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1.0 Introduction

1.1 Purpose

The London Borough of Southwark (LBS) commissioned Patel Taylor to carry out a study to assess the redevelopment potential of an area within the Old Kent Road (OKR) opportunity area. The site lies between the Southwark Reuse and Recycling Centre and the development area known as OKR13. It is comprised by various sites under the ownership of London Borough of Southwark (LBS), Scotia Gas Networks (SGN) and Rich Estates (RE). The main feature of the site are the two gasholders, one of which is listed, which are not currently in use anymore.

Building on existing masterplan work, the study will help shape emerging placemaking principles, open space strategy and assess development capacity potential.

1.2 Brief

Building on the emerging masterplan of the December 2017 Draft AAP, the brief is to design an outline masterplan which will:

- Deliver an approximately 1.5ha park around the listed gasholder.
- Create a vision for the retained the listed gasholder.
- Integrate with the emerging proposals for the adjoining sites improving permeability.
- Maximise built development which integrates to the built and open space context and creates a cohesive piece of townscape.

The final study must provide a report which includes:

- An analysis of the physical context
- A description of the evolution of proposals
- A succinct description of the proposals
- A landscape strategy for the park
- Appropriate drawings/ diagrams
- Sketches/ illustrations/ precedents which imaginatively communicate the place being created
- An assessment of capacity



Figure 1: Aerial view of the site

2.0 Site analysis

2.1 History of the area

The site originally formed part of the gasworks of the South Metropolitan Gas Company, which was founded in 1829. It built the new works adjoining the Grand Surrey Canal. The works were completed by 1833. Thomas Livesey (1807–1871) was appointed Chief Officer in 1839. The company prospered under his lead and he brought about reforms such as a workmen's sick fund, superannuation fund and paid holiday. A plan of 1838 shows the gasworks on a narrow strip of land extending eastwards from Old Kent Road and broadly following the curvature of the canal. At this time it included four small gasholders, a retort house, offices and associated buildings. Small extensions were made in 1843 and barges were acquired to bring in coal. In 1848 Thomas's son, George (1834 -1908), joined the company and helped to reconstruct the gasworks, which became the most efficient in London. He had been brought up on Canal Grove, a street next to the gasworks (his childhood home is still extant). George's younger brother Frank (1844-1899) also worked as an engineer for the company.

George Livesey became company engineer in 1862, company secretary in 1871 when his father died, and subsequently chairman. The company considerably expanded during his lifetime; between 1862 and 1908 the annual output increased from 350 million to 12,520 million cubic feet. He had wide influence not only in engineering terms at Old Kent Road (see below) but also in company management. Livesey proposed that company dividends and prices should be linked, a practice subsequently implemented by other major companies. Following labour disputes and unionisation in 1889, he introduced co-partnership to employees and this idea of profit sharing was repeated elsewhere. In 1892 Livesey initiated a customer scheme whereby a gas supply with pre-payment meter, full lighting and a cooker were installed in homes without an existing supply at the company's expense; the costs were recovered through a surcharge over succeeding years. It was adopted across the country and ensured that gas became commonplace for cooking and appeared in many working class homes for the first time. As a local philanthropist, George Livesey erected the first public library in Camberwell on Old Kent Road (later the Livesey Museum for Children, Grade II listed). He also served as a Sunday school teacher at Christ Church. Livesey was knighted in 1902 and a statue by F W Pomeroy was erected in his honour at the gasworks following his death in 1908 (Grade II listed).

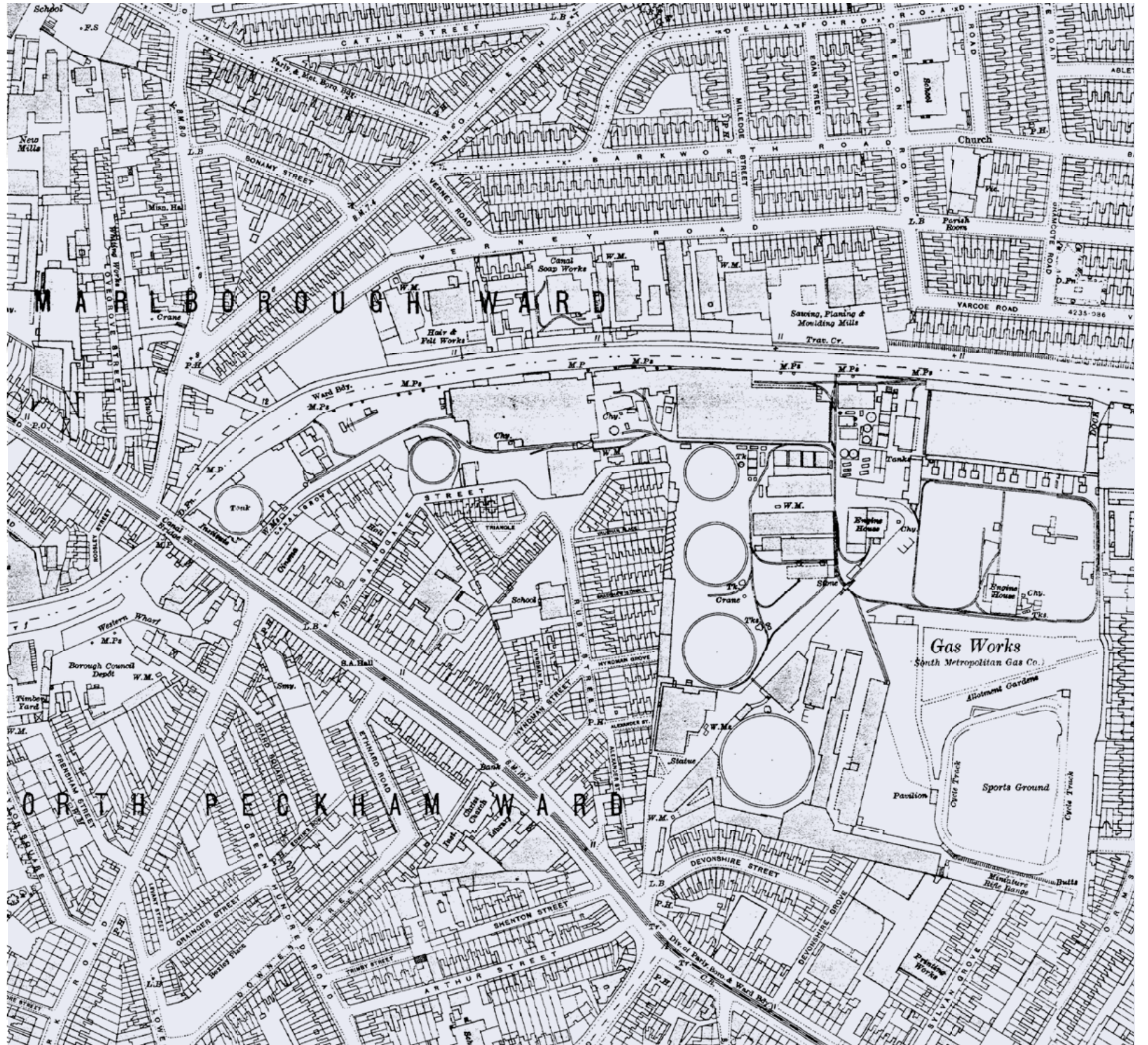


Figure 2: Historical map of the South Metropolitan Gas Company Gasworks site in Old Kent Road

2.0 Site analysis

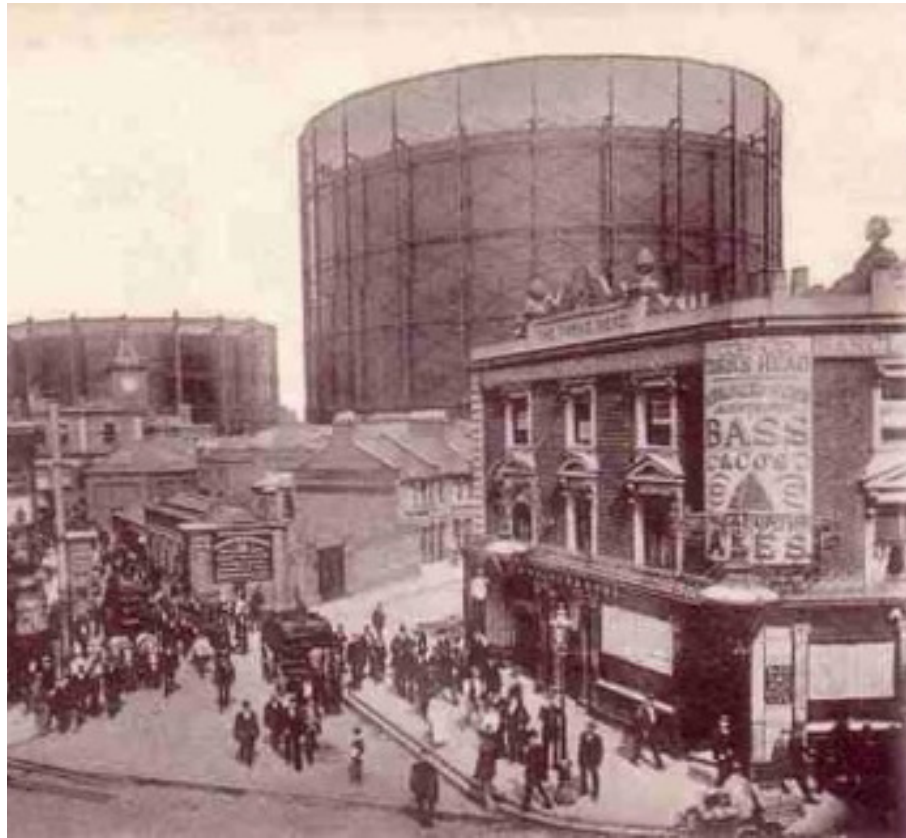


Figure 3: Historical image of the South Metropolitan gasworks site in the Old Kent Road

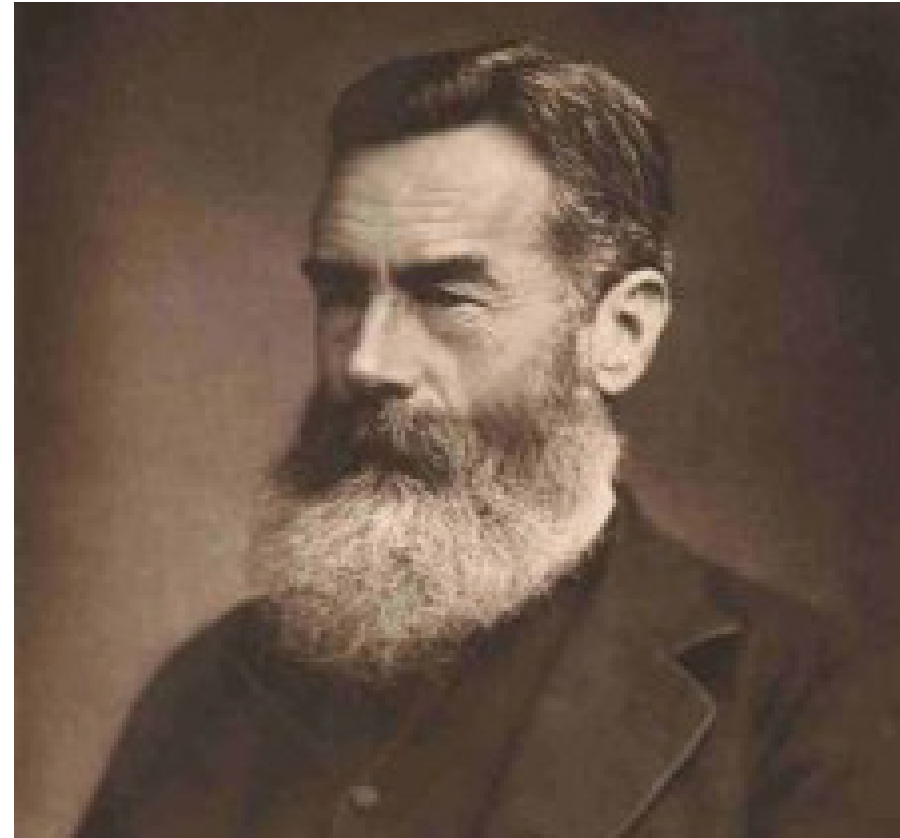


Figure 4: Sir George Thomas Livesey



Figure 5: Historical image of the gasworks from the Surrey Canal



Figure 6: Historical image of the gasworks from the Surrey Canal

The Old Kent Road gasworks increased from a 3 acre site to 36 acres by the 1870s. The 1875 OS map shows six gasholders, a retort house and purifiers, as well as a large area of open land to the east; Gasholder No.10 had been built at the north-west corner of this new land in 1867. Between 1879 and 1881 the company amalgamated with the Surrey Consumers Gas Company and, its main rivals, the Phoenix Gas Light and Coke Company. It gained gasworks at Rotherhithe Street, Vauxhall, Bankside and Thames Street, and Greenwich. Coal for the production process at the Old Kent Road gasworks was brought by sea to the jetty on the riverside at Rotherhithe and carried by barge to the works along the Grand Surrey Canal. The barges were then unloaded by two steam-driven grabbing cranes on the gantry at the end of the retort house. By 1896, the Old Kent Road gasworks included three further gasholders (Nos. 11-13), as well as a substantial office building (erected in 1881-2), new retort houses and engine houses, with a public recreation ground, cricket ground and allotment gardens at the south east. The ground conditions proved particularly challenging for the construction of the gasholders, and Livesey oversaw several developments. In erecting the tank of Gasholder No.10 in 1867, his contractors Messrs Docwra had carried out excavation in the fine-grained, water-saturated, Thanet Sand by installing dewatering wells in the underlying chalk. Livesey pioneered the use of Portland Cement concrete in a gasholder tank during the construction of Gasholder No.11, with a brick-facing, in 1872 (demolished in the c1980s when the tank was buried). The subsequent gasholder, No.12 (1875) had the first tank without a brick facing or puddled-clay waterproofing. The water tightness was improved in building Gasholder No.13 (1879) by using embedded hoop-iron reinforcement and the concrete was cast directly against the temporarily dewatered sand for the first time, thereby avoiding need for backfilling.

The gasworks became part of the Metropolitan Division of the South Eastern Gas Board upon nationalisation in 1949. It ceased production in 1953. The buildings were gradually replaced by new development. A recycling facility was built on part of the land in the 2000s. There remain three gasholders on the site (No.10, No.12 and No.13), which are now decommissioned and in their unused state.

2.0 Site analysis

2.2 The listed gasholder

Gasholder No.13 was built in 1879-1881 by the engineer George Livesey and contractors Ashmore & While for the South Metropolitan Gas Company. The tank was constructed by Dowcra & Sons. Repaired by Clayton & Son Ltd in 1942 following war damage.

Gasholder No. 13 is listed at Grade II for the following principal reasons:

- **Historic Interest:** the world's largest gasholder when built, it was a pioneering structure and important achievement in civil engineering, inspiring the development of helical or geodesic structures.
- **Structural Interest:** built to a radical new concept that treated the guide-frame as a cylindrical lattice shell for the first time, the gasholder had to be built up tier-by-tier since it relied on the complete circle for integrity.
- **Technical Interest:** every aspect was at the forefront of technology; the wrought-iron standards (uprights) were exceptionally thin, the bell used mild-steel for the first time, and the tank was the deepest then constructed and one of the deepest ever built.
- **Architectural Interest:** the guide frame marked an important moment in gasholder design because it departed from the use of all applied decoration, and instead relied on the purity of the structural form.
- **Rarity:** the only example of this form of gasholder on the National Heritage List, Livesey's No.13 served as the basis for several types, and proved a highly influential prototype widely copied across the country.
- **Historic Association:** one of the highest achievements of Sir George Livesey, the outstanding gas industry engineer of his generation who spent his life at these gasworks, carrying out innovations which helped ensure gas became common place across the country.
- **Group Value:** with the Grade II-listed former Livesey Museum (erected by Livesey as Camberwell's first public library) and Livesey statue, and the locally-listed No.10 and No.12 Gasholders which together with No.13 well-illustrate the development of gasholder design.



Figure 7: Aerial view of gasholder no.13



Figure 8: Aerial view of gasholder no.13



Figure 9: Photograph of gasholder no.13 in 2006

2.0 Site analysis

Gasholder No.13 is a frame-guided holder with a capacity of 5.5m cu ft; at that time the largest in the world.

It comprises 22 very slender wrought-iron standards attached to five-tiers of horizontal members; four original lower tiers of struts of a riveted cruciform section, and a top tier formed of a rolled-steel semi-box girder added in 1942 (Type 41 in Tucker's Typology).

The frame was built to a new structural principle, which treated the guide frame as a single huge cylinder for the first time. It is 48.8m high and c.66.5m in diameter. The standards are I-section plate girders with a slight taper towards the top and a depth of just over 0.5m at the base where they are bolted to shallow cast-iron plates. Strong diagonal bracing of flat wrought-iron bars is placed at frequent intervals, forming intersecting helices with 10 crossings in the height of the frame. The bars weave between the inner and outer faces of the standards where they are riveted to gusset plates. At the crossing points the bars are clipped together with a lozenge-shaped cover plate. The top girder forms a walkway and has a steel handrail attached to the outside edge.

It is reached from ground-level by five ladders with four intermediate rest platforms attached to the N side of the gasholder. Paddon wind ties of steel wire rope support the top of the frame.

A three-lift iron bell rises on both radial and tangential rollers from an in-ground tank; the untrussed crown of the bell, originally with a steel top-curb, has been replaced following wartime damage. The two lower lifts retain the cups and grips of George Piggott's rounded profile and the lowest lift has D-section external stiffeners of Livesey's bent-plate pattern. Guide rails for the bell are riveted to the inside edge of the standards. The tank is constructed of Portland Cement concrete with a layer of cement render on the inside reinforced by 25 iron hoops embedded in the wall.

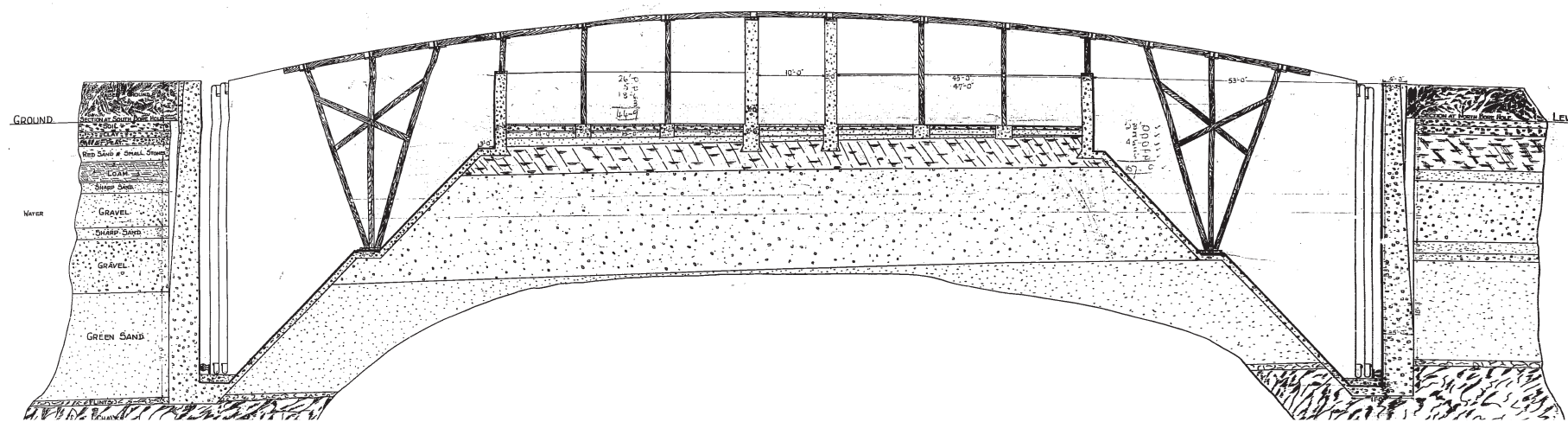


Figure 10: Section of the tank of gasholder no.13



Figure 11: Detail of the structure of gasholder no.13



Figure 12: Detail of the tank dome of gasholder no.13

2.0 Site analysis

2.3 The site today

There are currently three remaining gasholders: nos.10, 12 (see Figure 17, and which is currently being dismantled) and no. 13 (which is Grade II listed). They no longer store gas and a large part of the former gasworks site is occupied by Southwark's Integrated Waste Management Facility (IWMF) and the adjacent New Cross Electricity Substation. The former gas offices building still remains and there is an aspiration to retain this structure for re-use (see Figure 16).

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' Road and Ilderton Road.

The north side of Old Kent Road is very fragmented. Bomb damage and road widening resulted in the demolition of the Georgian and Victorian terraces and their replacement by larger retail stores, such as Curry's PC World, the B&M Bargain Store, Carpet Right and Staples. There is a surviving Georgian house and later Edwardian commercial buildings next to B&M Bargain Store.

The south side of Old Kent Road has a much more established frontage which features some handsome buildings including Christ Church, the former Livesey Museum and the Royal London buildings.

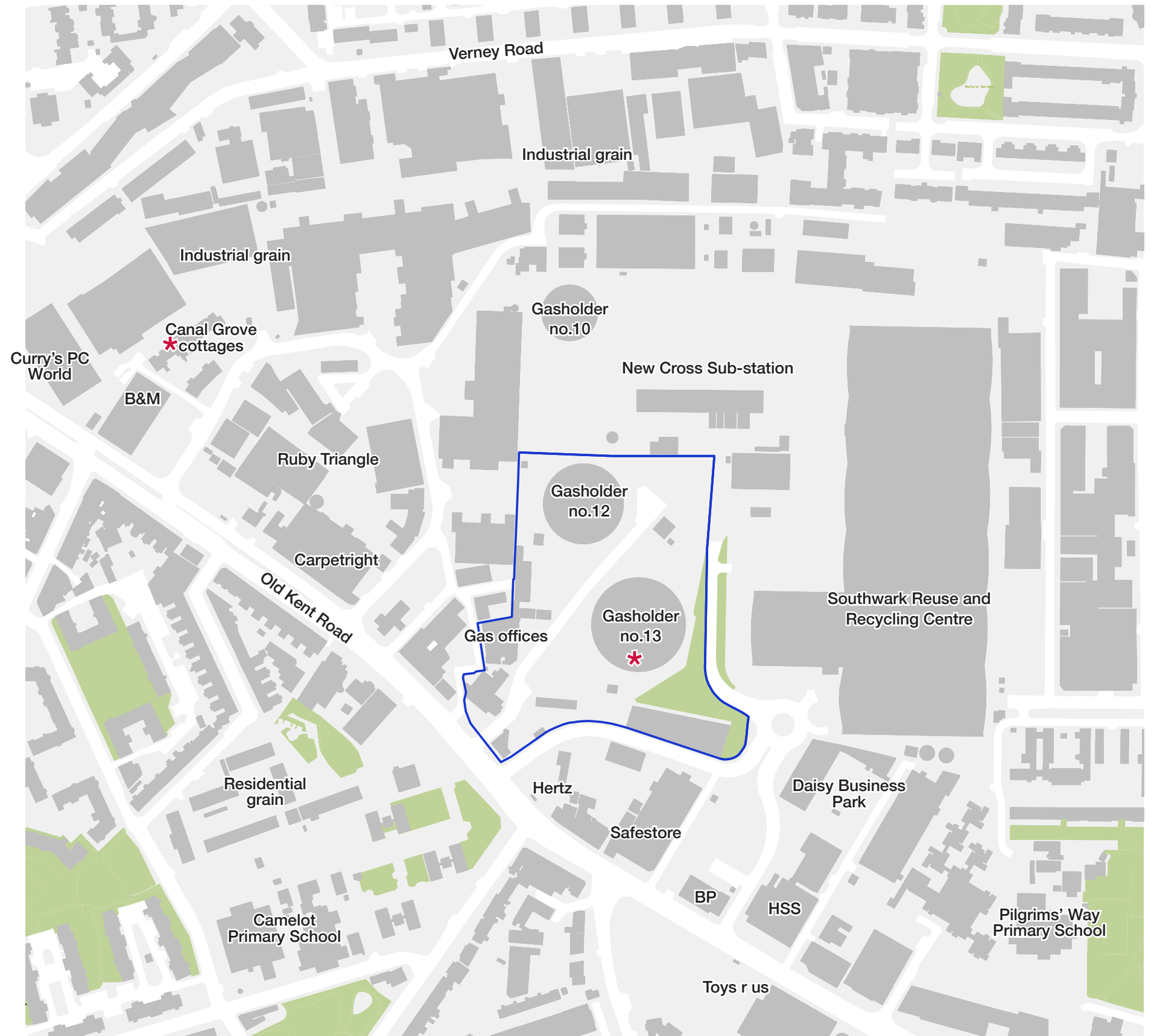


Figure 13: Site context

Key

- Site subject to study
- * Listed building

2.0 Site analysis

The site subject to this study is comprised of different site ownerships including LBS, SGN, National Grid and Rich Estates (see Figure 14). Working with this constraint will be key to deliver a feasible masterplan for the site.

