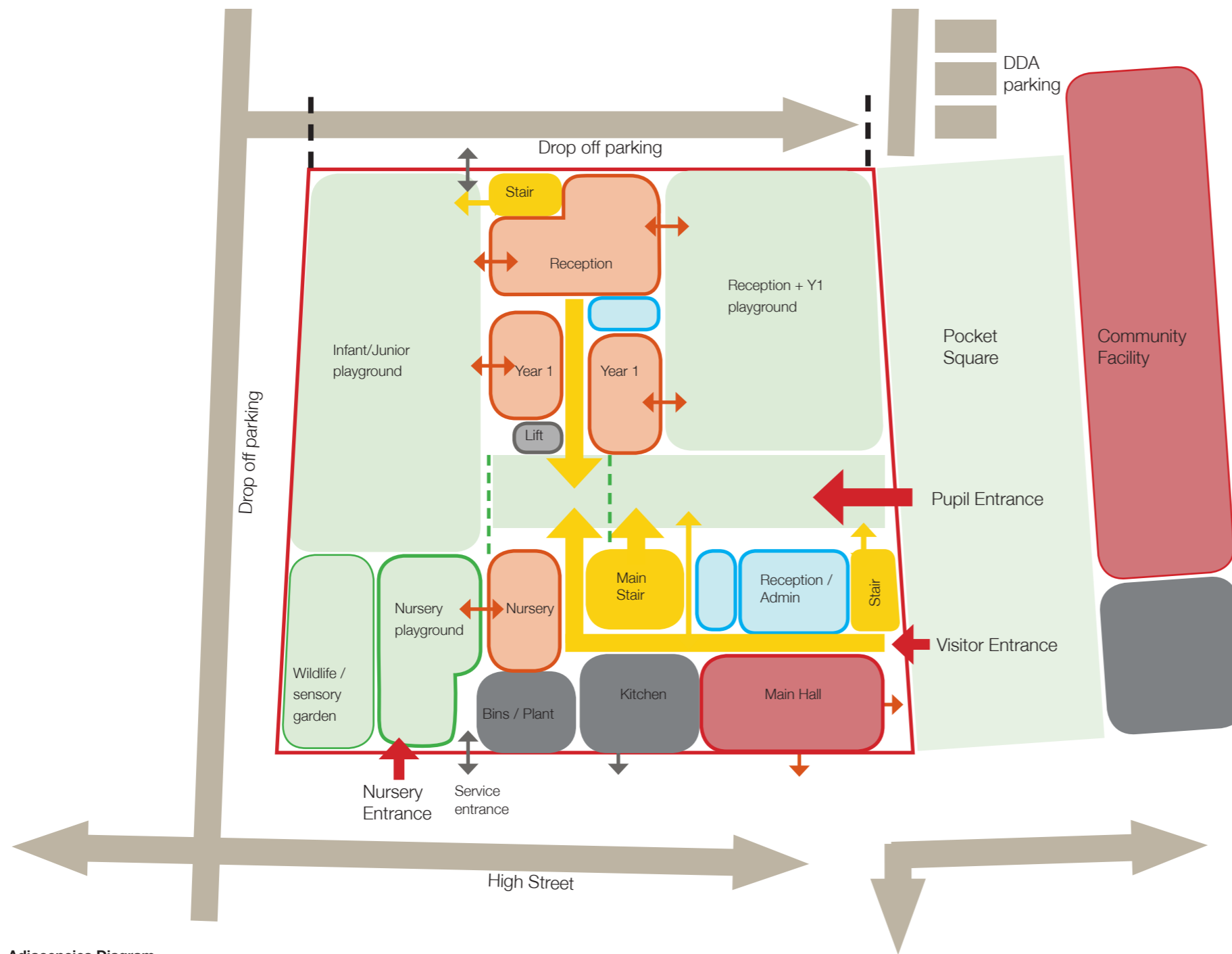
- Provide opportunities for both independent development and collaborative learning.
- Demonstrate, expect and celebrate high standards in achievement, behaviour and care of environment.
- Be rigorous in pursuit of equality of opportunity.
- Make efficient use of time and all other resources.
- Share our planning, outcomes and concerns with parents and pupils
- Involve the school in the community and the community in the school.

Distinctive Aims

- We aim to provide a personalised learning experience for our pupils in small classes and teaching groups.
- We aim to identify and nurture pupils’ individual talents across the breadth of the curriculum.
- We aim to empower pupils to develop resilience, confidence and independence all through their learning journey.
- We aim to gain external recognition of our excellent provision through working towards national quality marks.



Brittania Village pupils' suggestions for how to improve their school



Adjacencies Diagram

Brief Development

The brief and accommodation schedule is based on the requirements set out in the DfE Building Bulletin 103: Area guidelines for mainstream schools based on the 2FE JMI (420 pupils, 14 classes), with additional 2-form entry nursery provision.

The brief has been developed in consultation with the school to create an area schedule that meets all the requirements and is moulded to suit the educational ethos of the school. The flexibility and agility of a building to respond in the future to unknown curriculum steers is vital to ensure the long term sustainability of this school.

Additional elements to the brief include:

- 3 additional shared teaching spaces to allow teaching in smaller groups of 20.
- Reception and Year 1 classrooms to have direct access to the playground.
- Additional specialist teaching storage.
- Enhanced circulation space, including central stair and tiered seating area.
- Rooftop MUGA, accessed directly from the second floor circulation space.
- Bin store located within the building, reducing impact on playground space.

Entrance and Street Frontage

The street frontages and entrances adhere to the masterplan. With entrances and activity areas arranged to the south and east of the site.

Entrance

- Pupil and nursery entrance is via a large gate from the pocket square to the east opened at the beginning and end of the day.
- A controlled visitor entrance is from the pocket square, to the south-east corner. The main hall is located adjacent to the visitor entrance and has doors leading directly to the street which would allow for use of the hall by the community.
- In addition to the main entrance, a separate midday entrance is provided directly into the nursery playground, to the south-west corner, from the high street.

Active Frontage

- A careful balance has to be maintained between providing active frontage to maintain the character of the street-scape, and privacy/ security for the pupils.
- The majority of teaching spaces are at first and second floor. Ground floor teaching spaces face onto playgrounds.
- The main hall is located at the south-east corner.
- The Multi-Use-Games-Area (MUGA) is located on the roof of the south wing.
- The sensory/wildlife garden is located to the south west corner of the site , and is accessed from the playground or from the street.

Drop-Off Strategy

- Drop-offs by car are allowed on the streets to the north and west of the site, where on street parking spaces and accessible parking is provided and will be managed by the school. These are quiet streets.



View of entrance from high street at south end of pocket square



Aerial view of courtyard and Pocket Square

Building Strategy

We have developed the building organisation and design from the educational requirements, the site conditions (sunlight, noise, air quality, landscape), the social context, and more importantly as the details have emerged through engagements with the school.

Design Intent

We believe that the building functions well educationally, and responds to its context.

We also believe that the building will be inspirational from inside and out as well as aesthetically pleasing.

We are not interested in an architectural approach that is merely graphic or calligraphic. An architecture that forms a temporary solution with no intention to endure in the future or one that stems from material criteria with no cultural or ideological implication is not credible or sustainable.

The desire is for a building that is timeless, elegant and efficient but also robust, with a sense of gravitas appropriate for a public building.

