

# 2 Landscape Analysis

## The Site in its Ecological Context

### Ecological Links

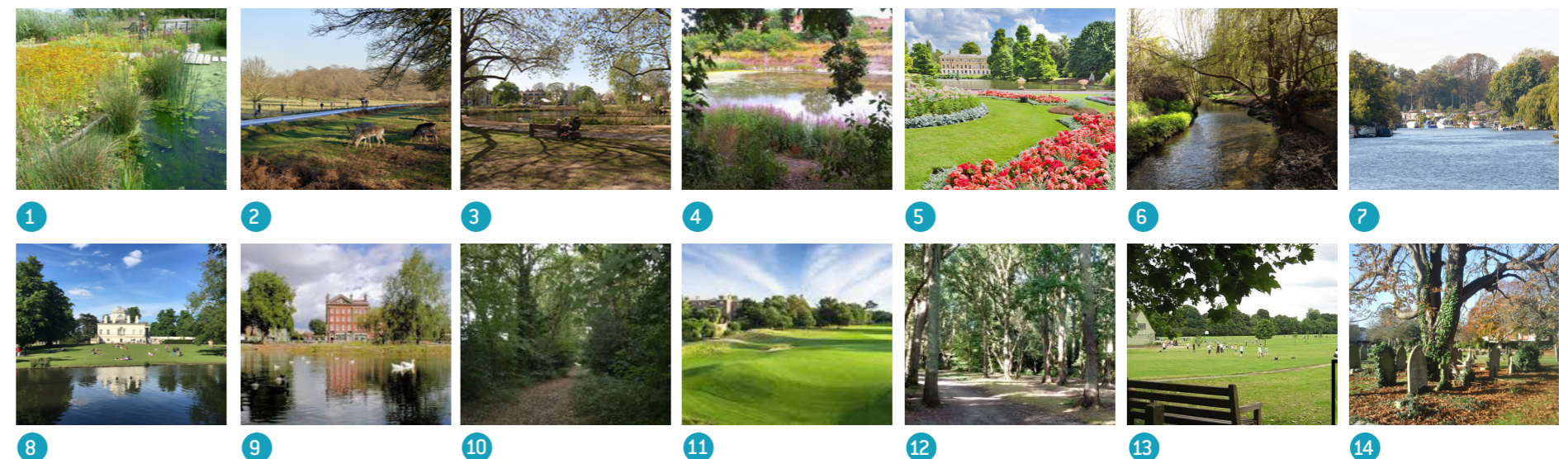
The Barnes Hospital site is surrounded by an array of meaningful and ecologically rich landscapes within its urban context. All of these sites incorporate water bodies and water based ecology. These sites each have a distinct character and their character helps to create distinct memories and moments throughout the site. This idea is one that we want to incorporate into our design going forward and use the inspiration of the valuable ecological features of the surrounding site to inform the spaces within the Barnes Hospital development.



Open Space		Attributes
1	WWT London Wetland Centre	● ● ● ● ●
2	Richmond Park	● ● ● ● ●
3	Barnes Green	● ● ● ● ●
4	Leg O Mutton Pond	● ● ● ● ●
5	Royal Botanic Kew Gardens	● ● ● ● ●
6	Beverly Brook	● ● ● ● ●
7	River Thames	● ● ● ● ●
8	Chiswick Gardens	● ● ● ● ●
9	Barnes Common	● ● ● ● ●
10	Putney Heath	● ● ● ● ●
11	Row Hampton Club	● ● ● ● ●
12	East Sheen Common	● ● ● ● ●
13	Palewell Park	● ● ● ● ●
14	Old Mortlake Burial Ground	● ● ● ● ●

### ECOLOGICAL ATTRIBUTES & DESIGNATIONS KEY

●	Special Areas of Concern (SAC)	●	Borough (Grade I) Site of Importance for Nature Conservation
●	Site of Special Specific Interest (SSSI)	●	Borough (Grade II) Site of Importance for Nature Conservation
●	National Nature Reserve (NNR)	●	Local site of Importance for Nature Conservation
●	Local Nature Reserve (LNR)	●	Open water / lake / river / stream ecology
●	Metropolitan Site of Importance for Nature Conservation		



