vectos.

TRANSPORT ASSESSMENT

Citystyle Fairview VQ LLP

Victoria Quarter, Albert Road, New Barnet

June 2021

Transport Assessment

Contents

Appendices

1 Introduction

1.1 Vectos is appointed to provide transport advice to Citystyle Fairview VQ LLP (the Applicant) in relation to the proposed development of a site at Victoria Quarter, Albert Road in New Barnet.

1.2 The strategic location of the site is shown on the plan at **Figure 1.1**, and the local site location is shown at **Figure 1.2**.

Figure 1.1: Site Location Plan

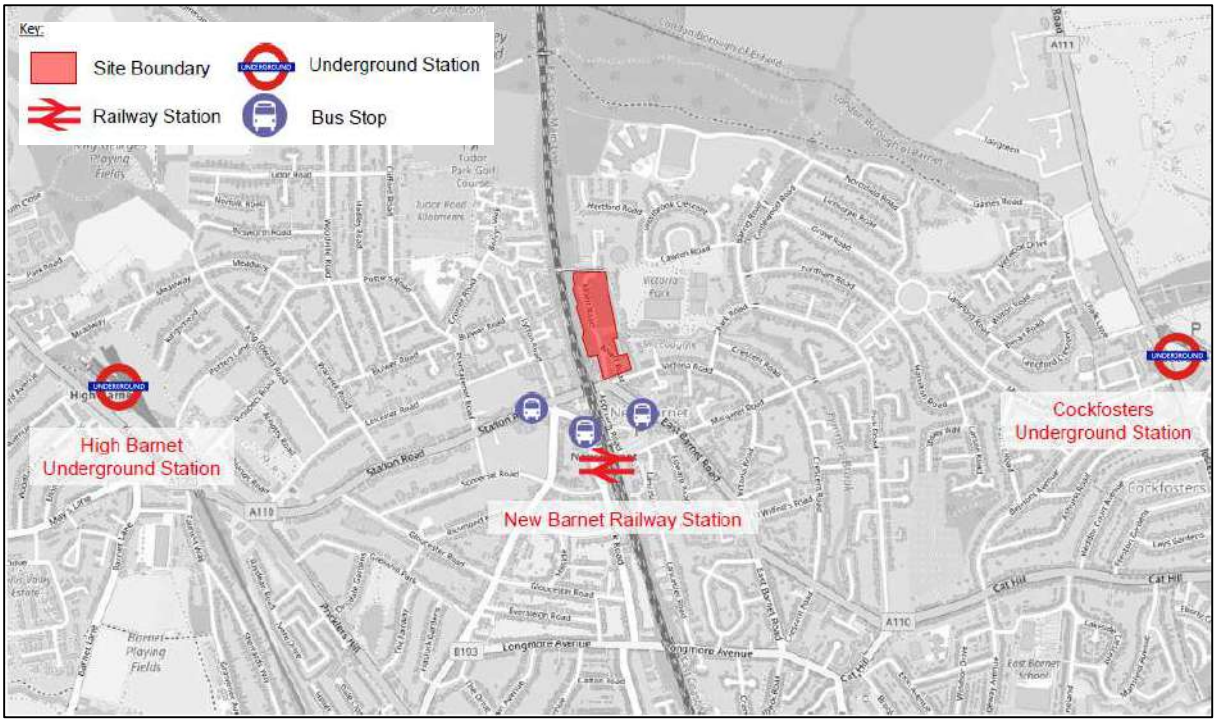
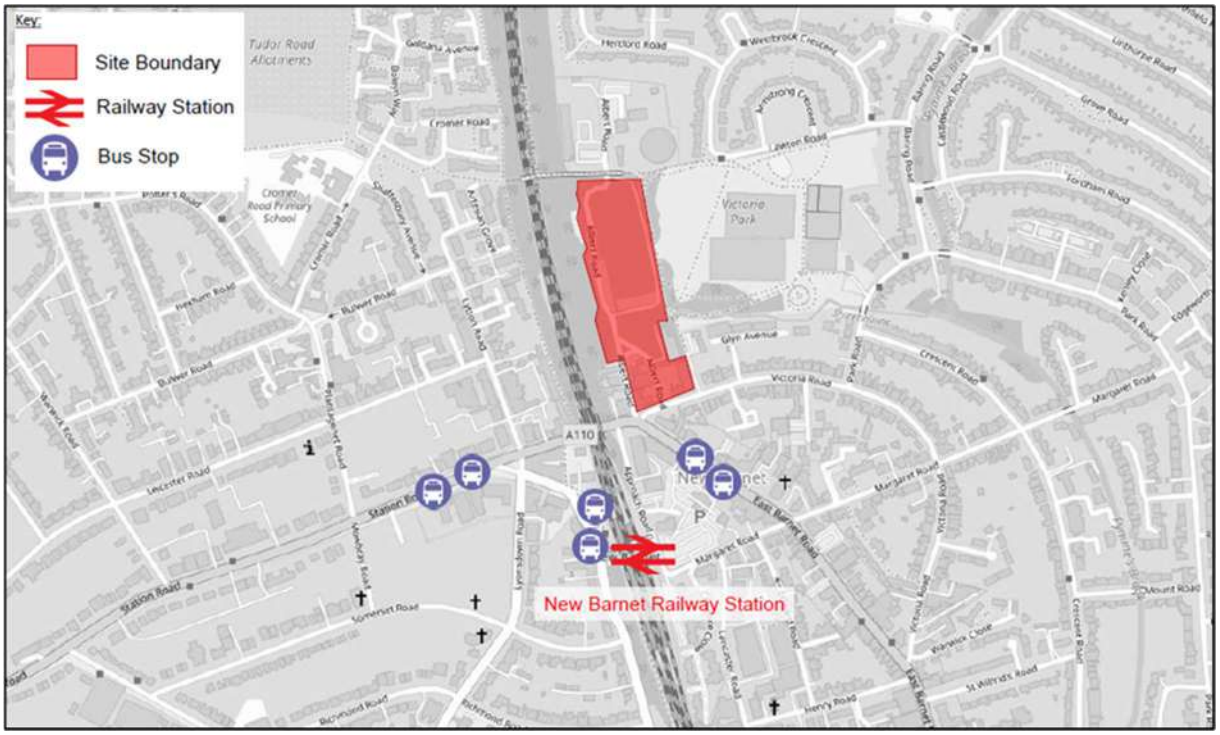


Figure 1.2: Local Context Plan



1.3 The site has been subject to a total of four planning applications in recent years, further details of these applications are as follows:

- B/04834/14: The first application was made to secure consent for 305 residential units, 674sqm mixed use commercial space, new public open space, new public open space, removal of elevated footbridge and provision of basement car parking. The application was approved following legal agreement in May 2015.

- 16/7601/FUL: The second application was made to cover an additional piece of land to the front of the site as well as part of the existing site. The proposal sought to provide an additional 104 units, however in reality the application delivered a new increase of 52 units above the previous application. This application is subject to resolution only, with the Section 106 to be completed soon.

- 17/5522/FUL: The third application focussed on the former Salvation Army building to the front of the site. It was proposed that the number of units in this part of the site should be increased to 39 units, from the 25 units detailed in the previous application, resulting in a net increase of 14 units. This application is subject to resolution only, with the Section 106 to be completed soon.

- 20/1719/FUL: The fourth application was to redevelop the full site in order to provide a total of 625 residential units across 14 buildings, with 327.6sqm of retail/commercial space and 111.3sqm of community space. The proposals also included new public realm, with communal landscaped amenity areas, alterations and additions to the existing highways arrangements plus the removal of the existing elevated footbridge and creation of new pedestrian routes. The proposals also included for 392 parking spaces (including car club

and accessible provision), secure cycle parking, servicing and other associated development. This application was refused in December 2020.

1.4 The site was formerly a call centre, at the time of writing this land use has been demolished and the site is now a construction site. It is noted that works have commenced to construct the basement of the proposed site (as a result of one of the previous consented schemes for this residential development).

1.5 Most recently, a planning application was submitted in April 2020 to London Borough of Barnet (LBB) for a mixed-use, residential led development of the site. However, the application was refused, however no objection was received from either the highway officers at LBB or Transport for London (TfL).

1.6 Vectos prepared a Transport Assessment (TA) which considered the transport matters in detail. The TA was prepared based on pre-application discussions with transport officers from LBB and TfL.

1.7 Following the refusal of the previous application (20/1719/FUL), a revised scheme has been prepared which would provide 544 homes and would comprise a mix of private sale and affordable units and present a lower quantum of development at the site.

1.8 The site would also provide commercial units and a space for the community. The site would be landscaped to a high standard and would include an area for the public, which would be adjacent to an access to the neighbouring Victoria Park.

1.9 Cycle parking provision would also be provided throughout the site and will be in line with the London Plan standards and London Cycle Design Standards (LCDS).

1.10 The site would also provide car parking, at basement level, with additional spaces provided at ground level at various locations around the site, with accessible spaces and electric vehicle charging spaces to be provided.

1.11 It should be noted that the National Grid site located to the north of the development site is still operational and is accessed via a temporary access road along the eastern edge of the site (which is safely segregated from the construction site via hoarding).

Policy and Design Considerations

1.12 It is considered that the site is readily accessible by non-car modes of transport and is suitable for high density residential development. The proposals will accord with the London Plan Policy GG2 ‘Making the best use of land’ by promoting higher density development.

1.13 Since the proposed development site is within a very short distance of the nearest National Rail station and bus stops and is within walking and cycling distance of the nearest London Underground stations it is considered that the site has a very good level of access to public transport modes.

1.14 Parking provision for the residential element of the scheme reflects the accessibility of the site by non-car modes of transport and is in accordance with the London Plan parking standards, which state that:

"Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity"

1.15 On this basis a relatively low car parking provision has been proposed at the site (circa 0.61 ratio of parking spaces to dwellings).

1.16 In accordance with Policy T6.1G 'Residential Parking' of the London Plan, the proposed development will provide blue badge spaces on-site for 3% of the units from first occupation. Demand will then be monitored, with further blue badge spaces provided, if required up to a provision that equates to 10% of units.

1.17 The site will provide a mix in terms of both ownership and size of residential flats, some commercial land use, community land use and landscaped public space.

1.18 It is considered that the site is readily accessible by non-car modes of transport and is suitable for high density residential development. The proposals will accord with the London Plan Policy GG2 'Making the best use of land' by promoting higher density development.

1.19 In addition, the applicant is committed to providing car club spaces within the site as an alternative to owning a car in line with the London Plan Policy which supports car club spaces being considered in lieu of private parking provision.

1.20 To further encourage and support the Mayor's target for 80% of all trips in London to be made by foot, bicycle or public transport by 2041. Cycle parking spaces would be provided for the proposed residential units in accordance with the London Plan standards and LCDS standards.

1.21 The proposed development complies with the aspirations set out within the Healthy Streets, Vision Zero and Mayor's Transport Strategy to reduce trips by private car as vehicular parking will be minimised.

1.22 The site also has good accessibility to the wider sustainable transport network, to encourage trips to and from the site to be undertaken by sustainable modes.

1.23 This report has been amended to reflect the advice and queries from TfL and LBB raised as part of the April 2020 planning application.

1.24 In addition to the Transport Assessment, the planning application is supported by a Residential Travel Plan and a Delivery and Servicing Plan. These documents are provided in **Appendix A** and **Appendix B** respectively.

2 Transport Planning for People

2.1 This section of the report details who the proposed development is for and when these people are likely to travel to/from the site.

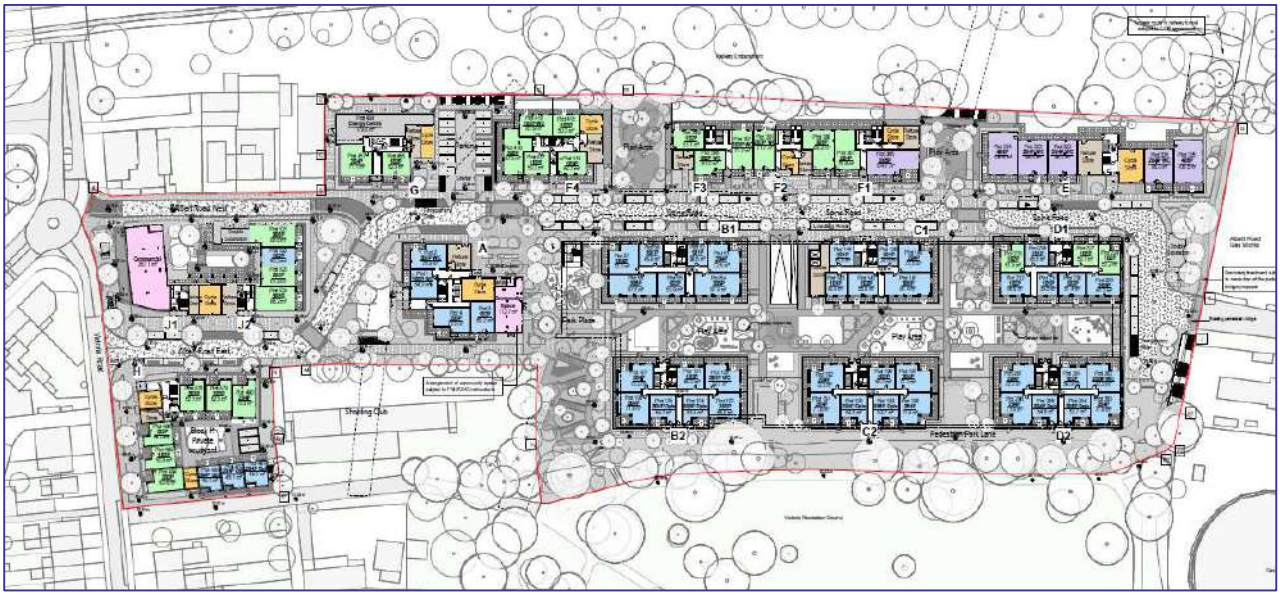
Development Proposals

2.2 The application seeks planning permission for the:

Redevelopment of the site to provide 544 residential units (Use Class C3) within 13 buildings ranging from 4 to 8 storeys, with 267.1sqm of retail/commercial space and 112.7sqm of community space (Use Class A1/A2/A3/A4/B1/D1/D2) at ground floor, new public realm with communal landscaped amenity areas, alterations and additions to existing highways arrangements plus the removal of existing elevated footbridge and creation of new pedestrian routes, 334 car parking spaces (including car club and accessible provision) with basement and surface level provision, secure cycle parking, servicing and other associated development

2.3 The proposed development comprises a total of 13 blocks of varying heights between 4-8 storeys, providing residential units, along with some commercial space, community space and associated cycle and car parking and landscaping. **Figure 2.1** provides an extract of the proposed site layout, the full site layout plan is provided in **Appendix C**.

Figure 2.1: Extract of Proposed Site Layout



2.4 The mix for the residential element of the scheme is proposed as:

- 29 x studio homes;
- 159 x 1-bedroom homes;
- 237 x 2-bedroom homes;

— 103 x 3-bedroom homes; and

— 16 x 4-bedroom homes.

2.5 This mix comprises a total of 544 homes. They will be provided across buildings which are 4-8 storeys in height.

2.6 The site is well located to allow people travelling to and from the site to make active and sustainable travel choices, with a range of public transport options within easy reach, including bus stops, underground stations and New Barnet station.

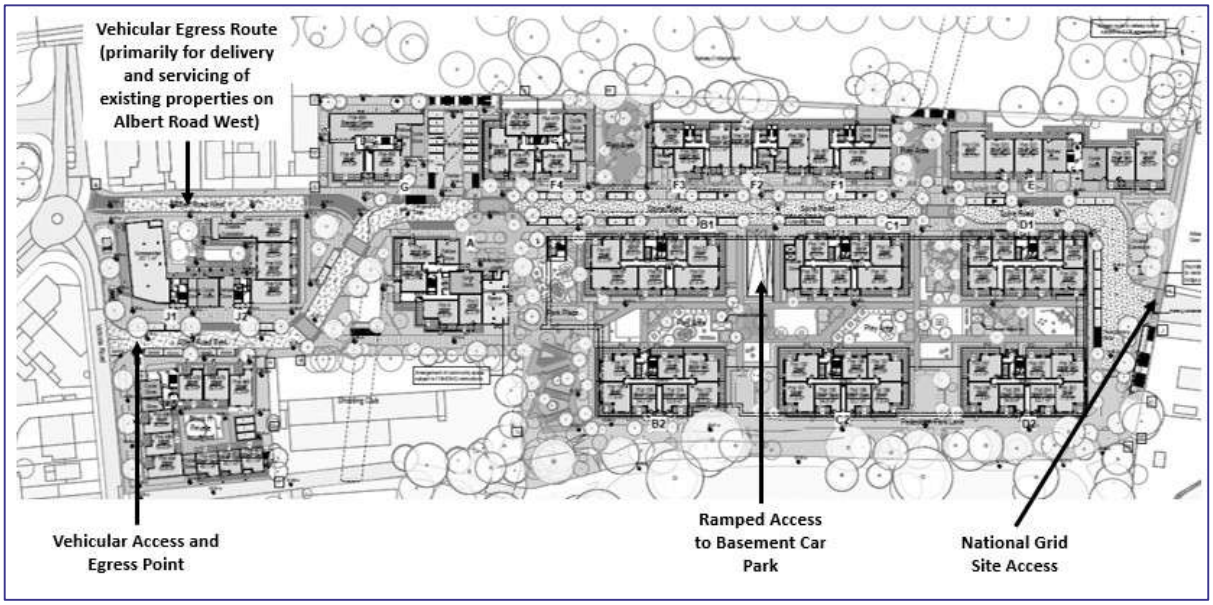
2.7 Planning policy supports higher levels of development density in sustainable locations. The availability of non-car modes of travel in proximity to the site allows space that otherwise be dedicated to parking provision to be allocated as public realm, pedestrian/cycle infrastructure and car club cars.

Access Arrangements

2.8 The site will be located on Victoria Road, with some of the development fronting Victoria Road.

2.9 Both Albert Road West and Albert Road East will continue to run through the site, with some works to realign and improve this existing vehicular route. Albert Road East will provide access to the site for vehicles and cyclists. **Figure 2.2** illustrates the vehicular access arrangements.

Figure 2.2: Vehicular Access Arrangements



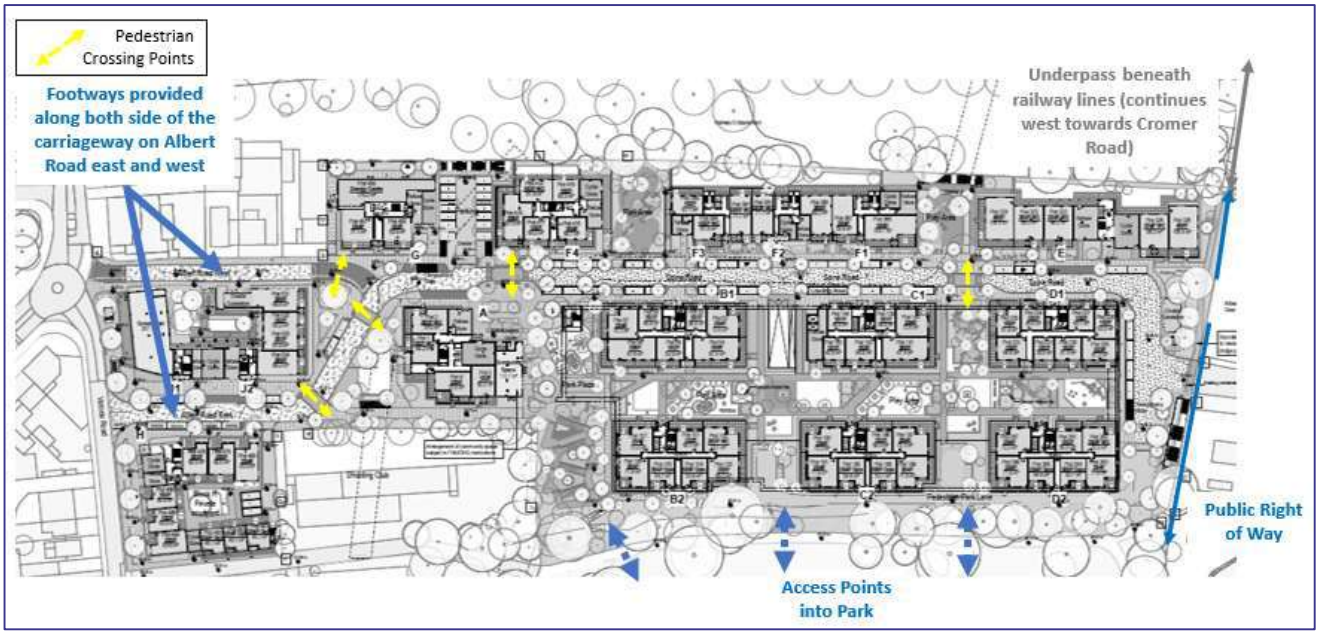
2.10 As such vehicular access to the site will be taken from Albert Road East, continuing to allow two-way vehicle movements, Albert Road West will continue to be exit only but will be improved to provide a more suitable environment for pedestrians and cyclists.

2.11 The main pedestrian routes into the site will be along the footways along both sides of Albert Road (west) and Albert Road (east). The pedestrian environment has been prioritised through the site

design and will provide direct and attractive routes to the various buildings within the site as well as an area of public realm which will form a link to the adjacent Victoria Park. The pedestrian access arrangements are illustrated in **Figure 2.3**.

2.12 **Figure 2.3** also shows the main street (Albert Road East and its continuation north), which run through the site. They will accommodate 2.0m footways on both sides. Options for Albert Road West, which will provide further enhanced facilities for pedestrians and cyclists compared to the existing situation are also proposed, providing 2.0m footways (with short sections reducing to 1.8m) on both sides of the carriageway.

Figure 2.3: Pedestrian Access Arrangements



2.13 Further pedestrian points of access through to Victoria Park will be provided along the eastern boundary of the site. The permissive routes through to Victoria Park will be available at all times (24 hours a day, throughout the year). Cycle access to Victoria Park is possible through the internal street network.

2.14 An existing Public Right of Way (PROW) the rear of the site connects Victoria Park through to Cromer Road. This is via an elevated walkway over the northern boundary of the site, followed by a tunnel under the adjacent railway.

2.15 Consistent with the previous schemes for the site, it is proposed that the existing elevated walkway is demolished and a new surface level footway is provided across the northern edge of the site to continue the PROW. A separate structure will be put in place to provide access to the tunnel below the railway line. Details of this arrangement are being discussed with Network Rail and are well advanced.

2.16 The site will continue to provide access to vehicles associated with the National Grid site, directly to the north of the development site. The proposed internal route has been designed to ensure that vehicles are able to travel its length and pass through the access into the National Grid site.

Transport Classification of Londoners

2.17 Transport for London (TfL) has published a number of reports with regard to travel in London. These reports summarise the trends and development in travel and transport in London. One of the supplementary reports within Travel in London is entitled *'Transport Classification of Londoners (TCoL): Presenting the Segments' (February 2017)*.

2.18 This document summarises the TCoL as a multi-modal customer segmentation tool. The TCoL categorises Londoners on the basis of the travel choices they make and the reasons for making them.

2.19 The TCoL identifies nine segments and provides a profile of residents across each of the segments for all of the London Boroughs. The profile for the borough of Barnet is provided in **Table 2.1**.

Table 2.1: London Borough of Barnet TCoL

Transport Classification of Londoners	%
Affordable transitions	0
City living	1
Detached retirement	45
Educational advantage	3
Family challenge	9
Settled suburbia	3
Students & graduates	10
Suburban moderation	25
Urban mobility	4
Total	**100%**

2.20 Based on the information presented in **Table 2.1**, the Transport Classification of Londoners (TCoL) says that 70% of Barnet residents fall within 'Detached Retirement' and 'Suburban Moderation' segments. Students & Graduates and Urban Mobility accounts for only 14% of Barnet residents.

2.21 Detached retirement would be classed as those typically in the "empty nest" or retired life stage group that are looking to live in greener suburbs on the fringes of London. Travel for this group is largely dominated by car with some use of rail and very little bus or active modes typically used.

2.22 Suburban moderation would be classed as those who are likely to have at least one child at home and has around the average level of change. This travel profile has car use high on the list, with use of public transport and active modes below average.

2.23 The results of the TCoL are Borough wide and represent a snapshot in time. They should be not taken as an indication of the likely types of residents of the proposed homes that the Victoria Quarter development would provide.

2.24 The proposed development does not preclude people from any of the identified segments from becoming future residents. However, it is anticipated that the majority of future residents will be those within the urban mobility, students and graduates and city living segments. The reasons for this are the short journey time commuting into London, the site's links to public transport and access to amenities on foot and by cycle. Car ownership and use is expected to be low as a result.

2.25 Whilst work habits are changing, the most intense periods of trip generation by future residents will be during the traditional weekday peak hours (08:00-09:00 and 17:00-18:00) as they travel to and from their places of work.

2.26 The site will provide both an internal space for the community and an outdoor landscaped area which will also be designed as a space for the public and will be situated adjacent to the access to the park. These facilities will attract people from the local area and will act as a community hub where residents of New Barnet can meet, relax and unwind.

2.27 The playground area included as part of this public space will appeal to families with young children and offer a place for them to enjoy the facilities in a safe and protected environment.

Summary

2.28 Due to the site's proximity to local amenities and the availability of public transport options, it is anticipated that future residents will be those within the urban mobility, students and graduates and city living segments.

2.29 The greatest movements of people living at the site are likely to occur during the weekday AM and PM peak hours and the majority are expected to travel by non-car modes.

2.30 The development will support its residents and visitors to travel by non-car modes by providing extensive cycle parking and an attractive environment for pedestrians and cyclists, including improved links to the station, local high street and off-road route crossing the adjacent railway line.

3 Site and Surroundings

3.1 This section of the report examines the site's existing and future accessibility, specifically focusing on sustainable travel modes. The site has been critically examined as to how people of all abilities will be to access the site and its nearby facilities, such as local transport hubs.

Access

Walking and Cycling

Existing

3.2 Footways are provided along the existing sections of Albert Road, which are in relatively poor condition. The sections of footway are varied in width, but mostly circa 2m wide. The western footway of Albert Road (west) however it noticeably narrow (circa 1m wide), this limited width, one direction of vehicle traffic and relatively low traffic flows combined can result in pedestrians choosing to walk on the carriageway rather than the footway.