The land use is clearly divided by the Old Kent Road in two grains (see Figure 15):

- Industrial buildings to the north of the Old Kent Road
- Some big retail units to the north of the Old Kent Road
- Residential to the south of the Old Kent Road
- There are some community, cultural and faith uses mainly to the south of the Old Kent Road.

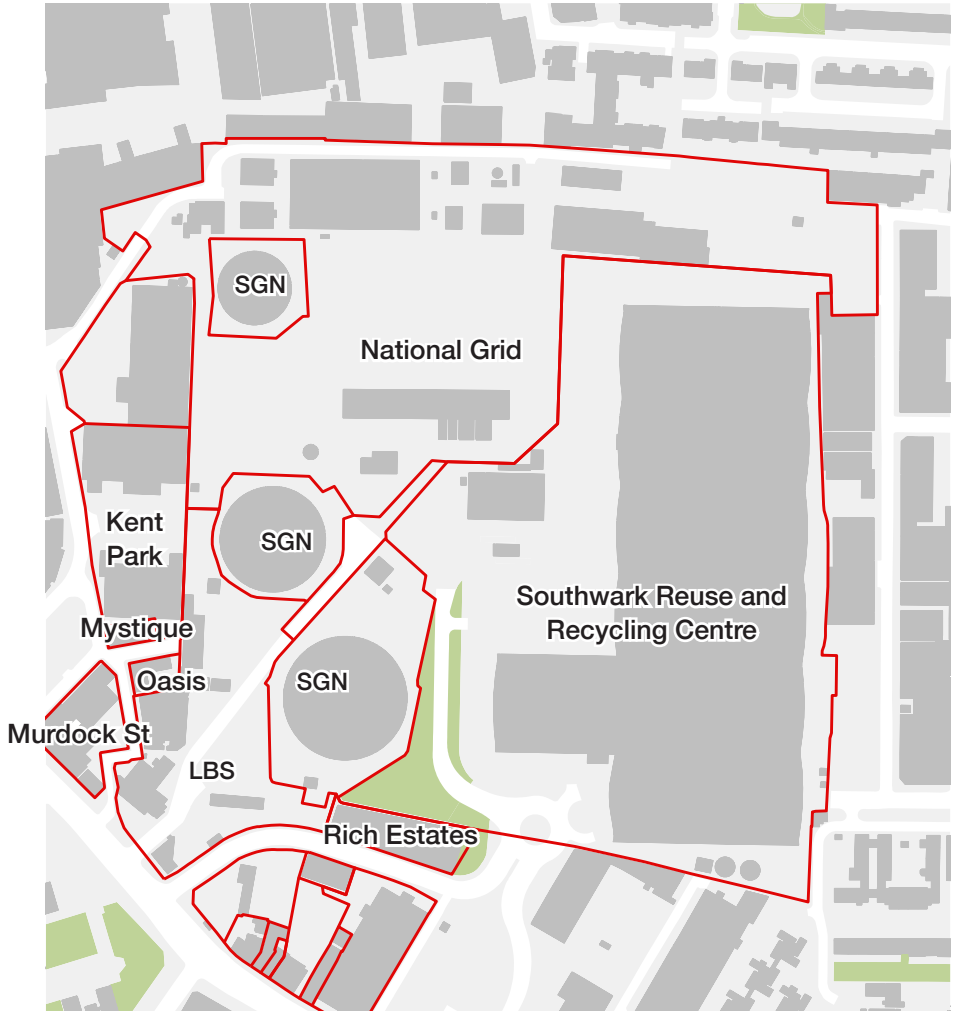


Figure 14: Site ownerships

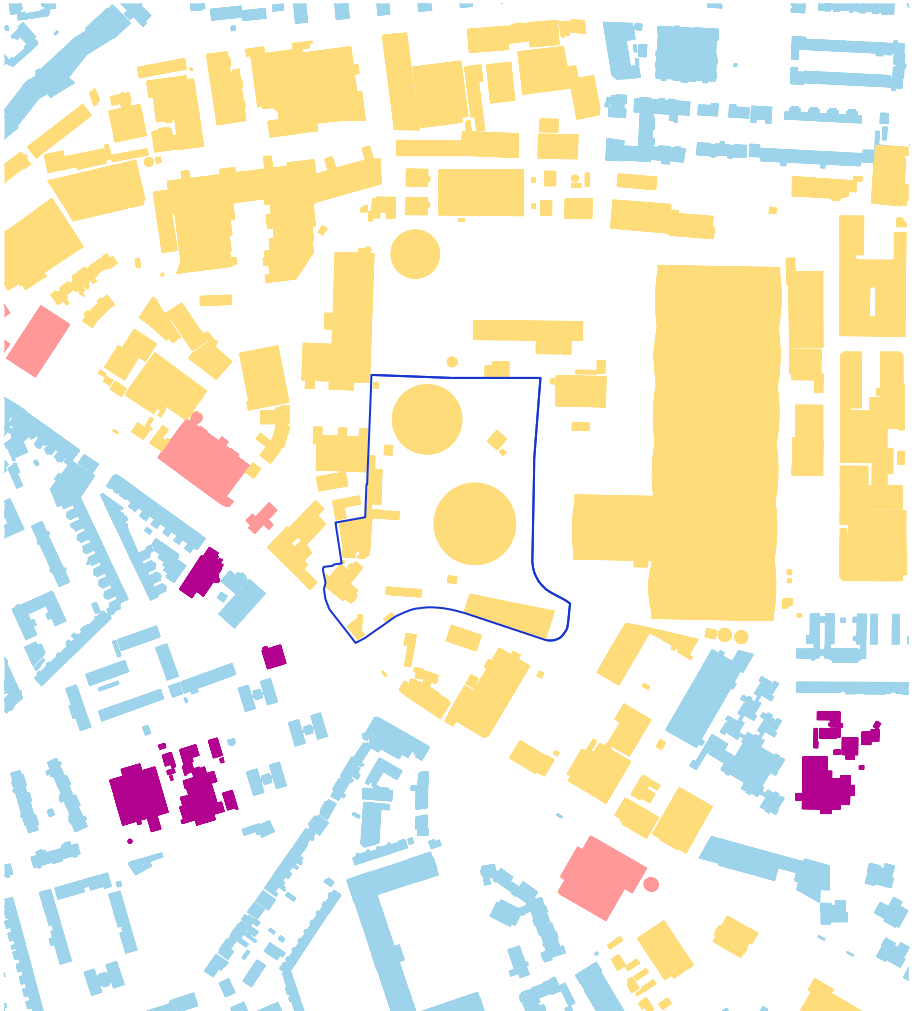


Figure 15: Uses



Figure 16: Office building to be retained



Figure 17: Gas holder no.12 being dismantled

2.0 Site analysis

2.4 The site in the Draft AAP

2.4.1 Vision for OKR 13

The site subject to this study falls in the AAP area designated as OKR13.

The masterplan of the Draft AAP, prepared by LBS with Stitch Architects, envisions the transformation of the area into a mixed new neighbourhood with a diverse range of uses. While its character will change, it will continue to provide lots of jobs within a range of business spaces, including standalone industrial buildings, large warehouses that are integrated into mixed use buildings, small and medium sized industrial spaces and offices. New parks, a secondary school, indoor sports hall, a health hub, access to shops and other facilities on Old Kent Road and a short walk to a tube station will make the area a great place to live and work.

The scale of development will have a central London character. Like much of London, there will be contrasts between big and small, old and new which can help create a rich and varied character. The proposed development retains the listed building in the area such as the Canal Grove cottages or Gasholder no.13.

Within the site, the masterplan proposes a park surrounding the retained listed gasholder and a series of buildings ranging from a standalone industrial unit to mixed used buildings with industrial/ retail on ground floor and residential above.

2.4.2 Building typologies and land uses

The development will provide a range of commercial spaces including shops, offices and small, medium and large sized industrial and warehousing units integrated into a mixed use area.

Particularly, the proposed typologies and land uses within the site are (see Figure 19)

- Plot 1: a standalone large industrial storage and distribution unit
- Plot2: a mixed use building with small industrial units on ground and first wrapped with workspace and residential above.
- Plot 3: a high street typology which accommodates retail on ground floor onto the Old Kent Road and residential above.
- Plot 4: a mixed use development comprised of a medium industrial distribution and storage unit and residential above.

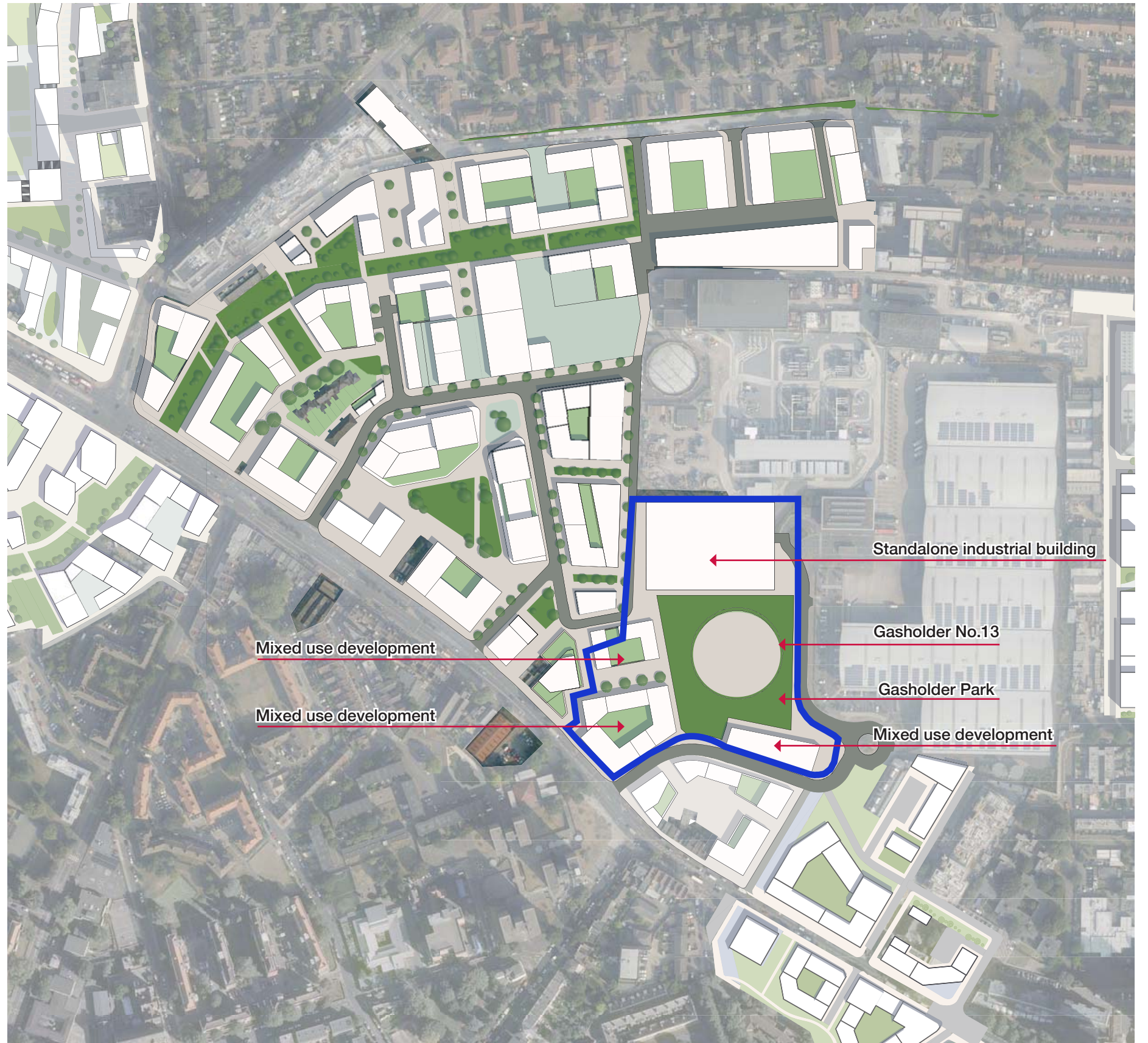


Figure 18: OKR 13 masterplan

Key
■ Site subject to study

2.0 Site analysis

2.4.3 Access, servicing and frontages

The site subject to this study would be serviced from three routes (see Figure 20):

- 1 A new road off Murdock Street which runs parallel to the western edge of the site.
- 2 Devon street, which could potentially become a shared surface with reduced traffic.
- 3 The Reuse and Recycling Centre road. This road could be used to service the Sub-station, allowing for the current access route to be incorporated to the park.

2.4.4 Streets, parks and public buildings

Development can transform this large industrial area into a mixed use area with green routes and new parks which connect homes and workplaces with schools, a rejuvenated high street on Old Kent Road and surrounding residential areas.

The proposals relevant to the site subject to this study are:

- 7 Gasholder Park: a new open space surrounding the listed gasholder. The AAP also aims to retain and improve views towards the gasholder from Asylum Road, Commercial Way and Murdock Street. The park will provide a secure location for the statue of George Livesey which is currently located in the rear garden of the Livesey Building, bringing it back into public view.
- 8 St James's Road to Devon Street: connect new and existing streets to create a route for people walking and cycling between Devon Street and St James' Road.
- 10 Ruby Street and Murdock Street: reduce the number of junctions on to Old Kent Road and transform the streets into public spaces in which people walking and cycling have priority.

2.4.5 Building heights

- The setting of the listed gasholder should be enhanced by opening up the views of it from Murdock Street and retaining the views from Commercial Way and Asylum Road.
- Building heights immediately around the gasholder should remain lower than the listed gasholder itself, in order to retain its prominence in the townscape.
- The design of tall buildings should carefully consider their impact on the skyline and their relationships with the surrounding context, particularly sensitive features like conservation areas and listed buildings.



Figure 19: OKR 13 building typologies and land uses



Figure 20: OKR 13 access, servicing and frontages

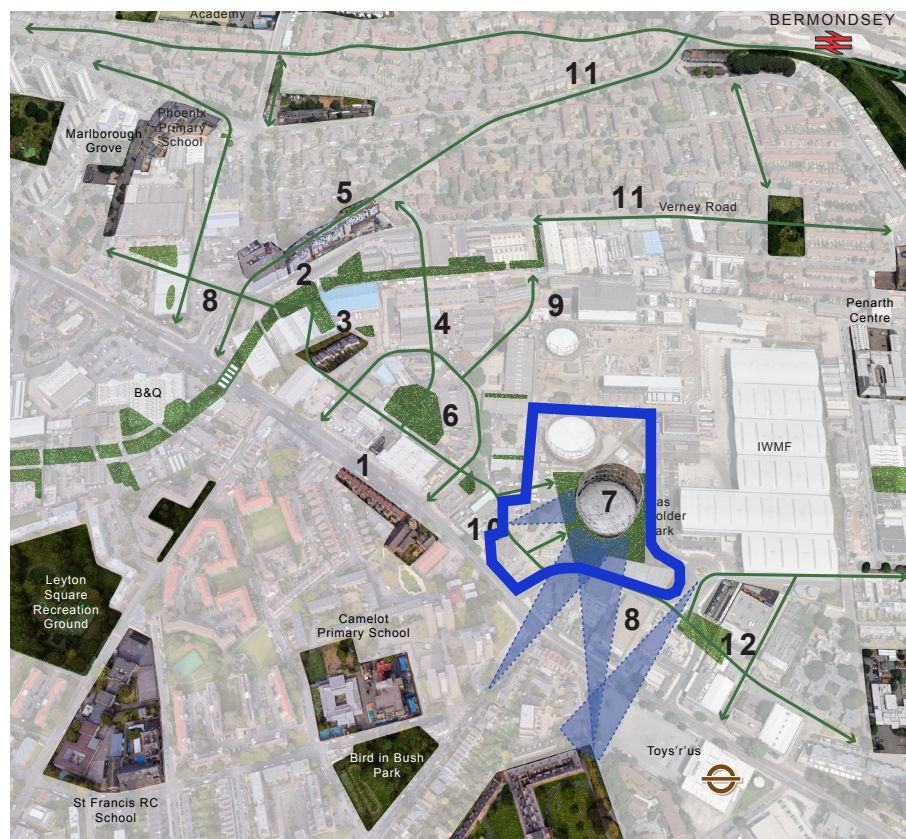


Figure 21: OKR 13 streets, parks and public buildings

Key

Site subject to study



Figure 22: OKR 13 building heights

2.0 Site analysis

2.5 Site constraints

- Waste Management Facility traffic. The traffic levels of refuse vehicles accessing the facility is quite high and queues are frequently formed. An appropriate screening of this to avoid visual and noise pollution will be crucial.
- Access to the Sub-station. The current access road to the sub-stations splits the site in two halves. The potential of relocating this access should be considered in order to avoid traffic running across the park.
- Location of gas governor. The existing gas pressure reducer will need to be relocated.
- Location of gas mains. The re-location of these pipes will be necessary to connect to the new gas governor. The location of the retained ones must be considered for proposed buildings.
- Proximity to the listed structure. All buildings must create a setting for the listed gasholder and not threaten its prominence in the space.
- Undesired residential frontages. Residential frontages and views towards the Waste Transfer Facility and the Sub-station should be avoided if possible.
- Sunpath and overshadowing. The location of built structures will need to be carefully considered to ensure that the public realm enjoys acceptable levels of sunlight.

Key

- Site subject to study
- ◊◊◊◊ Waste management facility traffic
- ➔ Access to substation
- Location of gas governor
- - - Location of gas mains
- ||||| Proximity to the listed structure
- ~ Undesired residential frontages
- Sunpath and overshadowing

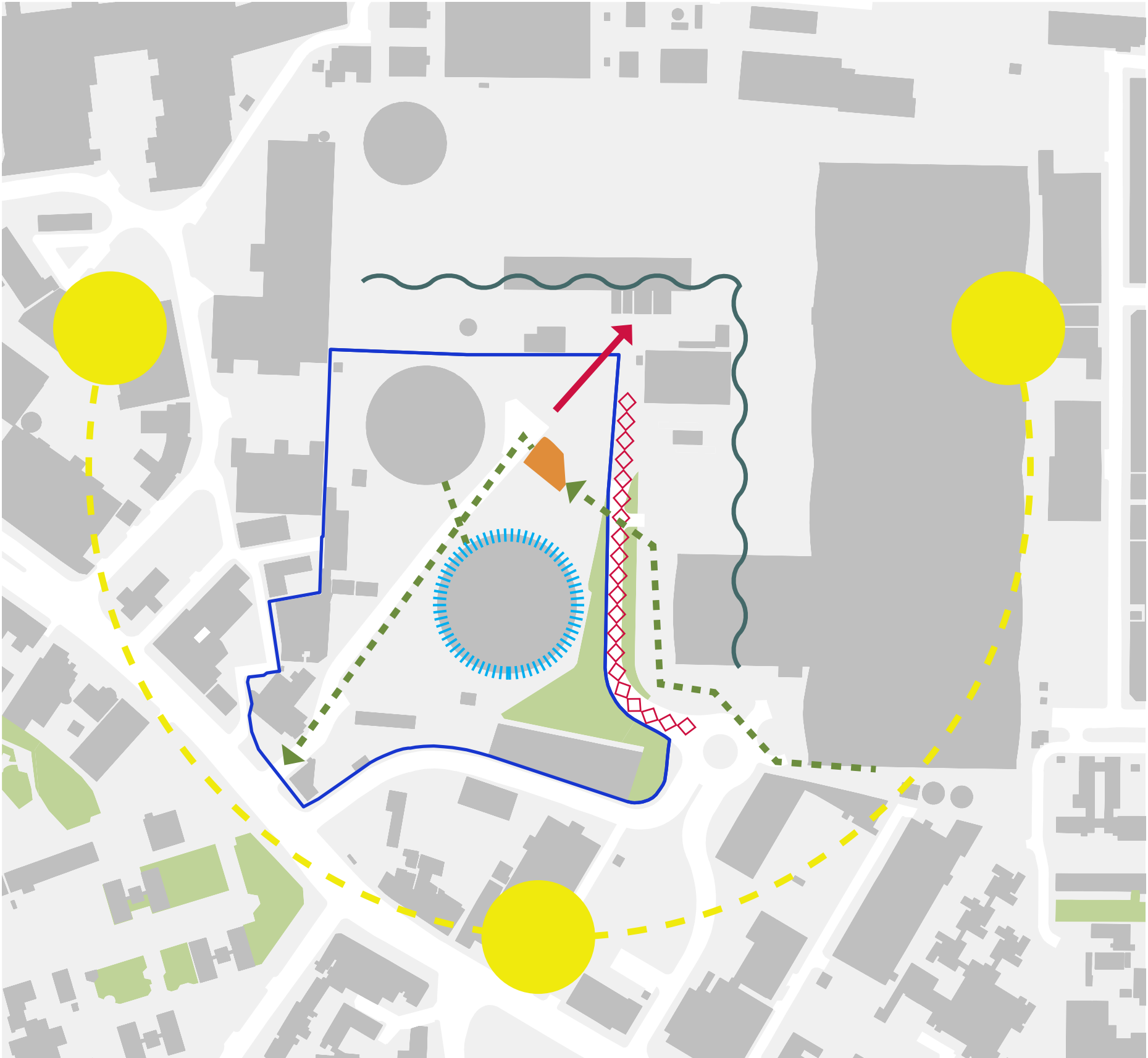


Figure 23: Site constraints

2.0 Site analysis

2.6 Site opportunities

- Create a new park which will create a setting for the listed gasholder and a new open space for the local community.
- The potential re-use of the listed gasholder for community purposes.
- The re-routing of existing servicing roads and creation of shared surfaces where pedestrians and cyclists have priority.
- The potential to create active frontages onto the park and Old Kent Road which will provide new jobs.
- The potential to deliver much needed affordable homes.
- The potential to retain an existing commercial building which will help create a new character for the area in which the old structures mix with the new developments.

