

2.0 SITE CONTEXT

2.1 Strategic Context

Pentavia is, in effect an island site sandwiched between the M1 and A1, which bounds the site on two sides. These major roadways in effect, also sever the site from Mill Hill. Historically it is an area of large infrastructural change, where, in the 19th century, the construction, cut and fill for the nearby train line which runs parallel to the M1, resulted in landfill covering the site - which was once a green field.

In recent years, the site was converted to a retail park, comprising unrestricted Class A1 retail warehouses and A3 restaurant use, housing several major retailers.

The London Borough of Barnet is well connected with an extensive road and rail network. The M1 motorway provides access to the North, while the M25 and A1000 provide access to Central London.

The Overground and Northern Line also serve the borough, linking to central London. The site is located near Mill Hill Broadway train station which runs a frequent service to King's Cross (15 minutes journey time).

— Additional land in ownership by Meadows
— Application Boundary



2.0 SITE CONTEXT

2.1 Strategic Context

Arney Fender Katsalidis and Quod conducted a study of the London Borough of Barnet, to identify the areas of protected land that could not be developed, green spaces and the redevelopment zones (including West Hendon, Colindale and Grahame Park) within the wider borough.

With these areas of land removed, it reveals that there is surprisingly little developable land in Barnet. As a consequence, the Pentavia site was identified as one of the last remaining plots of brownfield land capable of supporting a high density housing development of the proposed size and scale in the borough.



LONDON BOROUGH OF BARNET BOUNDARY

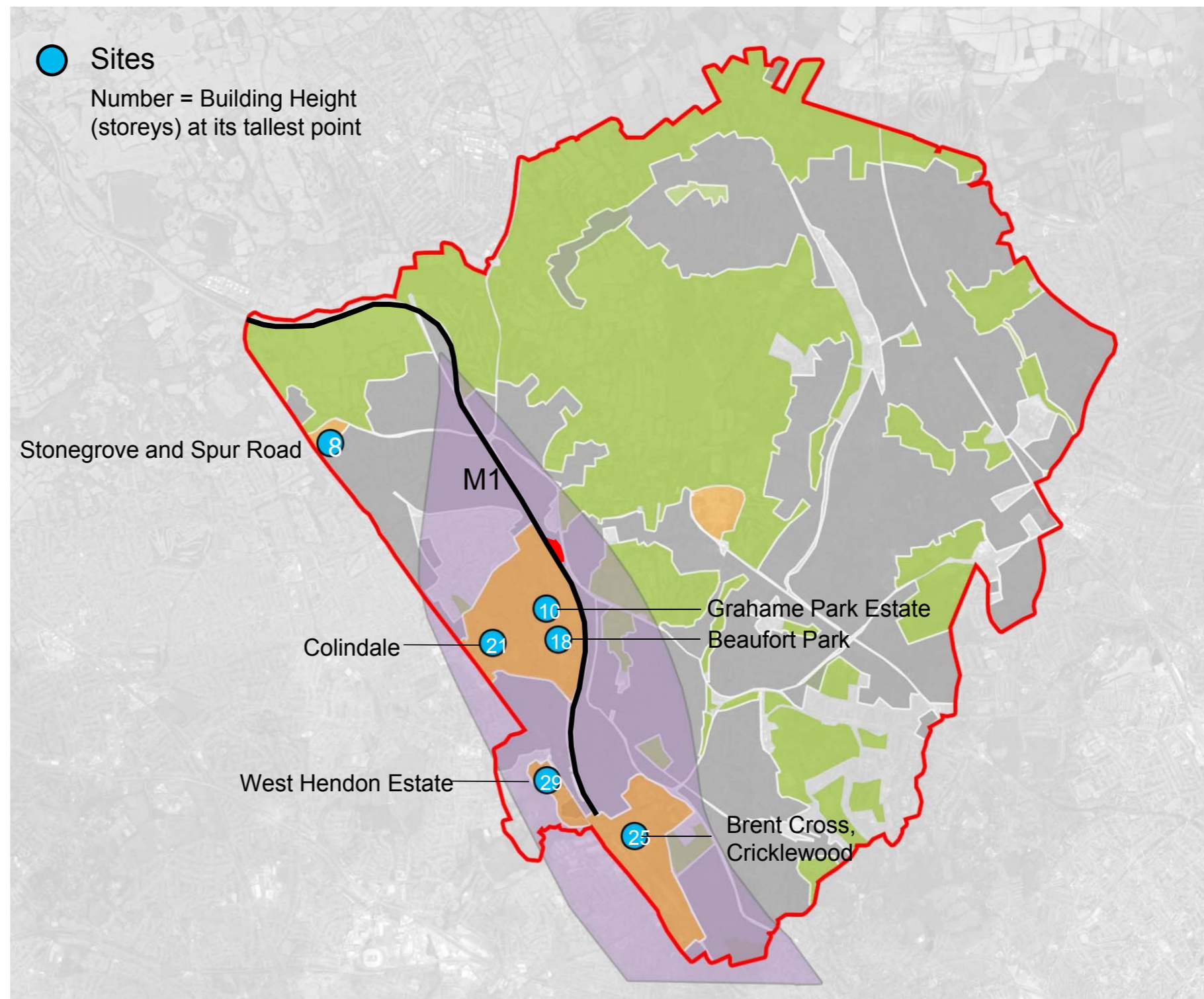
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2.1 Strategic Context

The site's proximity to the larger developments of Colindale, the Grahame Park Estate, Beaufort Park Estate, the West Hendon Estate, Brent Cross and Cricklewood, can be seen as a suitable precedent for the proposed scale, massing and density of the new scheme.

The Pentavia site also enjoys excellent existing transport connections to existing infrastructure and Mill Hill, that can be further reinforced by new pedestrian and cycle links through new green landscaped spaces.

The site's inherent attributes are the essential ingredients in attracting a new demographic to Mill Hill, as well as in support of a thriving new community and a vibrant new residential-led quarter on the site.



SUBURBAN INTENSIFICATION ALONG M1 CORRIDOR

2.0 SITE CONTEXT

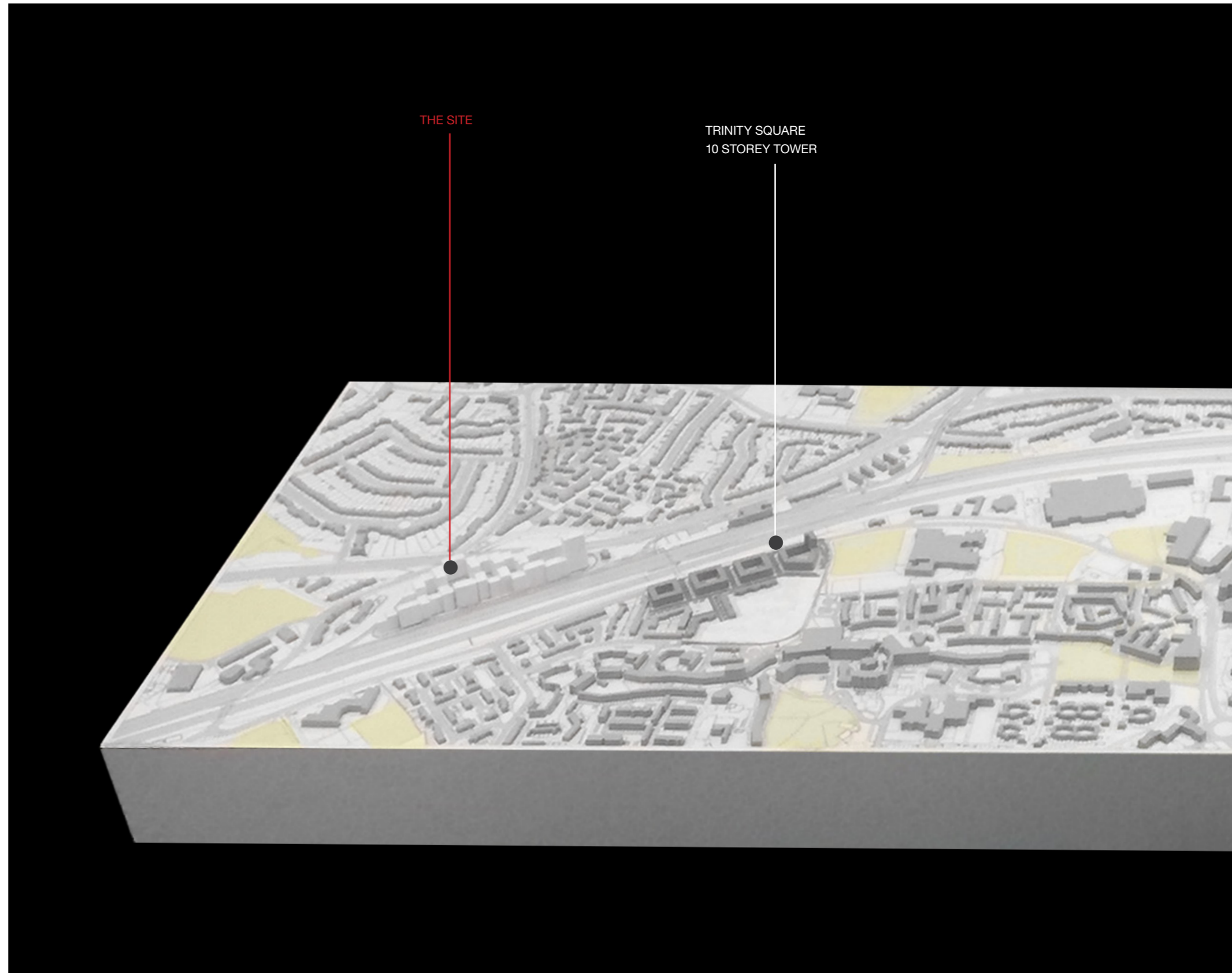
2.1 Strategic Context - Surrounding Heights