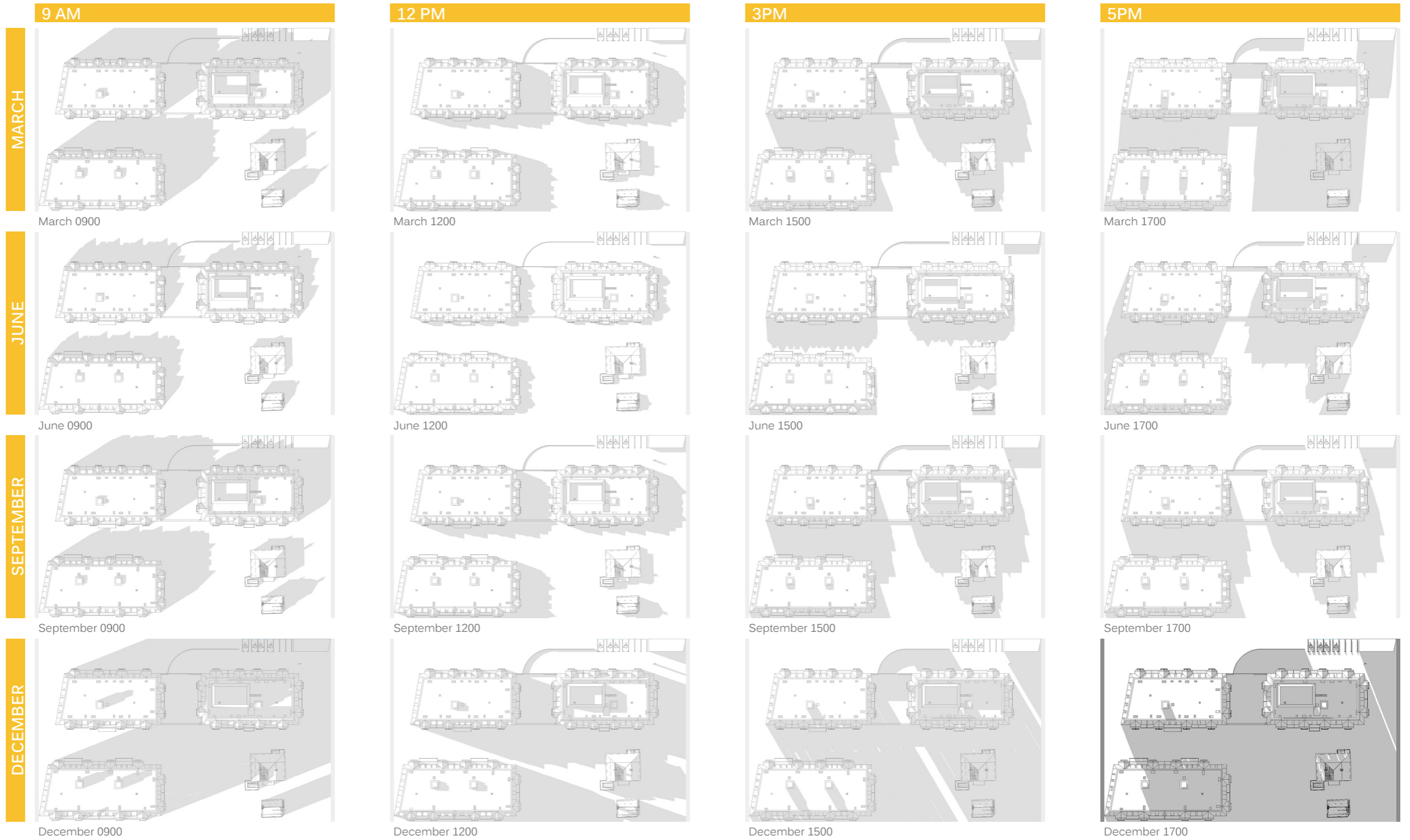
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# 2 Landscape Analysis

## Sunlight studies

### Shadow casting

In all urban environments, having a degree of natural light is important for navigation, for plants to grow and for personal comfort. The accompanied images show the amounts of sunlight within the site at various times of the day and year.



