

**Sandgate Street Depot &**

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**12-14 Verney Road**

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**Old Kent Road Capacity Study**

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**P03**

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**FeildenCleggBradleyStudios**

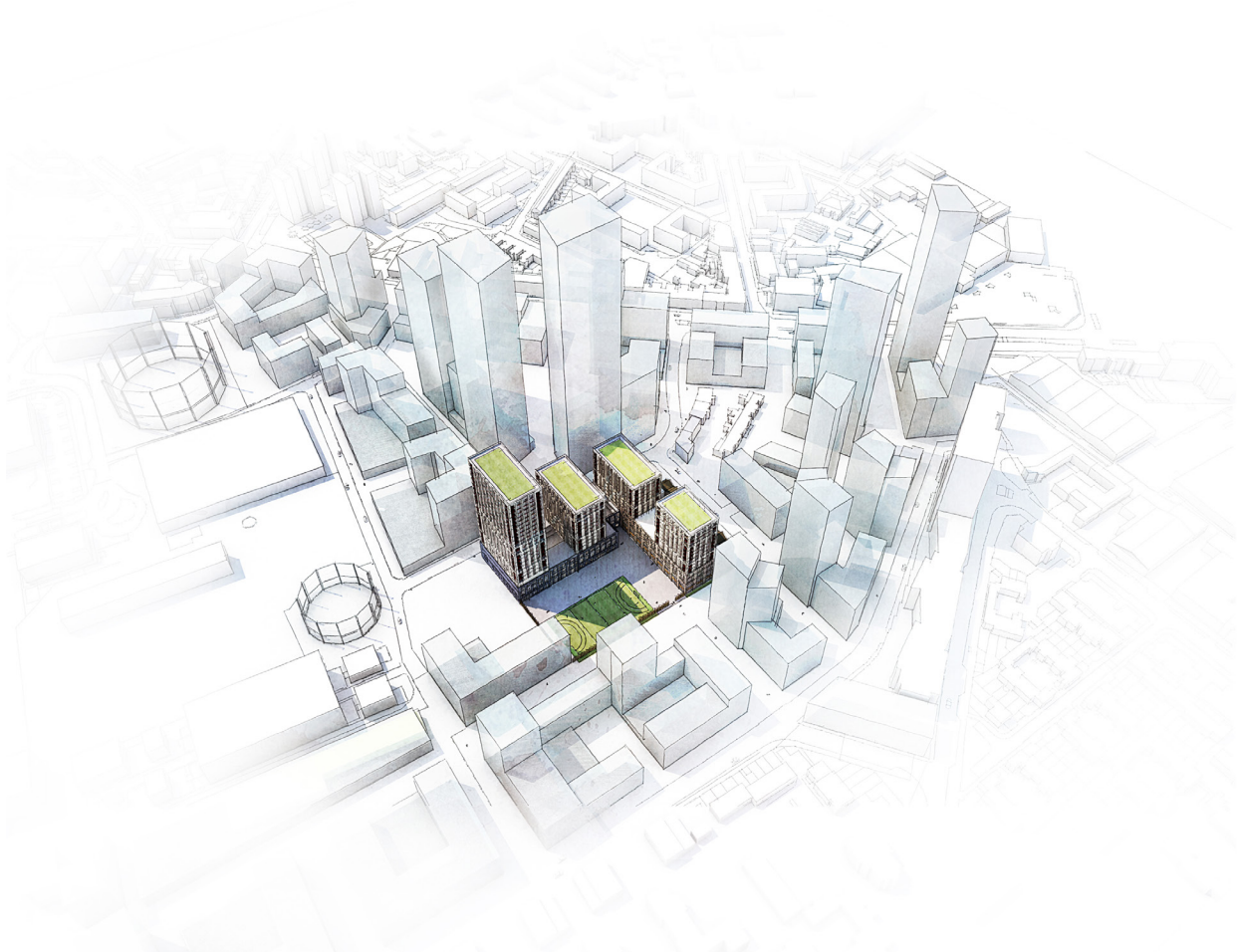
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12 September 2018

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# 0.0 Executive Summary

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This study assesses the capacity of development possible on three connecting sites on Sandgate Street and Verney Road situated in close proximity to the Old Kent Road (OKR) and within the OKR Area Action Plan (OKR16).

This study concludes the 1.339 hectare site made up of; 12-14 Verney Road, Sandgate Street Depot (currently owned by Southwark), and Action House can provide;

- Total site wide development of 56,055m<sup>2</sup> GEA
- 37,426m<sup>2</sup> GEA providing 325 residential homes (inc. private amenity space)
- 10,959m<sup>2</sup> GEA School (over area but allows for voids and residential cores connecting to ground)
- 1,100m<sup>2</sup> hard social and 1,500m<sup>2</sup> of soft social external space for the school
- 7,670m<sup>2</sup> GEA Workspace
- Development Hab Room/Hectare Density = 1,186  
(On a total site area of 1.339 Ha)

This scheme consists of residential blocks between 10 and 25 storeys that mediate in height between the towers on the Ruby Triangle to the south and the lower proposed development along the new canal greenway to the north. The blocks are orientated East/West to maximise views and light and limit overlooking to the developments to the north and south of the site. All the blocks allow for inset private amenity balconies and it is assumed that shared amenity space is at podium or roof level.

The Secondary School is located at the lowest levels with its principal entrance on the South West corner. This allows a visual connection of the school entrance from the Old Kent Road.

It's predominantly North/South orientation for classrooms create an internal design that best responds to the control of natural light and overheating.

As with most urban schools we conclude the recommended external area for the school is difficult to achieve but the scheme provides all hard social and hard PE area as a minimum while maintaining the required density. The school's external area is provided to the North of the site enhancing the sense of open space along the planned green route.

The provided workspace creates a mixture of double height 100-200sqm units and smaller office/studios varying between 30-100sqm.



Aerial view of the three sites in context of the wider OKR16 site (blue dashed line)

# 1.0 Proposed Site

## 1.1 Site Context

This capacity study is to assess the viability of development across three connecting land parcels; 14-16 Verney Road, Sandgate Street Depot and Action House.

### Site Context

The immediate context of the sites is industrial use as described in the OKR Action Plan;

*Between Verney Road and Old Kent Road there is a mix of medium and large sized industrial units between which accommodate around 57 businesses and 1,600 jobs. The Canal Grove Cottages provide a reminder of the area's heritage and the mature trees around the cottages provide them with a lovely setting and are visible up and down the Old Kent Road. Generally however, because of the industrial heritage of the area around the former canal and gasworks, there is little open space and no north-south routes between St James's Road and Ilderton Road. OKR Action Plan pg 106.*

To the North of Verney Road is a residential neighbourhood of predominantly 4 storey residential buildings situated around small interconnecting courtyards.

### Proposed Site

**1. Sandgate St Depot** is currently owned and managed by Southwark Council for light industrial use with 11 rented two storey industrial units. It has direct access from Sandgate Street that borders the south of the parcel. To the west the site neighbours a 3 storey commercial building, to the north the Verney Road parcel and, to the east a National Grid owned site and substation as well as sharing a party wall with a two storey industrial building on the north east corner.

**2. 14-16 Verney Road** is a landlocked site that is accessible from Verney Road to its north by a 70m long shared road. This access road continues across the north edge of the site providing a right of way to properties to the east and must be maintained. The east boundary is a party wall to an adjacent two storey administration building. The southern boundary is shared with the Sandgate St Depot, with the west boundary partly sharing a party wall with a 3 storey commercial building.

**3. Action House** is access from Sandgate Street through a gated entrance. The site fronts onto an adjacent single storey industrial unit and delivery yard. Beyond this is the listed Canal Grove cottages protected and enhanced under the OKR APP plans. Building heights are to be limited directly adjacent to the cottages.

#### Combined Site Areas 1.339 ha

Site 1 Sandgate Street Depot -	0.610 ha
Site 2 14-16 Verney Road -	0.571 ha
Site 3 Action House	0.158 ha
Total site area -	1.339 ha

#### Target Density 1100 habitable rooms/ ha

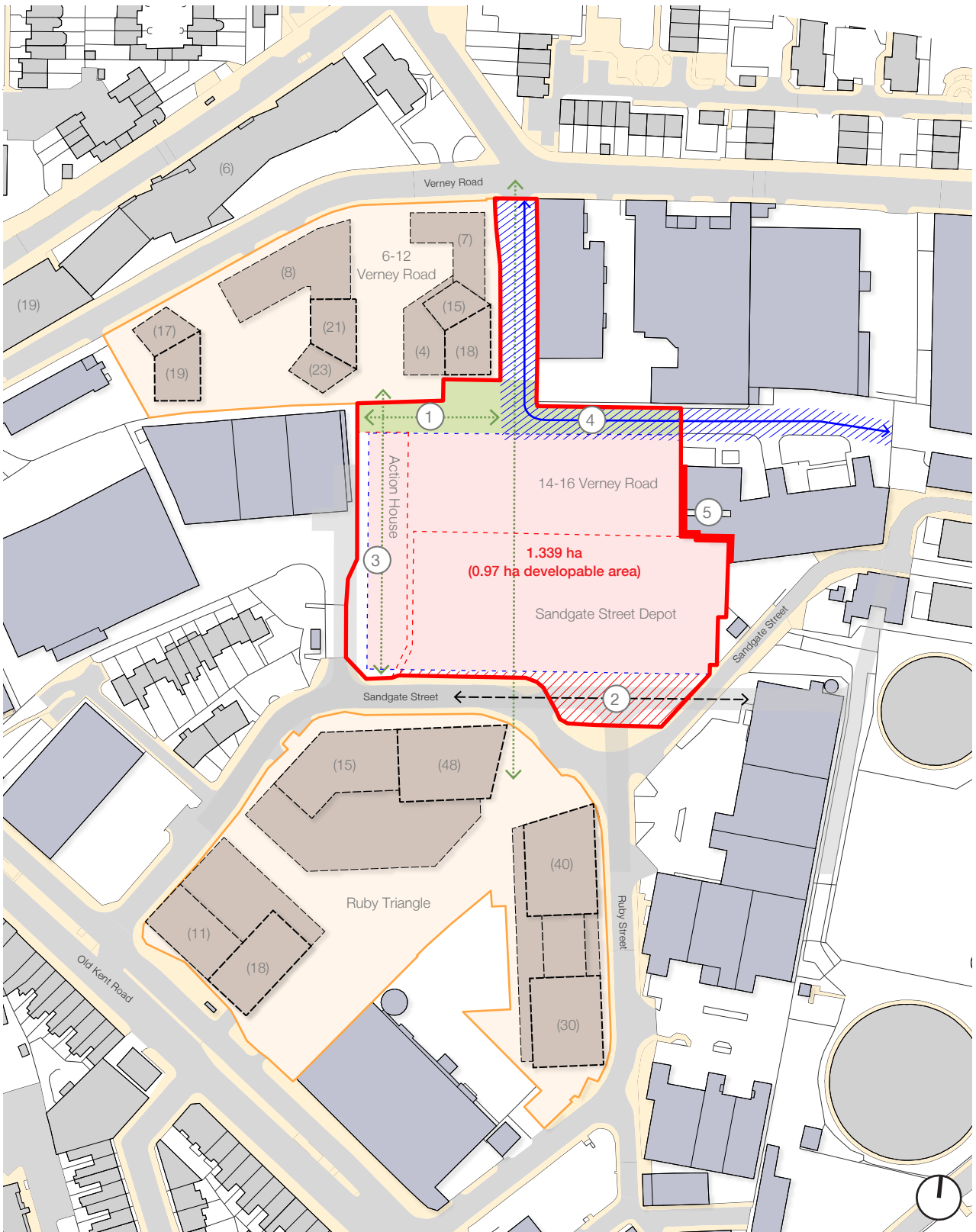
Density calculation based on Southwark's SPD '2015 Technical Update to the Residential Design Standards (2011)'

(Density = Non-Res floorspace divided by 27.5 sqm, plus the number of residential Habitable rooms, all divided by size in hectares).