3.3 It is noted that some lengths of the footway have had repair works undertaken and therefore the surface is not consistent in terms of finish or materials used.

3.4 It is noted that as the site is currently under construction, there is hoarding up which also detracts from the pedestrian environment.

Proposed

3.5 Routes within the development will ensure permeability for people walking and cycling and ensure connections with Victoria Park that will benefit future residents and existing park users.

3.6 The existing elevated walkway that provides access below the railway line to the west of the site is proposed to be demolished and a new surface level footway is provided across the northern edge of the site to continue the PROW. A separate structure will be put in place to provide access to the tunnel below the railway line. Details of this arrangement are being discussed with Network Rail and are well advanced.

3.7 As part of the development, both Albert Road West and Albert Road East will be reimagined with improved public realm and enhanced facilities for people walking and cycling along its length.

3.8 Improvements to Albert Road West are proposed with the existing footway being resurfaced. A new footway will also be provided on its eastern side. Both of these facilities will lead to East Barnet Road where wider footways are proposed alongside new surfacing, greatly improving the public realm. Along Victoria Road the footway will be widened and a new crossing provided. These improvements are shown on plans provided at **Appendix D** of this report.

3.9 Level surface crossing points at either end of Albert Road West will prioritise pedestrian movements and discourage vehicle movements. The low vehicles movements expected on Albert Road West will make this street a more pedestrian friendly environment. These improvements are also shown on the plans provided at **Appendix D**.

3.10 Away from the site it is proposed to deliver the replacement of the existing zebra crossing facility on East Barnet Road, south-east of the Lytton Road junction, to a puffin crossing.

Public Transport Accessibility Level

3.11 The Public Transport Accessibility Level (PTAL) is one way of measuring the public transport accessibility of a given location, taking into account walk access time and service availability.

3.12 TfL has produced a London-wide assessment of PTAL using the WebCAT assessment tool which is available on TfL's website. The WebCAT online planning tool indicates the site currently has a PTAL of 3 at the southern end of the site, where it fronts onto Victoria Road and 1a towards the northern end of the site, although this is more a factor of its former use. This suggests that the site has a mix of 'moderate' and 'very poor' connectivity to public transport, depending where in the site the person is situated.

3.13 It should be noted that PTAL ratings are a high-level indicative assessment of access to public transport modes, while in reality this site benefits from having very close access to National Rail and public bus routes, with London Underground routes also available in the wider area, which can be reach on foot, by cycle or by bus. Whilst the London Underground routes are located further away from the site, there is still likely to be a reasonable amount of demand generated for these services by the development on the basis that there are multiple ways in which to access them.

3.14 As the following sections demonstrate, there is a convenient choice of train, underground and bus services available to residents and visitors of the site which means that a significant proportion will not need to own a car or, if they do, reduce the likelihood of using it for commuting purposes. This is why the proposed car parking provision, which is in accordance with the London Plan, is considered sufficient to prevent overspill parking and will encourage sustainable travel habits.

Public Transport

Bus – Existing

3.15 The site benefits from access to a number of bus services. The closest bus stops are located on East Barnet Road (A110), a 100m walk to the eastbound stop and 140m to the westbound stop.

3.16 In addition, further bus stops are provided at New Barnet Station and Station Road which are located approximately 300m to the west of the site. A summary of bus services within the vicinity of the site is provided in **Table 3.1**.

Table 3.1: Bus Service Frequency (Minutes)

Service	Towards	Weekday AM Peak (8am-9am)	Weekday PM Peak (5pm-6pm)	Saturday (1pm-2pm)
107	New Barnet Station	15	15	15
	Edgware Station	15	15	15
184	Chesterfield Road	7-11	7-11	8-12
	Turnpike Lane Station	7-10	7-10	7-10
307	Barnet Hospital	8-11	8-11	9-12
	Brimsdown Station	9-12	9-12	9-12
326	Brent Cross Shopping Centre	9-12	9-12	11-12
	The Spires	9-12	9-12	11-12
383	Finchley Memorial Hospital	30	30	30
	The Spires	30	30	30
384	Cockfosters Station	20	20	20
	Edgware Station	20	20	20

3.17 There is a reasonably high level of bus services available, with most of the services providing at least one bus every 12 minutes, with a maximum wait of 30 minutes for any of the services.

3.18 It is noted that route 626 is also available in the vicinity of the site, it is a school service which provides limited services each day, it is unlikely to be intensively used by the general public and as such has not been included in **Table 3.1**.

3.19 This service provides access to and from Dame Alice Owen's School, located in Potters Bar. The school is a co-educational secondary school with sixth form, which may be attended by some future residents.

Bus – Proposed

3.20 The development will bring forward improvements to footways along Albert Road (west and east) which will improve access towards local bus stops. The design of the internal layout will also facilitate pedestrian movements through the site.

3.21 The proposed improvements to the Victoria Road / East Barnet Road mini-roundabout, improving the surfacing of the footway, increasing its width and providing additional crossing points will improve the overall accessibility of local bus stops. These improvements are shown on the plan provided at **Appendix D**.

Railway – Existing

3.22 TfL recommends a maximum walking distance of 960m for accessing railway stations.

3.23 The nearest national rail station to the site is New Barnet Station. The station is located 270m walking distance from the site frontage (if using the Nirvana Close footpath), otherwise it is a 300m walk away if using Approach Road.

3.24 The station is served by both Great Northern and Thameslink services, which provide frequent connections towards destinations such as Welwyn Garden City, Moorgate and London Kings Cross.

3.25 The frequencies of the train services are provided below in **Table 3.2**.

Table 3.2: Frequency of National Rail Services from New Barnet Station (Services per hour)

Destination	Weekday AM Peak (8am-9am)	Weekday PM Peak (5pm-6pm)	Saturday (1pm-2pm)
Welwyn Garden City	4	4	2
Moorgate	4	4	2

3.26 **Table 3.2** shows that there are 4 services towards Central London in the weekday peak hours and 4 services to Welwyn Garden City (which also stop at Potters Bar and Hatfield, location of University of Hertfordshire).

Railway – Proposed

3.27 As a result of the improved permeability through the site and internal pedestrian/cycle links, access to the station for future residents will be improved.

3.28 The improvements to Albert Road West will provide a better environment for pedestrian and cycle movements.

3.29 The proposed improvements to the Victoria Road / East Barnet Road mini-roundabout, surfacing and crossing facilities will enhance the accessibility of the station.

London Underground – Existing

3.30 The nearest London Underground stations are High Barnet (1.7km walk to the west) and Cockfosters (2.0km walk to the east). High Barnet is a terminus on the Northern Line, while Cockfosters is a terminus of the Piccadilly Line. Both stations can be reached using public bus services.

3.31 The frequencies of both London Underground lines from these stations are summarised in **Table 3.3**.

Table 3.3: Frequency of London Underground Services (trains per hour)

Line	Destination	Weekday AM Peak (8am-9am)	Weekday PM Peak (5pm-6pm)	Saturday (1pm-2pm)
Northern Line	Morden	10	9	10
	Kennington	8	7	10
Piccadilly Line	Heathrow Terminal 5	6	2	6
	Hatton Cross	4	6	6
	Northfields	2	0	0
	Rayners Lane	2	3	3
	Uxbridge	4	6	3

3.32 **Table 3.3** shows that the Northern Line provides 16-18 services per hour into Central London, while the Piccadilly Line provides 17-18 services per hour towards Central London.

London Underground – Proposed

3.33 As a result of the improved permeability through the site and internal pedestrian/cycle links, access to the station for future residents will be improved. The proposed improvements to the Victoria Road / East Barnet Road mini-roundabout, surfacing and crossing facilities will enhance the accessibility of the station.

Vehicle access

Existing

3.34 Albert Road consists of two sections of road which meet at their northern ends, within the proposed development site. The western section (Albert Road West) is a one-way section, which is exit only onto East Barnet Road. The eastern section (Albert Road East) is two-way.

3.35 Albert Road is subject to a 20mph speed limit.

3.36 Albert Road provides access to residential properties, a pub and the former salvation army site. At its northern end Albert Road provides access to the section of the site currently under construction and the National Grid site.

3.37 Albert Road East leads to Victoria Road which is a residential street extending eastwards to a wider residential area and comprises a 20mph speed limit. To the west, Victoria Road leads to East Barnet Road which is a designated A-road (A110) forming a local high street function. Albert Road West connects with East Barnet Road within the vicinity of the East Barnet Road / Victoria Road mini-roundabout.

Proposed

3.38 Two-way access for vehicles in to and out of the site will be retained from Albert Road East and tis junction with Victoria Road. Albert Road itself is to be completely redesigned to provide an enhanced street environment, as shown in the plans at **Appendix D**. However, access for vehicles will be retained.

3.39 Albert Road East will continue north, providing access to Albert Road West where several buildings require servicing. At its junction, the urban realm will be designed to prioritise pedestrians and cyclists with materials denoting this and a level surface provided. Consideration to restricted access for vehicles, such as access only signage will be made to reduce usage of this street.

3.40 At East Barnet Road, the entry only signage will be retained and level surfacing implemented to provide priority to pedestrian movements whilst retaining vehicle egress movements, as shown in the plan provided at **Appendix D**.

3.41 Albert Road will provide access further north to the remaining parts of the site along with access to surface level parking areas and loading bays. Loading bay access swept path analysis drawings are provided at **Appendix E,** for both a 10m rigid vehicle (to serve the commercial unit) and a 7.5t box van to demonstrate deliveries to the residential units.

3.42 Access to the basement level car parking will be provided from the new internal street. A swept path analysis of this access is provided at **Appendix E**.

3.43 Swept path analysis has also been undertaken to demonstrate that the site is accessible by fire tender, this drawing is provided at **Appendix E** also.

3.44 As part of providing access to the National Grid gas works site, the internal street through the site needs to be designed in such a way that a 16.5m long articulated vehicle can access the gas works

site. Whilst operational such vehicles are not common (the survey detailed later in this report identifies mostly cars and light vehicles), retaining access for such vehicles is a legal requirement.

3.45 A swept path analysis of a 16.5m long vehicle, travelling along the internal street from Victoria Road through to the gas works site has been undertaken and is presented in **Appendix E**.

Car Clubs

3.46 Car clubs are membership schemes that offers people the use of a car on a pay-as-you-go basis. The schemes save the additional costs and inconvenience of residents owning or using their own car and means that residents have easy access to a car for those occasional journeys.

Existing

3.47 The nearest Enterprise Car Club location is located on High Road, North Finchley (2.5km away as the crow flies) and provides access to one car and two transit vans. While the nearest Zipcar location is at High Road, Totteridge & Whetstone, which is located circa 4.2km away (as the crow flies) and provides access to one car.

Proposed

3.48 The applicant is committed to providing car club spaces as part of the proposed development for the use of the residents, providing an alternative to owning a car.

3.49 These spaces will be provided towards the front of the site along Albert Road East where four spaces are provided. It is best practice to provide these spaces at surface level to ensure that mobile phone reception to lock and unlock the vehicles via the app. These car club spaces will also be well located for members of the public to use these vehicles, as well as residents of the development. Each Car Club space will have passive provision for electric charging points.

3.50 Enterprise Car Club provided an outline offer of what provision they would suggest for the site. Their recommendation was for up to 3 car club vehicles should be provided at the site (on a phased basis as the development becomes occupied and the vehicles become commercially viable).

3.51 All new residents will receive and memberships (and free drive time credit). Additionally, free commercial memberships and business accounts would be included for the non-residential land uses on site.

3.52 The provision of four car club spaces is designed to make it easy for residents to live at the site without owning their own car thereby encouraging sustainable travel habits.

Parking

Cycle Parking

3.53 The London Plan (2021) states that for dwellings the following standards apply:

- Long-stay: 1 space per studio/1 person, 1-bed dwelling, 1.5 spaces per 2 person, 1-bed dwelling, 2 spaces per all other dwellings.

— Short-stay: for 5-40 dwellings; 2 spaces, and thereafter 1 space per 40 dwellings should be provided.

3.54 Based on the residential mix a total of 980 long-term and 15 short-term cycle parking spaces are required as a minimum for the residential aspect of the site, in order to comply with the most recent London Plan standards.

3.55 It is noted that the nature of the commercial unit, kiosk and community space are being kept flexible and the precise use not defined. For the purpose of this report the greatest parking standard has been considered. As the commercial land uses amount to 267.1sqm, both the cycle parking standards for A1 food retail and A2-A5 land uses result in a requirement to provide 2 long stay and 8 short stay cycle parking spaces.

3.56 It is understood that the community space may be used as a nursery, applying these standards to the unit would result in a need to provide four cycle parking spaces (on the assumption of eight staff and 24 nursery pupils).

3.57 A total of 1,094 cycle parking spaces are currently proposed across the site, this proposed provision exceeds the requirements for cycle parking standards. These spaces will comprise of the following:

— 246 standard double stacker spaces provided in external shelters;

— 790 standard double stacker spaces provided in internal stores;

— 12 non-standard spaces provided in external stores; and

— 46 non-standard spaces provided in internal stores.

Car Parking

3.58 The London Plan (2021) parking standards take PTAL rating into consideration. For an Outer London site with a PTAL of 3 (which the majority of the site falls into), suggests a maximum car parking provision of up to 0.75 spaces per dwelling for 1-2 beds and up to 1 space per dwelling for 3+ bed units.

3.59 Applying the standard for Outer London sites with a PTAL of 3 results in a maximum parking provision of 438 parking spaces.

3.60 A total of 330 spaces are proposed (excluding car club bays), which relates to 0.61 spaces per dwelling. This level of provision is considered reasonable, due to the site's proximity to the underground and railway stations, local bus services and the fact that many key facilities (i.e. supermarkets, schools, post office, recreational space, gym) can all be reached within a short walk of the site (which is not captured within the PTAL calculation).

3.61 At new residential developments (with 10 or more units) for at least 3% of dwellings at least one designated disabled parking bay per dwelling is provided from the outset. A further 7% of dwellings should be able to be provided with a disabled parking bay if required. How this additional 7% can be achieved should be demonstrated through the Parking Design and Management Plan.

3.62 The London Plan standards note that all residential car parking spaces should be provided with the infrastructure for electric vehicle charging facilities, with a minimum of 20% of spaces to be provided with active charging facilities (the remaining spaces to have passive provision).

3.63 The guidance also states that in areas outside the Central Activity Zone, car club spaces may be appropriate, in lieu of private parking (should be provided with active charging facilities).

3.64 A total of 334 car parking spaces (including car club bays) will be provided at the site, translating to a 0.61 ratio of parking spaces to homes (when excluding car club bays), these spaces will consist of the following:

- 263 standard car parking spaces to be provided within the basement;
- 50 standard car parking spaces to be provided at surface level;
- 3 accessible car parking spaces to be provided at surface level and will be provided as close to building entrances as possible, will be broken up by areas of planting and will be well distributed across the site to suit user needs.
- 14 accessible car parking spaces provided in the basement, as close to the access cores (including lifts) as possible.
- 4 car club bays, to be provided at surface level, near to the front of the site so that they are also easily accessible to the public.

3.65 The accessible parking spaces meet the requirements set out by The London Plan parking standards for 3% from the outset and 7% to be added later, based on total number of residential units. The proposed 17 accessible bays to be provided from the outset equate to a 5% provision of accessible bays.

3.66 Electric vehicle charging provision will be provided in line with The London Plan, with 20% of spaces provided with active charging provision and the remaining 80% of spaces provided with passive charging provision.

Parking Provision Consideration

3.67 The general approach to the proposed scheme is to increase the number of much needed homes without a significant increase in car parking numbers compared to that already consented through earlier planning applications.

3.68 The total of 334 spaces for the 544 new homes, represents a reduction from the consented 396 car parking spaces associated with 371 homes. As such the proposed ratio represents a significant improvement on that already consented for the site.

3.69 The current car parking standards set by LBB identify much higher levels of car parking as a maximum standard setting lower levels at a ratio of at least one space per dwelling. Equally the new London Plan identifies maximum parking standards again with higher proportions than are proposed.

3.70 As such, the proposed parking ratio balances the parking standards, accessibility of the site and existing planning permission for the development.

3.71 Alongside the views of the GLA, the applicant also has to consider the views of the local planning and highway authority. In their response to the previous planning application (20/1719/FUL), LBB has stated that '*the parking provision ratio of 0.6 is considered acceptable in principle*'. Further, LBB has commented that they '*would not however endorse a further reduction to 0.5 as recently requested by TfL*'.

3.72 As such the proposed car parking provision (of which 17 are accessible spaces and 4 are car club spaces) balances the varying requirements.

3.73 The identified link between parking and induced car use identified by TfL is acknowledged and this is reflected in the trip generation presented earlier in this note.

3.74 LBB also previously requested that a calculation of car parking demand be presented. Whilst considerations such as the TCOL where 'Urban Mobility', 'Students and Graduates' and 'City Living' classifications are anticipated to be the most common future resident types, provision of high quality cycle parking and availability of car club vehicles will all have an effect on car ownership.

3.75 According to the Carplus Good Practice guidance, '*The Carplus Annual Survey suggests that one car club car in London replaces up to 17 privately owned vehicles that are sold, disposed of or purchase deferred in the past 12 months'*. As such the ability for the proposed four car club spaces and membership incentives offered to residents as part of the development has the potential to reduce car ownership and associated car parking demand.

3.76 Further, people have choice in where they live. Those moving to the development will do so in the knowledge that car parking may not be available. Further, on-street parking within 200 metres of the development (the distance identified in the Lambeth methodology for assessing on-street demand), is limited and restricted by double and single yellow line parking restrictions and driveway access points.

3.77 For all these reasons, the application of historic car ownership levels for the local area from the 2011 Census is unlikely to be respective of future trends. Notwithstanding this, in order to provide LBB with such an assessment so that judgements can be made, local car ownership levels have been reviewed.

3.78 The data (for Barnet 006) indicates that 41% of households (flats and apartments) in the local area do not own a car. 48% of households own a single car and 11% two or more.

3.79 The 42% of households that do not own a car relates well to the car parking ratio of 0.6 for the development. However, clearly the possibility that households may own more than one car is relevant.

3.80 As such, the proportion of homes against each car ownership levels has been assessed to provide an indication of parking demand in line with historic local trends. The analysis is presented in **Table 3.4**.

Table 3.4: Car Ownership Analysis

No. of Cars from Census	% of Homes	Number of Homes Proposed	Number of Cars Anticipated
0	41%	224	0
1	48%	263	263
2	10%	57	114
Total	100%	544	377

3.81 Compared to the overall provision of 330 spaces that the development would bring forward, the assessment in **Table 3.4** suggests there would be 47 more cars than spaces. As such a reduction in car ownership levels of 14% compared to historic values would be required to ensure the develop is able to accommodate its own demand.

3.82 For the reasons identified throughout this Transport Assessment, reliance on the car is unnecessary and this is likely to be reflected in car ownership levels.

3.83 The simple consideration of the effectiveness of Car Clubs would in itself represent a significant measure to reduce car parking demand. Where each space has the potential to remove 17 vehicles, this represents 68 vehicles / spaces across the development.

3.84 As with other consents for the site, the applicant is committed to funding the consultation for and implementing (where required) a Controlled Parking Zone (CPZ) in the local area. Future residents of the development would not be able to apply. Whilst there are clear indicators that such measures are unnecessary, the CPZ can be seen as a further measure to reduce car reliance and ownership.

Public Realm

Healthy Streets Approach

3.85 The Healthy Streets Approach is a system of policies and strategies to help Londoners reduce single occupancy vehicle trips and encourage walking, cycling and the use of public transport.

3.86 The overall aim of the Healthy Streets Approach is to help create a vibrant city where people can live active and healthy lives by putting this ethos at the heart of decision making.

3.87 The Healthy Streets approach is based on ten indicators which describe the experience of people using streets. The indicators are essential for a healthy street environment. The ten indicators are listed below:

- Pedestrians from all walks of life;
- People choose to walk, cycle and use public transport;

- Easy to cross;
- Shade and shelter;
- Places to stop and rest;
- Not too noisy;
- People feel safe;
- Things to see and do;
- People feel relaxed; and
- Clear air.

3.88 A higher emphasis is applied to the top two indicators “Pedestrians from all walks of life” and “people choose to walk, cycle and use public transport”. The other eight indicators describe essential elements required to support them.

3.89 The ten indicators have helped inform the design principles and transport strategy for the proposed development.

Pedestrians from all Walks of Life

3.90 As part of the development, the highway through the site will be revised to improve the legibility of pedestrian access and movement across the site. In addition, material upgrades to the footways surrounding the Victoria Road / East Barnet Road / Albert Road mini-roundabout will take place. This will include the creation of a raised pedestrian crossing across Albert Road (west) which will create a continuous surface for pedestrians. The continuous use of high-quality materials will disrupt the dominance of motor vehicles around the development.

3.91 All improvements to the public realm will ensure surfaces are smooth and flat allowing for easy navigation for those who may be physically impaired or older generations, reducing the risk of tripping or falling.

People Choose to Walk, Cycle and use Public Transport

3.92 The proposed development and the public realm improvements have been designed with future pedestrians and cyclists at the forefront. This includes the provision of sufficient cycle parking for future residents and visitors to the site.

3.93 There are multiple choices of public transport in vicinity of the site, with regular rail and bus services as detailed in **Section 3**. The bus and rail services are also within a short walking distance of each other, therefore allowing for interchangeable use. Railway services continue outside of peak hours, and regular bus services provide a cheaper alternative to travelling at peak time or using private modes of travel.

3.94 Furthermore, the improvements at the Victoria Road / East Barnet Road / Albert Road mini-roundabout will enhance pedestrian access between the site and surrounding local facilities.

3.95 Cycle routes will be developed through the site which will increase the permeability of the development. In addition, a segregated cycle ramp will be provided to a safe and secure cycle store.

Easy to Cross

3.96 New dropped kerbs will be installed across Victoria Road increasing the ease with which pedestrians can cross the road to access local facilities. In addition, installation of a raised pedestrian crossing across Albert Road (west) will create a continuous level surface, making it easy for all to cross.

3.97 At present, a zebra crossing across East Barnet Road is present which has dropped kerbs and tactile paving for physically or visually impaired users (**Photograph 3.1**). Furthermore, it is suitably placed to ensure good visibility of oncoming traffic in both directions.

Photograph 3.1: Zebra Crossing on East Barnet Road

3.98 It is also proposed to deliver the replacement of the existing zebra crossing facility on East Barnet Road, south-east of the Lytton Road junction, to a puffin crossing.

Shade and Shelter

3.99 Throughout the development, tree planting will take place, creating shade for pedestrians and cyclists on hot and sunny days whilst also allowing for sunlight during the winter months.

3.100 The proposed new buildings will act as a barrier from high winds, therefore making the environment at street level more pleasant to walk through in bad weather.

3.101 Pedestrians will be able to find shelter in the proposed commercial units which are likely to include some restaurant/café facilities. These will also provide a place of shelter when waiting for taxis.

Places to Stop and Rest

3.102 From on-site observations, it was noted that there were a number of opportunities to stop along the routes undertaken to key destinations around the site. This included the bench shown in **Photograph 3.2** which is notably situated under a tree providing shelter, as well as in proximity to the New Barnet Sainsbury's (Stop B) bus stop.

Photograph 3.2: Bench on East Barnet Road

3.103 The redevelopment of the Victoria Quarter site will provide enhanced public realm particularly around the recreational ground. The improvements will provide opportunity for people to gather and places to stop and rest.

Not too Noisy

3.104 A number of the routes to nearby key destinations, such as Cockfosters Station and Cromer Road Primary School, are along quieter residential roads. The routes provide a more relaxed environment for pedestrians to use and do not require users to raise their voices to have a conversation.

3.105 In addition, some routes run through Victoria Park, a fully traffic-free green space with shared pedestrian and cycle paths (**Photograph 3.3**). With the creation of new pedestrian accesses to Victoria Park, this will increase the ease with which people can travel using these quieter routes.

Photograph 3.3: Footpath through Victoria Park

People Feel Safe

3.106 The main pedestrian routes through the site have been designed such that the pedestrian environment is prioritised through the site design, providing direct and attractive routes to buildings in the development. This design will ensure that drivers will naturally travel at slower speeds, making the area safer for pedestrians and cyclists.

3.107 With the close proximity of bus stops and New Barnet railway station, as well as the proposed commercial land uses, the environment is considered safe as there is likely to be a consistent flow of people with a good natural surveillance around the area.

3.108 Light installations are already in place at the nearby railway bridge on East Barnet creating a safe footway, particularly at night-time.

Things to See and Do

3.109 The proposed commercial units have the potential to attract people travelling to New Barnet railway station as well as those visiting New Barnet town centre from the nearby residential areas. These spaces will therefore act as a community hub for all people encouraging social and leisure activities.

3.110 Furthermore, in proximity to the site is New Barnet town centre providing a range of shops, restaurants and cafés. The wealth of shops and services within walking distance of the site therefore reduces dependence on cars.

People Feel Relaxed

3.111 All paths will be wide enough to allow for all pedestrians. A good standard will be maintained to keep site frontage street clean to create a pleasant environment for all pedestrians who encounter the site, and to prevent any obstacles from blocking the path.

3.112 The commercial floorspace and tree planting will create an active frontage on Victoria Road for future residents of the site.