The site sits along the M1 corridor where a number of tall buildings occur principally along the Colindale and West Hendon side, towards Brent Cross.

Key tall developments along the M1 are:

- Trinity Square - 10 storeys
- Beaufort Park, Colindale - 18 storeys
- Colindale Gardens - 21 and 18 storeys
- Premier Inn, Colindale - 12 storeys
- West Hendon - 29 storeys

Pentavia will be similar in scale to these tall developments. The tallest building will be LG+G+14 (15 stories).



BEAUFORT PARK,
COLINDALE
18 STOREY TOWER

COLINDALE GARDENS
18 STOREY TOWER

COLINDALE GARDENS
21 STOREY TOWER

WEST HENDON
29 STOREY TOWER

PREMIER INN, COLINDALE
12 STOREY TOWER



2.0 SITE CONTEXT

2.2 The Site

The current site houses a redundant Homebase warehouse building and the charity Koshers Outlet. These buildings are surrounded by large expanses of car parking and hard standing service areas.

The site is currently accessed from the A1 slip road and has a service access road along the M1 to service the retail units. The site has a general fall of 3.5m across the site.

Along the North, facing Bunns Lane, there is a retaining wall between the existing site and down to a disused service road owned by Meadow Residential. This disused space is unmanaged and littered with refuse, and blighted by fly tipping and areas of graffiti. There are also areas of scrub land to the North West, where fill from construction works has raised this area of land and created the general site falls.

Pedestrian access is restricted by a fence along the Northern edge, facing Bunns Lane.

The predominance of major road routes limits access to the site for vehicular travel, although there are several existing pedestrian access routes. From the North, pedestrians on Bunns Lane can use the steps adjacent to the A1 Watford Way road bridge, over Bunns Lane, which leads to a footway on the Western side of the A1 Watford Way.



1 VIEW OF THE M1 TRAVELLING SOUTH



2 VIEW OF THE A1 TRAVELLING SOUTH



SITE'S STRATEGIC LOCATION WITHIN THE LONDON BOROUGH OF BARNET



3 VIEW FROM THE M1 OF NISSAN GARAGE



4 VIEW FROM BUNNS LANE TRAVELLING EAST



VIEW FROM THE RIDGEWAY

2.0 SITE CONTEXT

2.2 The Site

There are steps on Bunns Lane leading to the eastern side of the A1 Watford Way. There is another pedestrian link between the A1 and Bunns Lane, via a ramped footpath connecting Bunns Lane with the western side of the A1 Watford Way, by the northbound bus stop.

Signs on the A1 indicate that the footway on both sides is a shared pedestrian and cycleway.

Connections to the site can also be made from the west via a pedestrian footbridge over the M1 and subway under the adjacent railway lines. The footbridge joins the access road leading to the retail park at the BP Petrol station. The footbridge and subway are ramped, allowing easy access for pushchairs, cyclists and wheelchairs.

The existing buildings on the site are of poor quality and the result is little to no architectural features of interest on the site. Surface car parking treatment and boundary edges are also poorly landscaped and defined.

The site also has three recently approved applications for various retail improvement proposals.



1 VIEW TOWARDS PENTAVIA RETAIL PARK FROM THE PEDESTRIAN FOOT BRIDGE.



2 VIEW FROM BEHIND THE ROUNDABOUT.



3 VIEW ACROSS PENTAVIA RETAIL PARK CAR PARK.



4 VIEW OF THE SOUTHERN FACADE OF PENTAVIA RETAIL PARK, FACING THE M1.



5 VIEW FROM THE EXISTING SERVICE ROAD (SOUTHERN FACADE) OF PENTAVIA RETAIL PARK FACING THE M1.



6 VIEW LOOKING EASTWARDS TOWARDS THE BRIDGE ON BUNNS LANE.

2.0 SITE CONTEXT

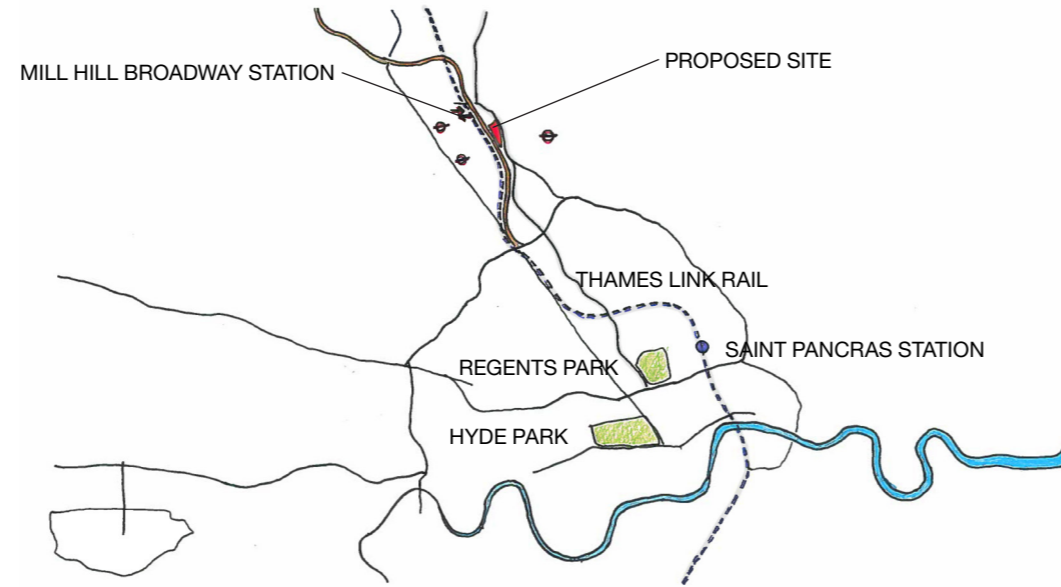
2.3 Site Location and Context

The site has good connections to the M1 and A1, due to its close proximity to both major roadways.

