HISTORICAL CONTEXT

The Stag Brewery forms a major part of the river frontage development in the centre of Mortlake, having served as a productive site for hundreds of years. The development area includes the site of Mortlake Manor House, the centre of the large estate, originally including thousands of acres, extending across to Richmond Park. A brewery has existed on this site since 1493 when brewer John Williams was granted half an acre by King John, with the Stag Brewery finally closing in 2015, prior to the site being purchased by Reselton Properties.

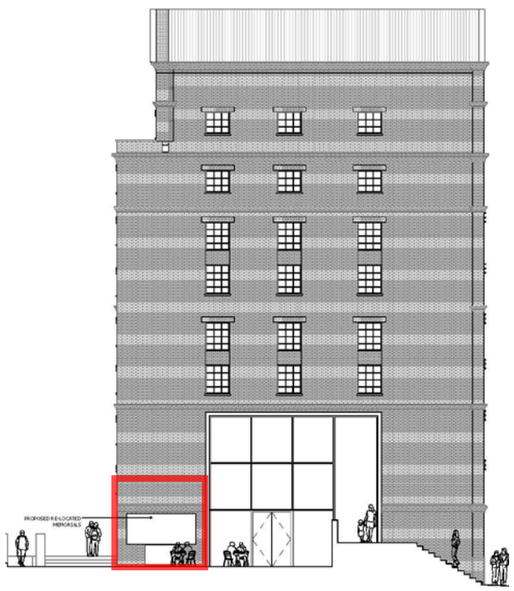
The site contained the original Mortlake Manor house, palace of the Archbishops of Canterbury and centre of a prosperous estate including some 8,000 acres (Domesday survey 1086). Numerous land holders have utilised the riverside land for residential and industrial purposes, including Thomas Cromwell, who was granted the land and Manor House by Henry VIII and who lived on the site at various times from 1536. Cromwell House on the western portion of the site and the original manor house, east of Ship Lane, formed a significant part of the early history and use of the site.

HERITAGE

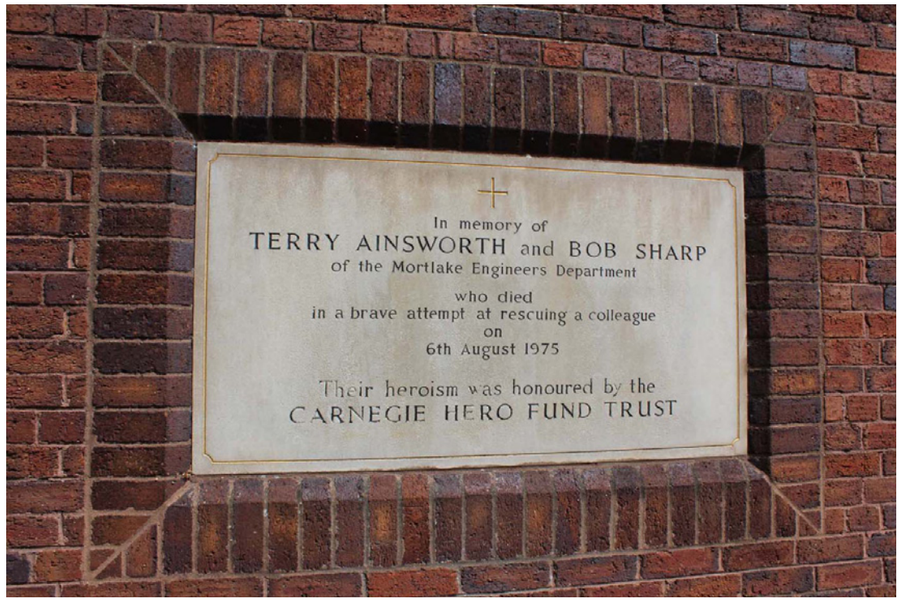
Heritage elements on the existing site include the Hotel and Bottling Plant building and Maltings Building and these are retained and re-purposed within the masterplan. Sections of the existing boundary brick wall are retained in the design of the perimeter treatment to Mortlake High Street frontage, Bull's Alley and the Towpath, and integrated into the hard landscape development. The brick wall on the Towpath / river frontage is reduced in height to relate to the proposed site levels and anticipated flood levels. The wall continues to form the flood protection for the site, with a series of stepped connections to the Towpath placed at intervals along this frontage, relating to the new connections through the site.

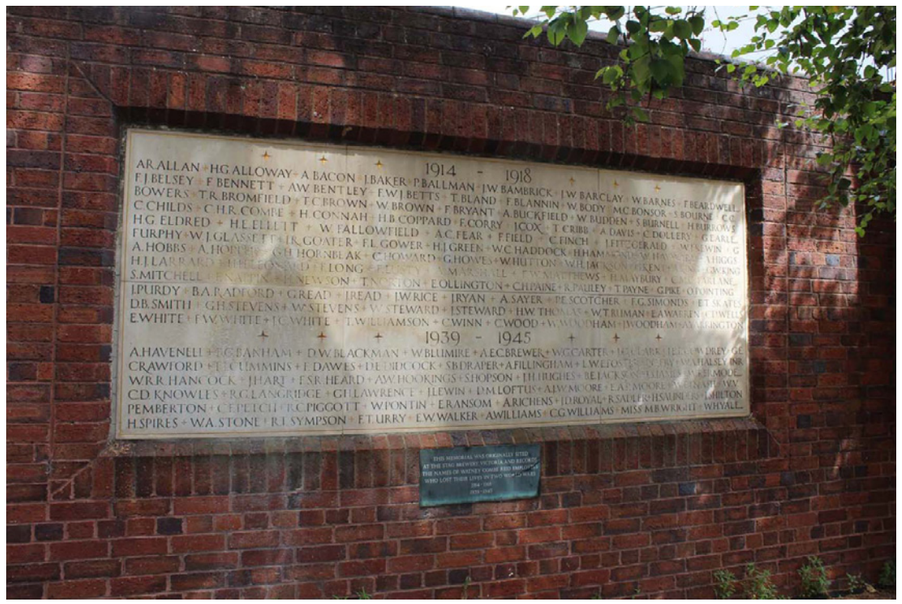
Plaques commemorating brewery workers who died in the two World Wars or in accidents on site are to be relocated to a suitable place within the new development, maintaining a link to the history of the site and its' past inhabitants. The proposed location for the two plaques is on the east wall of the Maltings building facing Maltings Plaza.

