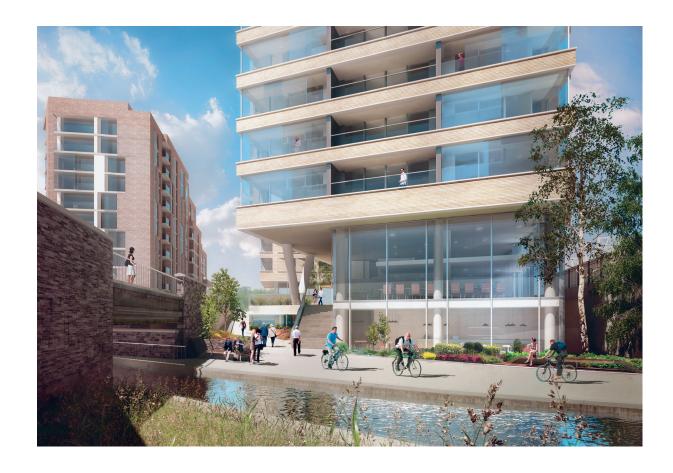
# 102 Camley Street, London N1C 4PF

# **Transport Assessment**

June 2014



#### **REGENT RENEWAL LTD**





## **Contents**

1	INTRODUCTION	1
2	EXISTING SITUATION	2
	Site DescriptionLocal Highway Network	
3	ACCESSIBILITY	5
	Walking  Cycling  Public Transport  Public Transport Accessibility Level (PTAL)	5 6 8
4	DEVELOPMENT PROPOSALS	10
5	POLICY AND SUPPORTING DOCUMENTS	12
	National PolicyRegional PolicyLocal Policy	13
6	TRIP GENERATION	16
	Methodology Summary	
7	EFFECTS OF THE PROPOSALS	19
	Pedestrians Cyclists Public Transport	20 20
	ParkingServicingRefuseRefuse	21
8	MITIGATION MEASURES	23
	Travel Plan  Construction Management Plan	
9	SUMMARY AND CONCLUSION	25



## **Figures**

Figure 1 - Site Location Plan

Figure 2 - Site Context Plan

Figure 3 - Walking and Cycle Plan for Camden

Figure 4 - Walking and Cycle Plan for St Pancras & Kings Cross

## **Appendices**

Appendix A - Minutes of Meeting with LBC Highways 18.02.14

Appendix B - CPZ Map

Appendix C - Accident Data

Appendix D - Pedestrian Audit

Appendix E - Bus Stop Audit

Appendix F - Bus Map

Appendix G - PTAL Report

Appendix H - Manual PTAL Calculation

Appendix I - Architect's Layout Plans

Appendix J - Trip Generation Assessment

Appendix K - Minutes of Meeting with LBC Highways 09.05.14

Appendix L - Swept Path Analysis – Large Car

Appendix M - Swept Path Analysis – Servicing Vehicle

Appendix N - Swept Path Analysis – Refuse Vehicle



### 1 INTRODUCTION

- 1.1 TTP Consulting has been appointed by Regent Renewal Ltd to provide traffic and transport advice in relation to the redevelopment of 102 Camley Street, located in the London Borough of Camden.
- 1.2 This report considers the effect of the proposals on transport issues including sustainable travel, trip generation, the operation of the local highway network, traffic management, parking and servicing. It has been prepared following detailed site visits and with the benefit of feedback received from the Greater London Authority (GLA), Transport for London (TfL) and the London Borough of Camden (LBC). Included at **Appendix A** is a copy of the minutes from a preapplication meeting held with LBC's highways department on 18.02.14.
- 1.3 The existing development comprises an industrial warehouse unit that measures approximately 1,008sq m of floorspace (land use B8). It is provided with a servicing yard that is served by an access on Camley Street.
- 1.4 The proposed development seeks to demolish the existing warehouse unit in order to provide 154 residential units and 1,620sq m of B1 employment floorspace.
- 1.5 TTP Consulting has extensive experience of working on proposals of this nature, including within LBC. It is with the benefit of this experience, on-site observations and discussions with the above authorities that this report has been produced.
- 1.6 The remainder of the report is structured as follows:
  - Section 2 sets out the existing situation;
  - Section 3 details the accessibility of the site;
  - Section 4 sets out the development proposals;
  - Section 5 refers to relevant policy guidance;
  - Section 6 provides a multi-modal trip generation assessment;
  - Section 7 identifies the effects of the proposals; and,
  - > Section 8 provides a summary and conclusion.



## **2 EXISTING SITUATION**

2.1 This section describes the site and existing situation in the context of the local surrounding area.

## **Site Description**

- The site is located within the London Borough of Camden on the eastern side of Camley Street, immediately north of Regent's Canal.
- 2.3 The site's location with respect to the wider highway network is shown at **Figure 1**, whilst **Figure 2** shows the site's location in the context of the local area.
- 2.4 102 Camley Street is currently occupied by an industrial warehouse unit, measuring approximately 1,008sq m of floorspace. The industrial warehouse unit was most recently occupied by Marigold Health foods for storage and distribution (Class B8) use. Marigold have surrendered their short term lease and relocated to Tottenham.
- 2.5 A service yard is provided along the north of the building, with a single point of vehicle access on Camley Street. This route provides a right of way for Network Rail to access the Network Rail substation which is located to the east of the site, adjacent to the railway.
- The surrounding area comprises a mixture of residential streets, light industrial and storage uses. The student accommodation led mixed use development at 103 Camley Street directly opposite the site is currently under construction and its relationship to 103 Camley Street is considered further in this report.
- 2.7 The site is located adjacent to the King's Cross Opportunity Area within the King's Cross Hinterland. The King's Cross Opportunity Area covers 54 hectares (134 acres) of land in total and its approximate borders comprise Euston Road and the two main line stations of St Pancras and King's Cross to the south, the North London Line to the north, York Way to the east and the main lines from St Pancras to the west.
- 2.8 The Railway Hinterlands (approximately 45 acres) is currently an area with over 50% residential use but which is undergoing change which is likely to continue as a flow-on effect from the significant King's Cross railway lands development. Improvements in accessibility are likely to take place as a result of development in the wider area, enhancing inter connectivity between the Railway Hinterlands and Kings Cross and Camley Street, which has already been substantially upgraded in recent years with improved linkage to Goods Way and King's Cross/St. Pancras Station.



## **Local Highway Network**

- 2.9 The site is served by a single vehicular access point towards the northwest corner of the site on Camley Street, which is gated.
- 2.10 Camley Street measures approximately 6.4 metres in width and is provided with a single lane in each direction subject to single yellow lines on both sides of the carriageway in the vicinity of the site. Outside of the vehicle access, on the eastern side of the carriageway double yellow line controls are in place that continue northwards.
- 2.11 A height restriction of 4.1 metres applies to Camley Street (principally the southern end) which is signed appropriately as a result of rail bridges passing overhead a short distance to the south of the junction with Granary Street.
- 2.12 To the north, Camley Street connects to Barker Drive with access restricted to pedestrians and cyclists only. The junction between Barker Drive and St Pancras Way (A5202) to the west permits all vehicle types but is left in/left out only, with St Pancras Way being one-way southbound towards the A501 Euston Road. To the south, Camley Street passes between Kings Cross and St. Pancras Stations and across the A5202 Goods Way before connecting with Euston Road.
- 2.13 The A501 Euston Road forms part of the Transport for London Road Network (TLRN) and is the main strategic route in the local area, connecting with the A40 to the west and the A1 to the east.
- 2.14 St Pancras Way connects to the A501 Euston Road to the south of the site via Midland Road and runs broadly parallel to Camley Street, passing across the A503 Camden Road to the north to link with the A400.

#### **Existing Traffic Flows**

In order to understand the existing levels of traffic associated with the site, a manual traffic count was undertaken to identify the number of vehicle movements into and out of the site. The survey took place on Tuesday 4<sup>th</sup> February 2014 when the site was occupied by Marigold Health Foods. A summary of the data is provided in **Table 2.1**.



Table 2.1 – Summary of Existing Vehicle Movements at 102 Camley Street							
Period	Arrivals	Departures	Total				
AM Peak (07:00-08:00)	10	6	16				
Inter Peak (11:15-12:15)	11	9	20				
PM Peak (16:00-17:00)	4	4	8				
Daily (00:00-24:00)	54	59	113				

#### **On Street Parking**

- 2.16 Camden has a number of Controlled Parking Zones (CPZ) which cover the entire borough.
- 2.17 The site is situated within the Elm Village CPZ (Zone CA-X), which has restrictions in place Monday to Friday from 08:30 to 18:30.
- 2.18 A copy of the relevant CPZ plan for the Borough is included at **Appendix B**.

#### **Accident Data**

- 2.19 A review of Personal Injury Accident (PIA) data provided by Transport for London (TfL) has been undertaken for the latest three year period available (up to October 2013). This data includes information relating to the date, location, weather conditions, severity and cause for each PIA. A full set of the accident data is provided in **Appendix C**, including a plan showing the full extent of the study area and location of the PIAs.
- 2.20 The information indicates that there have been no incidents within the immediate vicinity of the site, i.e. the length of Camley Street between the junctions with Crofters Way and Goods Way.
- 2.21 The three nearest incidents, which took place beyond Goods Way and Crofters Way, were all slight in severity and as a result of failing to look properly and driver error.
- 2.22 Based upon this review it is not apparent that there are any accident clusters or identifiable trends within the vicinity of the application site that require further investigation or mitigation.



#### 3 ACCESSIBILITY

## **Walking**

- 3.1 Walking is the most important mode of travel at a local level. IHT guidelines suggest a maximum 'acceptable' walking distance for pedestrians without mobility impairment of 2 kilometres. Given the location of the site it is likely that the majority of trips will involve part of the journey being on foot. Additionally, it would be convenient to walk to the existing public transport services (bus, underground and rail) for other longer distance journeys.
- 3.2 The local pedestrian environment is well maintained and benefits from street lighting and a number of informal and formal crossing points that are provided with dropped kerbs and tactile paving.
- 3.3 There are footways along both sides of the majority of roads in the vicinity of the site providing access to residential, commercial, community and leisure facilities along with public transport services. In addition, traffic free adjacent use pedestrian/cycle routes are provided within the locality of the site, extending from the northern section of Camley Street to Agar Grove.
- 3.4 The towpath along Regent's Canal also provides pedestrians with a traffic free route with access to the local road network provided on Camley Street, a short distance to the north of the junction with Granary Street and, also, close to the junction with Barker Drive.
- 3.5 Included at **Figure 3** is a plan showing some of the key pedestrian routes from the site to local amenities in the Camden area by distance and journey time. **Figure 4** provides similar information for pedestrian routes to the nearest bus stops and St Pancras and Kings Cross stations.
- 3.6 In support of, and to provide more detailed information on the above, a pedestrian audit was carried out. The audit considers the quality of the existing pedestrian environment in the surrounding area. A copy of the pedestrian audit has been included at **Appendix D**.

## **Cycling**

3.7 Accepted guidance suggests that for journeys up to 5 kilometres cycling represents an important mode of transport. The location of the site makes it ideal for travel by cycle journeys. Central London and a number of employment areas are all located within five kilometres as well as mainline stations such as Euston, Kings Cross and St Pancras.



- 3.8 Camley Street itself is considered to be a suitable route for cyclists as suggested in Transport for London's Local Cycling Guide 14. In addition the site benefits from being located in proximity to an off-road cycle route that runs adjacent to the Regents Canal. There is also an adjacent use two-way footway/cycleway provided between Camley Street and Agar Grove, with oncarriageway segregated routes in place along St Pancras Way.
- 3.9 **Figures 3 and 4** include further information regarding some of the key cycle routes within the locality, the corresponding distances and journey times.
- 3.10 Barclays Cycle Hire docking stations are located west of the site on Royal College Street and south of the site on Pancras Road, both approximately 700 metres walk distance from the site.

  In total 69 cycles are available across these two docking stations.

## **Public Transport**

#### **Buses**

3.11 There are a number of bus stops in the vicinity of the site which serve a range of routes to different destinations within Central and Outer London. The nearest bus stop is located on the A5202 Pancras Road, approximately 550 metres west of the site. Bus stop 'V' provides southbound services for bus routes 46 & 214. A bus stop for northbound services is located approximately 120 metres west from bus stop 'N'. **Table 3.1** summarises the frequency of the bus services operating from these bus stops closest to the application site.

Table 3.1 – Summary of Bus Service Frequency							
No.	Route	Weekday Frequency		Weekend Frequency			
NO.	Route	Peak	Off-Peak	Saturday	Sunday		
45	St Pancras International to Streatham Place	5-9	8-12	6-10	15		
46	Lancaster Gate to City Thameslink	8-12	8-12	10-14	15		
63	Forest Hill to Kings Cross	4-8	4-8	5-9	7-10		
214	Highgate to Finsbury Square	6-10	6-10	6-10	10-12		



- 3.12 To better understand the existing facilities provided by these bus stops, a bus stop audit has been undertaken, the results of which are included at **Appendix E**, with a summary provided at Section 7.
- 3.13 The relevant TfL bus route 'spider map' showing local services in the surrounding area is shown at **Appendix F**.

#### **Underground Services**

- 3.14 King's Cross St Pancras underground station is located nearest to the site, approximately 680 metres south of the site. It provides access to the Northern Line, Piccadilly Line, Victoria Line, Circle Line, Hammersmith and City Line and Metropolitan Line offering frequent services to all parts of London on a regular basis.
- 3.15 There are a number of additional underground stations located within walking distance of the site which are summarised in **Table 3.2**.

Table 3.2 – Summary of Underground Services							
Station	Station Underground Line Route						
Mornington Crescent	Northern Line	Morden – High Barnet or Edgware	1.0km				
Camden Town	Northern Line	Morden – High Barnet or Edgware	1.45km				
	Circle	Central London loop with extension to Hammersmith					
Euston Square	Hammersmith & City Line	Hammersmith - Barking	2.0 km				
	Metropolitan Line	Aldgate – Uxbridge or Amersham					

#### **Rail Services**

- 3.16 St Pancras Station and Kings Cross Station are situated approximately 680 metres (9 minutes' walk) south of the site. Both stations offer an extensive range of services to numerous destinations both within London and nationally.
- 3.17 Camden Road Station is also within approximately 1,450 metres (18 minutes' walk) of the site and forms part of the London Overground network offering services from Stratford to Richmond or Clapham Junction.



3.18 As such the site benefits from a substantial number of rail services to numerous destinations across London and the rest of the country. The local train services are frequent providing access to an extensive catchment area and the wider public transport network.