Target Habitable Rooms = 910

Density  
= (((8,000 + 7,000) / 27.5) + 910) / 1.339

Density = 1,087 Hr / ha.



(48) = Building storeys

Constraints Drawing  
Scale 1:2000

# 1.0 Proposed Site

## 1.2 Site Constraints

### Old Kent Road - Area Action Plan

The identified sites are within OKR16 of the Southwark Council's 'Old Kent Road Area Action Plan' document (December 2017) that provides guidance for the future development of the area. Key guidance includes:

**Landuse** - The two sites are within an area defined for secondary school use with supplementary designation of small industrial along the northern edge fronting the anticipated green way.

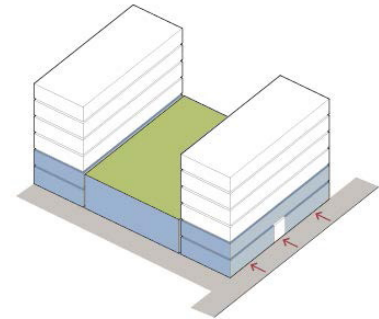
**Typologies** - Development is to have a horizontal/vertical mix. This is described typically as double height spaces within the centre of blocks for light industrial use, wrapped within two storeys of workspace (offices, showrooms & studios). Above residential use is anticipated within the development heights

**Heights** - No explicit development heights are given within the AAP however the following applicable statements are given;

- The tallest 'Tier One' buildings should be located close to the Old Kent Road, around the point where the Surrey Canal Park crosses the road and in conjunction with the open space proposed towards the centre of the site (Ruby Triangle);
- Building heights should also reduce immediately adjacent to the Canal Grove cottages in order to respect their more domestic scale;

Stitch Architects masterplan illustrates the sites can accommodate T2 development 'Near to current context of 25 storeys'.

Advice from Southwark has suggested building heights should mediate between Tier 3 buildings (south of Verney Road) and Tier 1 buildings (plus 30 storeys on Ruby Triangle site) suggesting heights of around 25 storeys.



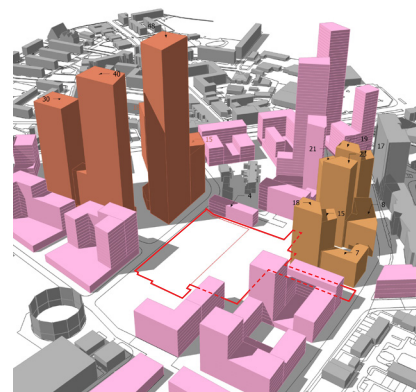
Extract from OKR AAP showing Horizontal/Vertical mix



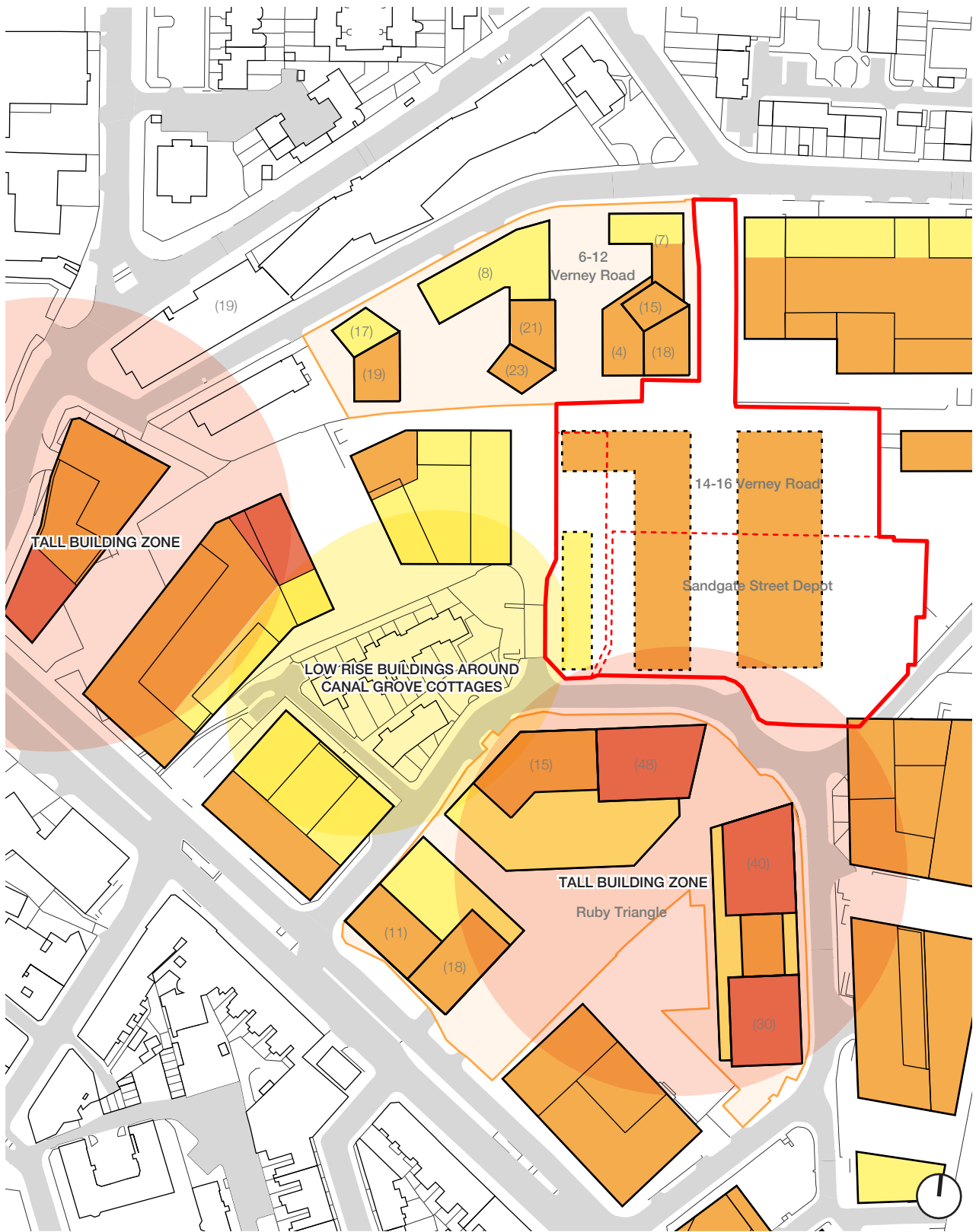
OKR AAP masterplan - servicing & routes

### Masterplan Constraints

- 1 **Surrey Canal Park (Greenway)** - New linear park on the alignment of the former Surrey Canal which connects to Old Kent Road and Burgess Park is proposed. This sits within the right of way covenant across the Verney Road site so does not add any further development restrictions.
- 2 **Sandgate Street** - The masterplan anticipates the re-alignment of Sandgate Street to form a more coherent frontage reducing the available area to development on the current Sandgate Street site.
- 3 **Adjacent properties** - The private access road and adjacent commercial properties to the west of the site must be retained with a separate service access to any proposed development.
- 4 **Right of way** - Access to adjacent properties to be maintained.
- 5 **Party Walls** - Connected walls of adjacent buildings to be maintained once existing buildings on the site are demolished.



OKR APP guideline development heights



- LT1 - 5-8 storeys with potential for taller elements up to 15 storeys
- T2 - Near to current context of 25 storeys
- T1 - Significantly taller than existing context (above 25 storeys)

Development Heights  
 (based on Stitch Architects Building Heights Diagram)  
 Scale 1:2000



# 1.0 Proposed Site

## 1.3 Adjacent Development

### Ruby Triangle Site - Planning Submitted

Any development must also respond to the land parcel to the south of the proposed sites known as the 'Ruby Triangle Site'. This site has a recently submitted a planning application (18/AP/0897) for three residential towers and mixed use scheme of 48, 40 and 18 storeys providing 1,165 homes.

<b>Site Area</b>	<b>1.96 hectares</b>
<b>Homes</b>	<b>1,165</b>
<b>A1 Shops</b>	<b>414 Sq/m</b>
<b>D2 Sports Hall and Gym</b>	<b>1,817 Sq/m</b>
<b>Other</b>	<b>8,748 Sq/m</b>
<b>Approx. Density per hectare</b>	<b>1867 Habitable room/ha</b>

(Density = Non-Res floorspace divided by 27.5 sqm, plus the number of residential Habitable rooms, all divided by size in hectares).



Ruby Triangle  
Elevated view looking across Old Kent Road  
Copyright Farrells

### 6-12 Verney Road - Planning Submitted

The adjacent 6-12 Verney Road will replace the current warehouse buildings and provide 4253 Sq/m of flexible commercial floor space alongside 340 homes plus 383.99 Sq/m of community space & 192.24 Sq/m of Retail. The proposal is arranged over 3 buildings of 18 storeys (64m), 23 storeys (80m) and 17 storeys (60m). A 4 storey building fronts Verney Road.