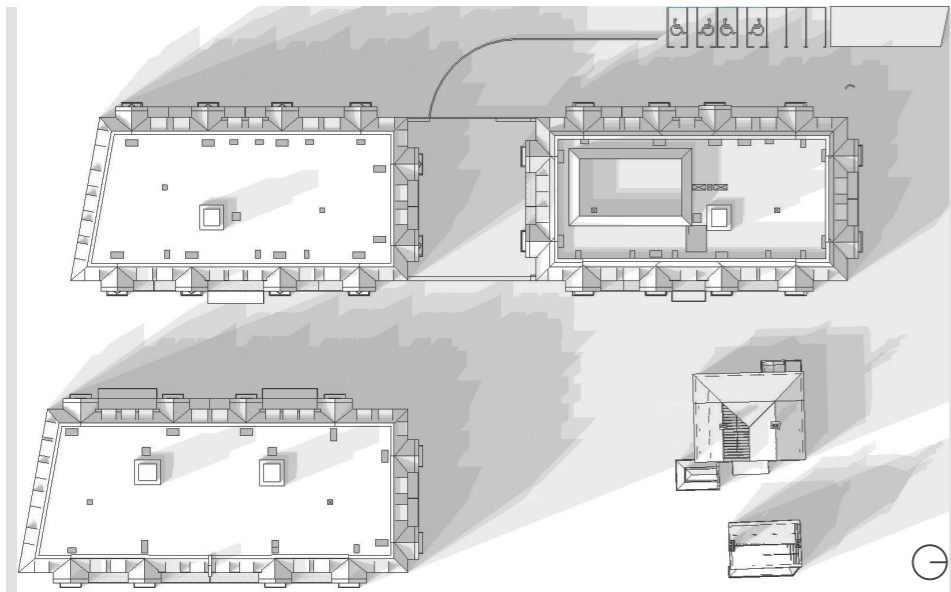
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## 2 Landscape Analysis