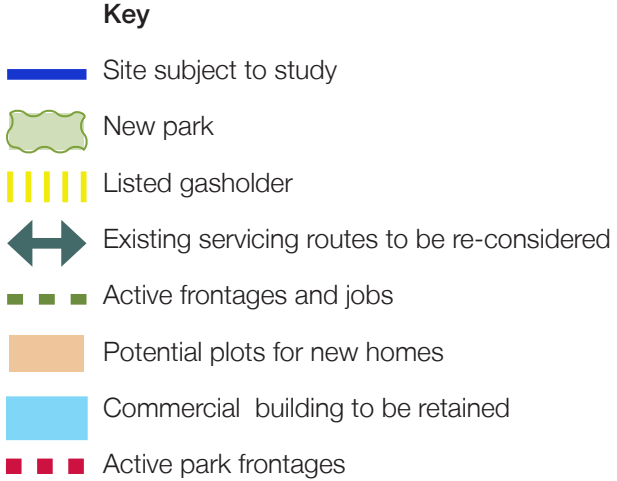


Figure 24: Site opportunities

3.0 Urban response

3.1 Urban response principles

The design concept for the masterplan of Livesey Park is based on the following principles:

- The retained structures (see Figure 26): in retaining the Grade II listed gasholder no.13 and the old gasworks offices, the area will have a character defined by the contrast between big and small, old and new, which will help create a rich varied townscape, like much of London.
- The park (see Figure 27): Livesey Park symbolises one of the central design principles for the site; the public realm is the framework onto which the rest of the masterplan is arranged. The new 1.4ha park will be arranged around the listed gasholder and will feature a promenade that will link the different character and activity areas.
- Active frontages (see Figure 28): creating active frontages along the park edges will help create safe routes and will deliver new jobs and retail space.
- Residential (see Figure 29): arranged around the open space, a series of plots will deliver new homes which will maximise views to the new open space and daylight and sunlight.
- Servicing and linkages (see Figure 30): the masterplan will help reduce servicing routes to a minimum prioritising pedestrian and cycle routes.

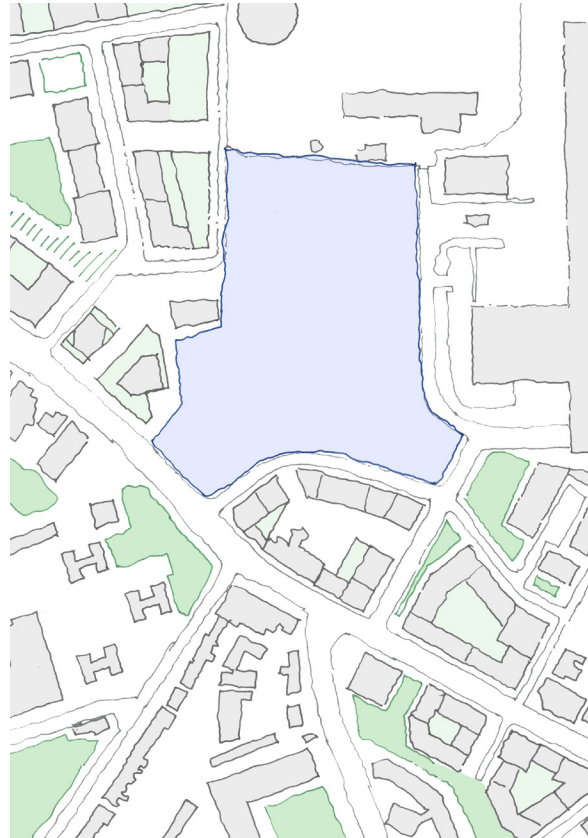


Figure 25: The site

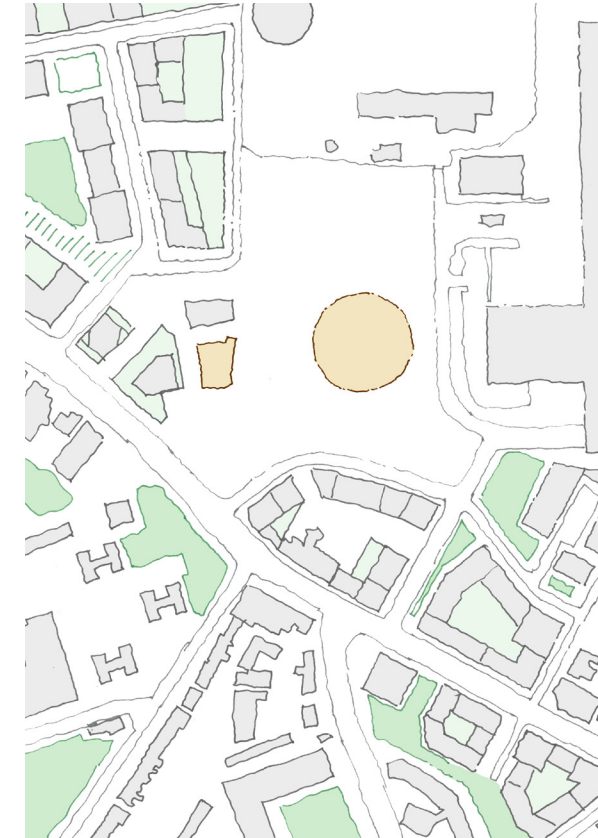


Figure 26: The retained structures

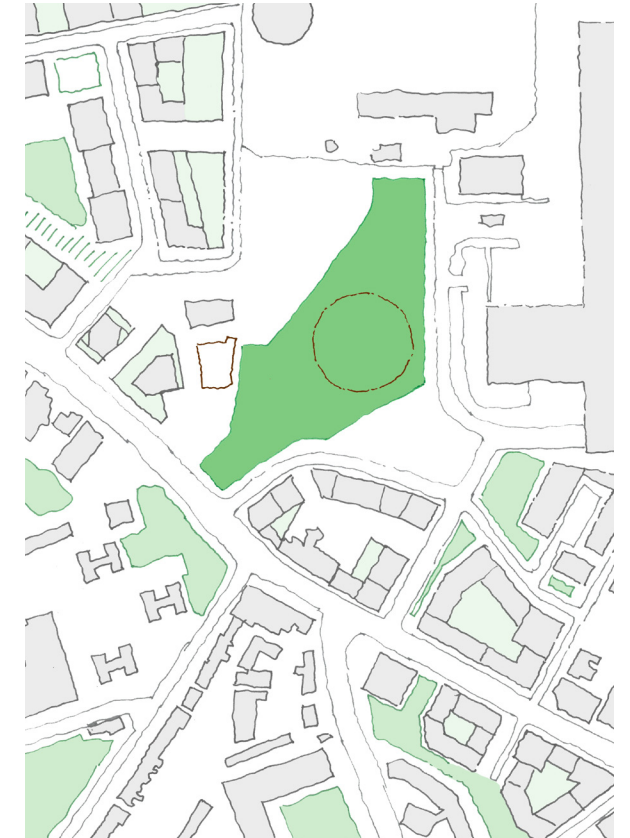


Figure 27: The park

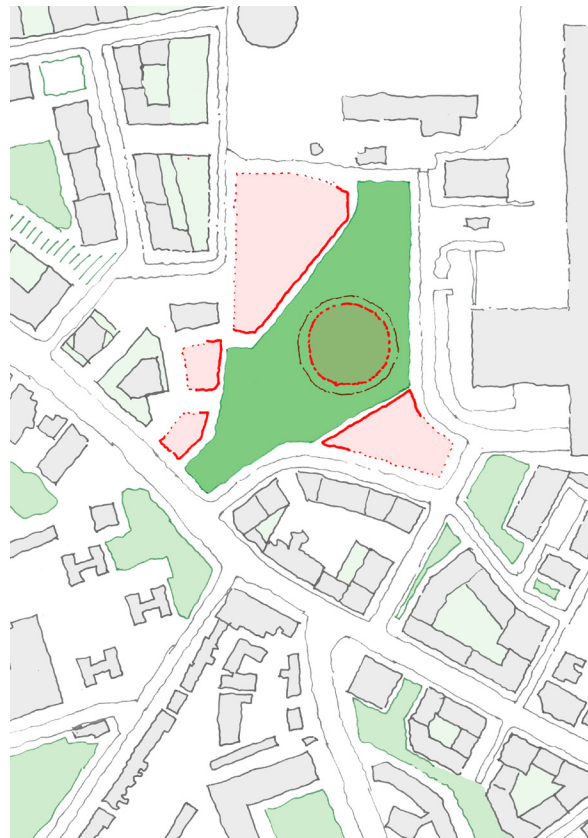


Figure 28: Active frontages

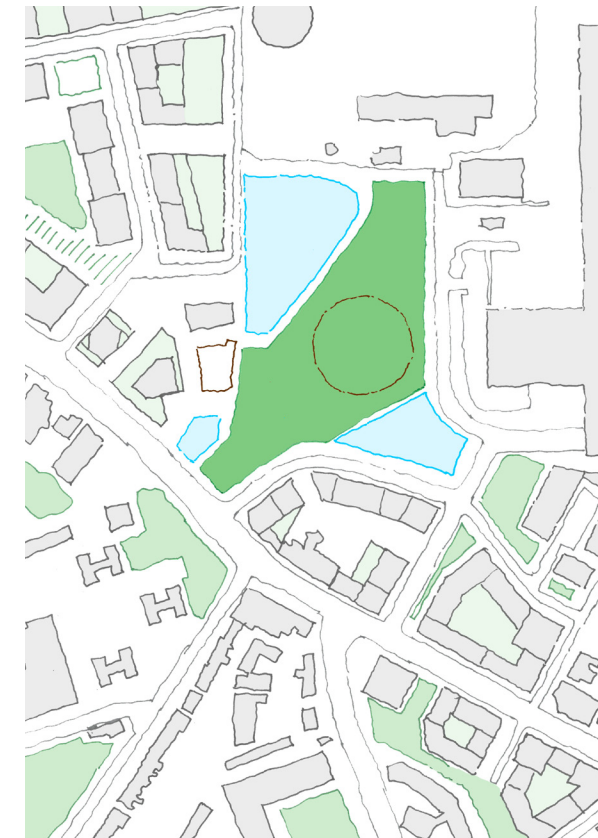


Figure 29: Residential

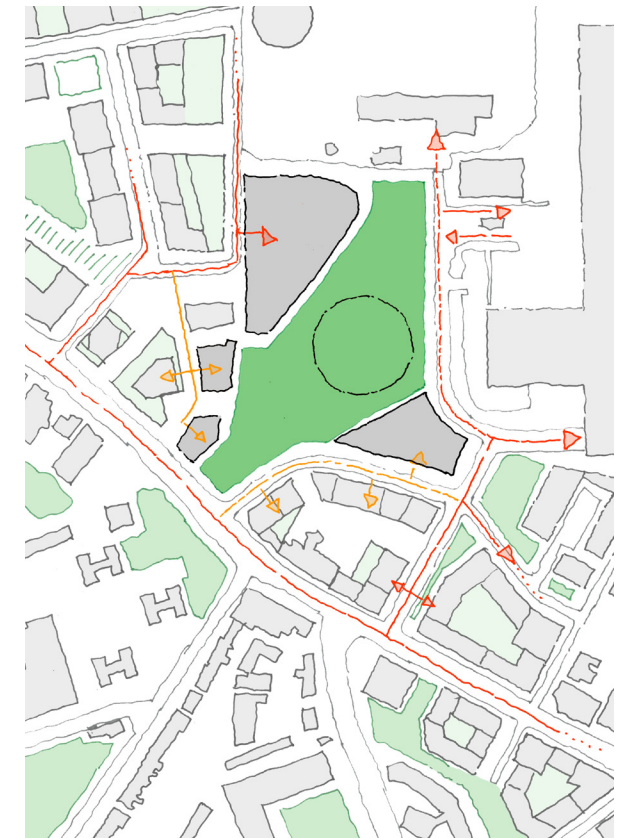


Figure 30: Servicing and linkages

3.2 The wider setting

As explained in section 3.1, one of the main design principles of the masterplan is to reduce servicing routes to a minimum to prioritise pedestrian and cycle routes. In order to do so, the masterplan wider setting piece will propose to:

- 1 Move the servicing route on the northern end of Murdock Street further north in order to create a clear sequence of open spaces that will link Livesey Park to the Ruby Triangle (see Figure 31 and Figure 32 item 1).
- 2 Create a shared surface along Murdock Street with traffic reduced to the minimum servicing (see Figure 31 and Figure 32 item 2).
- 3 Create a pedestrian route along Devon Street with greenery that will link Livesey Park to the open space in the Daisy Business Park re-development. Vehicular traffic will be re-routed onto a new road on the alignment of Devonshire Grove. (see Figure 31 and Figure 32 item 3).

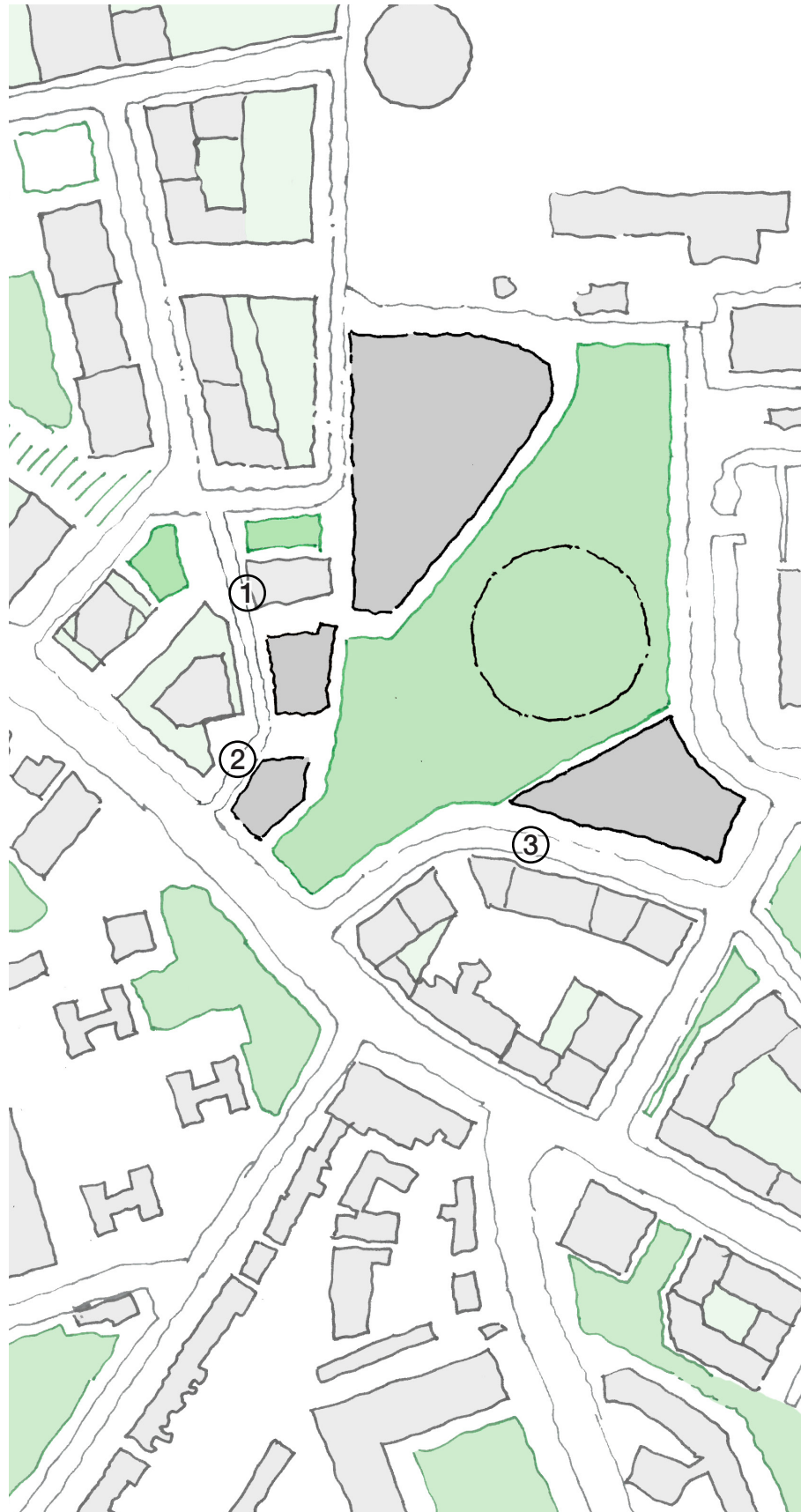


Figure 31: The proposed masterplan

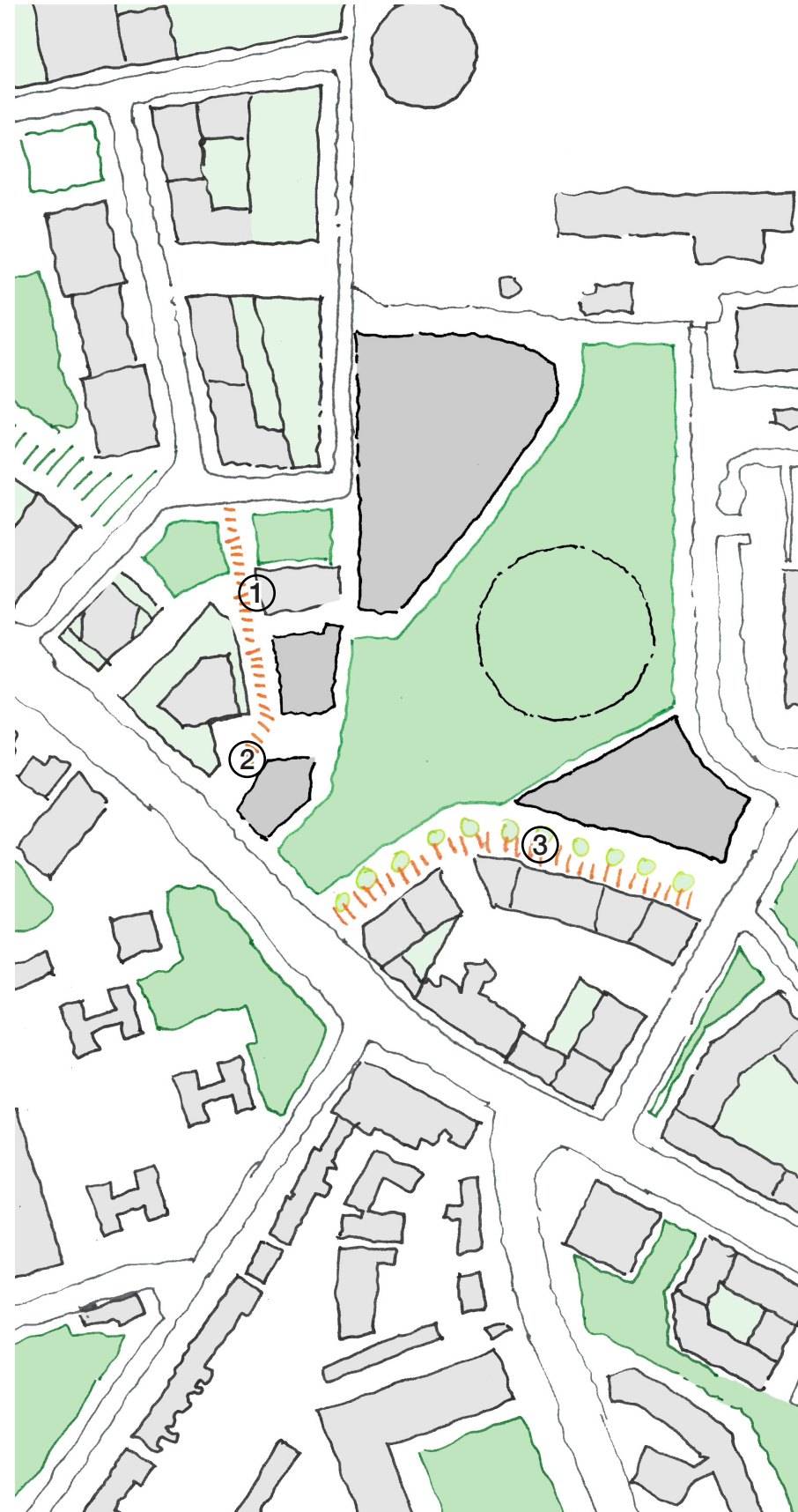


Figure 32: The proposed masterplan with shared surfaces in Devon Street and Murdock Street

3.0 Urban response

3.3 Integration with the open space network

The 2017 Draft AAP sets the ambition to create a pedestrian route parallel to OKR which runs from the potential tube station at OKR17 to the Linear Park linking all open spaces along OKR18 and OKR13.

Livesey Park will be a central piece in this route, becoming one of the major open spaces and creating a key link between the areas of OKR13 and OKR18 (see Figure 33).



Figure 33: Pedestrian route linking the potential tube station at OKR17 to the linear park through the network of open spaces in OKR18 and OKR13

4.0 The masterplan

4.1 Proposed masterplan

The masterplan aims to transform the former Southern Metropolitan Gas Works into a new mixed neighbourhood with a diverse range of uses where the legacy of the gasworks is retained.

The listed gasholder no.13 will be retained and will be at the heart of the neighbourhood. It will be refurbished and potentially re-used for community, cultural and commercial purposes.

Around the listed structure, a new 1.4ha park, Livesey Park, will become a key open space in the Old Kent Road Opportunity Area, offering public amenity space for the residents and the local community.

The building of the former gas offices will be retained, refurbished and re-used for innovative and creative work space. The masterplan will help re-provide the existing jobs and deliver new jobs.

All plots will deliver employment uses on ground and first floor. The nature of this employment will depend on the position of the plot and its dimensions. It will range from creative workspaces and offices to light industrial uses.

The masterplan also proposes to include an element of retail which will potentially concentrate on the Old Kent Road frontage helping revitalise the high street.

Plots A, C and D will deliver residential development above first floor with semi-private amenity spaces on a podium. The arrangement of residential buildings is carefully considered in order to maximise views onto the park and minimise views to the IWMF and the substation.

Livesey Square will be the main gateway into the site from Old Kent Road. It will have a mixture of hard and soft landscaping which will be integrated into the park. It will also feature the statue of George Livesey.

The masterplan also envisions the re-alignment of Murdock Street to facilitate access and servicing.

Whilst the proposed public realm is an alternative to the layout shown in the AAP and in many ways would be preferable, the Council would need to be assured that there is a mechanism for its delivery, before moving away from the AAP layout.



Figure 34: The proposed masterplan

4.0 The masterplan

4.2 Scale comparison

With its extension of 1.5ha, Livesey Park will become a key open space in the local context of the Old Kent Road.

It is comparable in scale to some of the key parks in the area such as Leyton Square or Brimington Park.

Figure 35 shows the scale of the main open spaces in the local area compared to Livesey Park.



Figure 35: Scale comparison of local parks

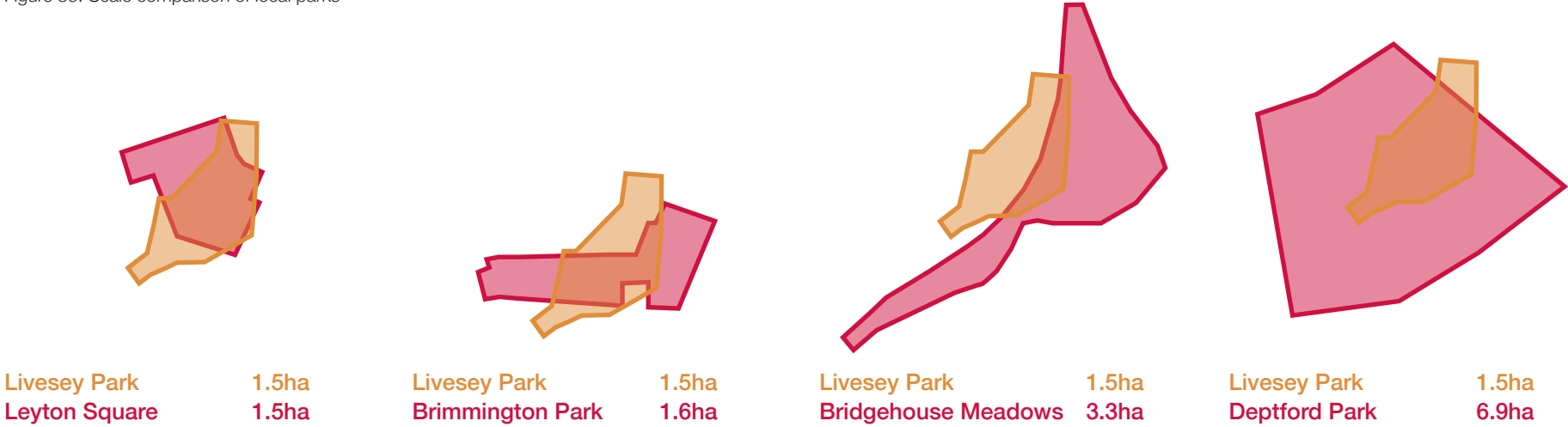


Figure 36: Comparison of Livesey Park and Leyton Square

Figure 37: Comparison of Livesey Park and Brimington Park

Figure 38: Comparison of Livesey Park and Bridgehouse Meadows

Figure 39: Comparison of Livesey Park and Deptford Park

4.0 The masterplan

4.3 Landscape strategy

Livesey Park is the central design principle of the masterplan of the former gasworks site: the public realm is the framework onto which the rest of the masterplan is arranged.