Location plan



MALTINGS BUILDING EAST ELEVATION





EXISTING MEMORIAL PLAQUES – TO BE RELOCATED WITHIN NEW DEVELOPMENT

HERITAGE ASSETS

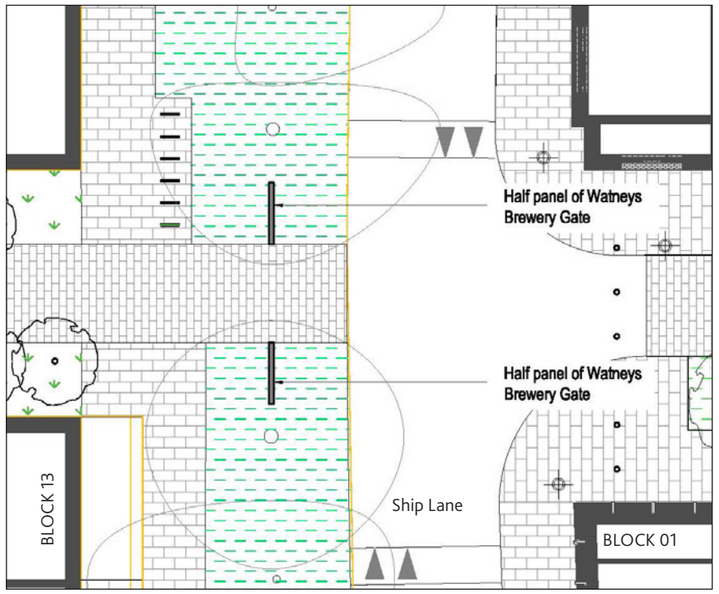
The Brewery gates in Williams Lane, featuring the Watney's Brewery name, are proposed to be located flanking access route from end of Thames Street into western precinct and school. This reference to the previous owners and use of the site is seen as a positive link to the history of the site.

The original proposal to relocate one pair of gates at the Rowing Club courtyard no longer works due to changes for flood control and levels / layout. The Watneys' Brewery gates from Williams Lane entry (refer image attached – 5.65m wide) is proposed opposite the end of Thames Street to terminate this view.

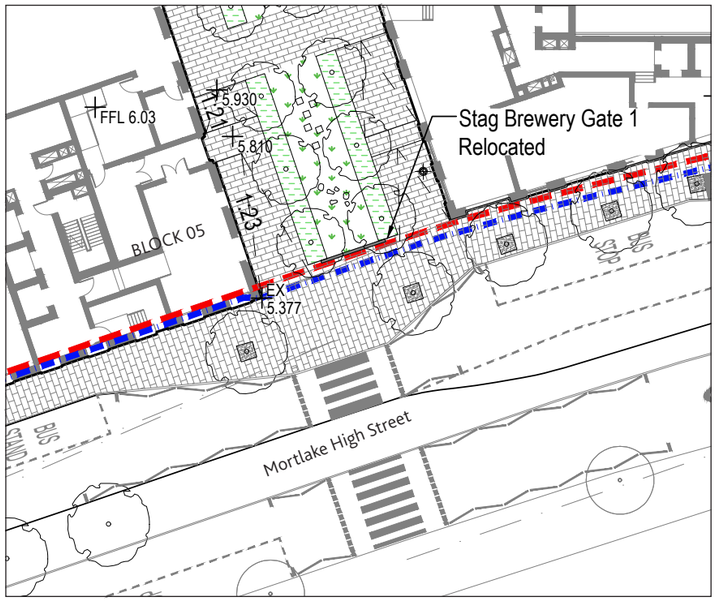
Stag Brewery Gate 1 is positioned on the edge of the site facing Mortlake Hight Street, adjacent to the pedestrian crossing and entry to the site between buildings 5 and 10.

Stage Brewery Gate 2 is proposed across the northern end of the Green Link, defining the separation between the soft landscape and hard paved Maltings Plaza.

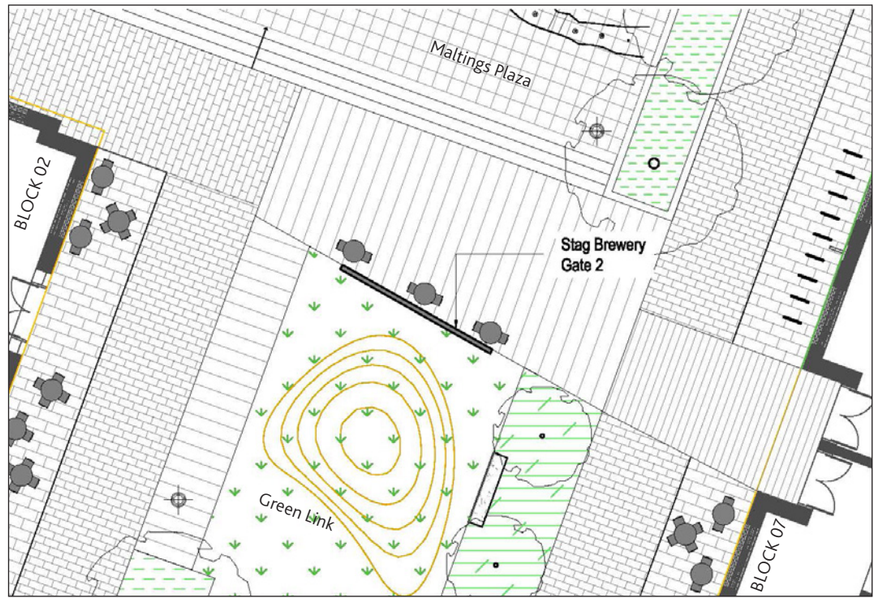
Location plan



Watney's Brewery Gates Location on Plan



Stag Brewery Gate 1 Location on Plan



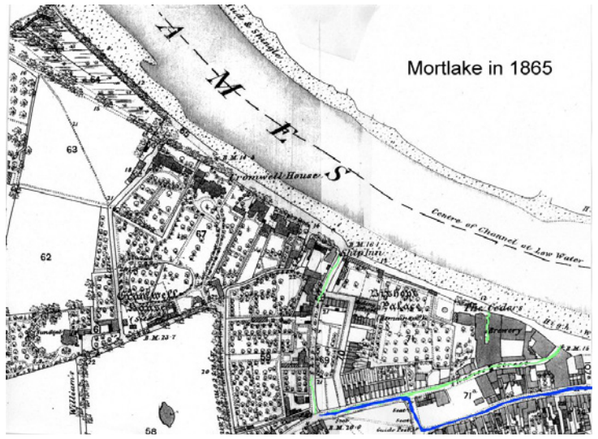
Stag Brewery Gate 2 Location on Plan

Watney's Brewery Gates - from Williams Lane

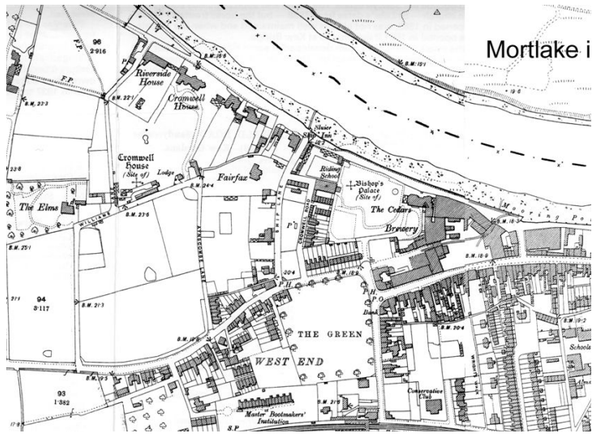
Stag Brewery Gate 1 - from one side of main entrance
on Lower Richmond Road (5.0m wide)