## **Public Transport Accessibility Level (PTAL)**

- 3.19 Public Transport Accessibility Levels (PTALs) are a theoretical measure of the accessibility of a given point to the public transport network, taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport network at a particular point.
- 3.20 Walk times are calculated from the specified point of interest to all public transport access points: bus stops, light rail stations, underground stations and Tramlink halts, within pre-defined catchments. The PTAL then incorporates a measure of service frequency by calculating an average waiting time based on the frequency of services at each public transport access point. A reliability factor is added and the total access time is calculated. A measure known as an Equivalent Doorstep Frequency (EDF) is then derived for each point. These are summed for all routes within the catchment and the PTALs for the different modes (bus, rail etc.) are then added to give a single value.
- 3.21 The PTAL is categorised in six levels, 1 to 6 where 6 represents a high level of accessibility and 1 a low level of accessibility. The PTAL levels 1 and 6 are further subdivided into A and B levels, with level A indicating the location is rated towards the lower end of the PTAL category and B towards the higher end.
- 3.22 The measure, therefore, reflects:
  - Walking time from the point of interest to the public transport access points;
  - The reliability of the service modes available;
  - The number of services available within the catchment; and,
  - The level of service at the public transport access points i.e. average waiting time.
- 3.23 Using the TfL Planning Information Database, the southern end of the site has a PTAL rating of 3, demonstrating a reasonable level of accessibility to public transport. **Appendix G** includes a copy of TfL's calculation for this.



- 3.24 It should be noted that the Database calculation takes a single Service Access Point (SAP) for each station considered, which for large stations may not take account of the actual walk distance from the nearest entrance/exit to a location. With regards to large stations such as Kings Cross and St Pancras, both of which are near to the site, this can have a significant effect upon the PTAL of certain locations.
- 3.25 In relation to Kings Cross and St Pancras station, entrances have been opened which reduces the walk distances from the site.
- 3.26 It is not apparent when the Planning Information Database is updated, but given the PTAL rating currently generated, it is clear that current walk distances to Kings Cross and St Pancras do not reflect the access improvements to the stations.
- 3.27 In light of the above, a manual PTAL assessment has been undertaken to include the reduced walk distances to the stations, as measured on site. The assessment concludes that the site has a PTAL rating of 6a. The manual assessment was undertaken in accordance with the PTAL methodology and is considered to be valid based on the acceptance of a similar agreed assessment for the adjacent development at 103 Camley Street, which was also acknowledged by TfL. A copy of the manual PTAL assessment is included at **Appendix H**.

#### **Car Club**

- 3.28 The closest car club bays in the vicinity of the Site is located in Charrington Street and is within a 300m walk distance of the Site.
- 3.29 Car clubs offer a viable alternative to owning a car for people living / working in the vicinity, particularly for those that require the use of a car on an infrequent basis.



#### 4 DEVELOPMENT PROPOSALS

- 4.1 The proposals seek to provide a residential development comprising 154 units and 1,620sq m of B1 employment floorspace. A copy of the Architect's layout plans is included at **Appendix I**.
- 4.2 The proposed residential mix is set out in **Table 4.1**.

Table 4.1: Summary of Housing Provision								
No. Bedrooms	Private Housing	Affordable Housing	<b>Shared Ownership</b>	Total				
Studio	3	0	0	3				
1	39	8	9	56				
2	45	3	7	55				
3	30	8	N/A	38				
4	N/A	2	N/A	2				
Total	117	21	16	154				

#### **Parking**

- 4.3 The proposed development is car-free except for the provision of 2 on-site disabled parking spaces.
- 4.4 In total the residential units will be provided with 253 cycle parking spaces. A further 16 spaces will be provided for employment use.

#### Access

- 4.5 The existing access located on Camley Street will be retained and improved.
- 4.6 Pedestrian access, for both the residential and commercial element of the proposals will be provided from the Camley Street frontage and also the Regent's canal towpath. In addition, a new cycle ramp will be provided on site to connect between Camley Street and the Regent's Canal towpath.

#### Refuse

4.7 Refuse collection will take place on-site. The refuse storage areas are located to the rear of the development and waste will be transferred by on-site management prior to collection.



## **Servicing**

- 4.8 Off-street servicing will be available for small to medium sized vehicles (e.g. transit vans) which will be able to access the site from Camley Street and load/unload along the northern extent of the development where a turning head is provided to ensure vehicles can arrive and depart in forward gear.
- 4.9 Given the nature of the proposed development, it would be reasonable to assume that the majority of deliveries would be by vehicles of this type. Deliveries by larger vehicles can be accommodated on-street on Camley Street.



## 5 POLICY AND SUPPORTING DOCUMENTS

## **National Policy**

- 5.1 The National Planning Policy Framework (NPPF) was published in March 2012 and sets out the Government's planning policies for England and how these are expected to be applied.
- 5.2 In relation to transport, NPPF states that:

"The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas."

## **Effect of Development**

5.3 When considering the transport effects of a development, the NPPF states that:

"All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- safe and suitable access to the site can be achieved for all people; and
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."

#### **Promoting Sustainable Travel Choices**

- 5.4 In order to promote opportunities for sustainable travel, the NPPF advises that:
  - "..developments should be located and designed where practical to accommodate the efficient delivery of goods and supplies;
  - give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;



- create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones."
- 5.5 The NPPF highlights that a key tool for facilitating the promotion of sustainable travel choices will be a Travel Plan and that "All developments which generate significant amounts of movement should be required to provide a Travel Plan."

#### **Parking**

5.6 In relation to parking policy, the NPPF states that:

"If setting local parking standards for residential and non-residential development, local planning authorities should take into account:

- the accessibility of the development;
- the type, mix and use of development;
- the availability of and opportunities for public transport;
- local car ownership levels; and
- an overall need to reduce the use of high-emission vehicles."

## **Regional Policy**

- 5.7 The London Plan 2011 provides policies and advice on matters that are of strategic importance to Greater London. It is a requirement that local policies, as set out in Unitary Development Plans (UDPs) and emerging Local Development Frameworks (LDFs), should be in accordance with it. The transport aspects of the London Plan, relevant to the proposed development, are discussed in the following paragraphs.
- 5.8 Policy 6.1 Strategic Approach states that:

"The Mayor will work with all relevant partners to encourage the closer integration of transport and development ... encouraging patterns and nodes of development that reduce the need to travel, especially by car."



5.9 Policy 6.13 Parking states that:

"The Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use."

- 5.10 The site is accessible to public transport and local facilities and provides no on site car parking and so is in line with TfL standards and policy.
- 5.11 In relation to the provision of parking for Blue Badge holders. The Parking Addendum associated with the London Plan states that:

"Developments should provide at least one accessible on or off street car parking bay for designated Blue Badge holders, even if no general parking is provided."

- 5.12 It is also important to take into consideration the London Plan Revised Early Minor Alterations document (June 2012) which reviews cycle parking standards to ensure they support delivery of the significant increase in cycling in London in the Parking Addendum to Chapter 6 of the London Plan. These changes to standards include:
  - B1 Business:
  - 1/150 for staff and visitors
  - C3 dwellings:
  - 1 per 1 or 2 bedroom dwelling for residents + 1 per 40 units for visitors
  - 2 per 3+ bedroom dwelling for residents + 1 per 40 units for visitors

## **Local Policy**

# Camden Local Development Framework (Core Strategy and Development Policies)

5.13 LB Camden policy guidance is set out in the Core Strategy and Development Policies, both of which were adopted in November 2010 with policies DP16 through DP19 covering transport related issues.



5.14 Policy DP16 states that:

"The Council will seek to ensure that development is properly integrated with the transport network. We will resist development that fails to assess and address any need for the following:

- Movements to, from and within the site;
- Links to existing transport networks;
- Additional transport capacity off-site (such as improved infrastructure and services)
  where existing or committed capacity cannot meet additional need generated by the
  development; and
- Safe pick-up, drop-off and waiting areas for taxis, private cars and coaches where this
  activity is likely to be associated with the development."
- Policy DP17 encourages walking, cycling and the use of public transport in all new developments and policies DP18 ("Parking standards and limiting the availability of car parking") and DP19 ("Managing the impact of parking") look to minimise the impact and amount of parking that comes forward as part of any new scheme.

#### **Camden Transport Strategy**

- 5.16 Camden's Transport Strategy was published in 2011 as part of the Local Implementation Plan. It sets out the direction the Council want to take on transport and puts in place objectives accordingly. The objectives relevant to the planning application site are as follows:
  - 1. "Reduce motor traffic levels and vehicle emissions to improve air quality, mitigate climate change and contribute to making Camden a low carbon and low waste borough.
  - 2. Encourage healthy and sustainable travel choices by prioritising walking, cycling and public transport in Camden."

## **Camden Planning Guidance**

5.17 Camden's Planning Guidance 7 document provides information on a number of transport related issues relevant to Travel Plans, car-free developments, on-site car parking, car clubs and cycling facilities.



#### **6** TRIP GENERATION

- 6.1 The following provides an assessment of the predicted level of trips to and from the site by all modes of transport, which will be used in turn to assess the effect of the proposals on existing public transport services and on the walking and cycling network.
- 6.2 It should be noted given the site is proposed to be car-free (with the exception of 2 disabled car spaces). As a result of the sit's existing lawful B8 use as an industrial warehouse the number of vehicle trips associated with the site is expected to decrease significantly. Therefore, in traffic terms, the proposals will ensure that there is a positive impact on the local road network.
- 6.3 No account has been taken of the non-vehicle trips that could potentially be generated by the existing site and, therefore, the trip generation exercise is considered to provide a robust assessment.

## Methodology

- 6.4 To establish a comprehensive multi modal trip generation assessment for the proposed development the TRAVL database was interrogated for each individual land use. (Although the TRAVL database has now been superseded, we have used the trip generation data used for and agreed as being acceptable/appropriate for the adjacent 103 Camley Street development. Any differences between data contained within the TRAVL and TRICS databases would not have a material impact on the findings and/or assessment).
- 6.5 The trip generation by each mode of transport to and from the proposed development has been estimated throughout a typical weekday. The trip rates and modal split percentages have been based upon TRAVL data, where possible taking into account the characteristics of the site such as its location, public transport provision and parking availability.

#### Residential

- The trip generation assessment for the residential element of the scheme is contained at **Appendix J**.
- 6.7 The sites selected have a similar number of units to that proposed and are located in areas with good to excellent public transport in central or inner London. They are therefore considered to provide a robust basis from which to estimate the trip generation.



#### **Commercial**

6.8 The trip generation for the B1 employment has been calculated using sites from TRAVL located in central London with the same PTAL rating and are, therefore, regarded as being a realistic representation. The trip generation results are included at **Appendix J**.

## **Summary**

#### **Total Development Trips**

A summary of the development trip generation within the weekday AM peak (08:00 to 09:00) and PM peak (17:00 to 18:00) is summarised in **Table 6.1** below.

Table 6.1: Summary of Total Development Trips										
Period	Car driver	Car pass.	Taxi	Motor Cycle	Bus	Tube	Rail	Walk	Cycle	Total
AM In	3	1	1	1	30	13	9	30	3	91
AM Out	5	1	1	1	55	15	2	40	5	127
PM In	3	1	1	1	37	11	2	27	3	86
PM Out	4	1	1	1	35	14	9	35	3	103
Daily In	33	9	9	9	339	124	64	304	31	924
Daily Out	32	9	9	9	328	120	62	295	30	895

- Based on the trip generation for all the different elements of the proposed scheme it is likely that it would generate circa 1,819 two-way trips (i.e. 924 in and 895 out) per day, with circa 218 two-way trips in the AM peak between 08:00 and 09:00 (91 in and 127 out) and 189 two-way trips in the PM peak between 17:00 and 18:00 (86 in and 103 out).
- A detailed summary of the total development trips throughout a weekday is provided at **Appendix J**.

#### **Impact on Public Transport**

6.12 For the residential element of the development the TRAVL database has indicated that there will be 818 public transport trips throughout the day. For the commercial element the TRAVL data includes walking and public transport trips together and as such it is difficult to accurately predict how many public transport trips will be generated as a result of the development. It is however considered that even if all walking and public transport trips were assumed to be public transport trips the impact on public transport services would not be detrimental given the site benefits from being located with proximity to numerous and frequent bus, rail and underground services.



- 6.13 There are a minimum of 50 bus services located within 640 metres of the site, 150 underground services and many destinations accessible by rail during the traditional peak periods. As such it is considered that there is plenty of capacity to accommodate trips associated with both the residential and commercial elements of the development.
- The increase in public transport trips is not expected to be significant and there is unlikely to be a measurable impact on public transport capacity due to the development.

#### **Traffic Generation**

- As set out previously in **Table 2.1** the existing site currently generates an average of 113 two-way vehicle movements on a weekday.
- Based on the above and taking into consideration the car free nature of the scheme, it is reasonable to assume that the proposals will have a positive impact in traffic terms on the operation of the local highway network. Furthermore, it is likely that there would be a substantial decrease in vehicle trips between the existing and proposed uses, which represents a tangible benefit of the scheme.



#### 7 EFFECTS OF THE PROPOSALS

7.1 This section considers the potential traffic and transport effects of the proposed development.

#### **Pedestrians**

- 7.2 The existing pedestrian network in the locality of the site has been audited to determine the quality of the environment and existing routes to/from key destinations. **Appendix D** contains a copy of this audit.
- 7.3 The audit assessed six main routes between the development site and key destinations based on a number of parameters for both links (roads/streets) and crossings. Although the quality of the routes varied both individually and collectively, it was demonstrated that overall there is a high level of pedestrian infrastructure in terms of footway provision and crossing facilities.
- 7.4 The close proximity of the site to Regent's Canal is a key benefit as it provides an alternative traffic free route to the local road network. However, access to the canal towpath next to the site is currently not suitable for mobility impaired users or those with prams and bicycles. At present there is no step free access between the site and canal towpath. The adjacent footway on Camley Street is also in need of maintenance due to overgrowing vegetation and damaged surfacing.
- 7.5 As part of the proposals, access to the towpath and the surrounding area would be improved which would enhance the quality and accessibility of the pedestrian environment.

#### **Proposed Pedestrian Link**

The adjacent development at 103 Camley Street is currently under construction and will share a new footbridge with 101 Camley Street. It is anticipated that the desire line this creates over the canal will be continued to 102 Camley Street through the introduction of an informal pedestrian link or crossing across Camley Street. The pedestrian link would be part of public realm improvements connecting the three development sites and will provide important benefits in terms of highway safety, prioritising pedestrian movement and vitalising the local area. The principle of the pedestrian link has been discussed and agreed with LBC highways (see meeting minutes at **Appendix K**). Further details of the proposed pedestrian link can be found in the submission documents for the proposed development at 101 Camley Street.