The design concept for Livesey Park is a 'string of pearls': a promenade that links different pearls as nodes of activity. Gasholder no.13 is the main node of activity in the centre of the park. The design proposals are based on five principles:

- 1 A promenade that links the park perimeter
- 2 'Pearls' or nodes of activity around the promenade
- 3 Flexible open spaces
- 4 Animated uses
- 5 Trees and soft landscaping arranged to respond to design and setting

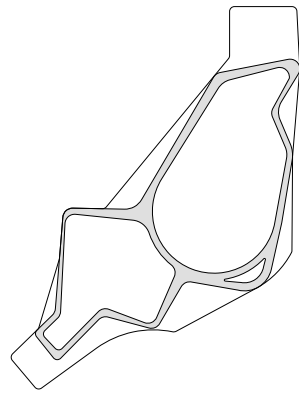


Figure 40: The promenade

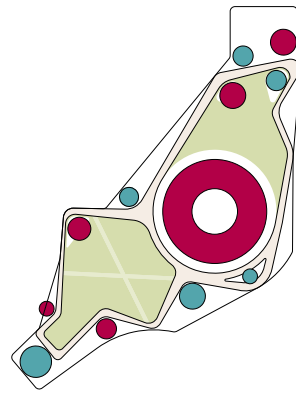


Figure 41: Pearls of activity

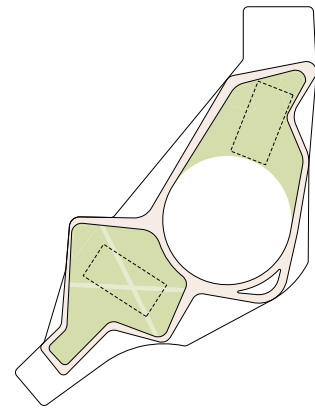


Figure 42: Flexible open spaces

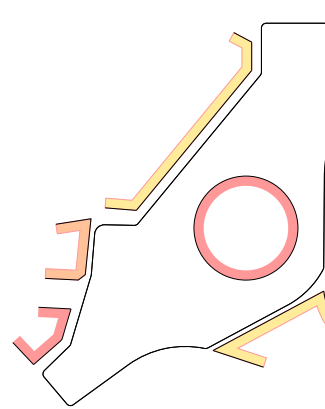


Figure 43: Active frontages

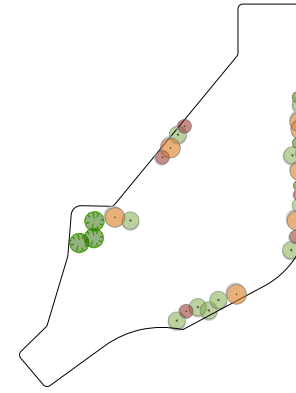


Figure 44: Tree strategy



Figure 45: The proposed masterplan

4.0 The masterplan

4.3.1 Promenade

Livesey Park is bounded by a promenade, the main route around the park for walking, jogging and cycling. Entrances are arranged along the promenade, which varies in dimension and character as it links the different 'nodes' of activity that surround the open space.

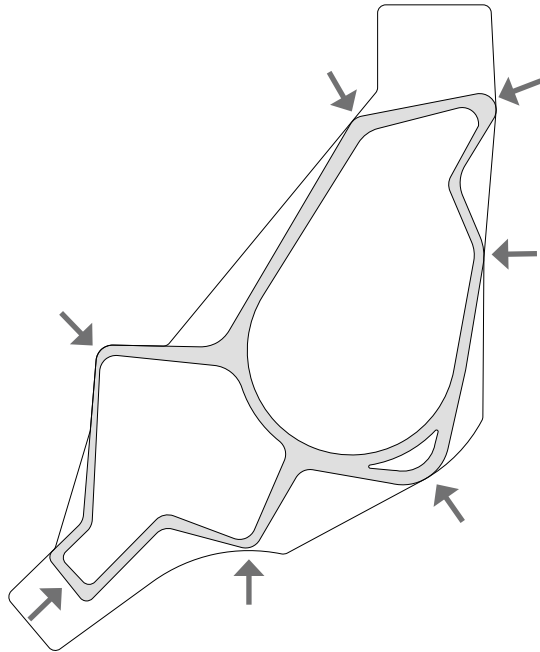


Figure 47: Promenade diagram



Figure 46: Location of the promenade in the park



Figure 48: Promenade in the park precedent



Figure 49: Promenade in the park precedent



Figure 50: Promenade in the park precedent

4.0 The masterplan

4.3.2 Nodes of activity

A series of 'pearls' or 'nodes', open spaces with different characters, will host a variety of activities such as performance, play, outdoor gym, spaces for relaxing, gathering spaces, cultural spaces and more.

Gasholder No.13 is the central 'pearl' of the 'necklace'. The refurbishment and re-use of the listed structure will provide a new cultural, community or commercial use to the park.



Figure 53: Nodes in the park precedent



Figure 54: Nodes in the park precedent



Figure 55: Nodes in the park precedent

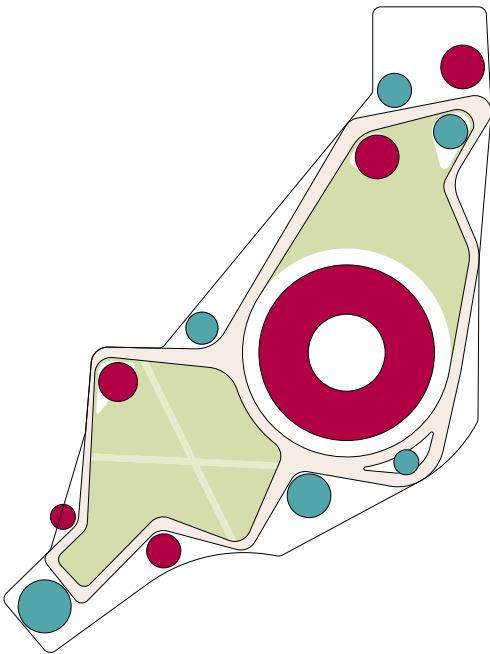


Figure 52: Nodes of activity diagram



Figure 51: Location of the nodes of activity

4.0 The masterplan

4.3.3 The lawns

Livesey Park provides a generous flexible lawned space to host large-scale community gatherings, outdoor cinema, music and performance events, open markets or sport activities.

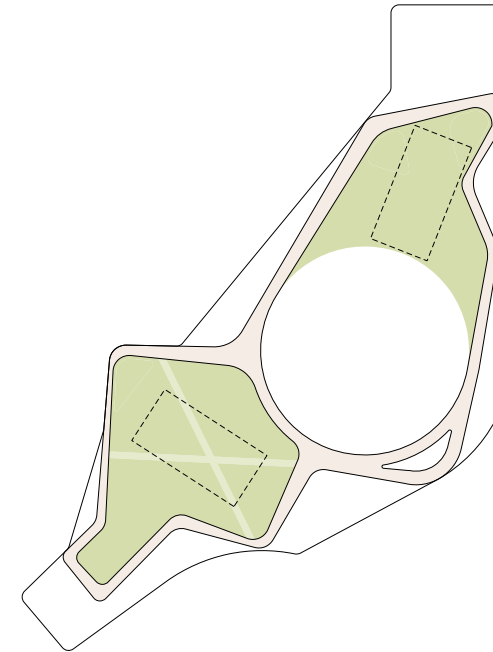


Figure 57: Diagram of the lawns



Figure 56: Location of the lawns in the park



Figure 58: Lawns in the park precedent



Figure 59: Lawns in the park precedent



Figure 60: Lawns in the park precedent

4.3.4 Active frontages

Creating safe routes is a key driver in the design of Livesey Park. The promenade, a principal route in the masterplan, is animated by active uses such as retail or light industrial uses fronting the park.



Figure 63: Active frontages in the park precedent

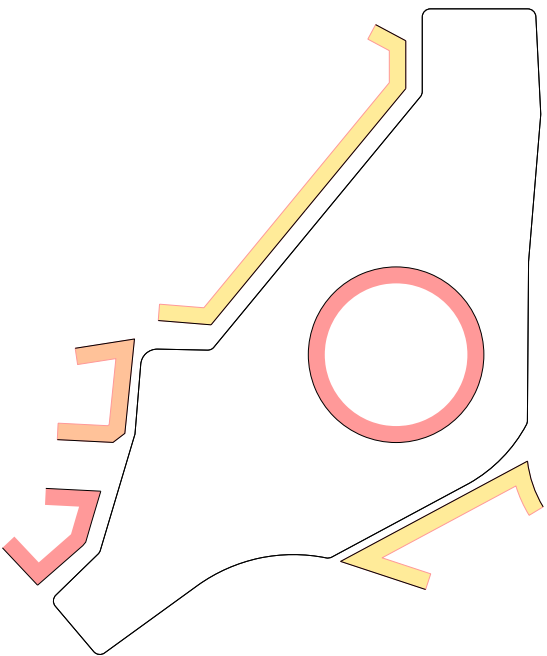


Figure 62: Active frontages diagram



Figure 64: Active frontages in the park precedent



Figure 61: Location of active frontages in the park



Figure 65: Active frontages in the park precedent

4.0 The masterplan

4.3.5 Tree strategy

Trees and soft landscaping will act as key elements of design.

To create a visually permeable space, trees will be grouped along the edges of the park, create a sense of enclosure, avoiding visual impact on the listed structure and creating a background for the gasholder.

The landscape strategy proposes to retain the three mature trees on the western edge of the site next to the gas offices.

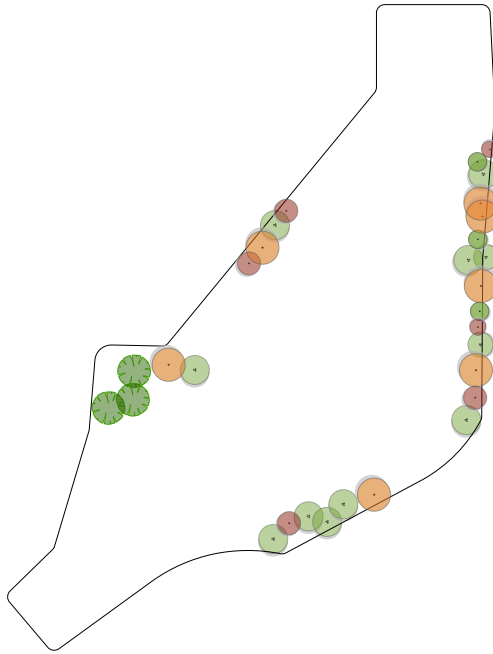


Figure 67: Tree strategy diagram



Figure 66: Location of trees in the park



Figure 68: Trees in the park precedent



Figure 69: Trees in the park precedent



Figure 70: Trees in the park precedent



Figure 71: Sustainability precedent



Figure 74: Sustainability precedent



Figure 72: Sustainability precedent



Figure 75: Sustainability precedent



Figure 73: Sustainability precedent



Figure 76: Sustainability precedent

4.4 Sustainability

The overall ethos of the design of Livesey Park should be that of a sustainable development. This relates to all aspects of sustainability, from its creation, use, and future maintenance.

The Park should be used to encourage local connections by walking and cycling, reducing dependency on vehicles.

It should be designed as a space which all people can use; formal and informal activities, young and old. Ecologically, Livesey Park should be used as an opportunity to enhance biodiversity in the area, maximising planting varieties and habitat creation.

4.5 Sustainability

Ecology is to be considered a part of the overall landscape design and strategy across Livesey Park. It should be not considered as an afterthought.

Consideration should be given to the overall strategies of

- encouraging natural migration of animals and bats
- encourage pollinators by the selection of plant species
- increasing the variety of habitats by including variation whenever possible
- consideration of the impact of artificial lighting on animals and insects
- consideration of connecting habitats (not isolated islands) across the Park, with an overarching masterplan design
- encourage human interest in and interaction with ecology

As well as the larger scale interventions and strategies, consideration should be given to smaller scale initiatives also, including bee hives, insect boxes, bird boxes, bat boxes, and habitats for birds.

Where possible, community interaction should be encouraged with ecological elements. This should be used as an opportunity to enhance community engagement and stewardship of the Park.



Figure 77: Ecology precedent



Figure 78: Ecology precedent



Figure 79: Ecology precedent



Figure 80: Ecology precedent



Figure 81: Ecology precedent



Figure 82: Ecology precedent



Figure 83: Ecology precedent



Figure 84: Ecology precedent



Figure 85: Ecology precedent

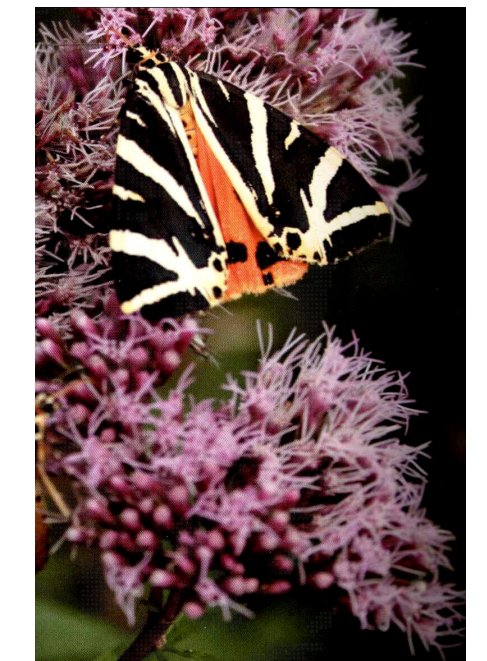


Figure 86: Ecology precedent



Figure 88: Statue of George Livesey (1)



Figure 89: New use of the gasholder (2)



Figure 90: Gas pressure reduction station (3)

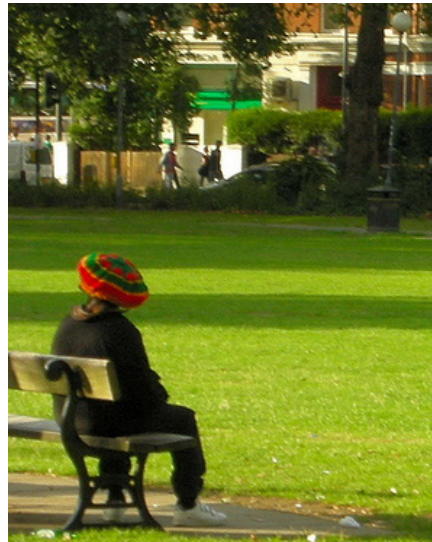


Figure 91: Big flexible lawns (4)



Figure 94: Outdoor fitness areas (7)



Figure 95: Gathering areas (8)



Figure 87: Livesey Park use strategy



Figure 92: Promenade (5)



Figure 93: Play spaces for all ages (6)

4.5.1 Livesey Park use strategy

Livesey Park is a green corridor central to the masterplan. Offering park frontage to almost all of the homes, it is an easily accessible amenity for residents, reflecting the Council's aspirational vision to encourage healthy lifestyles in a cohesive neighbourhood.

Its generous 1.4ha area is designed as a green space for residents to enjoy safely. The flexible green spaces will accommodate a variety of uses, including large-scale community events, adding more depth to OKR's cultural tapestry (see Figure 87, 4)

Around its perimeter, a retail and employment uses will create safe active routes through this principal gateway into the OKR13 neighbourhood.

The main entrance to the park from Old Kent Road will feature a space with a mixture of hard and soft landscaping where there is a potential to locate the statue of George Livesey (see Figure 87, 1).

The listed gasholder no.13 will become central in the park, with its prominent structure featuring the main views into the site. The refurbishment and re-use of the structure will help create a destination in the site (see Figure 87, 2).

The current gas reduction station will be re-located on the northern end of the park. It will be integrated in the park by creating a landform with soft landscape which will roof over the station (see Figure 87, 3).

The park is inhabited by a series of 'nodes' which will accommodate different permanent park activities: play spaces for different ages, open-air gym, gathering spaces (see Figure 87, 6,7 and 8). All these nodes are linked together by the promenade, which is the main route around the park (see Figure 87, 5).

4.0 The masterplan

4.6 Proposals for Gasholder No.13

The masterplan of the site gravitates around gasholder no.13. The listed structure is the main feature around which the public realm is arranged.

There is a great potential for the listed building to have a role in the park that goes beyond being a visual feature. The scale of the gasholder is such that it is capable of defining a place within itself. Figure 96 and Figure 97 illustrate the scale of the gasholder compared with the Royal Albert Hall. The diameter of the gasholder is approximately equivalent to the diameter of the main performance hall and the structure is even higher than the dome at the Royal Albert Hall.

Three potential re-use options have been considered:

- 1 Open space, retaining a quarter of the gasholder bell, creating open space on the rest, and exposing the underground tank (see Figure 100).
- 2 Semi-covered open space: a 60m diameter green space which is semi-covered by the dome of the of the bell exposing its structure with a central open space(see Figure 101).
- 3 The community building: an underground structure for community purposes, creating open space on ground floor (see Figure 102).

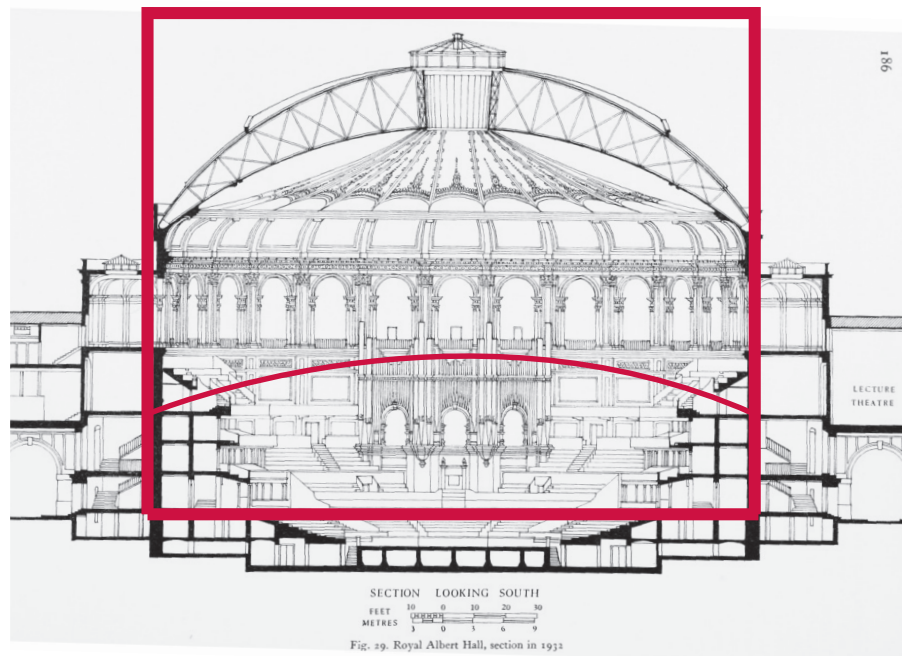


Figure 96: Scale comparison of the gasholder and the Royal Albert Hall. Section

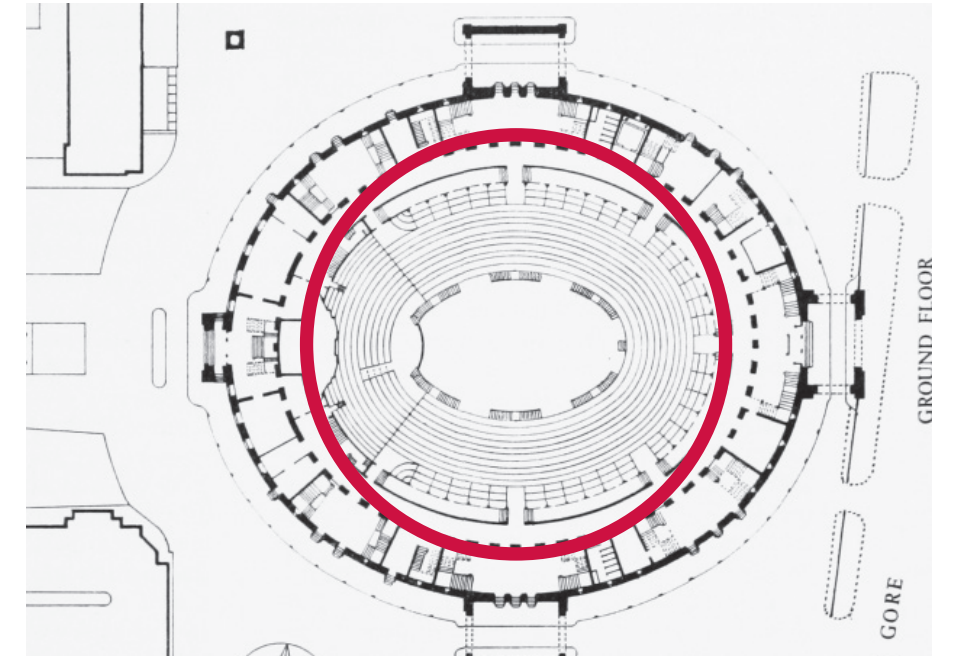


Figure 97: Scale comparison of the gasholder and the Royal Albert Hall. Plan

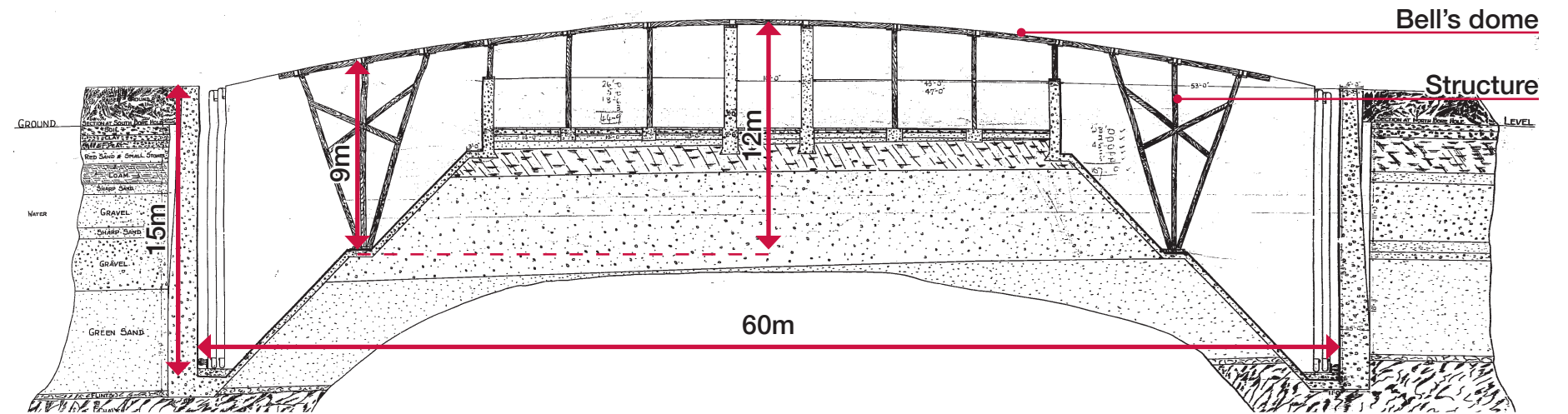


Figure 98: Gasholder no.13 - Dimensions of the tank and dome structure

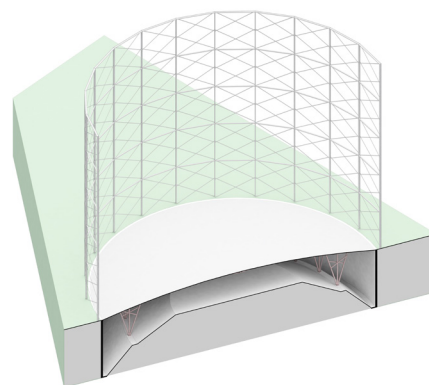


Figure 99: Sectioned axo of the current status of gasholder no.13

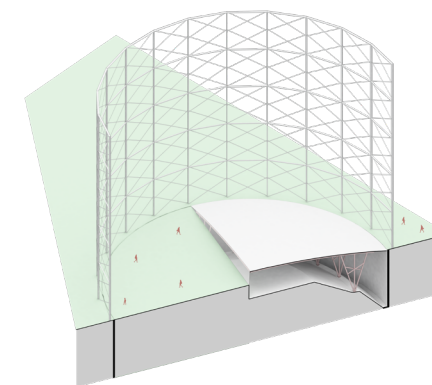


Figure 100: Potential re-use of the gasholder Option 1

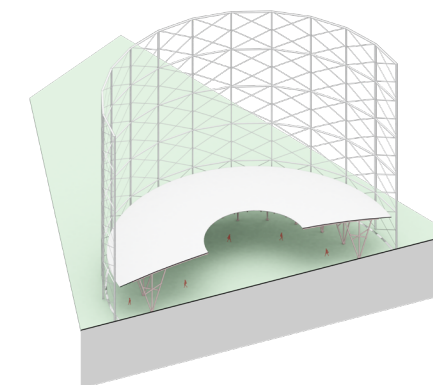


Figure 101: Potential re-use of the gasholder Option 2

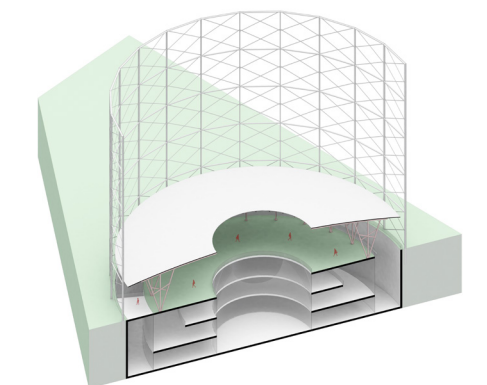


Figure 102: Potential re-use of the gasholder Option 3

4.6.1 The canopy

The proposal is to create a 60m diameter open space within the structure of the gasholder which has a flexible nature being able to accommodate a variety of uses from community place to performance or sports.