Internally there will be a series of non-hierarchical spaces with connections between the different levels, both physical and visual, to encourage learning from others and a sense of inquisitiveness.

The spaces are diverse: some high, some light, some dark, some side lit, some with distant views, some with internal views but they all add to the richness of the interior, simply and efficiently.

The primary school should bring life and vitality to the heart of the Royal Wharf development.



Ground Floor Plan

The building is separated into three elements at ground floor:

- The south building contains the public/community facing part to including the main hall, visitors entrance, admin and main circulation stair.
- Visitors will come into the building through a controlled lobby, past the main hall and towards the main circulation stair which includes a tiered seating area facing onto to the playground.
- The north building houses the more private teaching areas, including reception and year 1 classrooms;
- The nursery to the south-west corner with its independent midday entrance and playground is connected by a covered external playspace.
- All of the buildings are well connected with external covered walkways.
- The kitchen, plant and bin stores are located on the south elevation, allowing independent access and servicing.

Ground floor plan

 Teaching	 Halls	 Learning Resources	 Admin	 Storage
---	---	---	--	--



First floor plan

Teaching
 Halls
 Learning Resources
 Admin
 Storage

First Floor Plan

The first floor houses years 2,3 and 4 and is arranged as an L-shaped plan with the main circulation stair at the junction of the wings, providing a visual connection throughout the school. Internal escape stairs are provided at each end of the central corridor providing direct access to the playgrounds. Windows at the end of the corridors and also roof vents help to bring views ventilation and light into the corridors.

The arrangement of teaching spaces allows for the classrooms to be clustered in year groups.

The library is located at the heart of the school on the “bridge” adjacent to the main circulation stairs.

The dance studio is located adjacent to the main hall.



Second Floor Plan

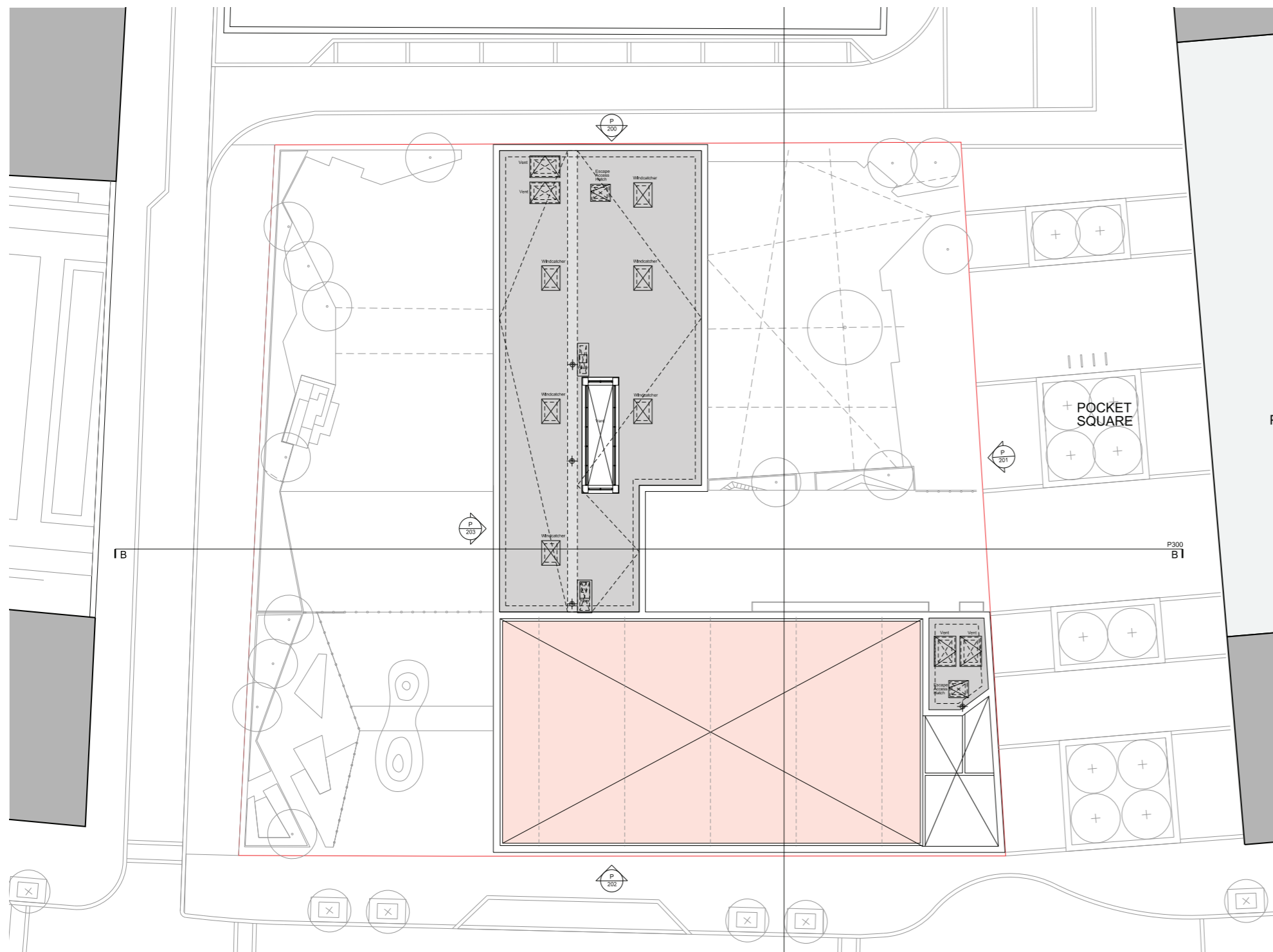
The second floor houses year 5 and 6 classrooms, a shared teaching space and the art classroom.

There is direct access from the corridor onto the external multi-use games area (MUGA), which is enclosed with brick piers and has a weldmesh sports fencing and ball stop net over.

Opening windows and roof ventilation turrets above the circulation spaces and classrooms provide natural ventilation to the whole building.

Second floor plan





Roof plan

Roof Plan

A parapet wall surrounds the roof level, providing a means of safe access for maintenance.

As the surrounding buildings are taller than the school, the roof layout has been given consideration, arranging vent openings, and minimising plant so as to reduce visual clutter and provide a suitable visual amenity.



View of courtyard

Playspaces

Attractive and inspiring external play space is a key component of a Primary School. The proposals for the play space have been developed in consultation with the school in order to provide the quality and diversity of play and outdoor teaching spaces that they require.

The site is classed as a Restricted Site (as defined by BB103) and a flexible approach to the site area and management of the use of the space is required. Prioritisation has been given to hard informal and social spaces, and the provision of a MUGA on the second floor roof. This is supplemented by soft informal and social areas.

There are a wide variety of local parks within close proximity of the site. These include the Pocket Square that faces the entrance to the school, a new park 50m away within the Royal Wharf Masterplan, Lyle Park approx 250m away and the Thames Barrier Park 400m away.

For further details of the landscape proposals please refer to the Landscape Section of the report.



Section B-B through classrooms

Energy Strategy

The energy strategy for the Royal Wharf Primary School follows the established London Plan hierarchy of 'Be Lean', 'Be Clean' and 'Be Green'.