Clean Air

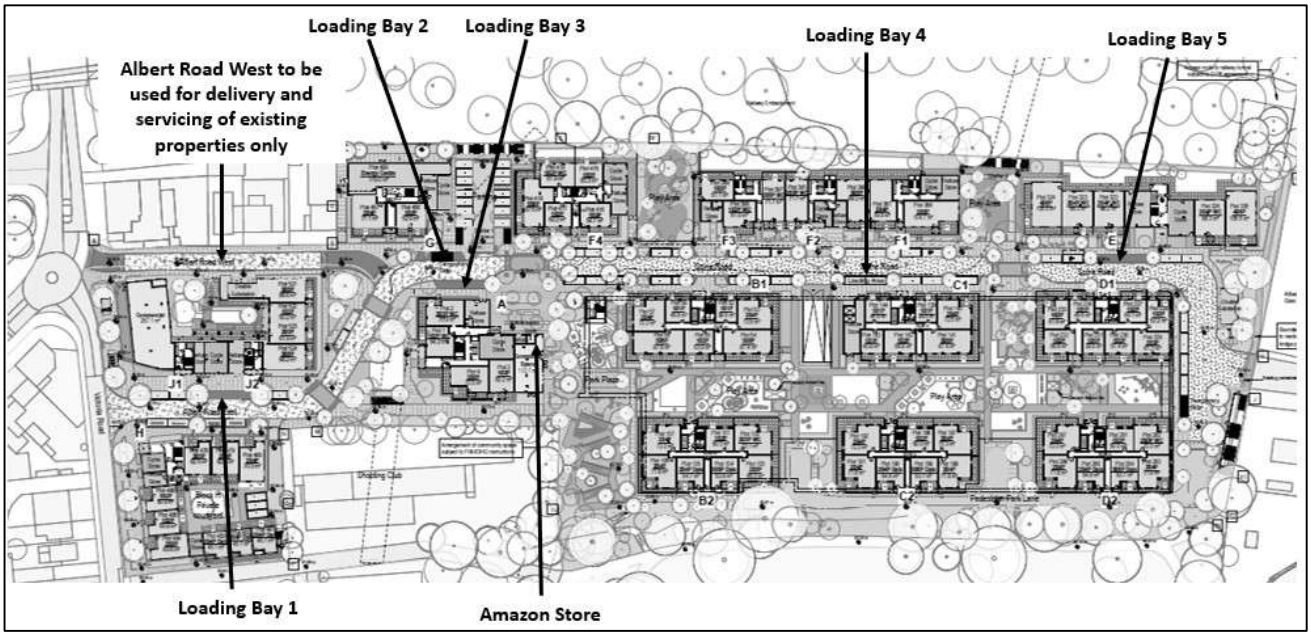
3.113 Cycle parking will be provided as part of the development to encourage the use of sustainable transport. Short stay spaces will be provided within the public realm for visitors. This will enable access to the site via active travel reducing emissions associated with the proposed development.

3.114 In addition, tree planting throughout the development will help to improve the local air quality, encouraging people to walk and cycle, reducing reliance on motor vehicles and further improving air quality.

Delivery and Servicing

3.115 In order to accommodate deliveries to both the residential properties and commercial units, a total of five loading bays will be provided across the site, as shown in **Figure 3.1**.

Figure 3.1 Delivery and Servicing Arrangements



3.116 A Delivery and Servicing Management Plan (DSMP) has been prepared. The document sets out how it is intended that on-site deliveries and refuse collection will be managed and forms part of the planning application. A copy of the DSMP is provided in **Appendix B**.

3.117 A delivery store will be provided within Block A to allow for deliveries to be undertaken without the residents being present, this limits the number of repeat delivery trips undertaken to and from the site, where delivery on the first attempt would otherwise not be feasible.

3.118 The first loading bay will be located to the south of Blocks J1 and J2 (the mixed residential and commercial building to the front of the site). This loading bay will also be well located to serve the residential units in Block H.

3.119 The second loading bay will be located outside Block G and will also serve other surrounding residential blocks.

3.120 The third loading bay will be located outside Block A (the residential and community use building).

3.121 The fourth and fifth loading bays will be located outside Block C1 and Block E respectively and will serve the remaining residential buildings.

3.122 The refuse stores are to be located in convenient locations, to limit the drag distance to the carriageway. The refuse bins will be collected from the kerbside, or from adjacent to the loading bays where convenient.

3.123 It is noted that all delivery and servicing movements related to the National Grid site to the north will be undertaken within National Grid land and will not take place within the development site.

3.124 Additionally, it should be noted that there are a small number of properties which take access from Albert Road West which fall outside of the development site. These properties will continue to be served from Albert Road West and their servicing has been taken into consideration as part of the design proposals.

3.125 A trip generation exercise has been undertaken for delivery and servicing vehicles which will visit the site following occupation. This exercise has been undertaken using the TRICS database and has considered other developments within Greater London, sites consisting of private flats were used in this instance.

3.126 The full TRICS output is provided in **Appendix F**, with a table summarising the anticipated number of delivery and servicing vehicle trips in the peak periods provided below in **Table 3.5**.

Table 3.5: Anticipated Delivery and Servicing Vehicle Movements

	AM Peak Period			PM Peak Period		
	Arrive	Depart	Total	Arrive	Depart	Total
Light Goods Vehicle	3	2	5	3	3	7
Ordinary Goods Vehicle	1	0	1	0	0	0
Total	4	2	5	3	3	7

3.127 It is noted that due to the methodology of the multi-modal trip generation exercise (presented in **Section 5**) for the site, which took total person trips and distributed them across the various modes using Census data, delivery and servicing vehicle movements will have been accounted for.

3.128 The delivery and servicing movements to the commercial unit have been taken into consideration as part of this assessment. The TRICS database was queried to find convenience store sites in Greater London, which were considered to be comparable. It is considered that a convenience store may have the greatest delivery and servicing requirements and as such has been used to anticipate a worst-case trip generation for these movements. **Table 3.6** summarises these anticipated movements.

3.129 A separate assessment for the community land use has not been undertaken due to the small size of this unit and it is anticipated that it can be served by other vehicles already anticipated to travel to the site for the other land uses.

Table 3.6: Commercial Unit Delivery and Servicing Trips

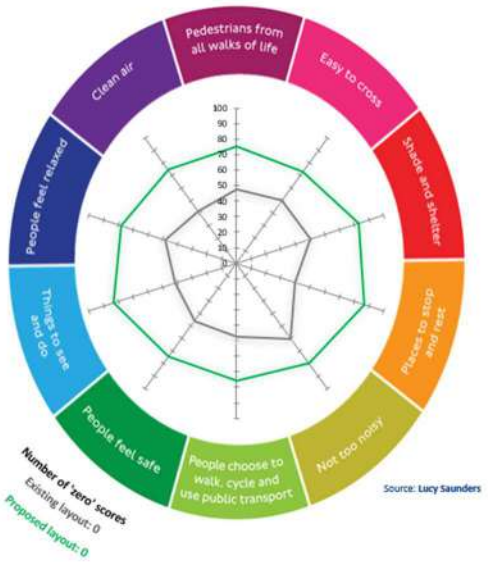
	AM Peak Period			PM Peak Period		
	Arrive	Depart	Total	Arrive	Depart	Total
Light Goods Vehicle	1	1	2	0	0	1
Ordinary Goods Vehicle	0	0	1	0	0	0
Total	1	1	2	1	1	1

3.130 Figures showing the swept path analysis of refuse vehicle accessing and egressing the site are provided in **Appendix E**. Access for a fire tender is also included.

Healthy Street Check for Designers

3.131 To aid the development of the design for Albert Road and Victoria Road, the design has been reviewed using TfL's Healthy Streets Check for Designers toolkit. The toolkit helps designers to assess proposed changes to the way streets are laid out or used. **Figure 3.2** shows a comparison between the existing layout and the proposed layout.

Figure 3.2: Healthy Street Check for Designers



Healthy Streets Indicators' scores (%)
(Results will only display once all metrics have been scored)

	Existing layout	Proposed layout
Pedestrians from all walks of life	47	76
Easy to cross	50	73
Shade and shelter	50	83
Places to stop and rest	40	87
Not too noisy	60	80
People choose to walk, cycle and use public transport	47	76
People feel safe	46	75
Things to see and do	42	83
People feel relaxed	49	78
Clean Air	42	75
Overall Healthy Streets Check score	48	77
Number of 'zero' scores	0	0

3.132 **Figure 3.2** clearly demonstrates that the proposals (shown in green on the spider graph) provide improvements compared to the existing layout. The full Healthy Streets Check for Designers is included within **Appendix G.**

Stage 1 Road Safety Audit

3.133 As part of the proposed development, Albert Road West and Albert Road East, together with the East Barnet Road / Victoria Road mini-roundabout will be significantly improved.

3.134 A Stage 1 Road Safety Audit (RSA) has been undertaken to assess the road safety implications for the proposed highway works. Issues raised in the RSA have been addressed in the Designer's Response.

3.135 Following the Stage 1 RSA, the layout has been reviewed by both highway authorities and amendments agreed. In respect of the key RSA considerations, not significant differences are proposed.

3.136 The Road Safety Audit and Designer's Response can be found in **Appendix H.**

4 Active Travel Zone (ATZ)

4.1 This section of the Transport Assessment describes the Active Travel Zone (ATZ) in detail and how the ATZ has been established. It also details how people of all abilities will make key journeys within the established ATZ that are essential to supporting car-free lifestyles.

Key Destinations, Journeys and Routes

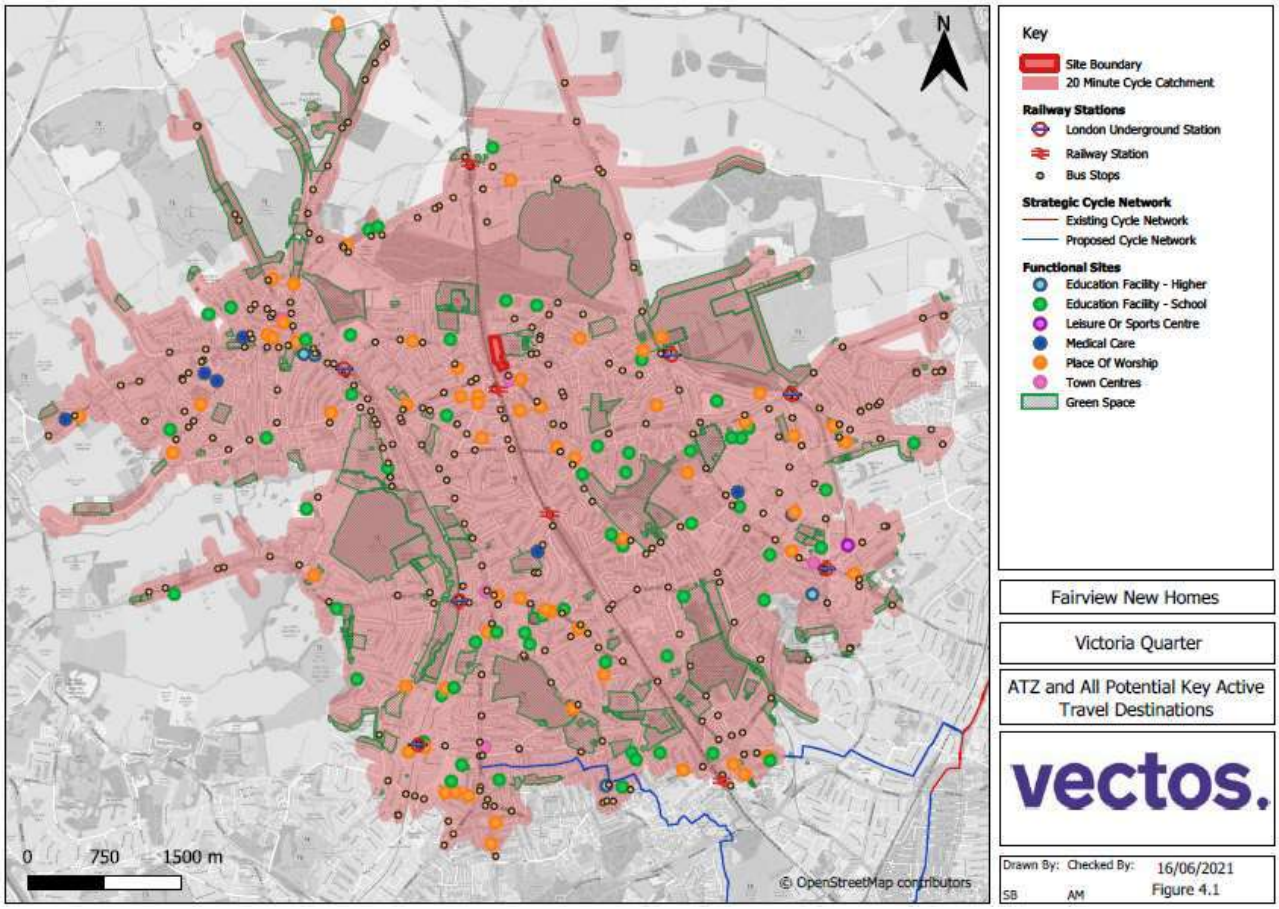
4.2 The ATZ has been determined by plotting a 20-minute (circa 5km) cycle isochrone from the centre of the site. The ATZ therefore includes key destinations including High Barnet, Cockfosters and Whetstone.

4.3 A plan illustrating the ATZ is provided in **Figure 4.1** as well as **Appendix I**.

4.4 Within the ATZ, the following key destinations have been mapped:

- Public transport stops;
- Public transport stations;
- London's current and future London-wide strategic cycle network;
- Town centres;
- Parks;
- Schools / colleges;
- Hospitals / doctors; and
- Places of worship.

Figure 4.1: Active Travel Zone



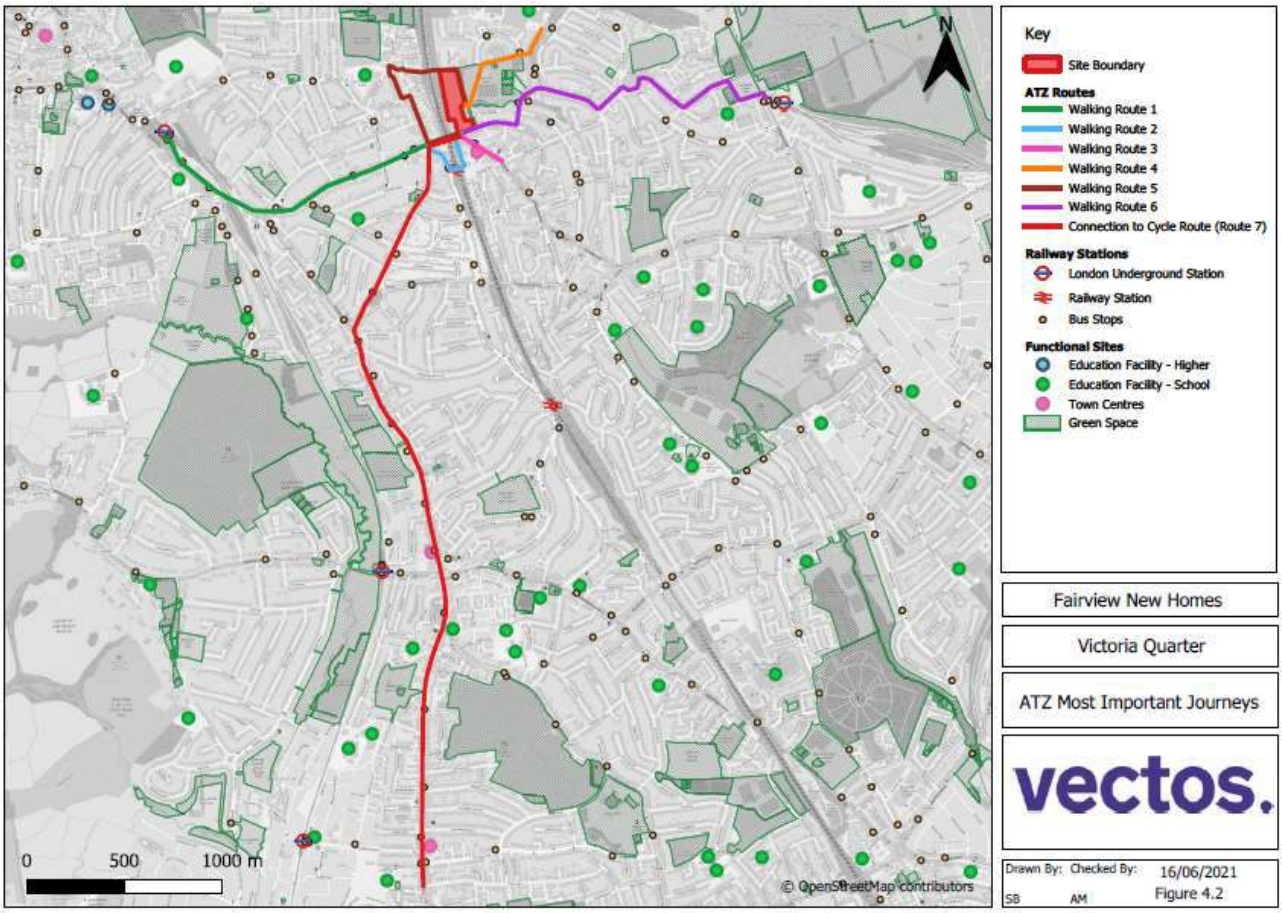
4.5 The ATZ has then been scaled down to only include the key destinations in proximity to the site. Based on the likely profiles of future residents, the main walking / cycling routes to seven destinations have also been mapped and are included within **Figure 4.2** and can also be seen at **Appendix I**.

4.6 The routes identified are:

- Route 1: High Barnet tube station / High Barnet town centre – key nearby tube station (Northern Line) and food / leisure / retail uses;
- Route 2: New Barnet Station – key nearby train station;
- Route 3: New Barnet town centre – key nearby food / leisure / retail uses;
- Route 4: Livingstone Primary and Nursery School – key nearby primary school / nursery;
- Route 5: Route to Cromer Road Primary School – key nearby primary school;
- Route 6: Cockfosters Station – key nearby tube station (Piccadilly Line); and
- Route 7: Link to the cycle network.

4.7 Once identified, each route was then assessed during the interpeak 10:30-14:00 on Wednesday 19th February 2020 on a site visit. The routes were assessed against the TfL Healthy Streets indicators. Photographs for the worst part of each journey have been included within the text; more detailed photos of the routes are included within **Appendix J**. Possible solutions to improve the routes have been provided.

Figure 4.2: ATZ Most Important Journeys



Route 1: High Barnet Tube Station/High Barnet Town Centre

4.8 In order to access to access High Barnet Tube Station, pedestrians and cyclists may travel west along Victoria Road for approximately 70m before continuing west along the A110 for approximately 1km.

4.9 Pedestrians can use one of the number of zebra crossings along the A110 to cross from the northern to the southern side of the road. Upon reaching the junction with the A1000, cyclists will turn west onto the A1000 whilst pedestrians will cross the road which runs between the A110 and the A1000 before using the pedestrian crossing to cross onto the southern side of the A1000. Pedestrians and cyclists can then continue for approximately 550m along the A1000, crossing a number of minor crossovers and junctions, such as that with Underhill. Cyclists can then turn directly into the High Barnet Tube Station access road, whereas pedestrians must use the pedestrian crossing to access the station.

4.10 Continuing along the A1000, High Barnet Town Centre can be reached. A number of crossovers and minor junctions with dropped kerbs must be crossed along this route.

4.11 Although it is notable from walking the route that there are places to sit, it could be suggested that more benches could be provided along Station Road (A110), or improvements could be made to existing ones (Photograph 4.1). This would ensure that people travelling along this route are provided with frequent opportunities to stop and rest.

4.12 In addition, it could be noted that the section of road shown in **Photograph 4.2** does not meet the Healthy Streets indicator 'People feel safe'. This is because cyclists may need to swerve to avoid the potholes in the road, consequently putting them at risk of colliding with vehicular traffic. It could therefore be suggested that this section of road could be resurfaced to ensure cyclists are safe along the entirety of the route.

Photograph 4.1: Bench along Station Road

Photograph 4.2: Potholes along Station Road

Route 2: New Barnet Railway Station

4.13 To access New Barnet Railway Station, there are two primary routes which may be used. Both require using the crossing adjacent to Albert Road west to cross the A110. The first route will take users south along Approach Road for approximately 170m before crossing onto the western side of the road to use the stairs to access the station platforms.

4.14 Alternatively, the second route requires pedestrians and cyclists to continue along the A110 for approximately 130m before turning south onto Lyonsdowne Road and then east onto Station Road for approximately 160m before reaching the entrance to New Barnet Railway Station.

4.15 From the site it is notable that in addition to there being no step-free access to the platforms using Approach Road, there is no dropped kerb to cross from the eastern to the western side of the road in proximity to the stairs. It would consequently be noted that the more accessible route, which would be suitable for all, would be the second route along Station Road.

4.16 Assessing the first route along Approach Road, the least attractive part of the route is the section of pavement shown in **Photograph 4.3**.

Photograph 4.3: Pavement on the Eastern Side of Approach Road

4.17 The area shown in **Photograph 4.3** does not meet the following Healthy Streets indicators:

- People feel safe; and
- People feel relaxed.

4.18 This could be improved by ensuring that waste is properly managed by the surrounding businesses and waste collection is carried out promptly.

4.19 Assessing the second route, it can be suggested that the least attractive part of the route is that seen in **Photograph 4.4**.

Photograph 4.4: Pavement on Station Approach

4.20 This section of the route does not meet the indicator 'Things to see and do' as this section of pavement is narrow and is made to feel further enclosed by the presence of the high wall on one side and buses on the other. As the width of the pavement is unlikely to be able to be changed, it could be suggested that to improve this area, greenery could be added to make this area more visually appealing and break up the solid wall.

Route 3: New Barnet Town Centre

4.21 To access New Barnet Town Centre, pedestrians can cross Victoria Road using the dropped kerbs in proximity to Albert Road before continuing south onto East Barnet Road (A110) where the Town Centre is reached. Pedestrians can continue on either side of the road to access the local facilities. The southern side of the road can be reached by pedestrians using any of the zebra crossings located along the length of the road.

4.22 Assessment of this route indicates that the least attractive part of the route lies to the southern end of East Barnet Road near to the junction with Margaret Road as can be seen in **Photograph 4.5**.

Photograph 4.5: Cars Parked on Pavement on East Barnet Road

4.23 This section of the route does not meet the Healthy Streets indicator 'People feel relaxed' as the vehicles being parked on the pavement reduces the effective width of the footway, particularly for those with pushchairs or with reduced mobility. No signs were observed that suggest that parking partially or entirely on the footway is allowed in this location.

4.24 It can be suggested that it is ensured that parking restrictions are properly enforced, thus removing obstacles on the pavement and increasing the effective width of the pavement. Alternatively, appropriate signage should be introduced which clearly states where this parking behaviour is allowed and where it is not.

4.25 Additionally, as can be seen in **Photograph 4.6**, the crossing point on Victoria Road in proximity to Albert Road is not in alignment and as such would require users to digress from the pedestrian desire line.

Photograph 4.6: Crossing on Victoria Road

4.26 In order to ensure this route meets the indicator of 'Pedestrians from all walks of life' and 'Easy to cross', new dropped kerbs across Victoria Road which are in alignment with one another could be installed to increase the ease of crossing the road and accessing local facilities.

Route 4: Livingstone Primary and Nursery School

4.27 To access Livingstone Primary and Nursery School, pedestrians and cyclists can travel north along the path that runs to the eastern boundary of the site before continuing for approximately 200m north east on the path through Victoria Park. Cyclists can then continue east along Lawton Road for approximately 250m. Pedestrians can choose either to walk along the pavement within the New Barnet Leisure Centre car park, or along Lawton Road, crossing onto the northern side of the road where appropriate. Then users will turn northwards onto Baring Road for approximately 130m before reaching their destination.

4.28 On-site assessment of the route suggests that the least attractive part of the route is that shown in **Photograph 4.7** along Lawton Road.

4.29 Despite the improvements that recently have recently taken place in relation to the New Barnet Leisure Centre, it is notable that there is a lack of suitable dropped kerb to allow those with a pushchair or with reduced mobility to cross the road from the southern to the northern side.

Photograph 4.7: Lack of Dropped Kerbs on Lawton Road

4.30 As such, this section of the route does not meet the Healthy Streets indicator 'Easy to cross' and it could be suggested that dropped kerbs on both sides of the road could be installed in a suitable location, either at the junction of Lawton Road with Baring Road or near to the new access to the leisure centre signposted as 'Pymmes Brook Trail'.

Route 5: Cromer Road Primary School

4.31 There are two routes which can be used to access Cromer Road Primary School to the north-east of the site. The first begins to the east of the site, walking along the eastern site boundary through Victoria Park before turning onto an elevated walkway. This is accessed by stairs and continues for approximately 100m before going through a tunnel under the railway line. A set of stairs is then descended before continuing westwards along a footway which runs behind housing for approximately 170m before turning south on Cromer Road to reach the school.

4.32 Alternatively, the second route that can be taken runs along main roads. Firstly, users will travel west along Victoria Road for approximately 70m before continuing west along Station Road (A110) for approximately 150m. Next, pedestrians and cyclists can turn north onto Lytton Road, crossing onto the westbound side of the road, for approximately 250m before turning westbound onto Bulwer Road and then north onto Shaftesbury Avenue. Continuing along this road for approximately 170m, the triangular central refuge island can be used to cross Cromer Road and access the school.

4.33 Following on-site assessment of the routes, it is clear that the second route is more accessible and as such would be recommended to be used for those with pushchairs or with reduced mobility.

4.34 Assessing the first route, the least attractive part of the route is the elevated walkway and tunnel under the railway line (**Photographs 4.8 and 4.9**).

Photographs 4.8 and 4.9: Elevated Walkway and Tunnel Under Railway Line

4.35 The above section of the route does not meet the following Healthy Streets indicators:

- People feel safe; and
- People feel relaxed.

4.36 The elevated walkway is proposed to be replaced with a new structure. The design if this structure is being discussed with Network Rail. As part of these overall improvements, lighting, resurfacing and vegetation clearance will be included to enhance the overall route.

4.37 Assessment of the second route shows the route does not meet the indicator 'Places to stop and rest'. As much of the route has wide pavements, it could be suggested that places to sit, such as benches or planters, could be installed, such as in locations as that seen in **Photograph 4.10**.

Photograph 4.10: Potential Location for a Seating Area

Route 6: Cockfosters Station

4.38 In order to reach Cockfosters station, pedestrians and cyclists can first travel eastbound along Victoria Road for approximately 225m before turning north onto Park Road. After approximately 570m, users can then turn north onto Edgeworth Road, immediately crossing onto the eastern side of the road. Continuing to the Langford Road / Mount Pleasant / Edgeworth Road / Grove Road roundabout, cyclists must circulate around the roundabout for approximately 150m to exit onto Langford Road.

4.39 Pedestrians can use the access road to walk to Mount Pleasant, before crossing the road and continuing onto Langford Road. Continuing along Langford, users can then turn north onto Bevan Road for approximately 225m before continuing on a short section of pavement that joins to Chalk Lane. After approximately 250m, Cockfosters Road is reached where Cockfosters Station can be reached by use of a subway.