## **Cyclists**

- 7.7 As detailed in Section 3, there are numerous cycle routes within the immediate and wider area surrounding the site. A number of roads including Camley Street are recommended for cycling, whilst the towpath alongside the canal provides a shared use facility with pedestrians.
- 7.8 There is a traffic free adjacent use route to the north of Camley Street and segregated oncarriageway routes along St Pancras Way.
- 7.9 The proposals include secure and sheltered cycle parking facilities in accordance with local standards and this will serve to encourage future occupants of the site to travel by bicycle, especially when combined with the Travel Plan measures which promote cycling.

#### **Proposed Cycle Ramp**

- 7.10 The proposals include a new cycle ramp along the west of the site between Camley Street and the towpath on Regent's Canal. The proposal for the cycle ramp is supported by LBC, the Canal & Riverside Trust and other local stakeholders.
- 7.11 A number of options have been explored for the cycle ramp in order to determine what can feasibly be achieved within the constraints of the site. The preferred option is for a ramp at a gradient of 1:12 with a width of approximately 2.8 metres, which would extend from the western pedestrian access of the development down to the canal. In order to encourage low cycle speeds, a change of direction has been introduced at the transition with the towpath. It is also envisaged that soft landscaping will be used at the transition with the canal to channel cyclists at a safe speed on to the towpath, whilst also being mindful of pedestrians.
- 7.12 The proposal for the cycle ramp and its specification has been discussed with LBC's highways officers and engineers. Following a review of alternative options and the incorporation of suggested measures, the current proposals are taken to be agreed in principle (see **Appendix K**). The applicant confirms that it is willing to formally agree the design/specification of the cycle ramp via a Planning Condition.

## **Public Transport**

- 7.13 As demonstrated in Section 3, the site is well served by public transport with bus, underground and overground rail services.
- 7.14 The nearest bus stops to the site are within approximately 550 metres for routes 46 and 214 which provide a regular service between St Pancras and King's Cross Stations and Camden.



7.15 Underground and overground rail services are accessible from several stations within walking distance of the site, most notably King's Cross and St Pancras. This will therefore benefit future residents/occupiers of the proposed scheme and encourage the use of public transport.

## **Parking**

#### **Car Parking**

- 7.16 A total of 2 disabled car parking spaces are proposed for the development which are located within a designated area at the north east corner of the site. A swept path plot showing a large car entering and exiting the disabled parking spaces is included at **Appendix L**.
- 7.17 The provision of 2 disabled parking spaces is supported by TfL and considered appropriate for the likely requirements of the development. It is pertinent to note that there are additional parking opportunities a short distance to the north of site on Camley Street, which comprise resident permit holder bays which can be used by blue badge holders.
- 7.18 The site is within an area of excellent accessibility to public transport where 72% of households in the lower layer super output area and site ward do not have a car.
- 7.19 Notwithstanding the low level of car ownership and car based journeys, the applicant is willing to commit to a permit free agreement to ensure that there will be no impact upon the availability of on-street parking for existing residents in the vicinity.
- 7.20 Despite the accessibility of the site to pedestrians and cyclists and the availability of public transport, there may on occasion be the need to use a car. As set out in Section 3 there is a car club vehicle within walking distance of the site which would be available to future residents and employees.

#### **Cycle Parking**

7.21 The proposal includes the provision of 269 cycle parking spaces in the form of Josta 2-tier stands. The cycle parking would be located within sheltered and secure areas. As such the level of provision is in excess of the minimum standards set by TfL and the LB Camden.

## Servicing

7.22 The service area provided off-street would facilitate small to medium sized vehicles which would account for the majority of servicing movements to the development. A swept path analysis has been undertaken for service vehicles accessing and turning within the site and this is included at **Appendix M**.



- 7.23 There may on occasion be a need for larger delivery vehicles to service the site and this would take place adjacent to the development on Camley Street. The existing traffic management restrictions (i.e. yellow lines) permit on-street loading and this approach has been discussed and agreed with LBC highways.
- 7.24 In consideration of the proposed pedestrian link / crossing between 102 and 103 Camley Street, the potential for a footway loading bay has been discussed with LBC highways and accepted in principle. This would enable on-street servicing to be maintained in consideration of the public realm improvements.

#### Refuse

- 7.25 Separate bin stores are to be provided for the different elements of the scheme and located to the rear of the development. On-site management will be responsible for transporting waste from the storage areas to a temporary holding area along the northern access route shortly before collection. The refuse vehicle will reverse into the site from Camley Street to the temporary storage area to minimise the drag distance and ensure that collection takes place off-street. A swept path analysis of a refuse vehicle servicing the site is included at **Appendix N**.
- 7.26 The proposed refuse strategy was discussed and agreed with LBC highways department (see **Appendix A**) and is considered to be reasonable and appropriate.
- 7.27 Pre-application discussions were also held with the Council's environment department on 07.05.14 to discuss the proposed waste storage and collection strategy. The proposals were considered to be acceptable in principle, both in terms of the storage of refuse and the manner in which it would be collected off-street from within the development.
- 7.28 Given the existing industrial use of the site and the surveyed number of vehicle movements (see **Table 2.1**) it is not considered that the refuse and servicing demands of the proposals will lead to any adverse impact on the local highway network.



#### 8 MITIGATION MEASURES

8.1 The following mitigation measures have been included so as to reduce the potential impact of the proposals from a traffic/transport perspective.

#### **Travel Plan**

- 8.2 A travel plan has been prepared by TTP Consulting as part of the planning application in order to promote sustainable travel choices.
- 8.3 The travel plan has been prepared in accordance with the latest DfT and TfL Guidance and is aimed at the future residents and employees of the development.
- 8.4 A summary of the key features of the travel plan are as follows:

#### Aims and Objectives

- 8.5 The primary objective of the travel plan will be to set out a long term strategy to facilitate and encourage modes of travel to the site by means other than the private car, which reflects current central and local government policy.
- 8.6 The strategy needs to be long term as changing travel habits take time and will only occur through a combination of incentives, improved facilities, government initiatives and changes in individual's attitudes.

#### Measures and Initiatives

- 8.7 The initiatives and measures that form part of the travel plan are a mixture of 'hard' and 'soft' measures.
- 8.8 The 'hard' measures include the provision of facilities such as safe and secure cycle parking and improved pedestrian links.
- 8.9 The 'soft' measures include initiatives such as the promotion of Car Clubs and providing information on public transport services.
- 8.10 The travel plan will be finalised, and agreed prior to the occupation of the proposed development.



## **Construction Management Plan**

- 8.11 A Construction Management Plan (CMP) will be prepared and secured by way of a Section 106 agreement. The CMP will seek to outline the management of traffic during the construction period.
- 8.12 The CMP will be a live document that will be updated as necessary to include relevant information and address issues that may be identified through consultation with local residents as the project progresses and on appointment of the main contractor. Any revisions made to the CMP document will be submitted to the Council for approval.
- 8.13 It is anticipated that the majority of construction activity can be accommodated within the site boundary itself given there are currently vehicle crossovers on Camley Street and Granary Street.
- 8.14 Construction vehicles are expected to access the site from either the A5202 St Pancras Way via Granary Street from the west or the A5202 Pancras Road from the south.
- 8.15 A Construction Project Manager will be appointed to oversee the programme of works. They will be expected to liaise with other local construction sites in order to minimise the potential for conflicts arising from construction-related vehicles. In addition the CPM will be responsible for monitoring and reviewing all construction activities and resolving any complaints.



#### 9 SUMMARY AND CONCLUSION

#### **Summary**

- 9.1 TTP Consulting has been appointed by Regent Renewal Ltd to provide traffic and transportation advice in relation to their proposal to redevelop 102 Camley Street within the London Borough of Camden.
- 9.2 The applicant is seeking to redevelop the site to provide 154 residential units and 1,620sq m GEA of B1 employment use.
- 9.3 Public transport accessibility within the vicinity of the site is excellent with numerous buses, underground and rail services within a reasonable walking distance. This is evidenced by the site's PTAL rating of 6a, as demonstrated by a manual assessment.
- 9.4 There will be no parking provided on site with the exception of two disabled spaces. The Applicant is willing to sign up to a permit free agreement to prevent future residents from parking on-street. Vehicle movements associated with the site would therefore be minimal and would represent a significant decrease compared with the existing site traffic, as shown by the traffic surveys undertaken.
- 9.5 In total, 269 cycle parking spaces will be provided on site in accordance with GLA standards. The proposed development includes the provision of a cycle ramp which will improve cycle access between Camley Street and canal towpath level.
- 9.6 A multi modal trip generation exercise has shown that the majority of trips to/from the site would be on foot and by public transport. The impact on public transport, notably additional bus demand has been demonstrated to be negligible given the high range and frequency of services available.

#### **Conclusion**

9.7 In light of the above, we conclude that the planning application proposal is acceptable in traffic and transport terms and fully in accordance with the key requirement of the NPPF in so far as the residual impacts will not be severe.

## **Figures**



**Gateway Evolution Limited** DRAWN: CHECKED: 24.06.14

D.F

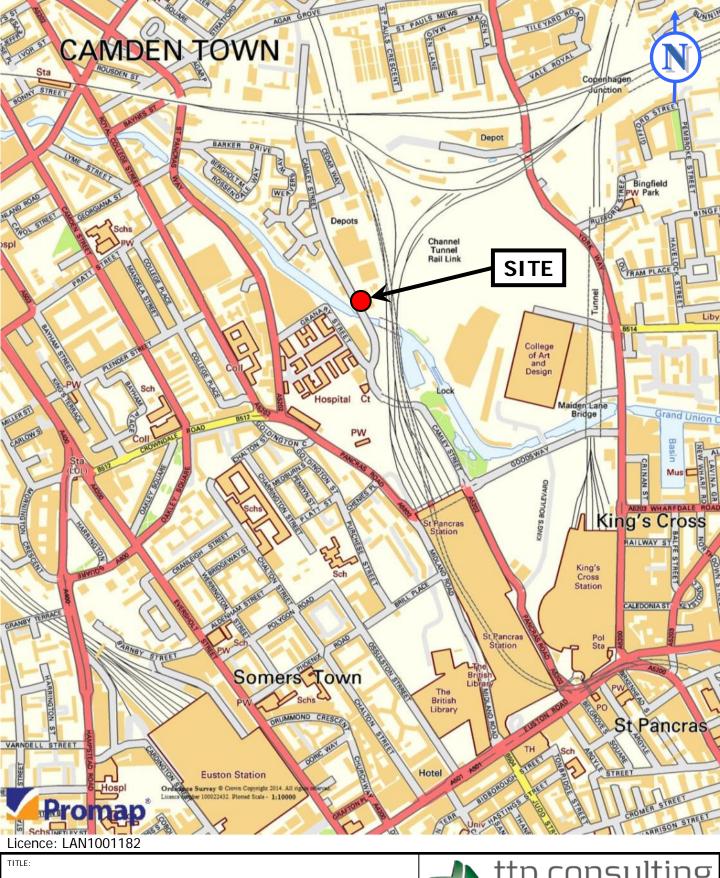
C.L

SCALE:

111-113 Great Portland Street London W1W 6QQ Tel: 020 7100 0753 www.ttp-consulting.co.uk

Registered in England: 7441800 DRAWING REFERENCE: Figure 1

REVISION:



Local Area Plan

PROJECT:

102 Camley Street, London Borough of Camden

**Gateway Evolution Limited** 



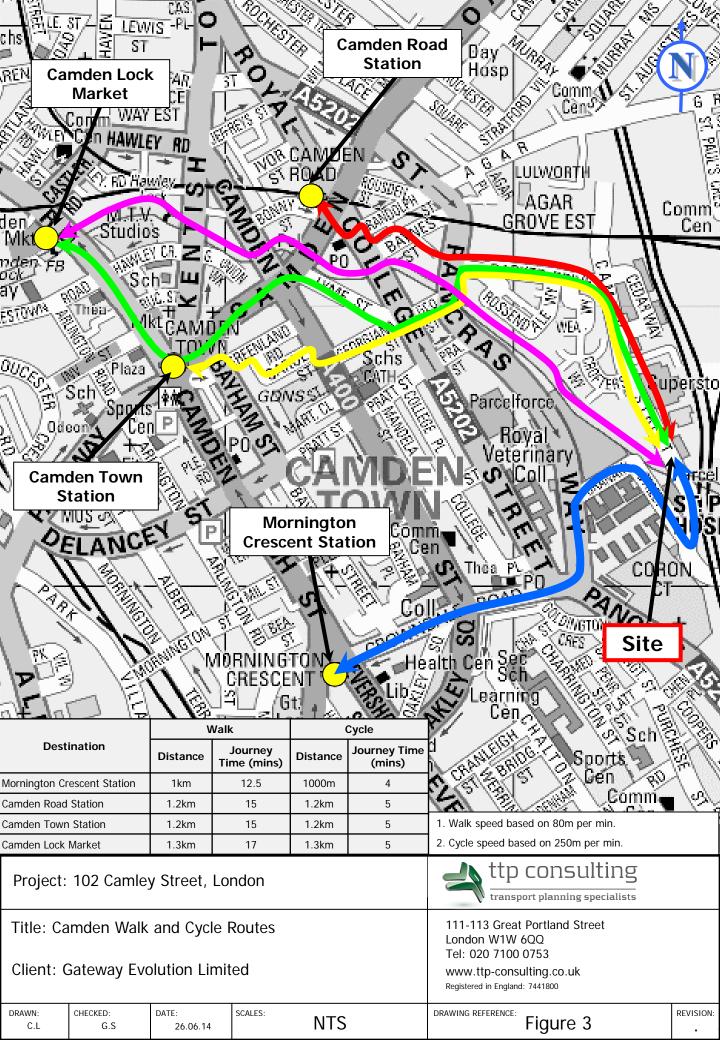
London W1W 6QQ Tel: 020 7100 0753

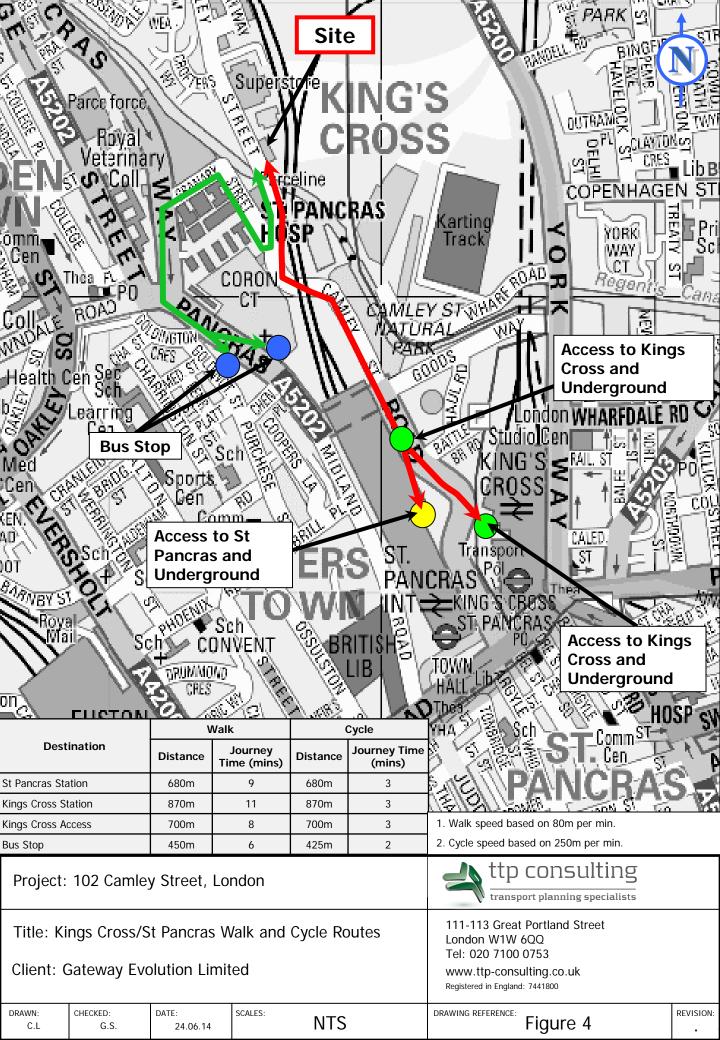
www.ttp-consulting.co.uk Registered in England: 7441800