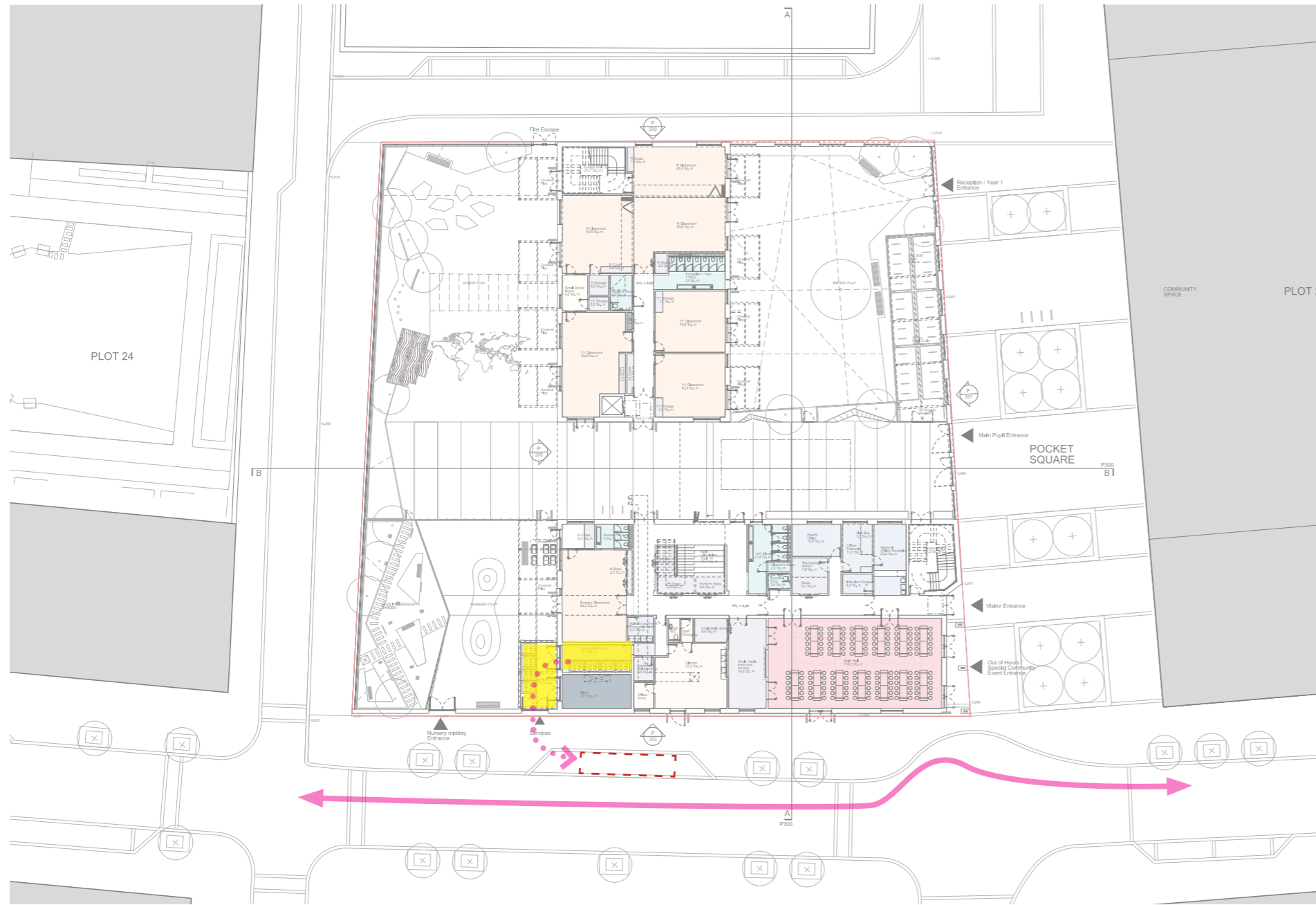
Windows have been designed to provide well daylit spaces, reducing the need for artificial lighting. Additionally the windows along with solar shading have been designed to reduce excess solar gains during the summer months.

Natural ventilation is used where possible. Perimeter rooms are provided with windows and/or louvred openings to outside as well as attenuated openings connecting these rooms to central corridor and stair core. This enables cross ventilation and stack ventilation. To prevent the build-up of warm air and encourage natural ventilation second floor classrooms are provided with wind catchers.

Natural ventilation is not possible for some internal rooms and the acoustically sensitive main hall where mechanical ventilation will be necessary.

Artificial lighting will be provided by high efficiency fittings. Where mechanical ventilation is required, efficient equipment will be used, and heat recovery where suitable.

The site is located in an area designated as having decentralised energy potential on the London Heat Map. An energy centre is being designed for the Royal Wharf development with gas-fired Combined Heat and Power (CHP) and gas boilers. The Royal Wharf Primary School will connect into the proposed district heating network.