<b>Site Area</b>	<b>0.75 hectares</b>
<b>Homes</b>	<b>340</b>
<b>A1 Shops</b>	<b>192 Sq/m</b>
<b>B1 Office</b>	<b>4,253 Sq/m</b>
<b>Other</b>	<b>384 Sq/m</b>
<b>Approx. Density per hectare</b>	<b>1503 Habitable room/ha</b>



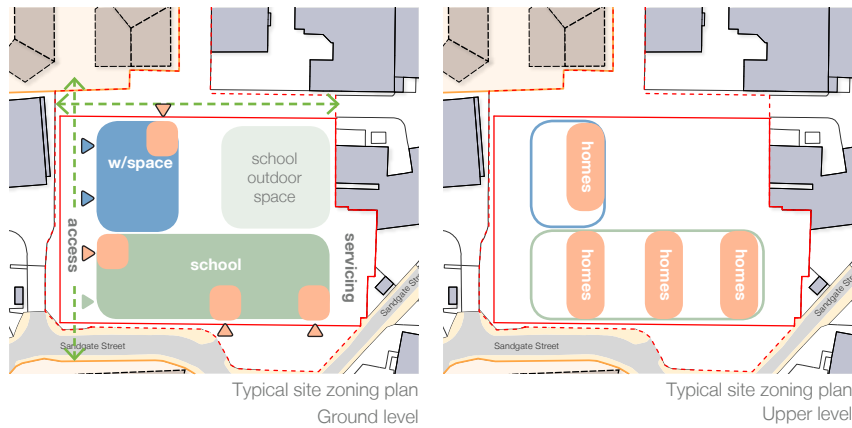
6-12 Verney Road  
Proposed scheme from lateral park looking  
towards Verney Road  
Copyright SPPARC Architecture

# 3.0 Capacity Study

## 3.1 Development Principles

### Masterplan

- Developable site accounting for constraints ~0.96 hectares
- Building heights rise from North East corner of site at 10 storeys up to 25 storeys at South West corner.

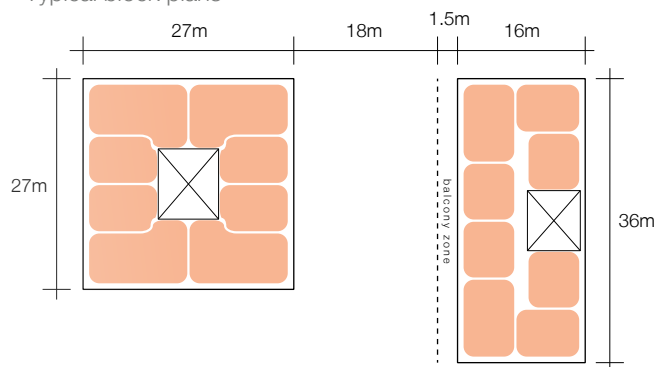


### Secondary School

- North / South orientation of classroom preferable
- Typical plan depths 18/ 22/ 26m
- 3.75m floor to floor

### Homes

- East / West orientation
- 3.2m floor to floor
- Typical block plans



### Workspace

- 16m deep floor plan
- 150 - 200 Sq/m x 6 - 8m floor to floor for light industrial units

## 2.0 Brief

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The brief for the site is to jointly provide for a 6FE Secondary School (without sixth form or sports hall), provide replacement workspace equivalent to the existing provision across the site and identify the potential number of homes that can also be accommodated.

### Secondary School

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The brief for the 6FE Secondary School is to meet the spatial requirements of the ESFA and Building Bulletin 103 guidance as well as achieving Southwark Council's own School's Design Guide;

- The school must have a civic frontage.
- The new school can front on to the Surrey Canal Park, providing a meeting area outside the school and an attractive and safe route to the sports facilities in Burgess Park. (OKR AAP pg116).
- The sports hall will be provided on the adjacent Ruby Triangle Development and so is not required.
- A 6th Form will not to be provided as it be included on an adjacent site.

### Homes

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The brief for the homes is identified as below;

- Mix – 40% 1 Bed, 40% 2 Bed, 20% 3 Bed (OKR AAP pg 29)
- 50% affordable/council owned (Manifesto pledge)
- 10% accessible/adaptable (OKR AAP)
- Tenure blind
- No basements
- Inboard private amenity balconies
- Communal spaces as Southwark '2015 Technical Update to the Residential Design Standards (2011)'
- Car parking provision as 1% of dwellings
- Cycling 'from the New Southwark Plan Preferred Option for Cycle and Car Parking Standards using site's PTAL rating of 3'
- Waste calculation as Southark planning guidance

### Workspace

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The site as defined by Southwark Council's Old Kent Road Area Action Plan development must replace existing employment floorspace with building and landuse types as defined by the OKR AAP. In this case light industrial and workspace. See page 9 for further details on the OKR AAP guidance.

Current use of the sites is approximately 8,000m<sup>2</sup> of light industrial/workspace.

**6FE Secondary School**  
7,000 - 8,000 sq/m GEA

**External School Area**  
2,850 - 5,250 sq/m

It is common that urban schools do not meet the entire BB103 External Areas brief.  
BB103 identifies external provision in order of priority as;

1. Hard Social	1,100 sq/m
2. Hard Outdoor PE	1,750 sq/m
3. Soft Social	2,400 sq/m

**Homes**  
325 homes  
38,000 sq/m GEA\*

130no.	1 Bed (40%)
130no.	2 Bed (40%)
65no.	3 Bed (20%)