Stag Brewery Gate 2 - main entry gates from Lower Richmond Road (7.0m wide)

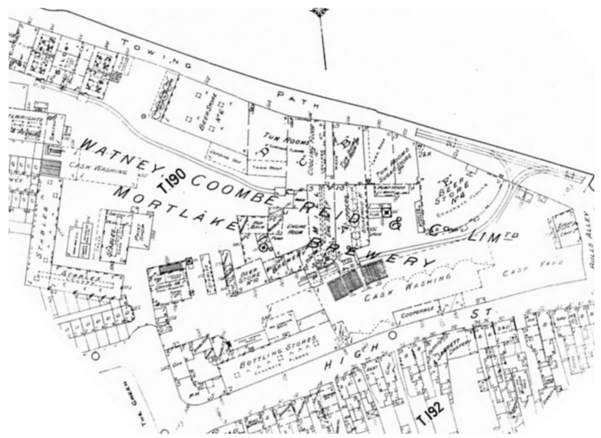
HISTORICAL MAPS AND IMAGES OF SITE AND SURROUNDS



1865



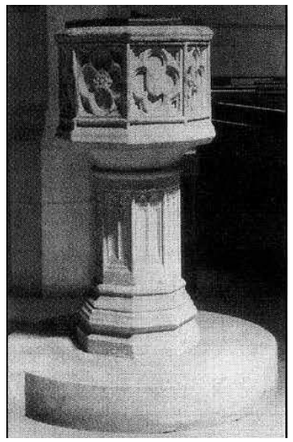
1893



1907

THE SEAT OF WILLIAM MOFFAT ESQ AT MORTLAKE - J M W TURNER 1826

HISTORY LINE OF SITE AND MORTLAKE



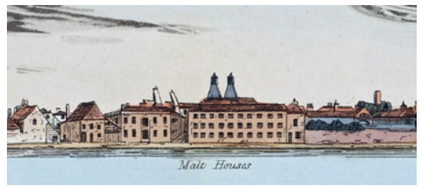
Mortlake Manor & Manor House

10TH - EARLY 16TH CENTURY

Old Cromwell House

New Cromwell House

15TH CENTURY - 20 century



Brewing

EARLY 16TH CENTURY - 2016

Tapestry

16TH - 17TH CENTURY

Pottery

17TH - 18TH CENTURY

Rowing

20TH CENTURY - NOW

STRATEGY:

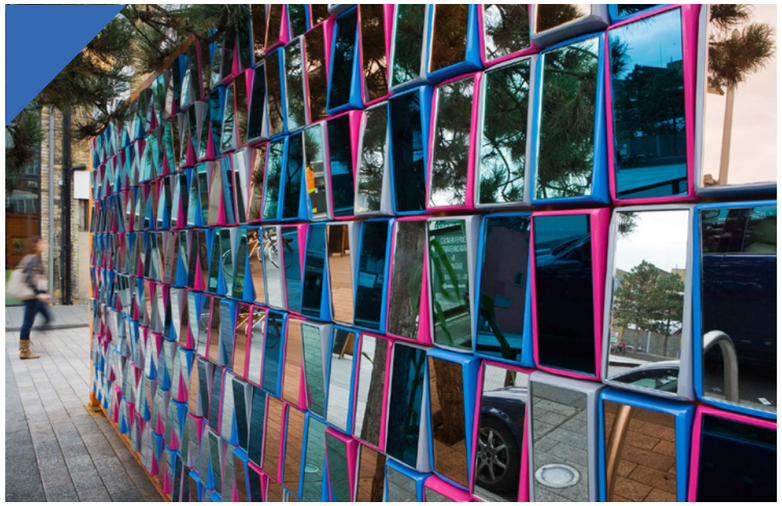
Opportunities exist within the landscape and public realm of the masterplan to integrate public art that will provide reference to the long and intricate history of the site, the riverside location and add a layer of interest and animation to the user experience. The initial strategy is to identify potential positions for interventions along key routes and in locations that tie in with the site-wide art strategy, potentially including:

- Sculptures at major focal points
- Appropriate found objects from the brewery
- Artistic play installations
- A history trail – with cast or etched narrative panels
- Temporary happenings and installations related to the project,
- Paving art, light and sound pieces, elements within street furniture,
- Signage, graphics and branding

The proposal would be to work with a curatorial specialist in the next phase of the development to identify and commission artists to bring this vision to life.

Legend

- Locations of Potential Art Installations
- Heritage Celebration Through Public Realm (incorporated in hardscape and street furniture design)
- Potential Location for the War Plaques
- Riverside Art Trail
- Brewery Gates Relocated
- Section of Existing Riverwall Patrially Retained
- Site Application Boundary
- School Application Boundary



BIODIVERSE ROOFS

It is proposed to implement green / brown roof systems on a number of the buildings with flat roofs, exploiting the ecological potential of these upper levels. A percentage of the roof space on new buildings in the development has been designed as green or brown roofs, to provide biodiversity and energy benefits, as well as contributing to stormwater drainage and short term attenuation storage. While it is acknowledged that the LBRuT recommendation of 70% of roofs being allocated to green roofs is not achieved, we have provided 55% of green or brown roofs and have endeavoured to maximise suitable biodiversity through the green and brown roof strategy, as well as significant planting areas and retained vegetation throughout the site. The roofscape is largely utilised to provide PV cells, air conditioning and other mechanical plant and lift overrun structures, together with maintenance access. The calculated available roof space for biodiverse roofs excludes areas unsuitable for the inclusion of biodiverse roofs such as pitched roof structures, lift over-runs and areas allocated for building plant or services.

Green and brown roofs provide beneficial insulation to buildings and a degree of infiltration and storage of rainwater, while adding to the biodiversity of the site with a range of plant types, habitats for various insects and invertebrates and potentially birds and bats. A number of bat and bird boxes and bricks will be integrated into the roofscape and informal habitats created with rocks and gravel surfaces to brown roof sections.