Refuse Store
 ↔ Path of refuse vehicle
 ↔⋯↔ Path of bins from collection point

Refuse and servicing strategy

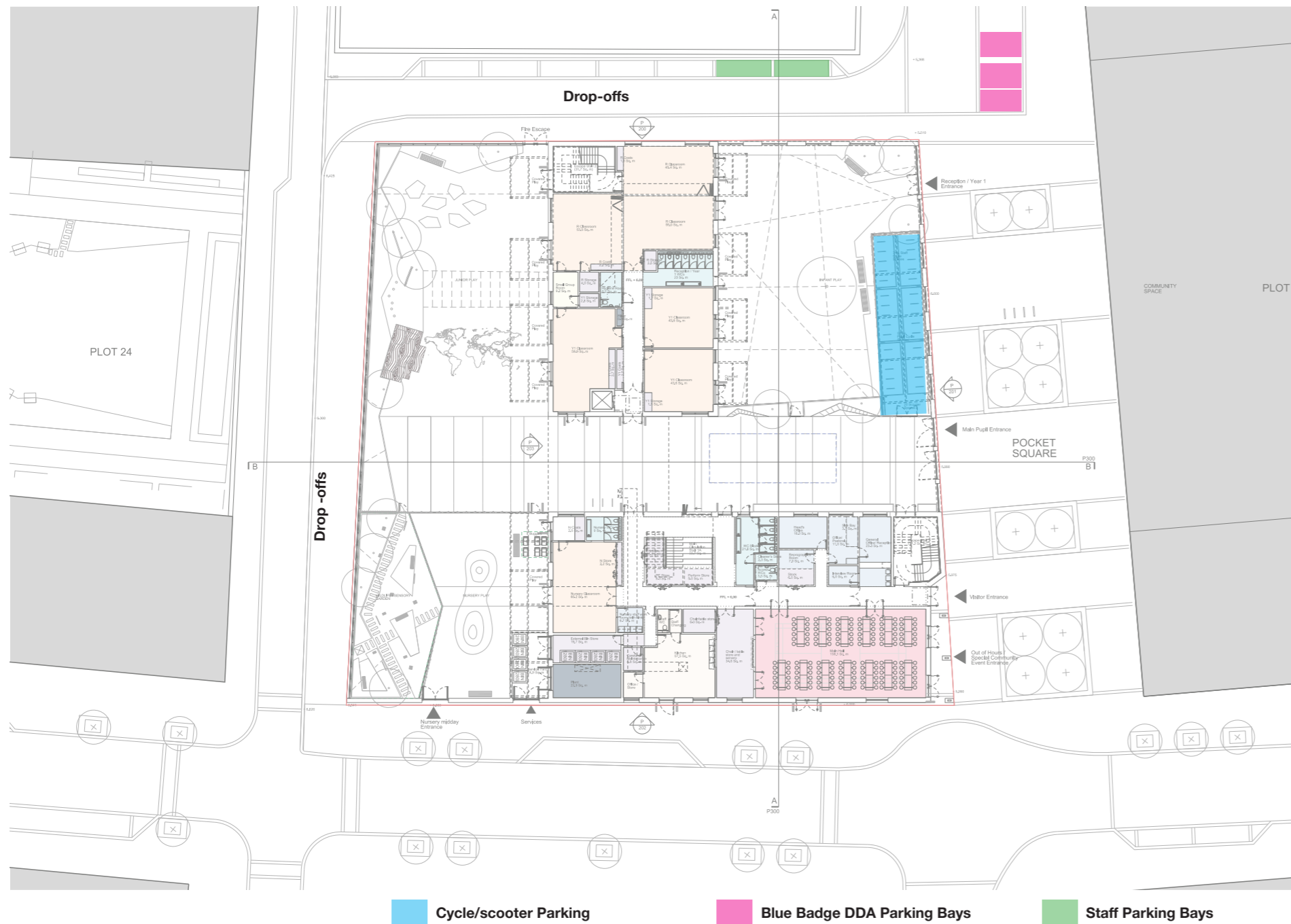
Servicing waste and refuse strategy

The London Borough of Newham (LBN) Waste Management Guidelines for Architects and Property Developers (2013) and British Standard 5906:2005 Waste Management in buildings - Code of practice does not provide a specific methodology for calculating waste generated by schools. Therefore, waste storage for Plot 23 has been calculated using the methodology published by the neighbouring London Borough of Tower Hamlets, detailed within their Refuse and Recycling Storage and Collection Supplementary Guidance (2012). This sets out the requirement for 3no. 1280l Eurobins for recyclables, and 5no. 1280l Eurobins for waste.

The school's internal refuse store is located on the south elevation adjacent to the plant store and Kitchen. This opens onto an external covered service yard which has a direct access to the High Street to the South. The area provided accommodates the required number of bins.

All waste and refuse storage has been sized to accommodate a weekly collection. The waste collection vehicles will park adjacent to the refuse store or at the closest point along the street. Operatives will then wheel the containers from the store to the vehicle and back.

Please refer to the Plot 23 Delivery and Servicing Management Plan for further information.



Parking and street access strategy

Cycle and vehicle parking, pedestrian entrances

The drop-off and collection of children to the primary school is primarily expected to be undertaken on foot, or by bicycle or scooter.

For those children that need to be dropped off by car, there is time-restricted on-street parking available within the Royal Wharf estate along the western and northern site boundary of Plot 23, with blue badge parking provided close to the northeast corner of the site. Two on-street parking spaces will be provided for school staff.

Cycle and scooter parking for pupils and staff will be provided in a covered and segregated area adjacent to the main pupil entrance. Visitor cycle parking is provided close to the entrance to the school on the eastern side, within the pocket park.

The main entry and exit from the school is located on the eastern side of the building. This accesses the playground directly, and also to the bicycle storage for pupils. A secondary access in the southwest corner of the site is provided for the nursery collection and drop-off in the middle of the day, to avoid interaction with the older years children within the playground.

Please refer to the Plot 23 Transport Statement for further information.

Landscape strategy

The landscape masterplan illustrates the site layout and the key elements of the scheme. The principle aims of the landscape proposals are to:

- Create a landscape that is an important contributory educational resource for the school.
- Enhance and invite the local habitat increasing ecology and biodiversity.
- Provide an attractive and stimulating environment that fulfills the requirements of the school.
- Promote flexibility and accessibility in design.
- Facilitate safe and secure use of the site by staff, pupils and the community.
- Reinforce the character of the site and strengthen local identity.

Introduction

The external spaces have been developed in response to the function and layout of the building and are intended as transformational education zones. External spaces are designed to extend the internal environment of the school through the creation of outdoor teaching spaces that cater for small intimate groups of larger school forums. The external spaces have further been developed to maximise solar aspect and to provide shade and shelter in exposed locations.

The design aims to create visual interest and variety by blending different surface treatments within a strong design layout. This involves using different surface materials, soft landscaping and furniture to define active or more passive spaces.

Each of the individual spaces responds to the function it serves whether this is terraced seating a quiet leafy refuge for teaching or passive play. Green and healthy living ideals are inherent within spaces such as the allotment and wildlife garden. Covered areas adjacent to the building also provide shelter from the sun and rain to ensure that the outdoors is always accessible.

The design intent is to make the external spaces robust enough to endure heavy use and to create large unhindered spaces that allow for flexibility and modification.



Site location



General landscape layout

General Landscape Layout

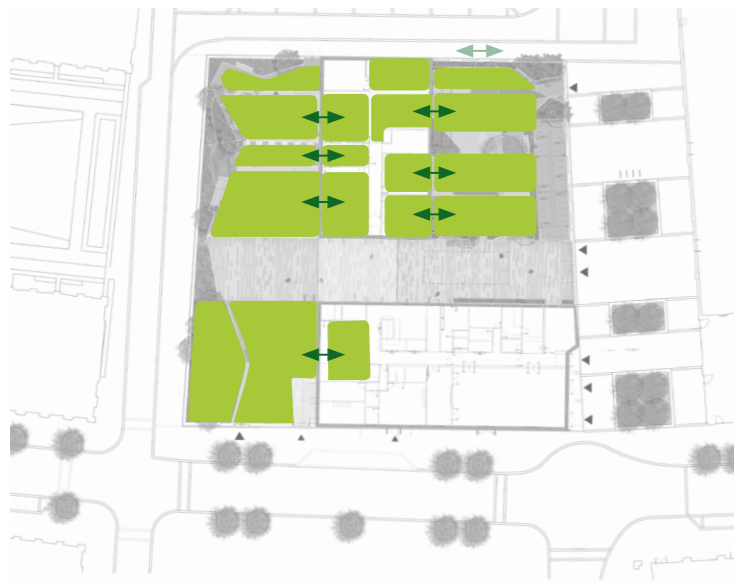
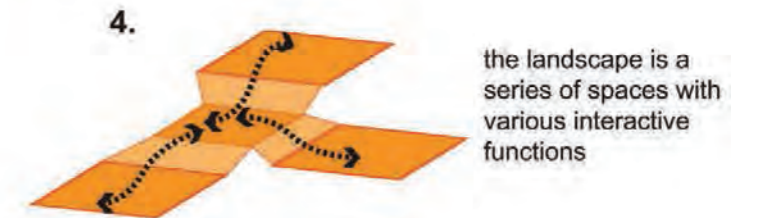
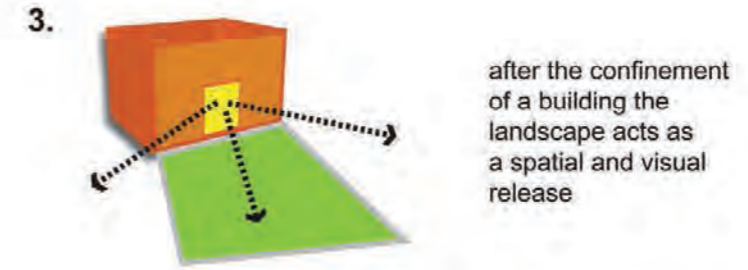
In order to comply with national guidelines and meet the specific objectives of the school the landscape proposals have been developed with reference to Building Bulletin 103: Area Guidelines for Mainstream Schools.