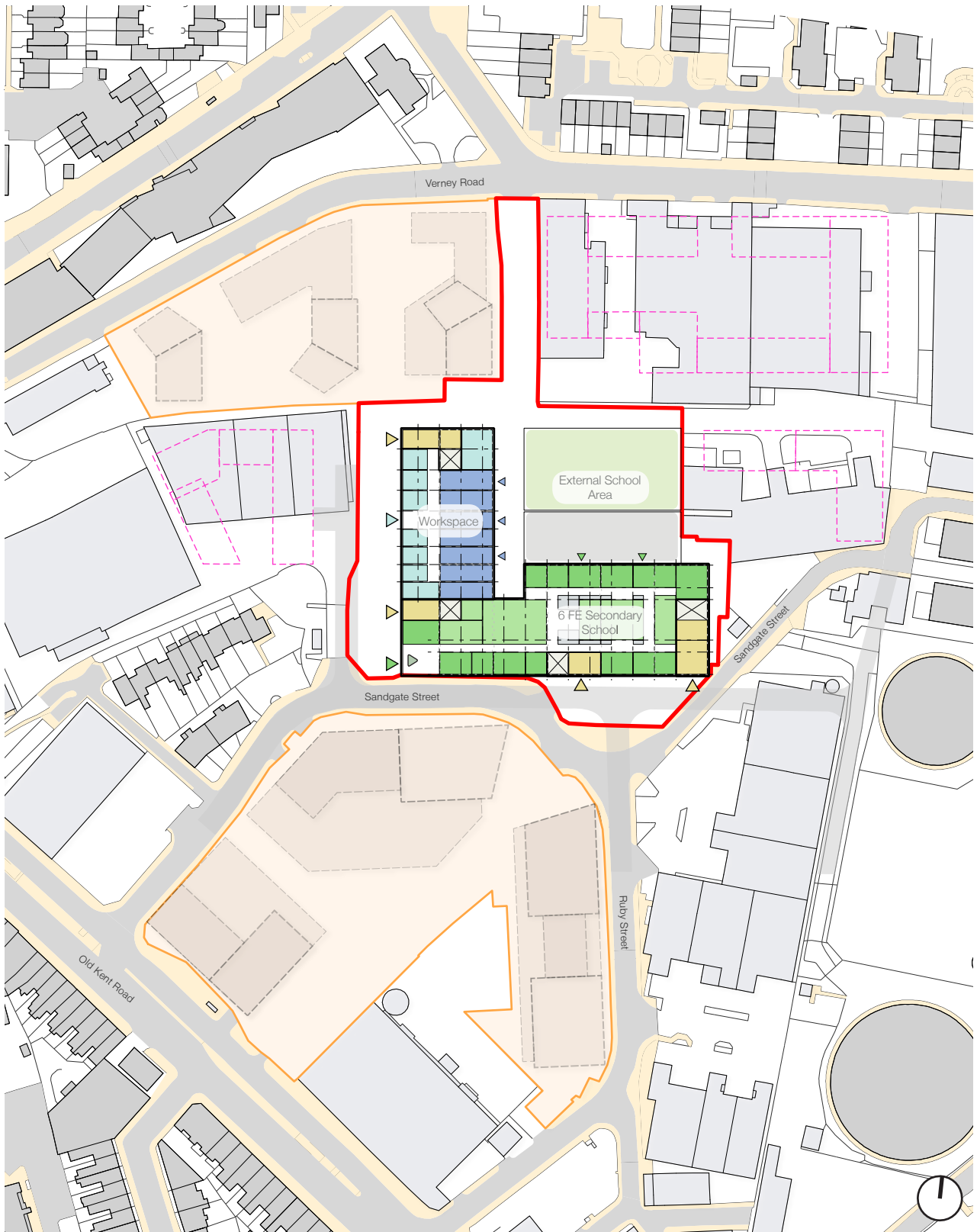
910 Total habitable rooms

\*includes private amenity spaces, bins & cycle storage

**Workspace**  
8,000 sq/m GEA

# 3.0 Capacity Study

## 3.2 Proposed Scheme - Ground Floor

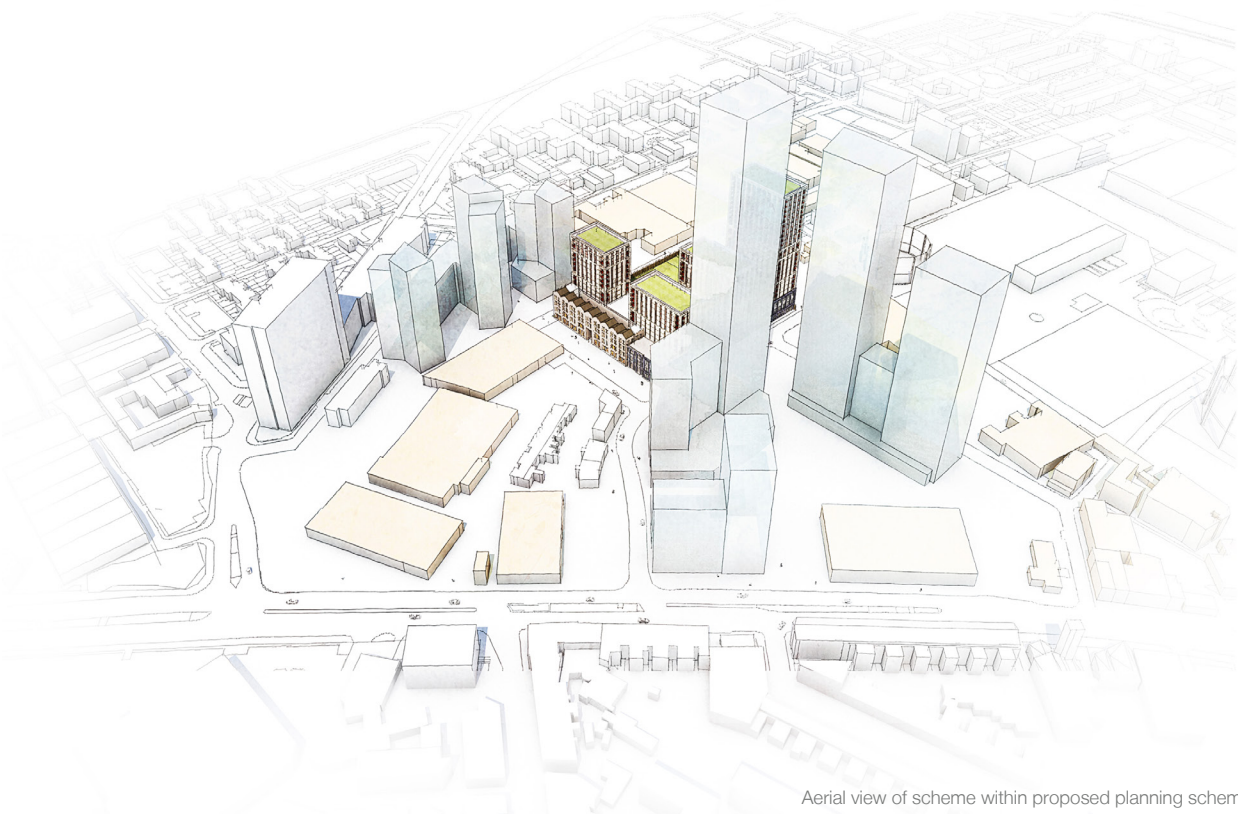


- Site Boundary
- School Boundary
- Workspace

Indicative Layout - Ground Floor Plan  
Scale 1:2000



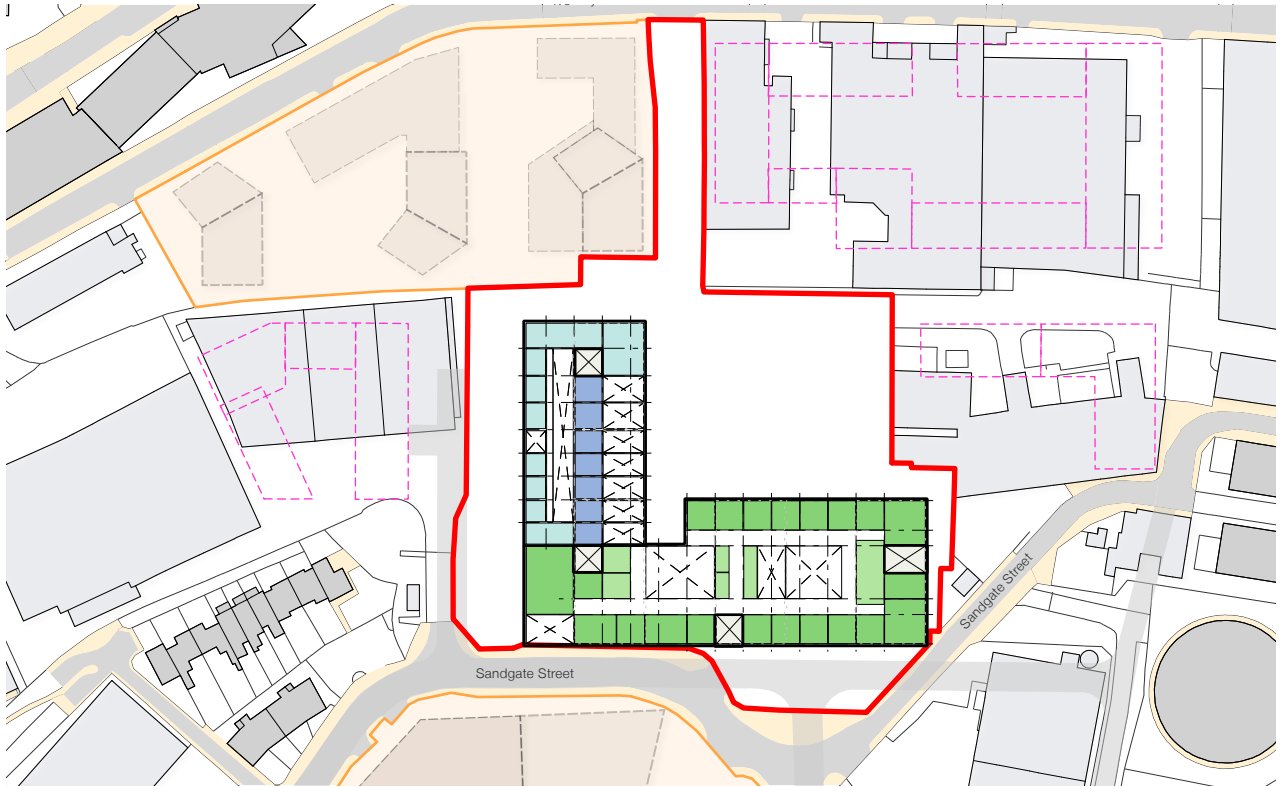
View from Sandage Street and Old Kent Road towards school entrance



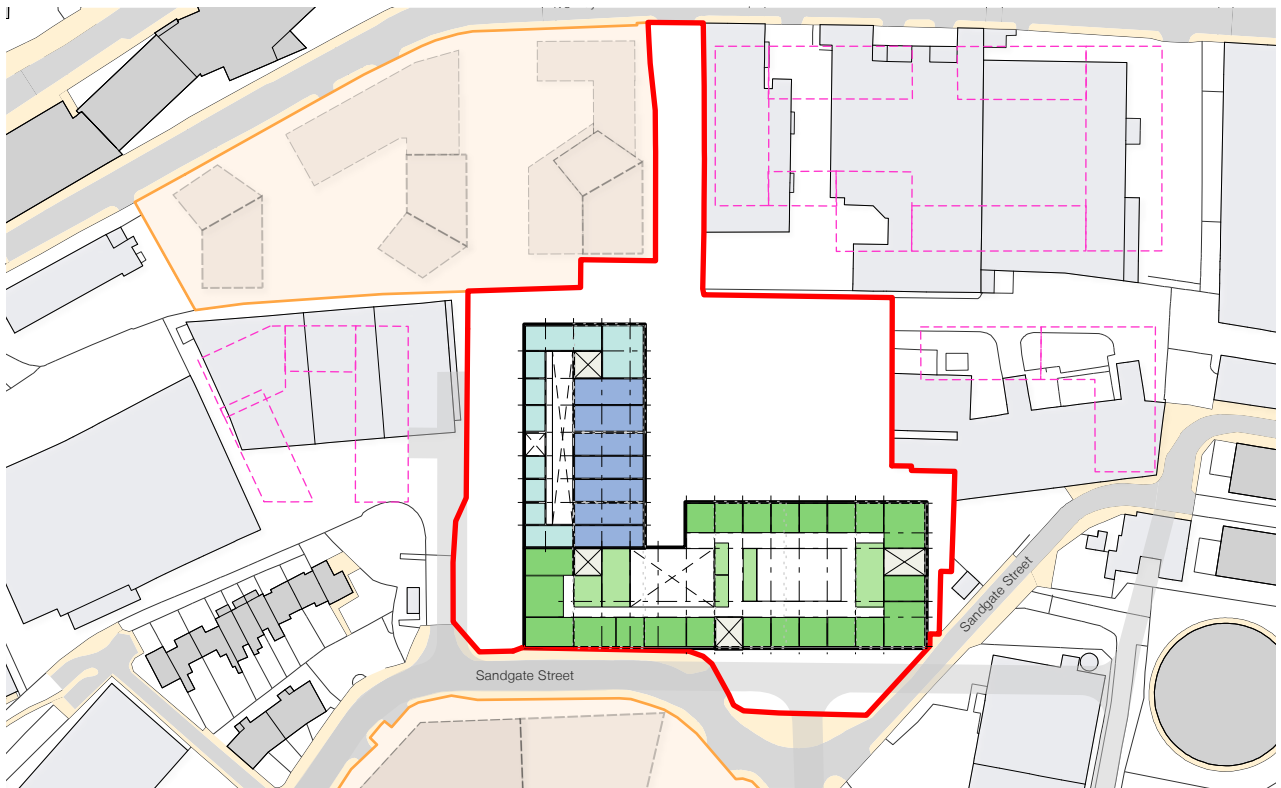
Aerial view of scheme within proposed planning scheme context