Green roofs include a wildflower and native grasses mix and are designed as a sustainable, biodiverse roofscape and a pleasant visual outlook for surrounding higher buildings. This light weight roof system will assist in absorbing rainwater as well as increasing the biodiversity of the site by providing additional foraging and habitat for insects and birds.

Brown roofs are accessible for maintenance purposes and will incorporate PV cells in some areas, as indicated in Architectural and MEP drawings. Each brown roof will be seeded with plant species collected from the site or nearby, to boost local endemic habitat and foraging for local species. Certain features will be introduced to maximise potential for biodiversity and habitat for target species. These will include log piles, slabs or tree branches gathered from the local area, combined with bird and bat boxes noted below. Where possible, the substrate depth will be varied to provide opportunities for small pools of water to collect on the roof.

For Development Area 2, biodiverse roofs will be incorporated using same principles as above and additional details will be provided in detail design stage.

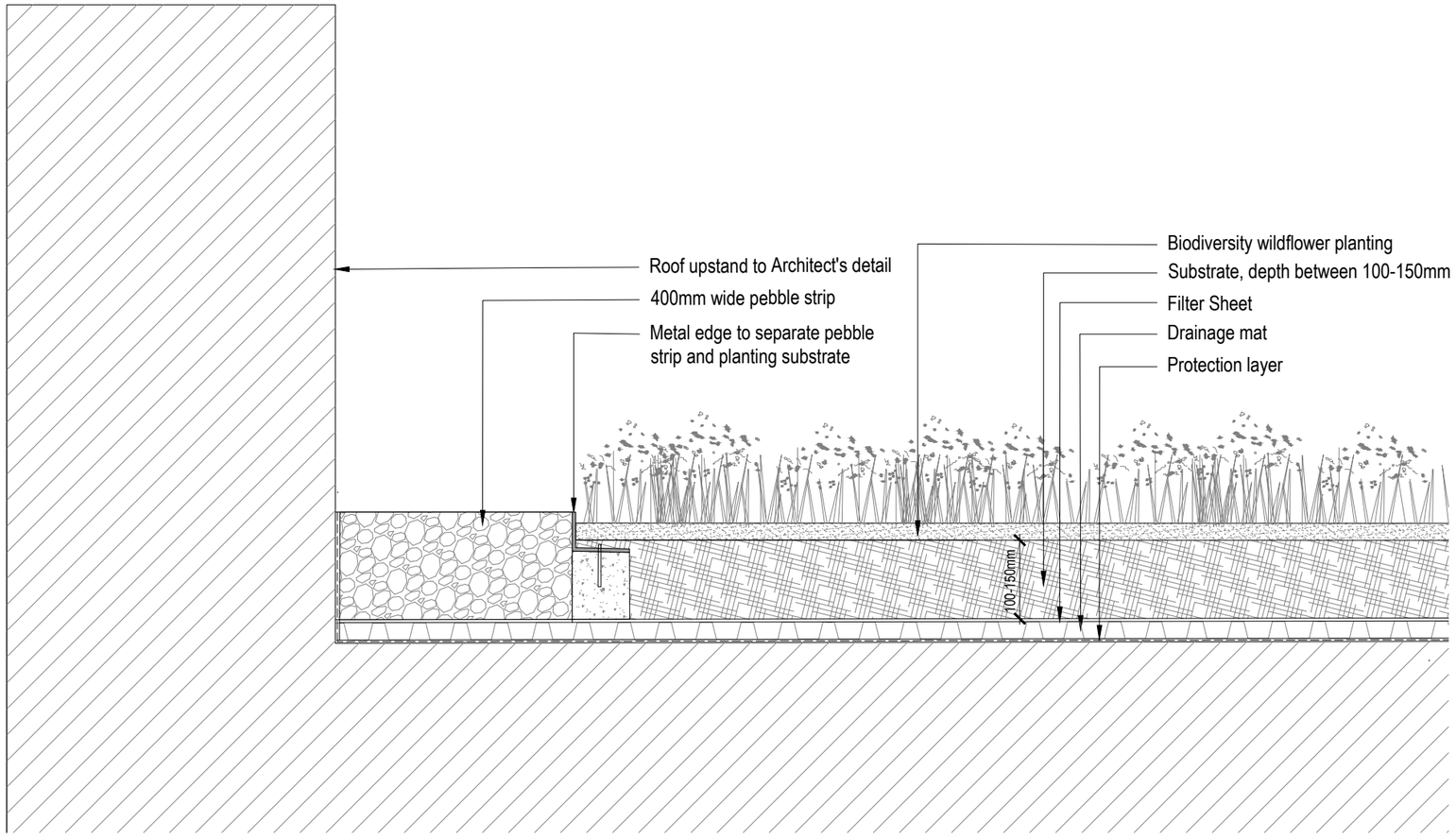
Biodiverse roof allocation - Development Area 1

	Area (square metres)	Area as percentage
Available roof space	4,541	N/A
Green roof allocation	2,097	46%
Brown roof allocation	428	9.5%
Total allocated	2,525	55%