The landscape setting for the school plays an important role for providing an attractive backdrop for all types of educational activities. The ‘Learning through Landscapes’ initiative sets out the general requirement for schools, from which this scheme takes its lead. An attractive outdoor environment is proven to have a beneficial effect on the wellbeing of staff and pupils and of creating the right atmosphere for learning. The creation of a variety of active and passive outdoor facilities and spaces for all age groups as well as natural habitat areas is an asset for the school. Learning in the landscape is considered a holistic approach, opportunities within the landscape include: investigation of the natural environment, sustainable development, biodiversity, environmental design and management, measuring and estimating.

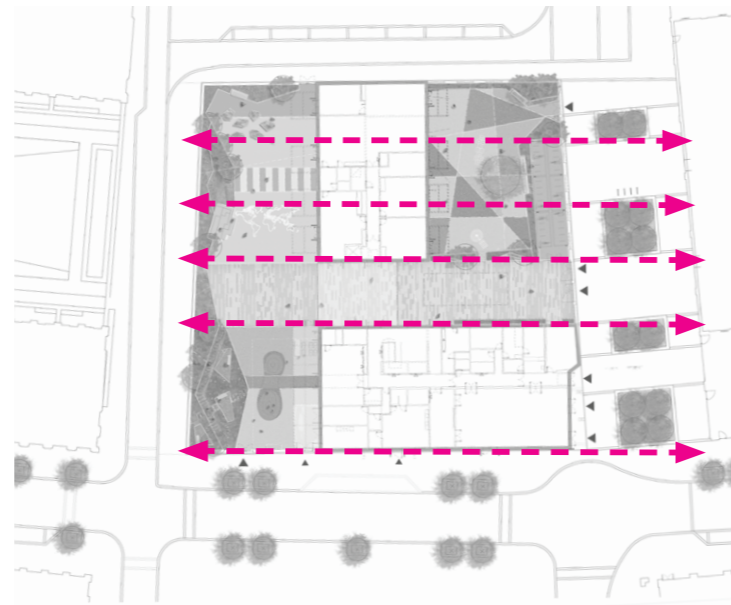
Outdoor Classrooms

The outdoor spaces have been designed to act as an extension of the internal classrooms. The building and landscape connect in terms of function and interaction between both environments. The landscape is also displayed as a picture when viewed from the window and provides a visual and spatial release from the confinement of the building. The landscape furthermore is a series of spaces with various interactive functions.

Landscape interaction with the building



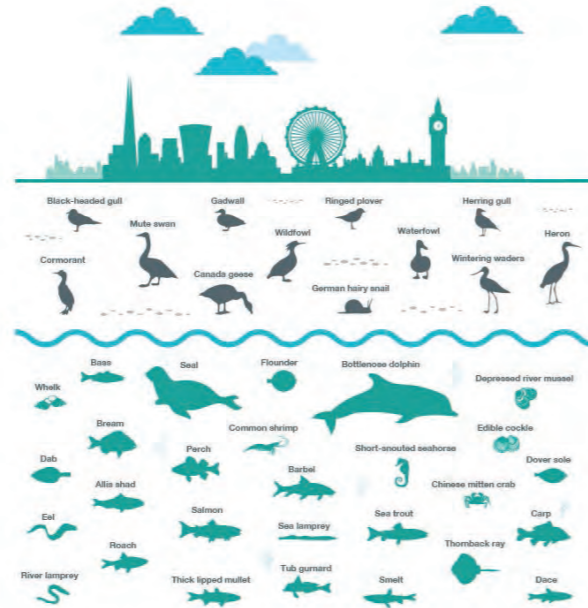
Outdoor space as an extension of the classrooms



Links with Pocket Park



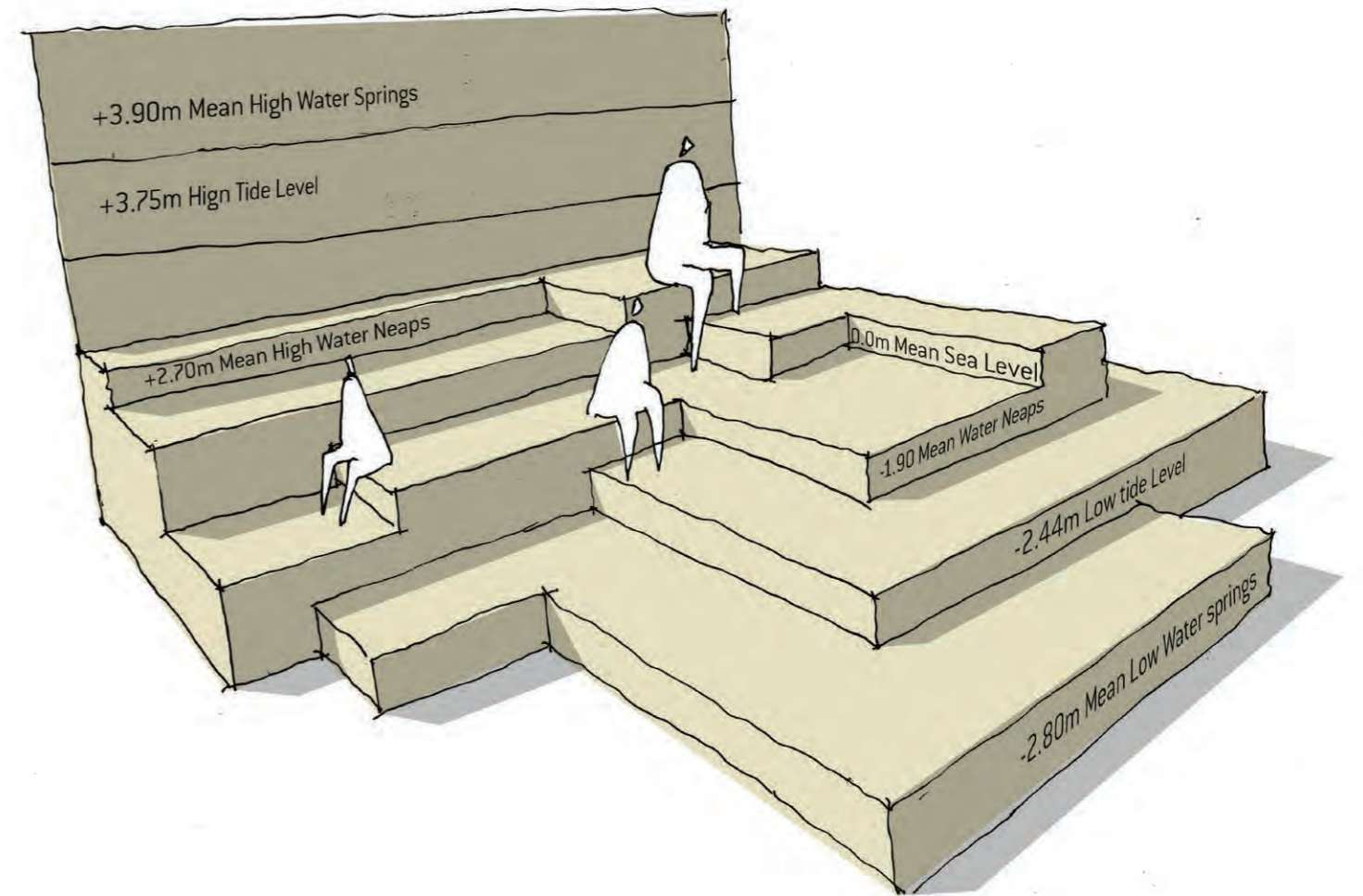
Landscape as a series of interactive functions



Some of the local features that can be used to educate the pupils

Local Context as an Educational Tool

The position of the school near to the River Thames and the Thames barrier provides an opportunity for learning that would strengthen the local identity of the school as well as the connection between the pupils and their environment.