The design also envisions lifting the dome of the bell and its structure above the ground plane in order to create a canopy. Thus, the bell of the gasholder would be exposed and would also serve a purpose by covering the space and making it fit for all seasons.



Figure 105: Precedent of semi-covered community gathering space

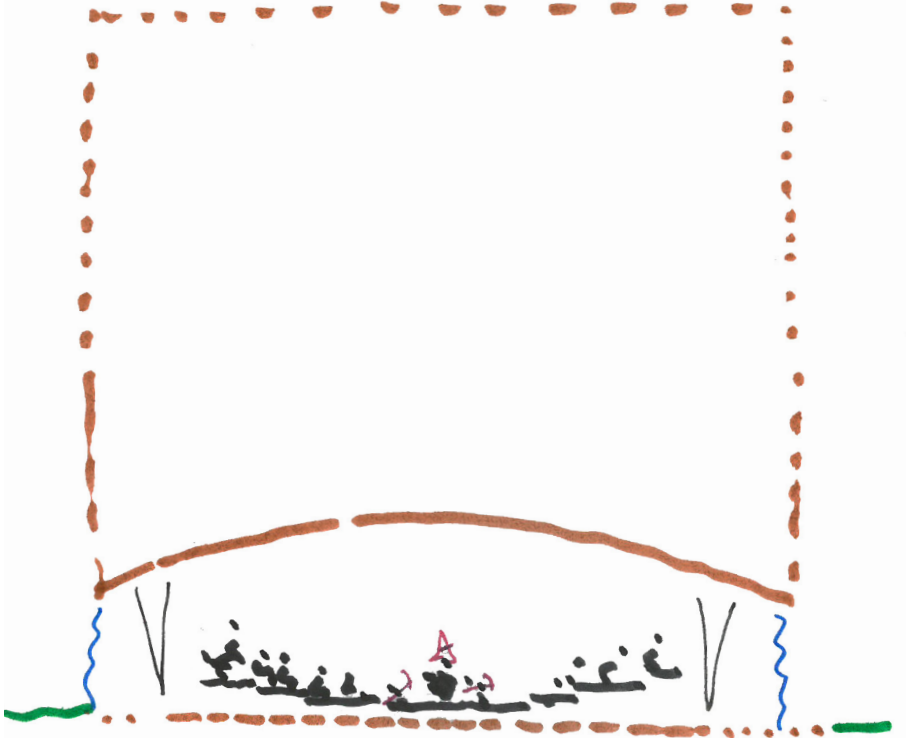


Figure 103: Sketch of the multi-purpose open space covered by the bell's dome

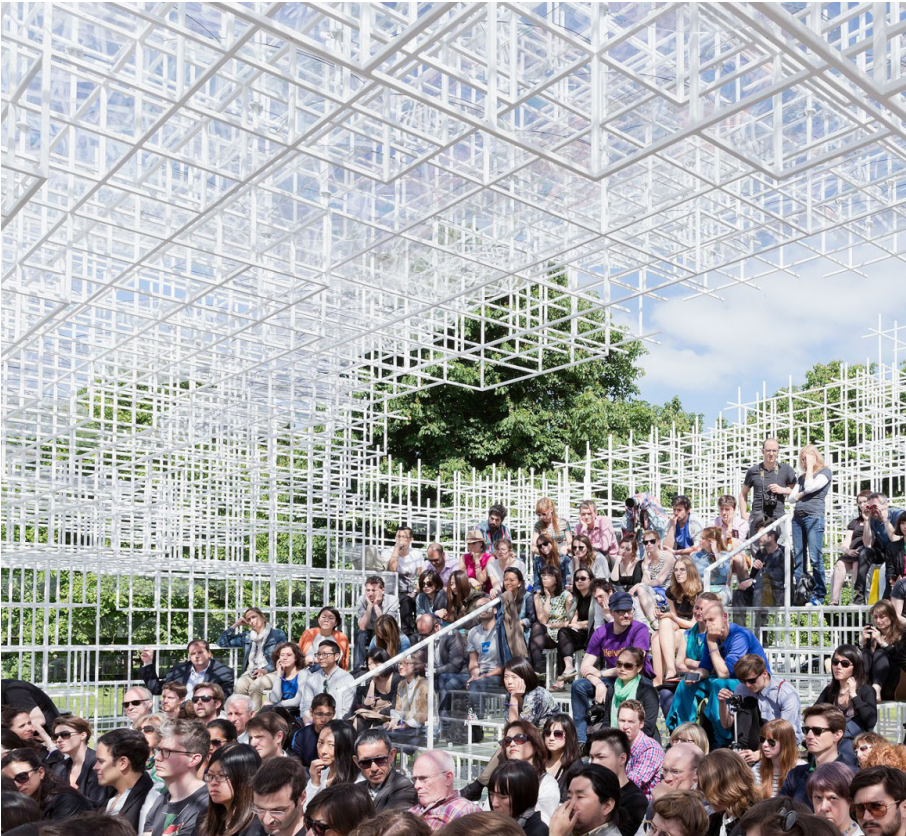


Figure 106: Precedent of semi-covered community gathering space

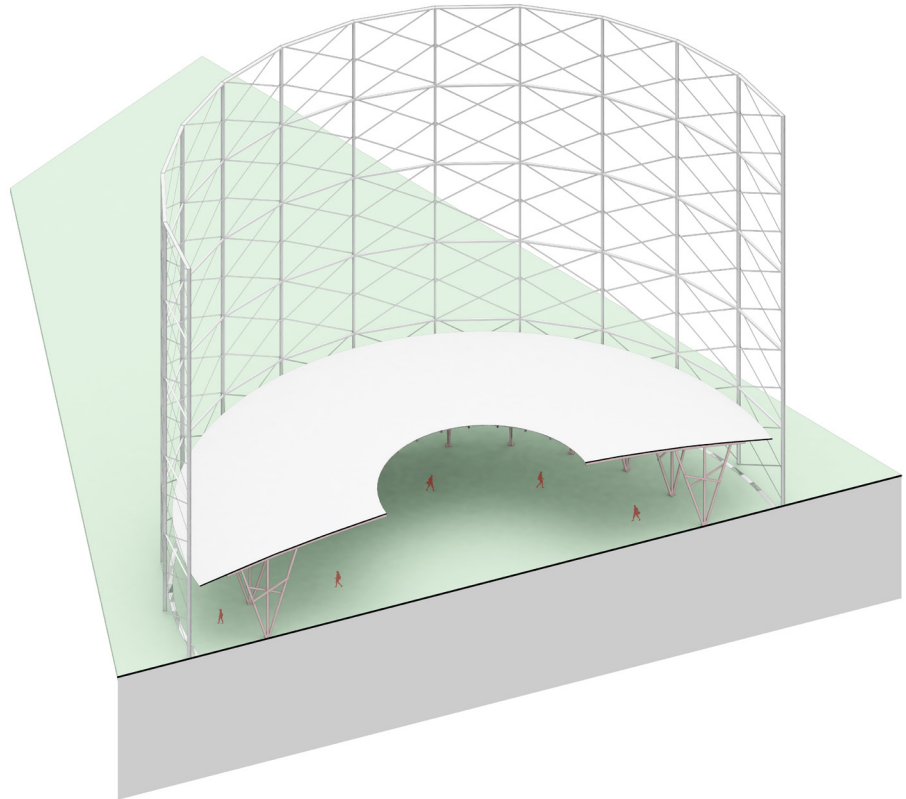


Figure 104: Axonometric section of the proposed open space and canopy

4.0 The masterplan

4.6.2 The community building

The idea is to create a multi-purpose building within the space of the existing tank. By creating an underground structure with a series of light-wells, the empty tank of the gasholder could provide a community building for different purposes: museum, cultural space, employment space, etc.

This proposal is also compatible with creating an open space on the ground floor (roof of the community building) semi-covered by the bell's dome as described in section 4.6.1.

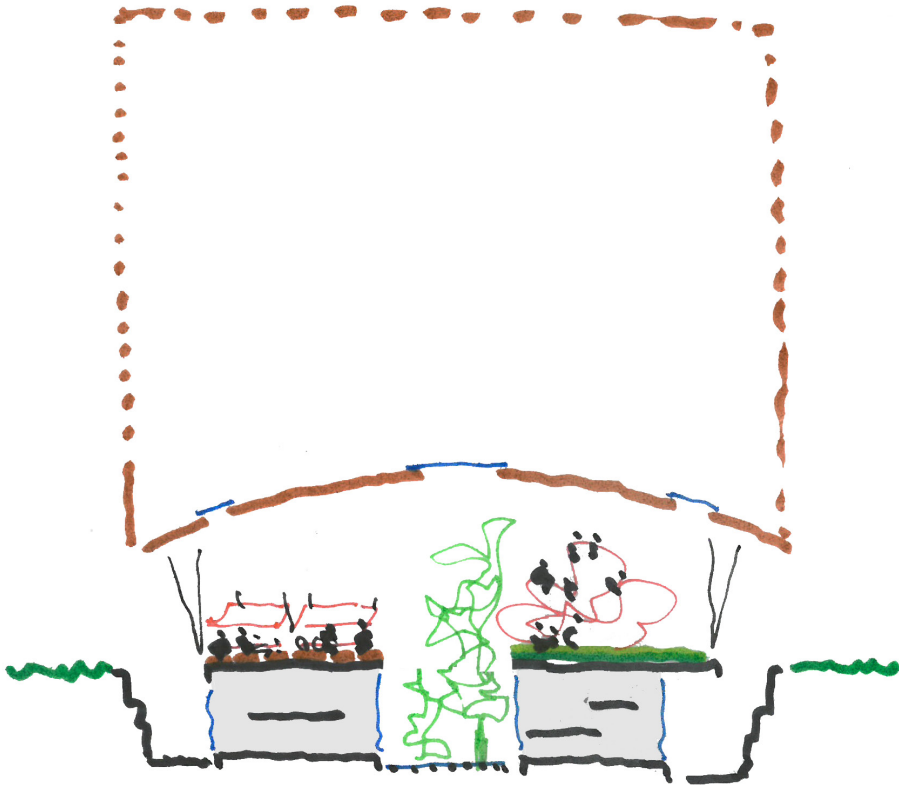


Figure 107: Sketch of the gasholder community building

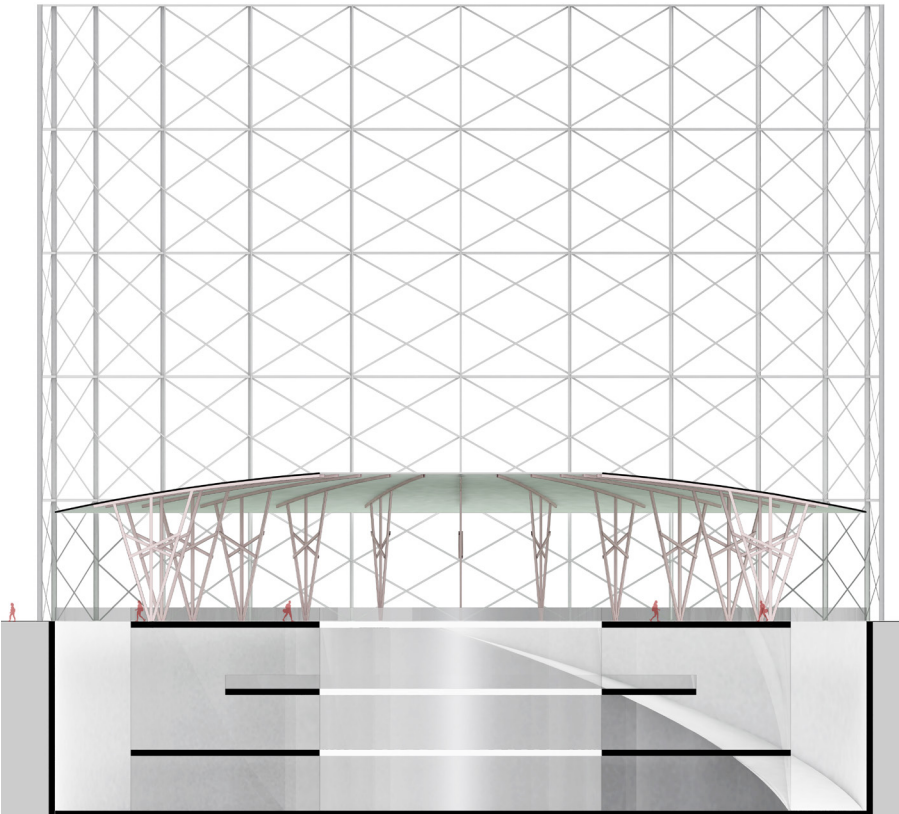


Figure 108: Illustrative section of the proposed community building



Figure 109: Precedent of underground community building



Figure 110: Precedent of underground employment space and light-wells

4.0 The masterplan

4.7 Ground floor uses

The ground floor uses have been designed and distributed in a strategic way in order to

- Create active frontages and safe routes.
- Facilitate access and servicing.

Large industrial units have been located on plots A and D. These are suitable for storage, wholesale, distribution centres and depots. These are double height units taking up ground to first floors. These spaces are suitable for offices, co-working spaces and artists' workshops and studios.

The existing gas offices (Plot B) will remain fully commercial over its three floors and accommodate different types of working space: studios, co-working, etc.

The frontage of Plot C is a key location for retail units which will help revitalise the high street character of Old Kent Road. The first floor could accommodate more retail space if necessary or separate offices.

All ground floors have been designed assuming that there will be basements to accommodate ancillary uses such as plant rooms, refuse stores, cycle stores, etc.



Figure 111: Ground floor plan

Key	
■	Retail
■	Artists' studios and office space
■	Storage, wholesale, distribution and depots
■	Residential entrances
■	Back of house

4.0 The masterplan

4.8 The residential component

Figure 112 and Figure 113 illustrate the typical lower and upper residential floorplates. Residential accommodation has been distributed aiming to maximise views to the park and other secondary open spaces.

The masterplan aims to deliver quality affordable homes as per policy AAP5 of the Draft AAP, complying with policies of affordable provision and housing mix.

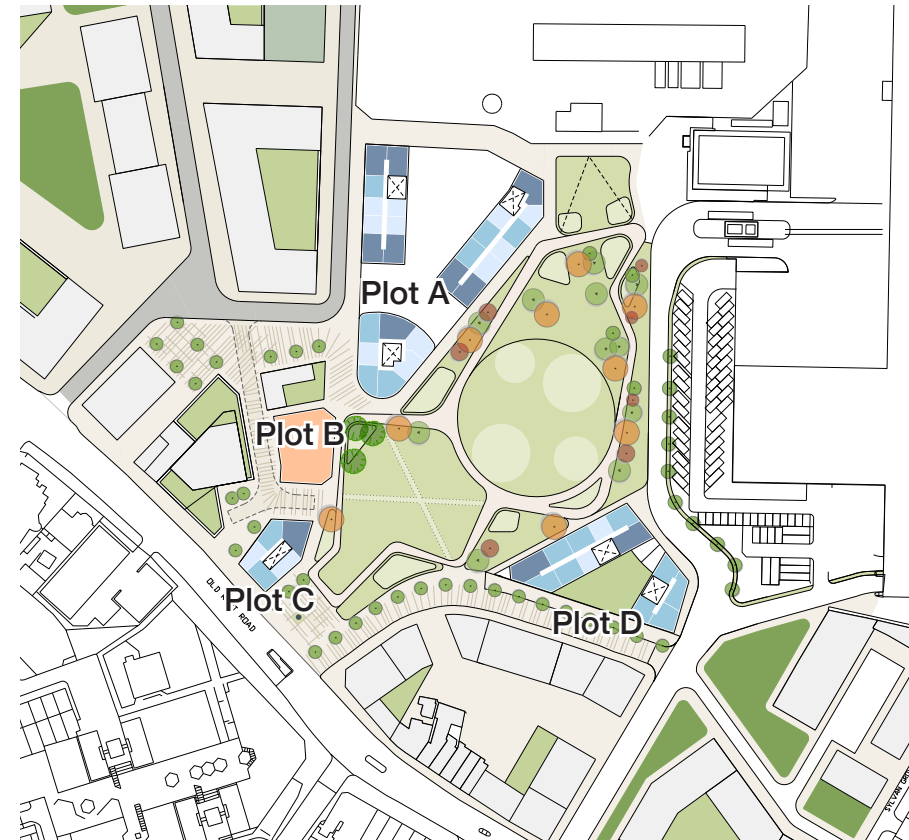


Figure 112: Typical residential floor - Lower levels



Figure 113: Typical residential floor - Upper levels

Key

- 1 bedroom
- 2 bedroom
- 3 bedroom

4.0 The masterplan

4.9 Access and servicing

Servicing to commercial spaces and industrial units should take place off-street to ease pressure on the road network.

The serving strategy aims to serve several units within one plot from the same access point.

The large industrial units will have internal bays for servicing.



Figure 114: Servicing diagram

Key

- Main servicing routes
- Servicing route - shared surface
- Servicing access to plots

4.0 The masterplan

4.10 Routes and linkages

Livesey Park will play a key role in the connectivity of the area by creating a direct pedestrian and cycling route from Devon Street to Ruby Street. This route must be carefully designed to ensure cycle and pedestrian routes do not interfere and that cyclists circulate at a sensible speed.

Secondary pedestrian routes will link the different plots to this main route as well as to the Old Kent Road.



Figure 115: Servicing diagram

- Key**
- ↔ Main pedestrian/cycling route - Devon St to Ruby St
 - ⋯ Secondary pedestrian routes
 - ⋯ Park pedestrian loop

4.0 The masterplan

4.11 Scale and massing

The massing strategy for the scheme has been designed in line with Southwark's 'Stations and Crossings' strategy:

- The setting of the listed gasholder is enhanced by opening up the views from Old Kent Road.
- Buildings immediately adjacent to the gasholder are lower than the structure itself.
- Two buildings have a potential for height and therefore are taller than the gasholder:
 - 1 Building B: the building is a townscape marker of the crossing of Old Kent Road and Livesey Park. It defines the gateway entrance to the park.
 - 2 Building A1: the building is a townscape element which marks the gateway to the park from the area of OKR13.

Figure 117 illustrates the AAP massing and includes the location of the protected views that run through the opportunity area. The site does not fall within any of the viewing corridors.

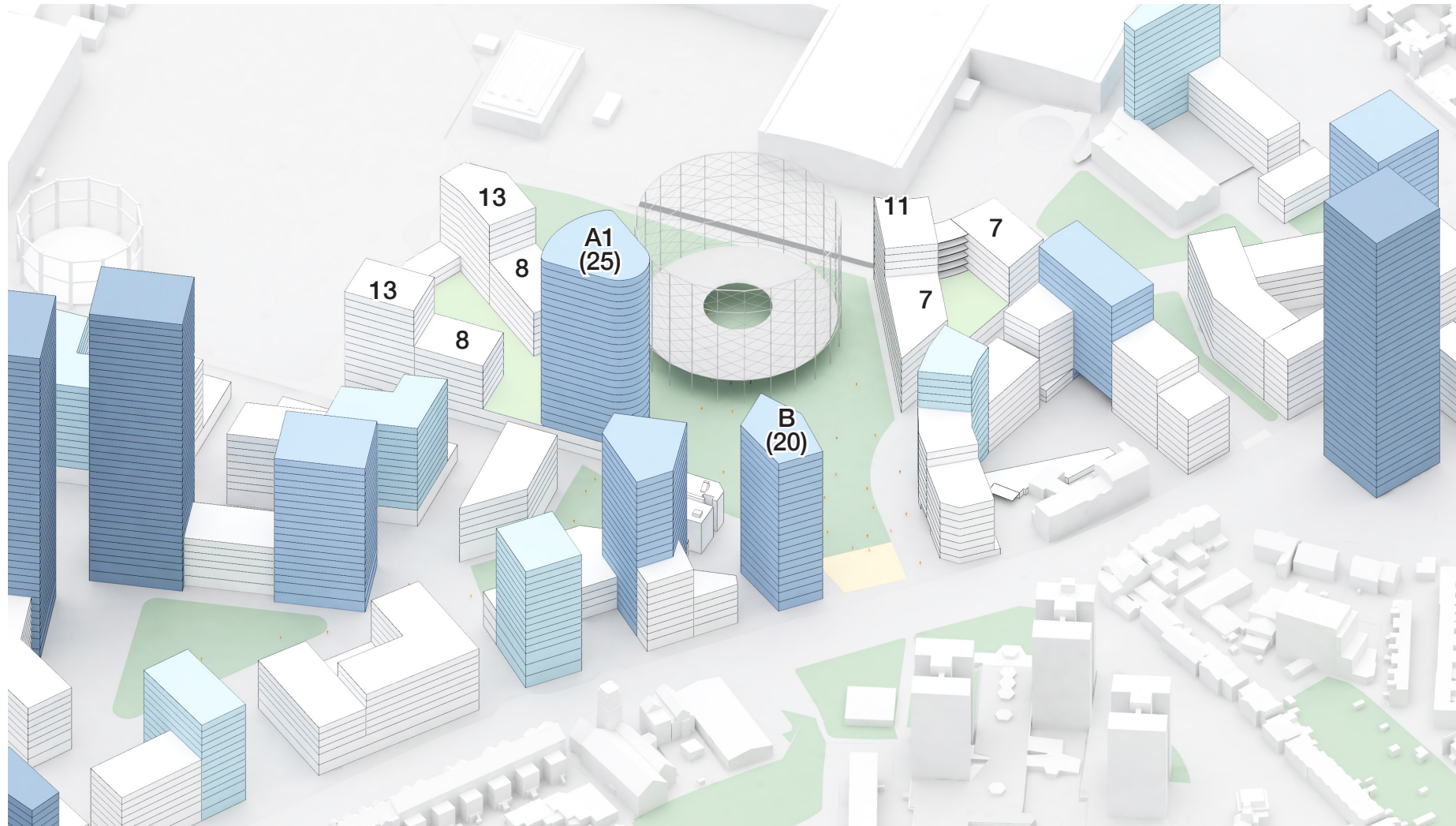


Figure 116: Proposed massing



Figure 117: The station and the crossings diagram from the AAP

4.0 The masterplan

4.12 Schedule of areas

Tables 1 and 2 summarize the area and accommodation per level and per plot. These areas are indicative and subject to design development and planning consent. Any decisions to be made on the basis of these area predictions should make due allowance for the following:

- Design development
- Accurate site survey, site levels and dimensions
- Construction methods and tolerances
- Third party consents
- Coordination of the design with the design team consultants

The areas shown do not include any basement areas. Basement levels might be necessary to accommodate ancillary uses such as plant rooms or cycle stores.