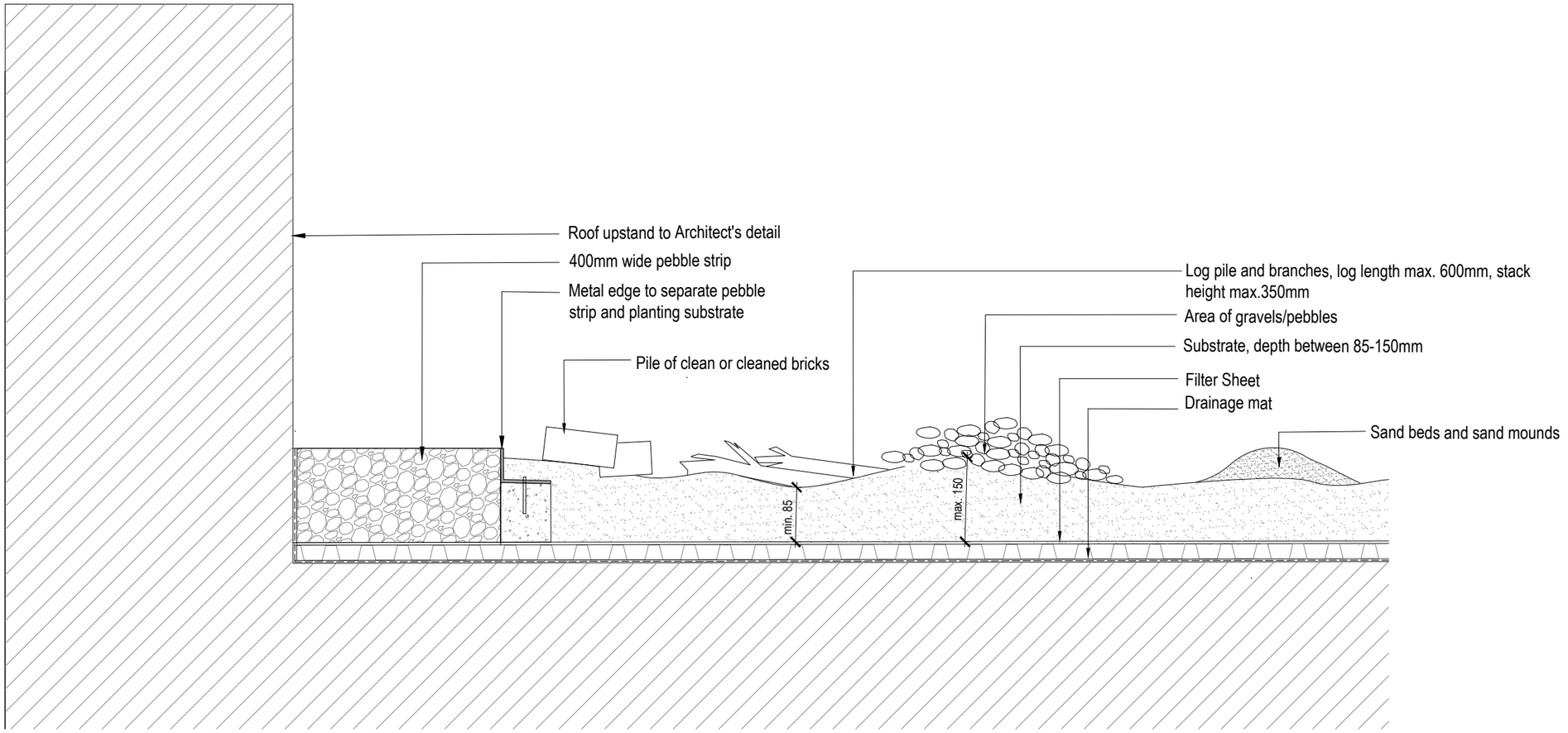
Legend

- Green Roof (total 1,885m²)
- Brown Roof (total 428 m²)
- Site Application Boundary
- School Application Boundary

BIODIVERSE ROOFS - GREEN ROOF TYPICAL DETAIL



BIODIVERSE ROOFS - BROWN ROOF TYPICAL DETAIL

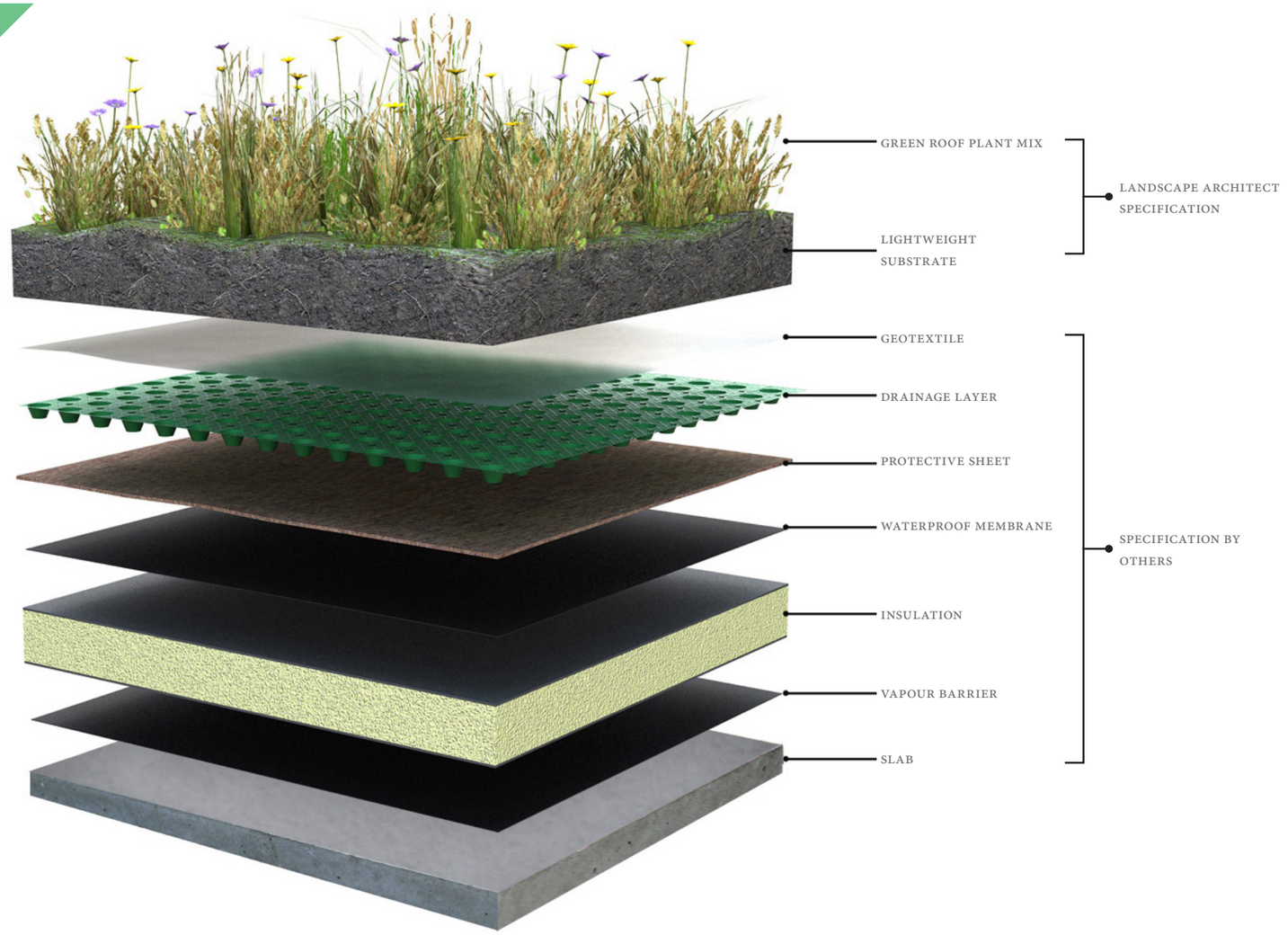


BIODIVERSE ROOFS - GREEN ROOF PLANTING DETAIL

Green roofs include a wildflower (90%) and native grasses (10%) mix and are designed as a sustainable, biodiverse roofscape and a pleasant visual outlook for surrounding higher buildings. An indicative species palette is included on this page.