Graphics added to terraced seating used to illustrate the tidal ranges

Landscape Elements

The intention is to use the whole of the site as an educational resource. A correct balance between hard and soft areas is sought with hard spaces being large enough to allow for flexible use. There is also opportunities to gather in small groups as well as larger spaces.

As the site is constrained hard informal and social areas have been give priority in accordance with BB103 recommendations. Lyle Park can also be used for sports activities.

The elements that make up the external landscape are as follows:

- Arrival Avenue
- Nursery Playground
- Reception and Year 1 Playground
- Infant/ Junior Playground
- Allotments/ Growing Area
- Wildlife & Sensory Garden
- Cycle Parking



Landscape layout

Outdoor classroom space to the R class. Potential outdoor dining space

Growing beds: opportunity for pupils to learn about and have hands on experience of food production and ecology

Trim trail for active education such as developing coordination and balancing skills

Outside space as an extension of small group classroom

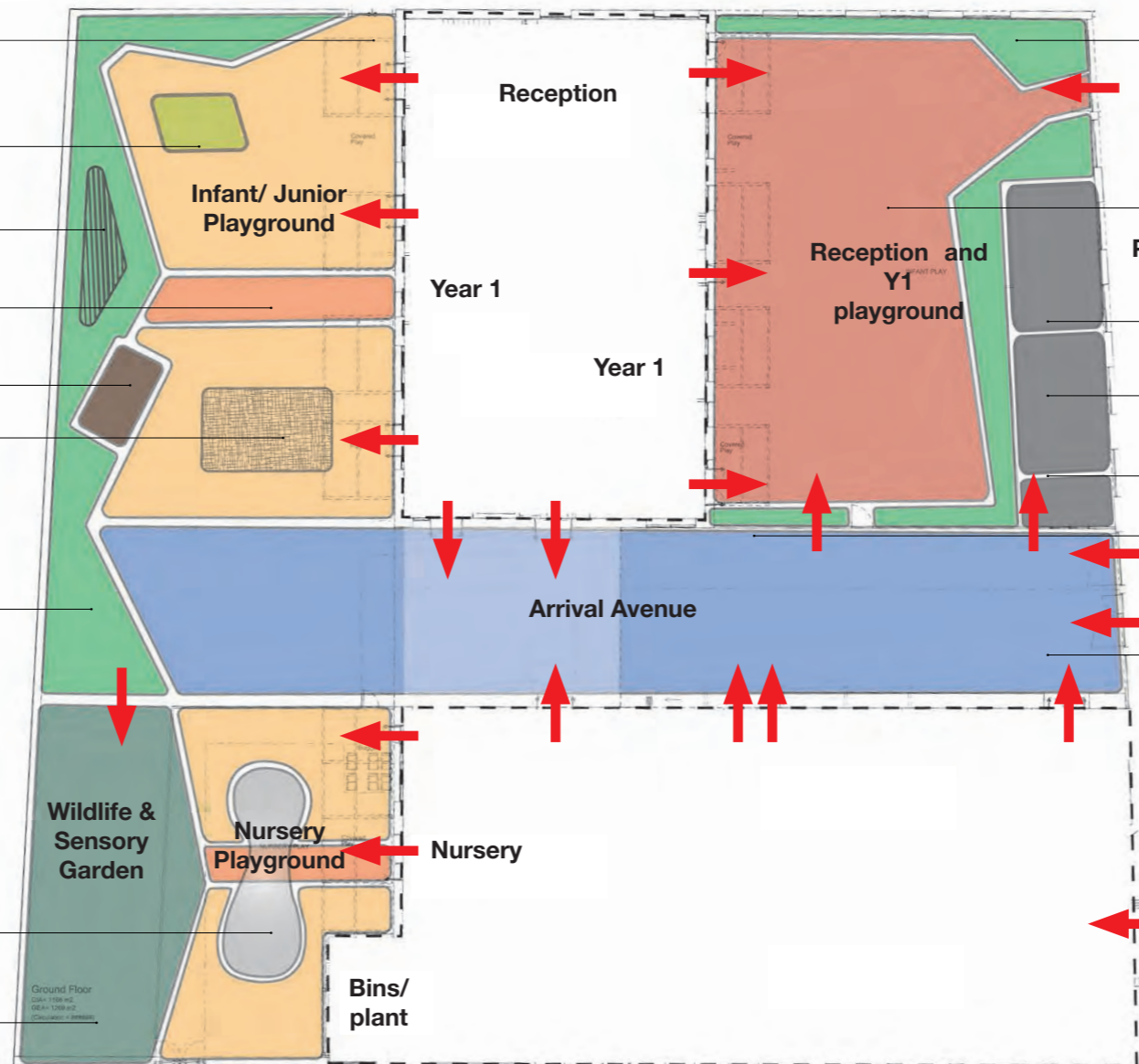
Informal seating for outdoor lessons and performance/drama events

World map symbol

Buffer/native wildlife planting consisting of hardy semi-ornamental shrubs and tree planting

Artificial turf play mound

Sensory, wildlife garden: natural planting, log piles etc. to inspire and educate the children on biological processes, nature and the environment.



Buffer/native wildlife planting consisting of hardy semi-ornamental shrubs and tree planting

Infant play: rubber crumb surface divided into zones for different subjects with educational markings