4.40 The least attractive part of this route is the Langford Road / Mount Pleasant / Edgeworth Road / Grove Road roundabout. As seen in **Photograph 4.11**, the roundabout is of significant size and as such may be intimidating to cyclists. In addition, the route pedestrians must take to circumnavigate the roundabout is lengthy and dropped kerbs are not in place where required.

Photograph 4.11: Langford Road/Mount Pleasant/Edgeworth Road/Grove Round Roundabout

4.41 Consequently, it can be seen that this section of the route does not mean the Healthy Streets indicator 'Easy to cross'. To improve this, it could be suggested that suitable dropped kerbs could be put in place in line with pedestrian desire lines. Without major redesign, it is difficult to improve the roundabout for cyclists, and as such a cycle lane around the roundabout to improve safety for cyclists could be implemented.

Route 7: Links to the Cycle Network

4.42 The final route to be assessed is that to the cycle network. As the links are distant, a high-level summary of the route for cyclists is provided below.

4.43 Cyclists can first travel west along Victoria Road before taking the second exit at the mini roundabout onto East Barnet Road (A110). After approximately 150m, cyclists can then turn south onto Lyonsdowne Road, before taking the second exit at the mini roundabout onto Lyonsdowne Road. Cyclists can then continue along this road for approximately 750m before reaching a junction with Longmore Avenue (B193). Cyclists can then turn west, continuing along Longmore Avenue / Lyonsdowne Road for approximately 270m before reaching the T-junction with Great North Road

(A1000). Cyclists can then continue for approximately 3km southbound along this road before connecting with the proposed cycle network.

4.44 On-site assessment of the route indicates that the least attractive section of the route is the area in proximity to the junction of High Road with Totteridge Lane (**Photograph 4.12**).

Photograph 4.12: High Road/Totteridge Lane Junction

4.45 From **Photograph 4.12**, it can be seen that this section of the route does not meet the following Healthy Streets indicators:

- People feel safe; and
- Clean air.

4.46 In order to improve this situation, a cycle lane could be installed which would improve feelings of safety for cyclists and may improve air quality as people may see there are cycle facilities, consequently encouraging them to cycle and drive less.

Personal Injury Collision Data

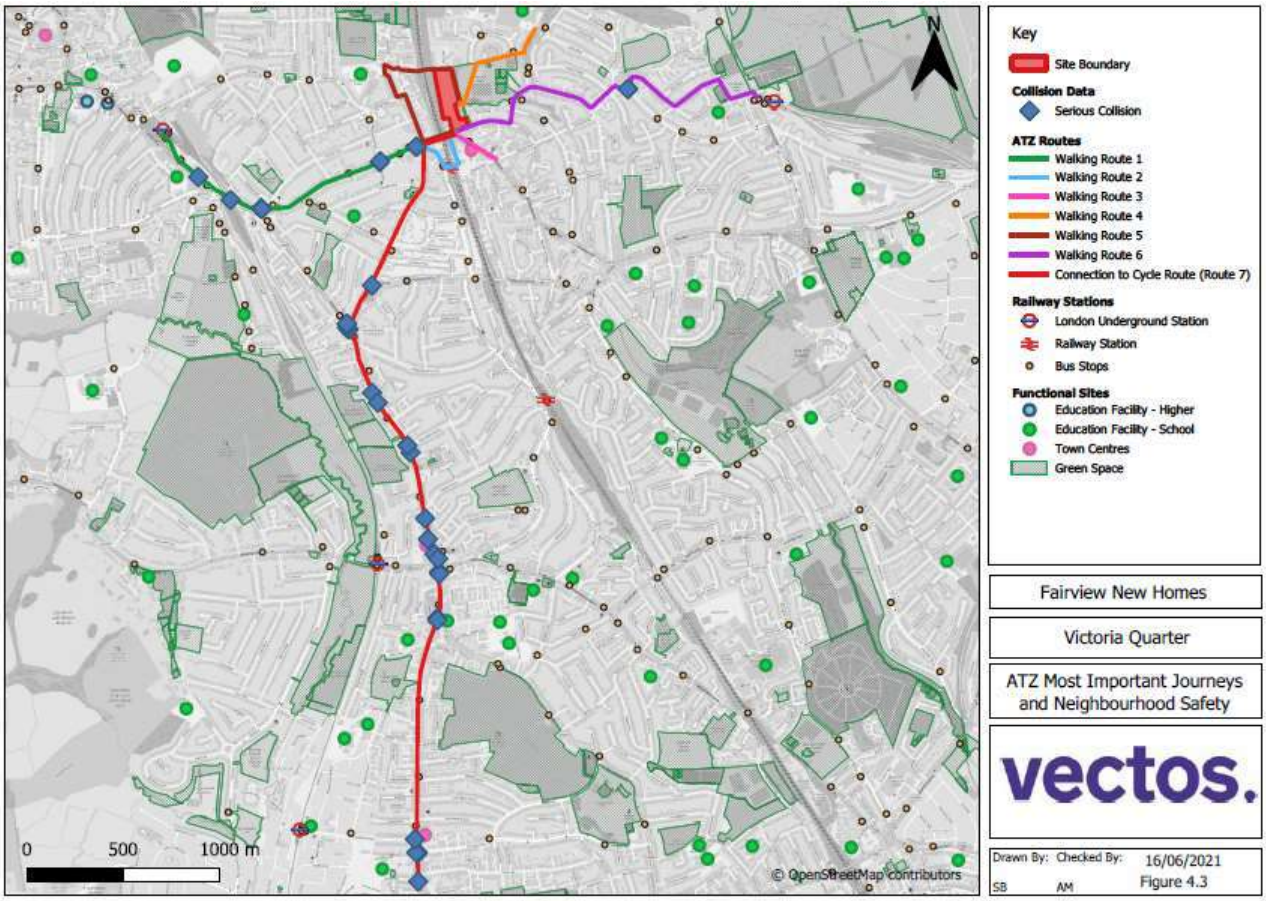
4.47 In order to assess the safety of pedestrians and cyclists travelling along the routes shown in **Figure 4.2**, collision data for the most recent 5-year period up to December 2020 has been obtained from Transport for London (TfL).

4.48 The data provided by TfL is contained in **Appendix K**.

4.49 A total of 32 serious collisions occurred within this area of analysis. No fatal collisions occurred along the ATZ routes in the most recent 5-year period.

4.50 The collisions have been mapped within the smaller ATZ area within **Figure 4.3**.

Figure 4.3: ATZ Most Important Journeys and Neighbourhood Safety



4.51 **Table 4.1** considers the collisions that occurred at the Station Road / Barnet Hill / Great North Road junction.

Table 4.1: Station Road / Barnet Hill / Great North Road Junction Collisions

Ref	Severity	Date	Time	Causation Factor
01190183338	Serious	16/05/2019	10:15	Car has hit pedestrian crossing road
01190187242	Serious	14/06/2019	14:57	Car failed to look properly and notice a motorcycle stopped at a zebra crossing to let a pedestrian cross

4.52 It could be suggested that to improve the safety of this junction for pedestrians, advanced warning signs of upcoming zebra crossings could be installed so drivers are aware of their presence.

4.53 **Table 4.2** considers the collisions that occurred at the Station Road / Plantagenet Road / Mowbray Road junction.

Table 4.2: Station Road / Plantagenet Road / Mowbray Road Junction Collisions

Ref	Severity	Date	Time	Causation Factor
01170080558	Serious	28/12/2017	18:45	Impaired by drugs
01190171676	Serious	27/03/2019	22:25	Car failed to look properly hitting a motorcycle

4.54 Despite these collisions not being explicitly in relation to conditions at the junction, it could be suggested that it is ensured the foliage at the side of the road is pruned appropriately so that those turning from Plantagenet Road to Station Road have full visibility.

4.55 **Table 4.3** considers the collisions that occurred at the A1000 / Lyonsdown Road junction.

Table 4.3: A1000 / Lyonsdown Junction Collisions

Ref	Severity	Date	Time	Causation Factor
0116SX20026	Serious	09/01/2016	17:00	Pedestrian failed to look properly
01180132872	Serious	16/09/2018	08:56	Pedestrian failed to look properly when crossing junction
01180146788	Serious	20/11/2018	15:40	Inexperienced driver

4.56 It could be suggested that to improve pedestrian safety at this junction, a pedestrian crossing, such as a pelican crossing, could be installed.

4.57 **Table 4.4** considers the collisions that occurred at the A1000 / Oakleigh Road North junction.

Table 4.4: A1000 / Oakleigh Road North Junction Collisions

Ref	Severity	Date	Time	Causation Factor
01170027724	Serious	24/03/2017	07:50	Driver failed to look properly
01180092025	Serious	23/02/2018	06:20	Slippery road due to ice

4.58 To improve this junction, pedestrian crossing facilities could be installed on all arms of the junction to increase the ease of crossing for all. In addition, due to the size of the junction and the use of the route by cyclists, an advanced stop line for cyclists could be installed, however it is noted this would require redesign of the junction.

4.59 **Table 4.5** considers the collisions that occurred at the A1000 / Friern Barnet Lane junction.

Table 4.5: A1000 / Friern Barnet Lane Junction Collisions

Ref	Severity	Date	Time	Causation Factor
01170059812	Serious	19/09/2017	17:45	Moving off at junction
01180095186	Serious	09/03/2018	21:55	Travelling too fast for conditions / poor turn or manoeuvre

4.60 It could be suggested that to improve the safety of the junction, the road markings could be repainted, including the give way line and right turn lane, so they are more visible to all road users.

4.61 **Table 4.6** considers the collisions that occurred at the A1000 / Torrington Park junction.

Table 4.6: A1000 / Torrington Park Junction Collisions

Ref	Severity	Date	Time	Causation Factor
01180099312	Serious	31/03/2018	10:17	Disobeyed 'give way' markings / failed to look properly
01170053149	Serious	10/08/2017	13:55	Careless driving

4.62 Although none of the above incidents involved pedestrians, it could be suggested that to reduce vehicle dominance in a highly pedestrianised area, a raised table could be installed at the give-way line so drivers are more likely to slow down suitably at the junction.

Travel Plan

4.63 As previously described, the site is located close to numerous public transport opportunities. Furthermore, the location of the site means that a large number of destinations for work, shopping, education and leisure can be reached by walking and cycling.

4.64 The Travel Plan provides a set of aims, objectives, measures and initiatives to encourage sustainable travel among residents on a daily basis, to help minimise the impact of the development. The Travel Plan is provided in **Appendix A** for reference.

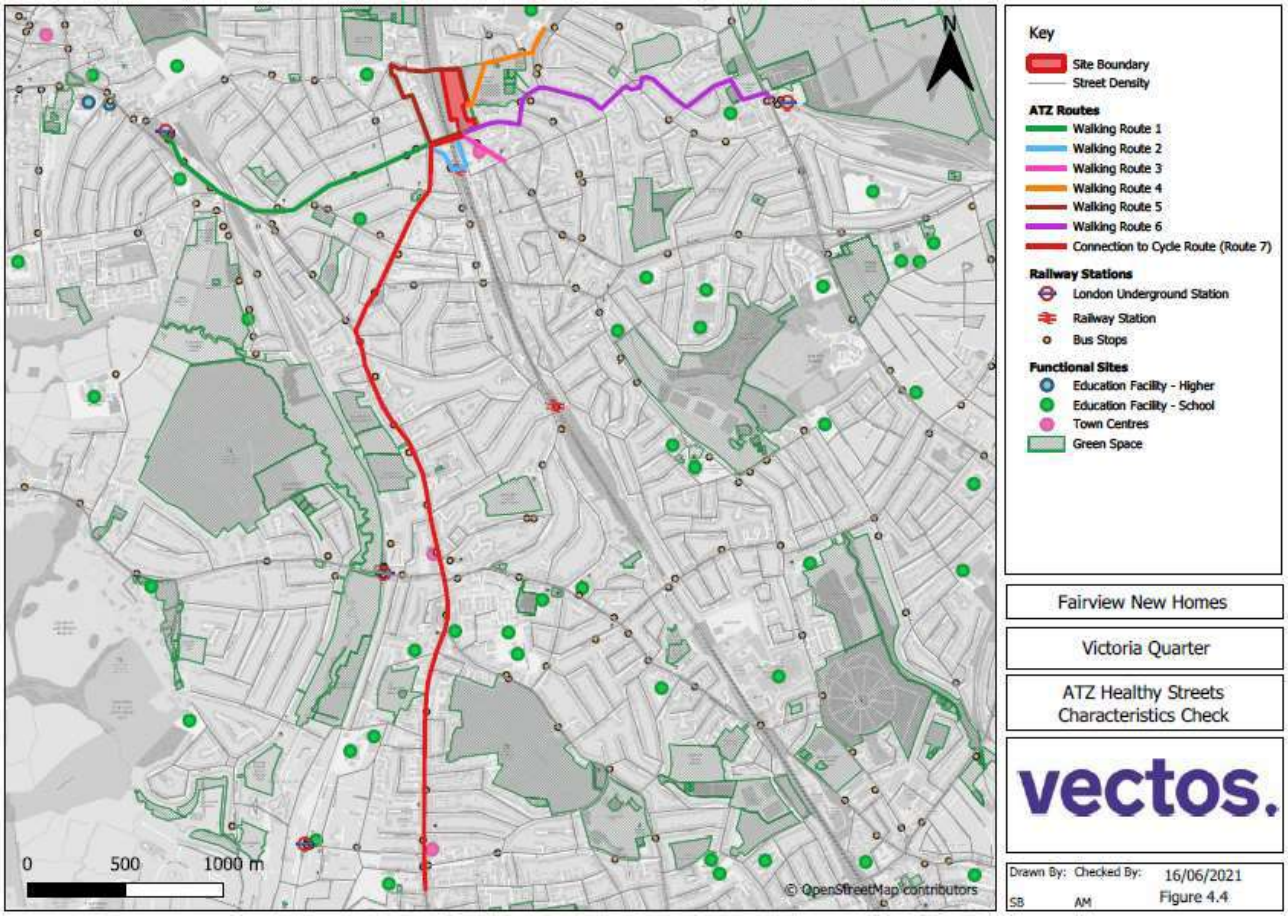
Healthy Streets Characteristics Check

4.65 To assess the characteristics of a healthy and active neighbourhood, the following factors were mapped within the smaller neighbourhood ATZ:

- Land use and density;
- Street density;
- Public transport density;
- Access to green spaces; and
- Committed developments.

4.66 These plotted characteristics are shown within **Figure 4.4** and can also be seen in **Appendix I**.

Figure 4.4: ATZ Healthy Streets Characteristics Check



4.67 **Figure 4.4** shows there is a good provision of public transport and street density to encourage site users to travel to and from the site sustainably. In addition, due to the numerous green spaces surrounding the site, residents will be given the opportunity to access them sustainably. With overall good footway connections and crossing opportunities surrounding the site, this increases the ease with which all can travel in the area.

4.68 On this basis, the development accords with several of the Healthy Streets indicators such as ‘places to stop and rest ‘people choose to walk, cycle and use public transport. It is considered that the proposed development will create a healthy and active neighbourhood.

5 London-Wide Network

5.1 This section sets out the approach to the trip generation for the proposed development. The forecast number of trips across the London-wide network is considered.

Existing Trip Generation

5.2 The previous land use as a call centre has now been closed for a number of years and is no longer considered pertinent to this assessment, especially as the site now has planning permission to be developed as a mixed residential development.

5.3 The site does however share its access with the National Grid site located on the plot of land directly to the north of the site. While the development site is currently a construction site the National Grid related vehicles are granted access via a temporary route through the site.

5.4 While the National Grid site is not located within the development site, the access shared by it and the development site means that the two developments should be considered together, as the proposals for the internal layout will also impact the National Grid site. It is noted that the Albert Road (west) junction is also used by the residential properties and pubs to the south of the development site.

5.5 **Table 5.1** summarises the vehicle movements in and out of the National Grid site on Tuesday 5th November 2019 during the peak hours. The table shows that no vehicles larger than an OGV1 entered or exit site during the peak hours (08:00-09:00 and 17:00-18:00). It is also noted that no vehicles larger than this entered the site across the analysed period of 07:00-10:00 and 16:00-19:00.

Table 5.1: National Grid Site Existing Vehicle Movements

Time	Enter					Exit				
	Car	LGV	OGV 1	OGV 2<	Total	Car	LGV	OGV 1	OGV 2<	Total
AM Peak (0800 - 0900)	30	15	1	0	46	2	8	4	0	14
PM Peak (1700 - 1800)	0	1	1	0	2	19	1	1	0	21

5.6 **Table 5.1** shows that during the AM peak period a total of 60 vehicle movements occurred at the site, the majority of which were cars arriving, presumably for the start of the workday. In the PM peak period a total of 23 vehicle movements occurred, with the majority consisting of cars exiting the site.

5.7 It is noted that the operation of the National Grid site will not change as a result of the development and these existing level of trips will continue to occur should the development site be constructed.

5.8 It is also the case that the site benefits from planning permission for residential development that has now been implemented. Movements associated with the extant use are not detailed here and instead an assessment of the proposed development made.

Proposed Development Trip Generation

5.9 A trip generation exercise has been undertaken to illustrate how it is anticipated that the additional residents will travel to and from the site each day and to provide some understanding as to the likely impact on the surrounding area, including the usage of the local public transport services.

5.10 This trip generation methodology has been previously presented to TfL in a note following the submission of the previous planning application (20/1719/FUL), this methodology was subsequently agreed.

Proposed Residential Trip Generation

5.11 The trip generation exercise for the residential dwellings uses a combination of TRICS data and information from the 2011 Census.

5.12 The total person trips have been derived from trip rates extracted from the TRICS database. Total person trips have been calculated using trip rates for privately owned flats only.

5.13 The site selection criteria used is provided below:

- Land use: 03 – Residential;
- Category: C – Flats Privately Owned;
- Location: Greater London – Suburban Area, Edge of Town Centre; and Neighbourhood Centre;
- Range: 30-493 units;
- Days: Weekdays;
- Selected Date Range: Minimum: 01/01/15 – Maximum: 21/06/19; and
- PTAL Range: 1-4.

5.14 This set of criteria resulted in a total of 13 sites being deselected manually due to having PTAL ratings which were not representative of the site (i.e. a PTAL of 5 or 6, when the site has a PTAL of 2-3) and where sites included high levels of car parking.

5.15 Based on the above criteria a total of four sites were selected as being comparable, they are as follows:

- HO-03-C-03: A site consisting of 150 flats in Brentford, London Borough of Hounslow. The site is within an Edge of Town location, has a PTAL of 2 and provides a parking ratio of 0.71 spaces per unit. The survey was undertaken on Friday 18th November 2016.
- HO-03-C-04: A site consisting of 203 flats in Isleworth, London Borough of Hounslow. The site is within a Neighbourhood Centre location, has a PTAL of 3 and provides a parking ratio of 0.70 spaces per unit. The survey was undertaken on Tuesday 3rd July 2018.
- HV-03-C-02: A site consisting of 493 flats in Romford, London Borough of Havering. The site is within a Suburban area, has a PTAL of 2 and provides a parking ratio of 0.50. The survey was undertaken on Tuesday 22nd November 2016.
- TH-03-C-04: A site consisting of 83 flats in Poplar, London Borough of Tower Hamlets. The site is within a Neighbourhood Centre, has a PTAL of 1b and provides a parking ration of 0.30. The survey was undertaken on Friday 21st June 2019.

5.16 The resulting total person trip rates are provided in **Table 5.2** for the weekday AM peak (08:00-09:00) and Weekday PM peak (17:00-18:00).

Table 5.2: Residential Person Trip Rates

Period	Arrivals	Departures	Two-Way
AM (08:00 – 09:00)	0.072	0.408	0.480
PM (17:00 – 19:00)	0.285	0.117	0.402

5.17 The resulting total person trip generation is provided in **Table 5.3** for the proposed 544 residential units in the AM and PM peak periods.

Table 5.3: Total Residential Person Trip Generation

Period	Arrivals	Departures	Two-Way
AM (08:00 – 09:00)	39	222	261
PM (17:00 – 19:00)	155	64	219

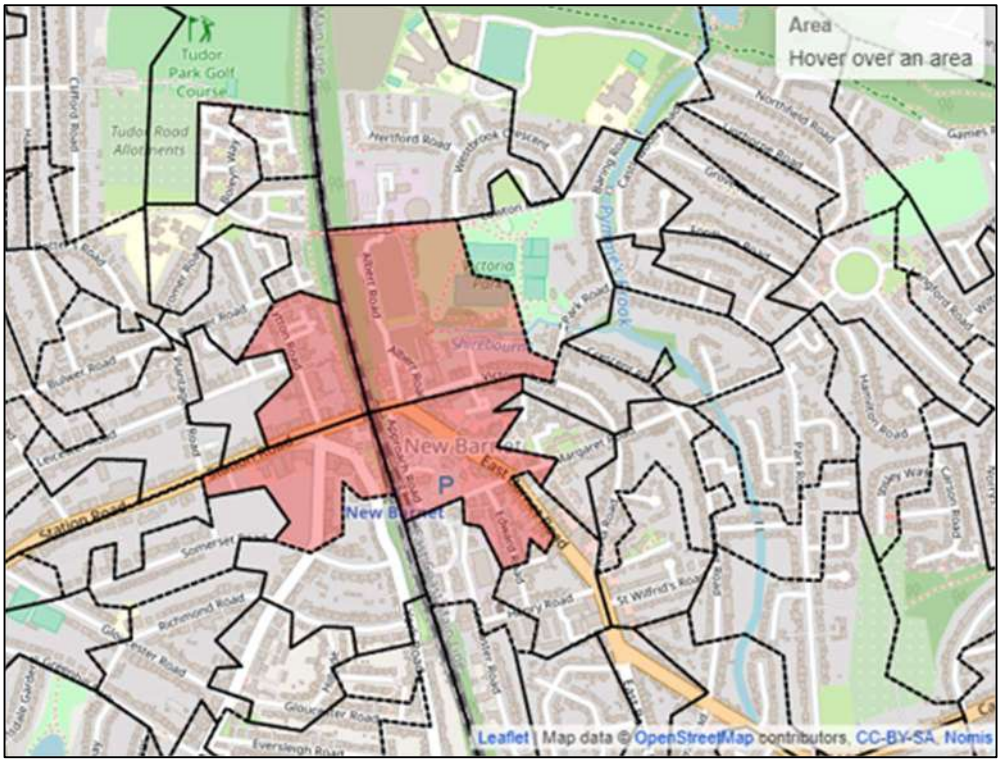
5.18 **Table 5.3** shows that in the AM peak 261 two-way person trips are anticipated as a result of the proposed development, while in the PM peak 219 new two-way person trips are forecast.

Person Trips by Mode

5.19 In order to quantify the trips by mode of transport it is necessary to apply a modal split.

5.20 The starting point is the 2011 census data 'Method of Travel to Work' (QS701EW). The data was extracted for the 2011 output areas of: E00000825, E00000830, E00001248 and E00001332, which directly surround the site. It is noted that the site is located adjacent to where these four areas meet. These areas are considered to be the most appropriate to use due to their proximity to the site and to the nearby station. The locations of these areas are shown in **Figure 5.1** overleaf.

Figure 5.1: 2011 Census Areas used for 'Methods of Travel to Work'



5.21 In order to adequately represent future travel patterns at the development, two different mode shares have been produced, based on the 2011 Census data. One mode share has been produced to account for travel habits at the units which have access to a parking space, while the other mode share has been produced to represent those who do not have access to on-site parking.

5.22 This method is considered robust and will more accurately anticipate the levels of car and public transport trips at the future development. This methodology was presented in the response note produced in relation to the comments from the GLA for the previous scheme (ref: 20/1719/FUL, document reference 184234/N04, July 2020).

5.23 The mode split for the residents without access to a car parking space has been produced by removing car driver as a mode share option and increasing the remaining modes on a pro-rata basis.

5.24 **Table 5.4** shows the results of the mode share analysis, based on the 2011 Census data.

Table 5.4: 2011 Census 'Method of Travel to Work' data

Mode	Total Usual Residents (16-74 years of age)	Mode Split for Residents with Access to Car Parking	Mode Split Adjusted for Residents without Access to Car Parking
Work mainly at or from home	36	-	-
Underground, metro, light rail, tram	97	14%	21%
Train	157	22%	35%
Bus, minibus or coach	94	13%	21%
Taxi	4	1%	1%
Motorcycle, scooter or moped	9	1%	2%
Driving a car or van	258	36%	-
Passenger in a car or van	17	2%	4%
Cycle	13	2%	3%
On foot	56	8%	12%
Other method of travel to work	6	1%	1%
Not in employment	350	-	-
Total	1,097	100%	100%

5.25 **Table 5.4** shows that the residents are anticipated to generate a large proportion of trips by public transport (a total of 49% and 77% of journeys to work to be by public transport modes by those with and without access to a parking space, respectively), while active modes would account for 10% and 15% of trips to places of work, for those with and without access to a parking space respectively.

5.26 Private vehicle modes (both as driver or passenger) may account for 41% of trips (amongst those who have a parking space). It is assumed that any passenger trips by car or van would be travelling with other residents of the development.

5.27 Using the modal splits shown in **Table 5.4**, the anticipated total person trips (from **Table 5.3**) have been distributed across the various modes in the peak periods. This working is provided in full at **Appendix L**. **Table 5.4** provides a summary of the total trips in each peak period from both units with and without access to car parking spaces. The table also provides the anticipated mode share split for the whole site.

Table 5.4: Proposed Trips by Mode in the Peak Periods

Mode	Total Trips from Development						Combined % Mode Share
	AM Peak			PM Peak			
	Arrive	Depart	2-way	Arrive	Depart	2-way	
Underground, metro, light rail, tram	7	37	44	26	11	37	16.7%
Train	11	60	71	42	17	59	27.0%
Bus, minibus or coach	6	36	42	25	10	35	16.2%
Taxi	0	2	2	1	0	2	0.7%
Motorcycle, scooter or moped	1	3	4	2	1	3	1.5%
Driving a car or van	9	49	57	35	14	48	22.0%
Passenger in a car or van	1	6	8	5	2	6	2.9%
Cycle	1	5	6	3	1	5	2.2%
On foot	4	21	25	15	6	21	9.6%
Other method of travel to work	0	2	3	2	1	2	1.0%
Total	39	222	261	155	64	219	100.0%

5.28 **Table 5.4** shows that in the morning peak a total of 71 two-way trips would occur by private vehicle modes (including as a passenger, m/c rider and by taxi), while 59 two-way of these trips would occur in the PM peak.