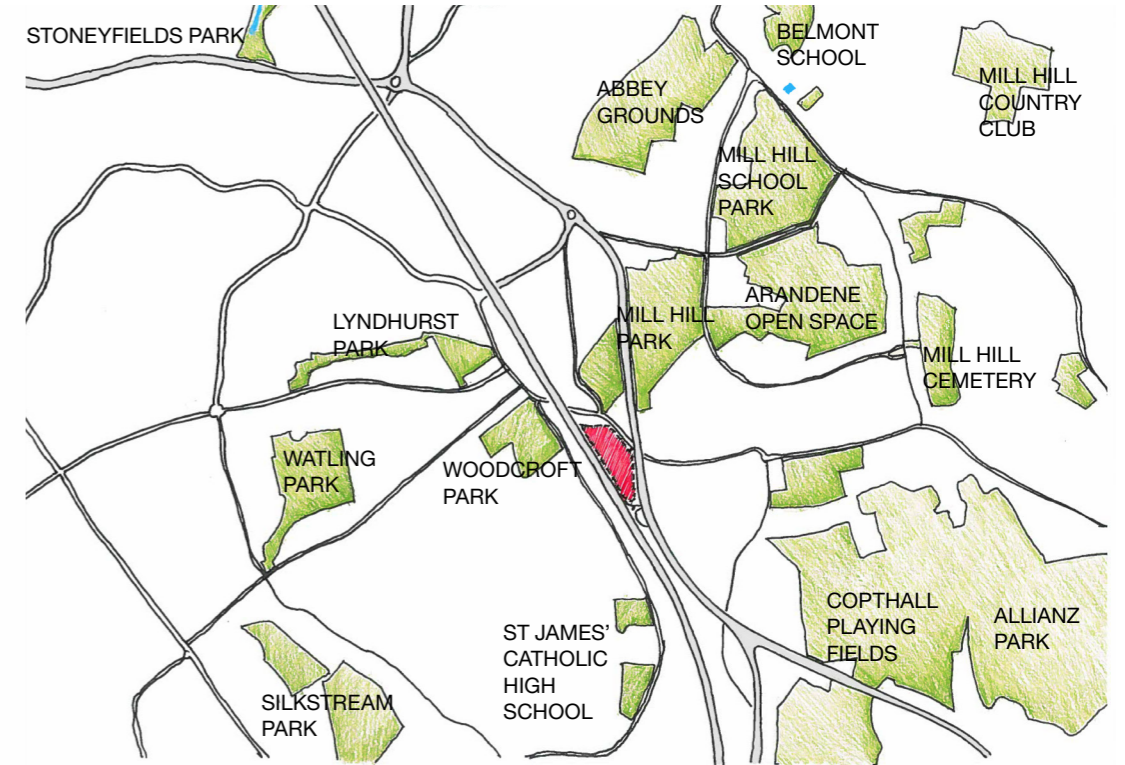
The area is also well served by the London transport system, with easy access to nearby Mill Hill Broadway train services. The journey to Central London is around 18 minutes.

Although the site is, for the most part, land-locked 'Brownfield' land, it is close to many green spaces - with Mill Hill Park, to the North, the closest of these.

The general site levels are lower to the South but rise approximately 3m to the North, with a steep drop towards Bunns Lane.



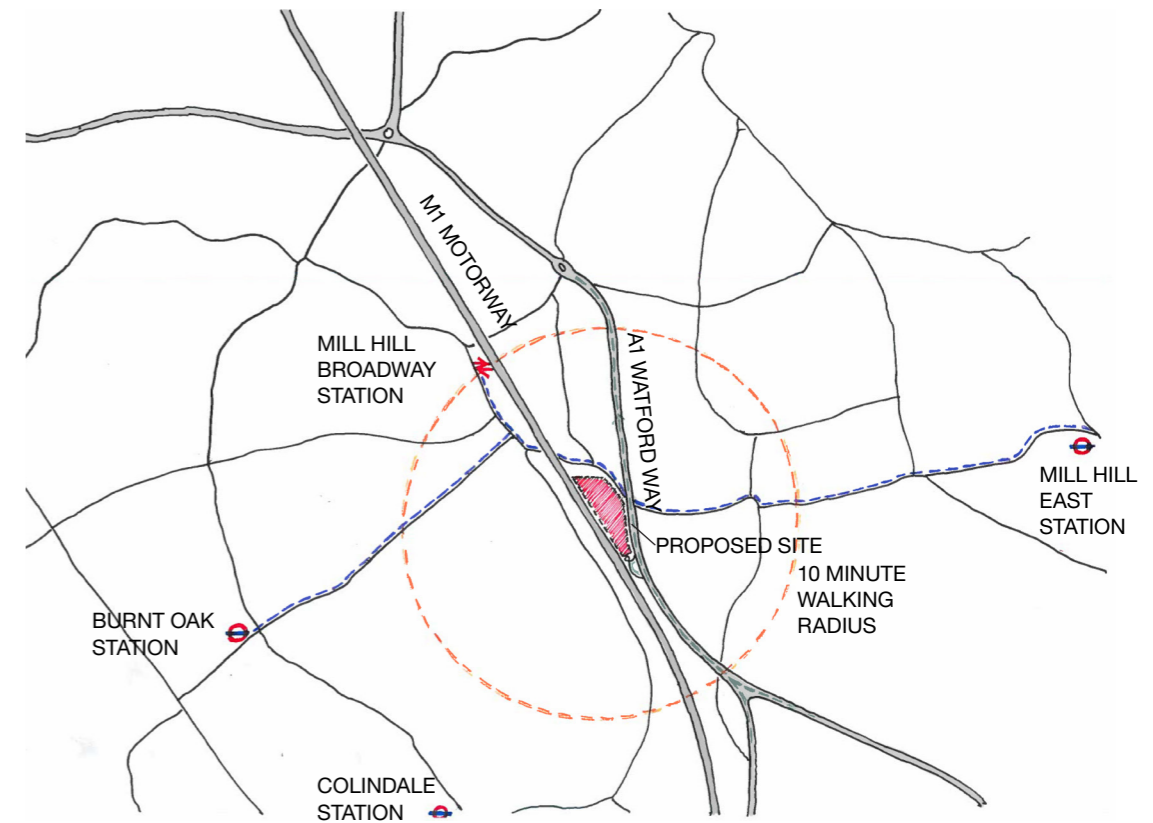
STRATEGIC LOCATION



SURROUNDING GREEN SPACES



TOPOGRAPHY ACROSS THE SITE



EXISTING TRANSPORT LINKS

2.0 SITE CONTEXT

2.3 Site Location and Context

Pentavia Retail Park application site is a 3.87 Ha site in the Mill Hill Ward, which is characterised by diverse and challenging interfaces on the each of the site's boundaries, in terms of scale, use and character. With the Woodland along Bunns Lane, the total land in ownership by Meadow Residential is 4.37 Ha.

Western Boundary

The Western edge of the site is bounded by the heavily-trafficked M1 motorway. This road comprises six lanes, with a mixture of large industrial retail/warehouse units lining its edges, and a major railway thoroughfare to one side. Further to the West, beyond the train track, lies Barnet College and various residential properties, ranging from low to medium rise along Grahame Park Way.

Eastern Boundary

The Eastern edge of the site is bounded by the heavily trafficked A1 (Watford Way) motorway. The road comprises six lanes, with suburban 1930's semi-detached / detached housing lining its edge and rising up towards Mill Hill.