# 3.0 Capacity Study

## 3.2 Proposed Scheme - Plans



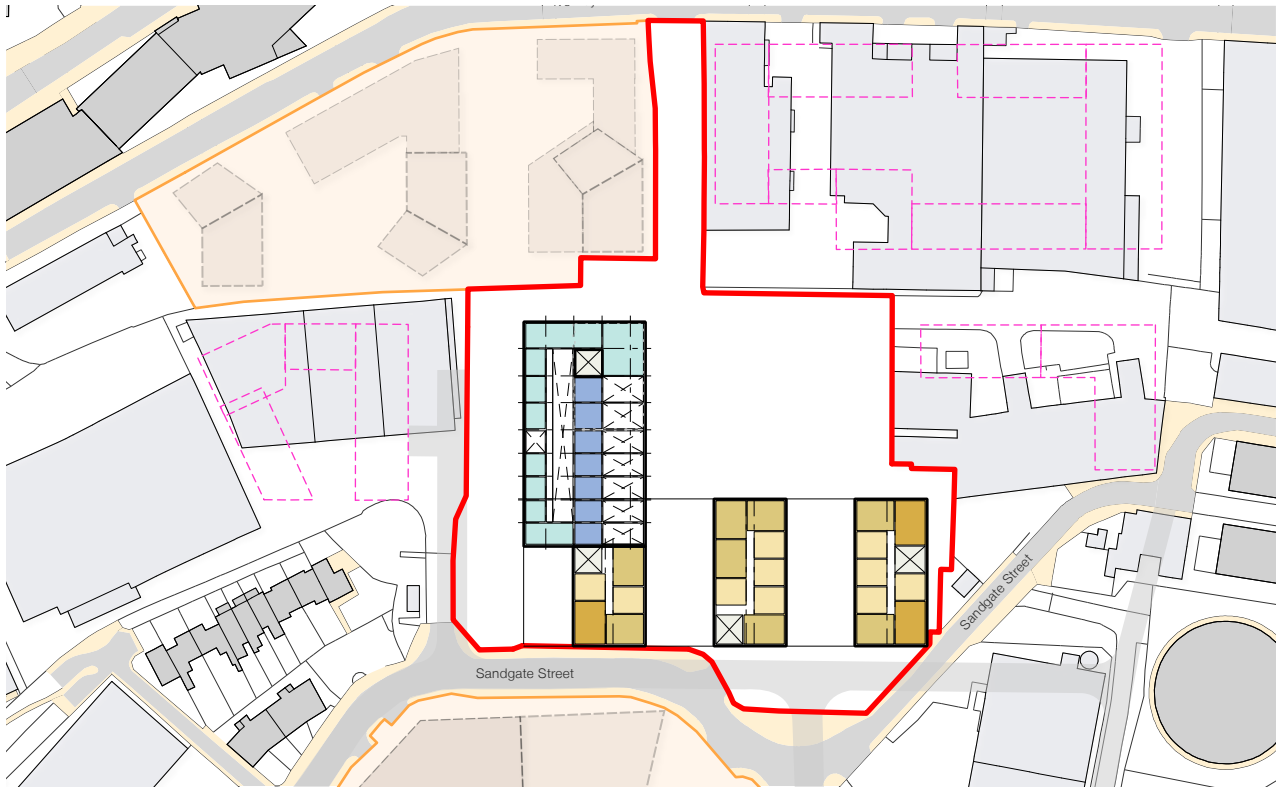
Indicative Layout - First Floor Plan



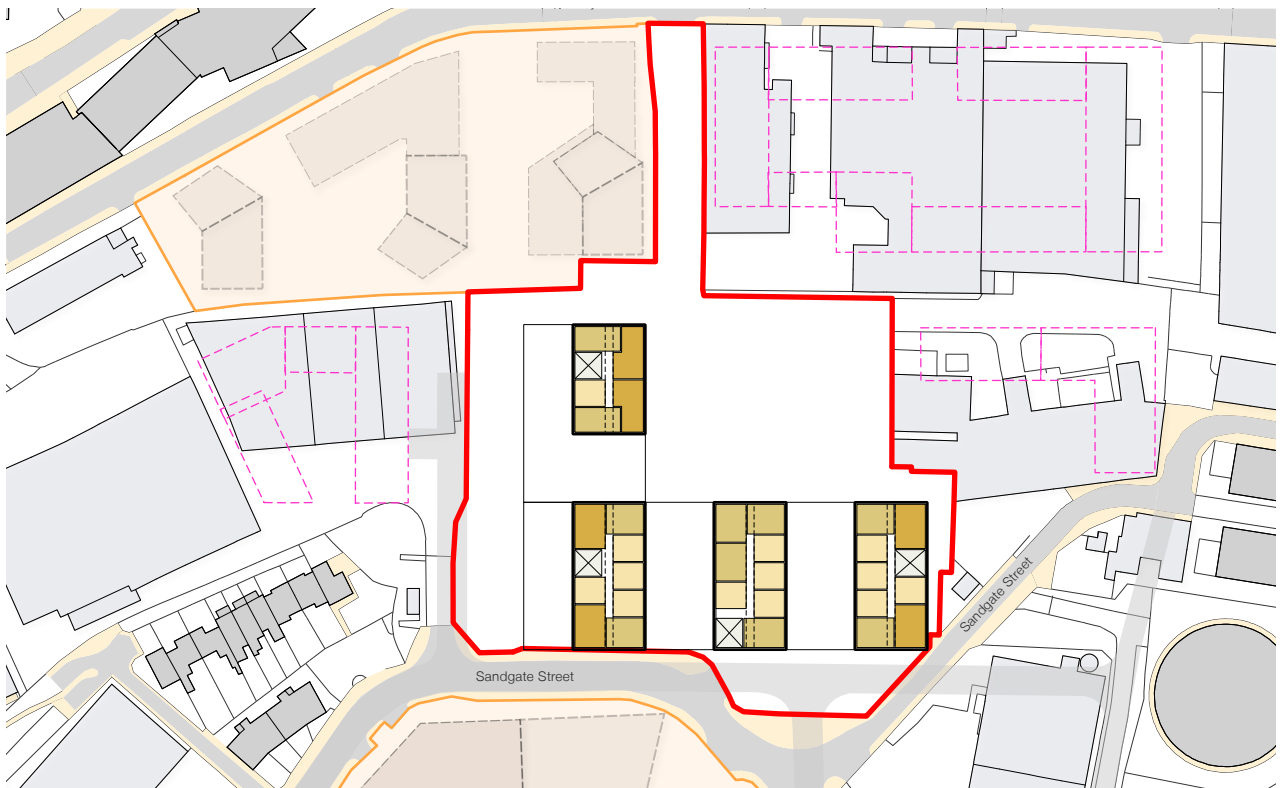
Indicative Layout - Second Floor Plan  
Scale 1:2000

### 3.0 Capacity Study

### 3.2 Proposed Scheme - Plans



Indicative Layout - Third Floor Plan



Indicative Layout - Typical Floor Plan  
Scale 1:2000

### 3.0 Capacity Study

#### 3.3 Area Schedule

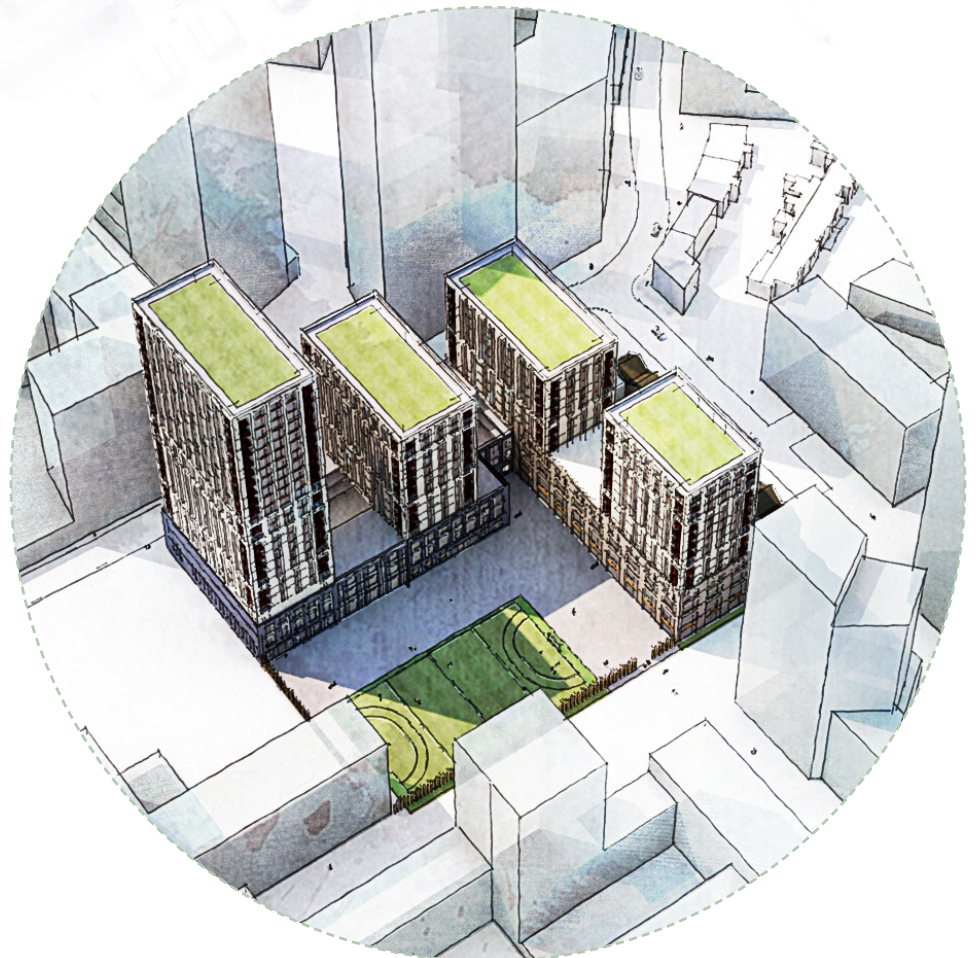
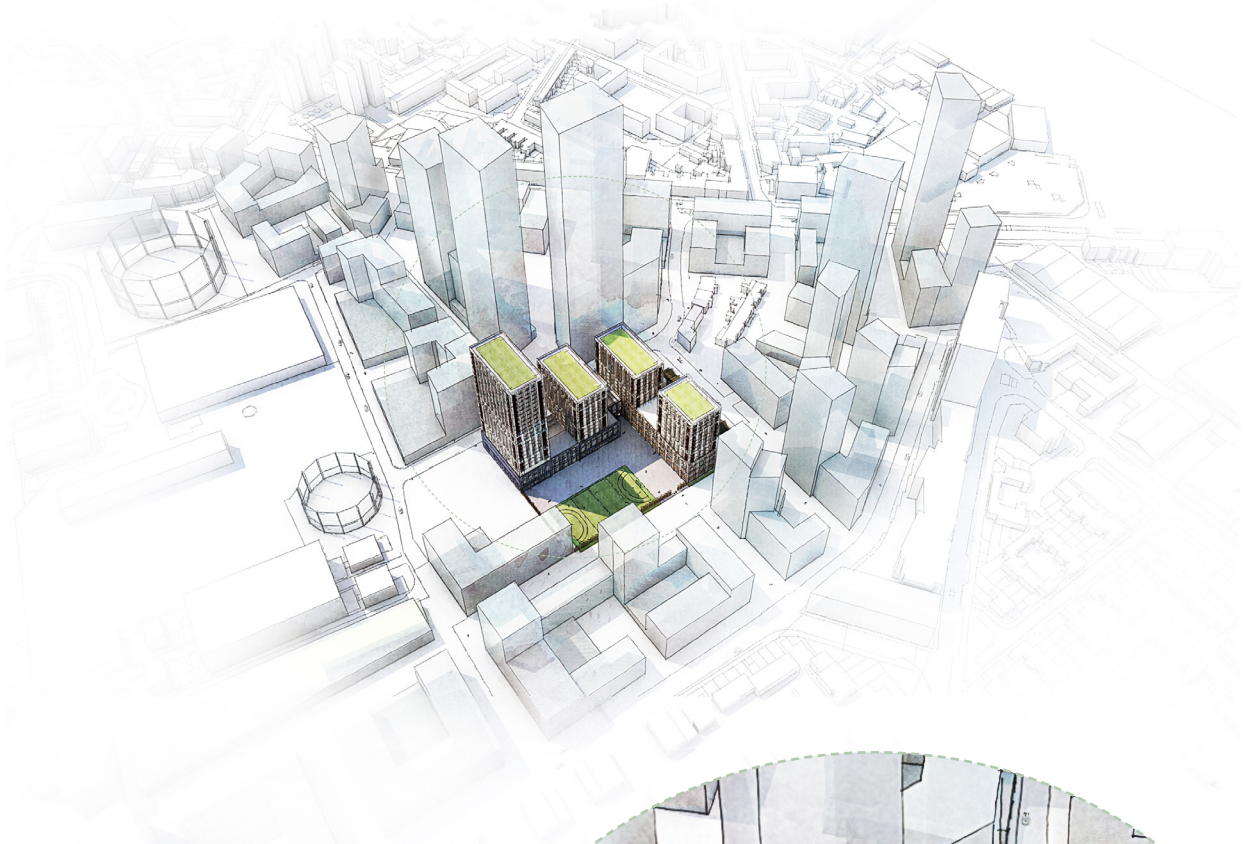
	Residential (GEA m2)				School (GEA m2)				Workspace (GEA m2)			
	A	B	C	D	A	B	C	D	A	B	C	D
0					3,653				1,918			
1					3,653				1,918			
2					3,653				1,918			
3		749	600	749					1,918			
4	557	749	749	749								
5	557	749	749	749								
6	557	749	749	749								
7	557	749	749	749								
8	557	749	749	749								
9	557	749	749	749								
10	557	749	749	749								
11	557	749	749	749								
12	557	749	749									
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19		749										
20		749										
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22		749										
23		749										
24		749										
25												
<b>Total</b>	6,125	16,474	8,088	6,739	0	10,959	0	0	7,670	0	0	0
<b>No. Homes</b>	<b>300</b>											
<b>Hab Rooms</b>	<b>910</b>				<b>399</b>				<b>279</b>			
<b>Density</b>	<b>1186 habitable rooms/hectare</b>											
<b>Target</b>	38,039				9,342				8,024			
	<i>**target includes inset private amenity spa **target includes 2,750m2 of resi GIA and voids.</i>											