Areas are measured in accordance with the RICS Code of Measuring Practice (6th Edition)

All areas are shown in sqm unless otherwise stated

No tolerance has been allowed in any calculation

Back of House (BOH) areas include refuse stores, cycle stores and plant rooms.

Residential GEA and GIA include areas for residential lobbies, cores and corridors.

Schedule of areas and accommodation per level

Level	Retail		Workspace		Light Industrial		BOH	
	GEA	GIA	GEA	GIA	GEA	GIA	GEA	GIA
00	586.49	524.70	2,185.26	2,062.88	3,867.87	3,766.06	976.79	906.65
01			2,774.27	2,589.81	101.83		1,177.49	1,091.54
02			636.58	583.26				
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
Total	586.49	524.70	5,596.11	5,235.95	3,969.70	3,766.06	2,154.28	1,998.19

Table 1: Schedule of areas and accommodation per level

Residential					
Area			Accommodation		
GEA	GIA	NIA	1B	2B	3B
587.69	571.86				
372.10	372.10				
4,482.90	4,102.92	3,298.93	15	18	11
4,482.90	4,102.92	3,298.93	15	18	11
4,482.90	4,102.92	3,298.93	15	18	11
4,482.90	4,102.92	3,298.93	15	18	11
4,482.90	4,102.92	3,298.93	15	18	11
3,651.36	3,343.38	2,688.92	15	11	10
2,791.74	2,537.64	2,000.46	10	10	6
2,791.74	2,537.64	2,000.46	10	10	6
2,791.74	2,537.64	2,000.46	10	10	6
2,259.34	2,056.89	1,632.31	8	8	5
2,259.34	2,056.89	1,632.31	8	8	5
1,296.49	1,190.66	973.81	5	5	2
1,296.49	1,190.66	973.81	5	5	2
1,296.49	1,190.66	973.81	5	5	2
1,296.49	1,190.66	973.81	5	5	2
1,296.49	1,190.66	973.81	5	5	2
1,296.49	1,190.66	973.81	5	5	2
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
52,952.83	48,535.26	38,264.39	186	197	112
			38%	40%	23%
			495		

Schedule of areas and accommodation per plot

Plot	Retail		Workspace		Light Industrial		BOH	
	GEA	GIA	GEA	GIA	GEA	GIA	GEA	GIA
A	240.93	221.12	2,666.28	2,565.01	2,779.65	2,668.86	1,270.41	1,185.05
B			1,909.74	1,749.78				
C	345.56	303.58	345.56	303.58			170.59	159.48
D			674.53	617.58	1,190.05	1,097.20	713.28	653.66
Total	586.49	524.70	5,596.11	5,235.95	3,969.70	3,766.06	2,154.28	1,998.19

Table 2: Schedule of areas and accommodation per plot

Residential					
Area			Accommodation		
GEA	GIA	NIA	1B	2B	3B
34,400.32	31,692.32	25,165.75	132	108	80
9,236.72	8,358.19	6,735.24	36	36	18
9,315.79	8,484.75	6,363.40	18	53	14
52,952.83	48,535.26	38,264.39	186	197	112
			38%	40%	23%
			495		

4.13 Walkthrough

Figure 118 to Figure 125 show views (and location of views) around Livesey Park, based on the massing model.



Figure 118: Location of views

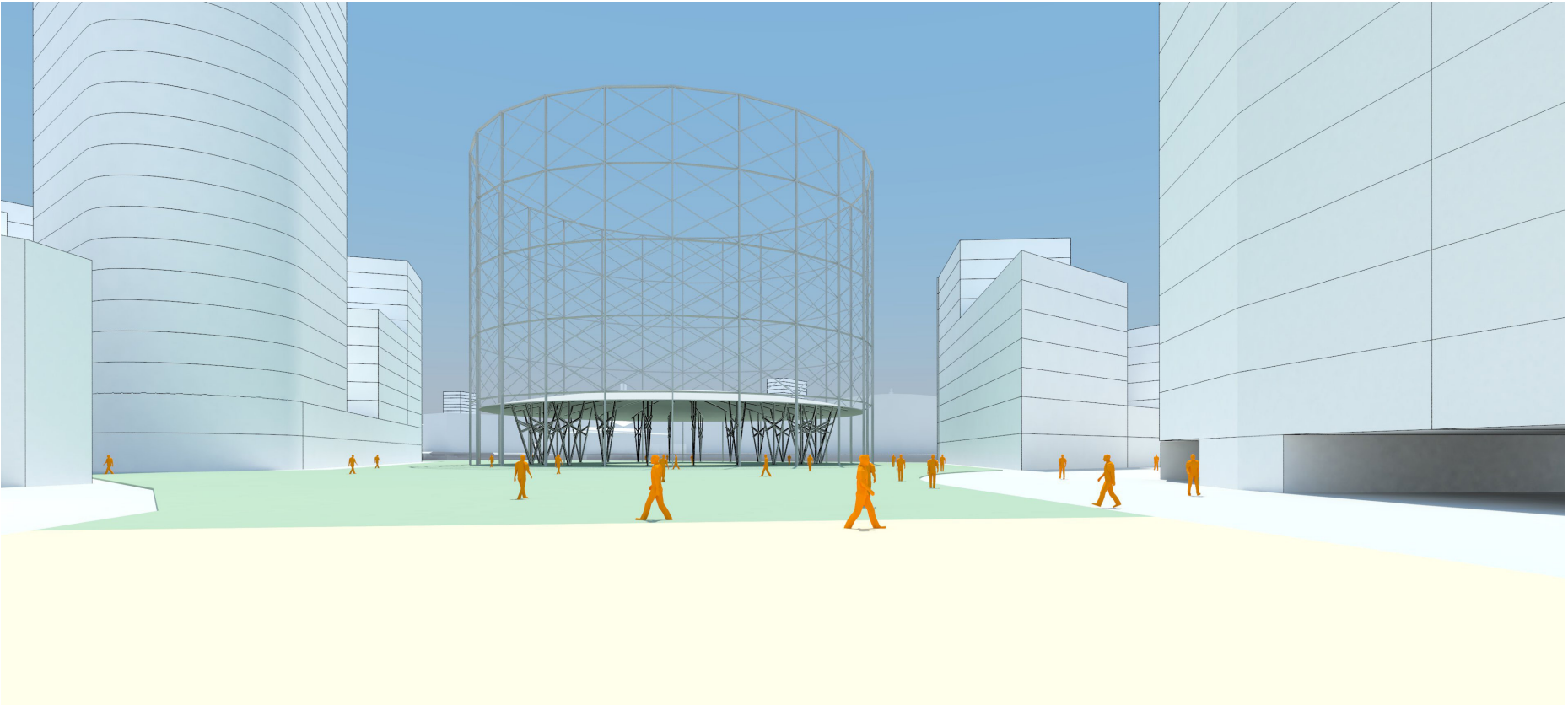


Figure 119: View 1



Figure 120: View 2

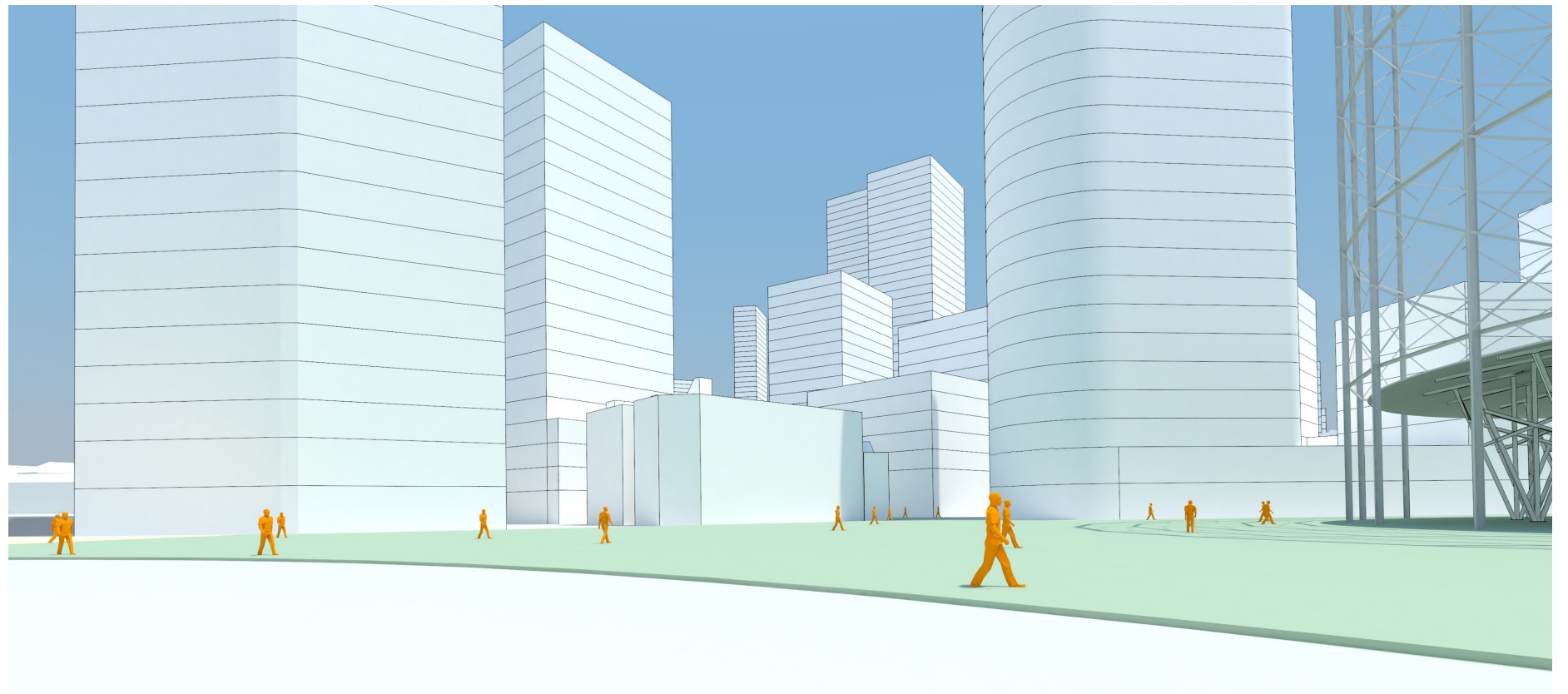


Figure 121: View 3

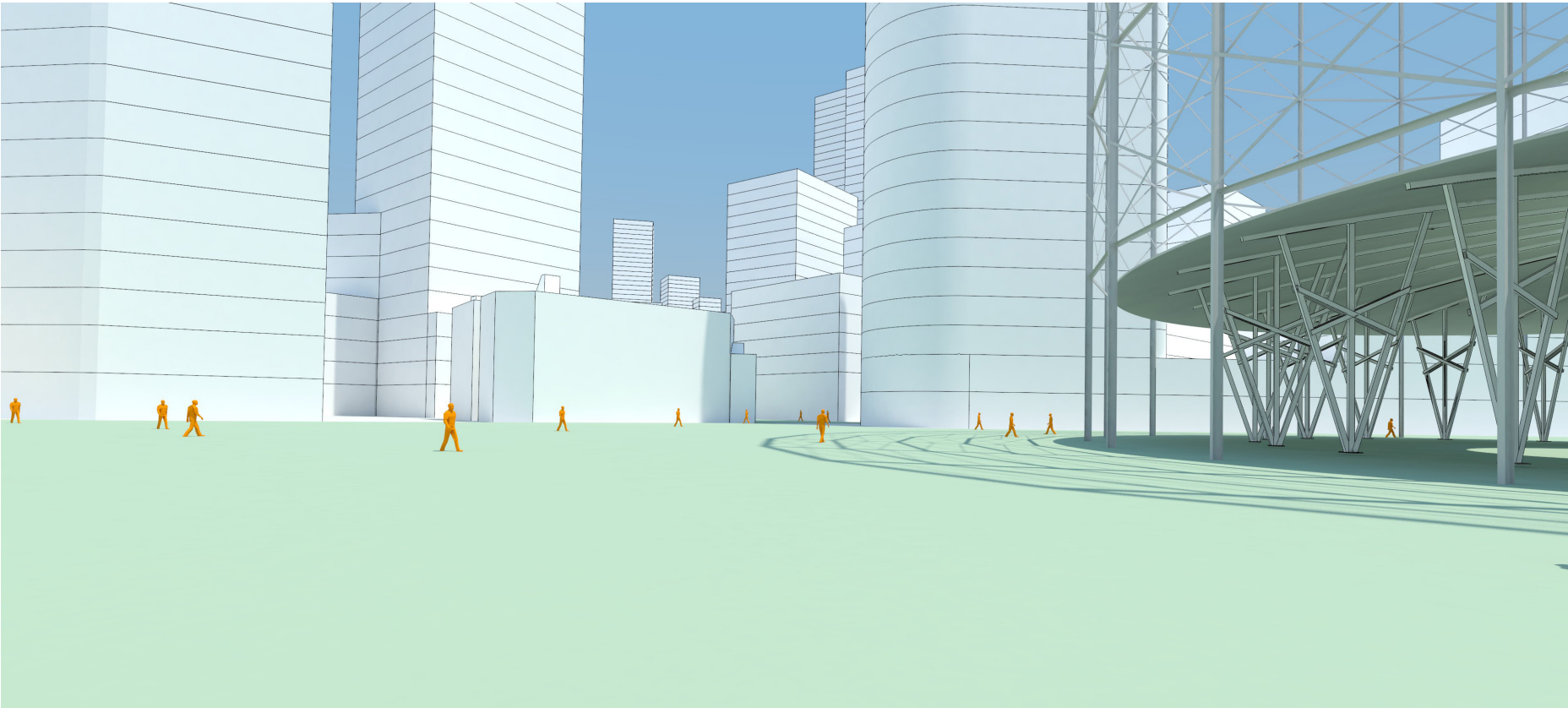


Figure 122: View 4

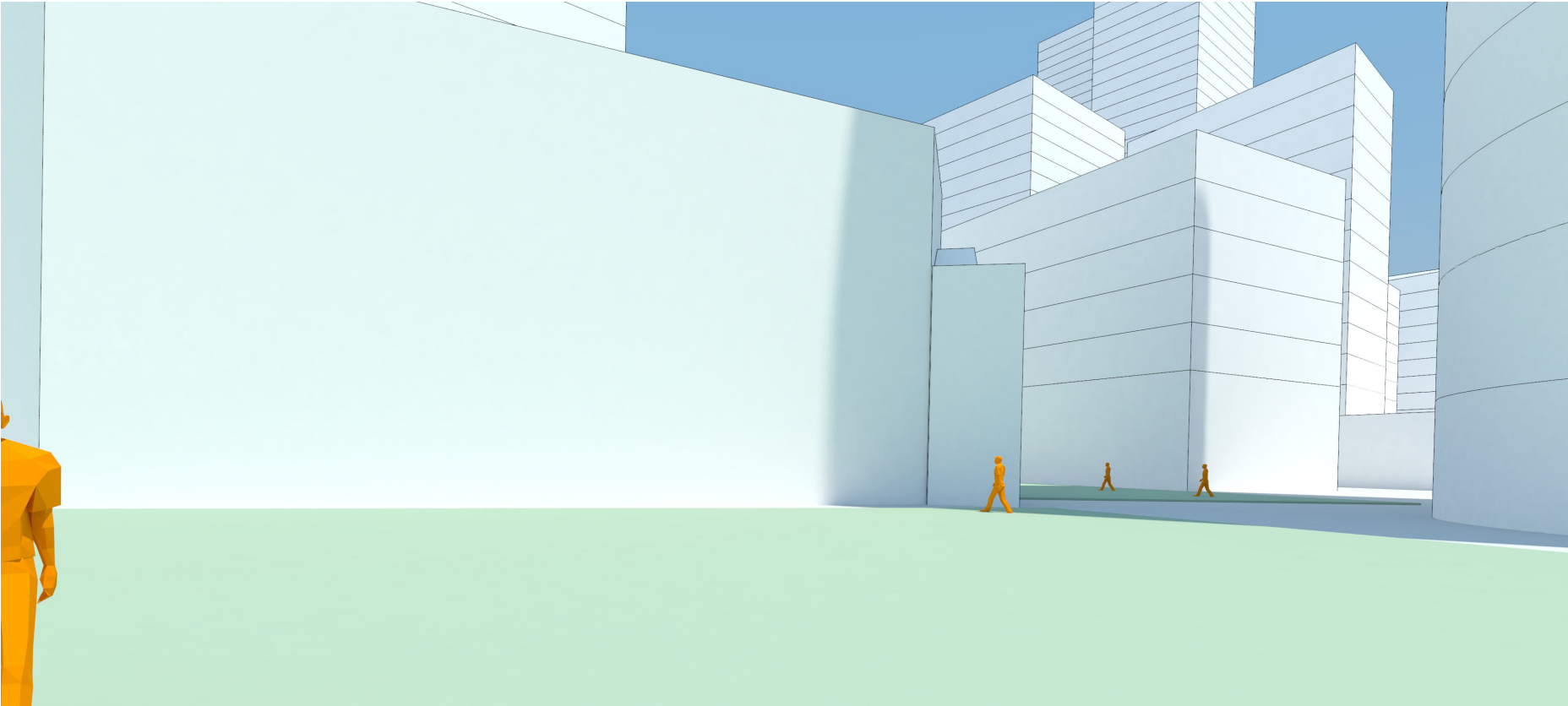


Figure 123: View 5

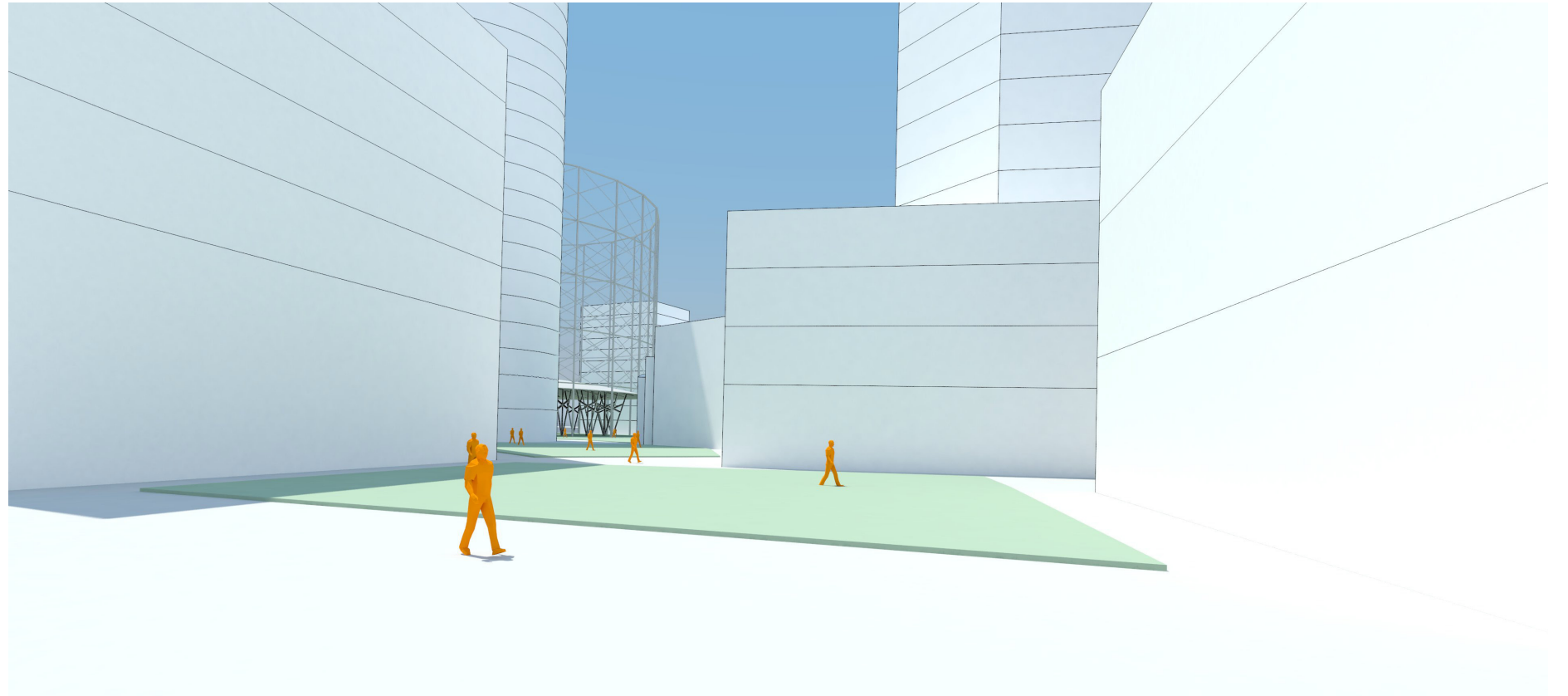


Figure 124: View 6

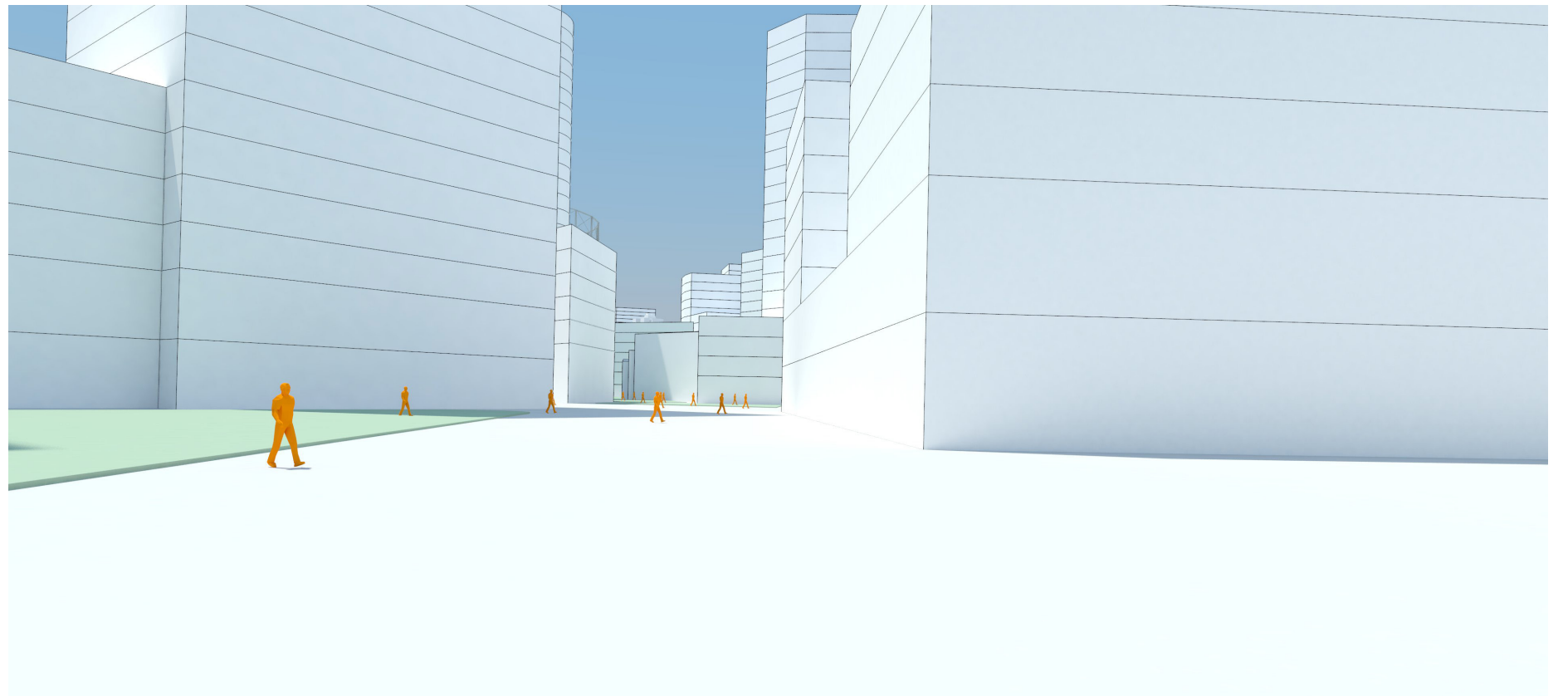


Figure 125: View 7

5.0 The alternative masterplan

5.1 Introduction

While exploring the different options for the masterplan of Livesey Park, Patel Taylor has identified an alternative masterplan which goes beyond the brief and site boundary. This alternative presents an opportunity of complete placemaking delivering a clearer open space strategy and better connectivity.