Pocket Square

Staff cycle parking

Student cycle parking

Scooter parking

Visitor cycle parking

Pupil Entrance

Main arrival route and gathering space with seating and directional paving

Visitor Entrance

Zonal description



Growing beds



Trim trail



Seating/ outdoor classroom/ performance space



World map



Zonal Arrangement



Seating area/ hardy semi-ornamental planting



Rubber crumb surface



Wildlife/ sensory/ community garden



Nursery



Directional paving



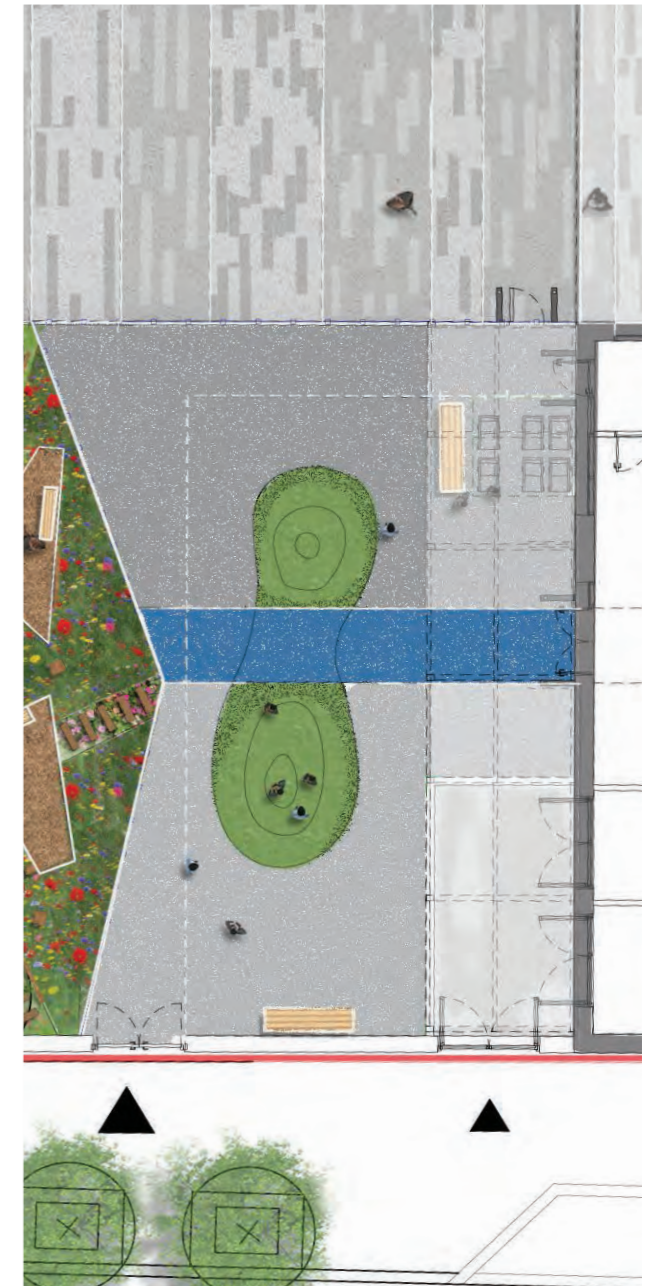
Arrival Avenue

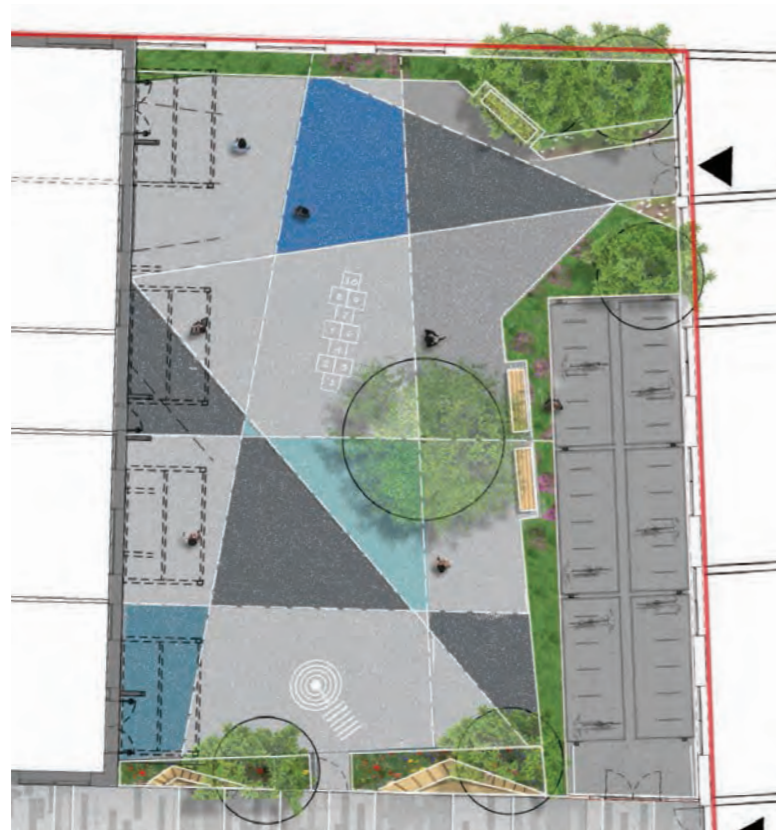
The entrance landscape provides an attractive and legible arrival space with clearly defined routes connecting the entrances. The approach has purposefully been left open so as to be flexible and to allow free movement across the space. The margins incorporate seating for pupils and parents when collecting their children .

The surface will comprise of bands of block paving with the aim of connecting the two main buildings whilst corresponding with entrance locations.

Nursery Playground (2-4 years)

The Nursery Playground offers an extension of the nursery providing the children with opportunity for the release and to enjoy the outdoors. The space has purposefully been left open so as to be flexible, to encourage imaginative play and to allow the children to play with their toys etc. A few elements are provided such as the artificial turf mounds in order to offer a variety of surfacing and for the children to climb and run over.





Reception and Year 1 Playground (4-5 years)

The Reception and Year 1 Playground is to have a rubber crumb surface to allow for a vibrantly coloured soft play surface. The surface is divided into fragments of colour that align with the internal arrangement creating a sense of connection. The spacing of the trees within the adjacent pocket park furthermore are continued into the site helping to connect the two spaces.

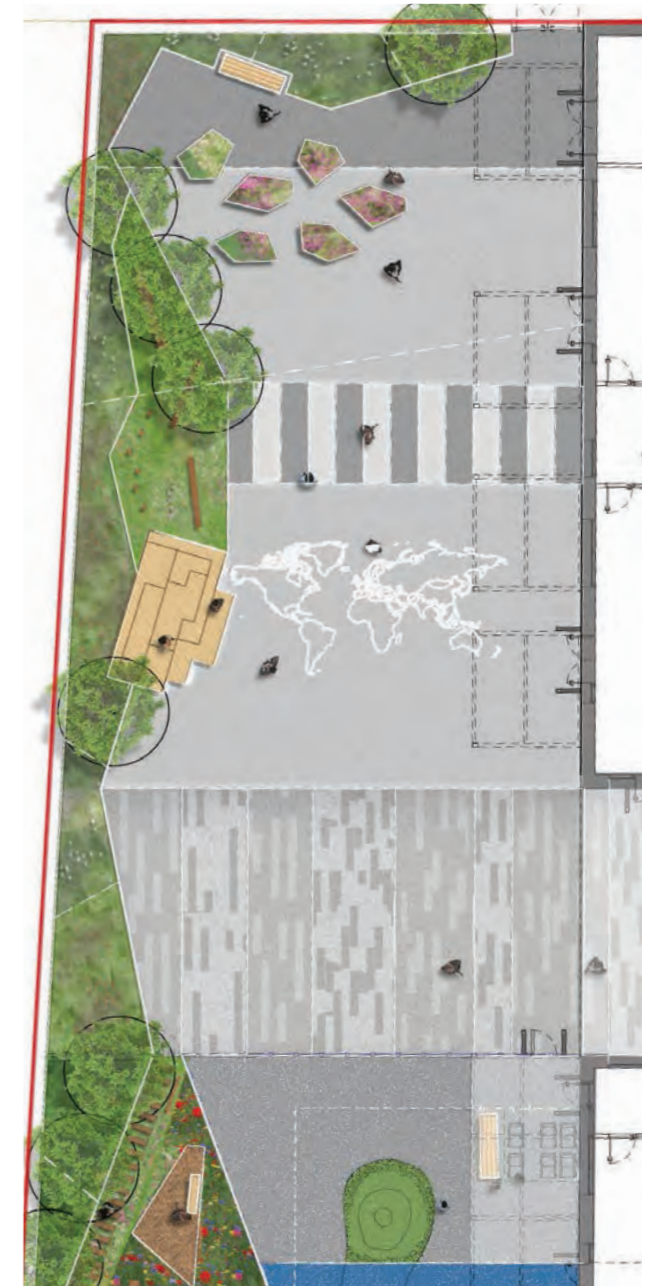
The Reception and Year 1 playground is bordered by semi-ornamental shrub and tree planting to provide a soft edge that includes seats to create quieter spaces on the margins, which could be used for outdoor teaching sessions or as social space. Canopies extend from the building so that the outdoor spaces can be used during periods of inclement weather.