XF118 WILDFLOWER INDICATIVE SPECIES LIST

Botanical Name	Height	Blossom	Flowering Season
Achillea millefolium	8-40 cm	White	June-August
Armeria maritima	5-20 cm	Pink	April-October
Bellis perennis	3-12c m	White / Yellow	March-October
Campanula glomerata	3-30 cm	Blue	June-October
Campanula rotundifolia	15 cm	Blue	July-September
Centaurea cyanus	20-50 cm	Blue	June-August
Centaurium erythrea	10-40 cm	Pink	July-August
Dianthus deltoides	15-30 cm	Pink	April-October
Echium vulgare	30-60 cm	Blue	June-September
Galium verum	15-60 cm	Yellow	July-August
Geum rivale	20-40 cm	Pink	April-August
Linaria vulgaris	20-40 cm	Yellow	July-September
Lotus corniculatus	10-20 cm	Yellow	June-September
Lychnis flos-cu-culi	50-60 cm	Pink	May-August
Papaver rhoes	20-60 cm	Red	June-August
Pilosella aurantiaca	20-60 cm	Orange	July-October
Prunella vulgaris	5-20 cm	Purple	June-October
Rhianthos minor	30-50 cm	Yellow	May-August
Saponaria officianalis	20-40 cm	Light Pink	July-September
Scabiosa columbaria	15-50 cm	Blue	July-October
Sedum acre	5-10 cm	White / Yellow	July-August
Silene uniflora	8-25cm	White	June-August
Silene vulgaris	25-50 cm	White	June-August
Thymus polytricus	4-10 cm	Mauve	May-August



Precedent Image of Green Roof Detail

GREEN ROOF WILDFLOWER SPECIES

Alliaria petiolate

Echium vulgare

Papaver rhoes

Galium verum

Daucus carota

Prunella vulgaris

Silene vulgaris

Rhianthos minor

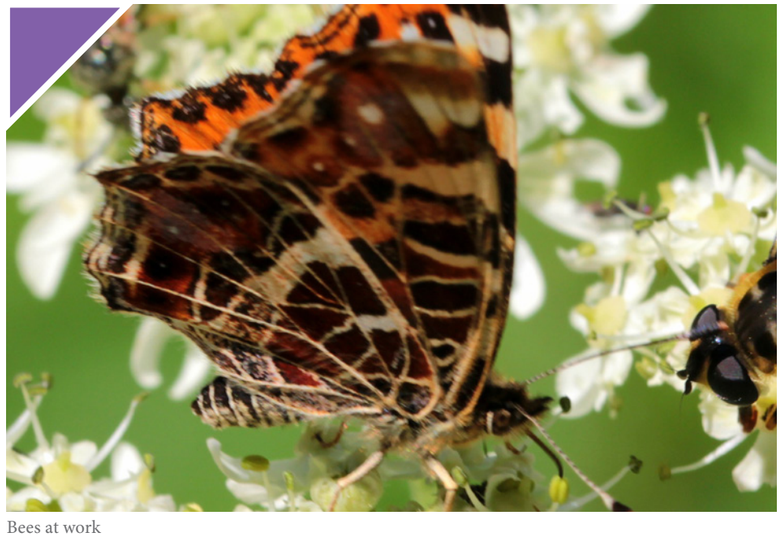
ECOLOGY

Living roofs are designed, with a combination of green and brown roofs to provide a range of plants and habitats, as well as contributing to the biodiversity of the site.
Insect attracting plants and structures to form shelters and habitats will be included in green and brown roof details.
A number of ecological enhancements will be incorporated in the proposed landscape and a minimum of ten bat boxes are to be provided in suitable location within the Detailed Application Boundary Area.

Bird boxes

Bat box

Bat box



Bees at work

Wood log piles

SUSTAINABLE URBAN DRAINAGE STRATEGY:

RAIN GARDENS

Rain gardens form a significant landscape feature within the central Green Link, draining one side of the pavement directly into a planted storage 'trench' which ultimately connects to the stormwater attenuation system. This feature provides an effective sustainable drainage system while creating an obvious ecological feature in the public realm, accentuating the visibility of sustainable measures taken in the development. This feature provides a link to the master planning strategy for ecological development and sustainable drainage and allows surface water to be collected in mass planting areas along the Green Link.

BIODIVERSE ROOFS

Green and brown roofs on the majority of buildings across the site provide biodiversity and also contribute to the rainwater attenuation. Surface treatments in the public and private realm are proposed as predominantly permeable, with soft landscape, turf and grasses, together with permeable pavements of gravel (self-binding or bonded) contrasting with hard paving surfaces and assisting drainage of stormwater.

IRRIGATION

An irrigation system will be provided to all soft landscape areas (planting and lawn) excluding green or brown roofs. This will include soil moisture monitors and a programmable control system to ensure efficiencies in operation and water management.

The irrigation plant room and central controls will be positioned in the basement plant room and link to mains water supply.

PERMEABLE SURFACES

Paved areas will be designed where feasible to drain into tree pits and planting areas, providing natural watering and assisting infiltration and storage of stormwater.

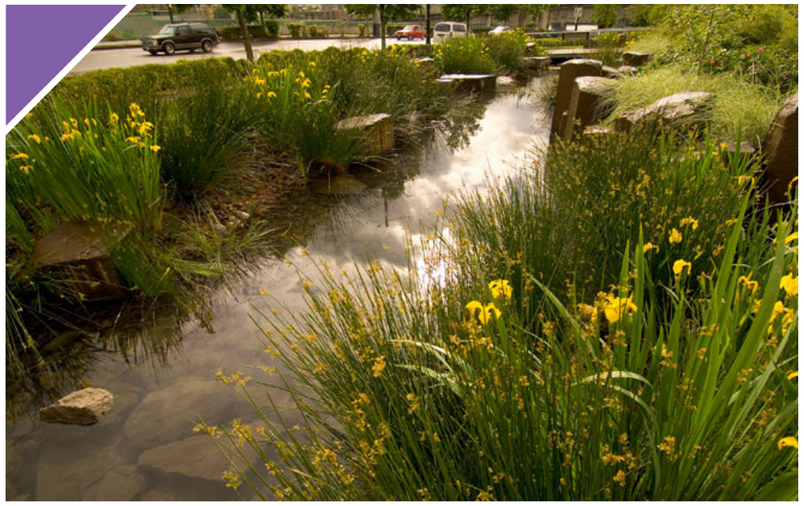
For Development Area 2, the sustainable urban drainage strategy will be developed in accordance with the above and provided in detail design stage.