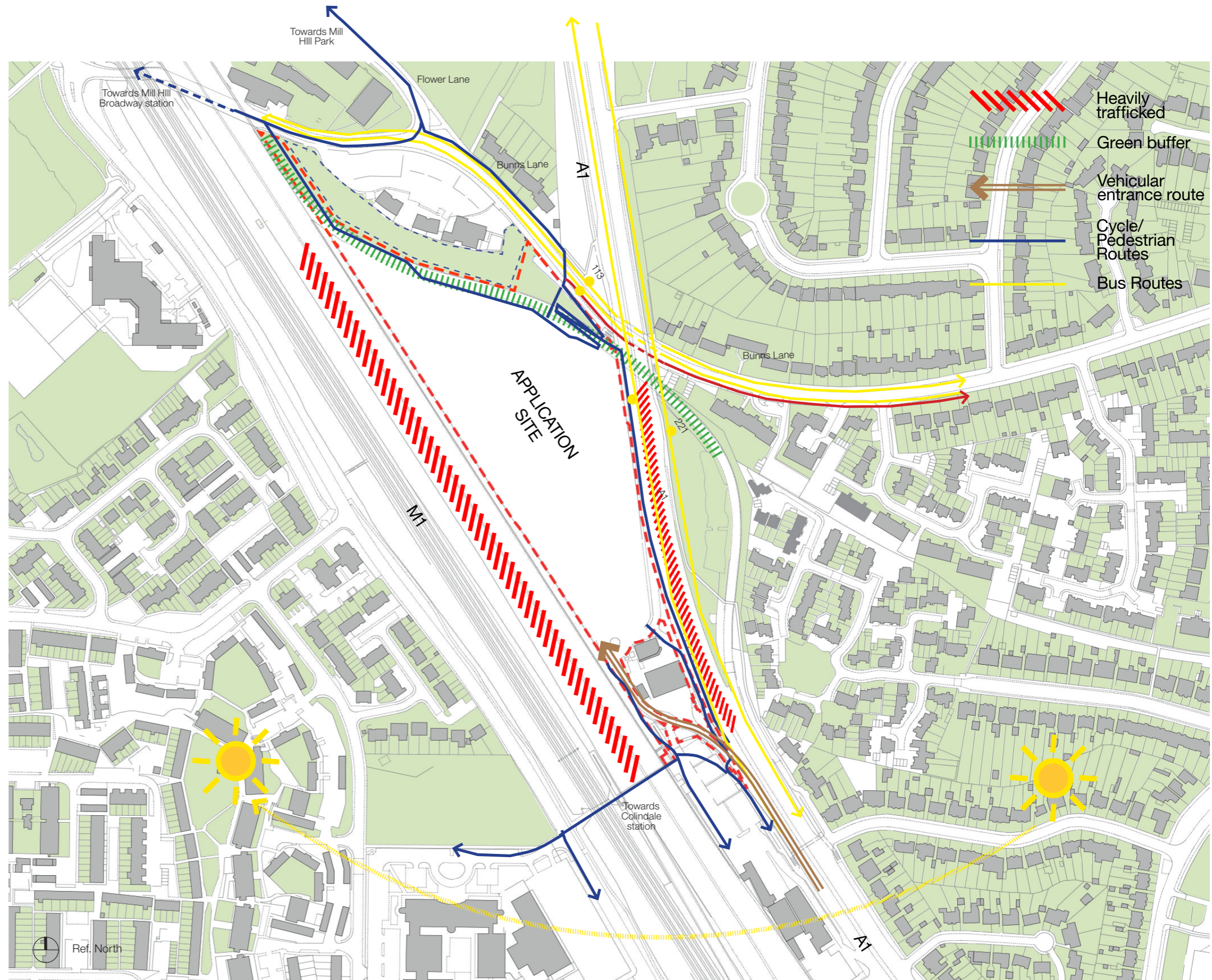
Southern Boundary

To the South, lies the major connection to the site via the A1 junction. A petrol station and roundabout are situated directly South of the site, with a Nissan showroom and offices further along. The site is connected to Colindale to the South through a high level bridge over the M1.

Northern Boundary

The Northern part of the site bounds Bunns Lane, an existing green landscape buffer, and a nursery. This also abuts the existing low rise Taylor Wimpey development.

Bunns Lane is potentially a major connector to the site, as it opens up East and West links below the motorway, towards Mill Hill and Colindale, as well as the nearby Mill Hill Broadway train station.



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2.4 Mill Hill History

Over the course of two centuries, Pentavia and the vicinity around it has evolved from a rural area with just a few settlements, to the rich tapestry of urban and suburban development and major infrastructure, that exists today.

The significant pieces of infrastructure introduced to include new major roads (M1 and A1) and railways, both of which have served the wider growth of London.

Mill Hill

The name 'Mill Hill' was first recorded as 'Myllehill' in 1547 and is said to mean "Hill with a Windmill". Mill Hill Village is the oldest known inhabited part of the district – a ribbon of development along a medieval route called 'the Ridgeway'. It is thought that the name 'Mill Hill' derives from a mill that was once sited on an area of open ground (now a park) known as The Mill Field, which is on the Ridgeway. The Mill Hill Village is bounded on the North and South by designated Green Belt land and it's High Street, at 100 yards, is the shortest in London. The area's proximity to London made it popular as a country retreat from the 17th century onwards, and some large houses and quaint cottages survive from this period. As late as 1960, five shops existed in the Village – Griffin's sub-Post Office, The Blenheim Steps, Cook & Son (sweets and groceries), Hawes Brothers (grocers) and Vincett's (butchers). Although the buildings survive, they have all since been converted into private houses as the area's retail focus shifted to Mill Hill Broadway.

M1 and A1

The A1 is the latest in a series of routes North, from London to York and beyond. It was built in 1921 by the Ministry of Transport as part of the Great Britain road numbering scheme. The earliest documented Northern routes out of London ran along roads created by the Romans, during the period 43 to 410 AD. These consisted of a variety of "Iters" on the Antonine Itinerary, a combination of which were used by the Anglo-Saxons as the route from London to York, called Ermine Street. Ermine Street later became known as the Old North Road, and is utilised within London by the current A10.

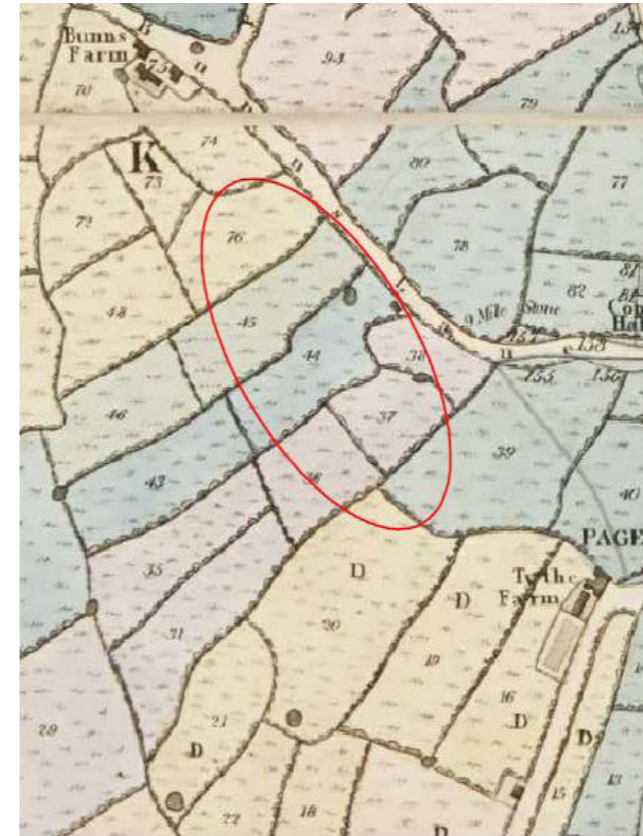
The A1 originally began in London at Aldersgate Bars, which marked the boundary of the City of London. It then followed the Great North Road mail coach route through Barnet, but was re-designated in 1954 to follow the East Finchley and Barnet bypasses, built in the 1920s and 1930s.

The M1 is a South-North motorway in England, connecting London to Leeds and joining the A1(M) near Aberford. It was the first inter-urban motorway completed in the UK and the majority opened between 1959 and 1968, although the Southern end of the A1 was extended in 1977.

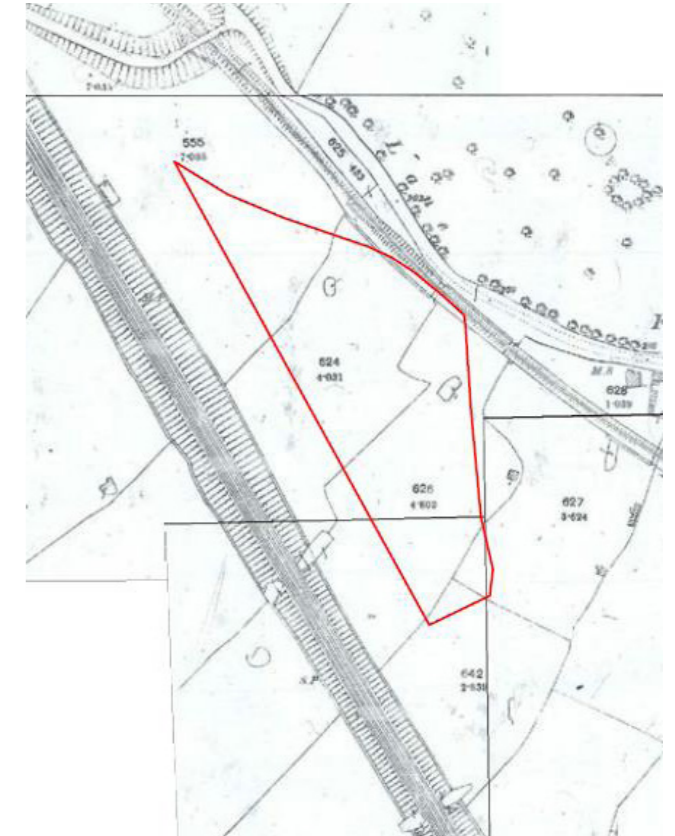
This site's location, at a major confluence of motorway infrastructure and the combination of major improvements in car transport connectivity at that time, was something the 'big box' retail buildings that currently occupy the site, were intended to capitalise on.