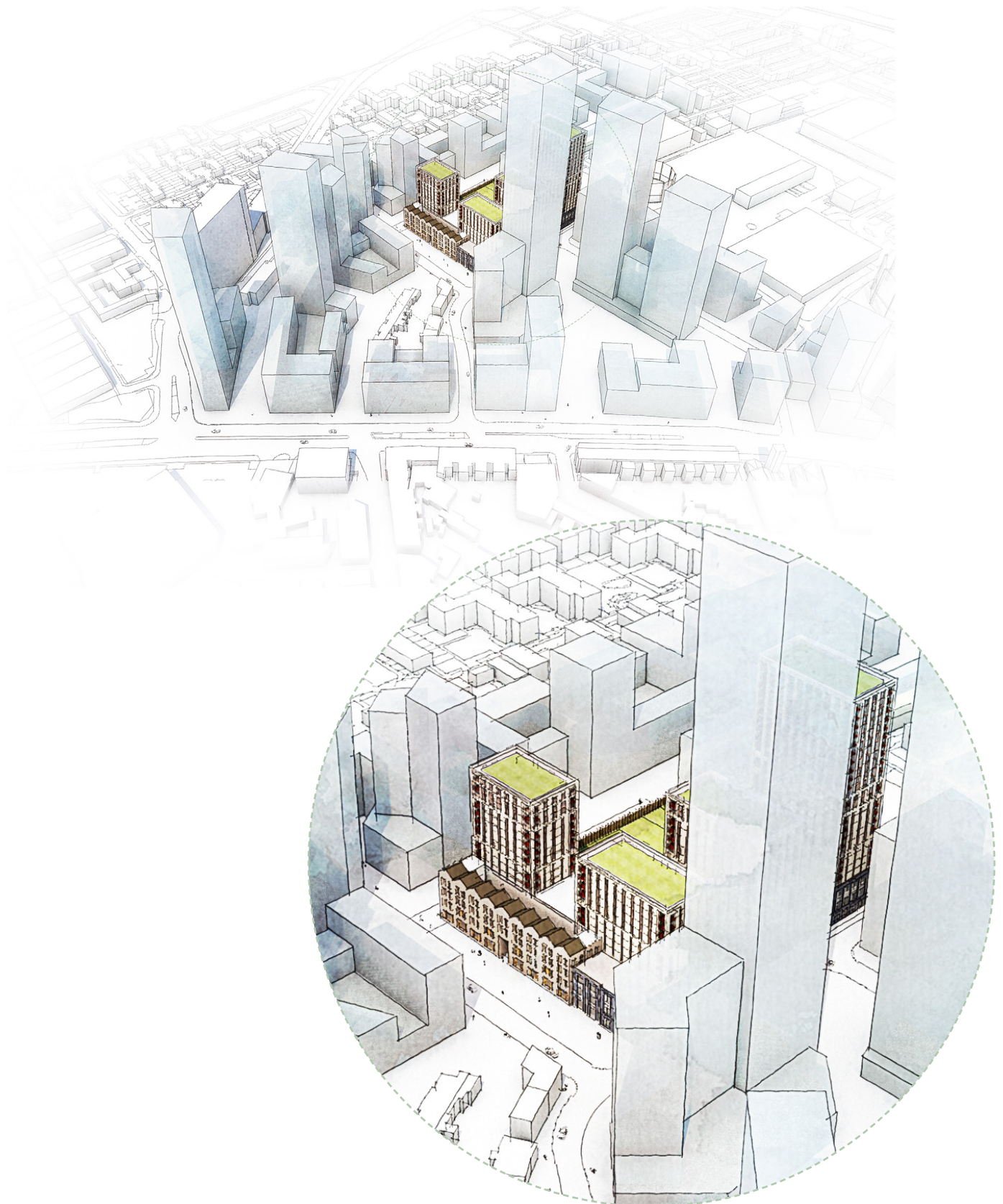
### 3.0 Capacity Study

### 3.4 Proposed Scheme - Visualisations

North East Aerial View



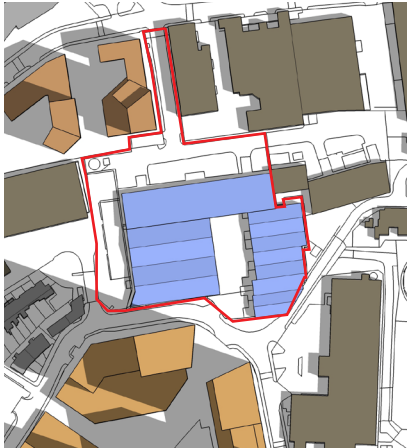
South West Aerial View



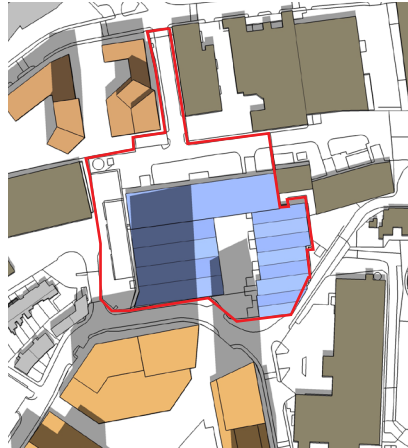
# 4.0 Supporting Studies

## 4.1 Existing Sunpath Analysis

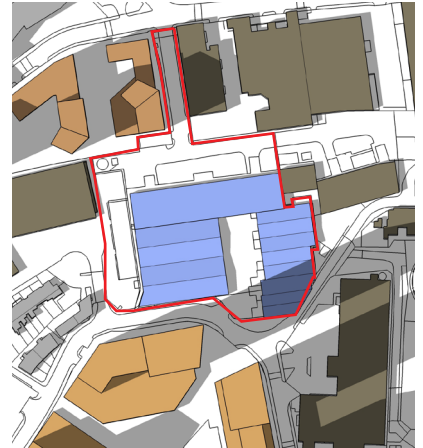
21st June - summer solstice



9am

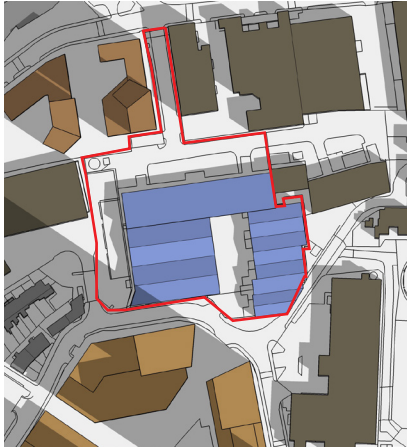


12pm



3pm

21st Mar/Sep - equinox



9am



12pm



3pm

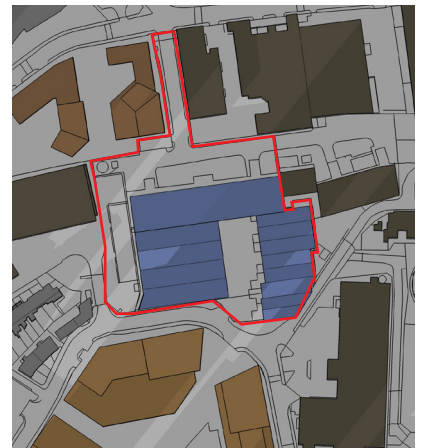
21st December - winter solstice



9am



12pm



3pm

# 4.0 Supporting Studies

## 4.2 Proposed Scheme Sunpath Analysis

21st June - summer solstice



9am



12pm



3pm

21st Mar/Sep - equinox



9am



12pm



3pm

21st December - winter solstice



9am



12pm

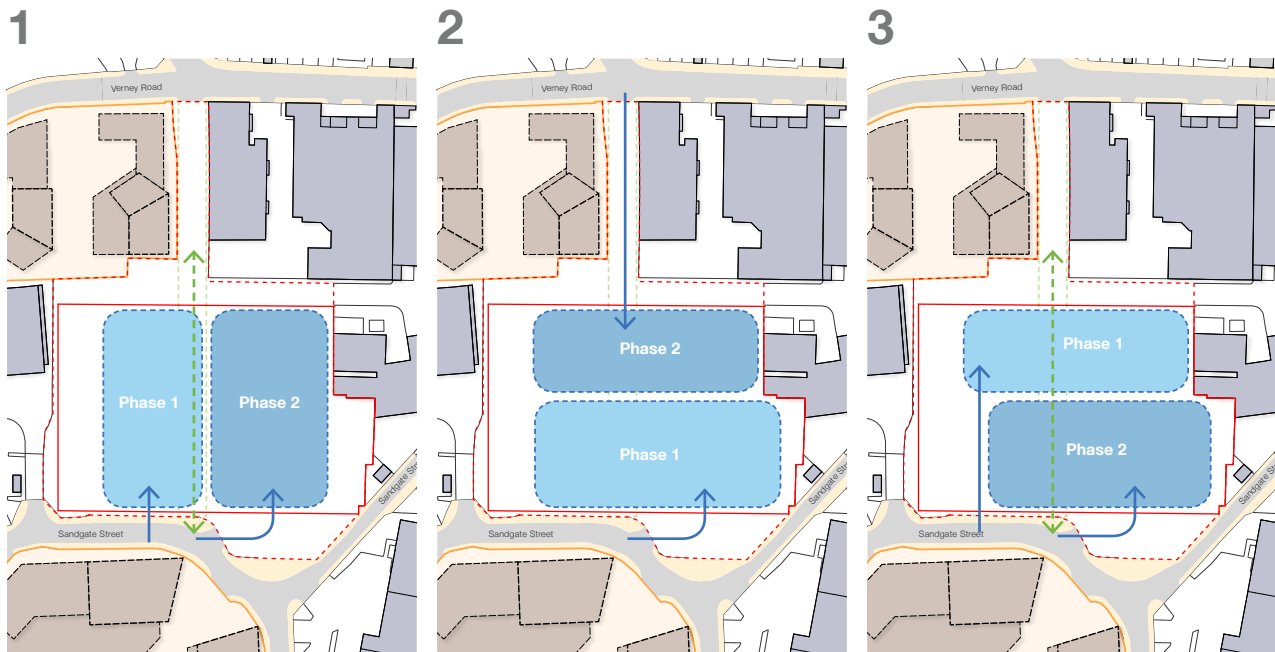


3pm

## 4.0 Supporting Studies

### 4.3 Phasing Diagrams

A range of phasing strategies can be accommodated on the site depending on the development chosen. The below diagrams demonstrate possible scenarios and their pros and cons.