DRAWING REFERENCE:

Figure 2

REVISION:





## **Appendix A**

Minutes of Meeting with LBC Highways 18.02.14



File Reference: N01-GS-102 Camley St\_Meeting Note (140220)

**Date:** 20/02/14

**Project Title:** 102 Camley Street

Subject: 102 Camley Street - Note of Meeting

**Location:** Camden's offices

**Date & Time:** 18th February 2014 @ 12:00

**Attendees:** 

John Duffy - London Borough of Camden Steve Cardno - London Borough of Camden

George Steele - TTP
Peter Caneparo - TTP

#### **Car Parking**

1.1 TTP explained that the development would be car-free in line with Camden's expectations for a site and development of this nature.

1.2 A total of two on-site disabled spaces are proposed and this was considered reasonable appropriate by Camden.

1.3 Camden noted that they no longer insist on car club provision for sites in highly accessible areas. Therefore, whilst the offer of car club membership would be welcomed, it is not considered essential. TTP is seeking a feasibility report from Zipcar in any event.

#### **Cycle Parking**

- 1.4 Camden expects cycle parking to be provided in accordance with their minimum standards.

  TfL's standards would also need to be considered as the scheme is referable to the Mayor.

  Cycle parking is indicatively shown at lower ground floor level which would be acceptable provided cycles can be transported to ground floor level in lifts, with cycle channels on stairwells also preferable.
- 1.5 In terms of the type of cycle parking, Camden would accept 100% provision of Josta 2-tier stands for staff/residents. Separate internal cycle stores should be provided for the residential and employment uses.
- 1.6 The provision of Sheffield stands within the public realm for visitors is advised.



#### **Cycle Path**

1.7 The principle of a cycle path onto the towpath was deemed acceptable subject to ensuring that users are able to negotiate the transition on the bend safely. Camden queried what the gradients would be on the cycle path and how disabled users would access the towpath.

#### Access

- 1.8 It was noted that the vehicular access will be retained in its current location. This will also ensure that access to Network Rail's equipment to the rear of the site is maintained. TTP to confirm the likely number / type of vehicle movements if possible.
- 1.9 Although the location of the access was considered acceptable, the width indicatively shown is too narrow and the design of the bell mouth will need revising to ensure vehicles can enter/exit from both directions satisfactorily. TTP will liaise with the architects on this point.

#### **Servicing**

- 1.10 Given the nature of the residential and employment use proposed, it was suggested that the majority of deliveries would be by small to medium sized vehicles (e.g. transit vans). It was proposed and accepted that such vehicles would be accommodated on-site, with any larger vehicles servicing the site on-street from Camley St.
- 1.11 As delivery vehicles should enter/exit the site in forward gear, it was agreed that a turning head should be provided to accommodate transit van sized vehicles, and ideally 7.5t/8m box vans. The northern end of the pedestrian link which intersects the access road could be used to form a turning head, with bollards or similar used to prevent vehicles proceeding past a certain point.
- 1.12 A traffic count commissioned by TTP at the existing access recorded 113 two-way movements in a day, with the highest proportion of vehicles being light goods vehicles. The current proposals would generate approximately 15-20 deliveries per day, resulting in a significant reduction in traffic associated with the site.

#### Refuse

- 1.13 It is proposed that refuse collection would be undertaken on-site with vehicles reversing in from Camley St. and exiting in forward gear. As shown on the plans, waste would be transferred to a holding area prior to collection.
- 1.14 Camden indicated that refuse vehicles could reverse into the site. However, an alternative which would also be acceptable would be for collection to take place on-street from Camley Street.



1.15 It was queried whether a shared bin store between private and affordable housing would be acceptable. TTP were advised to liaise with Environmental Services for more detailed advice on this point and other related matters. It was also noted that the views of RSLs would be relevant. [Post Meeting Note: Camden has since issued the latest waste guidelines, which are in the process of being updated.]

#### **Application Material**

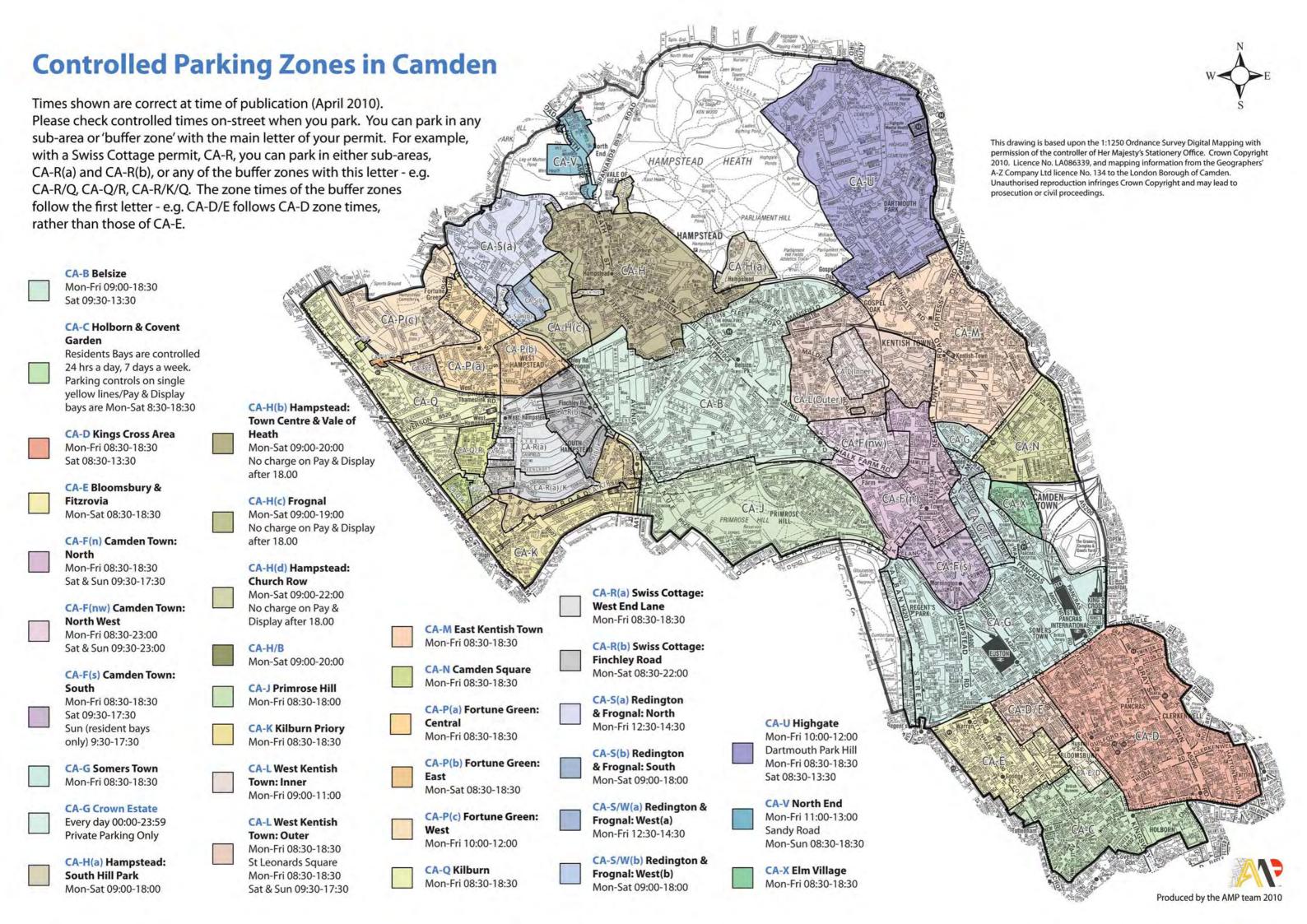
- 1.16 A Transport Assessment (TA) and separate Travel Plans (TP) for the residential and employment uses are required for the planning application.
- 1.17 It was agreed that a Servicing Management Plan (SMP) was not necessary provided a chapter on servicing is included within the TA. However, TfL may still request an SMP.
- 1.18 It was agreed that a Construction Management Plan (CMP) could be conditioned or subject to legal agreement. A chapter will be included in the TA setting out the main objectives and principles of the CMP.
- 1.19 A pedestrian/cycle audit was included in the TA for 103 Camley St. and it was agreed that this could be updated for 102 Camley St. Camden suggested whether the introduction of informal pedestrian crossings (e.g. dropped kerbs & tactile paving) on Camley Street would improve the linkage between 102 Camley St. and 101 & 103 Camley St. This would be considered within the pedestrian/cycle audit.

#### **Other Considerations**

1.20 It was queried whether a fire tender vehicle would need to access the site. This is to be confirmed but will be considered as the turning head is developed alongside vehicle access requirements.

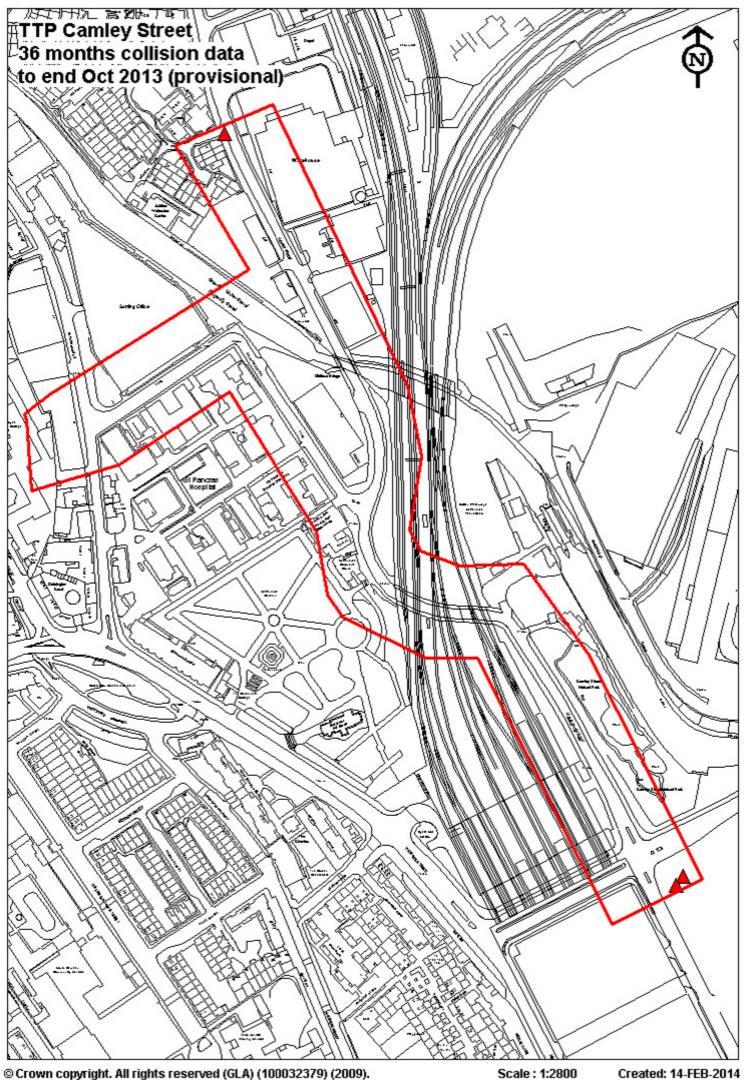
# **Appendix B**

**CPZ Map** 



# **Appendix C**

**TfL Accident Data** 



Date: 14 FEB 2014 12:14 Interpreted Listing

Page: 1 of 1 (summary)



#### TTP Camley Street 36 months collision data to end Oct 2013 (provisional)

Summary of Accidents Selected								
Site Reference and Description (zero accident counts shown in bold)	Date Period	Accidents						
001 GIS AREA TTP Camley Street (P)	36 MTS TO OCT-2013	3						

The description of how the accident occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation

Date: 14 FEB 2014 12:14

Page: 1 of 2

Interpreted Listing



TTP Camley Street 36 months collision data to end Oct 2013	3 (provisional)			
001 GIS AREA TTP Camley Street (P)			36 MTS TO OCT-2013	3 SORTED BY DATE
1 0111CW10736 MON 09/05/11 08:15 LIGHT CAMLEY STREET J/W CI	ROFTERS WAY		02 CELL 529500/183500	529700 / 183870
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE	E CWY T/STAG JUN GIVE	WAY/UNCONT NO XING FACILITY IN 5	OM	
V1 OVERTOOK A STATIONARY VEHICLE AND THEN COLLIDED WITH V2 V	WHO WAS TURNING RIGHT.			
CASUALTY 001 (002) (58 Yrs - M CM23) SLIGHT DRIVER/RIDER				
VEHICLE 001 (002) CAR (28 Yrs - M N19)	OVERTAKE STAT VEH O/S	NTOS	JCT MID	
BT - NOT REQUESTED		N/S HIT FIRST		
VEHICLE 002 (001) CAR (58 Yrs - M CM23)	TURNING RIGHT	N TO SW	JCT MID	
BT - NOT REQUESTED		O/S HIT FIRST		
V001 A 405 (FAILED TO LOOK PROPERLY)	V001 A 406	(FAILED TO JUDGE OTHER PERSON'S	PATH OR SPEED)	
2 0111CW11628 THU 25/08/11 20:00 DARK GOODS WAY J/W ST PA	NCRAS ROAD		02 LINK 632-720	530035 / 183326
		O SIG NO XING FACILITY IN 5		
V1 AND V2 WERE MOVING OFF FROM ATS WHEN THEY COLLIDED WITH	EACHOTHER.			
CASUALTY 001 (002) (31 Yrs - M SW2) SLIGHT DRIVER/RIDER				
VEHICLE 001 (002) CAR (55 Yrs - F EW1W)	MOVING OFF	NE TO SW	JCT MID	
BT - NEGATIVE		O/S HIT FIRST		
VEHICLE 002 (001) PEDAL CYCLE (31 Yrs - M SW2)	MOVING OFF	NE TO SW	JCT MID	
BT - NOT APPLICABLE		N/S HIT FIRST		
V002 A 410 (LOSS OF CONTROL)	V001 A 405	(FAILED TO LOOK PROPERLY)		
V002 A 405 (FAILED TO LOOK PROPERLY)				
3 0113EK40356 MON 24/06/13 11:55 LIGHT GOODS WAY J/W CAML	EY STREET		02 LINK 632-720	530030 / 183320
POLICE - AT SCENE ROAD-DRY WEATHER-FINE SINGLE	E CWY MULTI JUN AUTO	O SIG PEDN PHASE AT ATS		
V1 NORTH-EAST BD COULD NOT AVOID PED CAS WHO WALKED INTO H	IS PATH - [CAS ON CELLPHONE (C	002)]		
CASUALTY 001 (001) (33 Yrs - M NW2) SLIGHT DRIVER/RIDER				
CASUALTY 002 (001) (50 Yrs - M N9) SLIGHT PEDESTRIAN	CROSSING ROAD WITHIN 5	OM XING SE BOUND FROM DRIVERS	N/SIDE	
VEHICLE 001 (000) M/C 50-125CC (33 Yrs - M NW2)	SLOWING OR STOPPING	SW TO NE COMM TO/FROM WORK	K JCT MID	
BT - NOT REQUESTED		FRONT HIT FIRST		
LEFT CWY NEARSIDE	_			
C002 A 802 (FAILED TO LOOK PROPERLY)	C002 A 999	(OTHER FACTOR)		

Date: 14 FEB 2014 12:14 Interpreted Listing

Page: 2 of 2



#### TTP Camley Street 36 months collision data to end Oct 2013 (provisional)

**End of Report** 

### **Appendix D**

**Pedestrian Audit** 



File Ref: N01-DF-Pedestrian Audit

Date: March 2014

Job Title: 102 Camley Street

Subject: 102 Camley Street Pedestrian Audit

#### Introduction

- 1.1 This report has been written following a detailed pedestrian audit around the proposed development site on Camley Street. The audit was undertaken in March 2014 and assesses what are considered to be the primary pedestrian routes between the site and the main local facilities/trip attractors.
- 1.2 The audit should be read in conjunction with **Figures 3 and 4** of the Transport Assessment Report which highlight the pedestrian routes which have been considered.

#### Methodology

- 1.3 A key component, for reviewing and assessing pedestrian environments is the 5C's. The 5C's reflect the fact that transport users, regardless of mode, wish to make their journeys in the shortest, most convenient manner that is consistent with their personal and road safety and with a pleasant and comfortable journey experience, a theme that is reflected within the methodology. The London Advisory Planning Committee first introduced the 5C's in 1997 as a basis on which new measures to encourage walking should be developed. The 5C's are:
  - Connected routes should link origins and destinations;
  - Convenient routes should facilitate the desired journey without undue deviation or difficulty;
  - Conspicuous route design should allow the user to be seen by, and to see, other
    pedestrians and vehicles to promote personal security and road safety;
  - Coherence routes should be continuous; and
  - Convivial routes should be pleasant to use.



- In addition to the above, The Institution of Highways and Transportation (IHT) guidelines suggest a maximum 'acceptable' walking distance for pedestrians without mobility impairment of 2km. Furthermore the London Plan and National Planning Policy Framework encourage trips to be made on foot, promoting walking as a sustainable mode of travel that achieves a number of benefits.
- 1.5 The study area for the audit considers the above guidance and is based on routes from the development site to what are considered to be the main local facilities/trip attractors. The routes are summarised as follows:

Route 1 - Site to St Pancras Station and Kings Cross Station

Route 2 - Site to Pancras Road Bus Stops

Route 3 - Site to Mornington Crescent

Route 4 - Site to Camden Town Station

Route 5 - Site to Camden Road Station

Route 6 - Site to Camden Lock Market

- 1.6 Each route is made up of links (roads/streets) and crossings which the auditor has considered within the context of the surrounding area. For example, a residential road may not provide any formal pedestrian crossings but this is not necessarily a deficiency if there are low traffic flows and vehicle speeds.
- 1.7 The parameters considered when auditing links and crossings are set out in **Table 1** below.

Table 1 – Pedestrian Link & Crossing Parameters								
Link Parameters	Crossing Parameters							
Effective Width	Crossing Provision							
Obstruction	Deviation from the Desire Line							
Permeability	Crossing Capacity							
Legibility	Legibility							
Lighting & Security	Dropped Kerbs & Tactile Information							
Surface Quality	Obstructions							
User Conflict	Surface Quality							
Maintenance	Maintenance							



#### **Pedestrian Audit**

#### Route 1 – Site to Kings Cross and St Pancras Stations

**Route description:** Upon leaving the site head south along Camley Street and continue along Pancras Road where there are multiple points of access to both St Pancras Station and Kings Cross Station.

1.8 Camley Street has a single lane in each direction with footways on both sides of the carriageway of varying width. The footway on the west side is wider than that on the east with widths typically exceeding 3 metres, but with mature trees planted adjacent to the kerb from the site towards the northern extent of the road. The footway along the eastern side is circa 1.5 to 2 metres in width with overgrowing vegetation in places.



1.9 As can be seen from **Photo 1** the footway on Camley Street outside of the site is of sufficient width for pedestrians. It is also considered to be well maintained and clear of any obstructions thereby providing a clear walking route to and from the site.



1.10 Further south on Camley Street there is an informal crossing point (**Photo 2**) with a refuge island. Although the crossing provides dropped kerbs and tactile paving, its position on a bend results in limited visibility for pedestrians, specifically for southbound vehicles. Advanced warning signs exist for the crossing but they are partially obscured by overgrowing vegetation and not placed in optimal locations. The benefit of the crossing in its current location is that it is on the desire line with the access to St Pancras Gardens.



1.11 South of the crossing pedestrians pass under a rail bridge along footway that has guard railings and sufficient overhead lighting, as shown in **Photo 3**.



1.12 The footway continuing south past the rail bridge is over 2.5 metres wide and appears recently resurfaced and experiences low pedestrian flows. The potential for user conflict is therefore minimal and the surface is of a high quality.



The southern end of Camley Street terminates at the junction with Goods Way and Pancras Road where a signalised pedestrian crossing is provided, as shown in **Photo 4**. The environment has been recently improved with colour contrasting on surfaces, tactile paving and dropped kerbs of a shallow or level gradient, which benefits mobility impaired users in particular.



Due to on-going highway works on Pancras Road between Camley Street and Euston Road, it was not possible to undertake a reliable audit of the area. However, it is evident from the works completed thus far that significant improvements are being made which will benefit pedestrians. This includes the provision of dedicated signalised pedestrian crossings, wide footways, lighting and CCTV (to improve security) and the use of high quality materials.

#### Route 2 – Site to Pancras Road Bus Stops

**Route description:** Upon leaving the site head south along Camley Street and continue past the junction with Granary Street to the entrance of St Pancras Gardens. Pass through St Pancras Gardens and exit on to Pancras Road where there are bus stops within close proximity for northbound and southbound services.

- 1.15 The first part of the route between Camley Street and St Pancras Gardens is detailed in **Route**1 and **Photos 1 and 2** above.
- 1.16 St Pancras Gardens is accessed by steps from Camley Street and is pedestrian only with cycling prohibited. It is only open during daylight hours and pedestrians would have to use an alternative route via Granary Street at night.



1.17 St Pancras Gardens are well maintained and provide a pleasant pedestrian environment with even surfaces and CCTV which improves the perception of security. Although a sloped access is provided on Pancras Road, the stepped only access on Camley Street presents a barrier to mobility impaired users, as shown in **Photo 5**.



1.18 Pancras Road provides wide footways on both sides of the carriageway with the west side being tree lined with a width of over 7 metres. The east side varies in width but exceeds 2 metres even at the narrowest point. Adjacent to St Pancras Gardens to the north of the bus stops is a zebra crossing with tactile paving and dropped kerbs, as shown in **Photo 6**.



1.19 As can be seen from **Photo 7** the wide footways around the bus stops produce sufficient waiting areas which reduce the potential for user conflict. A separate audit of the bus stops has been undertaken and this is included within the Transport Assessment Report.





1.20 To the south of the bus stops Pancras Road continues to Euston Road via Midland Road. There are a number of informal crossings as shown by **Photo 8** in addition to a signalised crossing at the junction with Midland Road.



1.21 As can be seen from **Photo 8** the informal crossings provide dropped kerbs and tactile paving of the appropriate colour. The central refuge is level with the carriageway to assist mobility impaired users and provides sufficient crossing capacity.



#### **Route 3 – Site to Mornington Crescent Station**

**Route description:** Depart the site heading south on Camley Street and turn on to Granary Street followed by a left on to St Pancras Way. Head to the junction with Crowndale Road and continue along said road to Mornington Crescent Station.

1.22 As above, **Route 1** covers the initial part of the route to Granary Street. An informal crossing is provided at the junction between Camley Street and Granary Street as detailed in **Photo 9** below. The crossing is located on the desire line and has been recently resurfaced with tactile paving, dropped kerbs and pedestrian road markings. Although pedestrian flows are light and there is not significant demand at the crossing, the central refuge is short and narrow which affects capacity and users with prams and/or those on mobility scooters.



1.23 There are footways along both sides of Granary Street at least 2 metres in width. Although parts of the carriageway have been resurfaced, the footways are for the most part worn and cracked in places, particularly along the southern half of the street. The lack of natural surveillance and high walls on both sides contributes to a lack of security. Overgrown vegetation suggests that the area is not maintained. **Photo 10** illustrates the above points.





1.24 Between St Pancras Way and Crowndale Road there are a number of signals at the separating junction, some of which have signalised pedestrian crossings. The signalised crossings at the junction appear to have been recently improved as evidenced by the high quality of the environment in terms of surfacing, colour contrast, road markings and use of materials. The use of road markings and colour contrasting combines to improve legibility for pedestrians.
Photo 11 shows the crossing on Crowndale Road at the junction with Royal College Street, which is representative of the signalised crossings in the vicinity.



1.25 Heading along Crowndale Road the quality of the environment varies. The footways on both sides alter in width but exceed 2 metres. Although there is a large amount of street furniture comprising cycle parking, sign posts, litter bins and trees etc. the footways are wide enough to prevent obstructions and/or user conflict.



1.26 The quality of the pedestrian crossings varies along the length of Crowndale Road. As demonstrated in **Photo 11** some crossings have been recently improved. However, further west a lack of maintenance is evident, as shown in **Photo 12**.



- 1.27 **Photo 12** shows the zebra crossings at the junction between Crowndale Road and Bayham Street. Road and kerb stone markings appear worn and some of the tactile paving stones are cracked, which can create trip hazards.
- 1.28 At the junction between Crowndale Road and Camden High Street where Mornington Crescent Station is located, there are a number of signalised crossings, as typified by **Photo 13**. Tactile paving and dropped kerbs are provided with the central refuge islands being level to optimise accessibility, especially for mobility impaired users. Although there are crossings on each arm of the junction, the staging of the signals is such that most crossings are staggered which increases delay and encourages pedestrians to cross without waiting for the green man.





#### **Route 4 – Site to Camden Town Station**

- 1.29 **Route description:** Head north from the site along Regent's Canal and cross St Pancras Way to Georgina Street. Traverse Camden Street to Carol Street and continue west across Bayham Street to Camden Town Station.
- 1.30 Regent's Canal is currently accessed to the south of the site via two flights of steps. The towpath alongside the east of the canal permits pedestrians and cyclists, with the former having priority. **Photo 14** shows the access to the towpath from Camley Street which is constricted and lacks sufficient lighting. Evidence of graffiti suggests a lack of maintenance and could potentially intimidate pedestrians, especially when it is dark. There is also no alternative access provided for mobility impaired users or those with prams or bicycles.





- 1.31 The width along the towpath varies but is generally at least 2 metres which allows users to pass in opposite directions. However, the proximity of the canal affects pedestrian behaviour and users tend to allow a greater distance between themselves and the water's edge than might be expected if on a pavement next to a road. The probability of user conflict therefore increases, predominantly between pedestrians and cyclists.
- 1.32 There is minimal if any lighting along the towpath and it is therefore more attractive during the daylight. The natural barriers of the canal and a lack of natural surveillance can create a feeling of insecurity. Conversely, the natural environment provides a pleasant experience during the daylight and benefits from being traffic free. **Photo 15** provides a snapshot of the towpath in the vicinity of the site.



1.33 Upon exiting the towpath on to St Pancras Way there is a zebra crossing as shown on **Photo**16.





1.34 Georgina Street has a 20mph restriction with footways on both sides which experience a light footfall. User conflict is minimal but some paving stones are cracked and in need of maintenance. There is an informal crossing on Georgina Street and a signalised crossing at the junction with Royal College Street. There is good legibility at the crossings with appropriate surface markings and directional signs with distances to nearby local facilities. Colour contrasting of tactile paving distinguishes the different crossing types with dropped kerbs at suitable gradients to assist mobility restricted users. **Photo 17** shows Georgina Street and part of the crossing at the junction with Royal College Street.



1.35 To cross Camden Street from Georgina Street there is a pelican crossing on the desire line to Carol Street, as shown by **Photo 18**. There is sufficient visibility at the crossing and the wide footways mean there is adequate waiting capacity which does not interfere with passing pedestrians.





- 1.36 Carol Street is a quiet residential road that is one-way westbound and experiences low pedestrian flows. The footways are narrow in places with street furniture creating points of obstruction which a user with a pram or mobility scooter may find difficult to pass. Surface material and quality varies but is generally in a state of disrepair.
- 1.37 Heading north on Bayham Street from Carol Street there is a puffin crossing which can be used to access Camden Road. There are high pedestrian flows in the area which leads to congestion at the crossing waiting areas during peak periods, which increases the possibility of user conflict.
- 1.38 To access Camden Town Station there are additional pelican crossings on Chalk Farm Road and Kentish Town Road. The intensification of uses in the area produces high pedestrian flows which create a high demand for the crossings and results in congested waiting areas and user conflict.