1796



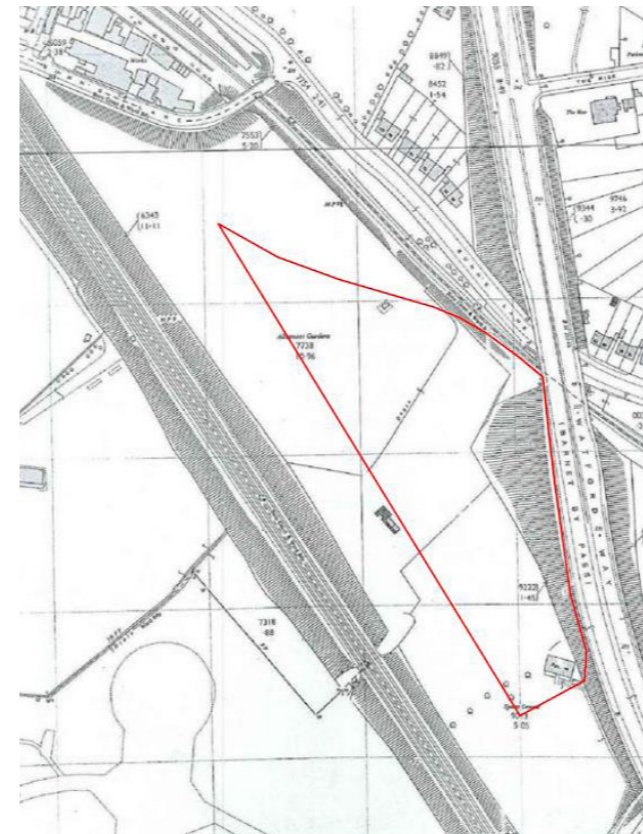
1828



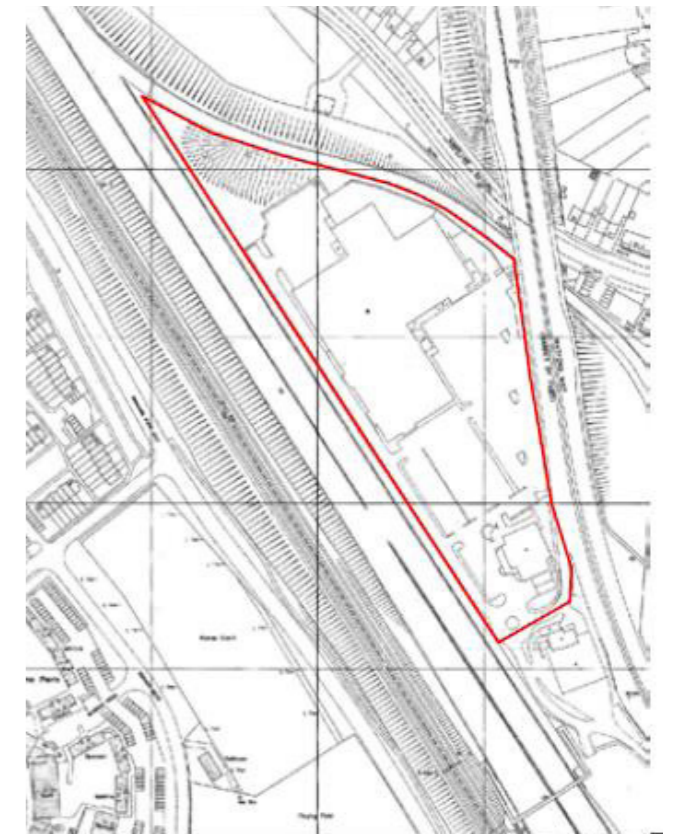
1896



1932-35



1964



1979-90

2.0 SITE CONTEXT

2.4 Mill Hill History

Railway

The construction of the Midland Railway in the 1860s, brought additional development around Mill Hill Broadway, and consisted mainly of terraced houses. People traditionally took day trips out of Central London to open space surrounding the capital, and would often stop for refreshment in Mill Hill.

The properties on the Pentavia site bear little relation to Mill's Hill's historical relation to railway travel but are instead have more in common with today's 'big box retail' outlets served by the A1.



1905 - THE RIDGEWAY



1926 - MILL HILL GASWORKS



1930 - THE BROADWAY



1965 - THE BROADWAY



1955 - WATFORD WAY



1965 - NORTHWAY CIRCUS

3.0 RESPONSE TO MAYOR DESIGN COMMENTS

3.1 MDA Panel Comments

The scheme has been reviewed by the Mayor's Design Advocates at the GLA on the 6th February 2019 and it drew the following comments which the design team has responded as follows:

Form and massing

PANEL COMMENT

- The panel commented that the design team has explored alternative approaches, and note their assertion that air quality and noise issues mean that a defensive plan is required to create acceptable living conditions. The authority should insist on incontrovertible evidence on this point.
- The panel do not see a height to be problem but thinks that more sophisticated thinking is needed about the way the form and massing create townscape quality.

OUR RESPONSE

The form and massing evolution is further explained in Section 3.2.1, which demonstrates that many design options were explored throughout the design process. The design team has also located existing good examples of long linear developments similar to the massing proposal in Section 3.4

Further work on height has been explored and adopted as described in Section 3.2.2 after the MDA meeting.

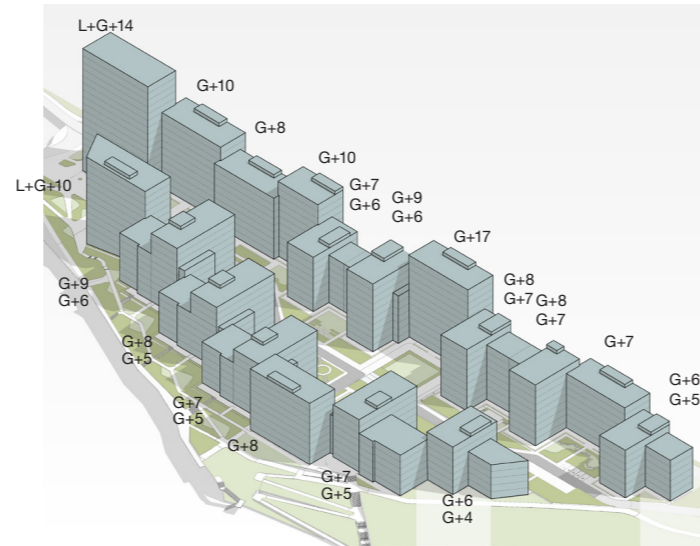
Facades

PANEL COMMENT

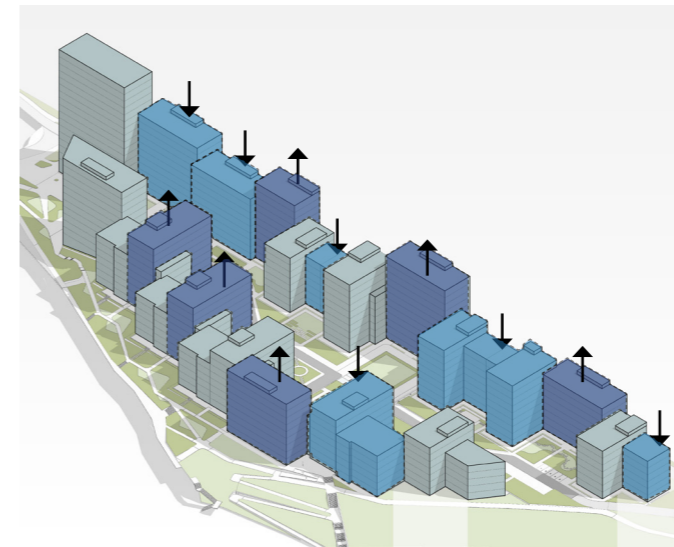
- Scheme has three basic façade types and a more creative and nuanced approach to architectural expression is essential humanise a development on this challenging site.
- Design rationale for the new 'courtyard buildings'.

OUR RESPONSE

Facades have been further explored in Section 3.3.1. by simplification and also Section 3.7 by showing a representation of the human experience with the subtle changes in facades. The courtyard buildings have been explored and a new building expression has been adopted, as described in Section 3.3.2.



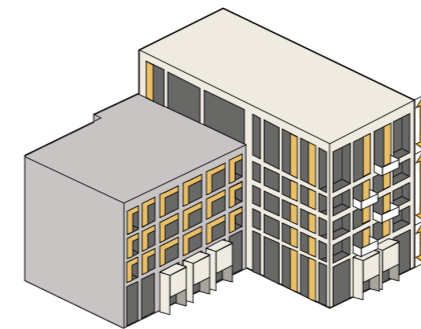
844 units. Previous MDA Panel



Added heights
Reduced heights



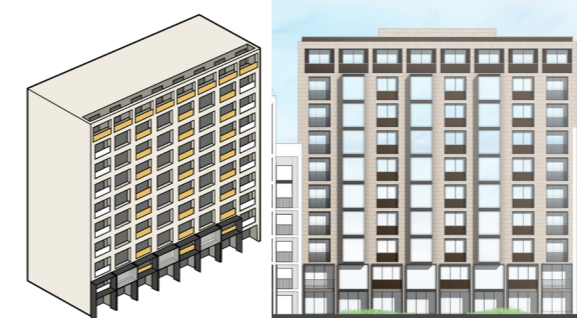
844 units. Current submission



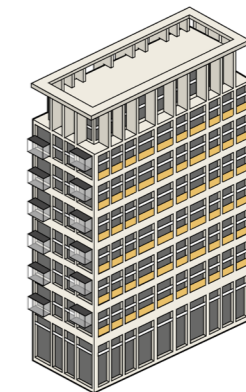
Type A



844 units. Previous MDA Panel. Facade Types and colours



Type B



Type C



Accessibility and connectivity

PANEL COMMENT

- Analysis tools to consider how the layout would function as part of the wider street network.
- Connections should be considered from the southern end of the development where there is an opportunity to create an entrance into the development.
- More work to be done to create a stronger relationship with the residential area north of the site.
- Particular attention should be paid to ensuring public realm improvements are made to this route beyond the site boundary.