Infant/ Junior Playground (6-8 years)

The Infant/ Junior Play Ground is mostly hard surfacing that is purposefully left open for flexible use and to enable large groups to gather providing an opportunity for outdoor assemblies or team game events. Surface markings help break-up the area including a band of stripes extending for the small group classroom. A terraced seat on the edge of the hard paved area provides an opportunity for informal seating, a viewing stage for outdoor classrooms or sport events etc. or a stage for drama and dance performances etc. Directly adjoining the terrace is a trim trail that aims at encouraging physical activity and helping to develop coordination and balance.

The allotments or growing beds provide the students with the opportunity to grow and manage their own fruit and vegetables giving them a sense of ownership, reward and pride. The allotment would help teach about the benefits of 'Green Living' and the benefits of organic food and self sufficiency.





Wildlife and Sensory Garden

The Wildlife and Sensory Garden comprises of plant species that aim to stimulate the senses. A sense of ownership and care for the environment can be nurtured through maintenance of the garden. The chosen planting will provide for birds in winter as well as creating additional habitats for insects. The species choice aims to enhance the ecological value of the site providing value as a learning resource.

Soft landscaping

Soft landscaping is to be used to mitigate the micro-climate, articulate spaces and key vistas, increase the ecological value of the site and generally enhance the environment.

Trees to the scheme comprise planting along the boundaries that soften the interface of the school adding to the character of the surrounding streets; trees to the play areas provide shade as well as creating 'green links' between the spaces.

The benefits of trees are that they humanise the building and its scale, provide shade, lower levels of surface water running into drains allowing sewers to cope better with water flow minimising flood problems.

Plant species have been chosen to be hardy to cope with the demands of children's play whilst being low maintenance and having a high ecological value.

Tree pit details are to include a minimum 900mm depth of soil, sufficient rooting volume, drainage layer and root directors/barriers where required.

Shrub planting areas to have a minimum 450mm depth of soil.

Wildflower areas to be sown on low fertility soils in accordance with best practice.

Tree palette



Betula pendula



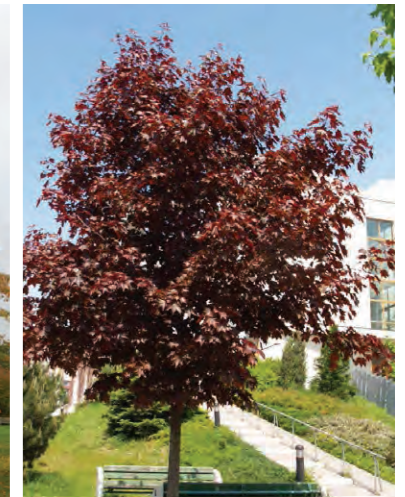
Prunus padus



Prunus avium



Quercus palustris



Acer palmatum 'Crimson King'

(Trees shown at ultimate size)

Planting palette



Cornus sanguinea



Viburnum davidii



Lavandula angustifolia



Hebe 'Mrs Winter'



Vinca minor alba



Hard Landscape

Hard landscaping materials will be chosen to:

- Complement and enhance the development.
- Reflect the contemporary nature of the proposed architectural finishes on the building.
- Reflect the surrounding environment.
- Provide a robust and long-lasting sustainable surface.
- Reflect levels of trafficking.

Cycle Parking

Cycle parking comprises of pupil, staff and visitor cycle stands and racks for children's scooters. The pupil, staff and scooter parking is located in the corner of the Reception and Year 1 Playground bounded by a metal fence to separate it from the play area and the Arrival Avenue. The visitor stands are found on the Arrival Avenue near to the main school entrance beneath the overhang so that they are sheltered from the rain.

Cycle stands allow adequate room for accessing the stands in accordance with required standards. Cycle stands are to be Sheffield stands with a central mid rail at 500mm height as an extra locking point for smaller bikes. Scooter stands are to comprise of racks located at the ends of the pupil and staff stands.

Long stay staff and pupil stands are to be covered whereas scooter stands are to be uncovered.

Long stay:

7 staff spaces (est. 55 staff) + 53 pupil spaces (420 pupils) + 20 Scooter

Short stay:

6 visitor spaces





Ecological Development

The proposals seek to enhance the ecological value of the site wherever possible. Presently the site is devoid of trees or any planting. Dense, hardy, semi-ornamental shrub and tree planting is proposed to the sites periphery as a 'green' margin that acts as a soft edge to the hard spaces and will encourage wildlife. This is to be achieved using a variety of plants including a high percentage of native species with varying flowering periods.

Hard and Soft Landscape Maintenance

Maintenance and management will need to be agreed with the relevant parties though generally:

Hard landscape maintenance

To maintain the condition of the hard landscaping and to ensure the public realm remains attractive a maintenance regime needs to be put in place that:

- generally removes any litter, leaves or other debris;
- keeps surface gutters and drains free from detritus;
- regularly removes stubborn stains and chewing gum whilst not damaging the paving or street furniture;
- refills any mortar or sand joints;
- cleans any street furniture, signage, lighting etc. and retreats any timber;
- the 1990 Environmental Protection Act contains a code of practice for Litter and refuse that can be used as a minimum standard for cleanliness;
- replaces any light bulbs;
- reinstatement materials need to be a similar specification as to the original works.
- provision for reinstatement needs to be agreed at an early stage.
- a maintenance manual should be provided that includes:
 - 'as built' drawings;
 - procedures for maintenance works;
 - the names and contact information of all suppliers;
 - procedures for reinstatement;

Soft landscape maintenance

- Elements of soft landscaping will require regular maintenance particularly during the initial establishment period.
- Soft landscape to be maintained to an agreed detailed programme to be included with the maintenance manual that sets out management requirements.
- Tree details to include a water pipe to allow additional water to reach the roots.
- All dead or failing trees/plants would need to be replaced with a tree/plant of the same size as the one being replaced.
- Trees and plants will require pruning in accordance with the species requirements.
- Weeds will need to be suppressed using suitable safe methods.

Utilities

- The public realm design requires carefully co-ordination with the utilities provision at a strategic level.
- Utilities would be required to be positioned so as not to interfere with tree roots and vice versa.
- Potential future service expansion requirements should be considered at an early stage to prevent any disruptive works.
- Any excavations required for works to services should involve replacement with original materials.



The Primary School sits at the heart of Royal Wharf development and is seen as a key element of the Masterplan.

It is hoped that this scheme will be a positive contribution to the overall Royal Wharf development which has already received approval and is in the process of implementation.