#### **Route 5 - Site to Camden Road Station**

1.39 There are two pedestrian routes that have been audited to Camden Road Station, the first being along Regent's Canal, and the second using the local road network. Whilst the route along the canal is shorter and generally viewed as more attractive/pleasant and convenient, it is likely an alternative route may be preferred by some users, especially at night for safety and security reasons.

**Route description:** (a) Head north from the site along Regent's Canal and follow the towpath to Camden Road. Turn right onto Camden Road and head north to Camden Road Station.



The first part of the canal route up to St Pancras Way is detailed in **Route 4**. Between St Pancras Way and Royal College Street the towpath exhibits similar characteristics to those shown in **Photo 15**. The towpath splits at Royal College Street with one section ramping up to the street which then forms a link with Camden Road. The exit of the towpath on to Camden Road is shown in **Photo 19** and is pedestrian only.



1.40 Camden Road is one of the main strategic routes in the area and includes numerous local amenities. Pedestrian flows are high and are accommodated by wide footways on both sides. Adjacent to Camden Road Station there is a signalised pedestrian crossing which forms part of the junction with Royal College Street, as shown by **Photo 20**.





1.41 As can be seen the crossing provides dropped kerbs with a level central refuge island, tactile paving and pedestrian surface markings. However, there is a large amount of street furniture adjacent to the station including hoarding which reduces the waiting capacity of the crossing and increases the possibility of user conflict with passing pedestrians.

**Route description:** (b) Turn left out the site on to Camley Street and head north to Barker Drive. Continue along Barker Drive and turn right onto St Pancras Way, walk a short distance to the north and turn left on to Baynes Street. Turn right at the end of Baynes Street on to Royal College Street and continue north to Camden Road Station.

The assessment of Camley Street has been detailed previously in **Route 1**. Access to Barker Drive from Camley Street is restricted to pedestrians and cyclists only as shown in **Photo 21**. Bollards and signage enforce the restricted access, whilst there is also an informal crossing across the carriageway.



1.43 Barker Drive is a lightly trafficked residential road with cul-de-sacs and therefore provides a safe environment for pedestrians. **Photo 22** shows the presence of recently installed tactile paving and dropped kerbs which are in good condition and of a shallow gradient to assist mobility impaired users. There is also regularly placed street lighting and natural surveillance created by the surrounding residential properties.





- 1.44 At the junction between Barker Drive and St Pancras Way there are informal crossings, with a zebra crossing on St Pancras Way a short distance to the south, as shown in **Photo 16**. This is the only crossing on St Pancras Way in the vicinity of the route to Camden Road Station but does not lie on the desire line. Pedestrians are therefore more likely to cross the road without the aid of a crossing.
- 1.45 Heading north on St Pancras Way the footways are in excess of 2 metres on the east side but less on the west side, from which access to Baynes Street is provided. The width of the western footway is further restricted by overgrown vegetation and obstructions caused by street furniture, as demonstrated in **Photo 23**.





1.46 Baynes Street is a short 20mph road that is one-way westbound and forms part of a bus route, although there are no stops along its duration. As shown in **Photo 24** the footways are poorly maintained with damaged surfacing and overgrown vegetation and litter. There is limited natural surveillance and insufficient lighting which impacts pedestrian security.



1.47 Immediately to the south of Baynes Street there is a zebra crossing on Royal College Street as shown in **Photo 25**. The crossing is on the desire line and has tactile paving and dropped kerbs.



- 1.48 Between Camden Road Station and Baynes Street, Royal College Street provides footways of varying width but generally between 2-2.5 metres. There is a large amount of street furniture, some of which is positioned close to the centre of the footway thereby creating an obstruction.
- 1.49 To access Camden Road Station from Royal College Street there is a signalised crossing as shown in **Photo 20**.



#### **Route 6 – Site to Camden Lock Market**

1.50 As with **Route 5** there are two pedestrian routes that have been audited to Camden Lock Market, the first being along Regent's Canal, and the second using the local road network.

**Route description:** (a) Head north along Regent's Canal and follow the towpath, exiting on Camden High Street.

- 1.51 The route along Regent's Canal has been summarised above as far as Camden Road where it splits and ramps up from the canal to street level. The towpath also continues under Camden Road to Camden High Street where ramped access is provided to street level and the Camden Lock Market.
- 1.52 The towpath is provided along the north side of the canal and although the width of the path varies, the general characteristics of the route do not change significantly. The surface of the towpath varies in quality with cracks in some places creating potential trip hazards. There is little or no lighting available and minimal natural surveillance which reduces the attractiveness of the route when it is dark. The quality and appropriateness of access to the towpath varies along its duration and is not consistently suitable for mobility impaired users or those with prams. An example of this is the stepped access on Kentish Town Road, as demonstrated in **Photo 14**.
- 1.53 Notwithstanding the above, during the day the towpath offers the most direct and therefore most permeable route between the site and Camden Lock Market.

**Route description:** (b) Turn left out the site on to Camley Street and head north to Barker Drive. Continue along Barker Drive, turn left onto St Pancras Way and then right on to Georgina Street. Cross Royal College Street and head north west along Lyme Street to Camden Road. Walk along Camden Road to the junction with Camden High Street and head north to Camden Lock Market.

- 1.54 The first part of the route between the site and the zebra crossing on St Pancras Way is described in **Route 5 (b)**.
- 1.55 Georgina Street connects with St Pancras Way and is a traffic calmed road with wide footways.

  There is a signalised pedestrian crossing at the junction with Royal College Street which has good visibility and waiting capacity as well as the presence of tactile paving and dropped kerbs (see **Photo 17**).
- 1.56 Lyme Street is also traffic calmed and has 1.5-2 metres footways interspersed with trees and bollards in places.



- 1.57 Camden Road has been detailed previously and provides a link between Lyme Street and Kentish Town/Camden High Street at which there is a complex five-way junction with multiple crossing points. The majority of crossings at the junction are signalised with dropped kerbs and correctly coloured tactile paving. Due to the high pedestrian flows in the area and multi stage crossings, pedestrians often cross informally without using the designated facilities. The multiple staged crossings combined with the delay created by signalled control can exacerbate the problem.
- 1.58 Camden High Street is one-way northbound with wide footways on both sides of the carriageway and high pedestrian flows. Parts of the footway on both sides are designated as shared use footway/loading bays and vehicles can therefore cause temporary obstructions. Retail frontages and displays/stands also protrude onto the footway which can reduce its effective width and the level of service afforded to pedestrians.
- 1.59 There is a high level of natural surveillance along Camden High Street with regularly spaced streetlights on both sides of the carriageway.
- Informal crossing locations at side roads have wide sections of tactile paving and dropped kerbs adjoining raised tables which traffic calm the associated priority junctions. The junction with Hawley Crescent is signal controlled with crossings on all four arms with dropped kerbs and tactile paving. The high pedestrian flows exceed the capacity of the crossing waiting areas during peak periods which increases user conflict and leads to overspill on to the carriageway.

### **Appendix E**

**Bus Stop Audit** 

### **Bus Stop Audit**



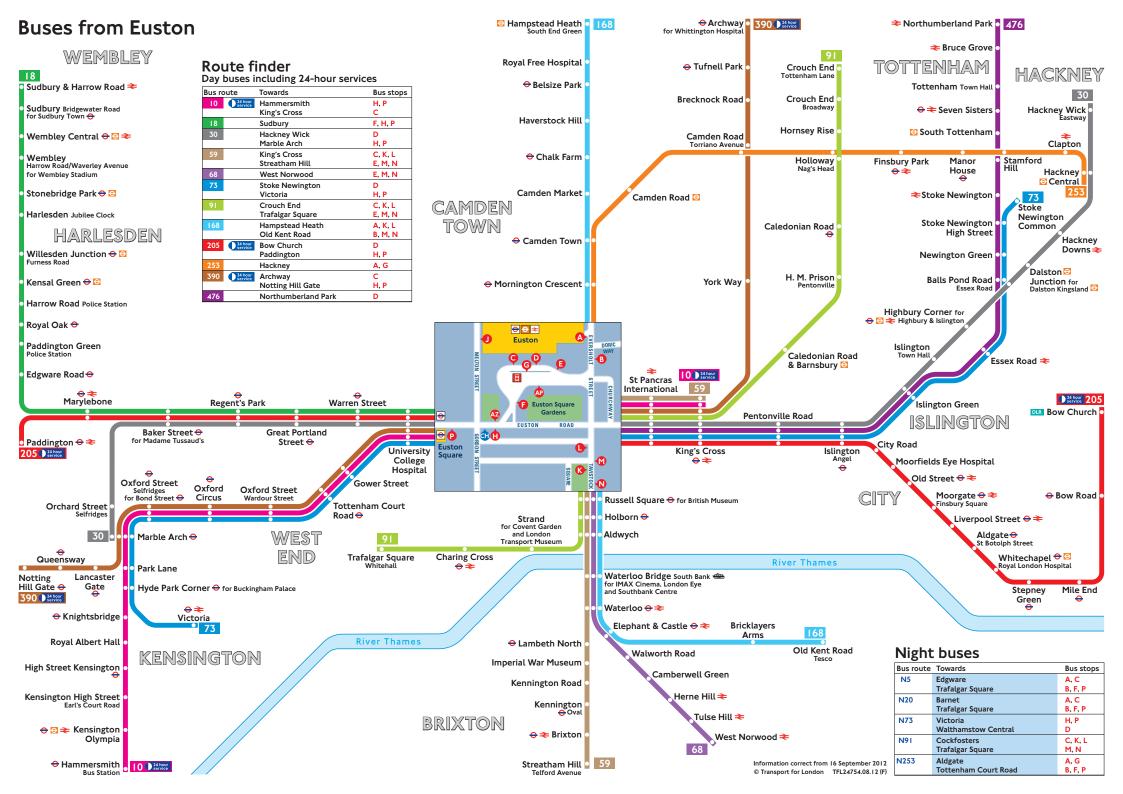
#### 102 Camley Street, London

Bus Stop Location	Bus Stop Name	Direction	Bus Routes	Bus Cage	Shelter & Seating	Street Furniture	Lighting	Timetable Info.	Route Maps	RTI	Ticket Machine	Road Markings	Legible London
Pancras Rd	N	Northbound	46, 214	Yes	Yes	Light Column	Street	Yes	Yes	No	No	Cage & Red Surfacing	No
Pancras Rd	V	Southbound	46, 214	Yes	Yes	Sign Post	Street	Yes	Yes	No	No	Cage & Red Surfacing	No

### **Appendix F**

**Bus Map** 





# **Appendix G**

**PTAL Report** 

# **PTAI Study Report File Summary**

### **PTAI Run Parameters**

PTAI Run 20142406111534 Description 20142406111534

Run by user PTAL web application

Date and time 24/06/2014 11:15

### **Walk File Parameters**

Walk File	PLSQLTest
Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
BUS Walk Access Time (mins)	8
BUS Reliability Factor	2.0
LU LRT Walk Access Time (mins)	12
LU LRT Reliability Factor	0.75
NATIONAL_RAIL Walk Access Time (mins)	12
NATIONAL_RAIL Reliability Factor	0.75

Coordinates: 529787, 183735

Mode	Stop		Route	Distance (metres)	Frequency (vph)	Weight	Walk time (mins)	SWT (mins)	TAT (mins)	EDF	AI
BUS	GOODS WAY CAMLEY STREET	46		577.31	6.0	0.5	7.22	7.0	14.22	2.11	1.06

BUS	GOODS WAY CAMLEY STREET	214	577.31	8.0	0.5	7.22	5.75	12.97	2.31 1.16
BUS	GOODS WAY CAMLEY STREET	45	577.31	7.5	0.5	7.22	6.0	13.22	2.27 1.13
BUS	GOODS WAY CAMLEY STREET	63	577.31	12.0	1.0	7.22	4.5	11.72	2.56 2.56
LT SAP Points Not	Found								
NATIONAL_RAII	St Pancras Domestic	MOORGATE to LUTON	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAII	St Pancras Domestic	BEDFORD MIDLAND to MOORGATE	894.2	2.6	1.0	11.18	12.29	23.47	1.28 1.28
NATIONAL_RAII	St Pancras Domestic	ST ALBANS BR to SUTTON (SURREY)	894.2	0.67	0.5	11.18	45.53	56.7	0.53 0.26
NATIONAL_RAII	St Pancras Domestic	ST ALBANS BR to WEST NORWOOD BR	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAII	St Pancras Domestic	BEDFORD MIDLAND to LONDON BLACKFRIARS	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAII	St Pancras Domestic	DOVER PRIORY to St Pancras Domestic	894.2	1.33	0.5	11.18	23.31	34.48	0.87 0.43
NATIONAL_RAII	St Pancras Domestic	LUTON to MOORGATE	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAII	St Pancras Domestic	St Pancras Domestic to MARGATE	894.2	1.0	0.5	11.18	30.75	41.93	0.72 0.36
NATIONAL_RAII	St Pancras Domestic	WIMBLEDON BR to ST ALBANS BR	894.2	1.33	0.5	11.18	23.31	34.48	0.87 0.43
NATIONAL_RAII	St Pancras Domestic	SELHURST to ST ALBANS BR	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAII	St Pancras Domestic	SUTTON (SURREY) to ST ALBANS BR	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15

NATIONAL_RAIL St Pancras Domestic	St Pancras Domestic to FAVERSHAM	894.2	2.0	0.5	11.18	15.75	26.93	1.11 0.56
$NATIONAL\_RAIL \frac{St\ Pancras}{Domestic}$	Ebbsfleet to St Pancras Domestic	894.2	1.33	0.5	11.18	23.31	34.48	0.87 0.43
NATIONAL_RAIL St Pancras Domestic	MOORGATE to LUTON	1894.2	0.67	0.5	11.18	45.53	56.7	0.53 0.26
NATIONAL_RAIL St Pancras Domestic	WIMBLEDON BR to LUTON	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAIL St Pancras Domestic	MOORGATE to BEDFORD MIDLAND	894.2	0.6	0.5	11.18	50.75	61.93	0.48 0.24
$NATIONAL\_RAIL \frac{St\ Pancras}{Domestic}$	WIMBLEDON BR to BEDFORD MIDLAND	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
$NATIONAL\_RAIL \frac{St\ Pancras}{Domestic}$	BEDFORD MIDLAND to MOORGATE	894.2	1.0	0.5	11.18	30.75	41.93	0.72 0.36
NATIONAL_RAIL St Pancras Domestic	BEDFORD MIDLAND to BRIGHTON	894.2	2.0	0.5	11.18	15.75	26.93	1.11 0.56
NATIONAL_RAIL St Pancras Domestic	BEDFORD MIDLAND to SUTTON (SURREY)	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
$NATIONAL\_RAIL \frac{St\ Pancras}{Domestic}$	BROADSTAIRS to St Pancras Domestic	894.2	1.0	0.5	11.18	30.75	41.93	0.72 0.36
$NATIONAL\_RAIL \frac{St\ Pancras}{Domestic}$	MOORGATE to ST ALBANS BR	894.2	1.0	0.5	11.18	30.75	41.93	0.72 0.36
NATIONAL_RAIL St Pancras Domestic	ST ALBANS BR to MOORGATE	894.2	0.67	0.5	11.18	45.53	56.7	0.53 0.26
NATIONAL_RAIL St Pancras Domestic	WIMBLEDON BR to BEDFORD MIDLAND	894.2	0.33	0.5	11.18	91.66	102.84	0.29 0.15
NATIONAL_RAIL St Pancras Domestic	LUTON to MOORGATE	E 894.2	0.67	0.5	11.18	45.53	56.7	0.53 0.26

Total AI for this POI is 13.82.