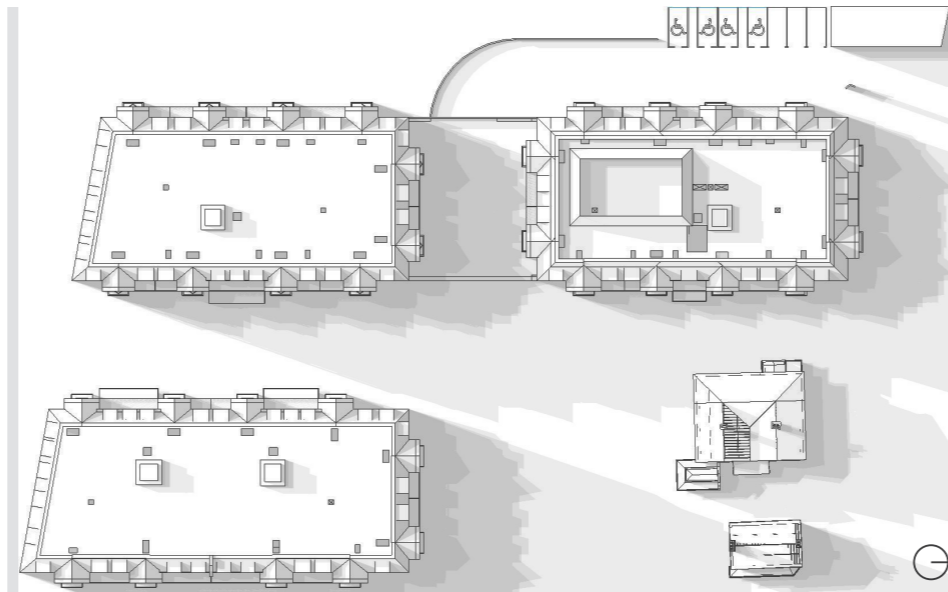
### Sunlight studies

#### Sunlight analysis

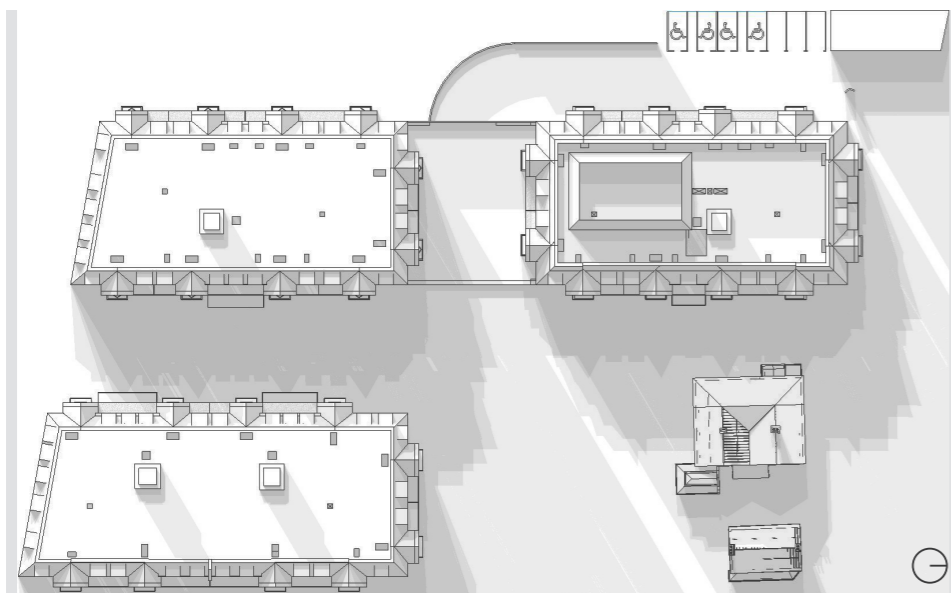
Morning sun



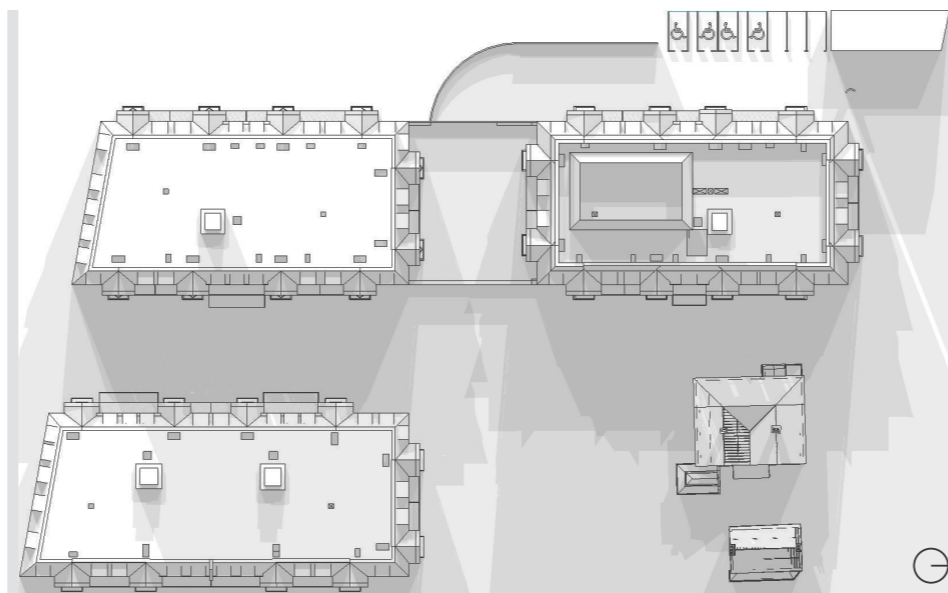
Midday sun



Afternoon sun



Evening sun



#### Outcomes

Based on the sun / shade analysis, the centre of the site will receive good light levels and will be an inviting community gathering space. The south west of the site will also get a favourable amount of sunlight during midday and the afternoon, making it a great place for food production, as well as a casual community gathering area.