Legend

- Rain Garden
- Planter
- Permeable Paving
- Site Application Boundary
- School Application Boundary

Rain garden

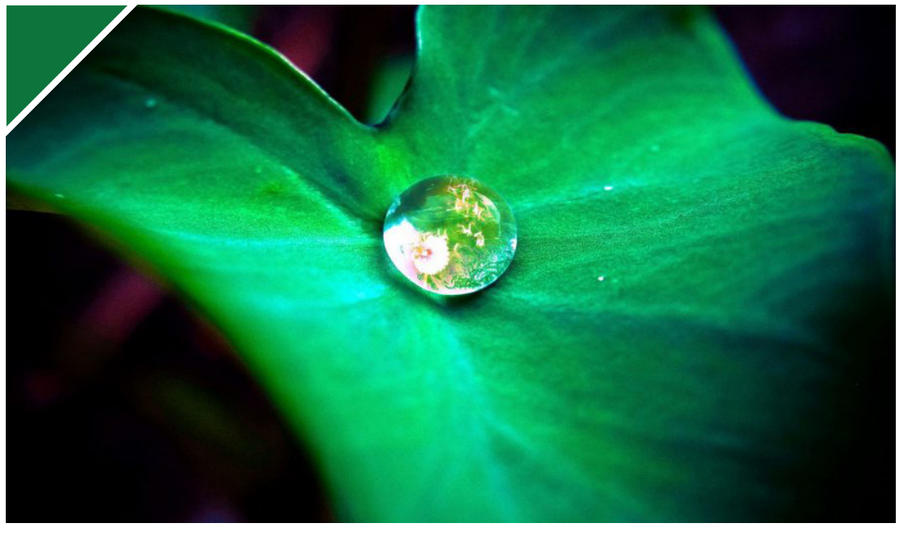
Planter



Rain garden detail

Rain garden detail

Permeable paving



URBAN GREENING FACTOR - OVERVIEW

The objective of urban greening is the inclusion of measures within new developments that result in an increase in green cover within the development area, and should be integral to planning the layout and design of new buildings and developments. This objective has been considered from the inception of the design process for the Stag Brewery.

Urban greening covers a wide range of interventions including, but not limited to, street trees, green roofs, green walls, and rain gardens. It can provide a range of benefits including amenity space (especially where traditional green space may be limited), enhanced biodiversity, addressing the urban heat island effect and sustainable drainage.

Policy G5 Urban Greening of the New London Plan sets a urban greening factor model to assist in determining the appropriate provision of urban greening for new developments in London. The Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development.

The Urban Greening Factor for a proposed development is calculated in the following way:
(Factor A x Area) + (Factor B x Area) + (Factor C x Area) etc. divided by Total Site Area.

Site Wide

The landscape strategy for the site proposes large areas of green such as the Green link and the courtyards, tree lined streets - with more than 400 new trees proposed overall - retaintion of existing trees (some of them Category A/B) , raingardens, flower rich perennials and undercover planting, and biodiverse roofs on both development areas.

The strategy also enhances and retains the planting and trees along Thames path and integrates them to the design.

The commercial activities on Development area 1 required extensive hardscaped areas for servicing, spill-out areas for cafes and restaurants and corridors of circulation, with green areas integrated where possible.

Flexible hardscaped spaces such Maltings Plaza and Bottlings square were essential in providing the stage for markets and events that will animate the new neighborhood.

The school area benefits from the inclusion of a 3G sports pitch and MUGA. These are large areas of almost 0.9ha that are counted as permeable surfaces adding to the overall UGF score.

Urban Greening Factor Calculator - Site Wide

Surface Cover Type	Factor	Area (m²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	417	417	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8	7975	6380	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	12723	10178.4	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	797	557.9	
Flower-rich perennial planting.	0.7	2190	1533	
Rain gardens and other vegetated sustainable drainage elements.	0.7	62	43.4	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	557	334.2	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	1998	1198.8	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	12438	4975.2	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2	58	11.6	
Permeable paving.	0.1	9073	907.3	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	58962	0	
Total contribution			**26536.8**	
Total site area (m²)			92464	
Urban Greening Factor			**0.28699602**	

URBAN GREENING FACTOR - APPLICATION A

Application A

Application A benefits from the existance within its boundary of many mature trees - which we are retaining - and from the planting of more than 300 new trees.

Since a large area of Development Area 1 and a smaller one of Development area 2 are above podium, those areas are both calculated as 'Intensive green roof' - with settled depth of 150mm or more - which yields a higher UGF score of 0.7.

Biodiverse roofs on building roofs make up a total of 2,525m^2 for DA1 and an estimated total of 2,156m^2 for DA2. The biodiverse roofs area on DA2 is assumed based on the percentage achieved on DA1, explained in more detail on the following pages.

The contribution of DA2 to the UGF score will be reviewed as part of the Reserved Matters Application and has the potential to be improved as a result of detailed design.

Urban Greening Factor Calculator - Application A

Surface Cover Type	Factor	Area (m²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1		0	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8	7975	6380	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	9519	7615.2	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	797	557.9	
Flower-rich perennial planting.	0.7	1803	1262.1	
Rain gardens and other vegetated sustainable drainage elements.	0.7	62	43.4	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	449	269.4	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	1998	1198.8	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	10733	4293.2	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2	58	11.6	
Permeable paving.	0.1	178	17.8	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	48665	0	
Total contribution			**21649.4**	
Total site area (m²)			70655	
Urban Greening Factor			**0.306410021**	

URBAN GREENING FACTOR - DEVELOPMENT AREA 1 AND DEVELOPMENT AREA 2

Development Area 1

For this calculation, all areas above podium/basement at ground floor level (basement extending below Blocks 2,3,7,8,11,12 and parts of 5,6 and 10) are considered 'Intensive greeen roof' as they have a settled build-up above slab of 150mm or more. These are additional to the 2,097sqm of intensive green roof on the building roofs themselves.

We have chosen flower rich perennials and amenity grassland for the remaining on ground planted areas, which have a high UGF score of 0.7 and 0.4 respectively.

Due to the variety of functions in this area - namely residential, retail, leisure - and consequently the variety and number of people expected to use it, hardscaped surfaces were the prefered solution for some larger open spaces such as the commercial Thames street, Bottleworks square and Maltings plaza.

The team has maximised planting where circulation, both pedestrian and vehicular, is not needed and have endeavoured to utilise streets for tree planting wherever possible. Though the UGF falls below the London Plan policy compliant level of 0.4 for residential-led schemes, the landscape strategy for Development area 1 will provide in abundance most of the recommended typologies of planting, and will significantly contribute to a healthy and biodiverse environment for residents and visitors alike.