Development of both sites is possible from Sandgate Street.

Phase 1 provides the maximum quantum of homes and creates a new north-south pedestrian link between the surrounding developments of Ruby Triangle and 6-12 Verney Road. The Phase 2 site could be utilised as the contractor's compound during construction.

Phase 2 can be developed at a later date providing the 6FE school and additional homes as required.

The first phase of development completes the Sandgate Street frontage and the proposed new public space connecting the Ruby Triangle site. All or part of the secondary school would be provided in the first phase depending on the development option.

Phase 2 would likely require construction access from Verney Road to limit disruption to Phase 1. Phase 2 provides additional homes, workspace and completes the north-south pedestrian link.

A less desirable option would develop the north of the site first and would require improving the public realm and connection to Verney Road.

Phase 2 would then provide the school and additional homes at a later date accessed from Sandgate Street.

# 5.0 Previous Studies

## OKR AAP Base Scheme

This illustrates the masterplan base scheme as provided by Southwark Council as defined in the OKR AAP fitted within the constraints of the two identified sites. The adjacent sites currently undergoing planning consideration have been updated to accurately reflect the proposed schemes.

- The area provided for the school is more than the BB103 requirement for a 6FE secondary school.
- Extensive use of the school roof as recreational space would be needed to provide the required external area without the use of any other adjacent sites.
- The number of homes does not meet the anticipated density of the 0.78ha site.
- The workspace area provided does not replace like-for-like the existing provision.

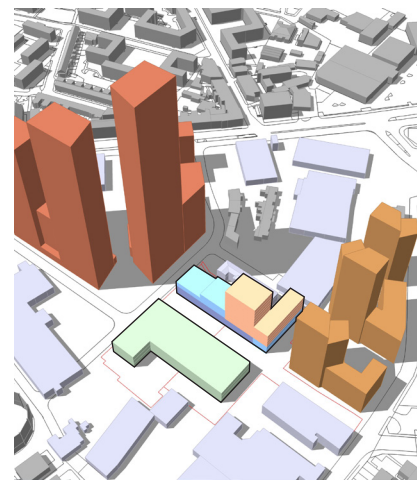
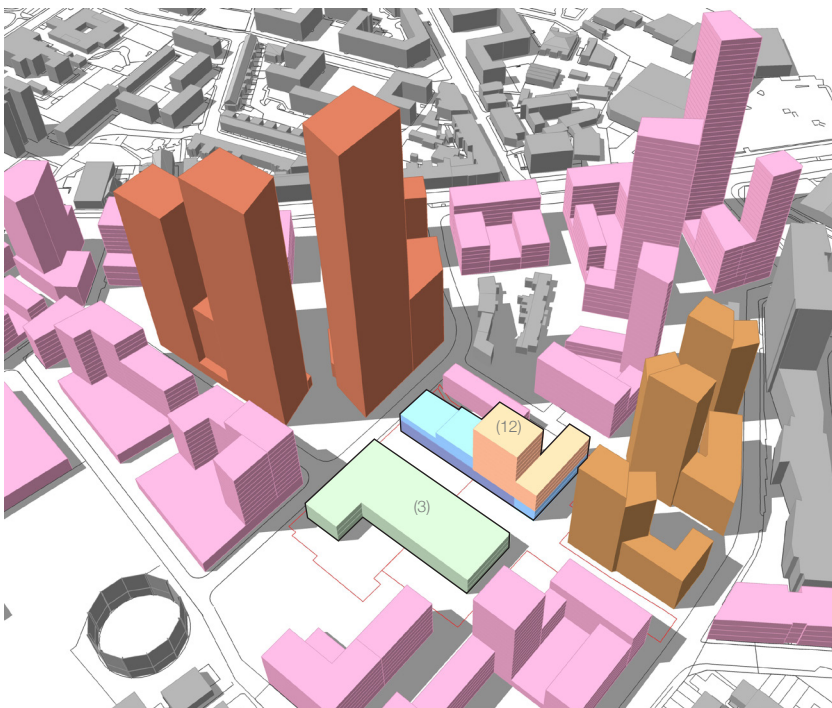
**School** **8,625 Sq/m**  
*External School Area* 1,250 Sq/m

**Homes** **74**  
 GEA 7,000 Sq/m  
 Net sale area 4,830 Sq/m

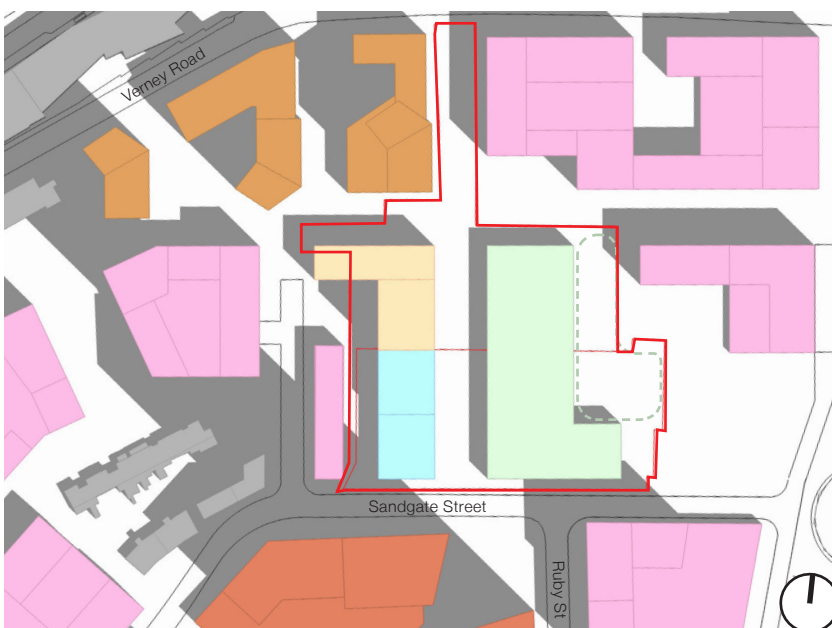
**Workspace** **2,025 Sq/m**

**Total** **17,650 Sq/m**

**Density** **463 habitable rooms/ ha**



Proposed and planning schemes within current context (blue)



# 5.0 Previous Studies

## Option A

This option provides the maximum development on the site with 5 mid-high rise blocks. The massing mediates between the heights of the adjacent sites currently under planning consideration. This option provides a density above the assumed maximum for the site but illustrates a possible top end that could be achieved.

- + School has civic frontage on Sandgate Street.
- + Maximum possible number of homes on the site.
- + North/south pedestrian route maintained.
- External area for school under provided.
- High density school requires internal planning to ensure daylight reaches the heart of the school.
- Workspace provision under area but possible to exceed workspace provision with completion of north west building in future phase.

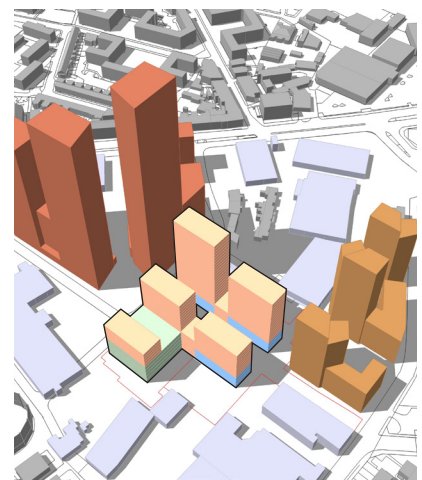
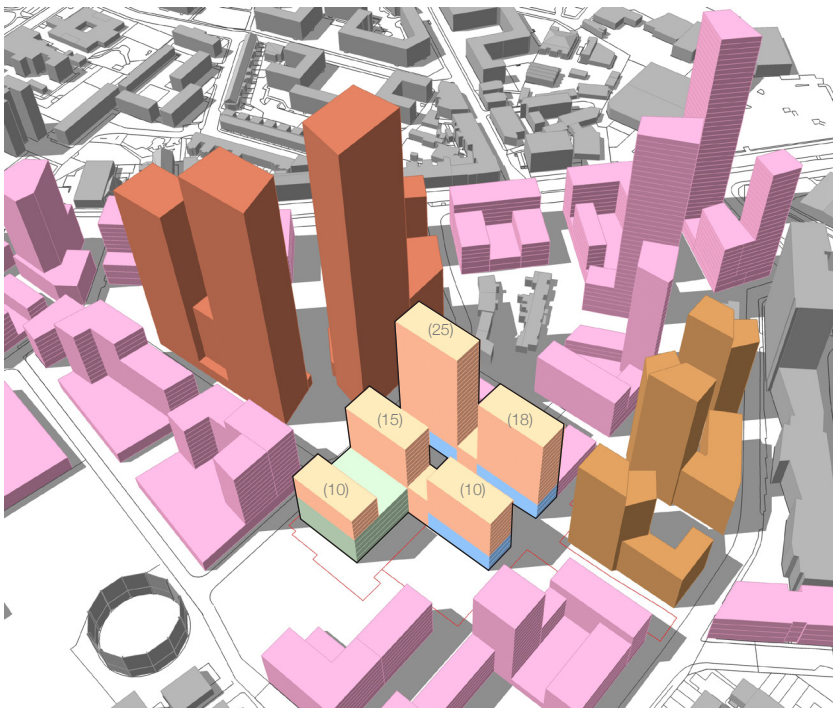
**School** 8,250 Sq/m  
*External School Area* 1,650 Sq/m

**Homes** 400-452  
 GEA 39,650 Sq/m  
 Net sale area 27,100 Sq/m

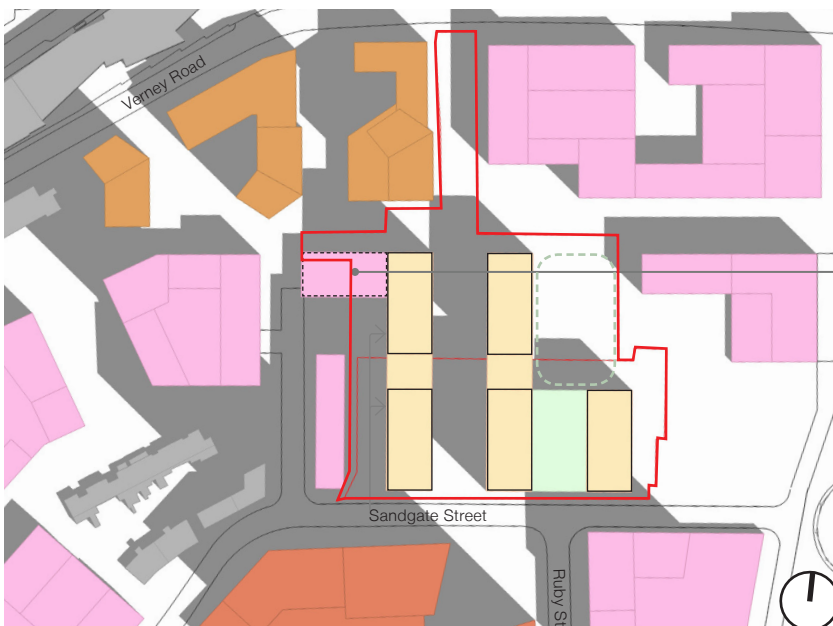
**Workspace** 5,180 Sq/m

**Total sq/m** 53,080 Sq/m

**Density** 2,077 habitable rooms/ ha



Proposed and planning schemes within current context (blue)



Future workspace building (1,960 sq/m) partly on developed site completes masterplan.