## 2 Landscape Analysis

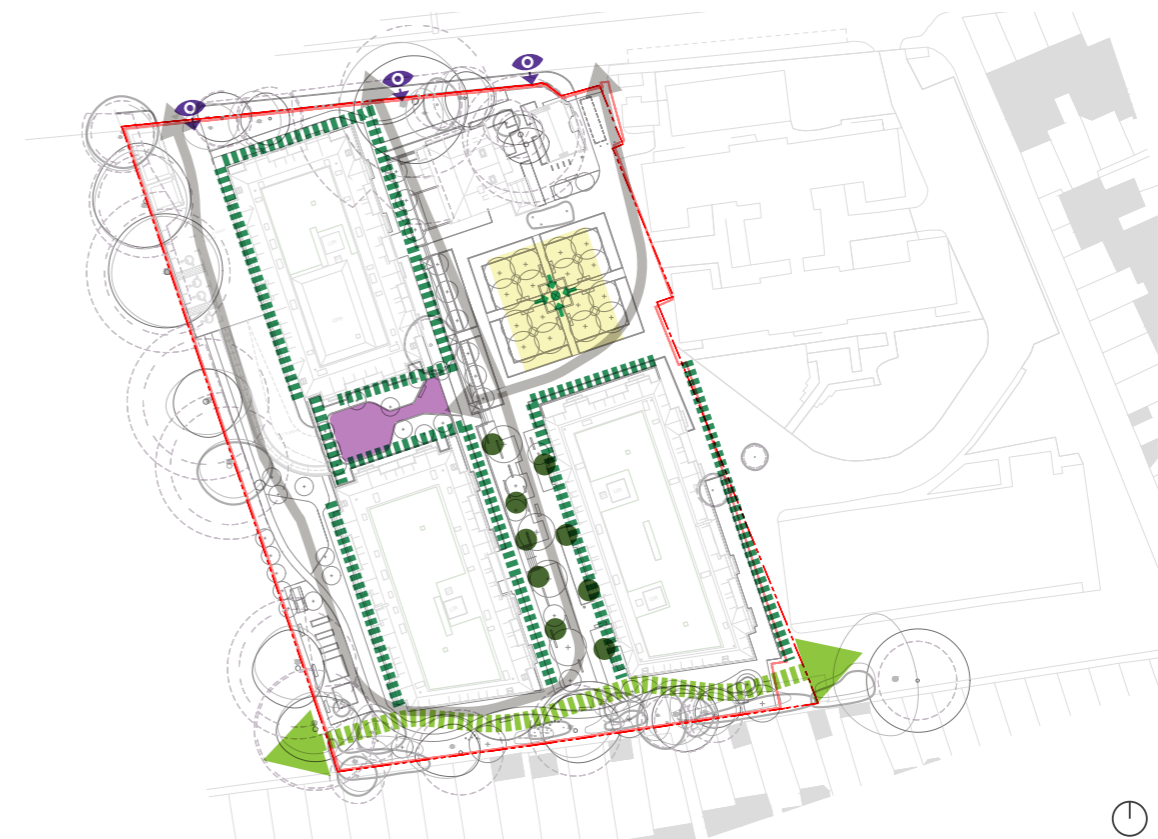
### Landscape constraints and opportunities

In analysing the existing landscape constraints and opportunities of the site, it becomes apparent where certain design features are to be located. The following diagrams express the challenges as well as favourable characteristics of the site.

#### Landscape constraints



#### Landscape opportunities



Key

- - - Site boundary
- Buffer planting needed
- ⚡ Significant level change / edge
- 🔊 Noise impact from road / railway
- ➔ Access point from road
- +0.00 Existing levels to maintain around existing trees
- Existing tree / RPA
- Vehicular zone
- 🌀 Overlooking from neighbouring properties

Key

- - - Site boundary
- ➔ Circulation
- Good sunlight levels
- 👁️ Views
- ✳️ Focal point
- Opportunity for prescriptive play area
- ▨ Ecologically valuable buffer planting to private amenity
- ➔ Green infrastructure link
- Areas with tree planting Opportunity

## 2 Landscape Analysis

### Tree Retention Plan



- Site boundary
- Existing trees to be retained
- Existing trees to be removed  
(6 trees and tree groups total)

Below: Excerpt from Tree Constraints Plan, showing species and sizes of existing trees on site.