PTAL Rating is 3.

# **Appendix H**

**Manual PTAL Calculation** 

### 102 Camley Street, Camden

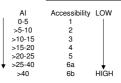
#### PTAL Assessment



Bus Routes/Tube and Train	Frequency (mins)	Frequency (Services per Hour)	Walk Distance(m)	Scheduled Wait Time (mins)	Walk Time (mins)	Access Time (mins)	EDF	Weight	Accessibility Index
Bus									
46	10.0	6	425	5.0	5.3	12.3	2.44	0.50	1.22
214	7.5	8	425	3.8	5.3	11.1	2.71	1.00	2.71
Underground - Kings Cross St Pancras									
Northern (via Charing X)	3.5	17	670	1.8	8.375	10.88	2.76	0.50	1.38
Northern (via Bank)	3.5	17	670	1.8	8.375	10.88	2.76	0.50	1.38
Piccadilly	3	20	670	1.5	8.375	10.63	2.82	0.50	1.41
Victoria	3	20	670	1.5	8.375	10.63	2.82	1.00	2.82
Metropolitan	6	10	670	3.0	8.375	12.13	2.47	0.50	1.24
Hammersmith and City	7.5	8	670	3.8	8.375	12.88	2.33	0.50	1.17
Circle Line	8	8	670	4.0	8.375	13.13	2.29	0.50	1.14
Trains - Kings Cross									
London Kings Cross to WGC, LGC, Hitchin (First Capital Connect)	30	2	700	15.0	8.75	24.50	1.22	0.50	0.61
London Kings Cross to Norwich, Kings Lynn and Cambridge	20	3	700	10.0	8.75	19.50	1.54	0.50	0.77
London Kings Cross to Peterborough (First Capital Connect)	30	2	700	15.0	8.75	24.50	1.22	0.50	0.61
London Kings Cross to Cambridge (First Capital Connect)	15	4	700	7.5	8.75	17.00	1.76	0.50	0.88
London Kings Cross to Aberdeen via Dundee and Edinburgh	60	1	700	30.0	8.75	39.50	0.76	0.50	0.38
London Kings Cross to Grantham and Boston	60	1	700	30.0	8.75	39.50	0.76	0.50	0.38
London Kings Cross to Bradford and Leeds	30	2	700	15.0	8.75	24.50	1.22	0.50	0.61
London Kings Cross to Darlington and Durham	20	3	700	10.0	8.75	19.50	1.54	0.50	0.77
London Kings Cross to Edinburgh and Berwick	60	1	700	30.0	8.75	39.50	0.76	0.50	0.38
London Kings Cross to Glasgow and Edinburgh	60	1	700	30.0	8.75	39.50	0.76	0.50	0.38
London Kings Cross to Grimsby	60	1	700	30.0	8.75	39.50	0.76	0.50	0.38
London Kings Cross to York	30	2	700	15.0	8.75	24.50	1.22	0.50	0.61
London Kings Cross to Newcastle	30	2	700	15.0	8.75	24.50	1.22	0.50	0.61
London Kings Cross to Peterborough (East Coast)	12	5	700	6.0	8.75	15.50	1.94	0.50	0.97
Trains - St Pancras									
London to London Blackfriars	60	1	670	30.0	8.375	39.13	0.77	0.50	0.38
London to Sutton	12	5	670	6.0	8.375	15.13	1.98	0.50	0.99
London to Brighton	30	2	670	15.0	8.375	24.13	1.24	0.50	0.62
London to Sevenoaks	10	6	670	5.0	8.375	14.13	2.12	0.50	1.06
London St Pancras to Bedford	3.75	16	670	1.9	8.375	11.00	2.73	1.00	2.73
London to Paris	30	2	670	15.0	8.375	24.13	1.24	0.50	0.62
London to Brussels	60	1	670	30.0	8.375	39.13	0.77	0.50	0.38
London to Ebbesfleet (High Speed)	30	2	670	15.0	8.375	24.13	1.24	0.50	0.62
London to Faversham (High Speed)	30	2	670	15.0	8.375	24.13	1.24	0.50	0.62
London to Corby (East Midlands Trains)	60	1	670	30.0	8.375	39.13	0.77	0.50	0.38
London to Nottingham (East Midlands Trains)	30	2	670	15.0	8.375	24.13	1.24	0.50	0.62
London to Kettering (East Midlands Trains)	60	1	670	30.0	8.375	39.13	0.77	0.50	0.38
London to Sheffield (East Midlands Trains)	30	2	670	15.0	8.375	24.13	1.24	0.50	0.62
								Total Al :	= 32.86
Assumes Average Walking Speed of 4.8 km/h (80 m/min or 3 mph	)							PTAL :	= 6a

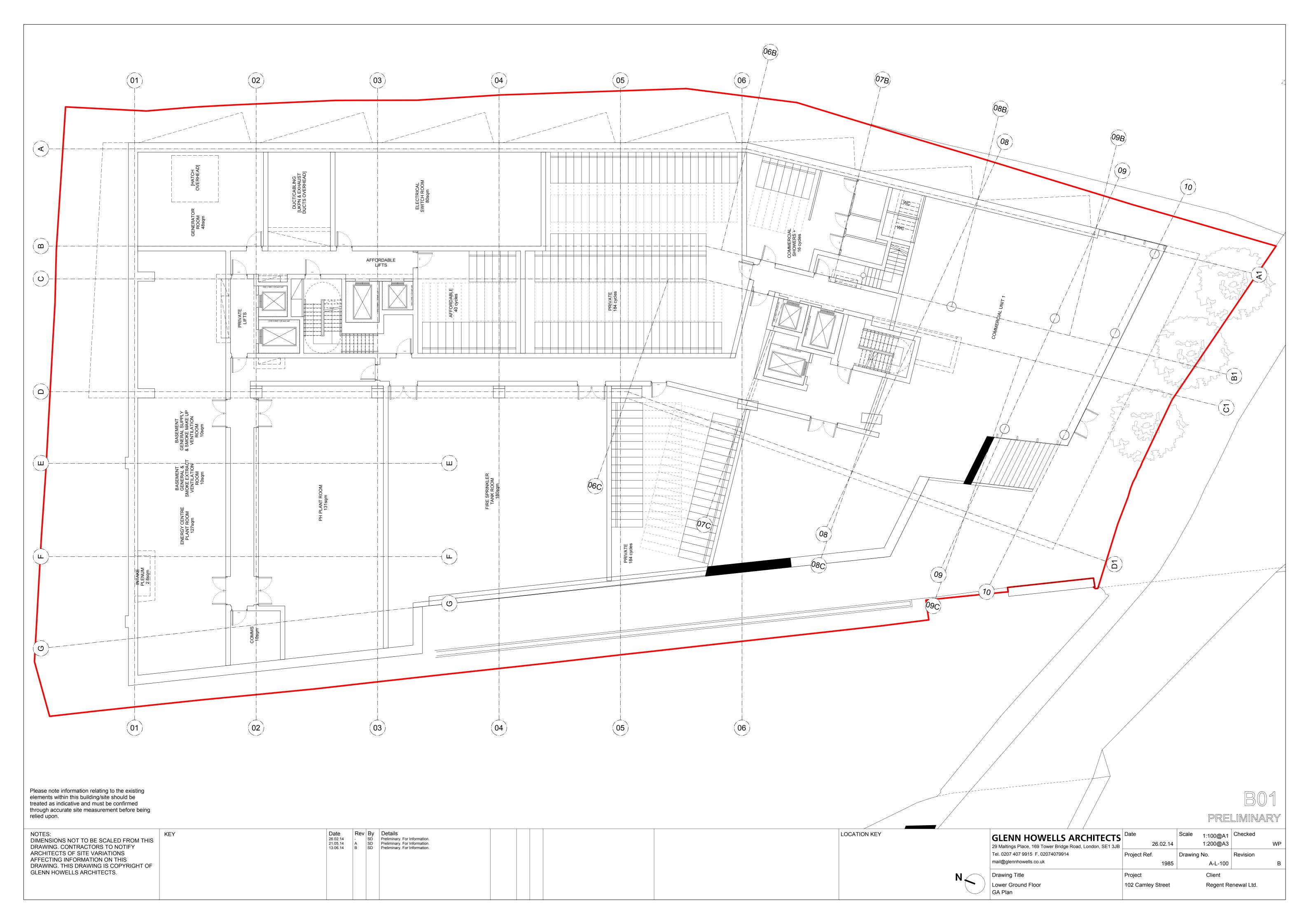
Assumes Average Walking Speed of 4.8 km/h (80 m/min or 3 mph)
Reliability factor k = 2 for Bus, 0.75 for Rail
Access Time = Scheduled Wait Time + Walk Time + k
EDF = Equivalent Doorstop Frequency = 30/Access Time
AI = Accessibility Indices

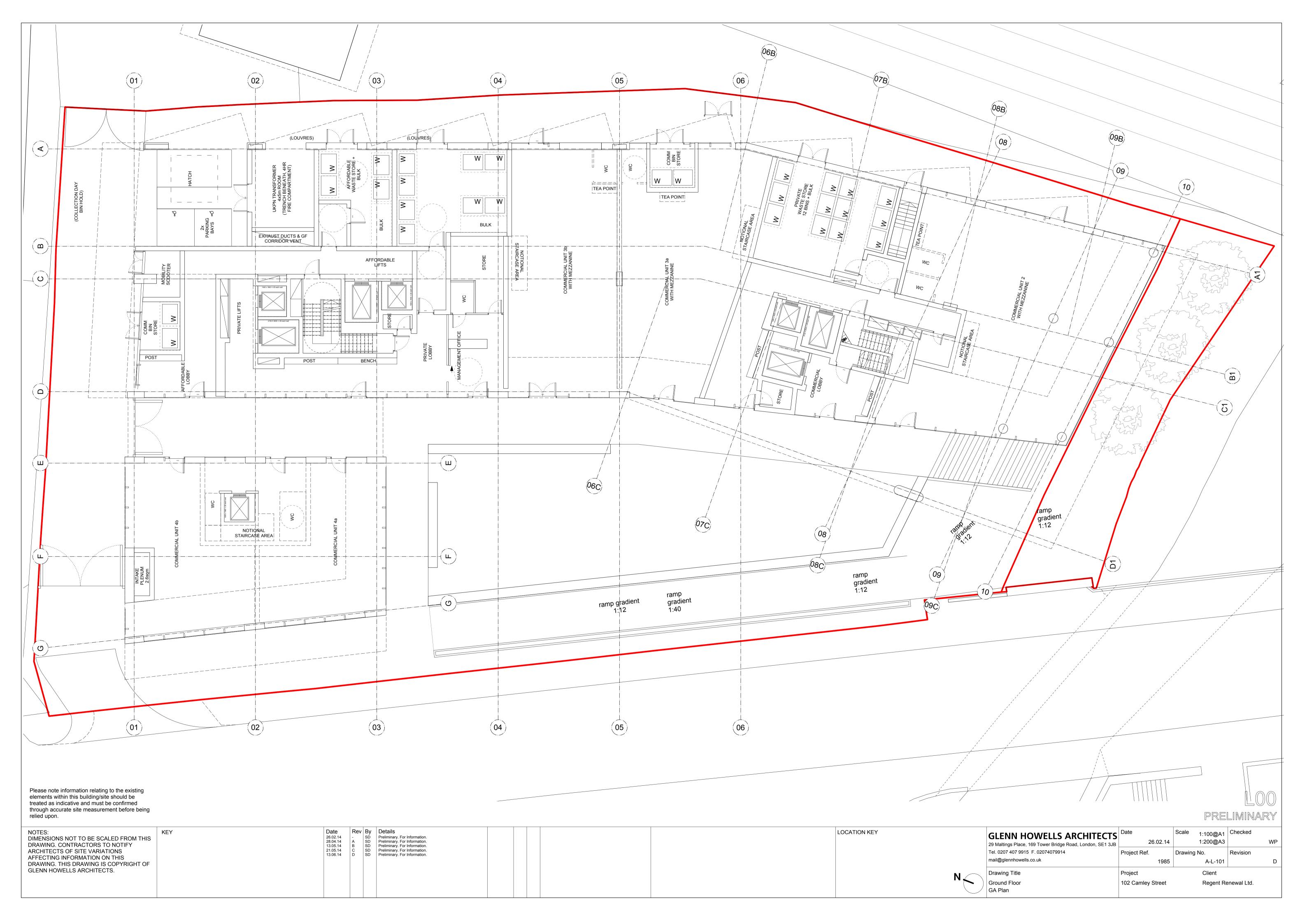
Source of Methodology: Measuring Public Transport Accessibility Levels, Transport for London (February 2003)