# 5.0 Previous Studies

## Option B

This option moves the density of the residential away from the tallest Ruby Triangle tower and frames the new public space on Sandgate Street with a third tower, limiting the overshadowing by the Ruby Triangle scheme on the proposed residential buildings.

- + 25 storey residential tower not shaded by Ruby Triangle development.
- + School fronts both Sandgate Street and the future greenway.
- + East facing playground limits overshadowing in the morning.
- + North/south pedestrian route maintained.

**School** **8,000 Sq/m**  
*External School Area* 2,250 Sq/m

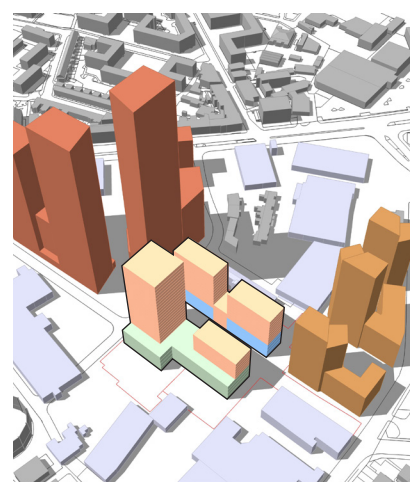
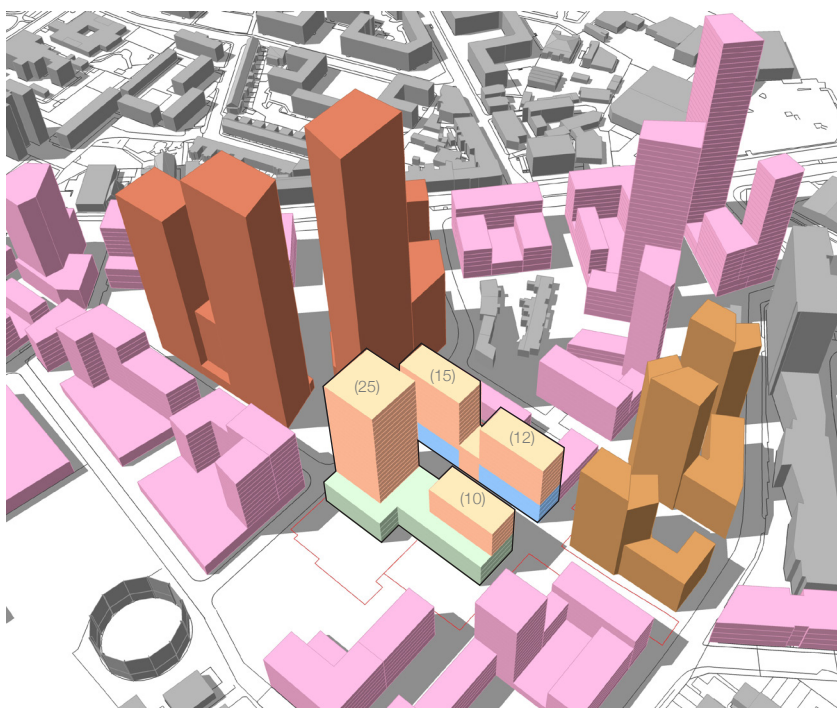
**Homes** **340**  
*GEA* 32,600 Sq/m  
*Net sale area* 22,300 Sq/m

**Workspace** **4,600 Sq/m**

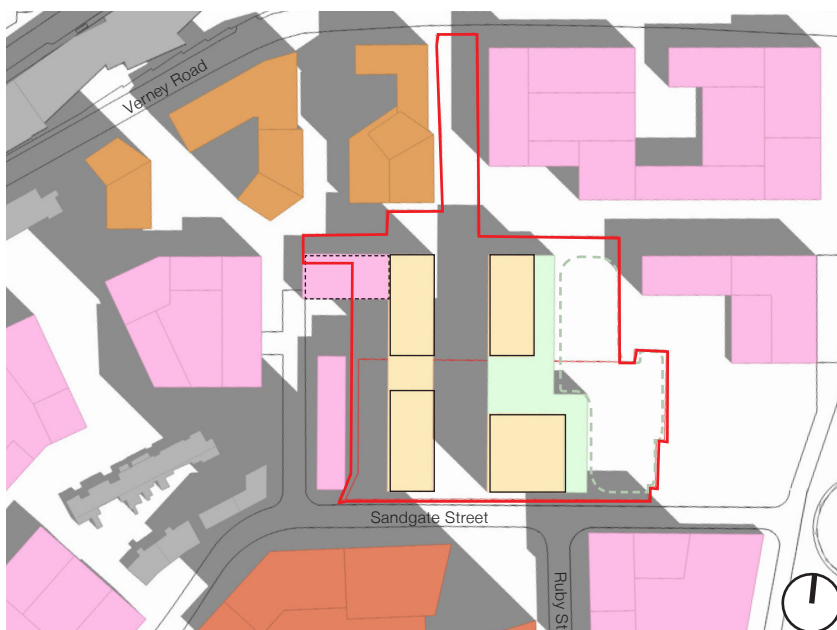
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**Total** **45,200 Sq/m**

**Density** **1,807 habitable rooms/ ha**



Proposed and planning schemes within current context (blue)





# 5.0 Previous Studies

## Option C

This option provides an equal density to Option B but maximises the external area for the school by not developing on the north of the site fronting the future greenway.

- + School has civic frontage on Sandgate Street.
- + Maximum area given to school external area.
- North/south pedestrian route would have to run under the school.
- Gap in the masterplan frontage along the canal greenway
- Workspace provision under area but possible to exceed workspace provision with completion of north west building in future phase.

**School** **7,975 Sq/m**  
*External School Area* 3,750 Sq/m

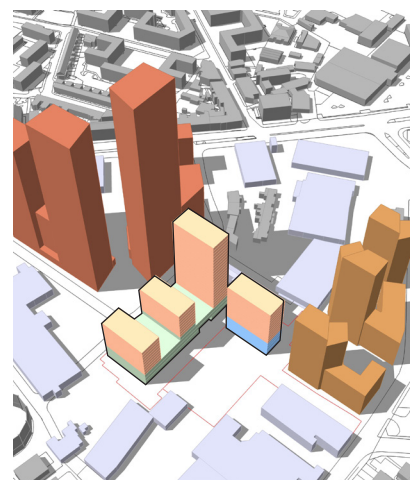
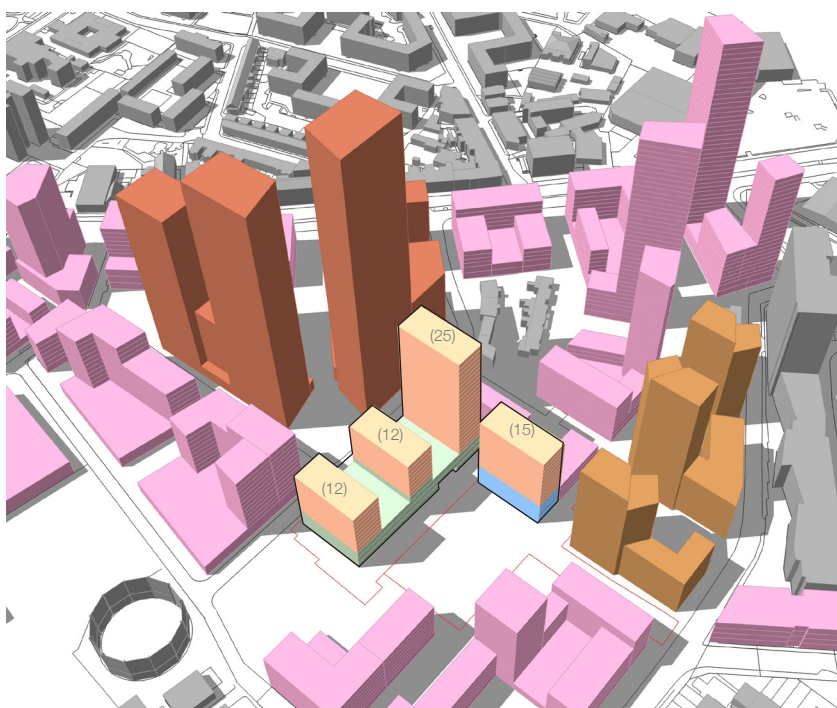
**Homes** **340-380**  
 GEA 29,700 Sq/m  
 Net sale area 20,300 Sq/m

**Workspace** **2,300 Sq/m**

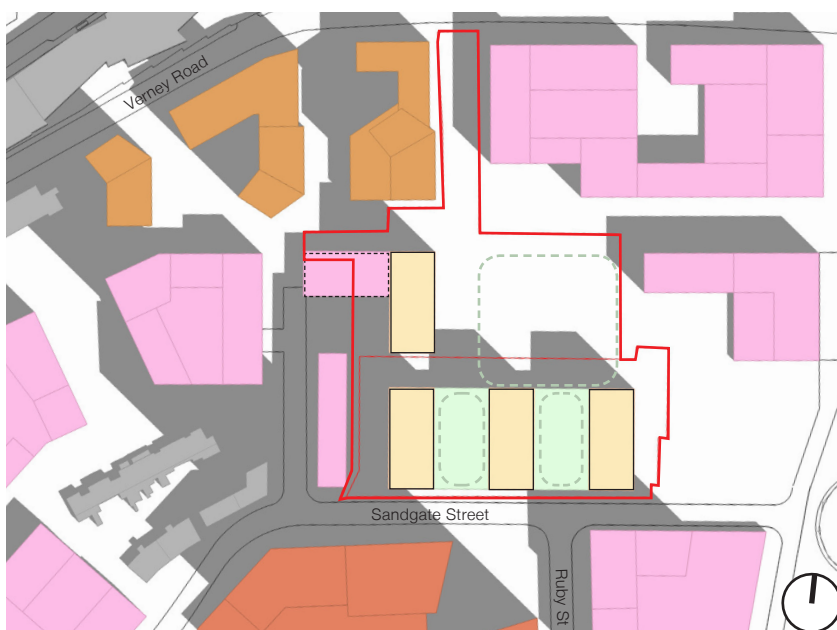
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**Total** **39,975 Sq/m**

**Density** **1,734 habitable rooms/ ha**



Proposed and planning schemes within current context (blue)



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