Tree Ref.	Species	Height (m)	Root Protection Area		
			Radius (m)	m <sup>2</sup>	Square (m)
T1	Lombardy Poplar	14	9.0	254	16.0
T2	Lombardy Poplar	15	8.9	248	15.7
T3	Holly	6.5	3.6	41	6.4
T4	Lime	9	4.8	72	8.5
T5	Lime	6	3.6	41	6.4
T6	London Plane	15	11.6	426	20.6
T7	Lime	8	4.8	72	8.5
T8	Lime	8	4.2	55	7.4
T9	Horse Chestnut	8	4.8	72	8.5
T10	Horse Chestnut	16	7.2	163	12.8
T11	Horse Chestnut	16	9.6	290	17.0
T12	Cherry	5	4.0	50	7.1
T13	Horse Chestnut	14	9.6	290	17.0
T14	Horse Chestnut	14	9.0	254	16.0
T15	Horse Chestnut	16	9.0	254	16.0
T16	Horse Chestnut	18	9.0	254	16.0
T17	Silver Maple	6	3.0	28	5.3
T18	Ash	7	4.2	55	7.4
T19	Bhutan Pine	10	6.5	132	11.5
T20	Bhutan Pine	12	7.0	152	12.3
T21	Silver Birch	8	2.3	16	4.0
T22	False Acacia	12	3.8	46	6.8
T23	Bhutan Pine	13	4.8	72	8.5
T24	False Acacia	7	1.8	10	3.2
T25	Bhutan Pine	12	4.2	55	7.4
T26	London Plane	12	6.0	113	10.6
T27	Silver Birch	7.5	2.4	18	4.3
T28	Bhutan Pine	6	1.7	9	3.0

Note:

Any stumps of previously fallen trees to be removed. Proposed trees along Southern border to be of a larger size, interplanted between the remaining existing trees and planting.

For more information, refer to arboriculturist report.

# 2 Landscape Analysis

## Potential Play Provision

The following charts and diagrams illustrate spatially how the full play quantum could be accommodated on site. The plan below shows indicative locations for the play, however we believe the best solution is to locate 12+ play off site in order to provide high quality

play and maintain the ecological aspirations and integrity of the existing site. Reasons to support this strategy will be explained on the following page.

GLA Population Yield Calculator

	1 bed	2 bed	3 bed	4 bed
Market and Intermediate Units	39	34	21	
Social Units	12	14	9	

Total Units 129

Geographic Aggregation London

PTAL PTAL 3-4

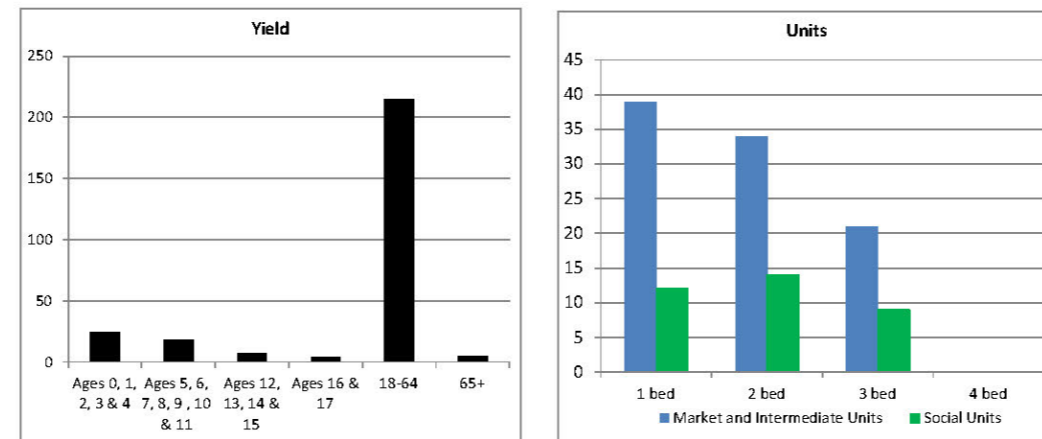
**Notes**  
 Sample size of 39 sites  
 Shaded cells require user input  
 Select both geography and PTAL  
 For developments in Outer London with PTAL 5-6 use [London/PTAL 5-6] or [Outer London/3-4] to calculate yield