OUR RESPONSE

The above comments have been addressed through pedestrian analysis in Section 3.4 and a description as to how we are improving connectivity to the surrounding area in Section 3.5.

Non - Residential uses and Public realm

PANEL COMMENT

- Non- residential uses in the development are currently spread along the central spine, but the panel suggests they should be clustered at either end of the central space.
- Design of central public space for the development will not meet the needs of the residents or shared private amenity space. Consideration should be given to how spaces can be designed to provide residents with location dedicated to their use.

OUR RESPONSE

Further studies have been undertaken in Section 3.4 providing pedestrian modelling evidence showing how the non residential uses will be used and plans showing there is higher concentration of these uses around the central space. Further detail on location of non-residential uses are described in Section 3.6. The pedestrian analysis in Section 3.4 also supports the footfall required to sustain these uses. Further landscape explanation to the shared private amenity space is covered in Section 6.3 Landscape.

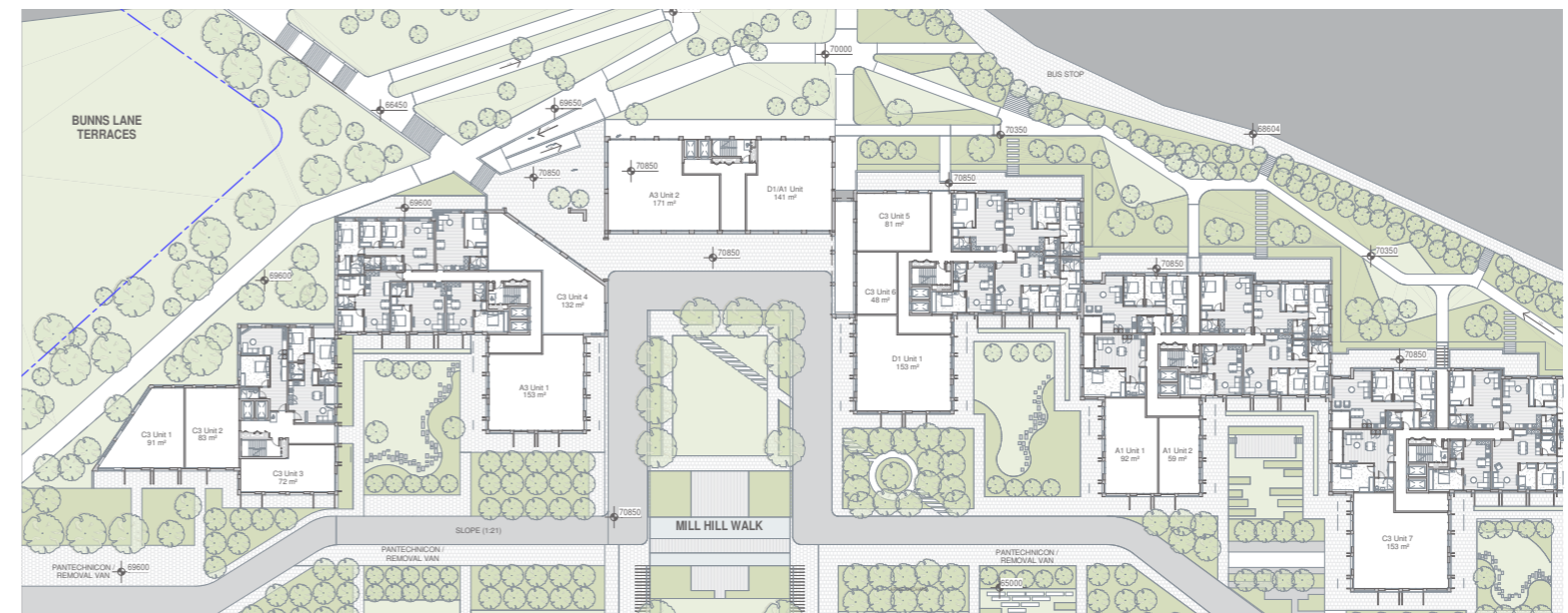
Residential units

PANEL COMMENT

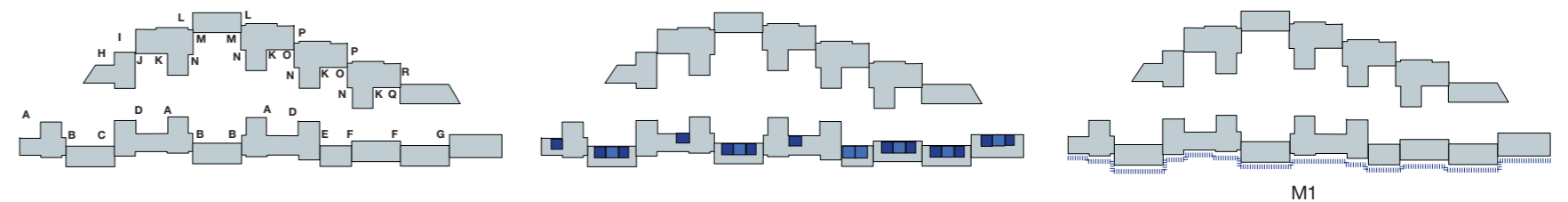
- Concerns with west facing bedrooms overlooking the M1 with no opening windows.
- Questions if the scheme results in flats of acceptable quality and it is important that the development is a place that residents can enjoy and provide a good quality of life.
- Corner to corner overlooking between buildings impact to privacy in flats.

OUR RESPONSE

Further work has been undertaken to describe the residential quality and the especially of the quality of the view out towards M1 from lower levels under Section 3.9 and Section 3.7 Further work has also been undertaken under Section 3.10 where it looks at all corner conditions and mitigation of overlooking issues through obscured glazing.



Ground floor. Commercial uses.



Corner apartments key plan

Single aspect units facing NE- East key plan

M1 facing units key plan

3.0 RESPONSE TO MAYOR DESIGN COMMENTS

3.2 Form and massing

3.2.1 The Design Evolution

The design of the scheme has been carefully refined and evolved over a series of design iterations and critical thinking to overcome the significant challenges of the site. The final scheme represents an evolution of the key principles of good placemaking, a high quality residential community and innovation.

The timeline on the right is a brief history of the long iterative design discussions and development the scheme has been through to reach this point.

AFK took over the scheme in December 2015 and were tasked with redesigning an original proposal for the site in response to comments from Barnet and GLA. The design changes which needed to be made were principally to address:

- Concerns with solar amenity in tight courtyard blocks
- Narrow streets and overlooking issues
- The large wall along the M1 which have relatively little articulation

AFK then put forward a new scheme, which was developed for a 30th September 2016 planning submission. Our proposal comprised:

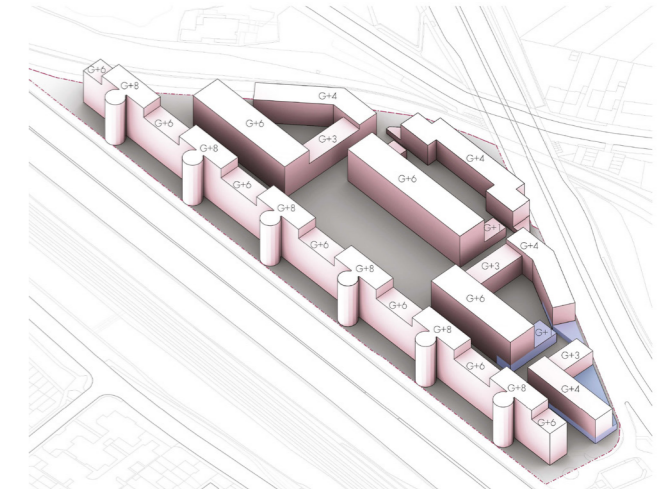
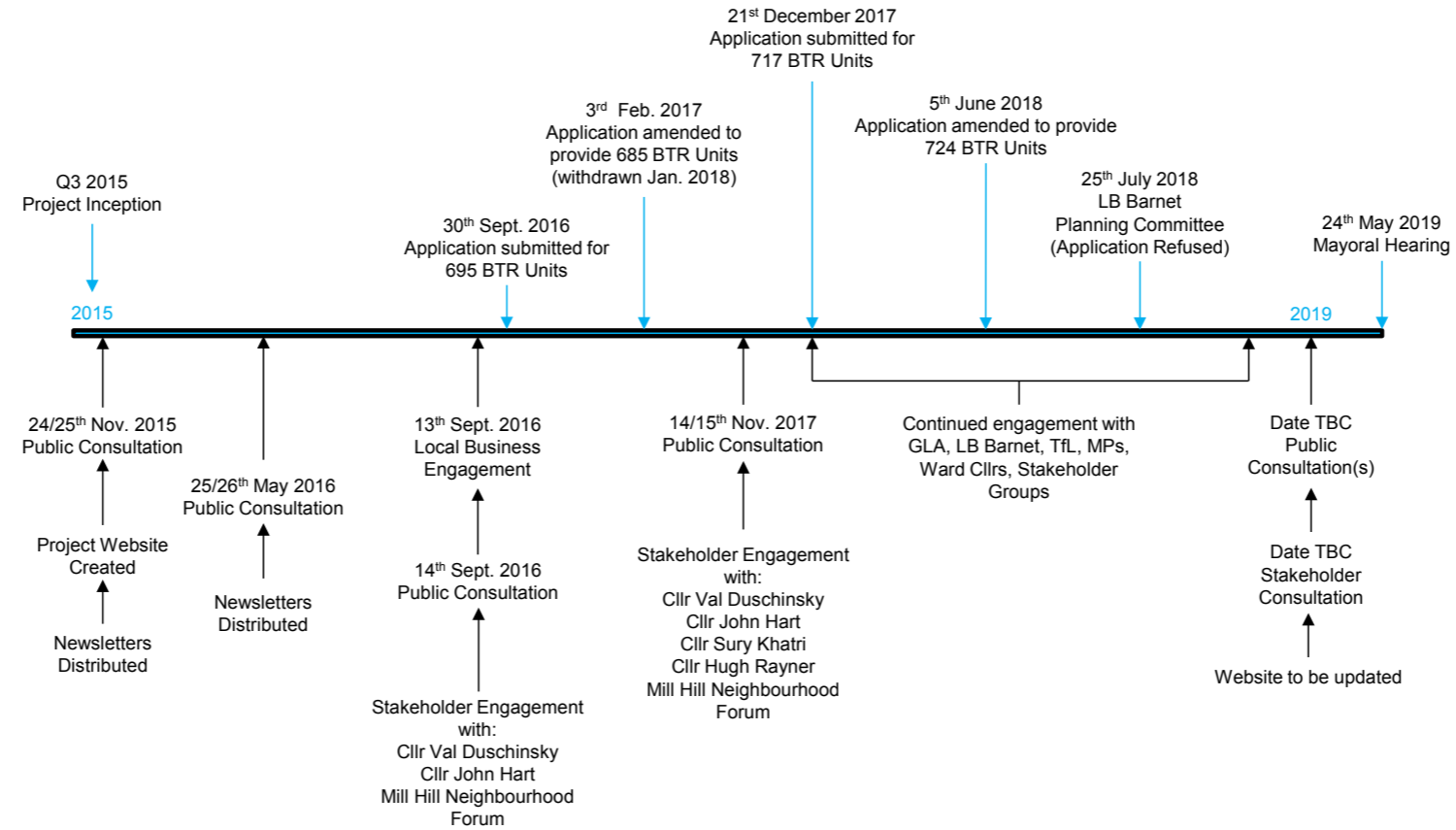
- A curvilinear scheme with a central circular block
- An undulating arrangement of blocks to break up reading of a long wall with little articulation addressing GLA comments of breaking down the long block
- A generous central space was created at the centre of the site for the community to enjoy with increase solar amenity between blocks
- Increased spacing between buildings
- Creating a new architectural landmark to Mill Hill

The scheme was later developed and adjusted through continual design reviews with the GLA. Key points from these reviews resulted in a design where:

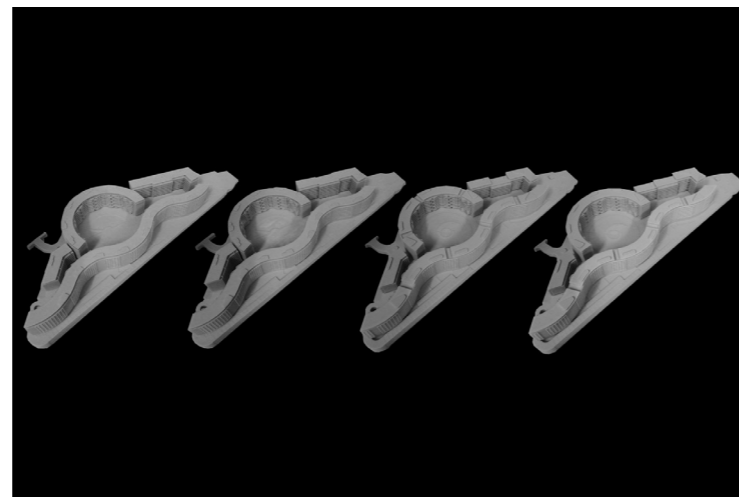
- The roof line was adjusted and articulated using the existing curvilinear scheme
- Brick colours were tested to link the scheme more into the brick and colour of the area

Despite adjustments to the curvilinear scheme, it became evident that we were to return to first principles and a fresh and more contextual approach was needed, to ensure the scheme was much more reflective of Mill Hill. What followed was a design competition, where AFK competed against other architects who each gave an alternative proposal and new thinking to address both Barnet and GLA concerns.

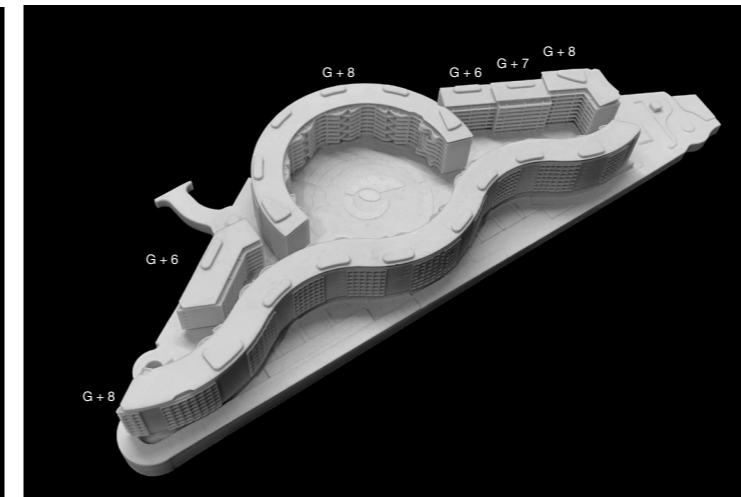
As part of the competition process, AFK looked at various massing



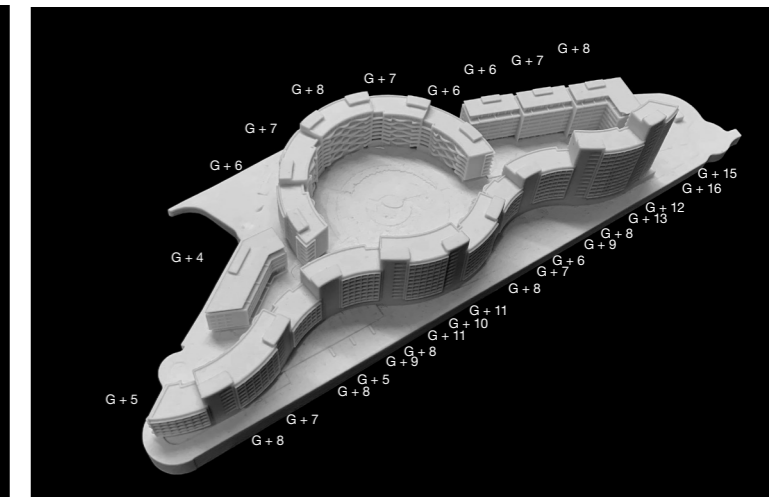
Previous scheme - Dec 2015
Critised over access to daylight sunlight in tight courtyard areas and narrow streets



Studies curved scheme



695 Units. Planning application September 2016



685 Units. Application amended February 2017 in reaction to the GLA comments for an articulated skyline

3.0 RESPONSE TO MAYOR DESIGN COMMENTS

options to give a smaller grain and human scale to the scheme. This involved breaking the large walls down to create interconnected courtyard mansion style blocks. This new broken down but interconnected arrangement was assessed for acoustics and pollution protection and was deemed an effective barrier, where a series of buildings over 4 storeys performed best. However, a very tight grain was not possible due to overlooking distances and solar access.