The former gas offices building is not a listed building. Whilst retaining it helps to create a character with a mix of old and new buildings, its position interferes with a clear south-east to north-west route across the park to the Surrey Canal Linear Park. If this block was to be replaced, there is an opportunity to create a linear block which more clearly defines the edge of the park (see Figure 126 - 1), opens up highlighting the pedestrian route (see Figure 126 - 2) and allows a direct view of the route from the park towards the listed cottages (see Figure 126 - 3).

Moreover, there is a potential to re-configure the road network in order to maximise pedestrian routes. In order to do so, the alternative masterplan proposes to move the servicing route on the northern end of Murdock Street further north creating a clear sequence of open spaces that will link Livesey Park to the Ruby Triangle (see Figure 126 - 4).

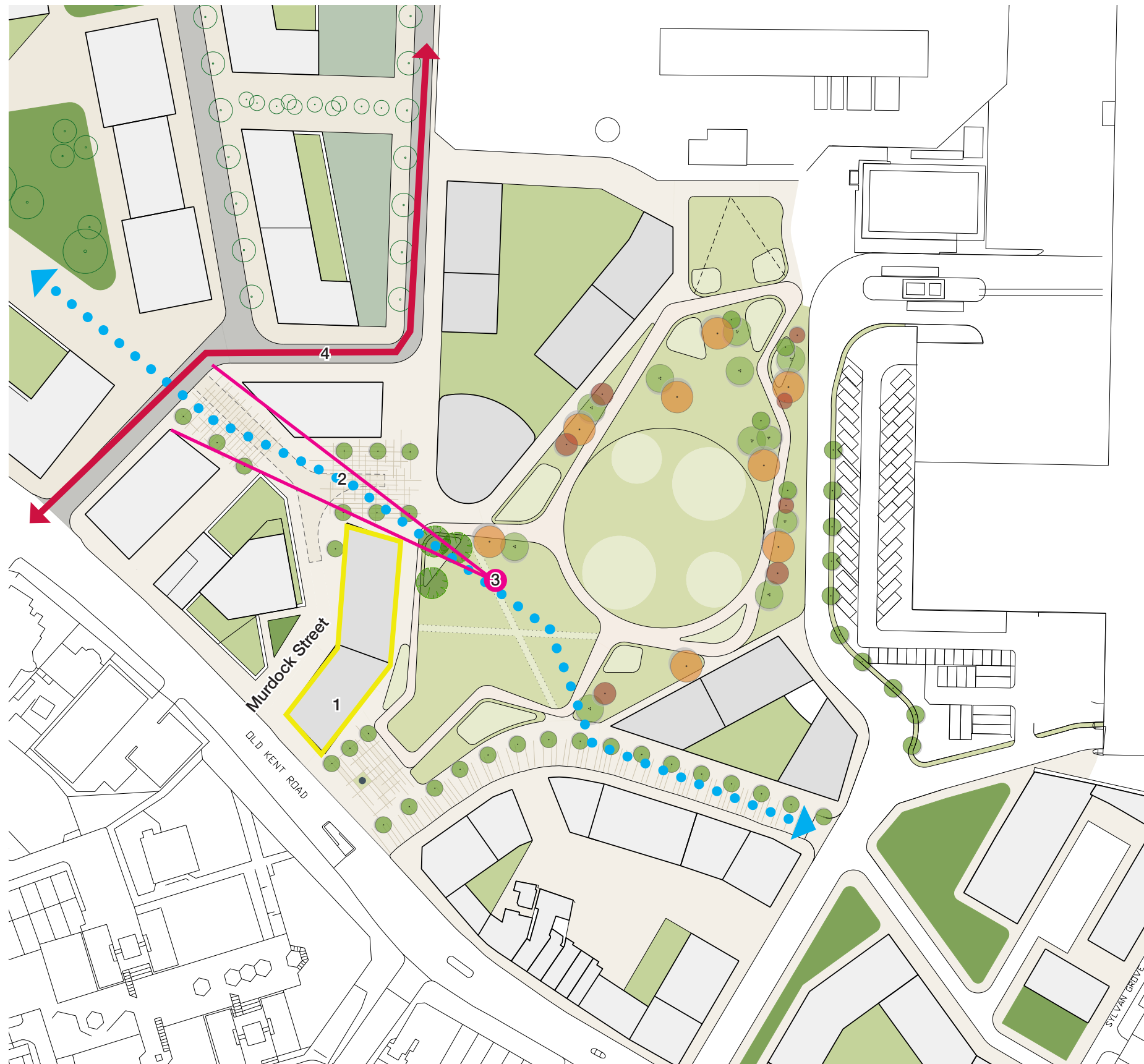


Figure 126: The alternative masterplan

5.0 The alternative masterplan

5.2 Ground floor uses

The ground floor uses of plot B include:

- Retail frontage to Old Kent Road.
- B1 frontage to the park.

All ground floors have been designed assuming that there will be basements to accommodate ancillary uses such as plant rooms, refuse stores, cycle stores, etc.



Figure 127: Alternative masterplan - Ground floor plan

5.3 Residential component

Figure 128 and Figure 129 illustrate the typical lower and upper residential floorplates. Residential accommodation has been distributed aiming to maximise views to the park and other secondary open spaces.

The masterplan aims to deliver quality affordable homes as per policy AAP5 of the Draft AAP, complying with policies of affordable provision and housing mix.



Figure 128: Alternative masterplan - Typical residential floor - Lower levels



Figure 129: Alternative masterplan - Typical residential floor - Upper levels

5.0 The alternative masterplan

5.4 Access and servicing

Moreover, there is a potential to re-configure the road network to maximise pedestrian routes. In order to do so, the alternative masterplan proposes to move the servicing route on the northern end of Murdock Street further north creating a clear sequence of open spaces that will link Livesey Park to the Ruby Triangle.



Figure 130: Alternative masterplan - Servicing diagram

Key

- Main servicing routes
- Servicing route - shared surface
- Servicing access to plots

5.0 The alternative masterplan

5.5 Scale and massing

The massing of plot B has similar principles to the base masterplan:

- Building B1: the building is a townscape marker of the crossing of Old Kent Road and Livesey Park. It defines the gateway entrance to the park.
- Building B2: an 8-storey shoulder element.

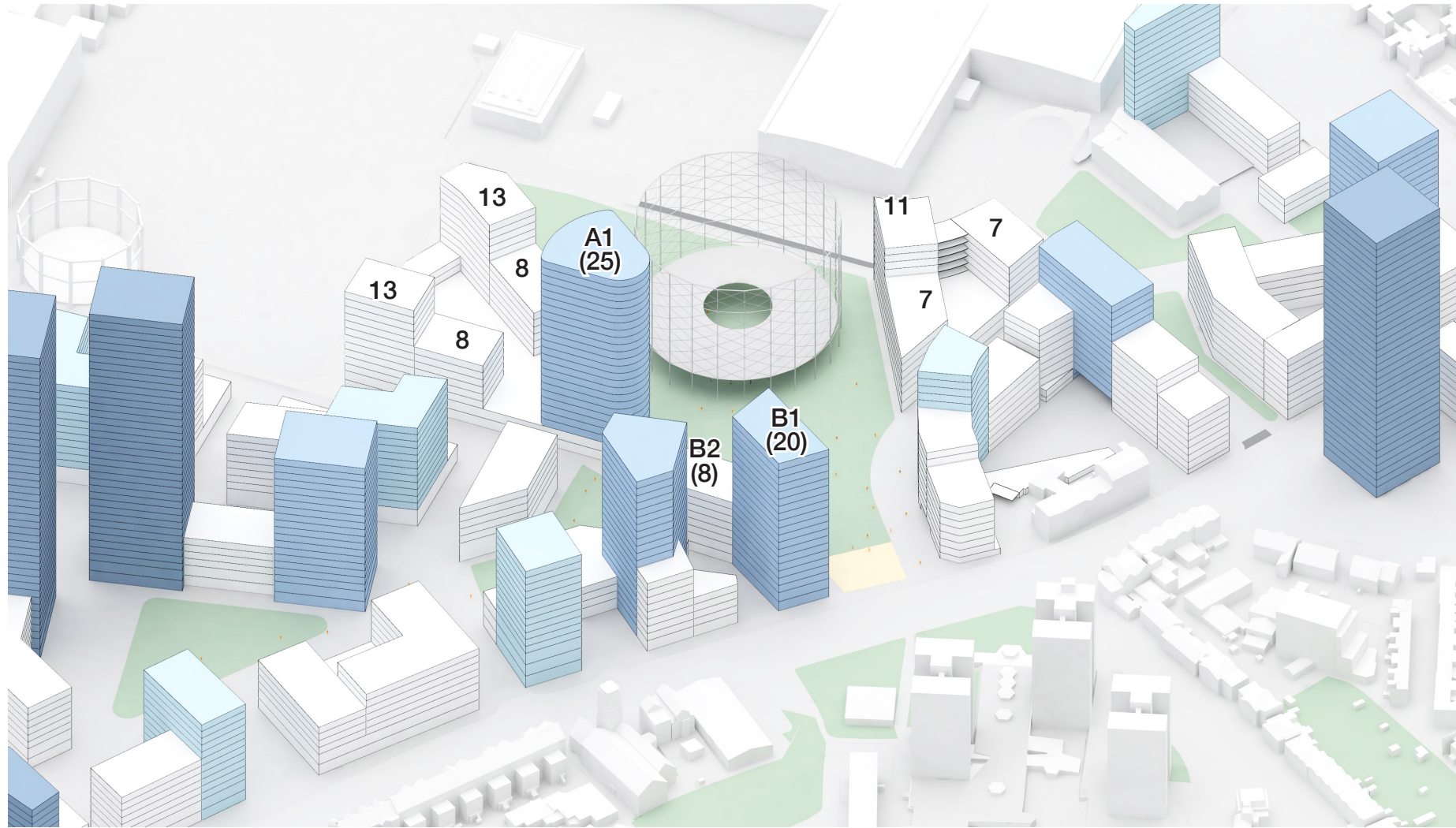


Figure 131: Alternative masterplan - Proposed massing

5.0 The alternative masterplan

5.6 Schedule of areas

Tables 3 and 4 summarize the area and accommodation per level and per plot. These areas are indicative and subject to design development and planning consent. Any decisions to be made on the basis of these area predictions should make due allowance for the following:

- Design development
- Accurate site survey, site levels and dimensions
- Construction methods and tolerances
- Third party consents
- Coordination of the design with the design team consultants

The areas shown do not include any basement areas. Basement levels might be necessary to accommodate ancillary uses such as plant rooms or cycle stores.

Areas are measured in accordance with the RICS Code of Measuring Practice (6th Edition)

All areas are shown in sqm unless otherwise stated

No tolerance has been allowed in any calculation

Back of House (BOH) areas include refuse stores, cycle stores and plant rooms.

Residential GEA and GIA include areas for residential lobbies, cores and corridors.

Schedule of areas and accommodation per level

Level	Retail		Workspace		Light Industrial		BOH	
	GEA	GIA	GEA	GIA	GEA	GIA	GEA	GIA
00	491.78	446.07	2,056.47	1,942.81	3,867.87	3,766.06	1,180.75	1,103.56
01			2,550.78	2,391.49	101.83		1,391.96	1,298.03
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
Total	491.78	446.07	4,607.25	4,334.30	3,969.70	3,766.06	2,572.71	2,401.59

Residential					
Area			Accommodation		
GEA	GIA	NIA	1B	2B	3B
691.27	664.77				
465.16	455.10				
5,203.53	4,776.79	3,813.57	16	23	12
5,203.53	4,776.79	3,813.57	16	23	12
5,203.53	4,776.79	3,813.57	16	23	12
5,203.53	4,776.79	3,813.57	16	23	12
5,203.53	4,776.79	3,813.57	16	23	12
4,371.99	4,017.25	3,203.56	16	16	11
2,835.34	2,576.85	2,012.92	9	11	6
2,835.34	2,576.85	2,012.92	9	11	6
2,835.34	2,576.85	2,012.92	9	11	6
2,302.94	2,096.10	1,644.77	7	9	5
2,302.94	2,096.10	1,644.77	7	9	5
1,340.09	1,229.87	986.27	4	6	2
1,340.09	1,229.87	986.27	4	6	2
1,340.09	1,229.87	986.27	4	6	2
1,340.09	1,229.87	986.27	4	6	2
1,340.09	1,229.87	986.27	4	6	2
1,340.09	1,229.87	986.27	4	6	2
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
791.57	734.40	599.63	3	3	1
57,996.45	53,224.91	41,501.75	180	239	118
			34%	45%	22%
537					

Schedule of areas and accommodation per plot

Plot	Retail		Workspace		Light Industrial		BOH	
	GEA	GIA	GEA	GIA	GEA	GIA	GEA	GIA
A	240.93	221.12	2,666.28	2,565.01	2,779.65	2,668.86	1,270.41	1,185.05
B	250.85	224.95	1,266.44	1,151.71			589.02	562.88
C			674.53	617.58	1,190.05	1,097.20	713.28	653.66
Total	491.78	446.07	4,607.25	4,334.30	3,969.70	3,766.06	2,572.71	2,401.59

Residential					
Area			Accommodation		
GEA	GIA	NIA	1B	2B	3B
34,400.32	31,692.32	25,165.75	132	108	80
14,280.34	13,047.84	9,972.60	30	78	24
9,315.79	8,484.75	6,363.40	18	53	14
57,996.45	53,224.91	41,501.75	180	239	118
			34%	45%	22%
537					

5.0 The alternative masterplan

5.7 Walkthrough

Figure 132 to Figure 139 show views (and location of views) around Livesey Park, based on the massing model.