Yield from Development (persons)	Market & Intermediate		Social	Total	Ages	Play space (m <sup>2</sup> )
	Market & Intermediate	Social	Total			
Ages 0, 1, 2, 3 & 4	10.4	14.2	24.6	0-4	245.9	
Ages 5, 6, 7, 8, 9, 10 & 11	7.3	11.0	18.3	5-12	182.6	
Ages 12, 13, 14 & 15	2.3	5.2	7.5	12-	115.4	
Ages 16 & 17	1.2	2.8	4.0			
18-64	159.3	55.8	215.1			
65+	3.8	1.3	5.1			
<b>Total Yield</b>	<b>184.3</b>	<b>90.3</b>	<b>274.6</b>	<b>Total</b>	<b>544.0</b>	

Play Space Calculator

Total Children	54.4	
	Benchmark (m <sup>2</sup> )	Total play space (m <sup>2</sup> )
Play space requirement	10	544.0

Estimated yield from a development of 129 units  
 Located in London with a PTAL of 3-4



KEY

- 0 - 5 Years
- 5 - 11 Years
- 12+ Years

PLAY CALCULATIONS

%	Age	Required	Provided
42%	0 - 5 Years	245.0m <sup>2</sup>	250.0m <sup>2</sup>
34%	5 - 11 Years	182.6 m <sup>2</sup>	185.0m <sup>2</sup>
24%	12+ Years	115.4 m <sup>2</sup>	118.0m <sup>2</sup>
<b>Total</b>		<b>544.0m<sup>2</sup></b>	<b>553.0m<sup>2</sup></b>