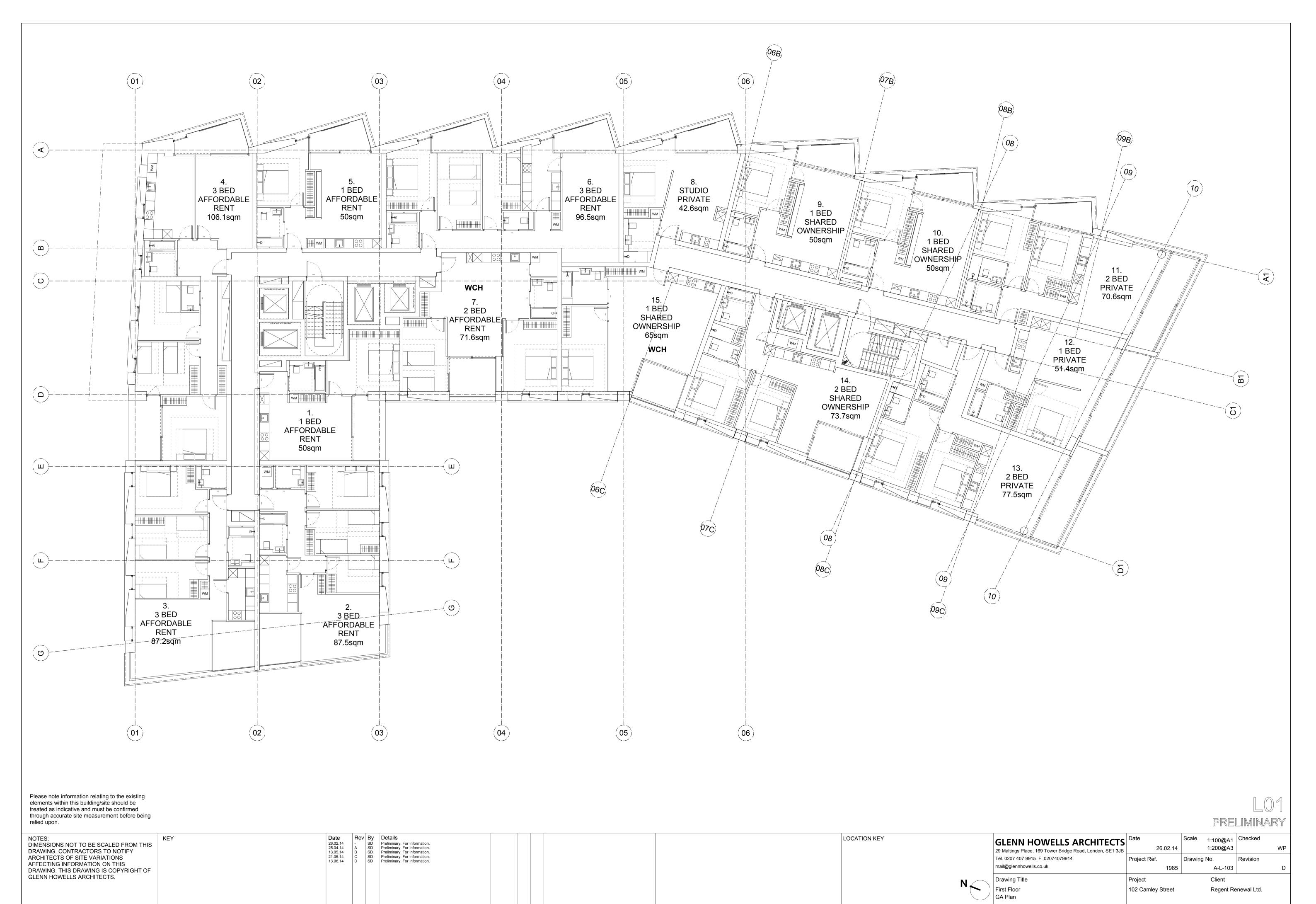


# Appendix I

**Architect's Layout Plans** 







# **Appendix J**

**Trip Generation Assessment** 

#### Camley Street, Camden

Land-use : Residential Trip rates: TRAVL

Modal Split (%)		Development Content
Car driver	4	154 Dwellings
Car passenger	1	
Taxi	1	
M/Cyc	1	
Bus	44	
Underground	12	
Rail	1	
Foot	31	
P/Cyc	4	
	100	

Arr Dep Mode Car Driver Car Pass. Motorcycle U/Ground Walk Taxi Bus Rail Cycle PERSON TRIPS PERSON TRIPS Trips TRIP GEN 00:00 0.00 0.00 01:00 0.00 0.00 0.00 02:00 0.00 03:00 0.00 04:00 0.00 0.00 05:00 0.00 0.00 06:00 0.00 0.00 07:00 0.23 0.30 08:00 0.40 0.80 09:00 0.30 0.25 10:00 0.06 0.17 11:00 0.19 0.18 12:00 0.25 0.18 13:00 0.29 0.19 14:00 0.18 15:00 0.47 0.18 16:00 0.34 0.27 17:00 0.54 0.47 18:00 0.40 0.39 19:00 0.34 0.39 20:00 0.32 0.34 21:00 0.22 0.11 22:00 0.14 0.14 23:00 0.07 0.00 TOTAL 4.7 4.6 

RESIDENTIAL TRIP GENERATION PROFILE

## Camley Street, Camden

Land-use : Office Trip rates: TRAVL

Modal Split (%)		Development Conte	en
Car driver	2	GFA 1620 sqm	
Car passenger	1		
Taxi	1		
M/Cyc	1		
Bus	9		
Underground	19		
Rail	29		
Foot	39		
P/Cyc	1		
	100		

	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Mode			SON	PRIM	IARY	Car E	river	Car F	Pass.	T	axi	Motoro	cycle	В	us	U/Gr	ound	R	ail	Wal	k	Cyc	:le	
%			TR	IPS	TR	IPS	2	2	1	1	1	1	1	1	9	9	19	19	29	29	39	39	1	1
	TRIP	RATE	TRIP	GEN	10	0%																		
00:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0.39	0.00	6	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0
07:00	0.53	0.34	9	6	9	6	0	0	0	0	0	0	0	0	1	0	2	1	2	2	3	2	0	0
08:00	1.78	0.23	29	4	29	4	1	0	0	0	0	0	0	0	2	0	5	1	8	1	11	1	0	0
09:00	1.57	0.38	25	6	25	6	1	0	0	0	0	0	0	0	2	1	5	1	7	2	10	2	0	0
10:00	0.72	0.42	12	7	12	7	0	0	0	0	0	0	0	0	1	1	2	1	3	2	5	3	0	0
11:00	1.02	0.49	17	8	17	8	0	0	0	0	0	0	0	0	1	1	3	1	5	2	6	3	0	0
12:00	1.81	1.68	29	27	29	27	1	1	0	0	0	0	0	0	2	2	5	5	8	8	11	10	0	0
13:00	1.38	1.21	22	20	22	20	0	0	0	0	0	0	0	0	2	2	4	4	6	6	9	8	0	0
14:00	1.44	1.25	23	20	23	20	0	0	0	0	0	0	0	0	2	2	4	4	7	6	9	8	0	0
15:00	0.66	0.91	11	15	11	15	0	0	0	0	0	0	0	0	1	1	2	3	3	4	4	6	0	0
16:00	0.74	0.89	12	14	12	14	0	0	0	0	0	0	0	0	1	1	2	3	3	4	5	6	0	0
17:00	0.23	1.87	4	30	4	30	0	1	0	0	0	0	0	0	0	3	1	6	1	9	1	12	0	0
18:00	0.07	1.11	1	18	1	18	0	0	0	0	0	0	0	0	0	2	0	3	0	5	0	7	0	0
19:00	0.00	0.39	0	6	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0
20:00	0.00	0.59	0	10	0	10	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	4	0	0
21:00	0.00	0.20	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
22:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	12.4	12.0	200	194	200	194	4	4	2	2	2	2	2	2	17	16	37	36	57	55	77	75	2	2

OFFICE TRIP GENERATION PROFILE

Land-use : All Uses

	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Mode %	PERSO	N TRIPS	PRIMARY TRIPS		Car [	Oriver	Car Pass.		Taxi		Motorcycle		Bus		U/Ground		Rail		Walk		Cycle	
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	6	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	0	0	0
07:00	44	52	44	52	2	2	0	1	0	1	0	1	16	21	6	7	3	2	14	17	1	2
08:00	91	127	91	127	3	5	1	1	1	1	1	1	30	55	13	15	9	2	30	40	3	5
09:00	72	44	72	44	2	2	1	0	1	0	1	0	23	17	10	6	8	2	24	14	2	2
10:00	21	33	21	33	1	1	0	0	0	0	0	0	5	12	3	4	3	2	8	11	1	1
11:00	46	36	46	36	2	1	0	0	0	0	0	0	14	13	7	5	5	3	16	12	1	1
12:00	67	55	67	55	2	2	1	1	1	1	1	1	19	15	10	8	9	8	23	19	2	1
13:00	67	49	67	49	2	2	1	0	1	0	1	0	22	15	10	7	7	6	23	17	2	1
14:00	47	48	47	48	1	2	0	0	0	0	0	0	13	14	7	7	7	6	16	17	1	1
15:00	83	43	83	43	3	1	1	0	1	0	1	0	33	14	11	6	4	4	27	14	3	1
16:00	64	56	64	56	2	2	1	1	1	1	1	1	24	20	8	8	4	5	21	19	2	2
17:00	86	103	86	103	3	4	1	1	1	1	1	1	37	35	11	14	2	9	27	35	3	3
18:00	63	78	63	78	2	3	1	1	1	1	1	1	27	28	8	11	1	6	20	26	2	3
19:00	52	67	52	67	2	3	1	1	1	1	1	1	23	27	6	8	1	2	16	21	2	2
20:00	49	61	49	61	2	2	0	1	0	1	0	1	22	24	6	8	0	3	15	20	2	2
21:00	33	21	33	21	1	1	0	0	0	0	0	0	15	8	4	3	0	1	10	7	1	1
22:00	22	22	22	22	1	1	0	0	0	0	0	0	10	10	3	3	0	0	7	7	1	1
23:00	11	0	11	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	3	0	0	0
TOTAL	924	895	924	895	33	32	9	9	9	9	9	9	339	328	124	120	64	62	304	295	31	30

TOTAL TRIP GENERATION PROFILE

## **Appendix K**

Minutes of Meeting with LBC Highways 09.05.14



File Reference: N04-GS-102 Camley St\_Meeting Note (140520)

**Date:** 20/05/14

**Project Title:** 102 Camley Street

Subject: 102 Camley Street - Note of Meeting

**Location:** Camden's offices

**Date & Time:** 9<sup>th</sup> May 2014 @ 11:30

#### **Attendees:**

John Duffy - London Borough of Camden
Aidan Lo - London Borough of Camden
Sophia Ceneda - Glenn Howells Architects

George Steele - TTP Consulting

### **Cycle Ramp**

1.1 GS and SC tabled the latest plans showing the proposed cycle ramp from 102 Camley St. to the canal towpath. GS stated that there is support for the inclusion of the cycle ramp on a political level and from the Council's planning and design officers who have previously met with other members of the project team.

- 1.2 Key stakeholders have also voiced their support, including the Canal & Riverside Trust (C&RT) with whom members of the project team met with recently to confirm their support (and discuss other related matters).
- 1.3 Discussion centred on the location of the ramp, its various attributes and how it transitions with Camley St. and the towpath.
- 1.4 JD queried whether the ramp could be extended further north so that it began adjacent to the B1 commercial unit, the advantage being that it would allow for a more relaxed gradient. GS noted that this would impact the frontage of the B1 commercial unit, the integration of the ramp with the pedestrian route into the site and the proposed pedestrian crossing. SC added that it would be difficult / impossible to achieve an extension of the ramp further north given the clearance that would be required as the ramp passes under the pedestrian link into the site. AL confirmed that this was the case. After some discussion JD accepted this point but requested that the consideration of alternative options (such as extending the ramp) was documented to demonstrate/justify why the current proposal is the most suitable and appropriate.



- 1.5 With regards to gradient JD/AL accepted that the majority of the ramp would have to be at 1:12 given the constraints of the start and end points. However, AL requested that a form of deflection/change in direction is introduced along the ramp to discourage cyclists from travelling at high speed. It was agreed that staggered barriers (such as those on the cycle lane to the north of Camley St.) are not attractive and soft landscaping could provide a suitable alternative.
- 1.6 AL also suggested that further consideration should be given to extending the ramp further east parallel to the towpath to achieve a more relaxed gradient at the transition point. SC replied that this would be challenging as it would cut across the bottom of the adjacent steps. Notwithstanding this, SC added that it would be reviewed.
- 1.7 In terms of the width of the cycle ramp SC noted that it is currently 2.8m. This was deemed to be acceptable on the basis that the recommended width for a cycle ramp/path of this nature is at least 2.5m.
- 1.8 AL/JD noted that the railing/barrier which follows the cycle ramp along the back of the footway on Camley Street should be robust and able to withstand vehicle impact. SC replied that this would be the case.
- 1.9 JD commented that the bench shown at the foot of the ramp to deflect cyclists onto the towpath could be used by skateboarders etc. However, it was considered that the principle of using architectural / landscaping features could work.
- 1.10 JD queried whether there would be any form of access control and how anti-social behaviour would be discouraged. GS noted that this was being addressed by other members of the team but suggested that measures could include site security, CCTV and lighting etc.

### **Pedestrian Link**

- 1.11 GS explained the desire for an informal pedestrian crossing between 102 & 103 Camley St. as first discussed at the pre-application highways meeting between TTP and LBC on 18<sup>th</sup> Feb 2014. The crossing or link provides an important connection between the two sites and a continuation of the desire line from the proposed footbridge to 101 Camley St.
- 1.12 JD agreed that an informal crossing could work provided consideration was given to HGV movements. On this basis it was agreed that speed humps are unlikely to be appropriate and that any materials used would have to withstand heavy loads.



- 1.13 GS highlighted that the ability of 102 & 103 Camley St. to service from the street (where necessary) would be considered alongside the crossing. JD suggested that a footway loading bay could be a potential solution for 102 Camley St. This would reduce any possible impact on visibility for pedestrians using the crossing when a vehicle is delivering from the street. GS/SC replied that this had previously been considered but not pursued, but that in light of JD's comments it would be looked at again.
- 1.14 Notwithstanding that certain aspects of the crossing could be discussed post-application; GS queried whether LBC would expect the materials for the crossing to conform to a set palette adopted by LBC and/or whether a departure from this could be considered if desirable. JD suggested that Dave Stuart at LBC may be able to provide further guidance on streetscape design and materials.

### **Footbridge**

- 1.15 GS set out the current position of the footbridge which provides a disabled access lift at 101 Camley St. SC added that an additional disabled lift is also provided at 103 Camley St.
- 1.16 JD accepted the proposals but queried the size of the disabled lifts and whether they would also be able to accommodate cyclists if required.
- 1.17 JD requested that the plans for 101 Camley St. show the boundary between the site and C&RT land more clearly. JD added that it is not clear how the canal side space would be managed / controlled. GS noted that separate discussions have/are being held between other members of the project team and C&RT.

### **Other Matters**

1.18 GS provided a general update on 101 Camley St. following minor changes to the scheme since the last highways meeting. GS also mentioned that a positive meeting had been held with the Council's environment department to discuss the waste/refuse strategies.

## **Appendix L**

**Swept Path Analysis - Large Car** 





# **Appendix M**

**Swept Path Analysis – Servicing Vehicle** 





# Appendix N

**Swept Path Analysis – Refuse Vehicle** 