5.29 Travel by walking as the main mode of travel would only generate 25 two-way trips in the AM peak and 21 two-way trips in the PM peak. However, it is noted that all public transport modes would require some walking in and out of the site in order to reach the nearest bus stops and train/London Underground stations. When including this additional pedestrian demand a total of 182 two-way movements would be generated in the AM peak and 152 two-way movements in the PM peak.

Retail/Commercial

5.30 The retail/commercial and community elements of the proposed development will be 267.1sqm and 112.7sqm respectively. It is noted that the retail floorspace at the proposed development is ancillary for use by site occupants and the wider community already in the vicinity.

5.31 Consistent with the approach of the 2014 and 2016 Transport Assessments for the previously consented Victoria Quarter schemes, a trip generation exercise has not been undertaken for the retail commercial land use.

5.32 This is because the retail/commercial land uses are expected to attract internal, pass-by and linked trips rather than attract new destination trips into the area.

5.33 It is also considered that the community land use will likely only attract users who either live at the development or within the immediate area and will therefore attract a mix of internal trips and active mode trips from the immediate area.

5.34 Trips to the flexible commercial uses during the weekday AM and PM peak hours will primarily be made by people already making a trip for another purpose (e.g. commuting, education). Very few, if any, trips will be primary trips.

5.35 On the basis of the above, it is not considered necessary to quantify the trip generation of the visitors of the flexible commercial uses or to take them into account in the assessment of the potential impact of the proposed development on the local transport network.

Net Change in Flows

5.36 On the basis of the trip generation exercise described in the previous paragraphs, the proposed total vehicle movements (including those generated by the adjacent National Grid site have been presented in the following table (**Table 5.5**).

5.37 Whilst the proposed vehicle trips represent a forecast of possible vehicle trips attracted to and generated by the development, these trips will not be entirely new in a planning context. Planning permission for 371 homes and the new commercial space has been granted by LBB through two separate planning applications (16/7601/FUL) and (17/5522/FUL).

5.38 As part of the planning applications a forecast of vehicle trips associated with the development were presented. Accordingly, that level of vehicle trips is considered committed in a planning context.

5.39 The development proposals incorporates additional dwellings but within an increase in car parking compared to what was previously consented. As such, vehicle trips associated with the development proposals, over and above that already consented will be largely restricted to deliveries, taxis and visitors. Such numbers would be expected to be low, particularly during peak periods.

5.40 **Table 5.5** shows the total anticipated vehicle trips as part of this proposed scheme, against that which was previously consented.

Table 5.5: Net Change in Vehicle Movements (Consented against Proposed)

Mode	AM Peak (8AM-9AM)			PM Peak (5PM-6PM)		
	Arrive	Depart	Total	Arrive	Depart	Total
Consented Scheme						
Total Vehs	19	71	90	52	29	81
Proposed Scheme						
Total Vehs	15	62	77	45	21	66
Net Change in Movements						
Total Vehs	-4	-9	-13	-7	-8	-15

5.41 **Table 5.5** shows that in a planning context the proposals result in a reduction in trips compared to what has previously been consented at the site. While this analysis presents a reduction, against what has been consented, this TA has fully considered the anticipated trips which are expected as a result of the proposals.

Public Transport Impact Assessment

5.42 This section of the TA assesses the impact of the development on all modes of public transport using the trip generation assessment presented in **Paragraphs 5.19 to 5.29** of this TA.

5.43 This assessment was originally undertaken in response to comments from TfL, following the submission of the previous scheme for the site (20/1719/FUL), with the scope of the further analysis agreed with TfL prior to being undertaken. The correspondence agreeing this amended scope is provided at **Appendix M** of this report.

5.44 This analysis has subsequently been updated to reflect this current scheme proposed.

Trip Generation and Distribution

5.45 The residential trips by the various public transport modes have been set out previously within this chapter. The resultant arrival and departure trips by Underground, Rail and Bus have been taken and

distributed onto the public transport network using Census 2011 Origin-Destination data for residents of Barnet 006 MSOA who travel to their employment destination by Bus, Rail or London Underground services.

5.46 Subsequently, the most appropriate Underground/Rail/Bus service was identified for each destination, using a combination of local knowledge, Google Maps, and TfL Journey Planner, and the proportion of new trips on each service by direction was established.

5.47 It should be noted that local authorities / destinations with less than 1% trip attraction were excluded as these destinations are not considered to be representative. The percentage of residents travelling to/from these destinations for employment was then re-distributed proportionally across the destinations included within the assessment.

5.48 The resultant tables of calculated journey demand for each Underground/Rail/Bus service has been provided in full at **Appendix N**.

London Underground

5.49 The analysis considers the impact on the passenger loading of the Northern and Piccadilly Lines and also the impact on gatelines at High Barnet and Cockfosters stations as a result of the development.

5.50 The tables provides at **Appendix N** provides the full set of working, which uses station entry and exit data, and passenger loadings available from TfL, for 2019 (Monday-Thursday data).

5.51 The following tables provide a summary of the outcome of the London Underground analysis undertaken.

Table 5.6: Summary of Line Loading Analysis Results (Demand as % of available capacity)

Start	Direction	Existing Demand		Existing Demand + Development Demand		Change in Demand as a Result of the Development	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
High Barnet	Southbound	10.0%	2.9%	10.2%	2.9%	+0.2%	+0.1%
Totteridge & Whetstone	Northbound	3.5%	5.1%	3.6%	5.2%	0.0%	+0.1%
Cockfosters	Southbound	3.6%	1.4%	3.7%	1.4%	+0.1%	0.0%
Oakwood	Northbound	1.1%	3.1%	1.1%	3.1%	0.0%	0.0%

5.52 **Table 5.6** shows that through the application of forecast trips arising from the development, in the worst-case there will be +0.2% increase in demand on the London Underground services, which will occur on the Northern Line, in the southbound direction, during the AM peak period.

5.53 **Table 5.7** summarises the results of the gateline analysis at the two stations.

Table 5.7: Summary of Gateline Analysis Results

	Peak	High Barnet Station	Cockfosters Station
Max Capacity of Gateline (per hour)	-	4500	4500
Peak People at Station	AM	1899	542
	PM	897	760
Capacity of Gateline Currently Used	AM	42%	12%
	PM	20%	17%
Proposed Development Trips	AM	34	28
	PM	10	8
Impact on Capacity	AM	0.8%	0.6%
	PM	0.2%	0.2%

5.54 **Table 5.7** shows that in both peak periods and at both stations assessed, there would be less than a 1% decrease in the available capacity of the gatelines.

5.55 The most heavily used gateline at present of those assessed is the High Barnet Station gateline in the AM peak period, with 42% capacity currently used. Therefore, with a 0.8% increase in demand at the gateline, it will still operate with over 50% of its capacity still available. The impact of the development is considered to be negligible.

Bus Network

5.56 The tables provided at **Appendix N** shows the distribution of future residents on the nearest bus services (those which stop at New Barnet Sainsbury's Stop B and C and New Barnet Station / Station Road Stop D and E), for the AM and PM peak periods.

5.57 As both High Barnet and Cockfosters Underground stations are within a 2km walk or cycle of the site, it is considered likely that future residents will choose to walk or cycle to these stations.

5.58 The number of people that may choose to add a further public transport (bus) trip as part of the overall trip chain is uncertain. For many, bus travel to underground stations may be a necessity, where their mobility is impaired. For others, the potential additional costs and waiting time may not be attractive, preferring active modes of travel.

5.59 **Appendix N** presents the analysis undertaken to understand the future use of the existing bus services.

5.60 Where the means of travel to the Underground stations is uncertain, with walking, cycling and bus travel all presenting potential options, an assessment has been undertaken to provide a maximum bus use forecast, whereby all trips to Underground stations are undertaken by bus.

5.61 **Table 5.8** presents a summary of the number of anticipated additional bus users by route, per vehicle, associated with the development for the peak periods.

Table 5.8: Summary of Bus Usage

Route	Direction of Travel	Passengers Per Service	
		AM Peak	PM Peak
107	Eastbound towards New Barnet Station	0	1
	Westbound towards Edgware Station	2	0
184	Northbound towards Chesterfield Road	2	1
	Southbound towards Turnpike Lane Station	1	1
307	Westbound towards Barnet Hospital	3	2
	Eastbound towards Brimsdown Station	2	2
326	Southbound towards Brent Cross Shopping Centre	2	1
	Northbound towards The Spires	0	2
383	Southbound towards Woodside Park Station	3	2
	Northbound towards The Spires	2	2
384	Eastbound towards Cockfosters Station	1	1
	Westbound towards Quinta Drive	2	1

5.62 Whilst it is considered entirely unlikely that all people accessing local Underground stations will do so by bus, the results of the analysis presented in **Table 5.8** suggests a maximum of 3 additional passengers per service in the AM peak hour on the 383 service towards Woodside Park Station and on the 307 service towards Barnet Hospital.

5.63 The analysis suggests that for route 384 there are anticipated to be 1 to 2 additional passengers per service as a result of the development.

5.64 The applicant recognises the wider requirements to contribute towards mobility improvements in the area and welcome further discussion on potential financial contributions in this regard.

Rail

5.65 Analysis has also been undertaken to understand the increase in numbers of passengers on National Rail at New Barnet Rail Station.

5.66 The tables at **Appendix N** provide the anticipated distribution of residents onto National Rail services at New Barnet station. **Table 5.9** shows the anticipated number of additional passengers per route, while **Table 5.10** shows the anticipated number of additional passengers per train in the AM and PM peak periods.

Table 5.9: Rail Passenger Trips by Direction of Service

Route (Origin/Destination)	AM Peak			PM Peak		
	Arr	Dep	2-way	Arr	Dep	2-way
New Barnet – Welwyn Garden City	0	0	0	0	0	0
New Barnet – Moorgate	11	60	71	42	17	59
Total	11	60	71	42	17	59

Please note: Errors are due to rounding

Table 5.10: Rail Passenger Trips by Train

Route (Origin/Destination)	AM Peak			PM Peak		
	Arr	Dep	2-way	Arr	Dep	2-way
New Barnet – Welwyn Garden City	0	0	0	0	0	0
New Barnet – Moorgate	3	15	18	10	4	15
Total	3	15	18	10	4	15

Please note: Errors are due to rounding

5.67 The results presented in **Table 5.9 and Table 5.10** above indicate that there will be a minimal increase in the number of passenger trips on the train during the peak periods. The most significant increase is that on the service between New Barnet and Moorgate with an additional 18 two-way movements during the AM peak and 15 two-way movements. An additional 15-18 passengers per train is not considered to represent a significant increase in passengers and therefore the impact of the Proposed Development is considered to be negligible.

Summary

5.68 The estimated residential trips during the weekday AM and PM peak hours have been distributed across the available public transport modes in order to understand the scale of the potential impact.

5.69 The additional trips by rail, London Underground and buses will be low.

5.70 These increases should be seen in the context that the proportion of residents travelling to work by walking / cycling or other sustainable modes of transport is in accordance with the overarching mode share aim of 80% as set out in The London Plan 2021.

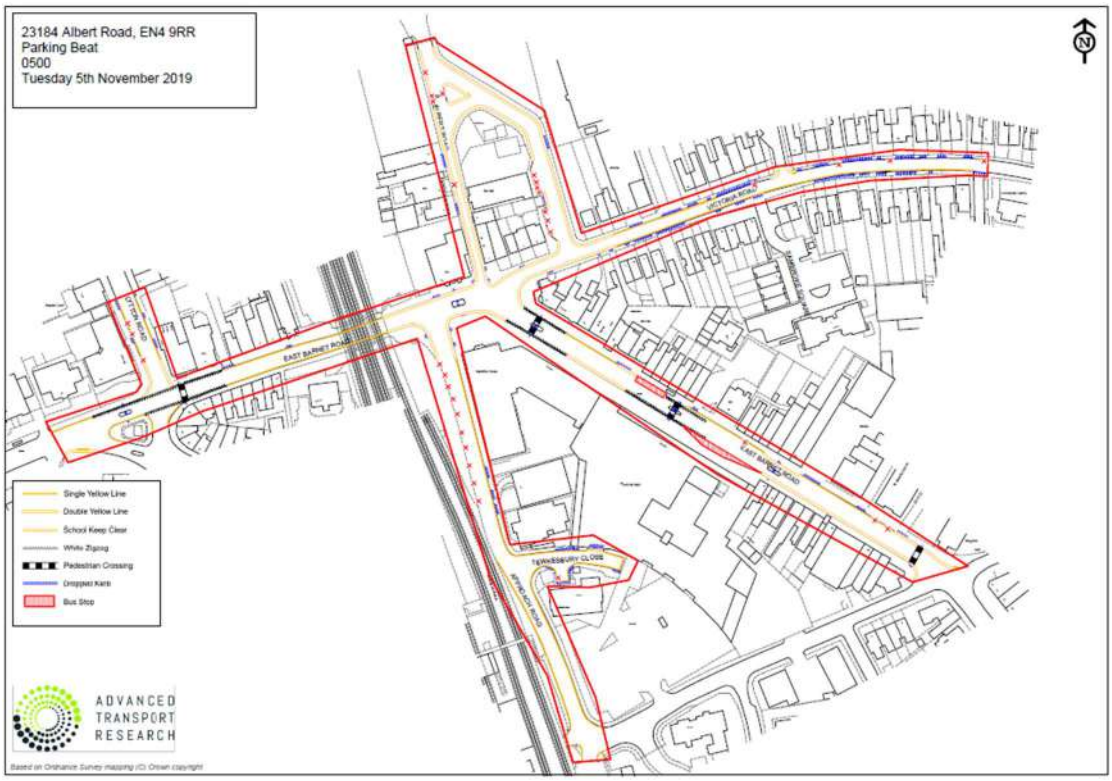
6 Additional Borough Analysis

6.1 This section presents the outcome of various surveys and further analysis which have been undertaken to gain further understanding of the surrounding area.

6.2 A summary of the surveys undertaken to date is provided below:

- Parking beat survey: Undertaken on Tuesday 5th and Wednesday 6th November 2019, at the hours of 05:00, 07:00 and 17:30 on each day. Survey undertaken using Lambeth Parking Survey Methodology, parking survey area illustrated at Figure 6.1.
- Traffic surveys: The junctions of Victoria Road/ East Barnet Road, Victoria Road / Albert Road (east) and Station Road/ Approach Road were surveyed for both traffic counts and queue lengths. These surveys were undertaken on Tuesday 5th November 2019 for the hours of 07:00-10:00 and 16:00-19:00.
- A further traffic survey was undertaken within the site (using video cameras) to determine how many vehicles the National Grid site currently generates. This survey was also undertaken on Tuesday 5th November 2019 for the hours of 07:00-10:00 and 16:00-19:00.
- Pedestrian Surveys: Pedestrian surveys were undertaken at the existing crossing points (on the southern and western arms) and key desire line crossing location (on the eastern arm, where there is currently no formal crossing provision).
- A further pedestrian count survey was undertaken on Approach Road, which leads towards New Barnet Railway Station.
- All of the pedestrian count surveys were undertaken on Tuesday 5th November 2019, between the hours of 07:00-10:00 and 14:00-19:00.

Figure 6.1: Parking Beat Survey Area



Parking Survey Analysis

6.3 Vectos commissioned Advanced Transport Research to undertake street inventory and parking beat surveys on Tuesday 5th and Wednesday 6th November 2019. The surveys were undertaken in accordance with the Lambeth Parking Survey Methodology and the full set of results are provided in **Appendix O**.

6.4 The parking surveys were undertaken at 05:00, 07:00 and 17:30. The 05:00 survey was undertaken to capture overnight demand in line with the Lambeth Parking Survey Methodology.

6.5 The street inventory and parking beats were also further analysed to determine which single yellow line restrictions were active during the different parking beats.

6.6 **Tables 6.1 and 6.2** present the results of these surveys and indicated how heavily parked the survey area was during each survey and how many spaces were available in both unrestricted bays and bays which have time dependent restrictions, which allow for parking at certain times of day.

Table 6.1: Unrestricted Parking Beat Survey Results

Date	Time	Unrestricted Capacity	Total Demand	% Occupied	Residual Capacity
Tuesday 5th November	05:00	45	24	53%	21
	07:00	45	27	60%	18
	17:30	45	29	64%	16
Wednesday 6th November	05:00	45	23	51%	22
	07:00	45	26	58%	19
	17:30	45	26	58%	19

Table 6.2: Inactive Parking Restrictions Parking Beat Survey Results

Date	Time	Available Capacity	Total Demand	% Occupied	Residual Capacity
Tuesday 5th November	05:00	112	7	6%	105
	07:00	111	7	6%	104
	17:30	50	15	30%	35
Wednesday 6th November	05:00	112	9	8%	103
	07:00	111	9	8%	102
	17:30	50	8	16%	42

6.7 **Table 6.1** shows that the amount of unrestricted capacity available on the streets surrounding the site is relatively limited, with only 45 parking spaces without any restrictions. The analysis however shows that across the two days surveyed there was approximately 21 spaces available overnight (based on the parking beat at 05:00 on the Tuesday surveyed). This suggests that there is parking capacity available for overnight parking.

6.8 **Table 6.2** shows that should drivers require shorter term parking, then there are up to 105 parking spaces available in the early morning and up to 42 spaces available in the early evening. This additional analysis suggests that there is parking capacity available for those seeking to access the local facilities services in the area, or who are visiting residents, who require parking for shorter periods of time.

6.9 Further analysis was undertaken to understand how much inappropriate parking occurred during the parking beats. This analysis determined that the early morning parking beats (at 05:00 and 07:00 each day) recorded between 0 - 3 inappropriately parked vehicles.

6.10 The Wednesday 17:30 beat found a total of 5 inappropriately parked vehicles, while the Tuesday survey at the same time recorded 13 inappropriately parked vehicles. This again suggests that parking demand (both appropriate and inappropriate) is tied to commuters rather than the local residents

Traffic Flow Analysis

6.11 Vehicle traffic flows and queue length data were collected for the mini-roundabout which connects Victoria Road and East Barnet Road. This data was collected on Tuesday 5th November 2019 and is presented in **Appendix P**.

6.12 A junction modelling exercise has been undertaken for this junction using Junctions 9 software. The 2019 base model has been calibrated using the queue length survey data to validate the models. The AM and PM peak periods (07:45-08:45 and 17:00-18:00 respectively) have been calibrated in separate modelling files to ensure that both peaks are representative. **Table 6.3** summarises the results of the 2019 base models for the AM and PM peak periods.

6.13 The surveyed queue is provided as the average queue, followed by the maximum queue (in brackets).

Table 6.3: 2019 Baseline Modelling Results

Arm	AM Peak Period				PM Peak Period			
	Survey Queue	Modelled Queue	Delay (s)	RFC	Survey Queue	Modelled Queue	Delay (s)	RFC
2019 Baseline								
Station Rd	2.4 (4)	2.8	10.00	0.74	2.2 (6)	1.9	7.71	0.66
Victoria Rd	3.5 (4)	3.7	43.37	0.80	3.9 (4)	3.0	40.83	0.76
East Barnet Rd	15 (22)	15.8	111.99	1.00	19 (22)	14.7	117.80	1.00

6.14 **Table 6.3** shows that the respective models have been calibrated and validated against the surveyed queues. The results show that in both peak periods East Barnet Road is operating beyond and RFC of 0.85.

6.15 The other two arms operate within their capacity in both peak periods, albeit Victoria Road is approaching the capacity threshold in the AM peak period.

6.16 Further junction modelling scenarios have been produced for the future year in which it is anticipated that the development will be complete (2026). Growth factors extracted from Tempro were extracted in order to grow the base traffic surveys to the 2026 future year.

6.17 Two of these scenarios consider the proposed development, albeit with different distributions of traffic. This approach is consistent with the previous applications for the site. One of the scenarios assumes that 90% of development traffic will travel to and from the site via the west (i.e. through the mini-roundabout), while the other scenario assumes that 75% of development traffic will do so. Traffic flow diagrams which illustrate these distributions are provided in **Appendix P**.

6.18 The future year scenarios are as follows:

- 2026 with no Victoria Quarter development.
- 2026 with Victoria Quarter development: Scenario A, 90% assumed to travel through roundabout and 10% assumed to travel along Victoria Road to the east of the site access.
- 2026 with Victoria Quarter development: Scenario B, 75% assumed to travel through the mini-roundabout and 25% assumed to travel via Victoria Road to the east of the site access.

6.19 **Table 6.4** provides the results of the three scenarios outlined above. The junction modelling output files are provided in **Appendix Q**.

Table 6.4: 2026 Future Year Modelling Scenarios

Arm	AM Peak Period			PM Peak Period		
	Queue	Delay (s)	RFC	Queue	Delay (s)	RFC
2026 Future Year						
Station Rd	3.8	12.91	0.80	2.5	9.22	0.72
Victoria Rd	9.0	96.62	0.95	7.2	91.26	0.92
East Barnet Rd	37,6	229.25	1.13	33.8	232.73	1.13
2026 with VQ: Scenario A (90%)						
Station Rd	4.0	13.39	0.80	2.8	10.03	0.74
Victoria Rd	25.3	211.75	1.09	10.6	123.07	0.98
East Barnet Rd	46.5	355.02	1.14	45.7	351.69	1.19
2026 with VQ: Scenario B (75%)						
Station Rd	4.0	13.30	0.80	2.7	9.89	0.74
Victoria Rd	21.9	189.03	1.07	9.9	116.73	0.97
East Barnet Rd	43.2	332.67	1.14	44.1	331.34	1.18

6.20 **Table 6.4** shows that in the 2026 future year, with no development, the RFC value exceeds 0.85 in both peak periods on Victoria Road and East Barnet Road.

6.21 The two scenarios run for the 'with development' distributions shows similar results to one another, in terms of both queueing and RFC. As the RFC capacity threshold is exceeded on both Victoria Road and East Barnet Road (as consistent with the 2026 no development scenario) then the queueing and delay results are not considered reliable, however it is anticipated that there would be moderate decreases in the operation of the already congested junction in the peak periods, as a result of the development.

Pedestrian Demand Analysis

6.22 Video surveys were undertaken to establish the usage of the formal and informal crossing locations on the arms of the East Barnet Road/ Victoria Road mini-roundabout junction and also to understand the level of pedestrian demand along Approach Road, which is the most convenient route to the New Barnet Station from the site.

Crossing Demand

6.23 A video survey was undertaken on Tuesday 5th November 2019 to record pedestrian crossing movements around the Victoria Road / East Barnet Road mini-roundabout, located outside the site.

6.24 The survey included the two formal crossing points, located on the southern and western arms of the junction. The eastern arm does not provide a formal crossing facility, however a camera was also placed to ensure that any pedestrians crossing the road in this location, without the aid of a crossing point, were also recorded.

6.25 The surveys of the crossing movements have been analysed to identify the number of crossing movements in the typical network peaks of (08:00-09:00 and 17:00-18:00), the actual traffic peak hours (07:45-08:45 and 17:15-18:15) and the hours in which the greatest total amount of pedestrian crossing movements occurred across the three locations (07:35-08:35 and 16:05-17:05).

Figure 6.2: Location of Crossing Points

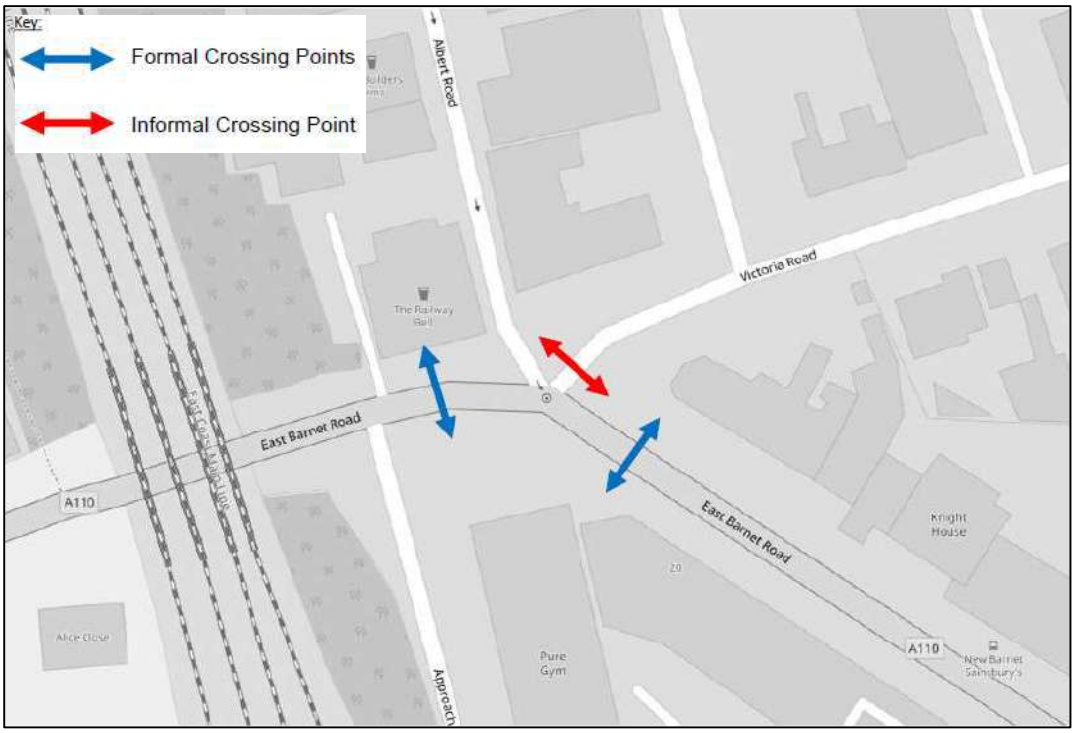


Table 6.5: Crossing Movements in Peak House Periods

Time	East Barnet Road (west)		East Barnet Road (south)		Victoria Road	
	Nbd	Sbd	Ebd	Wbd	Nbd	Sbd
Morning Period						
07:35-08:35	34	21	109	67	6	16
07:45-08:45	29	20	111	64	5	12
08:00-09:00	31	23	106	62	3	10
Afternoon Period						
16:05-17:05	41	47	69	76	23	20
17:00-18:00	50	29	56	37	32	25
17:15-18:15	41	32	64	52	26	26

6.26 **Table 6.5** shows that the usage of each crossing was relatively similar across each of the considered one-hour peak periods. It is noted that the crossing on the southern arm of the mini-roundabout (across East Barnet Road) was the most heavily used crossing point in all periods considered, with most pedestrians crossing it in an eastbound direction except for in its peak afternoon usage period of 16-05-17:05.