AFK would go on to win the design competition with the interlocked courtyard blocks proposal and for their understanding of the fundamental issues put forward by Barnet and GLA and the site. Our competition winning proposal comprised:

- A much more articulated set of buildings which breaks the singular expression of one consistent building mass or wall
- Lowered heights towards Bunn's Lane, while placing more height towards the South where it is less sensitive, also create a variegated and interesting skyline
- Evoking traditional London building typologies of mansion style buildings surrounding a set of urban squares and courtyards
- More efficient rectilinear L-shaped building blocks
- A 'closed community' arrangement of buildings which protects the public amenity space in the centre of the scheme.

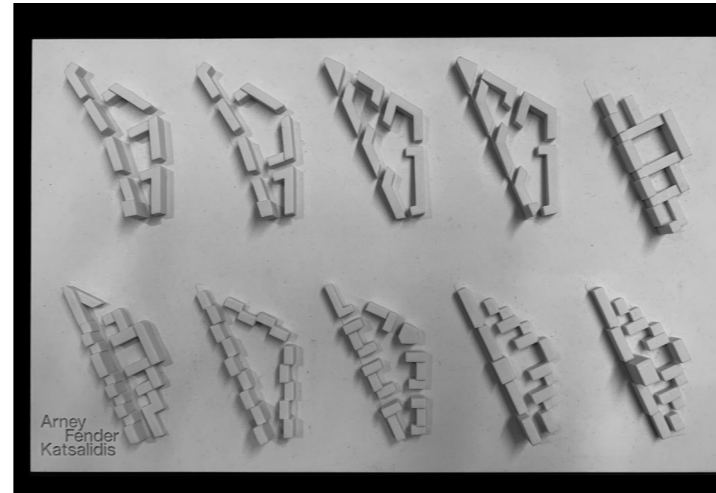
Further improvements were also incorporated into the competition-winning scheme after meeting with GLA which led to:

- Building separation distances designed to 21m
- Optimised and increased number of blocks and moved the tower over the car park space
- Move the buildings along the A1 further into the site but maintain 21m building distances.

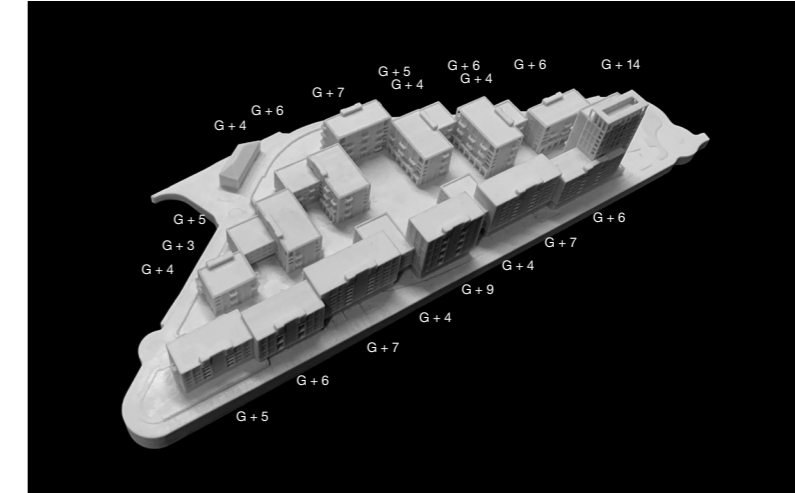
Further meetings with GLA and Barnet were held and more comments were incorporated into the scheme, namely:

- Move the tower to the south more into the car park / piazza area
- More landscape areas around the A1 to provide more connectivity
- A design which creates more of a welcoming entrance along Bunn's Lane and accessible gradient access for wheelchair users
- Improved connections to public transport infrastructure
- Reduction of car parking spaces and introduction of arrival square to the South
- Demonstrate better connectivity to cycle infrastructure
- Greater connectivity to the south over the M1 pedestrian bridge to Grahame Park Way, to access local public transport

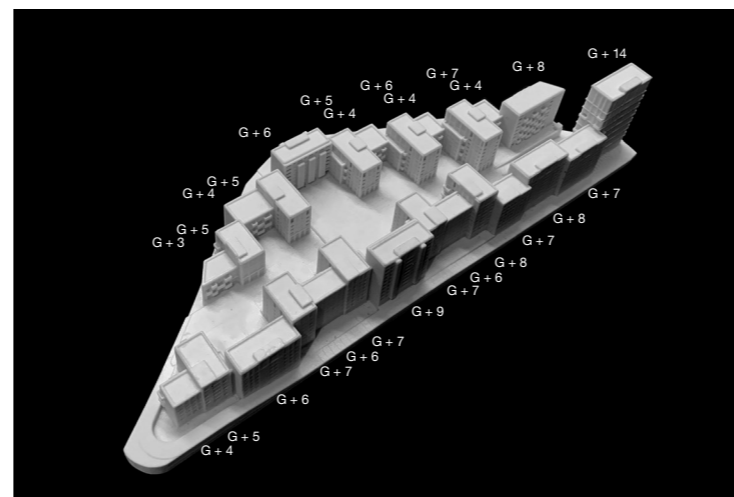
The final scheme incorporates these successive changes and comments and led to a scheme which is much better connected into the local area's public transport systems and has increased access to neighbouring main Thameslink Station. The significant improvements made and willingness of the team to take on comments and concerns gave confidence to Barnet Planning Officers and GLA and led to the new Barnet Application.



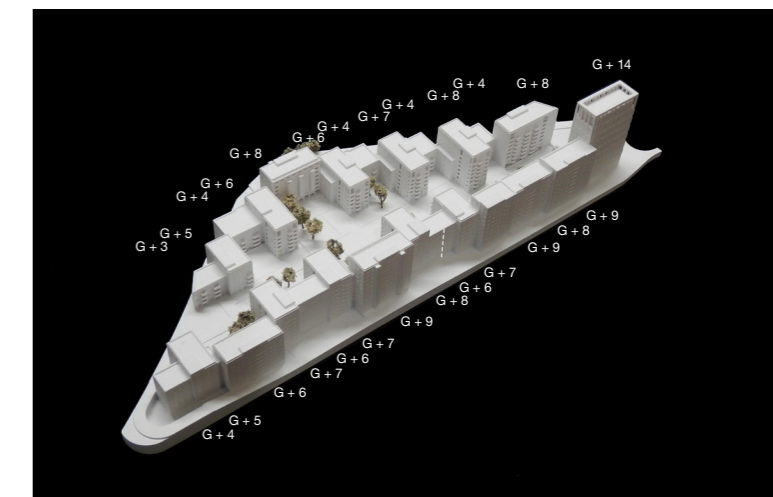
Studies during July 2017 competition exploring different urban massing moves



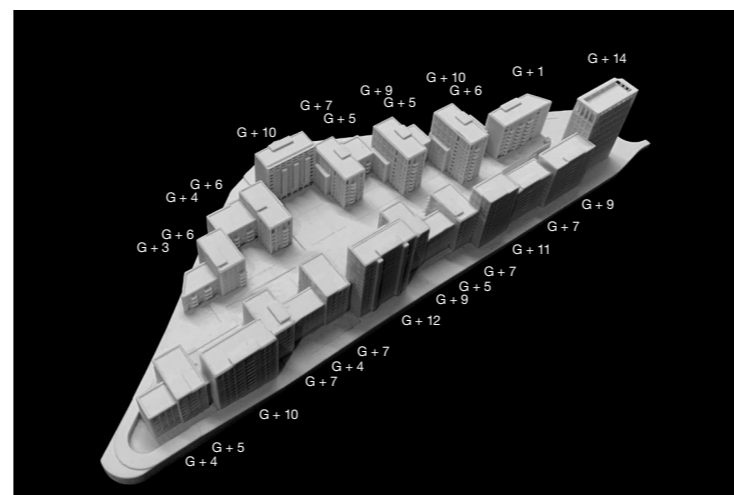
Final Competition winning design July 2017 and presented back to the GLA and Barnet with greater acceptance of the new scheme



717 Units. Planning application November 2017
Optimised distances, additional blocks and moving the tower element more south



724 Units. Application amended June 2018
Optimisation of units by adding more unit mixes and holistic improvements to the landscape and site connectivity



844 Units. Planning application March 2019
Massing adapted to GLA MDA comments