Development Area 2

Development area 2 benefits from being a strictly residential zone with a medium sized community park (amenity grassland with new and existing trees) at its south west corner, tree lined streets and large green areas on the private gardens and courtyards. There is no need for large hardscaped service corridors and spill-out areas for cafes and restaurants.

Similarly to Development Area 1, all areas above podium/ basement at ground floor level (basement extending below Blocks 16,17 and parts of 13,15) are considered 'Intensive greeen roof' as they have a settled build-up above slab of 150mm or more.

To calculate the biodiverse roofs on the buildings of the Outline Application on DA2 the team applied the same percentage achieved on Detailed Application for DA1. This percentage derived from dividing the achieved total sqm of green/ brown roofs at DA1 by the total building foortprint at DA1 (12,970m^2):

Green roof DA1: 2,097m^2 /12,970m^2 = 0.161 or 16%
Brown roof DA1: 428m^2 /12,970m^2 = 0.033 or 3.3.%

Assumption for DA2 based on what is achieved at DA1:
Green roof DA2 : 11,172m^2 x 0.16m^2 = 1,787 m^2
Brown roof DA2: 11,172m^2 x 0.033m^2 = 369 m^2

where 11,172m^2 the total building footprint for DA2

Urban Greening Factor Calculator - Detailed planning application (Development Area 1)

Surface Cover Type	Factor	Area (m²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1		0	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8	5016	4012.8	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	2911	2328.8	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	428	299.6	
Flower-rich perennial planting.	0.7	325	227.5	
Rain gardens and other vegetated sustainable drainage elements.	0.7	62	43.4	
Hedges (line of mature shrubs one or two shrubs wide).	0.6		0	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	1583	949.8	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	1663	665.2	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2	58	11.6	
Permeable paving.	0.1	178	17.8	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	26145	0	
Total contribution			**8556.5**	
Total site area (m²)			33817	
Urban Greening Factor			**0.253023627**	

Urban Greening Factor Calculator - Outline planning application (Development Area 2)

Surface Cover Type	Factor	Area (m²)	Contribution	Notes
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1		0	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8	2959	2367.2	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	6608	5286.4	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7	369	258.3	
Flower-rich perennial planting.	0.7	1478	1034.6	
Rain gardens and other vegetated sustainable drainage elements.	0.7		0	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	449	269.4	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6	415	249	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	9070	3628	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2		0	
Permeable paving.	0.1		0	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	18288	0	
Total contribution			**13092.9**	
Total site area (m²)			32606	
Urban Greening Factor			**0.401548795**	

URBAN GREENING FACTOR - APPLICATION B

Application B

The landscape strategy for the school proposes the planting of a more than 60 new trees and the retantion of mature existing trees where possible. Flower rich perennial planting is proposed along routes and around gathering spaces, and a medium sized area of semi-natural vegetation (UGF score 1) is proposed for the south east corner of the application boundary.

At the same time, the incorporation of a 3G football pitch and outdoor MUGA, which will be used both by the school and the local residents through a community agreement, reduces the area were more planting can be added. Sport England is a statutory consulty on the projects and it is under their recommendation that the pitch is specified as all-weather. A grass pitch would not provide the same level of benefit to the site as it would not be all-weather and would not be able to be used as much throughout the year/day (see School Design and Access statement for more information). The 3G pitch and MUGA are counted as 'permeable surface' that still adds to the UGF score.

Two UGF scores are provided for the school under the below assumptions:

1. The UGF not including a green roof, as the inclusion of the green roof is subject to future detailed design which will be undertaken by the school developer
2. The UGF including the full extent of the potential green roof.

The school design incorporates a generous rooftop play area for students, next to the area of the potential biodiverse roof. The school roof design also provides skylights that bring natural light to the levels below.

Urban Greening Factor Calculator - Application B (school only)				
Surface Cover Type	**Factor**	**Area (m²)**	**Contribution**	**Notes**
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	417	417	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8		0	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	3204	2563.2	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7		0	
Flower-rich perennial planting.	0.7	387	270.9	
Rain gardens and other vegetated sustainable drainage elements.	0.7		0	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	108	64.8	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6		0	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	1705	682	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2		0	
Permeable paving.	0.1	8895	889.5	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	10296	0	
Total contribution			**4887.4**	
Total site area (m²)			21809	
Urban Greening Factor			**0.224100142**	

Application B UGF table - Intensive green roof excluded

Urban Greening Factor Calculator - Application B (school only) - with green roof				
Surface Cover Type	**Factor**	**Area (m²)**	**Contribution**	**Notes**
Semi-natural vegetation (e.g. trees, woodland, species-rich grassland) maintained or established on site.	1	417	417	
Wetland or open water (semi-natural; not chlorinated) maintained or established on site.	1		0	
Intensive green roof or vegetation over structure. Substrate minimum settled depth of 150mm.	0.8	589	471.2	
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree.	0.8	3204	2563.2	
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014.	0.7		0	
Flower-rich perennial planting.	0.7	387	270.9	
Rain gardens and other vegetated sustainable drainage elements.	0.7		0	
Hedges (line of mature shrubs one or two shrubs wide).	0.6	108	64.8	
Standard trees planted in pits with soil volumes less than two thirds of the projected canopy area of the mature tree.	0.6		0	
Green wall –modular system or climbers rooted in soil.	0.6		0	
Groundcover planting.	0.5		0	
Amenity grassland (species-poor, regularly mown lawn).	0.4	1705	682	
Extensive green roof of sedum mat or other lightweight systems that do not meet GRO Code 2014.	0.3		0	
Water features (chlorinated) or unplanted detention basins.	0.2		0	
Permeable paving.	0.1	8895	889.5	
Sealed surfaces (e.g. concrete, asphalt, waterproofing, stone).	0	10296	0	
Total contribution			**5358.6**	
Total site area (m²)			21809	
Urban Greening Factor			**0.245705901**	

Application B UGF table - Intensive green roof included


A
Block 20
Block 19
B
Block 18
Block 16
Block 15
Block 17
Block 21
A
Ship Lane
Maltings
Block 04
River Thames
Block 03
Block 02
Block 07
Block 08
Block 11
Block 12
Block 09
Thames Street
Block 13
Block 01
Block 06
Block 10
Lower Richmond Road
Block 05
Mortlake High Street
Secondary School
Block 14
Williams Lane
Mortlake Green
Sheen Lane
Changes from the refused scheme
A Reconfiguration of layout of Buildings 20 and 21
B Long stay cycle parking added at courtyard of blocks 18-19
Site Application Boundary
School Application Boundary
(Refer to Application B)

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