6.27 It is noted that the eastern arm of the roundabout is crossed at most 57 times in any of the considered periods. This relates to less than 1 person using the crossing per minute. This is likely due to the lack of formal crossing facilities in this location, which would therefore discourage people from crossing in this location.

6.28 It is noted that the crossing point which is located on the western arm of the junction (and does provide formal crossing facilities) was used by 88 people in its busiest one-hour period.

Approach Road Demand

6.29 The video surveys commissioned also collected the levels of pedestrian demand on Approach Road (the quickest route to New Barnet Station from the site). This was undertaken as it was noted prior to the commission of the survey that this route will form part of a key desire line to the site.

6.30 **Table 6.6** provides a summary of the surveyed flows during the typical network peak periods (08:00-09:00 and 17:00-18:00), during the local network peaks (07:45-08:45 and 17:15-18:15) and during the periods in which the highest pedestrian demand along this route were recorded (07:35-08:35 and 17:55-18:55).

Table 6.6: Approach Road Pedestrian Demand

Time	Approach Road	
	Towards Station	Away from Station
Morning Period		
07:35-08:35	58	86
07:45-08:45	50	89
08:00-09:00	41	77
Afternoon Period		
17:00-18:00	17	43
17:15-18:15	20	43
17:50-18:50	18	55

6.31 **Table 6.6** shows that approach road is subject to the highest level of demand between 07:35-08:35, when a total of 144 pedestrians travel up and down it. This peak period falls ten minutes prior to the peak time in which the pedestrian crossings are used most intensively.

6.32 It is noted that during this peak there would be on average 1 pedestrian walking towards the station per minute and 1-2 walking away from the station per minute.

7 Analysis of Strategic Road Network

7.1 This section outlines an additional assessment as requested by Highways England as part of the previous application for the site.

7.2 This section presents the assessment, which has been updated to reflect the latest proposals.

Additional Traffic Analysis

7.3 In response to the TA for the previous scheme (planning ref: 20/1719/FUL), Highways England provided comments in relation to the scope and content of the TA. This included a request to distribute the development trips across the wider network to understand the impact of the development trips and how many trips are likely to use the Strategic Road Network (SRN), both at the A1 Barnet By-Pass and Junctions 23 and 24 of the M25.

7.4 Vectos produced a further distribution, as per the request. For completeness, this assessment has been updated in line with the new development proposals.

7.5 The assessment has been undertaken using Census data (NOMIS dataset WU03EW) to determine where residents living in Barnet 006 (2011 super output area – middle layer), who travel to work as a car driver, by taxi, or by motorcycle/ scooter work currently travel to (see **Table R.1** at **Appendix R)**.

7.6 Areas with less than 1% of the distribution have been removed (see **Table R.2** at **Appendix R**). The remaining areas were then examined in turn to determine what routes people may take to travel to and from this area. Google Maps was also used to determine the most likely and fastest route.

7.7 The movements through Junctions 23 and 24 of the M25 and any through the A1 Barnet By-Pass were identified and are shown in the analysis provided in **Table R.3** at **Appendix R.**

7.8 The peak hour traffic flows (previously discussed in Section 5.0 and re-provided at **Table R.4** of **Appendix R**) have been applied to the distributions in order to produce the total number of two-way vehicle movements for each junction in the peak periods (see **Table R.5** at **Appendix R**).

7.9 The results of this analysis is summarised in **Table 7.1**.

Table 7.1: Wider Network Trips

Junction	Anticipated Development Trips Through Junctions (Two-way movements)	
	AM PEAK (8AM-9AM)	PM PEAK (5PM-6PM)
Barnet By-Pass/ Trotters Bottom/ Galley Lane/Rowley Lane/Holmshill Lane	0	0
Barnet By-Pass/ Rowley Lane/ Newark Green/ Rowley Lane	0	0
Barnet By-Pass/ Barnet Road/ Barnet Way/ Barnet Lane	5	4
Barnet Way/ Watford Way/ Selvage Lane / Edgware Way	2	2
Watford Way/ The Broadway/ Watford Way/ Lawrence Street	3	3
J23 of M25	6	5
J24 of M25	2	2

7.10 The analysis presented in **Table 7.1** shows that a low impact on the SRN would be expected as a result of the development proposals.

7.11 Furthermore, it should be noted that this development presents a reduction in trips when considered against the consented planning permission for the scheme and as such the net increase in trips above this consented level is negligible.

8 Sustainable Transport Strategy

8.1 This section outlines the measures and improvements which are proposed as part of the development to encourage and support travel by sustainable modes in the vicinity of the site.

8.2 It is noted that due to the nature of the development (flats, mostly consisting of smaller units (78% studios, 1-beds and 2-beds)) that the development is more likely to attract younger residents, who fall within the 'Urban Mobility', 'Students and Graduates' and 'City Living' TCOL classifications. These resident types tend to be less reliant on car travel and show a greater tendency to utilise active and shared travel modes.

8.3 The following measures have been proposed as part of this scheme to ensure that sustainable modes are attractive and provided added benefit to the wider community:

- Improvements to the PRoW across the railway line;
- Improvements to Victoria Road / East Barnet Road (proposals include raised crossing points, a new crossing and enhanced public realm and surfacing);
- Improvements to Albert Road East and West (including being designed for low speeds, raised table provision, enhanced footway provision);
- Improved access to Victoria Park for all people;
- Provision of new pedestrian crossing facility on Victoria Road;
- Replacement of an existing zebra crossing facility on East Barnet Road to a puffin crossing;
- Pedestrian improvements to consist of improved signing and lighting under the railway bridge on East Barnet Road;
- Provision of four car club spaces with electric vehicle charging points;
- Travel Plan for the site to include car club membership and welcome packs for first residents;
- Contribution towards the consultation and implementation of a local CPZ;
- High levels of cycle parking provision across the site for residents and visitors including provision for cargo bikes; and
- Provision of car parking below maximum standards representing a reduction in absolute numbers and proportions when compared to previous planning consents.

8.4 In addition to the measures identified above, as part of the previous planning application, agreement with TfL to provide a financial contribution towards wider sustainable travel measures was reached.

8.5 The objective of the financial contribution was to help encourage greater public transport use in line with the Mayor's mode share aspirations and provide future residents with a better bus service, more comfortable stops, and improve journey time reliability to nearby town centres and Tube stations.

8.6 Using costings that have been applied elsewhere in LBB previously of £40k per bus stop, a financial contribution of £120k towards bus stop enhancement was agreed.

8.7 The hail and ride section of the bus network near the site can be upgraded to include up to three bus stops along the stretch from Victoria Road up to Lawton Road near the north end of the site. The contribution would cover all costs including feasibility, design, materials, consultation, carriageway alteration and footway alteration to install high-quality stops and shelters with real-time passenger information.

8.8 As part of this planning application, the applicant is content to commit to this approach and financial contribution.

8.9 Further to this contribution, further were previously agreed upon as part of the previous planning application, these relate to the undertaking of a Pedestrian and Cycling Feasibility Study. The study will be undertaken by the Council on improvements to the pedestrian and cycling environment in the area surrounding the site (up to a 20-minute walk or 10-minute cycle ride away from the site. This study will include all reasonably accessible public transport stops (including bus, rail and London Underground) and will be undertaken based on the TfL Healthy Streets approach.

8.10 A contribution of £25k will be required in order to fund the undertaking of the aforementioned study by the Council. A further sum not exceeding £100k has also been identified to be paid towards implementing the outcomes of the study.

8.11 There is a demonstrable investment in mobility measures and there will be no overall increase in car parking or access to cars for future residents over and above that already consented. The proposals have considered mobility and accessibility from the outset, to ensure the sustainability of the scheme.

9 Construction

9.1 This section considers the programme and potential impacts associated with the construction of the proposed development. It identifies the key considerations in the development on the construction strategy, principles which would be expected to be followed and potential initiatives which may be implemented. Further details will be provided in a Construction and Logistics Plan (CLP).

9.2 The CLP is an evolving document that will be updated and finalised once a contractor has been appointed for construction. It is expected that the provision of a final CLP will be secured by a planning condition.

Objectives

9.3 The key objectives of the construction strategy for the Proposed Development are as follows:

- Minimise the impact of construction vehicles on the local community and the local transport networks;
- Minimise the impact of construction activity on the environment;
- Ensure a safe environment, both within and around the site;
- Ensure the best practice is followed include CLOCS and FORS; and
- Deliver the development safely, efficiently and on time.

Context, Considerations and Challenges

9.4 In addition to the key planning policies set out in **Section 1**, the London Plan identifies the need to produce a CLP to support the new development and help to manage the level of HGVs on the highways network and which should be produced in line with TfL's best practice guidance as set out in TfL's Construction and Logistics Plan Guidance produced in 2017. This chapter has been produced with reference to the methodology set out for a CLP as identified in this guidance

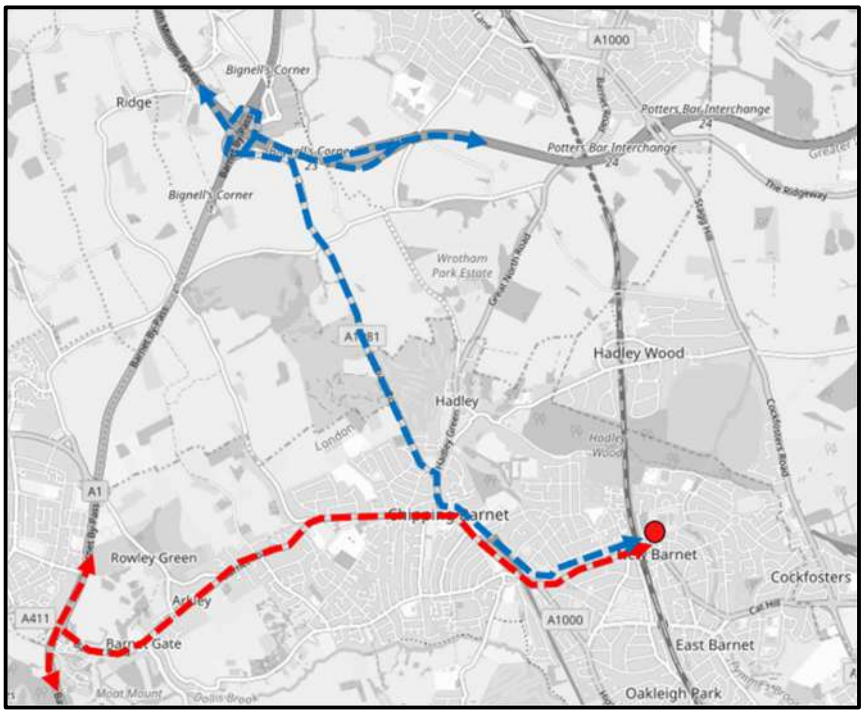
Community Considerations

9.5 **Section 3** provides information on the accessibility of the site and challenges associated with the general development. With specific reference to the construction phases, the following are considered to be key challenges and community considerations:

- Impact of a construction access/cross-over on pedestrians using Albert Road;
- Impact of increase in HGV activity and turning movements on cyclists and motorised vehicles using Albert Road, Victoria Road and East Barnet Road; and
- Ensuring that construction vehicles do not use inappropriate routes including routes which provide access to key community facilities such as schools.

9.6 The proposed routes for larger sized delivery vehicles are presented in **Figure 9.1**.

Figure 9.1: Construction Routes



Construction Programme

9.7 With regard for planning process durations, preconstruction design operations and mobilisation, the anticipated commencement on site is March 2022. The construction programme associated with the Proposed Development is anticipated to span a 5.5 year period.

Site Logistics

Site Working Hours

9.8 No work will be permitted outside the hours of 08:00 – 18:00hrs Monday to Friday and 08:00-13:00 on a Saturday. No work at any time on Sunday or Bank Holidays without prior written approval of the local authority will be undertaken.

Vehicle Routing and Site Access

9.9 The Site Manager will be responsible for developing and implementing a Site Traffic Management Plan.

9.10 Fairview will work in partnership with TfL, LBB and the supply chain to reduce the impact of the development on the local community. This will include consultation to confirm the preferred access and egress routes to and from site.

9.11 To minimise the potential impacts and ensure vehicles use appropriate roads, the routing of construction vehicles has been based on the following hierarchy:

- Motorway;
- Primary Road Network; and
- Local Roads.

Deliveries and Off-Loading

9.12 All deliveries of materials to site or removal from site shall take place during the hours and in the manner specified in the Site Traffic Management Plan. The following principles will be adhered to:

- A weekly delivery programme will be developed by the site management and discussed and agreed with contractors and circulated on Fridays to provide advance warning;
- As part of the procedure for allocating delivery times to suppliers, care will be taken to reduce the number of vehicles travelling to the site within peak periods;
- Wherever possible deliveries will be taken onto site earlier to allow vehicles to be off loaded during peak times and they will only be allowed to leave after peak period traffic flow periods;
- The site will endeavour to take receipt of deliveries between hours of 09:30-15:30hours.
- All vehicles will be taken onto site and off loaded within the development. No offloading from the public highway is envisaged;
- To ensure vehicles leave site in a forward gear, larger delivery vehicles will be required to be reversed into site, this will be organised/monitored by a designated traffic marshal who will reverse vehicles into site in a safe and orderly manner, ensuring the safety of pedestrians is paramount;
- A designated gatesman/traffic marshal will be situated outside the site to monitor traffic movements and ensure safe access and egress for both vehicles and pedestrians;
- All vehicles will be accompanied by a traffic marshal, provided by Fairview and appointed Principal Contractor;
- Un-authorised or un-notified deliveries will be refused entry; and
- Queuing of trucks or lorries will not be permitted.

Travel Planning and Car-Parking

9.13 When works phasing permits a limited number of car parking spaces will be available on site for the purpose of loading and un-loading.

9.14 The site team will be vigilant to ensure that illegal parking is avoided. Any breaches will be strictly dealt with and persistent offenders will be removed from the site.

9.15 During the site induction personnel will also be advised that parking on the local street is not permitted.

9.16 During the procurement and site induction process all operatives will be encouraged to use public transport wherever practicable. As described in **Section 2** the site is served well by public transport

Strategies to Reduce Impacts

9.17 **Table 9.1** below sets out the proposed measures relevant to a future CLP for the proposed development.

Table 9.1: Summary of Construction Management Measures

Measure	Details
Measure Influencing Construction Vehicles and Deliveries	
Safety and environmental standard and programmes	Commitment for contractors and suppliers to follow CLOCS and be members of FORS
Adherence to designated routes	Access routes to be followed by goods vehicles
Delivery scheduling	Appropriate scheduling of deliveries to minimise impact.
Re-timing for out of peak deliveries	Where feasible, vehicle movements will be co-ordinated to take place outside of peak times considering both highway peak and pedestrian peak
Use of holding area and vehicle call off areas	Principal Contractor to discuss the potential availability of holding / call off areas with LBB and TfL.
Use of logistics and consolidation centres	Potential to be investigated by Principal Contractor
Material Procurement Measures	
DfMA and offsite manufacture	Potential to be reviewed by Principal Contractor
Re-use material on site	Potential to be investigated by Principal Contractor
Smart procurement	Principal Contractor to consider the use of smart procurement to minimise vehicle trips when selecting suppliers.
Other Measures	
Collaboration with other sites in the area	Principal contractor to identify potential partner sites through discussion with LBB and TfL.
Implement a residential travel plan	As part of the CLP, the principal contractor will ensure staff are provided with information relating to sustainable travel options and publicise relevant sustainable mode promotions.

Estimated Vehicle Movements

9.18 The schedule of deliveries to and from site will understandably alter during the construction of the development.

9.19 Delivery Vehicles will range in size from Small Delivery Vans to 40ft Articulated Lorries, Artics will be mainly used for delivering steel reinforcement, bricks, insulation and plasterboard.

9.20 During the Enabling Works/Substructure period it is estimated that haulage vehicles, flatbed Lorries and concrete mixer trucks will be the main contributors. During superstructure works the deliveries will reduce to on and off site per day mainly consisting of steel reinforcement concrete and brick deliveries. During the fit-out period vehicles will be delivering plasterboard, insulation and joinery on 40ft vehicles with box vans delivering fixtures and fittings.

9.21 The estimated number of vehicle movements are presented in **Table 9.2**. It should be noted that these figures are estimates based on the applicant's experience of developing similar schemes.

Table 9.2: Forecast construction movements

Construction Stage	Number of vehicles per day	Number of vehicles per month
Enabling Works/Substructure	30 - 40	600 - 800
Superstructure	25	400
Fit out	15-20	300 - 400
Peak Period of construction	30	600

9.22 It is important to note that a Principal Contractor has not yet been appointed and therefore construction programme and phasing has not been confirmed. A more detailed breakdown of construction vehicle movements will be provided within the final Construction and Logistics Plan, which is anticipated to be secured by condition.

9.23 It is likely that the majority of movements associated with the delivery of materials will originate from outside of Greater London. As such, most movements will use the SRN.

9.24 The CLP will outline restrictions on delivery times (peak periods to be avoided) and routes amongst other elements. Where this is to be secured by condition, liaison with Highways England at the appropriate time can be secured.

Implementing, Monitoring and Updating

9.25 The CLP will be reviewed during the construction project as required to ensure that it remains relevant and responds to any information or challenges which become apparent during construction. As part of the CLP, information will be collated on the level of vehicle activity taking place at the site, including vehicle numbers, size and type, arrival, departure and duration timings and how this all compares to the schedule. Data will also be collected relating to logistics related incidents and injuries and any vehicle or operator non-compliance of safety requirement.

9.26 The approver and implementer of the CLP will be identified and contact details provided to allow staff and members of the public to report any perceived breaches of requirements and complaints. This could relate to vehicle route, inappropriate queuing or parking or community concerns relating to construction activity.

10 Summary and Conclusion

10.1 The development proposal would provide 544 new homes, which would comprise a mix of private sale and affordable units and a range of sizes. The proposal would also provide commercial units and a space for the community.

10.2 The site would be landscaped to a high standard and would include an area for the public, which would be adjacent to an access to the neighbouring Victoria Park.

10.3 Plentiful and high-quality cycle parking will be provided for residents and their visitors. Cycle parking provision will be in line with the London Plan standards.

10.4 The site would also provide car parking, within draft London Plan standards. A ratio of 0.61 spaces per home across the site is appropriate given the relative accessibility of the site, character of future occupants, planning policy guidance and emerging indicators such as declining car ownership and use. It is also consistent with wider air quality and climate change objectives.

10.5 To ensure people who do not choose to own a car still have access to one where needed, a total of 4 car club spaces will be provided on Albert Road East. Car club companies have confirmed their willingness to operate car club vehicles within the site. First residents will benefit from initial free membership.

10.6 Provision for electric vehicle charging points will be provided with 20 percent of car parking spaces provided with charging points and remaining provided with passive provision. Accessible spaces are also provided in-line with standards.

10.7 The proposed homes will generate trips to and from the site. However, the site is well located with respect to local amenities and benefits from good access to sustainable modes of travel which means that future residents will not be reliant on private cars. Indeed, a high proportion of trips will be undertaken by walking, cycling or other sustainable transport modes. This is in accordance with the overarching aims of The London Plan 2021.

10.8 The proposed development includes significant improvements to Albert Road which will benefit pedestrian and cycle movements. The route across the railway line to the west will be improved with a new structure provided. Pedestrian facilities at the Victoria Road / East Barnet Road mini-roundabout will be enhanced and the zebra crossing on East Barnet Road replaced with a puffin crossing. The facilities will benefit future residents and existing residents and visitors to the area in addition to improving access to Victoria Park, assisting wider health and well-being objectives.

10.9 The road network nearby to the site will operate above capacity regardless of whether the development comes forward. Adding the extra traffic from the proposed development will not improve this. However, the development will not introduce additional vehicle trips over and above those already approved through previous schemes. Car parking will not be significantly increased from that previously approved.

10.10 The proposed changes to the layout of Victoria Road / East Barnet Road min-roundabout will bring significant benefits to pedestrians and cyclists. This is the right approach to mitigating the potential impact of the proposed development in the light of the Mayor's Healthy Streets agenda.

10.11 It has been demonstrated within this report that the site is readily accessible by sustainable modes of transport and the proposed development will improve this. Safe and suitable access is provided to the site for all users. The design of the development and the sustainable transport strategy for it has limited the residual impacts of it to a level which is considered acceptable.

10.12 Therefore, there are no transport reasons why the proposed development should not be granted planning permission.

Appendix A

Travel Plan

vectos.

RESIDENTIAL TRAVEL PLAN

Citystyle Fairview VQ LLP

Victoria Quarter, Albert Road, New Barnet

June 2021

Residential Travel Plan

vectos.co.uk

Contents

Figures

1 Introduction

1.1 Citystyle Fairview VQ LLP has commissioned Vectos to provide transport consultancy services for development proposals at Victoria Quarter, Albert Road, New Barnet.

1.2 The site has been subject to a total of four planning applications in recent years, further details of these applications are provided below:

- B/04834/14: The first application was made to secure consent for 305 residential units, 674sqm mixed use commercial space, new public open space, new public open space, removal of elevated footbridge and provision of basement car parking. The application was approved following legal agreement in May 2015.

- 16/7601/FUL: The second application was made to cover an additional piece of land to the front of the site as well as part of the existing site. The proposal sought to provide an additional 104 units, however in reality the application delivered a new increase of 52 units above the previous application. This application is subject to resolution only, with the Section 106 to be completed soon.

- 17/5522/FUL: The third application focussed on the former Salvation Army building to the front of the site. It was proposed that the number of units in this part of the site should be increased to 39 units, from the 25 units detailed in the previous application, resulting in a net increase of 14 units. This application is subject to resolution only, with the Section 106 to be completed soon.

- 20/1719/FUL: The fourth application was to redevelop the full site in order to provide a total of 625 residential units across 14 buildings, with 327.6sqm of retail/commercial space and 111.3sqm of community space. The proposals also included new public realm, with communal landscaped amenity areas, alterations and additions to the existing highways arrangements plus the removal of the existing elevated footbridge and creation of new pedestrian routes. The proposals also included for 392 parking spaces (including car club and accessible provision), secure cycle parking, servicing and other associated development. This application was refused in December 2020.

1.3 The current proposals are to provide a total of 544 residential dwellings. This application presents a reduction of circa 81 homes above the quantum in the previous planning application.

1.4 The scheme will also include the provision of commercial units, community space, car parking, cycle parking and landscaping.

This Document

1.5 Vectos has prepared a stand-alone Transport Assessment report that provides details of the infrastructure that will be implemented with the development proposals. Readers are advised to refer to that document for further information.

1.6 This document provides a Residential Travel Plan (RTP) for the proposed development and sets out the overarching principles to be adopted to promote sustainable travel, particularly active travel including walking and cycling, to/from the site.

1.7 This RTP is structured as follows:

- **Section 2: Existing Site Context** – This provides information on the site location and accessibility by non-car modes.
- **Section 3: RTP Strategic Goals** – This section outlines the aims, objectives and targets of the travel plan.
- **Section 4: RTP Management** – Outlines the management strategy for the RTP.
- **Section 5: RTP Measures** – Sets out the measures that will be provided at the site.
- **Section 6: Monitoring & Review Strategy** – Describes how the RTP will be monitored, reviewed and evaluated.
- **Section 7: Action Plan** – Assigns roles and responsibilities to organisations and individuals.

2 Existing Conditions

2.1 This section of the report examines the site's existing accessibility, specifically focussing on sustainable transport modes. The site location is shown at **Figures 1 and 2** for reference.

Site Location

2.2 The site is located to the north of Albert Road, New Barnet. It abuts the northern end of the town centre and is accessed via Albert Road. The eastern section of Albert Road is wide enough to accommodate two-way vehicular movement whilst the western section is narrow and is one-way southbound onto East Barnet Road.

2.3 The eastern section of Albert Road forms a priority junction with Victoria Road whilst the western section of Albert Road joins East Barnet Road just to the west of the mini roundabout.

2.4 Victoria Road also connects with East Barnet Road at the mini roundabout.

Walking and Cycling

2.5 The area in the vicinity of the site is moderately flat with a site incline on East Barnet Road as it approaches the Station Road / Victoria Road / East Barnet Road roundabout. There is also an ascent on Station Road travelling westbound and travelling eastbound on Victoria Road the road inclines.

2.6 Footways are provided along the existing sections of Albert Road, which are in relatively poor condition. The sections of footway are varied in width, but mostly circa 2m wide. The western footway of Albert Road (west) however is noticeably narrow (circa 1m wide). The combination of limited footway width, one direction of vehicle traffic and relatively low traffic flows can result in pedestrians choosing to walk on the carriageway rather than the footway.

2.7 There are wide footways along East Barnet Road between Albert Road and the main shopping area.

2.8 It is noted that some lengths of the footway have had repair works undertaken and therefore the surface is not consistent in terms of finish or materials used.

2.9 It is noted that as the site is currently under construction, there is hoarding up which also detracts from the pedestrian environment.

2.10 Dedicated cycle routes are not available in the immediate vicinity of the site, however there are a number of parks which offer off-road cycle routes in the surrounding area. Additionally, National Cycle Network Route 12 is positioned due north of the site and offers a route towards Hatfield to the north and Enfield to the east. These route sections connect with others in the wider area and allow for long distance cycle journeys to be made.

Public Transport

2.11 The site has a public transport accessibility level of 3 ('moderate') according to TfL, at its southern end. The site is supported by access to local bus and rail services.

Bus

2.12 The site benefits from access to a number of bus services. The closest bus stops are located on East Barnet Road (A110), 100m walking distance to the eastbound stop and 140m to the westbound stop. In addition, New Barnet Station / Station Road bus stops are located approximately 300m to the west of the site. A summary of bus services within the vicinity of the site is provided below in **Table 2.1**.