Figure 132: Alternative masterplan - Location of views

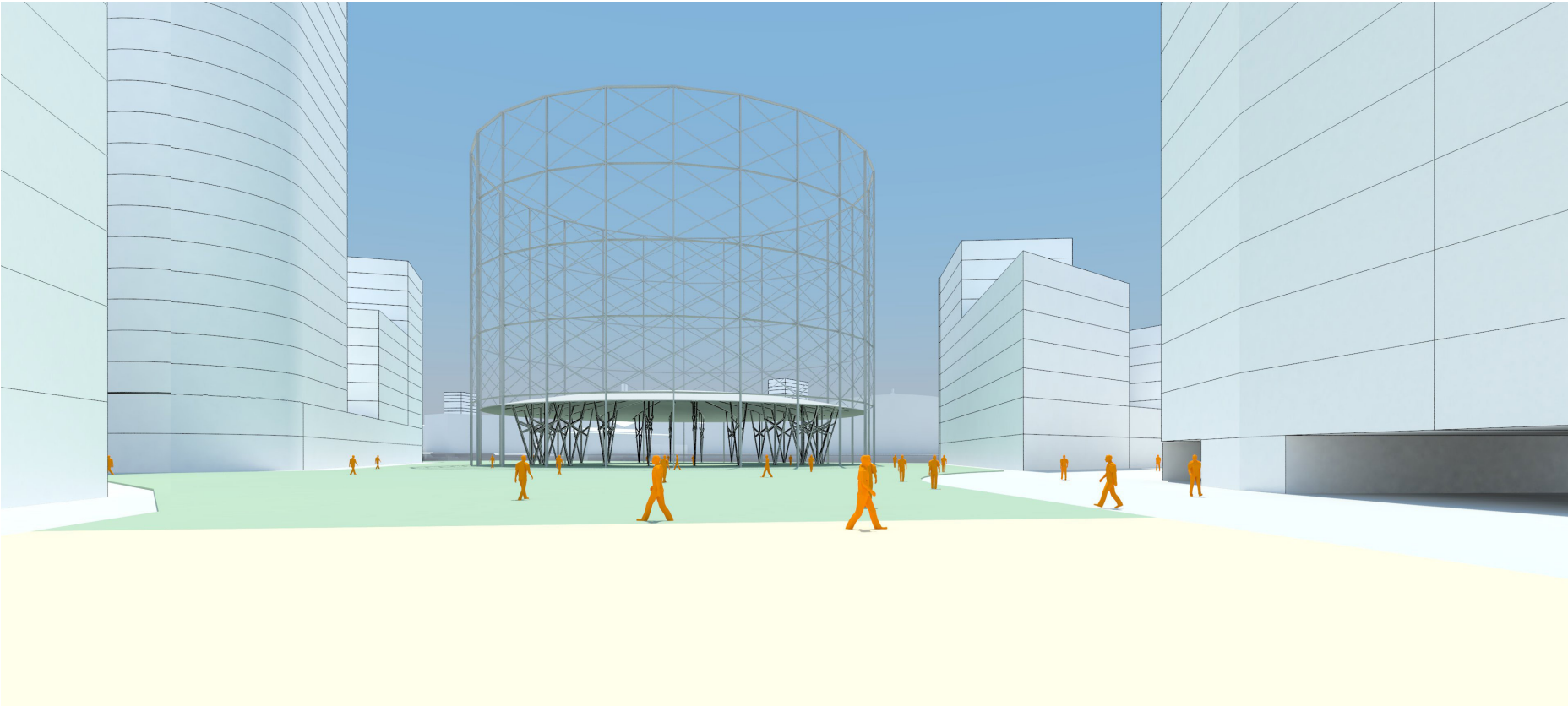


Figure 133: Alternative masterplan - View 1

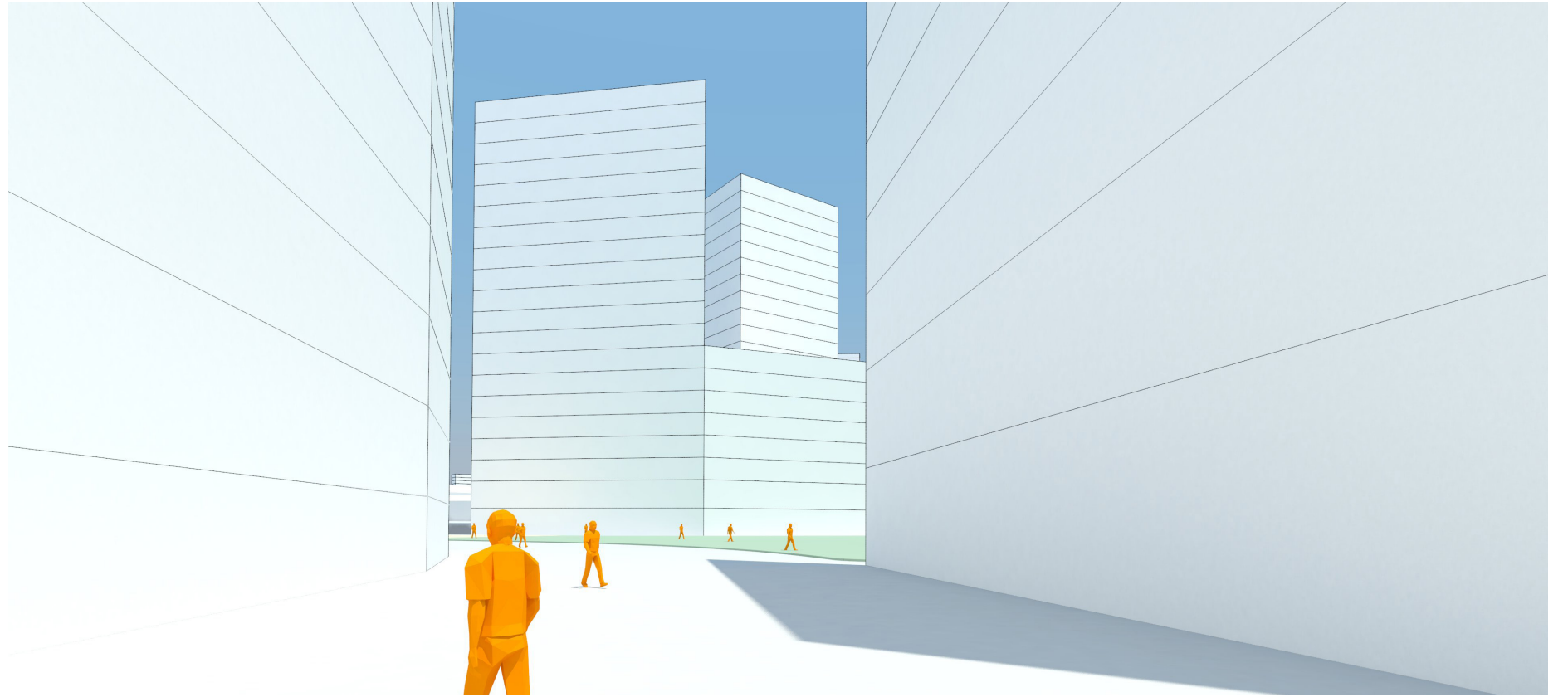


Figure 134: Alternative masterplan - View 2

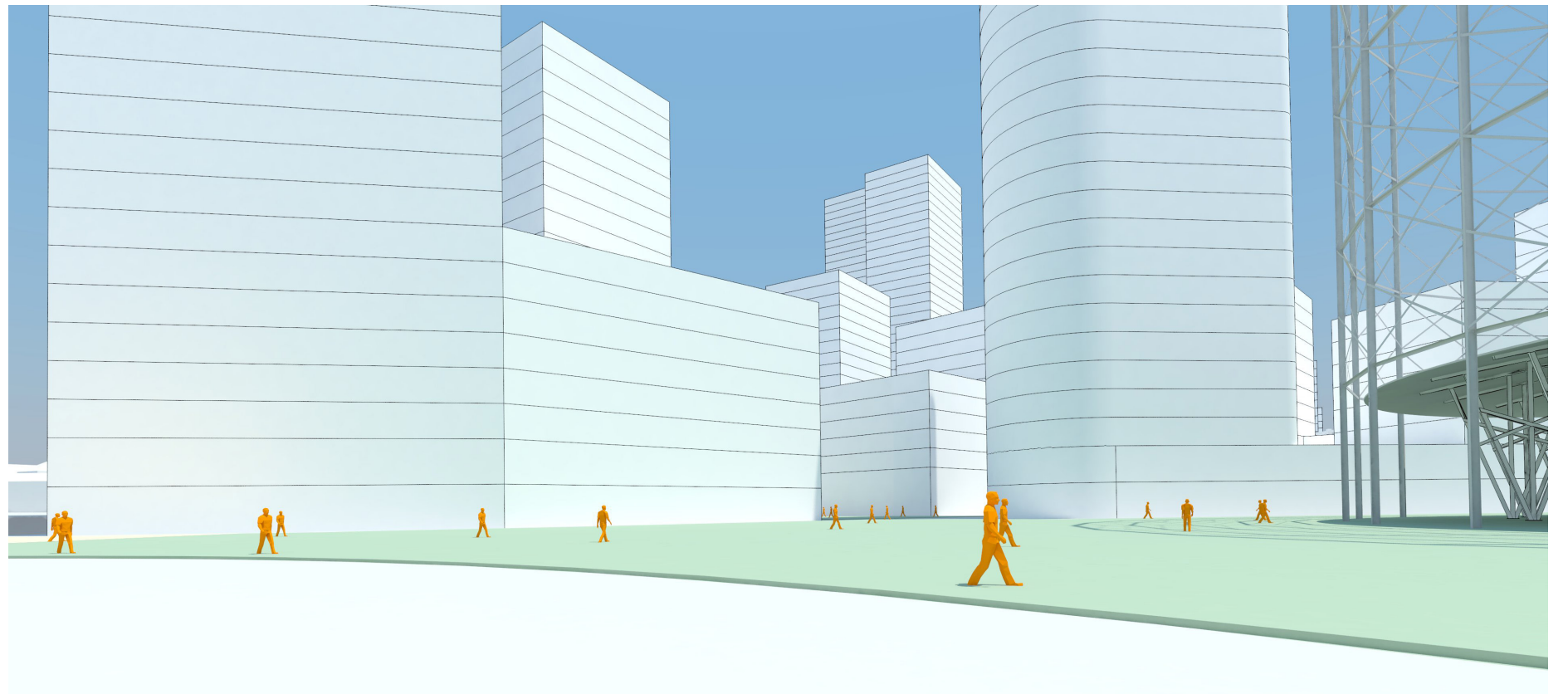


Figure 135: Alternative masterplan - View 3

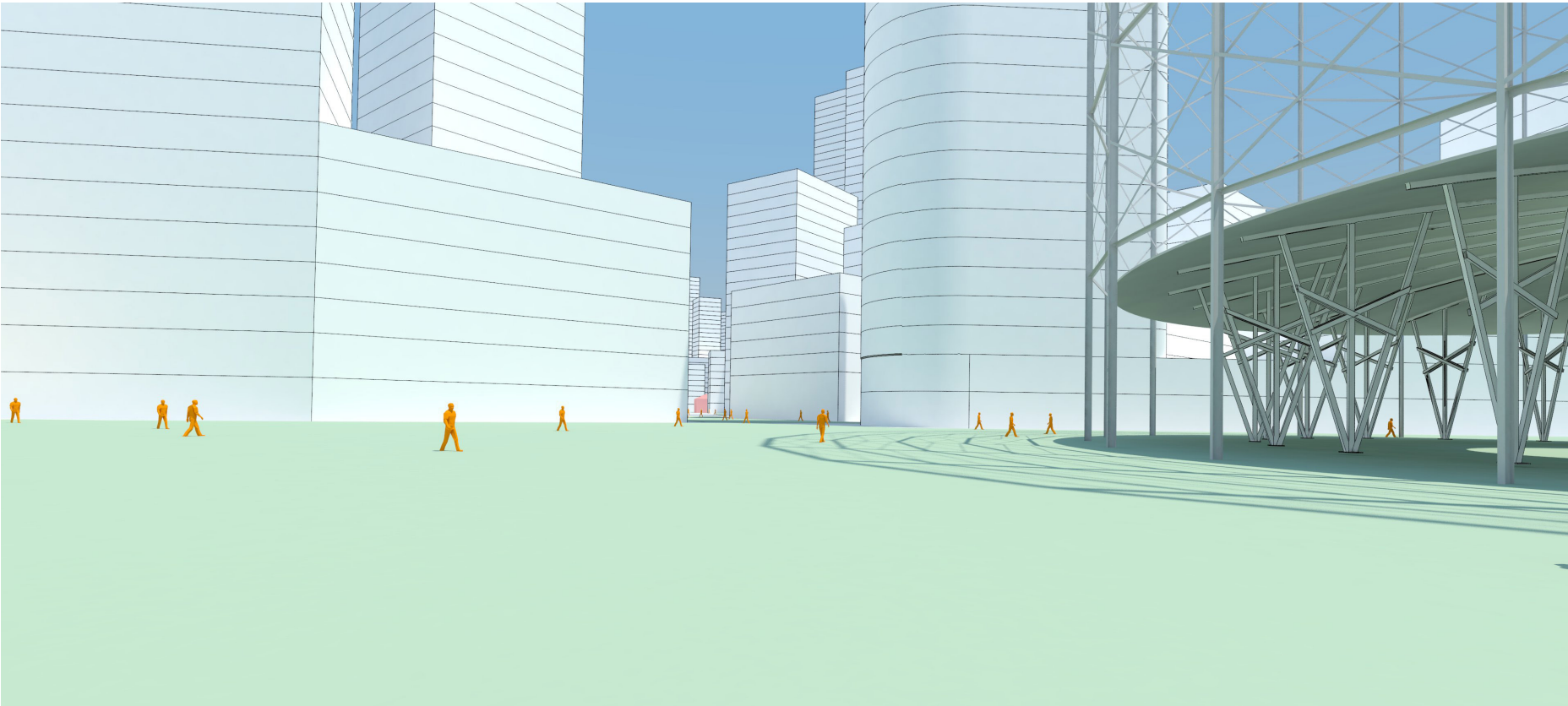


Figure 136: Alternative masterplan - View 4

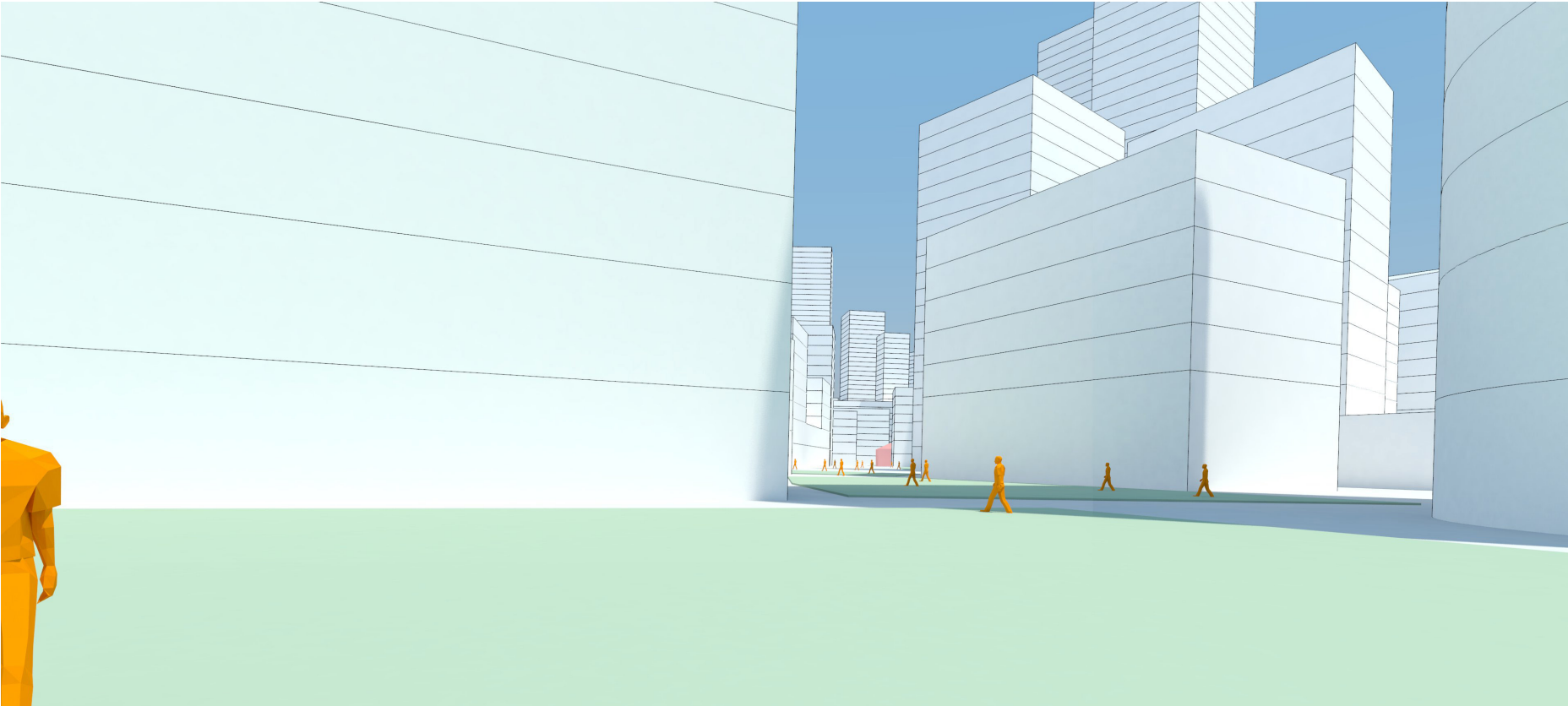


Figure 137: Alternative masterplan - View 5

5.0 The alternative masterplan

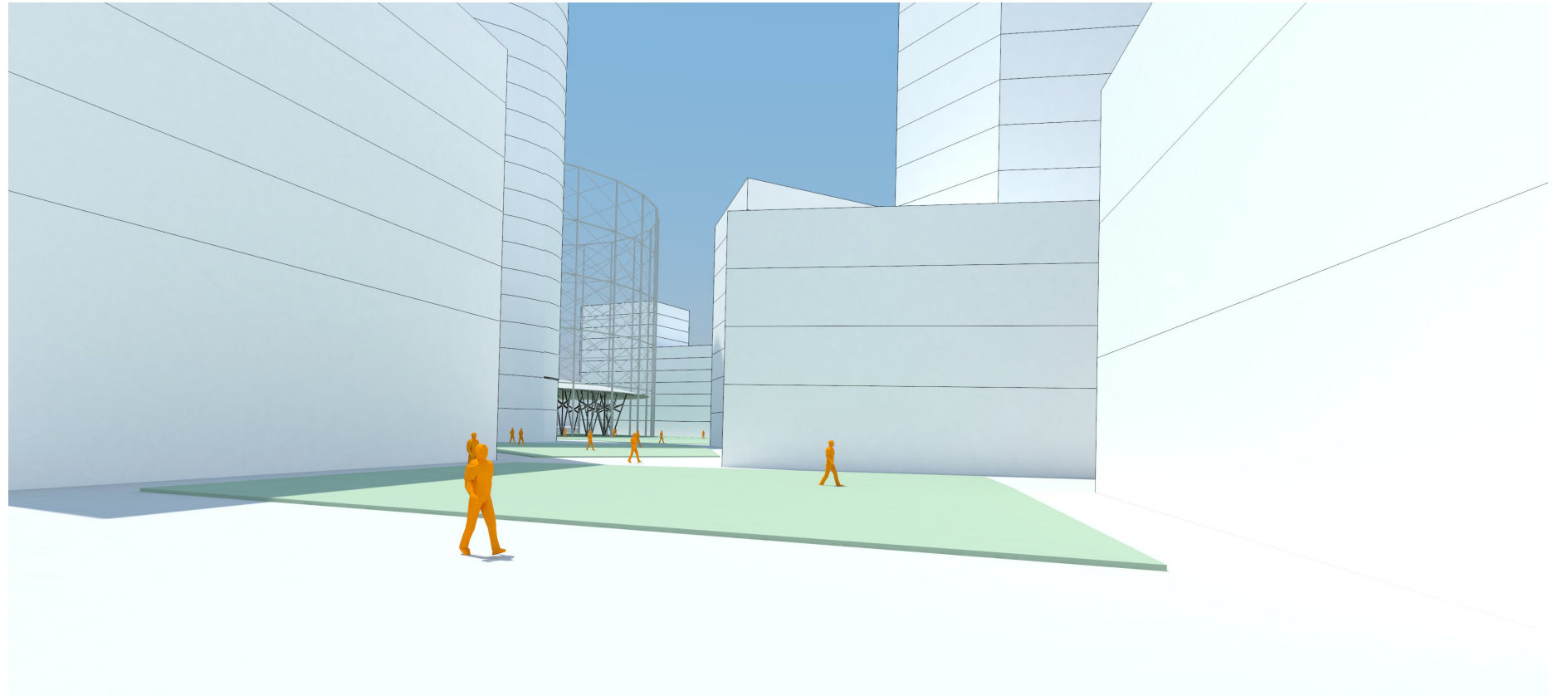


Figure 138: Alternative masterplan - View 6

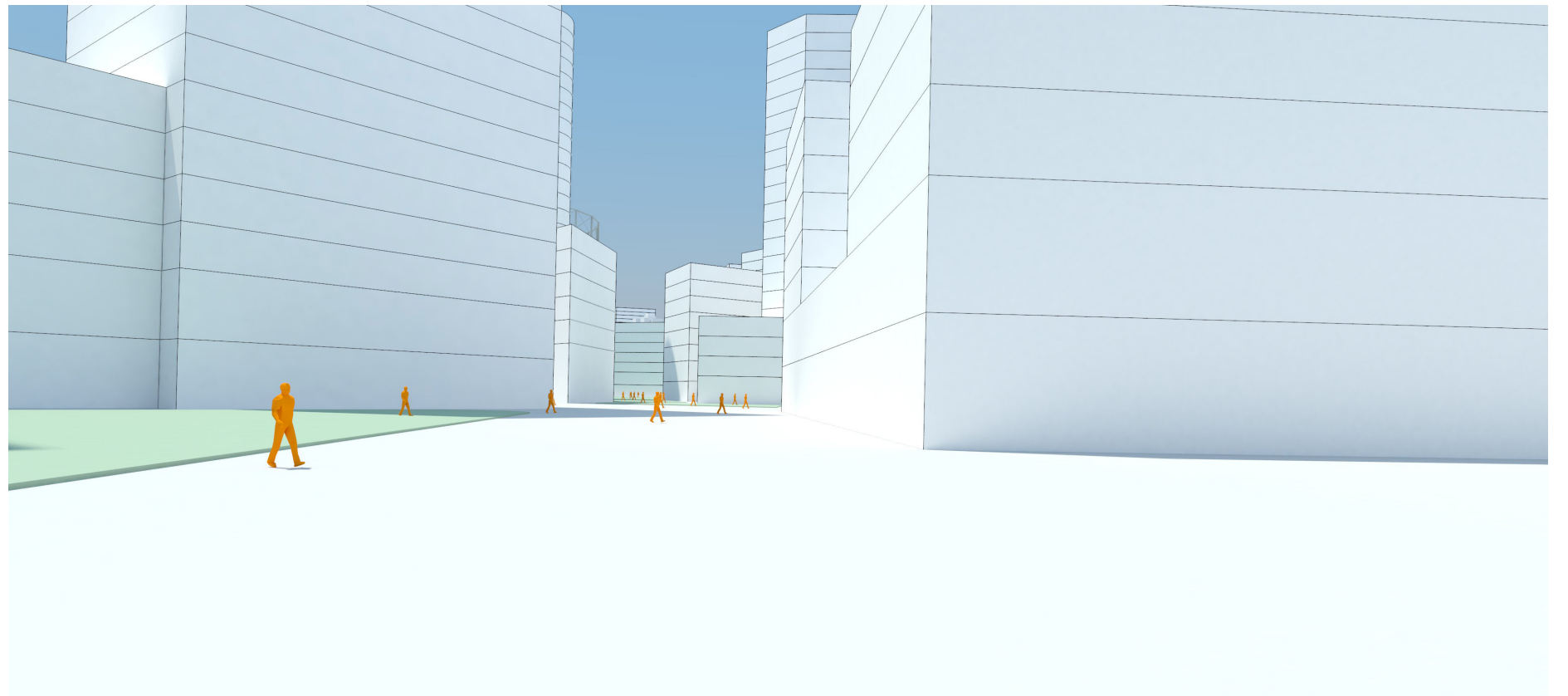


Figure 139: Alternative masterplan - View 7

6.1 Masterplan overlay

Figure 140 illustrates the overlay of the base masterplan with the site ownerships boundaries.

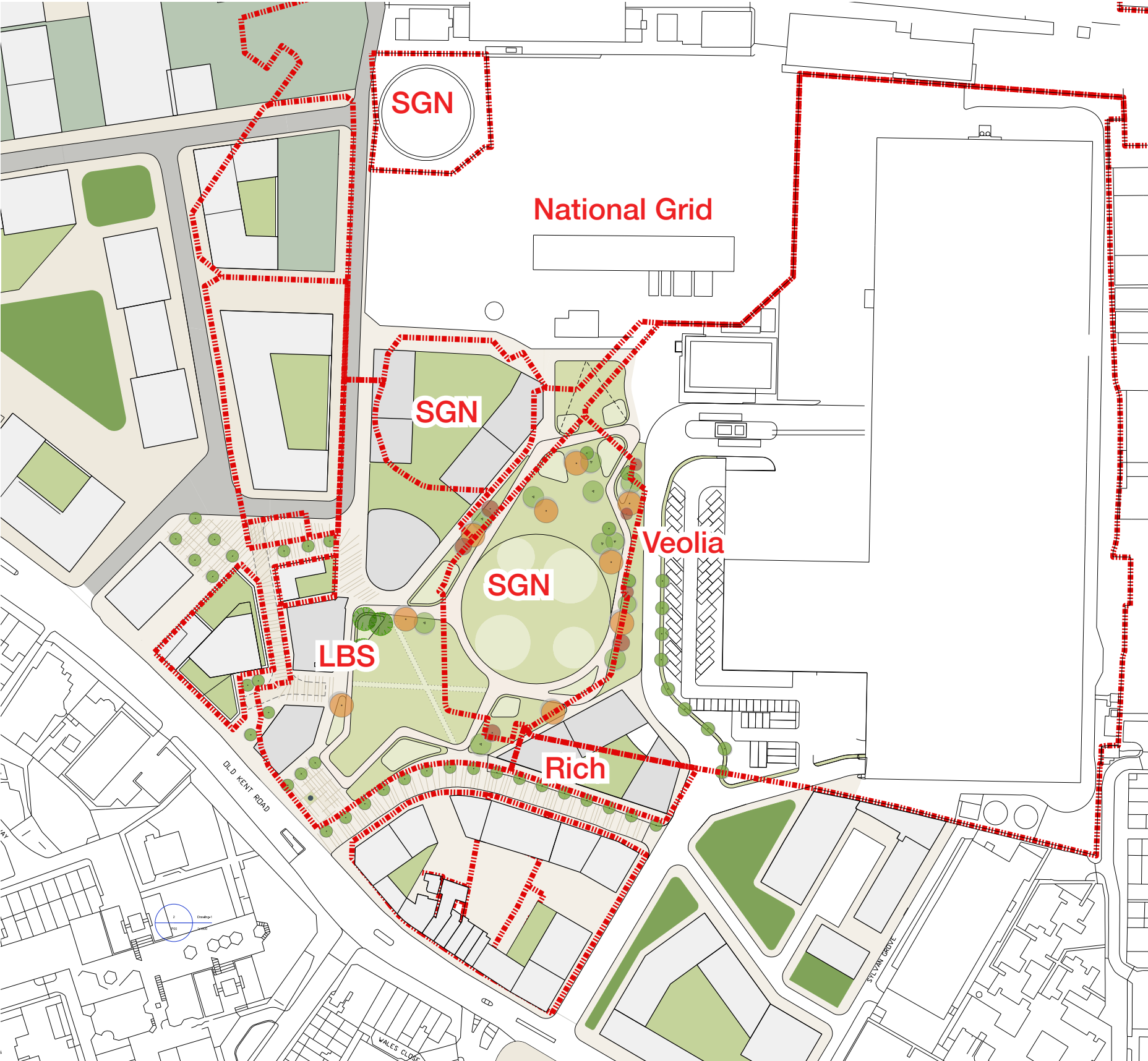


Figure 140: Overlay of base masterplan with site boundaries

6.2 Alternative masterplan overlay

Figure 141 illustrates the overlay of the alternative masterplan with the site ownerships boundaries.

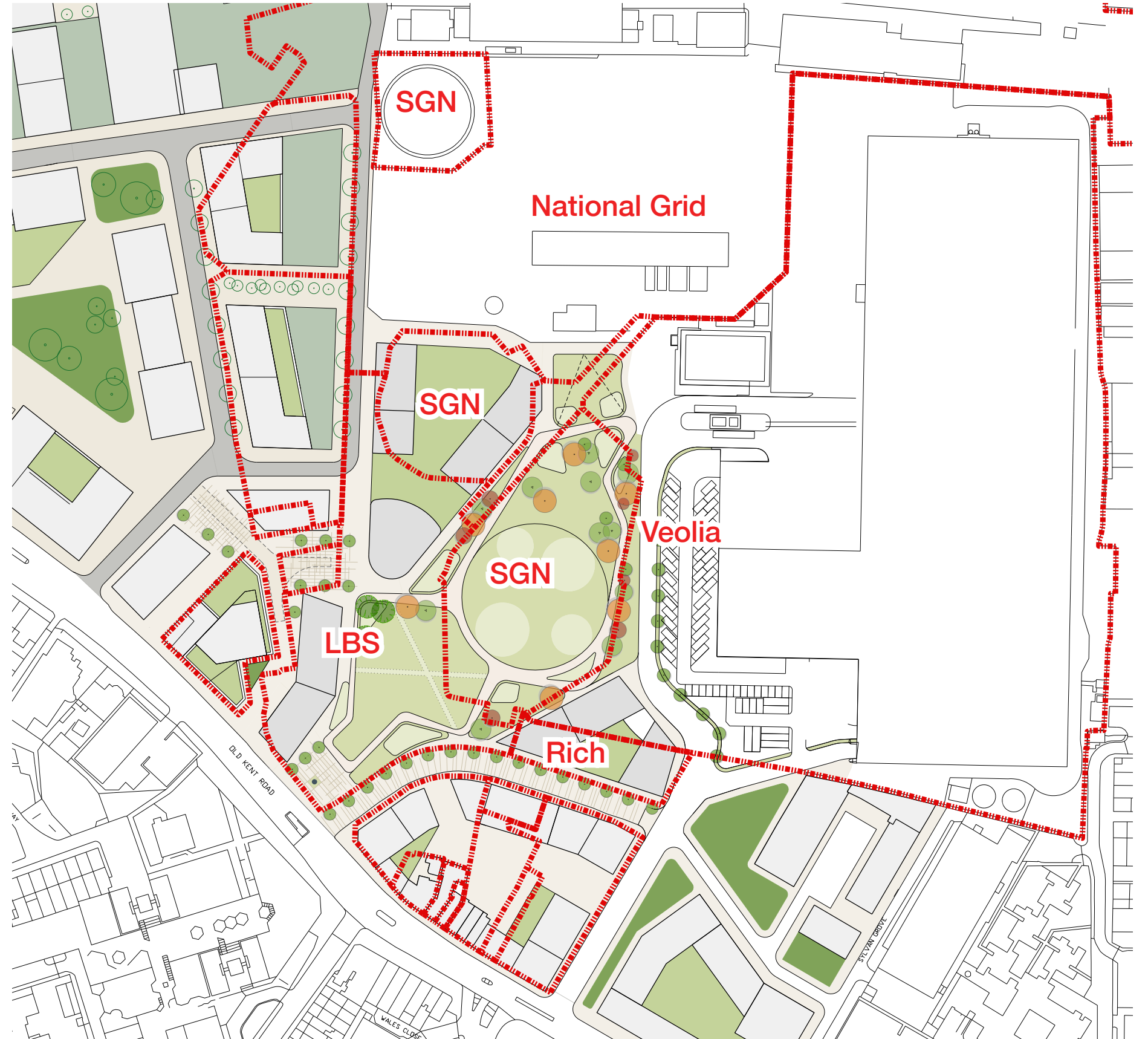


Figure 141: Overlay of alternative masterplan with site boundaries