Space requirements based on GLA benchmark standard

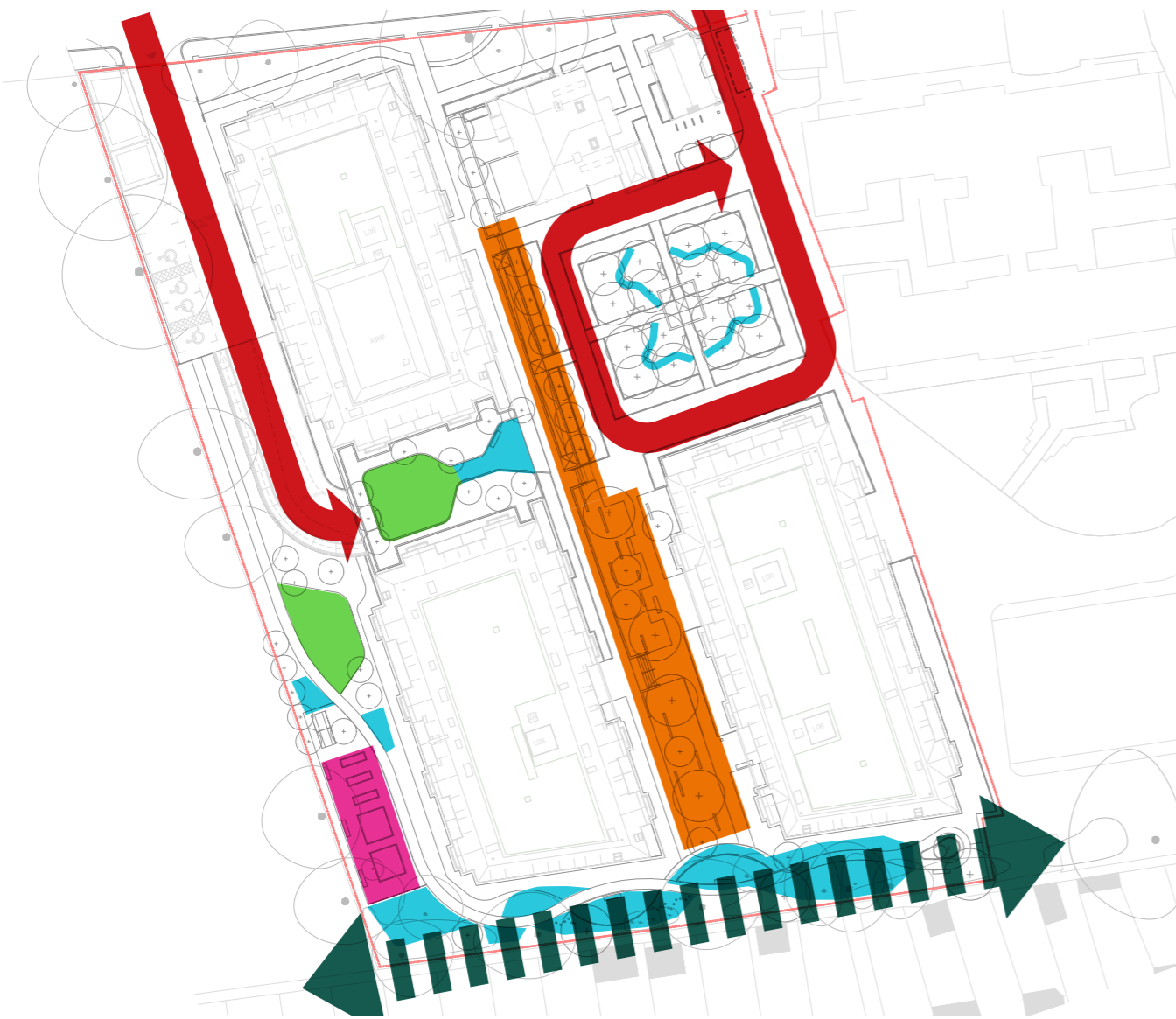


Indicative Play Strategy Diagram for all Play Provision on site

## 2 Landscape Analysis

### Play Provision Constraints

The aim for the play space is to achieve high quality and engaging playable spaces for the residents. The following constraints shown on the diagram below display the areas on site that are constrained in terms of play provision due to levels, emergency tracking, and ecological sensitivity.



Indicative Play Strategy Diagram for all Play Provision on site

#### Constraints



##### Green Corridor

As a result of pre-application advice, the play strategy has carefully been considered, noting officers' recommendations at pre-application stage that the landscaping proposals should sensitively consider the impact to the dark wildlife corridor. This was also a key consideration as part of the previous outline planning permission, as stated at Paragraph 190 of the committee report:

*"190. The green corridor on the southern boundary of the site has been retained to allow the movements of wildlife, linking to the wider ecological network (crucially the adjacent Burial Ground – OSNI). Approximately 8m corridors are proposed to the west and southern boundaries, as confirmed in the Design Code, to allow a meaningful dark corridor along these boundaries and to avoid any harm to the retained trees on these boundaries"*

As such, even though all play could be provided on site, we have sought to limit this, noting the site's sensitive context, relocating explorative, playful elements that are closer to the site's southern border to reflect its sensitive context.

The explorative nature trail elements that remain to the south of the site will be very light touch ecological elements that can be playful in nature and also double as ecological and habitat features.



##### Site Levels

Due to the change in levels between blocks A and B, the centre of the site (which takes the grade change) is not an appropriate play to locate play elements.



##### Vehicular Access and Emergency Tracking

These areas are to be left clear for vehicular access and emergency vehicular tracking and are therefore not suitable for play.

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### Proposed Play Provision

The following page displays the proposed play strategy, including only 0-11 play provision on site, and providing 12+ off site through a financial contribution. We believe this strategy results in the highest quality play spaces and maintains the ecological integrity of the existing site.



Play strategy Diagram for 0-11 only on site

#### KEY

- █ 0 - 5 Years (Nature trail character)
  - very light touch play elements such as boulders, balance and stepping logs nestled within planting which double as ecological features and habitats
- █ 5 - 11 Years (Prescriptive, Educational & Community Focussed)
  - sculptural play elements such as climbing walls, tunnels, slides and play huts, coupled with more educational and explorative play within the grow garden.

#### PLAY CALCULATIONS

%	Age	Required	Provided
42%	0 - 5 Years	245.0m <sup>2</sup>	250.0m <sup>2</sup>
34%	5 - 11 Years	182.6 m <sup>2</sup>	185.0m <sup>2</sup>
<b>Total</b>		<b>544.0m<sup>2</sup></b>	<b>553.0m<sup>2</sup></b>

12+ - offsite contribution to allow for the site to retain its quiet character, and maintain biodiversity, as was the case for the outline planning permission.

Space requirements based on GLA benchmark standard.



# 03 Landscape Vision & Approach