Table 2.1: Bus Service Frequency

Service	Towards	Weekday AM Peak (8am-9am)	Weekday PM Peak (5pm-6pm)	Saturday (1pm-2pm)
107	New Barnet Station	4	4	4
	Edgware Station	4	4	4
184	Chesterfield Road	7-11	7-11	8-12
	Turnpike Lane Station	7-10	7-10	7-10
307	Barnet Hospital	8-11	8-11	9-12
	Brimsdown Station	9-12	9-12	9-12
326	Brent Cross Shopping Centre	9-12	9-12	11-12
	The Spires	9-12	9-12	11-12
383	Finchley Memorial Hospital	30	30	30
	The Spires	30	30	30
384	Cockfosters Station	20	20	20
	Edgware Station	20	20	20

2.13 There is a reasonably high level of bus services available, with one bus available at least every 12 minutes on the majority of routes which serve the site.

Rail

2.14 The nearest national rail station to the site is New Barnet Railway Station. The station is located 270m walking distance from the site frontage (if using the Nirvana Close footpath), otherwise it is a 300m walk away if using Approach Road.

2.15 The station is served by both Great Northern and Thameslink services, which provide frequent connections towards destinations such as Welwyn Garden City and Moorgate. The frequencies of the train services are provided below in **Table 2.2**.

Table 2.2: Frequency of National Rail Services from New Barnet Station

Destination	Weekday AM Peak (8am-9am)	Weekday PM Peak (5pm-6pm)	Saturday (1pm-2pm)
Welwyn Garden City	4	4	2
Moorgate	4	4	2

2.16 **Table 2.2** shows that there are four services towards Central London in the weekday peak hours and four services out to Welwyn Garden City (which also stop at Potters Bar and Hatfield (location of University of Hertfordshire)).

London Underground

2.17 The nearest London Underground stations are High Barnet (1.7km walk to the west) and Cockfosters (2.0km walk to the east). High Barnet is a terminus on the Northern Line, while Cockfosters is a terminus of the Piccadilly Line. Both stations can be reached using public bus services.

2.18 The frequencies of both London Underground lines from these stations are summarised in **Table 2.3**.

Table 2.3: Frequency of London Underground Services

Line	Destination	Weekday AM Peak (8am-9am)	Weekday PM Peak (5pm-6pm)	Saturday (1pm-2pm)
Northern Line	Morden	10	9	10
	Kennington	8	7	10
Piccadilly Line	Heathrow Terminal 5	6	2	6
	Hatton Cross	4	6	6
	Northfields	2	0	0
	Rayners Lane	2	3	3
	Uxbridge	4	6	3

2.19 **Table 2.3** shows that the Northern Line provides 16-18 services per hour into Central London, while the Piccadilly Line provides 17-18 services per hour towards Central London.

Car Clubs

2.20 Car clubs are membership schemes that offers people the use of a car on a pay-as-you-go basis. The schemes save the additional costs and inconvenience of residents owning or using their own car and means that residents have easy access to a car for those occasional journeys.

2.21 The nearest Enterprise Car Club location is located on High Road, North Finchley (2.5km away as the crow flies) and provides access to one car and two transit vans. While the nearest Zipcar location is at High Road, Totteridge & Whetstone, which is located circa 4.2km away (as the crow flies) and provides access to one car.

Summary

2.22 This site is located in a highly accessible location within a short walking and cycling distance of a number of key destinations and transport interchanges including Cockfosters and High Barnet Underground Stations. The PTAL assessment of the site has identified an accessibility rating 2-3 which is classed as moderate/poor.

3 RTP Strategic Goals

3.1 This section outlines the transport aims and objectives for the proposed development and outlines targets to be achieved in the years following occupation.

Aims & Objectives

3.2 The Applicant is committed to reducing the proportion of motorised journeys as a percentage of all trips and encouraging alternative means of travel leading to less environmental impact in accordance with the National Planning Policy Framework and local policies.

3.3 The RTP's overriding objective is:

Put in place the management tools deemed necessary so that residents of the proposed site are able to make informed choices about their travel, while at the same time minimising the adverse impacts of their travel on the environment, surrounding highway network and local residents.

3.4 The sub-objectives of the RTP are:

- To reduce single occupancy car use by residents;
- To increase the number of residents walking;
- To increase the number of residents travelling by bus;
- To increase the number of residents travelling by rail;
- To increase the number of residents travelling by cycle;
- To inform all residents of the RTP and to encourage alternative ways to travel;
- To improve the choice of mode available to residents; and
- To help reduce road congestion.

3.5 These objectives will be achieved by introducing a package of physical and management measures that will facilitate travel by sustainable modes. The Applicant will find the measures detailed in this document.

3.6 The aims of the RTP is as follows:

- To provide residents with convenient, safe and viable alternatives to the car in order to access the development.
- To monitor regularly the means of travel used by residents and seek to encourage transfer to the most sustainable modes. This will be done through the RTP.

3.7 The RTP will address resident's needs for access to a full range of facilities and services for work, education, health, leisure, recreation and shopping.

3.8 Information relating to local services accessible by walking, cycling and by public transport will be provided to each resident in Welcome Packs. These will include information on local health related facilities, education establishments, leisure and recreational venues.

Targets

3.9 The targets set for the RTP are SMART: Specific, Measurable, Achievable, Realistic and Time-bound.

3.10 There are two types of targets, namely:

- Action targets – task specific and are typically consolidated into an Action Plan; and
- Aim Targets – quantifiable and in the case of this TP relate to the degree of modal shift the plan is seeking to achieve.

Action Targets

3.11 The Action Targets for this RTP are:

- To appoint a Travel Co-ordinator (TPC), prior to occupation of the site, who will be responsible for overseeing this RTP;
- The RTP will be launched upon occupation to ensure all of the residents are aware of the RTP.

Aim Targets

3.12 The aim targets of this RTP relate to future residents of the development. These have been set to measure progress towards the main objectives over the five-year period and should be achieved within five years of the launch of the RTP.

3.13 The trip generation used below is that which has been used throughout the Transport Assessment which is being submitted as part of the application. Further information is provided in **Table 3.1** below.

Table 3.1: Total Person Trip Generation

Period	Arrivals	Departures	Two Way
AM (08:00 - 09:00)	39	222	261
PM (17:00 - 18:00)	155	64	219

3.14 A preliminary resident travel survey will be included with property contract documents to allow information to be gathered on potential modal split. This will be followed by a full survey on 75% occupancy or six months after first occupation, whichever is sooner. Following this, the baseline split will be refined.

3.15 Thereafter surveys will be undertaken in years 1, 3 and 5 following implementation of the final RTP to monitor any changes. The full survey will comprise a questionnaire. The surveys will be undertaken on a day to be notified to the Council. Incentives will be provided (i.e. entry into a prize draw) to encourage a high response rate.

3.16 In the interim, and for the purpose of setting indicative targets as part of this travel plan, the 2011 Census 'Method of Travel to Work' data has been extracted for Output Areas E00000825, E00000830, E00001248 and E00001332, which directly surround the site. As the site is currently unoccupied, the census data gives a good initial indication of travel behaviours. Two separate mode share profiles have been produced, which reflect that only some residents will have access to a car space, while others will not, further details of this analysis are provided in the Transport Assessment.

3.17 The 2011 Census data for mode share is displayed in **Table 3.2**.

Table 3.2: 2011 Census 'Method of Travel to Work' data

Mode	Mode Split for Residents with Access to Car Parking	Mode Split Adjusted for Residents without Access to Car Parking	Combined Mode Share (Reflecting Proportions of Units with and without Access to Car Parking
Work mainly at or from home	-	-	-
Underground, metro, light rail, tram	14%	21%	16.7%
Train	22%	35%	27.0%
Bus, minibus or coach	13%	21%	16.2%
Taxi	1%	1%	0.7%
Motorcycle, scooter or moped	1%	2%	1.5%
Driving a car or van	36%	-	22.0%
Passenger in a car or van	2%	4%	2.9%
Bicycle	2%	3%	2.2%
On foot	8%	12%	9.6%
Other method of travel to work	1%	1%	1.0%
Not in employment	-	-	-
Total	100%	100%	100%

3.18 The combined mode split for the AM and PM peaks presented above are taken and used to represent the baseline split (i.e. Year 0). The Year 1, 3 and 5 mode splits are informed by the 2014 Travel Plan for the consented Victoria Quarter scheme. These are shown in **Table 3.3** below.

Table 3.3. Baseline Mode Split & Mode Split Targets

Mode	Year 0	Year 1	Year 3	Year 5	Overall Net Change
Public Transport	59.9%	60.9%	61.4%	61.9%	+2%
Walk	9.6%	10.6%	11.1%	11.6%	+2%
Cycle	2.2%	2.7%	2.7%	3.3%	+1%
Car/Van Driver	22.0%	21.0%	19.0%	17.0%	-5%

3.19 These targets aim to decrease the single occupancy car usage for travelling to work from 22% to 17% over 5 years, whilst increasing the use of sustainable transport, including walking, cycling and public transport.

3.20 These preliminary targets will be amended with the Action Plan once the results of the resident surveys have been obtained.

4 RTP Management

4.1 This section outlines the proposed management structure and the responsibilities of key stakeholders of the RTP.

Travel Plan Coordinator

4.2 A Travel Plan Co-ordinator (TPC) will be appointed to manage and implement the RTP within three months prior to occupation. The contact details of the TPC will be provided to the appropriate contact at London Borough of Barnet (LBB) Planning or Highways.

4.3 The TPC will contact each resident within one month of their occupation to explain the purpose of the RTP and the opportunities on offer. The TPC's role includes:

- Overall responsibility for delivering the RTP measures and monitoring strategy;
- Leading the process of developing targets, implementation and review;
- Encouraging resident co-operation;
- Liaising with LBB and public transport operators;
- Promoting the RTP to residents;
- Making travel information readily available; and
- Ensuring new residents are made aware of alternative travel opportunities.

4.4 It is anticipated that the amount of time that the TPC will spend on the RTP will vary according to the period of occupation, the organisation of activities and the extent of monitoring. It is not expected that the time dedicated will be uniform throughout the life of the RTP.

4.5 It is noted that the TPC for the proposed development will be the same TPC for the consented Victoria Quarter scheme to ensure consistency and a comprehensive sustainable travel approach throughout.

Fairview

4.6 As the Applicant and organisation responsible for the management of the site once occupied, Fairview will have an interest in ensuring that the travel to/from the site is sustainable and that vehicular travel and parking activity at the site is effectively managed and controlled.

4.7 Fairview management will be the first point of contact for the TPC with regards to sustainable travel to the site, funding for marketing, other measures and the monitoring of the Travel Plan.

London Borough of Barnet

4.8 The LBB has an important role in supporting the RTP because of its direct interest in managing the local transport network and because of its duty of care towards residents and the wider Barnet community.

Residents

4.9 Residents are the most important stakeholders because they are the ones directly affected by the effectiveness of RTP implementation. The TPC and Fairview must work toward encouraging residents' interest and participation in RTP measures.

5 RTP Measures

5.1 The measures that will be introduced for the residential occupants of the proposed development are outlined below.

Marketing & Awareness

5.2 A TPC will be appointed for the site who will oversee the implementation of the RTP.

5.3 Residents will be made aware of the travel arrangements and the options associated with the site from the outset, as part of the normal sales and marketing process from the development.

5.4 Sales staff will be advised by the TPC on the purpose of the RTP and their role in facilitating it through the sales department. An information pack will be provided to all potential residents at the showroom, detailing the RTP choices available to them at this development. This will be based on the information contained within the Welcome Pack that is provided to all new residents prior to occupation.

5.5 RTP information will be disseminated on notice boards within the site and on the site's webpages.

5.6 All new tenants will be provided with an information pack on sustainable travel and a summary of the RTP.

5.7 The TPC will liaise with LBB and the public transport operators where appropriate regarding green travel promotions.

Walking

5.8 A plan of safe pedestrian routes will be made available to all residents. A similar plan will be on display in a prominent location within the development to assist visitors.

5.9 A newly created public space will be open only to non-motorised flow and encourage trips between the site and the neighbouring Victoria Park.

5.10 The health benefits of walking will be promoted to the residents of the development. The TPC will encourage participation in Walk to Work Week and Walk to School Month.

Cycling

5.11 Secure, covered cycle parking will be provided to encourage residents to cycle to and from the site. In accordance with local parking standards, a total of 1,094 cycle parking spaces are proposed across the site.

5.12 Plans of cycle routes in the area will be made available to all residents by display on communal noticeboards, online information and summary information in the Welcome Pack.

5.13 The health benefits of cycling will be promoted to residents of the development and a Bicycle Users Group (BUG) will be initiated.

5.14 LBB offers free cycle training to people living in the borough. The TPC will promote this benefit to residents to encourage take-up.

5.15 The TPC will encourage residents to find out and take up any Cycle to Work incentives offered at their respective workplaces.

Public Transport

5.16 Plans of public transport routes and timetables will be made available and displayed prominently within the development. Residents will be advised to refer to resources such as the TfL website and National Rail Enquiries.

5.17 Residents will be encouraged to find out whether their respective employers offer public transport season ticket loans and to take up such benefits where available. Residents will also be advised to investigate whether they are eligible for discounted fares offered by TfL.

5.18 Fairview will consider further incentives for residents to use public transport e.g. negotiations with operators to seek special deals for resident travel.

Car

5.19 The Applicant will provide a total of 392 car parking spaces, translating to a 0.61 ratio of parking spaces to residential units, in accordance with local parking standards. The level of car parking provision is offered to meet the needs of expected car ownership aspirations without facilitating excessive car ownership.

5.20 Electric charging points for residential car parking provision will be provided at a minimum of 20% active charging facilities with the remaining spaces having passive provision.

5.21 The London Plan requires at least 3% of dwellings will have at least one designated disabled parking bay per dwelling from the outset with a further 7% of dwellings able to be provided with a disabled parking bay if required. In this instance 5% of dwellings will have one designated disabled parking bay from the outset, with a further 5% able to be added if required.

5.22 The TPC will actively promote liftshare.com, a free car sharing platform, that matches individuals with similar travel patterns together. This enables car drivers and potential car passengers to share journeys (with the car passenger paying a fee).

5.23 The Applicant is committed to providing car club spaces as part of the proposed development for the use of the residents, providing an alternative to owning a car. Initial membership to first residents will be provided.

6 Monitoring & Review Strategy

Monitoring

6.1 The Travel Plan will be monitored by a full multi modal SAM survey undertaken by approved TRICS data collection contractors on the first, third, and fifth anniversary of implementation of the final RTP for the whole site. A baseline survey will also be undertaken once the development reaches 75% occupation or six months after first occupation, whichever comes first.

6.2 The TPC will review the effects of the various initiatives with LBB on the first, third, and fifth anniversary of implementation of the final RTP. An initial review will be undertaken once the development reaches 75% occupancy or six months after first occupation, whichever comes first. The purpose of the review is:

- To provide an assessment of how residents travel;
- To develop targets for travel;
- To review the various initiatives; and
- The development of new initiatives to encourage less use of the car.
- Monitoring activity is TRICS compliant.

Review

6.3 The first review will take place one year after the Action Plan's implementation and thereafter on a biennial frequency for the first five years. This review is to be undertaken in consultation with LBB.

6.4 Fairview will be responsible for funding the monitoring and review of the RTP.

6.5 The monitoring and review process is illustrated at **Figure 6.1** below and discussed in the following paragraphs.

Figure 6.1 – Monitoring and Review Process

Review Accessibility

6.6 The first step in the monitoring and review process will be to review the accessibility of the site in terms of access to all modes of travel, including public transport, walking, cycling and journeys by car (including car sharing and car passengers). This information will then be drawn together into a report in order to target where improvements would be beneficial. This will build on the assessments already undertaken within the Transport Assessment.

Consultation

6.7 Consultation is key to a successful RTP and gaining the buy-in of residents will be an essential element. The second stage of the monitoring and review process will ensure that users of the site are consulted appropriately.

Undertake Surveys

6.8 A baseline survey will be undertaken for residents of the site to establish the use of existing modes of travel (baseline position), attitudes towards sustainable modes of travel (particularly active modes) and to identify the most effective and appropriate modes of travel for accessing the site.

6.9 The TPC will oversee this stage of the process and collate information provided by surveys.

6.10 Further surveys will be undertaken at Years 1, 3 and 5. Surveys will focus on the following aspects:

- Monitoring the occupancy/utilisation of cycle parking;
- Demand for additional cycle parking facilities;
- Monitoring use of car club vehicles;
- Resident travel questionnaires; and

— Comments received from residents relating to the operation and implications of the RTP.

Implementation

6.11 This stage of the monitoring and review process refers to the implementation of the RTP. This stage will be informed by the previous three stages and will seek to implement the measures to achieve the targets and objectives of the RTP. The TPC will coordinate this stage of the process.

Reporting

6.12 The TPC will produce an annual monitoring report, to be submitted to LBB and TfL Travel Plan Officers, which will demonstrate the extent to which the agreed full occupancy mode share targets are on track to being achieved. The monitoring report will include the results of the travel surveys undertaken if it is a survey year.

6.13 The TPC will review the monitoring reports and determine if:

— The development is meeting, or on track to meet, the mode share targets and no amendments to the Action Plan or mode share targets are required;

— The development is not on track to meet the mode share targets, but it is considered that no further action should be taken either because there are remedial measures already in train, or because any reasons for divergence from the target mode share are considered reasonable and legitimate; or

— The development is not on track to meet the full occupancy mode share targets and will consider whether revised targets should be considered

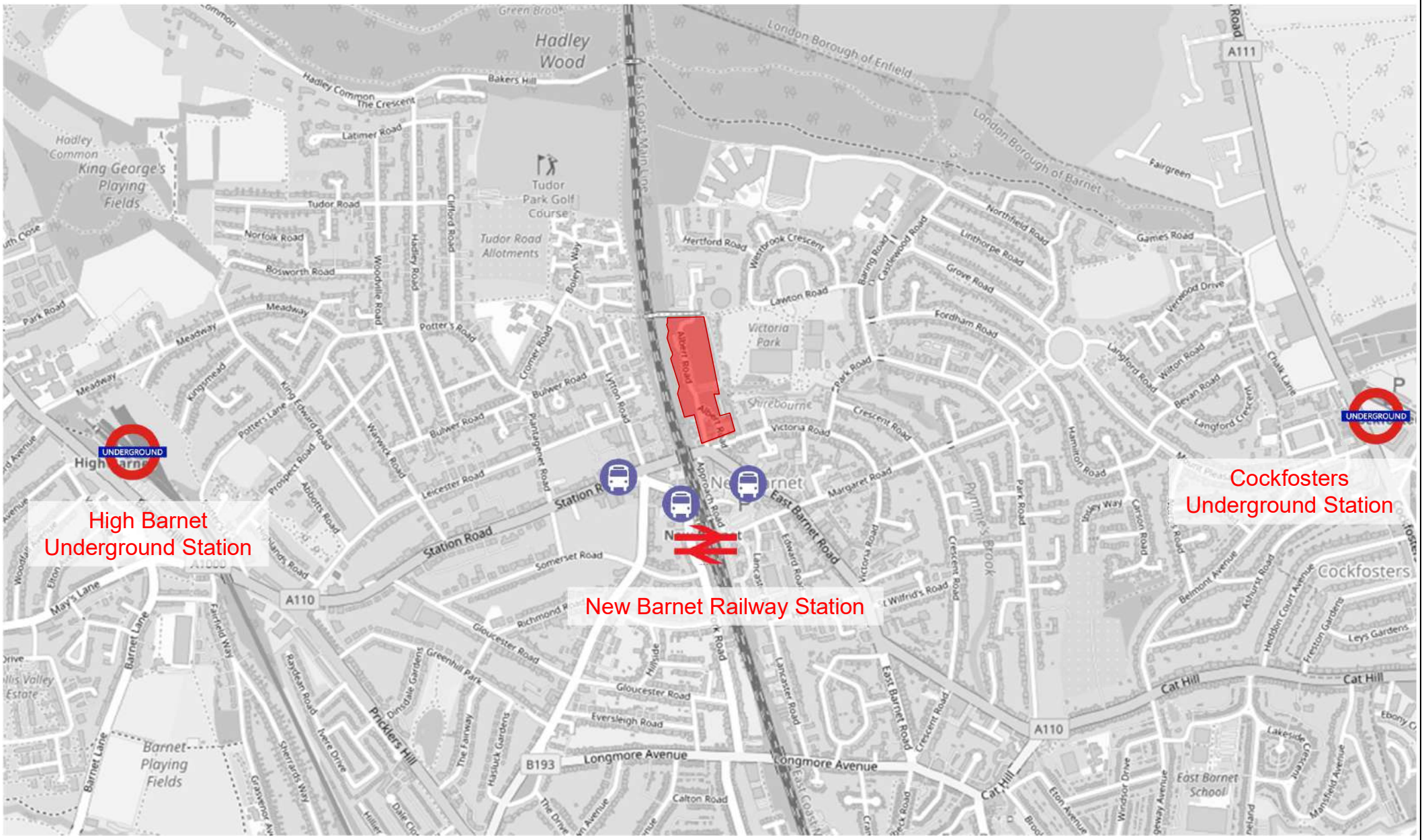
7 RTP Action Plan

7.1 The action plan for the RTP is provided in **Table 7.1** and outlines the key measures, timescales and responsibilities for implementing these.

Table 7.1: Action Plan

Mode	Measure	Task	When	Whom
All	Travel Plan Coordinator	Nominate a Site-Wide Travel Plan Coordinator	Prior to first occupation	Fairview
All	Website	Include 'How to Get Here' information on the development's website	Before first occupation	Fairview / TPC
All	Communal Noticeboards	Include travel information on communal noticeboards	On first occupation (and ongoing)	TPC
All	Welcome Pack	Provide each household with a Welcome Pack	On first occupation	TPC
Walking	Pedestrian Facilities	Ensure that walking facilities on-site remain in good condition for all site attendees	Ongoing	Fairview
Walking	Events	Encourage participation in Walk to Work Week and Walk to School Month	Ongoing	TPC
Cycling	Cycle Parking	Maintain cycle parking provision in good condition for residents and visitors to use	Ongoing	Fairview
Cycling	Cycle Training	Promote free cycle training to residents	On first occupation	TPC
Cycling	Cycle to Work Scheme	Encourage residents to find out if their workplaces offer Cycle to Work incentives	On first occupation / Ongoing	TPC
Public Transport	Encouraging Use of Public Transport	Post information on public transport (e.g. timetables, mapping, etc.) on communal noticeboards and on the internet	Ongoing	TPC
Car	Car Sharing	Promote Liftshare.com to residents	Ongoing	TPC
Car	Car Club	Promote on-site car club to residents	Ongoing	TPC

Figures



Key:

- Site Boundary
- Railway Station
- Underground Station
- Bus Stop

Victoria Quarter

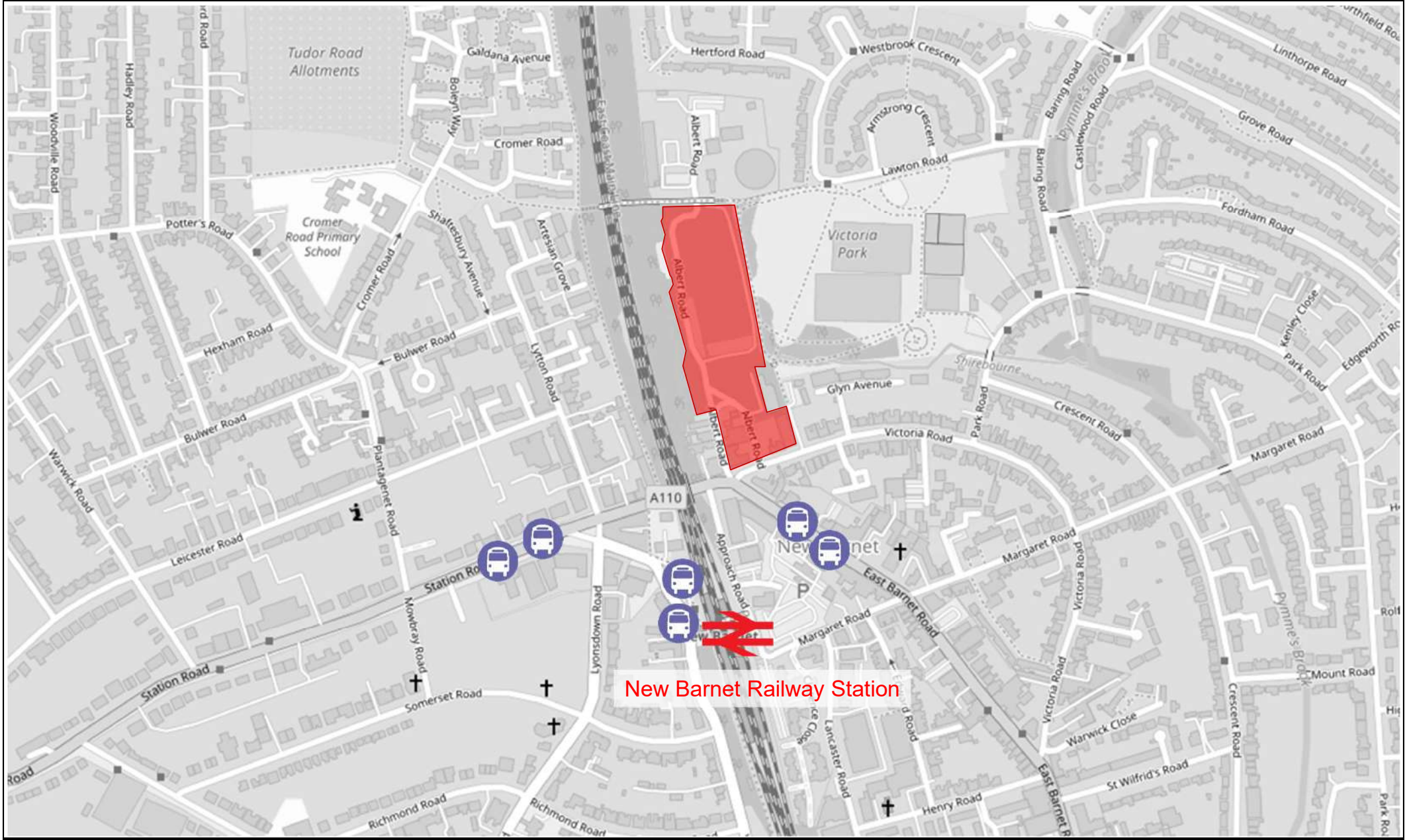
Citystyle Fairview VQ LLP

Strategic Site Location

vectos.

Network Building, 97 Tottenham Court Road, London W1T 4TP
Tel: 020 7580 7373 Email: london@vectos.co.uk www.vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING REFERENCE:
SB	AM	22/06/21	NTS	Figure 1.1



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SB	AM	22/06/21	NTS	Figure 1.2

Contact

[redacted]

Appendix B

Delivery and Servicing Plan

vectos.

DRAFT DELIVERY AND SERVICING MANAGEMENT PLAN

Citystyle Fairview VQ LLP

Victoria Quarter, Albert Road, New Barnet

June 2021

Draft Delivery and Servicing Management Plan

vectos.co.uk

Contents

Figures

Appendices

1 Introduction

1.1 Vectos is appointed by Citystyle Fairview VQ LLP (the Applicant) to provide transport advice in relation to the proposed redevelopment of a site at Victoria Quarter, Albert Road in New Barnet.

1.2 The development will be known as Victoria Quarter and the site falls within the London Borough of Barnet (LBB). The strategic location of the site is shown in **Figure 1**, while the local context of the site is shown in **Figure 2**.

1.3 The site was formerly a call centre, at the time of writing this land use has been demolished and the site is now a construction site. It is noted that works have commenced to construct the basement of the proposed site (as a result of one of the previous consented schemes for this residential development).

1.4 The development would provide a total of 544 residential flats, which would comprise a mix of private sale and affordable units. The site masterplan is provided at **Appendix A**.

1.5 The site would also provide commercial units and a space for the community. The site would be landscaped to a high standard and would include an area for the public, which would be adjacent to an access to the neighbouring Victoria Park.

1.6 The site would also provide car parking, at basement level, with additional spaces provided at ground level at various locations around the site, with accessible spaces and electric vehicle charging spaces provided.

1.7 It should be noted that the National Grid site located to the north of the development site is still operational and is accessed via a temporary access road along the eastern edge of the site (which is safely segregated from the construction site via hoarding).

1.8 The Draft Delivery and Servicing Management Plan (DSMP) sets out the servicing arrangement for the proposed residential units and how it is intended to manage deliveries.

1.9 The plan will manage deliveries and servicing to the proposed commercial and residential units in order to ensure the successful operation of the servicing (including refuse storage and collection) for both commercial and residential aspects of the proposals.

1.10 Effective management will ensure that the potential for vehicle conflicts is avoided and that the proposals have minimal impact.

1.11 This DSMP should be read alongside the other documents submitted in support of this planning application, and in particular the Healthy Streets Transport Assessment.

Delivery and Servicing Plan Objectives

1.12 The overall objective of this DSMP is:

To minimise the impacts of freight movements and facilitate sustainable freight travel to and from the proposed development.

2 Servicing Strategy

Deliveries

2.1 It is proposed that the delivery demands of the development will be met through a provision of five loading bays across the site.

2.2 A postage consolidation facility will be provided within Block A to allow for deliveries to be undertaken without the residents being present, this limits the number of repeat delivery trips undertaken to and from the site, where delivery on the first attempt would otherwise not be feasible.

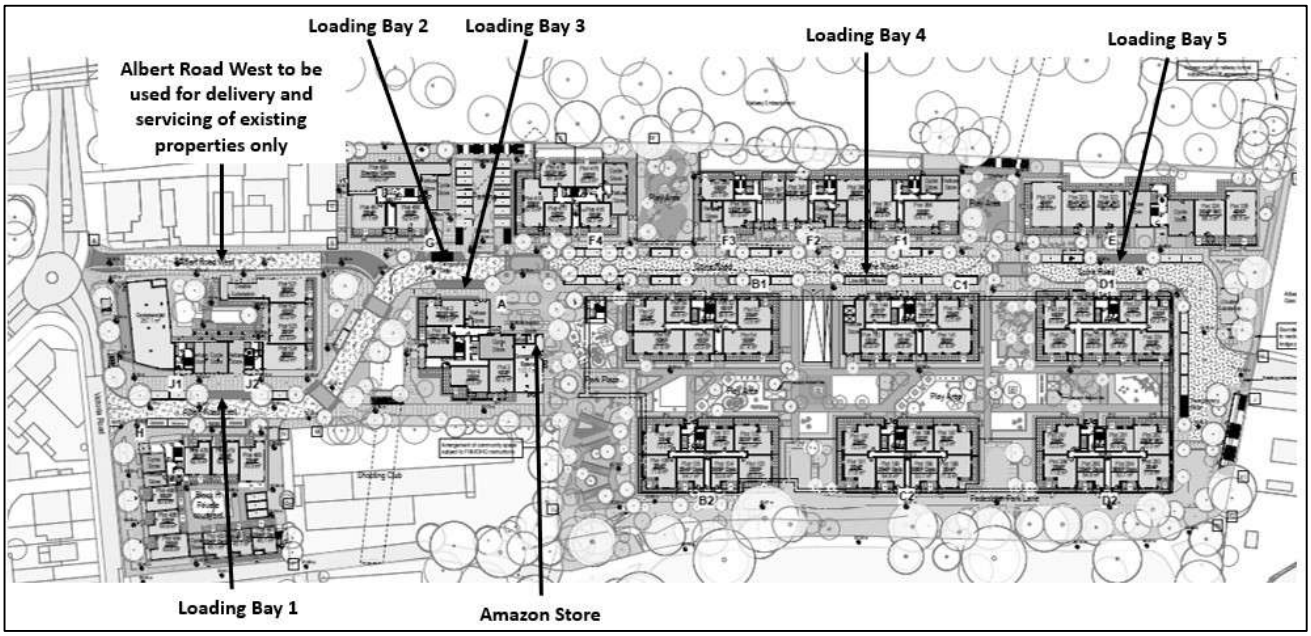
2.3 The first bay will be located to the south of Blocks J1 and J2 (the mixed residential and commercial building to the front of the site). This loading bay will also be well located to serve the residential units in Block H.

2.4 The second loading bay will be located outside Block G and will also serve other surrounding residential blocks.

2.5 The third loading bay will be located outside Block A (the residential and community use building).

2.6 The fourth and fifth loading bays will be located outside Block C1 and Block E respectively and will serve the remaining residential buildings. The locations of the loading bays are detailed within **Figure 2.1** below.

Figure 2.1: Site Layout Plan



2.7 Swept path analysis for delivery vehicles can be seen on the drawings found at **Appendix B** of this report. The drawings show that a 10m rigid vehicle can undertaken deliveries to the proposed commercial unit at the front of the site, while a 7.5ton box van is shown undertaking deliveries to the residential units around the rest of the site.

2.8 All buildings provide postal lobbies for easier drop-off of mail.

2.9 Additionally, it should be noted that there are a small number of properties which take access from Albert Road (west) which fall outside of the development site. These properties will continue to be served from Albert Road (west) and their servicing has been taken into consideration as part of the design proposals. It has been ensured that their access requirements will not be impacted by the development.

2.10 It is noted that the National Grid site located to the north of the development site is still operational and is accessed via a temporary access road along the eastern edge of the site (which is safely segregated from the construction site via hoarding). Therefore, the National Grid site will have all of its delivery and servicing needs catered for within its own boundary and will not require any vehicles to stop within the Victoria Quarter site.

Sustainable Freight

2.11 Sustainable freight will be encourage and enabled through the provision of parking spaces specifically designed to accommodate cargo cycles. The location of these spaces are indicated on the site layout prepared by EPR architects.

2.12 Three loading bays are proposed along the length of the main access route which runs through the site. Gates generally restrict access through the internal courtyard however entry points to apartment blocks are available from the street frontage.

2.13 In the event that deliveries are more convenient through the courtyard, such as where bulky goods are to be delivered, residents will be able to open the gates to facilitate this.

2.14 Blocks B2, C2 and D2 are accessible from the service road along the eastern elevation of these blocks. Delivery vehicles will be able to access the blocks from this route which will be particularly relevant for larger bulky items. By their nature, bulky items such as furniture, are delivered less frequently than smaller parcels so such movements are not expected on a regular basis.

Refuse

2.15 Refuse stores are to be located within each building in convenient locations, to limit the drag distance to the carriageway. The refuse bins will be collected from the kerbside, or from adjacent to the loading bays where convenient. Swept path analysis for the refuse collection can be seen on **Drawing 216001/AT/A03** found at **Appendix B**.

Delivery & Servicing Trips

2.16 A trip generation exercise has been undertaken for delivery and servicing vehicles which will visit the site following occupation. This exercise has been undertaken using the TRICS database and has considered other developments within Greater London, sites consisting of private flats and convenience stores were used in this instance. The full TRICS outputs are provided in **Appendix C**, with a table summarises the anticipated number of delivery and servicing vehicle trips in the peak periods provided below in **Table 2.1**.

2.17 For the purpose of this assessment, it has been assumed that the larger commercial unit on site will consist of a small food retail store (i.e. convenience store), as this is likely to present a worst-case scenario in terms of potential vehicle trip generation. As such these anticipated delivery and servicing movements are considered to be robust.

Table 2.1: Anticipated Delivery and Servicing Vehicle Movements

	AM Peak Period			PM Peak Period		
	Arrive	Depart	Total	Arrive	Depart	Total
LGVs	5	3	8	4	5	9
OGVs	1	0	2	0	0	0
Total	6	3	10	5	5	9

2.18 It is noted that due to the methodology of the multi-modal trip generation exercise (presented in Section 5 of the Transport Assessment) for the site, which took total person trips and distributed them across the various modes using Census data, it is likely that the delivery and servicing movements have already been captured.

2.19 This is on the basis that the total person trip rate for the private flats will capture all person travelling to and from the site, whether they are a resident, a visitor or a delivery or servicing driver. As such, while **Table 2.1** presents an indication of the delivery and servicing vehicle movements at the site it is likely that they have already been captured and therefore the inclusion of the trips in **Table 2.1** presents a robust assessment.

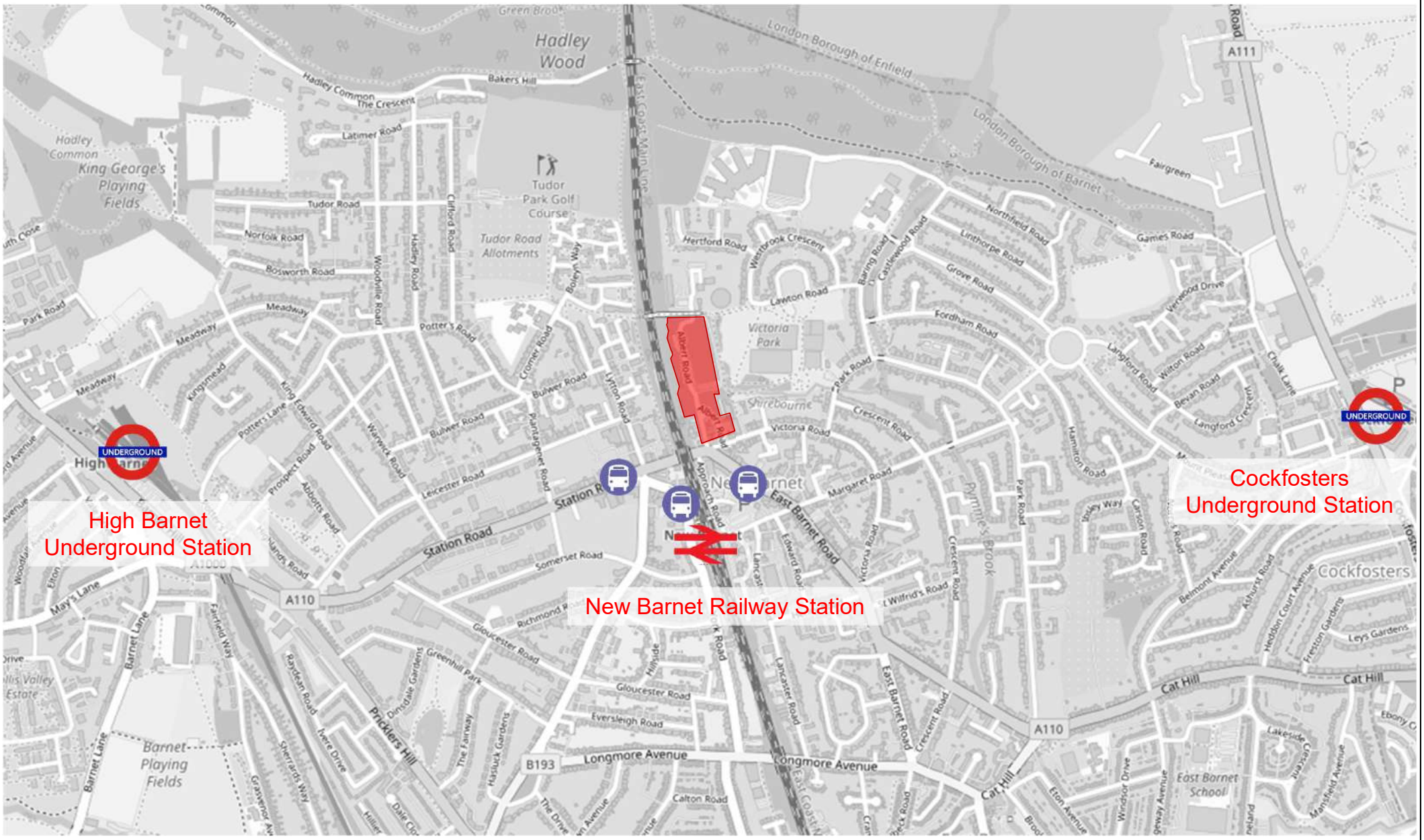
3 Management Plan

3.1 Site management will oversee the operation of the site including servicing and deliveries to ensure its smooth operation.

3.2 The site management team will constantly monitor / review the success of the DSMP and if considered necessary / appropriate will propose changes which will need to be approved in writing by the LBB.

3.3 The contact details of the onsite management team will be provided to both TfL and the LBB so that in the event of any issues that arise the authorities can arrange a meeting to discuss.

Figures



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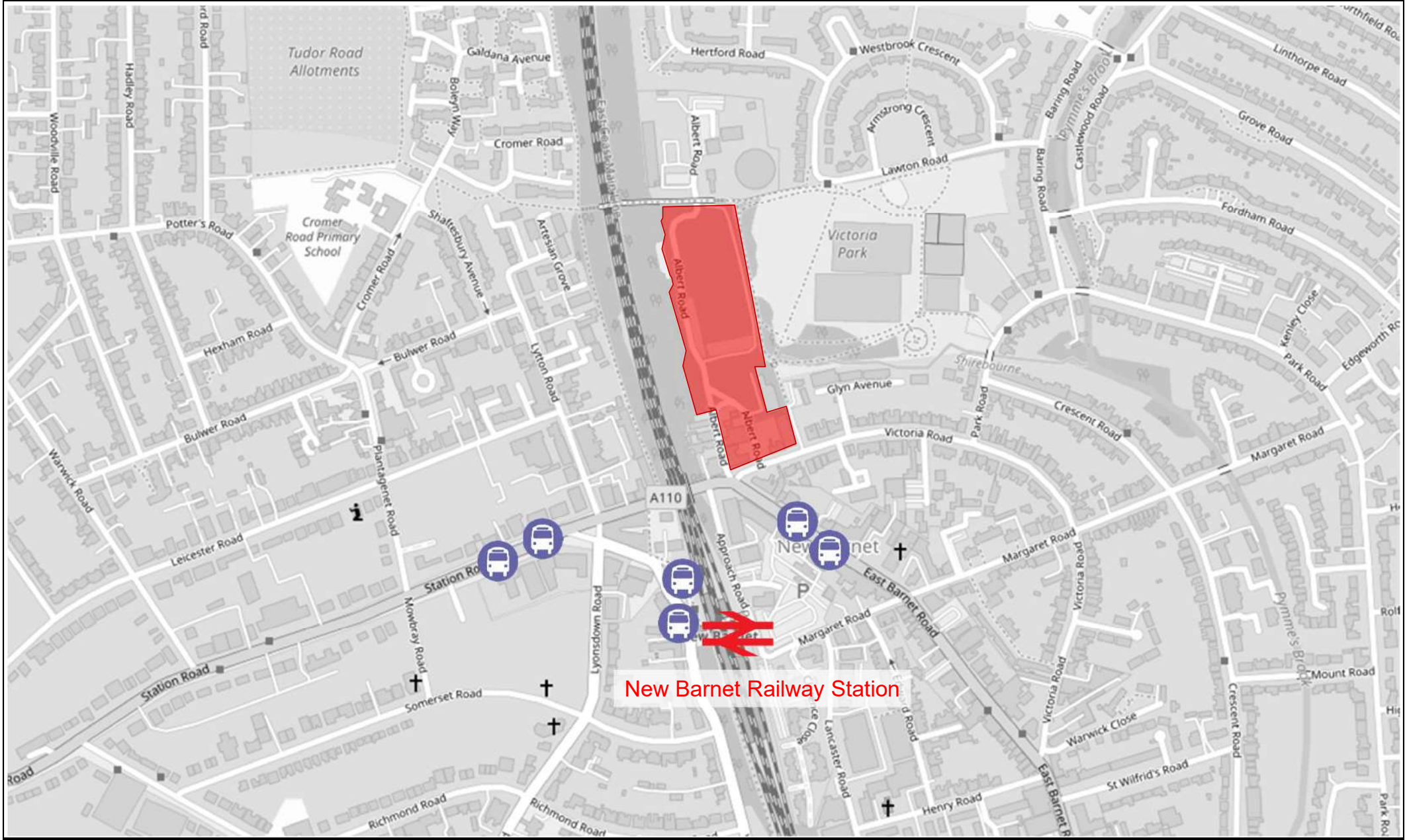

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SB	AM	22/06/21	NTS	Figure 1.2

Appendix A

Site Layout Masterplan

Keyplan

North

Notes:
1. Do not scale
2. Contractor to Check all dimensions and report omissions and errors to the Architect
3. EPR Architects accepts no liability for use of this drawing by parties other than the party for whom it was prepared or for purposes other than those for which it was prepared.
4. This drawing is issued in dwg/dgn format as an uncontrolled version to enable the recipient to prepare their own documents/drawings/models for which they are solely responsible. This drawing is based on project information current at the time of issue. EPR Architects Limited accepts no liability for any alterations or additions to or discrepancies arising out of any change to such project information that occurs to the information after it is issued by EPR Architects Limited.
5. This drawing does not contain shared coordinates and is not issued for coordination purposes.

No.	Revision	Date	Initial	Chk'd
5	FNH comments incorporated	16.06.21	AR/PW	JD
4	Pre Planning Issue	28.05.21	MO/AR	JD
3	Red Pen Issue	07.05.21	MO/AR	JD
2	DTM3 Material - Issued for information	14.04.21	MO	JD
1	DTM1 Material	19.02.21	JD	MO

	Number of units	60% of units no.	Location
Private	359	215.4 = 216	Basement
Shared Ownership	108	64.8 = 65	Basement (4 at Ground)
Rental	77	46.2 = 46	Ground
Total	544	327	

CAR PARKING PROVISION:

Surface:
- 50 no. Standard (4800x2400mm)
- 3 no. Accessible (6000x3600mm)
- 53 no. TOTAL

Basement:
- 263 no. Standard (4800x2400mm)
- 14 no. Accessible (6000x3600mm)
- 277 no. TOTAL

330 no. Total Car Park Spaces

CYCLE PARKING PROVISION:

- 246 no. Standard (double stacker) External Shelter
- 790 no. Standard (double stacker) Internal Store
- 12 no. Non-Standard (1000x2000mm) External Store
- 46 no. Non-Standard (1000x2000mm) Internal Store

1094 no. Total Cycle Spaces

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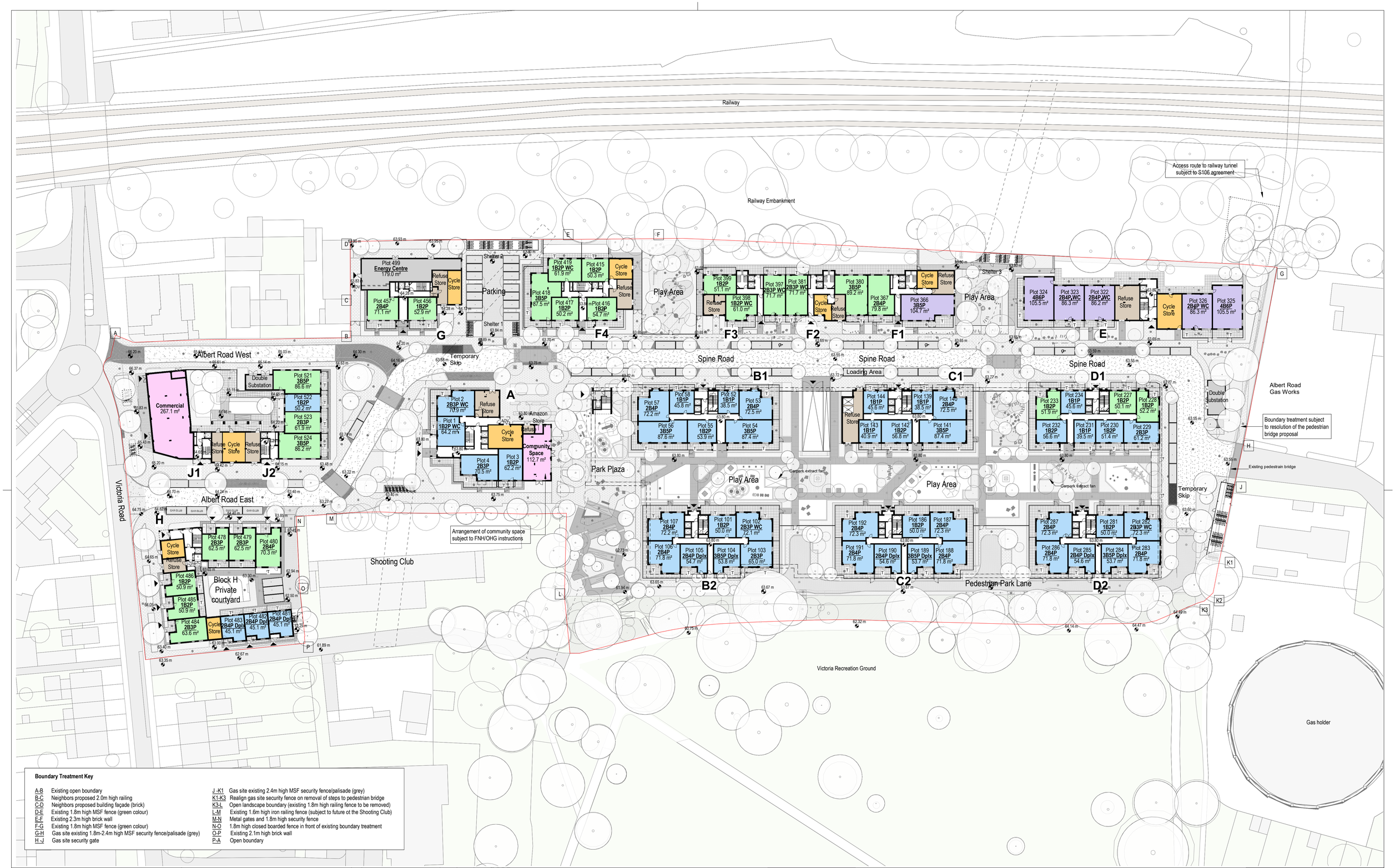
Victoria Quarter - New Barnet
Albert Road, East Barnet, EN4 9SH

Basement Floor Plan

Scale @A1	Status	Suitability	Revision
1 : 250	Preliminary	S2	P5

Project Code	Originator	Zone	Level	Type	Role	Class.	Number
11049	EPR	00	B1	DR	A	03	6000



Boundary Treatment Key

A-B	Existing open boundary	J -K1	Gas site existing 2.4m high MSF security fence/palisade (grey)
B-C	Neighbors proposed 2.0m high railing	K1-K3	Realign gas site security fence on removal of steps to pedestrian bridge
C-D	Neighbors proposed building façade (brick)	K3-L	Open landscape boundary (existing 1.8m high railing fence to be removed)
D-E	Existing 1.8m high MSF fence (green colour)	L-M	Existing 1.6m high iron railing fence (subject to future ot the Shooting Club)
E-F	Existing 2.3m high brick wall	M-N	Metal gates and 1.8m high security fence
F-G	Existing 1.8m high MSF fence (green colour)	N-O	1.8m high closed boarded fence in front of existing boundary treatment
G-H	Gas site existing 1.8m-2.4m high MSF security fence/palisade (grey)	O-P	Existing 2.1m high brick wall
H -J	Gas site security gate	P-A	Open boundary

Keyplan

North

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2	DTM3 Material - Issued for information	14.04.21	MA/MO	JD
1	DTM2 Material - Issued for information	18.03.21	MAL	JD

COLOUR KEY:
- Private
- Shared Ownership
- London Affordable Rented
- Commercial / Community
- Refuse Store
- Cycle Store
- Plant Room

NOTE:

The areas of the units are approximate only.
Any decisions to be made on the basis of these predications, whether as to project viability, pre-letting, lease agreements or otherwise, should include due allowance for the increases and decreases inherent in the design development and construction processes. These areas have been calculated from the design drawings/model and do not include a contingency to allow for anomalies in the surveyed information, workmanship and/or design by others which may affect the stated areas.

Total Unit Mix

Beds	No.	%
1	188	35%
2	237	44%
3	103	19%
4	16	3%
Total Units: 544		

CAR PARKING PROVISION:

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- 12 no. Non-Standard (1000x2000mm) External Store
- 46 no. Non-Standard (1000x2000mm) Internal Store

1094 no. Total Cycle Spaces

LANDSCAPE GATES

All gates to terraces and courtyards to open automatically in case of fire.

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www.epr.co.uk

Victoria Quarter - New Barnet
Albert Road, East Barnet, EN4 9SH

Proposed Scheme
Tenure Plan - Ground Floor

Scale @A1	Status	Suitability	Revision
1 : 500	For Information	S2	P6

Project Code	Originator	Zone	Level	Type	Role	Class.	Number
11049	EPR	ZZ	00	DR	A	02	6000